Annex A: Evaluation ToRs

Independent Evaluation of TradeMark East Africa

INVITATION TO TENDER – VOLUME 3

Terms of Reference and any Additional Information Documents

Closing Date for Tenders: 13 February 2015

Independent Evaluation of Trade Mark East Africa

Terms of Reference

A. Introduction

1. The TradeMark East Africa (TMEA) programme aims to improve trade competitiveness in East Africa by reducing transport time/costs and improving the trade environment. It targets an increase in trade of 10% (above trend 2010-2016), contributing to sustained economic growth and poverty reduction. The TMEA agency was officially launched in February 2011 as a specialist not-for-profit agency to implement the TMEA programme. TMEA is currently funded by the UK, Belgium, Canada, Denmark, Finland, Netherlands, Sweden and USA. TMEA's secured budget to date totals about £330 million ($540m). The first phase of the programme officially runs to June 2016, but funding is likely to continue over a second phase up to 2020.

2. This is a large, high-profile programme in an area of great interest for continued development work, which calls for a robust and independent evaluation. DFID is commissioning this key evaluation as acting Evaluation Manager on behalf of all TMEA donors.

B. Purpose and Objectives

Purpose

3. The evaluation has 2 equally important purposes:

   (a) To identify and feed lessons learnt into the management of the remainder of the current programme and the design of any potential continuation of the TMEA programme and/or future regional trade integration programmes (driver: improving trade development programmes and enhancing the global evidence basis);

   (b) To account for progress at outcome and impact level in an internationally recognised independent and impartial manner (driver: oversight and accountability requirements).

Objectives

4. This is an evaluation to assess the impact of the TMEA programme on trade, inclusive economic growth, and poverty reduction, and understand causal pathways and the mechanisms at work. As an impact evaluation, it emphasises causality and where possible attribution or at least contribution to outcomes and impacts.

5. Growth and poverty reduction are high level goals. It may not be possible to measure an attributable impact of TMEA on these goals. However, the evaluation will need to analyse pathways and understand the way in which the TMEA

programme has affected poor people, and the way in which it has contributed to growth.

6. The core objectives of the evaluation are:

   1) Test the **Theory of Change (TOC),** assessing all causal links and the robustness of underlying assumptions (including links between trade, growth and poverty reduction), and adjusting the TOC to serve as a reliable guide to interpret the programme and to make programme improvements.

   2) Analyse and, to the extent possible measure: the regional integration programmes' **impact** on regional trade, growth and poverty (and on the various stakeholders, in particular on men and women separately, poor and vulnerable groups, as well as traders and consumers); and **sustainability**.

   3) Assess the **effectiveness** of the TMEA programme, including organisational effectiveness, and whether the programme represents **Value For Money.**

   4) Throughout, identify **lessons learnt relevant beyond TMEA**, i.e. insights on enabling and constraining factors, critical actions and gaps which would be generalizable to future programmes or to other contexts.

C. Recipients

7. The primary recipients of the services comprise TMEA's Programme Investment Committee (PIC) as well as the planned Council and Board[1] alongside the National Oversight Committees which exist in five of the six countries with active TMEA interventions.

8. The evaluation will provide evidence on trade and development of interest more widely. In particular, outputs of the evaluation are likely to attract significant attention from many actors, including the East African Community (EAC), regional governments, regional institutions such as the EAC Secretariat, multilateral and bilateral partners, business and civil society

9. The ultimate beneficiaries are the citizens of partner countries, whose lives should be improved through improved projects and programmes.

D. Background

Context

10. Despite significant growth, East Africa's share of world exports is below 0.1% - around half the global average on a per capita basis. It costs East African countries twice as much to trade than it does East Asian and developed countries. Transport costs are excessive and especially for landlocked countries – freight costs are more than 50% higher than in the United States and Europe and add nearly 75% to the price of exports from Uganda, Burundi and Rwanda. [*Nathan Associates, 2011*] The problem is not just one of distances – inefficient customs and port

[1] See Governance reforms outlined in Background section.

processes, excessive bureaucracy and poor infrastructure all impose substantial transport delays and significantly increase costs. These problems are both national and regional and advocate for a regional approach to solutions, focused on developing East Africa's transit corridors to open up its economic opportunities and reduce the high costs of doing business and trade.

11. The East African Community (EAC) was re-established in 1999 by Kenya, Tanzania and Uganda. Burundi and Rwanda subsequently joined in 2007. The Customs Union formed in 2005 has led to a 67% increase in trade between EAC countries, but considerable work remains to make it fully effective, such as removing non-tariff barriers, implementing a first point of entry system for the clearance of goods and collection of import duties and implementation of a common trade policy. The Common Market is scheduled to be fully implemented by 2014, although this timing is likely to slip. The EAC is also part of the Tripartite (COMESA-EAC-SADC) initiative, which it chaired from July 2013 to June 2014. The EAC has made the most progress on economic integration of any of the regional economic communities in Africa, and represents a major opportunity for lesson learning across the broader Tripartite through creating a larger market; allowing producers and traders across the region to exploit economies of scale; increasing investment and accelerating the introduction of new technologies. EAC integration is also expected to increase political stability and provide a focus for shared legislative and regulatory reform.

12. Evidence from a range of studies points to improvements in the business environment associated with trade competitiveness leading to improved growth, jobs, incomes and social effects. While the relationship between trade, growth and poverty reduction is complex, very few countries have grown over long periods of time or secured a sustained reduction in poverty without a significant change in competitiveness and a large expansion of their trade. Poverty reduction in broad terms has followed as a consequence of increases in income, employment and government social expenditures. However, there are risks and opportunities in the short and longer term for particular poor groups (and regions) as increased trade transforms livelihood possibilities.

TMEA

13. TMEA is a multi-donor funded programme, which was officially launched in February 2011 as a specialist not-for-profit agency to implement programmes to promote trade growth in East Africa. TMEA aims to increase exports (by 10% above trend 2010-2016) through cutting the costs of trade, especially through reduced transport time (by 15%), and a focus on the national implementation of regional trade agreements. This national focus is innovative for a regional programme, and as a result, TMEA has presence in all EAC countries (plus South Sudan, which has applied to join the EAC) with its headquarters in Kenya. TMEA seeks to deploy a wide range of instruments quickly, including financial aid, output-based aid and technical assistance, to tailor interventions to the needs of partners, and to manage fiduciary risk.

Theory of Change (TOC)

14. Figure 1 illustrates the TOC for the TMEA programme. A detailed description is available in the business cases and a separate TOC document (see Annexes). There are several layers to TMEA's TOC. The TOC can be viewed as a hierarchy where various sub-theories link up and across the programme's focus areas.

15. At the higher end of the TOC it is proposed that three necessary key 'trade competitiveness' elements contribute to increasing trade. These elements are increased physical access to markets, enhanced trade environment and improved business competitiveness.

16. Correspondingly, TMEA's 3 Strategic Objectives are articulated as follows:

    SO1 - Increased Physical Access to Markets (around 44% of the budget)
    SO2 - Enhanced Trade Environment (around 42% budget)
    SO3 - Improved Business Competitiveness (around 14% budget)

17. Increased trade is believed to contribute to increased economic growth and subsequently reduce poverty. Precise effects depend on the nature of trade reforms and how the poor make their living [Winters & Martuscelli, April 2014]. Thus examining localised situations and the pathways to growth and poverty is a key part of this evaluation. Economic growth and poverty reduction do not appear explicitly in TMEA's overarching TOC since they are very high in the logic hierarchy; however they are captured in some of the donor programme documents.

18. Each of the boxes in Figure 1 is expected to contribute to increased trade, but no one element is sufficient by itself. A number of assumptions underpin the relationship between the black boxes and each strategic objective.

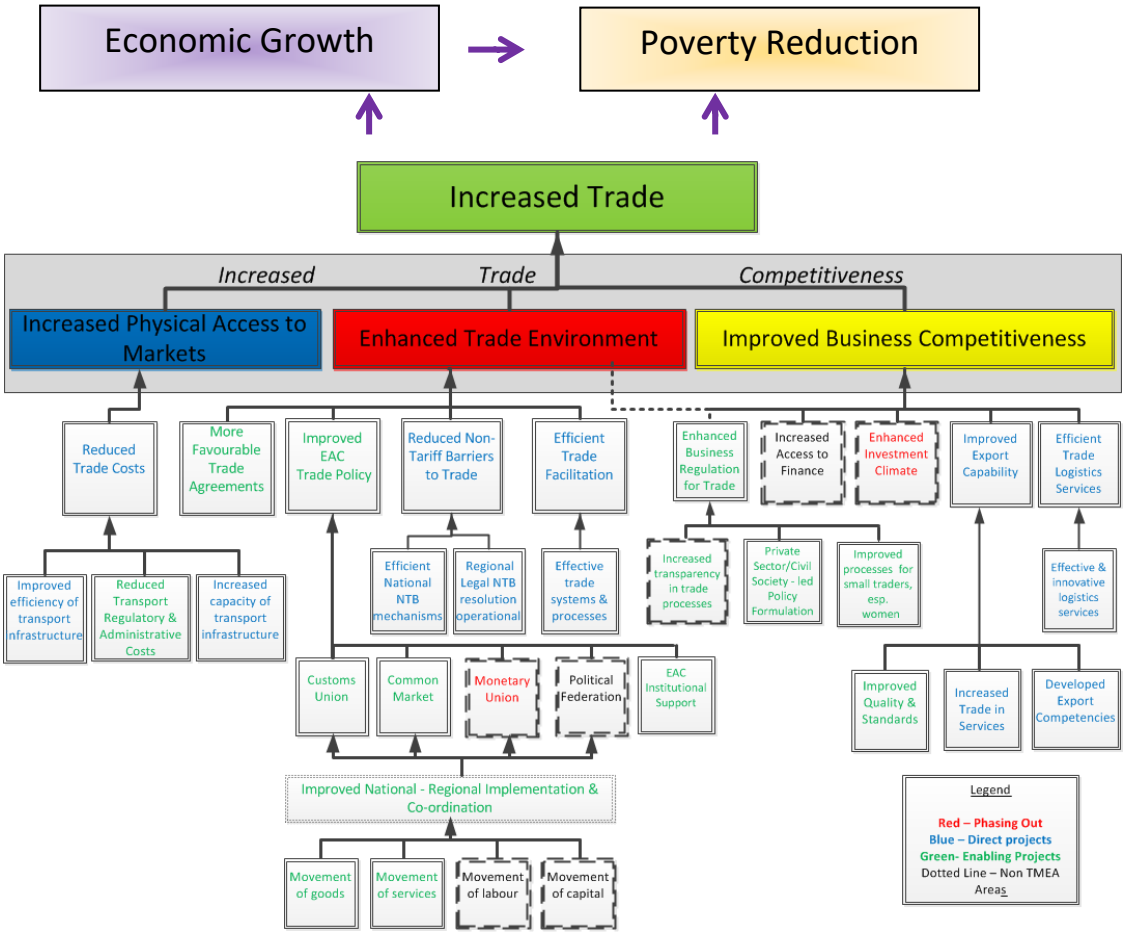
19. These include, on the expected result of "increased trade", that:
    - There are sufficient buyers who are willing to pay for East Africa's improved quality products and services;
    - The private sector uses the opportunities of increased affordable market access to increase and/or expand the number and size of exporting firms;
    - The private sector increases the sophistication of exports;
    - The private sector has the capacity and will to utilise opportunities presented by an enhanced trade environment.

20. On the simplified logic on the relationship between "increased market access" and "trade", that:
    - Current trade costs in East Africa are a deterrent for exporters and importers;
    - Reducing trade costs will make a significant contribution to increasing market access for East African importers and exporters;
    - Transport prices are a major contributor to trade costs;
    - Indirect costs caused by delays are a major contributor to total transport prices;
    - TMEA has greater ability to influence the reduction of indirect costs as opposed to direct costs, e.g. fuel, labour, truck operating costs;
    - East African transport logistics service providers will pass on costs savings brought about by reducing delays to consumers of logistics services';
    - The East African logistics industry is competitive;
    - TMEA interventions will contribute to reducing transportation costs as will other organisations' interventions, i.e. World Bank, JICA, USAID;
    - Increases in other costs will not be more than any reduced indirect costs.

21. A number of assumptions underpin the simplified logic on the relationship between "enhanced trade environment" and "trade":
    - Implementing the EAC regional trade agreements will contribute to enhancing the trade environment in the region;
    - There is sufficient demand by partner state parliaments, public sector, private sector and civil society organisations to drive the regional economic community agenda forward;
    - Regional trade policies will be prioritised by partner states over national trade policies and priorities.

22. Within this complicated picture of factors that are necessary to achieve increased trade, TMEA has a more specific focus driven by practical reasons, as indicated through the colour coding (see legend at bottom right of Figure 1). All current projects now fall in either the 'direct' or 'enabling' category.

Figure 1



23. Each of the strategic objectives is unpacked a bit more in the TOC document (see Annexes), which describes the expected causality chains and key assumptions.

24. Just as one example, the cost of access is seen as a component of the cost of the goods. One key factor contributing to high transport costs is inadequate infrastructure that does not meet current and future traffic needs, resulting in congestion and delay. This delay has a cost. Even where the transport

infrastructure is adequate, delay can result from inefficient use of assets. Key causes of unnecessary delay include low labour productivity, bureaucratic inefficiency, poor transport regulation, and corruption. For these reasons, most of TMEA's activities in this area are designed to reduce unnecessary delay. Yet for activities to have the intended outcome, certain assumptions must hold:

- The activities must actually result in time savings (delay reductions);
- The value of those time savings must be greater than the cost required to achieve those savings;
- The net savings must be passed along from transport services providers to consumers via the price of transported goods;
- The resulting price reductions must induce additional trade in those goods (that is, the demand curve must be elastic).

Governance

25. Currently, a Programme Investment Committee (PIC) supervises the activities of TMEA and provides strategic direction to TMEA to ensure that it achieves its developmental goals. The PIC is supported by a regional (EAC) Programme Coordinating Committee (chaired by a Deputy Secretary General at the EAC Secretariat) and a National Oversight Committee (NOC) for each country[2] programme. The scope of authority of the PIC is set out in the PIC Constitution and is entrenched in the Articles of Association of TMEA. The PIC is the apex governing body and has primary responsibility for governing the affairs of TMEA. There is also a TMEA Board (required under Kenya company law), which handles financial management and human resource issues, but this is effectively a sub-committee of the PIC as all Board decisions require a "no objection" from the PIC.

26. However, it was recognised recently that there is a need to resolve and simplify the potential overlap between the Board (which has "de jure" liability for TMEA operations but is not the apex body for decision making) and the PIC (which has the decision making power, but not the legal responsibility, although a court is likely to determine that it has "de facto" liability). In November 2014, the PIC approved a new TMEA Constitution (see Annexes) which will in due course establish a Council (mainly handling strategic direction) and a professional Board (mainly handling operational decisions). A recruitment process is now underway to contract Board members. Once complete, a date will be set for the new Constitution to become effective (likely to be mid-2015), at which point the current PIC and Interim Board will be dissolved and replaced by the new Council and Board.

27. A unique feature of the TMEA governance structure is the delegation of oversight roles at the national level. Although these National Oversight Committees (NOCs) are mainly advisory bodies to the PIC, they play an immensely important role in supervising and monitoring the national level programmes. The NOCs are chaired by Permanent Secretaries (the Ministry of EAC) and membership includes all key donors, government agencies, private sector and civil society representatives.

[2] Processes for setting up a NOC in South Sudan are still underway.

Monitoring and evaluation architecture

28. In August 2013, a revised monitoring, evaluation, and learning (MEL) approach paper was reviewed by the TMEA PIC. It was agreed to incorporate plans for an independent external evaluation into the MEL to ensure complementarity of the internal and external evaluation work and to avoid duplication. A Joint Evaluation Group (chaired by DFID) was established as a sub-committee to the PIC to oversee the evaluation work. Terms of reference for the JEG are attached in the Annexes. The revised MEL approach paper was approved at the PIC meeting in May 2014 and is attached in the Annexes.

29. As set out in the MEL, TMEA's monitoring and evaluation system is comprised of the following components:
    - Overall results framework, a sub-set of outputs from individual project monitoring plan, which serves as an important accountability tool for TMEA donors;
    - Individual project monitoring plans;
    - Quarterly external progress reports;
    - Quarterly internal programme performance review meetings (QuORTs);
    - A Management Information System (MIS) that requires TMEA project managers to input and update project work plans and monitoring plans;
    - A "Results Meter" has been developed to serve as an aggregate score card to show progress towards targets in the results framework (this Results Meter is likely to be subject to an external quality assurance early 2015);
    - An Annual Review commissioned by investors to assess progress against the TMEA results framework;
    - An evaluation plan, outlining the division of labour between internal TMEA evaluation work (mainly formative evaluations) and the independent external evaluation work (commissioned here).

30. TMEA also has a research programme (previously involving a call down contract with the Institute of Development Studies (IDS). This has examined the literature on linkages between trade, growth and poverty reduction, as well as simulated modelling on the impact of the EAC customs union. However, it has not conducted any primary data collection on TMEA projects.

31. TMEA organises its information management on the basis of around 200+ project budget lines, of which around 165 were active at August 2014. In some instances, several project budget lines could be seen as sub-components of one 'intervention' (eg. support to the revenue authority in Burundi is broken down by categories of expenditure).

Key stakeholders

32. Key stakeholders for the evaluation include:
    - TMEA donors, who are represented on the Programme Investment Committee (PIC);
    - The East African Community Secretariat (the Secretary General sits on the PIC as "Patron"; and a Programme Coordinating Committee in Arusha manages the TMEA-EAC partnership);
    - National Oversight Committee (NOC) members (including government, private sector, civil society and donor representatives at the national level);
    - Staff involved in oversight and implementation of TMEA projects;
    - Implementing partners at regional and national level;
    - Ultimate beneficiaries (producers, transporters, clearing and forwarding agents, consumers) of TMEA's programme support.

E. Key questions

33. The key evaluation questions below reflect the 4 core objectives of the evaluation (see section B), which can be summarised as: test the Theory of Change; impact and sustainability; value for money and effectiveness; and lessons learnt relevant beyond TMEA. These are outlined below.

34. In addition, for each of the key evaluation questions, an indicative set of sub-questions is provided in Annex 1.

Question 1. How robust and verified are the causal links and assumptions in the Theory of Change (TOC) and does the TOC provide a reliable guide for programme interventions?

As a premise for the evaluation, the full TOC will need to be re-examined. This question will require an analysis of constraints to trade/growth/poverty reduction, an assessment of the robustness of the assumptions underpinning the TOC, and an assessment of whether the logframes, targets and milestones are appropriate and realistic.

This will need to consider carefully the political economy around the programme and trade in the region, economic contextual changes, policy changes, and TMEA's relationship with related initiatives (both government and private sector). It will also need to consider the relevance of the instruments and mechanisms used.

Question 2. What is the likely impact on trade, growth and poor people, and what is critical in order to ensure sustainability of positive impacts?

This question covers the key issue of TMEA's current and likely impact on regional trade, the links to growth and poverty reduction, and the sustainability of their interventions. Of particular interest will be to understand the *mechanisms* at work, to identify why and how things worked, who benefited and how, and any potential negative impact. There is a specific interest in understanding how TMEA activities to reduce transport time have impacted on poor people, and how the programme has benefited or harmed women and girls. Of particular interest also is the issue of sustainability, and of identifying the essential components of a future exit strategy.

Analysing and understanding the pathways through which the TMEA programme is likely to have affected poor people (positive and negative, intended and unintended impacts) is a crucial question for the evaluation. As noted above however, measuring TMEA's impact on regional poverty as a whole programme is not expected to be possible. However, analyses of pathways and measuring localised impact for selected interventions, should be feasible. On the other hand impact on trade is expected to be quantifiable with reasonable attribution, and the evaluation should also verify the programme's claims to impact on trade.

Question 3. Where has the programme been effective and achieved good Value For Money and how could this be improved?

This question will assess effectiveness, economy and efficiency, including whether TMEA activities have produced the outputs anticipated in the results framework, organisational effectiveness whether and where the TMEA programme has provided value for money. This will also require and an assessment of the operational model and of the M&E system

Question 4. What are the lessons learnt that are relevant beyond TMEA?

All sections above should contribute to this question. Throughout the evaluation, lessons learnt should be identified that may be relevant beyond TMEA in order to inform future programming as well as contribute evidence towards comparative effectiveness of regional programming. This question is separated out to emphasize the importance of generating learning that is transferable to other programmes (by TMEA donors and others) and which contributes to the global evidence basis, and of capturing this in a way which promotes uptake.

35. OECD-DAC evaluation criteria map onto the questions structure presented in the Annex to a large extent, but are not of equal interest and the evaluation will focus on ***effectiveness, efficiency*** and ***impact*** criteria.

36. The set of sub-questions in the Annex is indicative. Sub-questions of particularly high importance to the primary recipients (i.e. PIC and NOCs) are marked with an asterix. Not all questions will apply in equal depth at all evaluation stages. Some questions are for consideration early with more of a formative angle, others only at the end but the evidence needs gathering from the outset. Note also that the indicative sub-questions in the Annex may contribute to more than one objective.

37. The Evaluator will need to review and adjust the set of sub-questions, and consider any other questions required to meet the 4 objectives – while remaining very focused on these objectives and avoiding unnecessary inquiries. The Evaluator will need to consult with stakeholders more widely to refine the evaluation sub-questions during the inception phase, for agreement by PIC.

F. Scope

38. The independent evaluation commissioned through these TORS consists of one single evaluation. This will include a Theory Based approach located within the TMEA TOC and which includes the pathways to trade and growth and to poverty reduction for the whole portfolio, as well as similar documentation (sub-theories) for individual projects (projects of particular importance would be large investments, those of a catalytic nature, and those targeted to provide livelihood gains to particular groups e.g. small holder farmers and traders).

39. Nonetheless, it is expected that to meet its objectives the evaluation will need to be carefully structured, and comprise various components. As an indication, the evaluation is expected to require the following components, though bidders are free to select whatever structure and approach they feel most appropriate to address the objectives and key questions:

    - *A study of impact on poverty*, examining the pathways to poverty across the programme, who is benefiting and who is losing out, and providing a sense of the likely scale of benefits or losses where feasible for example in selected localised areas/interventions.

    - *A study of impact on trade*, establishing how trade changed as a result of the TMEA programme, how an increase in trade resulted (if confirmed by the evaluation) or why it did not, key enabling factors and constraints - contextual and programmatic.

- *An institutional assessment of TMEA as an organisation* covering organisational capacity, organisational effectiveness and delivery performance, factors in the wider enabling environment, and partnership analysis across the different partners.

- *A formal evidence synthesis* approach covering the work of the Evaluator, the monitoring, internal evaluations and learning conducted by TMEA, and evidence from other research activities around trade and poverty reduction in East Africa.

40. The following interventions are of particular interest: Mombasa port, Dar es Salaam port, and the One Stop Border Posts (OSBPs). In particular, the evaluation should look at pathways to poverty on the Mombasa port and at least 3 of the OSBPs, and set out baselines and design for looking at impact of work on the Dar port in due time.

41. The evaluation will need to balance of breadth (e.g. to deliver a programme, portfolio level evaluation) and depth (e.g. to understand pathways to poverty impact).

42. Given the project timelines it is expected that the first reports will encompass a substantial formative element.

43. TMEA comprises a number of infrastructure projects. As per key questions, this evaluation examines the effect of the projects, and would exclude engineering inspection type of activities.

Roles and responsibilities of the independent Evaluator vs TMEA

44. During inception the Evaluator will need to work with TMEA to determine respective responsibilities monitoring and evaluation activities, particularly for collecting data, for agreement with the PIC (and Council once established). Bids should provide a clear initial approach of how they propose to manage the interface with the TMEA organisation and its work and how they will refine this during inception.

45. Broadly speaking, TMEA is responsible for monitoring against the results framework (including outcome level and impact on trade), for project monitoring, and for internal evaluations as indicated in the Joint Evaluation Plan (JEP). The Evaluator is responsible for quality assuring monitoring data, for quality assuring and triangulating any evidence they use, providing recommendations and guidance to strengthen data quality, and identify and carry out new data collection required specifically for the purposes of the independent evaluation.

On monitoring data:

46. Data for monitoring the results framework is the responsibility of TMEA, including both underlying and aggregate data. The Evaluator is expected to review periodically the monitoring data gathered by TMEA (result framework data and other data to be used in the evaluation) and to make prompt recommendations to improve the quality of these data and ensure their suitability for evaluation, and where appropriate to propose complementary data collection measures.

47. The Evaluator will be responsible for the identification and provision of any new primary data needed for the purposes of the independent evaluation – whether as an area not covered by the existing M&E or for triangulation purposes. The Evaluator will need to determine which arrangements would be most cost-effective overall and least burdensome on beneficiaries or programme implementers. If additional data needs to be added to existing TMEA monitoring processes for the purposes of the evaluation, the Evaluator will provide support on methodological development for indicators and data collection.

On evaluations:

48. A Joint Evaluation Plan (JEP) has been agreed by the PIC (see Annexes). Proposed evaluation work has been divided between "internal" (TMEA's internal evaluation programme, based on learning priorities) and "external" (this independent evaluation).

49. Aside from the overall independent evaluation, the JEP identifies selected key projects under each of TMEA's three strategic objective (SO) pillars. This independent evaluation will encompass the overall impact evaluation, summative evaluation reports of all three pillars, Mombasa port, Dar es Salaam port, and OSBPs. TMEA will manage internal formative evaluations of selected projects under SO2 and SO3, plus two ex-ante evaluations and summative evaluations needed urgently.

50. For effective learning and consistency of approach, the independent Evaluator and TMEA will need to discuss the internal formative evaluations, to ensure that pertinent issues relevant to the independent evaluation are taken into account such as agreement on indicators, issues to be covered, or exploring relevant challenges.

Links to other programme evaluations

51. The Evaluator will need to consider other evaluations underway in the region, by the TMEA donors or by others, for any substantial overlap or synergies or lesson learning. In particular, the evaluation should consider risks and opportunities faced by the TMEA programme, by learning from evaluative exercises of other trade or integration programmes, such as any IMF or WB regional programme in Africa, DFID's TMSA, DFID's AgDevCo, or others.

52. There is also a higher-level evidence question related to the comparative effectiveness of regional programming, which DFID in particular aims to investigate across DFID-funded wealth creation programmes in East Africa. The TMEA evaluation will contribute to this thematic evidence basis (see evaluation questions in Annex 1). This will require flexibility to use a common framework appropriate for future synthesis, while preserving the integrity of the TMEA programme evaluation.

Extensions

53. It is possible that the scope may be extended to some of the internal evaluation work. This will be reviewed during the inception phase.

54. Should there be a new programming phase beyond 2016, it is possible that this Evaluation contract may be extended to cover part or all of the new phase. It is likely that any extension would be for up to 30 months.

G. Methodology

Evaluation approach and methods

55. Bids should provide a clear description of the design and methodology they will use to answer the key questions, including recognised evaluation methods to be used, proposed counterfactuals if/where appropriate, proposed data collection methods, analytical methods, and approach to synthesis. Ideally this would be supported by an illustrative evaluation matrix.

56. This is a complex programme, with multiple countries, multiple multi-layered projects with different stakeholders and beneficiaries. It is critical for bids to explain how the complexity of the programme and of the evaluation will be managed.

57. In particular, careful attention will need to be given to how the evaluation is approached and designed as a coherent whole, anchored on the overarching TOC. It is expected that a range of quantitative and qualitative methods might be necessary. Bids should take care to articulate clearly how the overall design and specific methods and tools fit together. Bids should explain how a potentially large range of elements will fit together to answer the overarching questions, how the synthesis will manage disparate data sources with variable quality and availability, and where and/or how information might be aggregated.

58. Bids should pay particular attention to demonstrating how rigour and credibility will be upheld at all stages throughout the evaluation.

59. In 2012 TMEA commissioned Upper Quartile to undertake a review of options for evaluating the Impact and Value for Money of its activities, to help TMEA decide on options on structuring and implementing its evaluation activity (see Annexes). This identified a selection of projects, which is different from the more recent selection in the JEP. Bidders should note that the context has evolved and the scale of TMEA has increased since the 2012 paper, and that the approach to the independent evaluation is expected to present major differences.

60. Secondary data, including TMEA's own monitoring and evaluation data, should be quality assured. More generally, triangulation of data and/or findings is essential.

61. Bids should set out clearly the extent to which the proposed approach will answer the questions, and limitations.

62. Bids are strongly encouraged to be as specific as possible in their proposals, including in terms of coverage of any method to be used, the quality level that would be achieved, number of projects covered, sample sizes, etc.

Principles and standards

63. As per DFID evaluation policy, the evaluation should adhere to international best practice standards in evaluation, including the OECD DAC International Quality Standards for Development Evaluation, the OECD DAC principles Standards for Development Evaluation, and DFID's Ethics Principles for Research and Evaluation. Bids should demonstrate how they will achieve this.

64. In line with Paris Declaration principles, the Evaluator - and TMEA M&E approaches - should take account of national M&E systems, draw on existing data where available, ensure new data collection is complementary to existing systems and that new data are made available to national stakeholders as far as possible.

65. Care should be taken to avoid duplication with TMEA's own monitoring and evaluation work, while also ensuring the independence and impartiality of the overall independent evaluation.

66. Given the importance both of the relationship with TMEA, and of the need for independence, bids should take particular care to explain how they propose to manage relationships, and propose suitable management approaches to ensure the success of the evaluation.

67. Disaggregation of data, including by sex, geographical location and income status will be important throughout the evaluation.

68. The Evaluator will need to comply with DFID's policies on fraud and anti-corruption and cooperate with any checks required from them for the duration of the evaluation e.g. annual audited statements, policies on management of funds, etc.

Lesson learning and adaptive management

69. To meet the evaluation's purpose of identifying and feeding lessons learnt into the programme, it is critical that the Evaluator works with stakeholders to cycle ongoing evaluation results back into the evolution of the programme, through regular feedback and reflective activities. This should include building linkages with the programme management.

70. In particular, to facilitate this, specific points for reflection and decision-making may be identified in addition to programme annual reviews. An element of flexibility from the Evaluator will be essential to maximise evaluation utility and use of the evaluation findings.

71. Bids should demonstrate a good understanding and experience of maximising evaluation utility, and outline a convincing approach.

Stakeholders

72. More generally, bids should demonstrate robust thinking as to how stakeholders would be engaged throughout the evaluation.

H. Existing information sources

73. Data are expected to become available in line with TMEA's Monitoring, Evaluation and Leaning (MEL) strategy (see Annexes).

Results frameworks

74. The TMEA results framework indicates key data collected for monitoring purposes. The mapping of the theory of change in the first section of the Results Framework allows the overall programme logic to be scrutinised. The Results Framework contains (or could contain) all necessary information to track all relevant programme results. The TMEA Knowledge and Results team has been working with project teams to set up project level results chains and monitoring plans.

75. Further improvements are in progress. The line of sight between project and the programme TOC is being strengthened. Where missing, appropriate measurable indicators are being designed at impact and Strategic Outcome level and at lower levels, together with targets and collated baseline data. The results framework is also currently being updated to show progress against expected results. This work is expected to be completed by early 2015. The Evaluator will need to assess the sufficiency and quality of the results framework data.

76. TMEA prioritises monitoring efforts according to the importance of different projects (following an A/B/C classification where for A projects the target is to ensure that monitoring is in line the DCED guidelines and C only attempts to monitor at output level), and also within projects.

Baseline data at outcome level

77. Primary data collection on baseline data on outcomes at project level undertaken by TMEA includes: time and traffic surveys for one stop border posts (OSBPs), on cost and time savings for Single Window Information for Trade (SWIFT) programmes, and baselines for ports.

78. OSBP time and traffic surveys have been undertaken to establish both queuing time and time taken to clear customs at the border post, as well as the number of vehicles passing through the border post. Baseline surveys were undertaken before the start of the construction of each border post, and end-line surveys are planned to be undertaken on a consistent basis three months after completion of construction at each border and six months after the initial survey is undertaken. Surveys are undertaken for a period of seven days, including day and night time traffic, and provide an estimate of average time for (a) customs processing and (b) queuing for trucks (either specific types of trucks, or all trucks, on a consistent basis for each border).. A timetable is available on request.

79. Cost and time savings surveys are planned for all SWIFTs. Intermediate outcome indicators include average processing time for applications, transactions volume rates (per day), average processing costs, and average compliance costs incurred by traders to submit applications. Output level indicators include the number of trade agencies integrated within the SWIFT system and/or other agencies as well as percentages of training and communications plans implemented. Data collection will vary dependent on when the system goes live. Baseline data should be completed by the end of October 2014. Time data will then be collected on a

quarterly basis while cost data will be collected bi-annually. A timetable is available on request.

80. Both ports annually (June/July) publish usage and performance statistics that include most or all of TMEA's top-line indicators. Currently Kenya Airports Authority (KPA) publishes an "Annual Review and Bulletin of Statistics" which includes ship turnaround time, ship waiting time, and berth occupancy, all of which are in TMEA's monitoring plan. The port monitoring plans also include many smaller-scope operational indicators. TMEA has just launched a consultancy at Mombasa port that will (among other things) determine which of these detailed indicators is most important to understanding the overall performance of the port, and assessing the port's capacity to collect this data. Based on the outcome of this work (first phase due by February 2015) TMEA will consider any revisions of its monitoring plans.

TMEA Management Information System (TMIS)

81. TMEA's on-line Management Information System captures data on financial management, and results performance, while the contracts management system has the detailed information on procurement. TMIS is a programme management tool that requires TMEA project managers to input and update project work plans and monitoring plans. Other functionality includes: summary project descriptions, with key contact details of partners; contact reports e.g. recording discussions; attaching key documentation; developing and maintaining project risk matrices; quarterly reporting; list of upcoming planned outputs and outcomes to assist the communications team plan communication activities. TMIS assists TMEA to analyse progress against plans across the portfolio of projects and disaggregate according to such categories as strategic outcomes, type of partners and location. TMIS also includes a results page with all the outcomes and outputs that are to set be achieved within different calendar days, and an outcomes page which lists all the outcomes and how they contribute to the TMEA Theory of Change.

82. TMIS Project data is to a great extent already available in TMIS, and by end Dec-14, 90% of all information including monitoring plans and risk plans for all projects should be available on the MIS, populated with targets/milestones, baselines and actual progress data. By June 2015, all projects will have their monitoring plans completed. The Annexes provide an illustrative snapshot of a project monitoring plan as per TMIS. The Evaluator will need to assess the sufficiency and quality of the TMIS data to be used for evaluation purposes.

83. Monitoring procedures are defined in the manual 'TMEA Monitoring, Evaluation and Learning Procedures: how to measure what you are doing, and whether it is working'.

Progress reports

84. Quarterly progress reports for projects and responsibility centres have been produced through the MIS, as well as annual project performance reports. While quarterly reports include expenditure versus budget and actual progress against planned progress traffic lights, annual project performance reports require implementers to reflect on changes in assumptions, articulate lessons and outline how future implementation may change as a result. The PIC has since agreed that TMEA will present progress reports every six months from July 2014.

Results meter

85. TMEA is developing a results-meter which will aggregate project performance results for key projects to estimate programme results (see Annexes).

Research on poverty impact

86. TMEA has recently commissioned a research paper (see Annexes) which explores and maps out direct and indirect linkages between TMEA activities and poverty, together with an analytical framework linking the programme TOC to poverty. The research is expected to be completed by Dec-14.

87. TMEA's toolkit on mainstreaming poverty (see Annexes) outlines how poverty issues will be explored throughout projects and baseline studies. To date this has fed into 3 studies, related to: women cross-border traders, SWIFT, standards and non-tariff barriers. In the first instance the tool kit will be applied to priority projects in 6 key areas: OSBPs, ports, railways, standards, customs modernization and ICTs, private sector and civil society / advocacy.

I. Deliverables and timeframe

88. This contract is expected to run from March 2015 and end in December 2018. There is a possibility of a 30 month extension depending on supplier performance, on-going programme needs and availability of funds. The scheduling of deliverables takes into account 'critical moments'. These however may change and new ones may arise. It is possible that this schedule will be reviewed during inception, timing the second impact evaluation report for a later date so as to allow for a longer reference period. In order to maximise usefulness of the findings, the evaluator will need to be flexible to ensure that the evaluation reports come in time to feed into key decision or knowledge sharing opportunities.

Critical moments

89. At present it is anticipated that evaluation findings may feed in the following:
    - Annual Reviews: yearly by mid-Nov.
    - Design of any phase 2 programming: early 2016.
    - Project Completion Report: (date depending on phase 1 completion date, but likely to be due in 2017).

Overview of deliverables

90. The supplier will need to provide the following key outputs, outlined hereunder and further detailed thereafter:

(a) Inception, design and evaluation reports

- Initial Inception Plan: 6 weeks after contract start
- Inception Report to include QA of existing data: draft 5 months after contract start, approved report 6 weeks later.
- Baseline report: draft at 8 months after contract start, approved report 6 weeks later (approx. Mar-16)

- Impact Evaluation Report 1 to include formative evaluations of Mombasa port, Dar es Salaam port, and impact assessment of One Stop Border Posts (OSBPs): draft by Mar-17, approved report 6 weeks later.
- Impact Evaluation Report 2: draft by Aug-18, approved report 6 weeks later.

- Five brief interim reports, at regular intervals to be specified, with contents to be specified during the inception phase.

(b) Support to TMEA on specific M&E issues

- Fully developed indicators methodology manual or guidance notes for data that are needed to undertake the independent evaluation but are not yet collected through TMEA's own monitoring and evaluation systems.
- Quality Assurance of TMEA data as required for evaluation purposes, and implementable guidance on any improvements required.

(c) Communication products

These will need to be defined in the communications plans and would include at a minimum, for each Impact Evaluation Report:

- A workshop for the key stakeholders, including the Joint Evaluation Group, explaining the recommendations and agreeing how they can be implemented.
- A 'key findings' communication product presenting evidence relevant to development actors beyond the TMEA programme.
- Separate reports on selected interventions or issues (notably Dar, Mombasa, OSBPs)

(d) Instruments and data

- An electronic copy of all the instruments used, including research protocols, questionnaires, guidance notes, etc.
- Database(s) with all the qualitative and quantitative data in a commonly used format, together with clear metadata, and which is anonymised and safeguards confidentiality. Copies should be provided at least yearly.

(e) Management reports

- Brief quarterly reports on the ongoing evaluation process including any support provided to TMEA. Submission of these reports will be aligned to PIC meetings as far as possible.

Specific requirements

91. The **Inception Plan** serves as an intermediate product no longer than 20 pages and should include:
    - an initial review, validation and adjustment of the Theory of Change;
    - an initial stakeholders engagement approach;
    - revised evaluation questions;
    - discussion of design issues and approach to completion of the inception phase, particularly to assessing data quality and developing the full evaluation framework.

92. **The Inception Report** should be no longer than 30 pages excluding annexes and include:
    - a review, validation and adjustment of the Theory of Change (including links to growth and poverty reduction);
    - a stakeholders engagement approach, supported by a stakeholders mapping;
    - a communication and dissemination plan;

- an agreed set of finalised questions and evaluation framework - based on evidence gaps in the Theory of Change, stock-take on the programme to date and requirements of stakeholders of the evaluation;
- the refined evaluation design or design options, a detailed explanation of evaluation methods to be used, exploration and justification of methodological issues, project selection, proposed counterfactuals where appropriate, and proposed data collection methods;
- an evaluation matrix, which maps the proposed evaluation design, methods and analytical plan against the evaluation questions;
- identification of programme monitoring data required from the PMU to meet evaluation needs and timings for this, particularly baseline data;
- full quality assurance of all data to be used from TMEA's own monitoring and evaluation;
- proposal on collection of new primary data – including new baseline data and triangulation data;
- an agreed division of labour between TMEA and the Evaluator, specific and detailed, down to activity level;
- a description of the scope of findings to be available in the reports, particularly the first report, and a clear delineation of the depth of information to be provided in each of the impact evaluation reports;
- a detailed workplan;
- a final costing for the implementation phase;
- a review of challenges and risks, mitigating actions and fall-back options.

93. **The Baseline Report** should be no longer than 40 pages excluding annexes and provide:
    - an executive summary;
    - description of the methodology;
    - baseline for all indicators using secondary data;
    - methodologies, instruments and protocols for data collection;
    - summary of the analysis, focusing on what is considered to be of direct relevance to adjust the programme or to decisions on future funding, including in particular results to date, impact to date and expected impact, efficiency and effectiveness (details can be annexed);
    - evaluation findings to date.

94. **The Impact Evaluation Reports** should be no longer than 40 pages for the overall evaluation and 20 pages for pillar or project evaluation, excluding annexes and include: an executive summary, description of the methodology, a full analysis of findings and recommendations tailored to the evaluation questions, and a set of actionable recommendations.

95. Given the lead times from intervention to impact, the first Impact Evaluation Report will focus on formative issues, outcomes, any immediate impacts, and expected future impact on trade and poverty. It will also take a hard look at sustainability. The second Impact Evaluation Report will provide credible assertions of contribution to impact (in all areas including trade, poverty).

96. Reports should communicate overall approach findings in an accessible way for non-technical readers, including presentation of data in visually appealing ways, highly structured and rigorous summaries of findings and robust and accessible syntheses of key lessons. Recommendations should be timely, realistic, prioritised, evidenced-based, targeted, accessible and clear, in accordance with OECD-DAC and UN guidelines.

97. Annexes should include: terms of reference, list of people consulted and interviewed at different stages of the evaluation, list of documents reviewed, any analyses and supporting evidence that is considered to be too detailed for the core section.

98. Draft reports will be subject to an external quality review, managed in accordance with standard DFID procedures for Quality Assurance. Bidders should note this is subject to a 2-weeks turnaround once submitted by DFID for review.

Break clauses

99. In line with the unknowns associated with development programming, break clauses will be put in place related to continuation and scope of the programme as well as satisfactory delivery and value for money of future workplans.

100. The break clauses are likely to be at the end of the inception phase, after the baseline report and at the mid-term point.

J. Challenges and Risks

101. Bids should clearly identify challenges, risks, and propose mitigating actions.

102. Key risks and challenges are likely to relate to:

- Complexity of the programme, including conceptual complexity, scale of the programme across multiple countries and multi-layered projects, complex strategic context;
- Reconciling the need for programme-level conclusion with the fact that causal relationships are typically more easily 'proved' at the lower level of the causal chain;
- Managing trade-offs between breadth and causal identification in order to secure both feasibility and credibility/rigour/usefulness of the evaluation;
- Examining impact – pathways to poverty reduction and the difficulties in attributing impact to TMEA;
- Uncertainty about the availability and quality of monitoring data;
- The programme and some projects having already started, without collecting all the baseline data that would ideally be used for evaluation;
- The full impact of certain programme components is likely to occur after the current programme end date and even after the current evaluation reporting dates;
- Differences in the interests of stakeholders;
- Changing political economy.

K. Abilities & Expertise to Deliver This Requirement

103. The team will require a broad set of skills to design and manage a complex evaluation of the TMEA programme. For example, private sector development and advocacy assessments will be very different to infrastructure assessments so a diverse range of expertise will be required.

104. Consortia are strongly encouraged as it is expected that this would be necessary to provide the relevant expertise and presence. They may encompass a range of actors including private companies and/or research organisations and/or evaluation institutes, at local or international level.

105. It is also expected that local expertise, knowledge and access will be essential.

106. Bidders will need to complete a conflict of interest declaration. It is expected that organisations or individuals which have had a major involvement with TMEA would be conflicted out for this independent evaluation. However, given the wide scope and size of work to date on the TMEA programme, it is also expected that a large number of organisations well qualified to contribute to this evaluation assignment may have had prior involvement. Therefore minor implementation involvement or impartial engagement in the area of evaluation or monitoring is unlikely to conflict out a bidder. Bidders should state clearly how they will manage any potential conflict of interest. Potential bidders are welcome to seek informal views from DFID early on.

107. Regarding future TMEA activities it is expected that the successful bidder would be conflicted out of future direct implementation activities that could sway the programme during the lifetime of the evaluation. It is unlikely they would be conflicted out of future monitoring or evaluation TMEA contracts, though it will be important to put in place procedures in case of any potential conflict of interest.

108. The Evaluator should combine the following expertise and experience:

Management expertise

Strong understanding and demonstrated experience of:

- designing and undertaking large and complex evaluations, at portfolio level with expertise of rigorous impact evaluations at intervention level; using mixed methods approaches that meet recognised standards for credibility and rigor;
- stakeholders management skills and ability to work flexibly with donors, partner countries, private sector entities; demonstrated ability to manage sensitive relationships tactfully and productively;
- communication skills - being strategic as well as able to communicate complex studies and findings in an accessible way for non-technical people;
- using evaluations as a tool for lesson-learning both during programme implementation and beyond;
- Knowledge management expertise.

Evaluation expertise
Strong understanding and demonstrated experience of:

- the strengths and limitations of different designs and how to interpret and present findings accurately to both researchers and non-researchers;
- various quantitative and qualitative evaluation methodologies for demonstrating impact;
- undertaking VfM analysis of complex multi-level programmes, combining quantitative and qualitative techniques;

Sectoral expertise
Strong understanding and demonstrated experience of:

- trade issues, including political economy particularly in East Africa, and experience of working on evaluations of trade policies and programmes;
- regional integration and political economy issues in the region, particularly those related to trade, familiarity with public/private dialogue and policy advocacy issues in East Africa, and understanding of social inclusion and gender issues in programming in East Africa;
- the possible impact of trade interventions in a range of areas (e.g. revenues, poverty, vulnerability) on different segments of the population, and ability to generate data to analyse programme effects for these (e.g. women vs. men, low income vs. middle income, rural vs. urban, etc.);

L. Logistics and procedures

109. The Evaluator will be responsible for all logistic arrangements required to conduct the evaluation work. TMEA will facilitate convening of meetings and site visits where necessary. All relevant expenses should be covered by the evaluation contract budget.

M.Reporting and contracting arrangements

Contact points

110. The Evaluator will report to Senior Evaluation Adviser and the Wealth Creation Deputy Programme Manager in DFID's Africa Regional Department.

Governance

111. A Joint Evaluation Group (JEG) is in place to steer and advise the monitoring and evaluation of the TMEA programme at key strategic points. It provides strategic direction on the independent evaluation, and has a strong coordination and facilitation role across the evaluative exercises and to ensure lessons learnt are taken forward. The JEG comprises three PIC members, three senior staff from TMEA (to include the CEO, Strategic Results Director and one other), and one member from the wider stakeholder constituency.

112. The JEG is an advisory sub-committee of the PIC, TMEA's oversight body. For the independent evaluation, the Evaluation Manager (i.e. the person responsible for managing the contract for the independent evaluation) receives advice from the JEG but formally reports to the PIC, in order to preserve a minimum level of independence.

113. Once the new TMEA constitution is implemented (see Background section) the JEG will report to the new Council. It has already been agreed that membership of the JEG will also be revised at that time to comprise two Council members, one TMEA Board member, one senior TMEA staff member, and one member from the wider stakeholder constituency.

114. Governance and quality assurance is further strengthened by a Reference Group comprising 2 to 3 peer reviewers and 2 to 3 relevant DFID or other donor evaluation advisers. The role of the Reference Group is to review the scientific and technical quality of the independent evaluation; to ensure that the design and implementation of the evaluation is robust and credible and that the evaluation is independent andstands up to external scrutiny. The Reference Group will be coordinated by the Evaluation Manager within the donor agency (DFID) responsible for contracting the independent evaluation on behalf of the PIC.

115. Further details about the governance structure for the evaluation can be found in the TORs for the Joint Evaluation Group (see Annexes).

Meetings

116. Meetings between DFID (acting as Evaluation Manager) and the Evaluator will be held as required by agreement at contracting point.

117. The frequency and broad timing of meetings between the Evaluator, the Evaluation Manager, the JEG, the PIC, and Reference Group will be agreed between DFID and the Evaluator during the Inception Phase. As an indication, we expect the RG and the PIC to engage at the key report stages ie inception, baseline, some interim findings reports, impact 1 and impact 2. The JEG in its facilitation role might meet more frequently.

N. Budget

118. The budget for this evaluation is between £2.3m and £2.7m, with a maximum budget of £300,000 for the inception phase. If a phase 2 TMEA programme is agreed this contract could be extended to evaluate phase 2 to a maximum total value of £3.5m. Bidders are not required to submit a proposal including the maximum £3.5m but for the budget range of £2.3m-£2.7m described above.

119. Bidders are strongly encouraged to compete on the basis of their commercial proposal, demonstrating value for money, as well as technical proposal.

120. Bidders should set out a separate budget for each of the activities outlined above (Inception, Baseline, Impact 1 and Impact 2, and on-going evaluation support), along with an approach and methodology for each. In addition, bidders are requested to be very clear about methodology providing a detailed breakdown of costs for the different significant activities to be undertaken during the evaluation.

121. Bids should provide fully detailed costing for the inception phase, and as detailed as possible for the implementation phase. Parameters used for costing both phases should be very clear, and any assumption used for costing the implementation phase should be verifiable during the inception phase.

122. It is expected that some adjustment and refinement to budget allocation for the implementation phase may be required based on the inception work. Although the budget allocation across components of evaluation will be flexible to a reasonable extent, it will not be possible to increase the total envelope agreed for the contract (other than to extend the scope beyond the current phase, as indicated above).

123. Key Performance Indicators (KPIs) will be agreed between DFID and the Evaluator before formal contracting. Bidders are encouraged to make provisions in their commercial tenders to ensure that their fees are linked and subject to performance.

O. Duty of care

124. The Supplier is responsible for the safety and well-being of their Personnel (as defined in Section 2 of the Contract) and Third Parties affected by their activities under this contract, including appropriate security arrangements. They will also be responsible for the provision of suitable security arrangements for their domestic and business property.

125. DFID will share available information with the Supplier on security status and developments in-country where appropriate. DFID will provide the following: A copy of the DFID visitor notes (and a further copy each time these are updated), which the Supplier may use to brief their Personnel on arrival.

126. The Supplier is responsible for ensuring that appropriate arrangements, processes and procedures are in place for their Personnel, taking into account the environment they will be working in and the level of risk involved in delivery of the Contract (such as working in dangerous, fragile and hostile environments etc.). The Supplier must ensure their Personnel receive the required level of training and complete a UK government approved hostile environment training course (SAFE)[3] or safety in the field training prior to deployment.

127. The Supplier is responsible for ensuring appropriate safety and security briefings for all of their Personnel working under this contract and ensuring that their Personnel register and receive briefing as outlined above. Travel advice is also available on the FCO website and the Supplier must ensure they (and their Personnel) are up to date with the latest position.

128. Tenderers must develop their tender on the basis of being fully responsible for Duty of Care in line with the details provided above and the initial risk assessment matrix prepared by DFID (see Annexes). They must confirm in their tender response that:

[3] UK Government approved hostile environment training course is known as SAFE (Security Awareness in Fragile Environments). The course should be booked through DFID and factored into the commercial tender.

a. They fully accept responsibility for Security and Duty of Care.
b. They understand the potential risk and have the knowledge and experience to develop an effective risk plan.
c. They have the capability to manage their Duty of Care responsibilities throughout the life of the contract.

129. If you are unwilling or unable to accept responsibility for Security and Duty of Care as detailed above, your tender will be viewed as non-compliant and excluded from further evaluation.

130. Acceptance of responsibility must be supported with evidence of Duty of Care capability and DFID reserves the right to clarify any aspect of this evidence. In providing evidence, interested Suppliers should respond in line with the Duty of Care section in the ITT Volume 2.

P. References

Annex 1 – Indicative sub-questions for Key Questions in Section E (appended).
Annex 2 – Duty of Care risk assessment (attached)

Programme information
Annex 3 - TMEA strategy 2013-2016 (attached)
Annex 4 - Propositions underpinning TMEA's strategy, May 2014 [TMEA Theory of Change & explanatory note] (attached)
Annex 5 - TMEA constitution (attached)
Annex 6 - TMEA Business Plan 2014/15 (attached)

Programme monitoring and evaluation information
Annex 7 - JEG TORS (attached) * Paragraphs 113 and 114 above reflect the updated position on JEG membership and Reference Group (previously Peer Reviewers)
Annex 8 - MEL approach paper (attached)
Annex 9 - TMEA Joint Evaluation Plan (attached)
Annex 10 - TMEA Results Framework (attached)
Annex 11 - Annual Review 2013 (attached)
Annex 12 - TMEA quarter 1 2014-2015 (Jul-Sep) progress report (attached)
Annex 13 - 2012 Upper Quartile report (attached)
Annex 14 – Project list (attached)

TMEA Poverty research
Annex 15 - Briefing paper; TMEA's approach to mainstreaming the poverty issue
Annex 16 - Research concept paper

Evaluation policies
DFID Evaluation Policy (on web)
DFID Ethics principles for evaluation and research (on web)

Further supportive documents for information, available on request
DFID Business cases (on web)
DFID Elliot Stern paper (on web)
TMEA Business Plan 2013/14
TMEA quarterly progress reports
OSBP survey timetable
SWIFT surveys timetable

TMIS Overview note
Snapshot of a project monitoring plan as per TMIS
Dar Project Appraisal report
Dar MIS quarterly report
Dar monitoring plan
Mombasa Project Appraisal report
Mombasa MIS quarterly report
Mombasa monitoring plan
OSBPs – sample Project Appraisal report (Kagitumba/Mirama)
OSBPs MIS quarterly report
OSBPs monitoring plan

ANNEX 1 – Indicative sub-questions for Key Questions in Section E

Question 1. How robust and verified are the causal links and assumptions in the Theory of Change (TOC) and does the TOC provide a reliable guide for programme interventions?

- To what extent are the assumptions underpinning the TOC evidence-based or verified?
- Are the logframe targets and milestones appropriate and realistic?
- To what extent does the programme support EAC regional trade development priorities and address the right set of issues?
- Are the assumptions underpinning the TOC results and links being verified?
- How have changes in policy and in the political economy in the region impacted on the programme or on its relevance?
- Do TMEA interventions complement other ongoing initiatives (both government and private sector)?

Question 2. What is the likely impact on trade, growth and poor people, and what is critical in order to ensure sustainability of positive impacts?

***Impact on trade* [*very important]**

- What is the impact of achieved trade cost reductions on increased trade (both intra-regional and extra-regional)?
- To what extent have transport time and cost reductions led to transport price reduction?
- To what extent have the removal of NTBs contributed to an enhanced trade environment and to increased trade?
- To what extent have standards harmonisation, and standards testing, impacted on the trade environment and trade flows?
- How has improved trade policy environment led to increased trade?

***Impact on poverty* [*very important]**

- What is the nature and where possible scale of the likely impact of the overall programme and of key TMEA projects in the portfolio on the poor - direct and indirect? Who is affected by potential short or long-term impact, both positive and negative, how, and how is the causality working?
- In particular, who has benefited from reduced trade costs? How are the benefits in reduced transport time and cost being passed on to poor people through lower prices or lower price increases?
- To what extent does the programme benefit from robust analyses of the link between trade and poverty?
- Are complementary policies being adopted to translate the benefits of increased trade into poverty reduction?
- Are measures being taken and successful in mitigating potential negative impacts on any sub-groups, in particular poor people in localised areas?

Impact on crosscutting issues

- To what extent has the programme benefited women and girls (noting that the programme design did not purport to benefit them equally)? Have there been any negative consequences on women and girls? Has the programme had an impact on relations including power and influence between girls/women and boys/men?

How could the programme increase benefits to women and girls within its trade focus? **[*important]**
- What has the impact been on corruption across the various components, notably at border crossings?
- What impact has the programme had on other issues, such as gender, extractives and environment/climate?

Sustainability
- What benefits (both social and financial) of the programme are likely to be sustainable and would continue with or without TMEA (staffing and funding)?
- What should be the essential components of a future exit strategy in order to sustain impact? **[* important]**
- Have individual results and overall impact sustained after existing donors stopped funding, and is there a lasting positive impact on the poor?
- How are stakeholders engaged through the programme and beyond its life and how do they take TMEA lessons learnt into account?

<u>Question 3.</u> Where has the programme been effective and achieved good Value For Money and how could this be improved?

Effectiveness
- To what extent have TMEA activities led to reduction in transport time?
- Where appropriate, to what extent have TMEA activities led to reduction in trade costs (reduced transport costs, reduced regulatory and operating costs, non-tariff barriers)?
- Is the reduction in time leading to increased physical access to markets?
- To what extent have TMEA activities led to greater standards harmonisation and compliance?
- To what extent has TMEA contributed to improved harmonised policies and programmes of key regional and national actors?
- To what extent have TMEA activities led to increased capacity of key national and regional agencies to implement regional integration commitments?
- Where relevant, how have TMEA activities (including revenue authority reforms as well as activities to promote trade flows) led to increased national revenues?
- To what extent have TMEA activities led to the civil society exercising a positive influence on regional integration, including on policy changes?
- To what extent have TMEA activities led to the private sector exercising a positive or negative influence on regional integration?

Value for Money (VFM)
- Is the programme providing VFM?
- In which activities/components and countries does the programme achieve higher VFM than others and what are the lessons learnt for driving greater VFM across the board?
- What is the value added (effectiveness) of the regional dimension of the programme? (Contributes to evidence towards a regional thematic evaluation question)

Operational model: national and regional levels **[*very important]**
- What are the strengths and weaknesses of the working model observed to date?
- Is the complementarity and coordination between national and regional levels optimal throughout all programme components and activities? What is the effect of constraining factors?

- To what extent does the TMEA model bring greater results than the sum of its parts? How could this be strengthened?

Operational model: Programme set-up

- To what extent are the Programme's institutional mechanisms efficient and effective in delivering programme outputs and regional integration objectives?
- Is using one organisation, a not-for-profit company, the best vehicle for impact on trade, and on poverty reduction through trade? What are the strengths and weaknesses of this approach?
- To what extent are the programme's governance arrangements, together with its financial (including procurement), human resource and risk management processes, leading to delivery of high quality and timely outputs in ways which represent value for money?
- Is the operational model at donor level the most appropriate and efficient for delivering TMEA? What are the key enablers which need to be preserved, and what are the remaining constraints arising from donors' systems?

Coherence and coordination

- Did TMEA align with country systems and agencies in the most effective manner for ownership, and for impact? How could this be strengthened?
- Are the focus and activities of TMEA consistent with, and additional to, those of others' development programmes in the region? To what extent has the programme facilitated improved coordination?
- What sort of approaches have been more successful in working with regional institutions in Africa?

M&E arrangements

- Provide independent Quality Assurance of TMEA's monitoring reports.
- Are the monitoring and evaluation tools and processes in place appropriate, both on results and on finances? How could they be strengthened?

Annex B: ToRs revised for Contract Amendment 2

Department for International Development

UKaid from the British people

DFID Department for International Development

Independent Evaluation of TradeMark East Africa
PO 7024

Terms of Reference
Revised for Contract Amendment 2

Independent Evaluation of Trade Mark East Africa

Terms of Reference

A. Introduction

1. The TradeMark East Africa (TMEA) programme aims to improve trade competitiveness in East Africa by reducing transport time/costs and improving the trade environment. During the first strategy period *("Strategy 1", which ran from 2011 – 2017) it targeted an increase in trade of 10% (above trend 2010-2016), contributing to sustained economic growth and poverty reduction. TMEA was set up as a specialist not-for-profit agency to implement the TMEA programme. TMEA is currently funded by the UK, Belgium, Canada, Denmark, Finland, Netherlands, Sweden and USA. TMEA's secured budget to date totals about £400 million ($640m). The first phase of the programme ran until July 2017. The second phase ("Strategy 2") began in July 2017 and will run until the end of June 2023.

2. This is a large, high-profile programme in an area of great interest for continued development work, which calls for a robust and independent evaluation. DFID is commissioning this key evaluation as acting Evaluation Manager on behalf of all TMEA donors.

B. Purpose and Objectives

Purpose

3. The evaluation has 2 equally important purposes:

   (a) To identify and feed lessons learnt into the management to (i) adapt the early implementation of Strategy 2, where there are findings which are useful; and (ii) inform the design of future trade programmes which donors may undertake (driver: improving trade development programmes and enhancing the global evidence basis);

   (b) To account for progress at outcome and impact level in an internationally recognised independent and impartial manner (driver: oversight and accountability requirements).

Objectives

4. This is an evaluation to assess the impact of the TMEA programme on trade, inclusive economic growth, and poverty reduction, and understand causal pathways and the mechanisms at work. As an impact evaluation, it emphasises causality and, where possible, attribution or at least contribution to outcomes and impacts.

5. Growth and poverty reduction are high level goals. It may not be possible to measure an attributable impact of TMEA on these goals. However, the evaluation will need to analyse pathways and understand the way in which the TMEA programme has affected poor people, and the way in which it has contributed to growth.

6. The core objectives of the evaluation are:

   1) Test the **Theory of Change (TOC),** assessing all causal links and the robustness of underlying assumptions (including links between trade, growth and poverty reduction), and adjusting the TOC to serve as a reliable guide to interpret the programme and to make programme improvements.

   2) Analyse and, to the extent possible, measure: the regional integration programmes' **impact** on regional trade, growth and poverty (and on the various stakeholders, in particular on men and women separately, poor and vulnerable groups, as well as traders and consumers); and **sustainability**.

   3) Assess the **effectiveness** of the TMEA programme, including organisational effectiveness, and whether the programme represents **Value For Money.**

4) Throughout, identify **lessons learnt relevant beyond TMEA**, i.e. insights on enabling and constraining factors, critical actions and gaps which would be generalizable to future programmes or to other contexts.

C. Recipients

7. The primary recipients of the services comprise TMEA's Council and Board alongside the National Oversight Committees which exist in seven countries with active TMEA interventions.

8. The evaluation will provide evidence on trade and development of interest more widely. In particular, outputs of the evaluation are likely to attract significant attention from many actors, including the East African Community (EAC), regional governments, regional institutions such as the EAC Secretariat, multilateral and bilateral partners, business and civil society.

9. The ultimate beneficiaries are the citizens of partner countries, whose lives should be improved through improved projects and programmes.

D. Background

Context

10. Despite significant growth, East Africa's share of world exports is below 0.1% - around half the global average on a per capita basis. It costs East African countries twice as much to trade than it does East Asian and developed countries. Transport costs are excessive and especially for landlocked countries – freight costs are more than 50% higher than in the United States and Europe and add nearly 75% to the price of exports from Uganda, Burundi and Rwanda. [*Nathan Associates, 2011*] The problem is not just one of distances – inefficient customs and port processes, excessive bureaucracy and poor infrastructure all impose substantial transport delays and significantly increase costs. These problems are both national and regional and advocate for a regional approach to solutions, focused on developing East Africa's transit corridors to open up its economic opportunities and reduce the high costs of doing business and trade.

11. The East African Community (EAC) was re-established in 1999 by Kenya, Tanzania and Uganda. Burundi. Rwanda subsequently joined in 2007 and South Sudan is undergoing accession. The Customs Union formed in 2005 has led to a 67% increase in trade between EAC countries, but considerable work remains to make it fully effective, such as removing non-tariff barriers, implementing a first point of entry system for the clearance of goods and collection of import duties and implementation of a common trade policy. The Single Custom's territory was launched by Kenya, Uganda and Rwanda in January 2014, with Tanzania and Burundi joining later. The EAC is also part of the Tripartite (COMESA-EAC-SADC) initiative, which it chaired from July 2013 to June 2014. The EAC has made the most progress on economic integration of any of the regional economic communities in Africa, and represents a major opportunity for lesson learning across the broader Tripartite through creating a larger market; allowing producers and traders across the region to exploit economies of scale; increasing investment and accelerating the introduction of new technologies. EAC integration is also expected to increase political stability and provide a focus for shared legislative and regulatory reform.

12. Evidence from a range of studies points to improvements in the business environment associated with trade competitiveness leading to improved growth, jobs, incomes and social effects. While the relationship between trade, growth and poverty reduction is complex, very few countries have grown over long periods of time or secured a sustained reduction in poverty without a significant change in competitiveness and a large expansion of their trade. Poverty

reduction in broad terms has followed as a consequence of increases in income, employment and government social expenditures. However, there are risks and opportunities in the short and longer term for particular poor groups (and regions) as increased trade transforms livelihood possibilities.

TMEA

13. TMEA is a multi-donor funded programme, which was officially launched in February 2011 as a specialist not-for-profit agency to implement programmes to promote trade growth in East Africa. Over the life of Strategy 1, TMEA aimed to increase exports (by 10% above trend 2010-2016) through cutting the costs of trade, especially through reduced transport time (by 15%), and a focus on the national implementation of regional trade agreements. This national focus is innovative for a regional programme, and as a result, TMEA has presence in all EAC countries (plus South Sudan, which is joining the EAC) with its headquarters in Kenya. TMEA seeks to deploy a wide range of instruments quickly, including financial aid, output-based aid and technical assistance, to tailor interventions to the needs of partners, and to manage fiduciary risk.

Theory of Change (TOC)

14. Figure 1 illustrates the TOC for the TMEA programme. The TMEA (TOC) was first articulated in 2011, and substantially updated in 2014; it is this 2014 version that the evaluation uses as a basis for following programme logic, at least at the highest levels. A detailed description is available in the business cases and a separate TOC document. There are several layers to TMEA's TOC. The TOC can be viewed as a hierarchy where various sub-theories link up and across the programme's focus areas.

15. At the higher end of the TOC it is proposed that three necessary key 'trade competitiveness' elements contribute to increasing trade. These elements are increased physical access to markets, enhanced trade environment and improved business competitiveness.

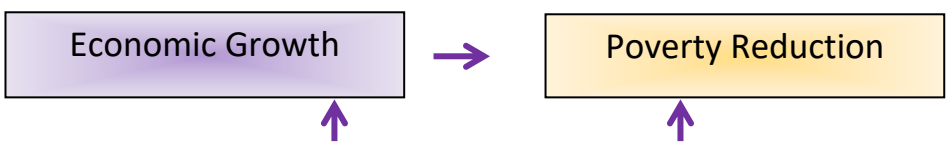
16. Correspondingly, TMEA's 3 Strategic Objectives are articulated as follows:
SO1 - Increased Physical Access to Markets (around 44% of the budget)
SO2 - Enhanced Trade Environment (around 42% budget)
SO3 - Improved Business Competitiveness (around 14% budget)

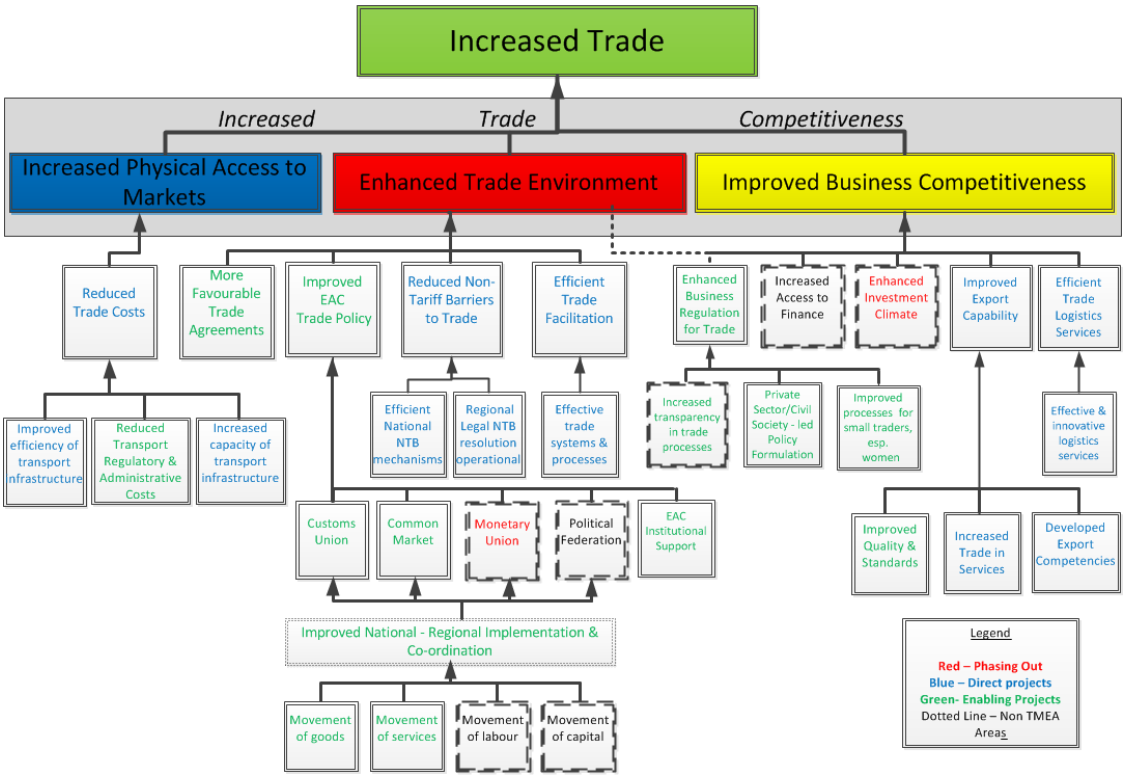
17. Increased trade is believed to contribute to increased economic growth and subsequently reduce poverty. Precise effects depend on the nature of trade reforms and how the poor make their living [Winters & Martuscelli, April 2014]. Thus examining localised situations and the pathways to growth and poverty is a key part of this evaluation. Economic growth and poverty reduction do not appear explicitly in TMEA's overarching TOC since they are very high in the logic hierarchy; however they are captured in some of the donor programme documents.

18. Each of the boxes in Figure 1 is expected to contribute to increased trade, but no one element is sufficient by itself. Within this complicated picture of factors that are necessary to achieve increased trade, TMEA has a more specific focus driven by practical reasons, as indicated through the colour coding (see legend at bottom right of Figure 1). All current projects now fall in either the 'direct' or 'enabling' category.

19. A number of assumptions underpin the relationship between the black boxes and each strategic objective, which are described in the TOC document.

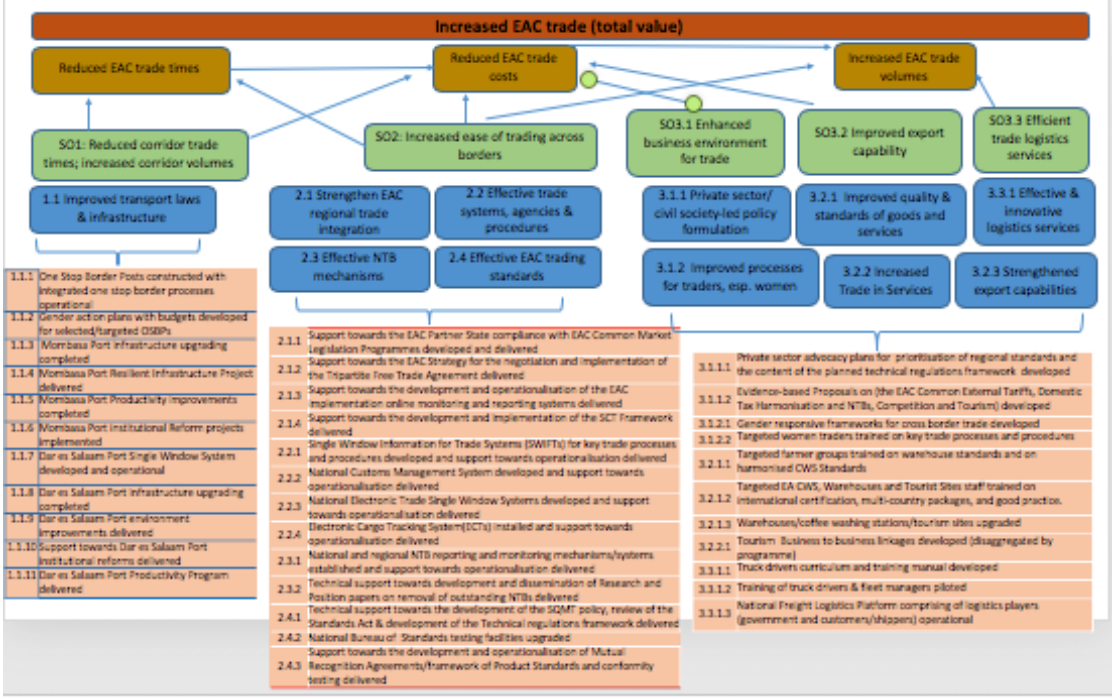
Figure 1: TMEA's TOC (2014)





20. The TMEA Results Framework (RF) offers more detail in that it breaks down the components into outcomes and outputs that are in turn linked to projects; all levels are measured by indicators shown in the RF, and an intermediary output and outcome structure is shown that ties TMEA's work to the TOC's more conceptual structure. That structure is shown in Figure 2, below, where Increased EAC Trade appears as the overarching trade impact of programming, measured by three indicators on trade in orange: reduced costs, reduced time, and increased volumes. These are in turn supported (in green) by the SOs, divided into intermediate outcomes (in blue) and the programme outputs (in peach).

Figure 2: TMEA's elaborated TOC, inferred from the levels in the RF



21. It is important to note that the SOs have different names in the TMEA TOC and the TMEA RF (Figures 1 and 2). SO1 is Increased Physical Access to Markets in the TOC but operationalized as “reduced corridor trade times; increased corridor trade volumes” in the RF. SO2 is Enhanced Trade Environment in the TOC and “increased ease of trading across borders” in the RF. SO3 is Improved Business Competitiveness in the TOC and is broken into three sub-SOs in the RF: “Enhanced business environment for trade”, “Improved export capability” and “Efficient trade logistics services”. Nonetheless the TOC and RF titles do have an internal logic, in that their intent is parallel, but perhaps more concrete in the RF. While the TOC provides a graphic representation of what needs to be done to improve trade, in high-level and somewhat abstract terms around regional integration, the RF shows what the project focuses on in order to achieve a parallel array of targets.

22. The RF is therefore an important basis for the evaluation work. For SO1 and SO2, the language from the RF captures the key TMEA results (reduced corridor trade times, increased corridor trade volumes, and increased ease in trading across borders) and the evaluation will use the RF terms for the SOs in these two cases. SO3 is at a different level of abstraction than are SO1 and SO2 and the RF reflects that in having three sub-SOs. To avoid confusion, the evaluation will use the broader category of “improving business competitiveness” in DEQ2.3, to make that SO more parallel with the other two.

23. TMEA refined its component-level strategies in the form of results chains, which might be thought of as component-level TOCs; these will be consulted as a basis for comparison for the Performance Evaluation pathways under Phase 2, and refined through the evaluation process.

24. It is notable that, despite important cross-cutting and cross-component activities within TMEA, in which work under one component is very important for successful work in another, these relationships are not equally explicit in the component results chains. Alongside work to reconstruct component-level results chains where they do not exist or are weaker, this cross-component element will be a subject of consultation and analysis in the performance evaluation, as part of the effort to respond to evaluation questions and test the TOC, while also examining the effects of that coordinated work on effectiveness.

Governance

25. The TMEA Board supervises the activities of TMEA and the TMEA Council provides strategic direction to TMEA to ensure that it achieves its developmental goals. The Board and Council are supported by a regional (EAC) Programme Coordinating Committee (chaired by a Deputy Secretary General at the EAC Secretariat) and a National Oversight Committee (NOC) for each country programme. The scope of authority of the Council and Board are set out in their Constitutions and entrenched in the Articles of Association of TMEA.

26. A unique feature of the TMEA governance structure is the delegation of oversight roles at the national level. Although these National Oversight Committees (NOCs) are mainly advisory bodies to the Board, they play an immensely important role in supervising and monitoring the national level programmes. The NOCs are chaired by Permanent Secretaries (the Ministry of EAC) and membership includes all key donors, government agencies, private sector and civil society representatives.

Monitoring and evaluation architecture

27. In August 2013, a revised monitoring, evaluation, and learning (MEL) approach paper was reviewed by the TMEA PIC[11]. It was agreed to incorporate plans for an independent external evaluation into the MEL to ensure complementarity of the internal and external evaluation work and to avoid duplication. An Evaluation Committee (DFID is a member) was established as a sub-committee to the Board to oversee the evaluation work. The revised MEL approach paper was approved at the PIC meeting in May 2014 and is attached in the Annexes.

28. As set out in the MEL, TMEA's monitoring and evaluation system is comprised of the following components:
- Overall results framework, a sub-set of outputs from individual project monitoring plan, which serves as an important accountability tool for TMEA donors;
- Individual project monitoring plans;
- Quarterly external progress reports;
- Quarterly internal programme performance review meetings (QuORTs);
- A Management Information System (MIS) that requires TMEA project managers to input and update project work plans and monitoring plans;
- A "Results Meter" has been developed to serve as an aggregate score card to show progress towards targets in the results framework (this Results Meter was subject to an external quality assurance in 2015);
- An Annual Review commissioned by investors to assess progress against the TMEA results framework;
- An evaluation plan, outlining the division of labour between internal TMEA evaluation work (mainly formative evaluations) and the independent external evaluation work (commissioned here).

29. TMEA also has a research programme (previously involving a call down contract with the Institute of Development Studies (IDS). This has examined the literature on linkages between trade, growth and poverty reduction, as well as simulated modelling on the impact of the EAC customs union. However, it has not conducted any primary data collection on TMEA projects.

30. TMEA organises its information management on the basis of around 200+ project budget lines, of which around 165 were active at August 2014. In some instances, several project budget lines could be seen as sub-components of one 'intervention' (e.g. support to the revenue authority in Burundi is broken down by categories of expenditure).

[11] Programme Investment Committee (PIC) which supervised the activities of TMEA and provided strategic direction to TMEA to ensure that it achieves its developmental goals before the Board and Council were established.

Key stakeholders

31. Key stakeholders for the evaluation include:
- TMEA donors, who are represented on the Council;
- The East African Community Secretariat (a Programme Coordinating Committee in Arusha manages the TMEA-EAC partnership);
- National Oversight Committee (NOC) members (including government, private sector, civil society and donor representatives at the national level);
- Staff involved in oversight and implementation of TMEA projects;
- Implementing partners at regional and national level;
- Ultimate beneficiaries (producers, transporters, clearing and forwarding agents, consumers) of TMEA's programme support.

E. Key questions

32. The key evaluation questions below reflect the 4 core objectives of the evaluation (see section B), which can be summarised as: test the Theory of Change; impact and sustainability; value for money and effectiveness; and lessons learnt relevant beyond TMEA. These are outlined below. Agreed revisions to the key evaluation questions under Contract Amendment 2 are noted.[12]

33. In addition, for each of the key evaluation questions, a set of detailed sub-questions is provided in Annex 1. The Annex also confirms the evaluation deliverable(s) that will answer each detailed evaluation question and its status as at December 2018.

Question 1. Has the programme been effective in delivering its outputs? How has this been affected by the programme's organisational performance and how could this be improved?[13]

Question 2. To what extent has TMEA been effective in achieving expected intermediate outcomes and to what extent has TMEA programme been effective in contributing to achieving programme strategic outcomes? Did the programme bring about any unintended outcomes? [14]

These questions will assess effectiveness, economy and efficiency, including whether TMEA activities have produced the outputs anticipated in the results framework, TMEA's outcome-level performance, organisational effectiveness, and whether and where the TMEA programme has provided value for money. This will also require an assessment of the operational model and of the M&E system.

Question 3. What is the likely impact of TMEA on trade outcomes and growth, and what factors are critical in order to ensure sustainability of positive impacts?

Question 4. What is the likely impact of TMEA on poverty and gender, and what factors are critical in order to ensure sustainability of positive impacts?

These questions cover the key issue of TMEA's current and likely impact on regional trade, the links to growth and poverty reduction, and the sustainability of their interventions. Of particular interest will be to understand the *mechanisms* at work, to identify why and how things worked, who benefited and how, and any potential negative impact. There is a specific interest in understanding how TMEA activities to reduce transport time have impacted on poor people, and how the programme has benefited or harmed women and girls. Of particular interest also is the issue of sustainability, and of identifying the essential components of a future exit strategy.

Analysing and understanding the pathways through which the TMEA programme is likely to have affected poor people (positive and negative, intended and unintended impacts) is a crucial question for the evaluation. As noted above however, measuring TMEA's impact on regional poverty as a

[12] HEQ1 and HEQ2 have been revised since the Inception Report. HEQ1 comprises questions about outputs, while HEQ2 and its DEQs will answer questions about outcomes. The latter is to be answered in the Performance Evaluation, while HEQ1 and its DEQs were answered in the Phase 1 deliverables.

[13] Replaces original question 1: Has the programme been effective in delivering its outputs and outcomes? How has this been affected by the programme's organisational performance and how could this be improved?

[14] Replaces original question 2: Have the port and OSBP projects been effective in delivering their outputs and achieving their trade outcome objectives?

whole programme is not expected to be possible. However, analyses of pathways and measuring localised impact for selected interventions should be feasible. On the other hand, impact on trade is expected to be quantifiable with reasonable attribution, and the evaluation should also verify the programme's claims to impact on trade.

Question 5. How robust and verified are the causal links and assumptions in the Theory of Change (TOC)? What does this imply for the relevance, coherence and sustainability of the programmes, and what are the lessons that are relevant beyond TMEA?

As a premise for the evaluation, the full TOC will need to be re-examined. This question will require an analysis of constraints to trade/growth/poverty reduction, an assessment of the robustness of the assumptions underpinning the TOC, and an assessment of whether the logframes, targets and milestones are appropriate and realistic.

This will need to consider carefully the political economy around the programme and trade in the region, economic contextual changes, policy changes, and TMEA's relationship with related initiatives (both government and private sector). It will also need to consider the relevance of the instruments and mechanisms used.

All sections above should contribute to understanding what lessons have been learnt that are relevant beyond TMEA. Throughout the evaluation, lessons learnt should be identified that may be relevant beyond TMEA in order to inform future programming as well as contribute evidence towards comparative effectiveness of regional programming. This question is separated out to emphasize the importance of generating learning that is transferable to other programmes (by TMEA donors and others) and which contributes to the global evidence basis, and of capturing this in a way which promotes uptake.

34. OECD-DAC evaluation criteria map onto the questions structure presented in the Annex to a large extent, but are not of equal interest and the evaluation will focus on ***effectiveness, efficiency*** and ***impact*** criteria.

35. Sub-questions of particularly high importance to the primary recipients (i.e. Council and NOCs) are marked with an asterisk. Not all questions will apply in equal depth at all evaluation stages. Some questions are for consideration early with more of a formative angle, others only at the end but the evidence needs gathering from the outset. Note also that the sub-questions in the Annex may contribute to more than one objective.

36. The Evaluator will need to ensure the questions asked meet the 4 objectives.

F. Scope

37. The independent evaluation commissioned through these TORS consists of one single evaluation. This will include a Theory Based approach located within the TMEA TOC and which includes the pathways to trade and growth and to poverty reduction for the whole portfolio, as well as similar documentation (sub-theories) for individual projects (projects of particular importance would be large investments, those of a catalytic nature, and those targeted to provide livelihood gains to particular groups e.g. small holder farmers and traders).

38. Nonetheless, it is expected that to meet its objectives the evaluation will need to be carefully structured, and comprise various components. As an indication, the evaluation is expected to require the following components to address the objectives and key questions:

- *A study of impact on poverty*, examining the pathways to poverty across the programme, who is benefiting and who is losing out, and providing a sense of the likely scale of benefits or losses where feasible for example in selected localised areas/interventions.

- *A study of impact on trade*, establishing how trade changed as a result of the TMEA programme, how an increase in trade resulted (if confirmed by the evaluation) or why it did not, key enabling factors and constraints - contextual and programmatic.

- *An institutional assessment of TMEA as an organisation* covering organisational capacity, organisational effectiveness and delivery performance, factors in the wider enabling environment, and partnership analysis across the different partners.

- *A Value for Money (VfM) study* to assess the value delivered from the investment made in TMEA for Strategy 1 and provide recommendations for further enhancing VfM and VfM reporting in Strategy 2.

- *A formal evidence synthesis* approach covering the work of the Evaluator, the monitoring, internal evaluations and learning conducted by TMEA, and evidence from other research activities around trade and poverty reduction in East Africa.

39. The following interventions are of particular interest: Mombasa port, Dar es Salaam port, and the One Stop Border Posts (OSBPs). In particular, the evaluation should look at pathways to poverty on the Mombasa port and at least 3 of the OSBPs, and set out baselines and design for looking at impact of work on the Dar port in due time.

40. The evaluation will need to balance breadth (e.g. to deliver a programme, portfolio level evaluation) and depth (e.g. to understand pathways to poverty impact).

41. Given the project timelines it is expected that the first reports will encompass a substantial formative element.

42. TMEA comprises a number of infrastructure projects. As per key questions, this evaluation examines the effect of the projects, and would exclude engineering inspection type of activities.

43. The broad scope of the contract remains the same. The evaluation will answer five high-level evaluation questions, which remain as per the Inception Report except for an adjustment to move assessment of programme outcomes under Phase 2 (Q2) instead of Phase 1 (Q1). This adjustment provides a clearer distinction between the coverage of the evaluation to date (Q1) and the remaining evaluation work (Q2-5); jointly, the two phases will address the full original scope of the evaluation.

Roles and responsibilities of the independent Evaluator vs TMEA

44. During inception the Evaluator will need to work with TMEA to determine respective responsibilities monitoring and evaluation activities, particularly for collecting data, for agreement with the Board and Council. The evaluator should be clear about how they will manage the interface with the TMEA organisation and its work and how they will refine this during inception.

45. Broadly speaking, TMEA is responsible for monitoring against the results framework (including outcome level and impact on trade), for project monitoring, and for internal evaluations as indicated in the Joint Evaluation Plan (JEP). The Evaluator is responsible for quality assuring monitoring data, for quality assuring and triangulating any evidence they use, providing recommendations and guidance to strengthen data quality, and identify and carry out new data collection required specifically for the purposes of the independent evaluation.

On monitoring data:

46. Data for monitoring the results framework is the responsibility of TMEA, including both underlying and aggregate data. The Evaluator is expected to review periodically the monitoring

data gathered by TMEA (result framework data and other data to be used in the evaluation) and to make prompt recommendations to improve the quality of these data and ensure their suitability for evaluation, and where appropriate to propose complementary data collection measures.

47. The Evaluator will be responsible for the identification and provision of any new primary data needed for the purposes of the independent evaluation – whether as an area not covered by the existing M&E or for triangulation purposes. The Evaluator will need to determine which arrangements would be most cost-effective overall and least burdensome on beneficiaries or programme implementers. If additional data needs to be added to existing TMEA monitoring processes for the purposes of the evaluation, the Evaluator will provide support on methodological development for indicators and data collection.

On evaluations:

48. A Joint Evaluation Plan (JEP) has been agreed by the PIC. Proposed evaluation work has been divided between "internal" (TMEA's internal evaluation programme, based on learning priorities) and "external" (this independent evaluation).

49. Aside from the overall independent evaluation, the JEP identifies selected key projects under each of TMEA's three strategic objective (SO) pillars. This independent evaluation will encompass the overall impact evaluation, summative evaluation reports of all three pillars, Mombasa port, Dar es Salaam port, and OSBPs. TMEA will manage internal formative evaluations of selected projects under SO2 and SO3, plus two ex-ante evaluations and summative evaluations needed urgently.

50. For effective learning and consistency of approach, the independent Evaluator and TMEA will need to discuss the internal formative evaluations, to ensure that pertinent issues relevant to the independent evaluation are taken into account such as agreement on indicators, issues to be covered, or exploring relevant challenges.

Links to other programme evaluations

51. The Evaluator will need to consider other evaluations underway in the region, by the TMEA donors or by others, for any substantial overlap or synergies or lesson learning. In particular, the evaluation should consider risks and opportunities faced by the TMEA programme, by learning from evaluative exercises of other trade or integration programmes, such as any IMF or WB regional programme in Africa, DFID's TMSA, DFID's AgDevCo, or others. The Evaluator will also be expected to engage constructively with those undertaking other evaluations commissioned by TMEA and its donors, for example by sharing relevant information on their planned approach, logistics and findings where appropriate to avoid duplication.

52. There is also a higher-level evidence question related to the comparative effectiveness of regional programming, which DFID in particular aims to investigate across DFID-funded wealth creation programmes in East Africa. The TMEA evaluation will contribute to this thematic evidence basis (see evaluation questions in Annex 1). This will require flexibility to use a common framework appropriate for future synthesis, while preserving the integrity of the TMEA programme evaluation.

Extensions

53. Provision was included in the original TORs and OJEU notice to extend the evaluation contract for up to 30 months. With the no-cost extension approved by DFID in November 2018, the contract will be extended for nine months to December 2019.

G. Methodology

Evaluation approach and methods

54. The evaluator should provide a clear description of the design and methodology they will use to answer the key questions, including recognised evaluation methods to be used, proposed counterfactuals if/where appropriate, proposed data collection methods, analytical methods, and approach to synthesis. Ideally this would be supported by an illustrative evaluation matrix.

55. This is a complex programme, with multiple countries, multiple multi-layered projects with different stakeholders and beneficiaries. It is critical for bids to explain how the complexity of the programme and of the evaluation will be managed.

56. In particular, careful attention will need to be given to how the evaluation is approached and designed as a coherent whole, anchored on the overarching TOC. It is expected that a range of quantitative and qualitative methods might be necessary. Bids should take care to articulate clearly how the overall design and specific methods and tools fit together. Bids should explain how a potentially large range of elements will fit together to answer the overarching questions, how the synthesis will manage disparate data sources with variable quality and availability, and where and/or how information might be aggregated.

57. The evaluator should pay particular attention to demonstrating how rigour and credibility will be upheld at all stages throughout the evaluation.

58. In 2012 TMEA commissioned Upper Quartile to undertake a review of options for evaluating the Impact and Value for Money of its activities, to help TMEA decide on options on structuring and implementing its evaluation activity. This identified a selection of projects, which is different from the more recent selection in the JEP. Bidders should note that the context has evolved and the scale of TMEA has increased since the 2012 paper, and that the approach to the independent evaluation is expected to present major differences.

59. Secondary data, including TMEA's own monitoring and evaluation data, should be quality assured. More generally, triangulation of data and/or findings is essential.

60. The evaluator should set out clearly the extent to which the proposed approach will answer the questions, and limitations.

61. The evaluator is strongly encouraged to be as specific as possible in their proposals, including in terms of coverage of any method to be used, the quality level that would be achieved, number of projects covered, sample sizes, etc.

Principles and standards

62. As per DFID evaluation policy, the evaluation should adhere to international best practice standards in evaluation, including the OECD DAC International Quality Standards for Development Evaluation, the OECD DAC principles Standards for Development Evaluation, and DFID's Ethics Principles for Research and Evaluation. Bids should demonstrate how they will achieve this.

63. In line with Paris Declaration principles, the Evaluator - and TMEA M&E approaches - should take account of national M&E systems, draw on existing data where available, ensure new data collection is complementary to existing systems and that new data are made available to national stakeholders as far as possible.

64. Care should be taken to avoid duplication with TMEA's own monitoring and evaluation work, while also ensuring the independence and impartiality of the overall independent evaluation.

65. Given the importance both of the relationship with TMEA, and of the need for independence, bids should take particular care to explain how they propose to manage relationships, and propose suitable management approaches to ensure the success of the evaluation.

66. Disaggregation of data, including by sex, geographical location and income status will be important throughout the evaluation.

67. The Evaluator will need to comply with DFID's policies on fraud and anti-corruption and cooperate with any checks required from them for the duration of the evaluation e.g. annual audited statements, policies on management of funds, etc.

Lesson learning and adaptive management

To meet the evaluation's purpose of identifying and feeding lessons learnt into the programme, it is critical that the Evaluator works with stakeholders to cycle ongoing evaluation results back into the evolution of the programme, through regular feedback and reflective activities. This should include building linkages with the programme management A key lesson learned from management of the contract so far has been the importance in particular of strong ongoing dialogue and engagement with TMEA. A strong focus will need to be maintained on this by the evaluator to deliver a high quality evaluation.

68. In particular, to facilitate this, specific points for reflection and decision-making may be identified in addition to programme annual reviews. An element of flexibility from the Evaluator will be essential to maximise evaluation utility and use of the evaluation findings.

69. The evaluator should demonstrate a good understanding and experience of maximising evaluation utility, and outline a convincing approach.

Stakeholders

70. More generally, the evaluator should demonstrate robust thinking as to how stakeholders would be engaged throughout the evaluation.

H. Existing information sources

71. Data are expected to become available in line with TMEA's Monitoring, Evaluation and Leaning (MEL) strategy.

Results frameworks

72. The TMEA results framework indicates key data collected for monitoring purposes. The mapping of the theory of change in the first section of the Results Framework allows the overall programme logic to be scrutinised. The Results Framework contains (or could contain) all necessary information to track all relevant programme results. The TMEA Knowledge and Results team has been working with project teams to set up project level results chains and monitoring plans. The Evaluator will need to assess the sufficiency and quality of the results framework data.

73. TMEA prioritises monitoring efforts according to the importance of different projects (following an A/B/C classification where for A projects the target is to ensure that monitoring is in line the DCED guidelines and C only attempts to monitor at output level), and also within projects.

Baseline data at outcome level

74. Primary data collection on baseline data on outcomes at project level undertaken by TMEA includes: time and traffic surveys for one stop border posts (OSBPs), on cost and time savings for

Single Window Information for Trade (SWIFT) programmes, and baselines for ports. The remainder of this section describes expectations for baseline data as understood at the start of the contract.

75. OSBP time and traffic surveys have been undertaken to establish both queuing time and time taken to clear customs at the border post, as well as the number of vehicles passing through the border post. Baseline surveys were undertaken before the start of the construction of each border post, and end-line surveys are planned to be undertaken on a consistent basis three months after completion of construction at each border and six months after the initial survey is undertaken. Surveys are undertaken for a period of seven days, including day and night time traffic, and provide an estimate of average time for (a) customs processing and (b) queuing for trucks (either specific types of trucks, or all trucks, on a consistent basis for each border). A timetable is available on request.

76. Cost and time savings surveys are planned for all SWIFTs. Intermediate outcome indicators include average processing time for applications, transactions volume rates (per day), average processing costs, and average compliance costs incurred by traders to submit applications. Output level indicators include the number of trade agencies integrated within the SWIFT system and/or other agencies as well as percentages of training and communications plans implemented. Data collection will vary dependent on when the system goes live. Baseline data was set to be collected by the end of October 2014. Time data will then be collected on a quarterly basis while cost data will be collected bi-annually. A timetable is available on request TMEA has recently commissioned a formative evaluation of SWIFTs

77. Both ports annually (June/July) publish usage and performance statistics that include most or all of TMEA's top-line indicators. Currently Kenya Airports Authority (KPA) publishes an "Annual Review and Bulletin of Statistics" which includes ship turnaround time, ship waiting time, and berth occupancy, all of which are in TMEA's monitoring plan. The port monitoring plans also include many smaller-scope operational indicators. TMEA has launched a consultancy at Mombasa port that will (among other things) determine which of these detailed indicators is most important to understanding the overall performance of the port, and assessing the port's capacity to collect this data. Based on the outcome of this work (first phase was due in 2015) TMEA was to consider any revisions of its monitoring plans.

TMEA Management Information System (TMIS)

78. TMEA's on-line Management Information System captures data on financial management, and results performance, while the contracts management system has the detailed information on procurement. TMIS is a programme management tool that requires TMEA project managers to input and update project work plans and monitoring plans. Other functionality includes: summary project descriptions, with key contact details of partners; contact reports e.g. recording discussions; attaching key documentation; developing and maintaining project risk matrices; quarterly reporting; list of upcoming planned outputs and outcomes to assist the communications team plan communication activities. TMIS assists TMEA to analyse progress against plans across the portfolio of projects and disaggregate according to such categories as strategic outcomes, type of partners and location. TMIS also includes a results page with all the outcomes and outputs that are to set be achieved within different calendar days, and an outcomes page which lists all the outcomes and how they contribute to the TMEA Theory of Change.

79. TMIS Project data is to a great extent already available in TMIS. By end Dec-14, 90% of all information including monitoring plans and risk plans for all projects was due to be available on the MIS, populated with targets/milestones, baselines and actual progress data. By June 2015, all projects were due to have their monitoring plans completed. The Annexes provide an illustrative snapshot of a project monitoring plan as per TMIS. The Evaluator will need to assess the sufficiency and quality of the TMIS data to be used for evaluation purposes.

80. Monitoring procedures are defined in the manual 'TMEA Monitoring, Evaluation and Learning Procedures: how to measure what you are doing, and whether it is working'.

Progress reports

81. Quarterly progress reports for projects and responsibility centres have been produced through the MIS, as well as annual project performance reports. While quarterly reports include expenditure versus budget and actual progress against planned progress traffic lights, annual project performance reports require implementers to reflect on changes in assumptions, articulate lessons and outline how future implementation may change as a result. The PIC agreed that TMEA will present progress reports every six months from July 2014.

Results meter

82. TMEA has developed a results-meter which aggregates project performance results for key projects to estimate programme results. This is available on request.

Research on poverty impact

83. TMEA has commissioned a research paper which explores and maps out direct and indirect linkages between TMEA activities and poverty, together with an analytical framework linking the programme TOC to poverty. The evaluation team will be able to obtain this from TMEA.

84. TMEA's toolkit on mainstreaming poverty outlines how poverty issues will be explored throughout projects and baseline studies. This has fed into several studies, including women cross-border traders, SWIFT, standards and non-tariff barriers. In the first instance the tool kit was to be applied to priority projects in 6 key areas: OSBPs, ports, railways, standards, customs modernization and ICTs, private sector and civil society / advocacy.

I. Deliverables and timeframe

85. The original contract was expected to run from August 2015 and end in March 2019, with the possibility of a 30 month extension depending on supplier performance, on-going programme needs and availability of funds. Following DFID approval of a no cost extension in November 2018, the updated contract will end in December 2019.

86. The contract extension will enable the deliverables to be completed to the required level of quality following a review of the details of the design for Phase 2 of the evaluation to ensure it meets needs and offers value for money. This includes appropriate sequencing of the remaining work to allow for effective synthesis work to explore and reflect findings from the other studies and additional primary data collection to enrich the evaluation.

Critical moments

87. At the time the original ToRs were drafted, it was anticipated that evaluation findings may feed in the following:
- Annual Reviews: yearly by mid-Nov.
- DFID Design of any phase 2 programming: early 2017.

The Project Completion Report for the regional funding of TMEA Strategy 1 is now scheduled for completion in February 2019. TMEA Strategy 2 began in July 2017. Annual Reviews for TMEA Strategy 2 are now completed by January of each year.

Overview of deliverables

88. The evaluator will need to provide the following key outputs, outlined here under and further detailed thereafter:

- At Annex 3 is the Performance Management Report, which DFID will use to help evaluate each deliverable received.

(a) Inception, design and evaluation reports

- Initial Inception Plan
- Inception Report to include QA of existing data and baseline

- Impact Evaluation Report 1 (interim synthesis report): draft by 19th January 2018, approved report 6 weeks later. This has been replaced by a Preliminary Summary of Evaluation Findings.

- Interim reports drafts by (approved reports 6 weeks later), :
  - Communication and stakeholders engagement plan, updated regularly. (1 May 2017)
  - Deliverable 5A: Preliminary poverty assessment (30th September 2017)
  - Deliverable 2A: Preliminary output assessment (15th December 2017)
  - Deliverable 3A Consolidated formative evaluation of the priority SO1 interventions (Mombasa port, Dar port and three OSBPs) (19th December 2017)[15]
  - Deliverables 2C, 2D, 2E: Effectiveness and Outcome assessments of SO1, SO2 and SO3 (19th December 2017). [16]This will incorporate the assessment TMEA M&E systems and of the quality of the data[1718].
  - Deliverable 2B: Institutional assessment of TMEA (8th December 2017)
  - Deliverable 6A: Preliminary relevance and sustainability study (trade policy, PEA, pathway mapping) (12th January 2018)
  - Deliverable 2F: Synthesis of effectiveness and outcome of overall TMEA programme (19th January 2018))[19]

The following deliverables have been 're-packaged' for Phase 2 as follows:

- **Performance Evaluation: Draft report due May 2019**.
  - Deliverables 3B, 3C, 3D: Summative evaluations of Mombasa port, Dar es Salaam port and the OSBPs
  - Impact Evaluation Report 2 (final synthesis report)
  - Final relevance and sustainability study

- **Trade, Poverty and Gender Impact Study: Draft report by July 2019**
  - Deliverables 4A, 5B: Design report for impact studies WS4 and WS5
  - Poverty impact study
  - Trade impact study

- **VfM Assessment: Draft report by September 2019**
  - VfM study

[15] Deliverable 3A has since been merged with 2C Effectiveness and Outcome-level evaluation (Infrastructure investment).
[16] 2C was merged with 3A as mentioned above and 2D merged with 2E.

[18] The M&E system review and the Data Quality Assessment were due in the inception phase but completion to DFID reporting standards has been deferred to the implementation phase.
[19] 2F was merged with 6B the Interim Synthesis report.

(b) Support to TMEA on specific M&E issues

- Fully developed indicators methodology manual or guidance notes for data that are needed to undertake the independent evaluation but are not yet collected through TMEA's own monitoring and evaluation systems.
- Quality Assurance of TMEA data as required for evaluation purposes, and implementable guidance on any improvements required.

(c) Communication products

These will need to be defined in the communications plans and would include at a minimum, for each Impact Evaluation Report:

- A workshop for the key stakeholders, including the Joint Evaluation Group, explaining the recommendations and agreeing how they can be implemented.
- A 'key findings' communication product presenting evidence relevant to development actors beyond the TMEA programme.
- Separate reports on selected interventions or issues (notably Dar, Mombasa, OSBPs)

(d) Instruments and data

- An electronic copy of all the instruments used, including research protocols, questionnaires, guidance notes, etc.
- Database(s) with all the qualitative and quantitative data in a commonly used format, together with clear metadata, and which is anonymised and safeguards confidentiality. Copies should be provided at least yearly.

  Instruments and data should be shared with DFID by December 2018 for work on deliverables included in Phase 1, and by October 2019 for for Phase 2 deliverables.

(e) Management reports

- Brief quarterly reports on the ongoing evaluation process including any support provided to TMEA. Submission of these reports should be aligned to the quarterly Evaluation committee meetings, so that a summary presented at the meetings. These will then be shared at subsequent Board and Council meetings.

Specific requirements

89. The **Inception Plan** serves as an intermediate product no longer than 20 pages and should include:
    a. an initial review, validation and adjustment of the Theory of Change;
    b. an initial stakeholders engagement approach;
    c. revised evaluation questions;
    d. discussion of design issues and approach to completion of the inception phase, particularly to assessing data quality and developing the full evaluation framework:
        i. Including a recommendation whether a single design will be presented that provides confidence all key questions and issues will be addressed, or whether two options will be proposed for consideration.

90. **The Inception Report** should be no longer than 30 pages excluding annexes and include:
    a. a review, validation and/or adjustment of the Theory of Change (including links to growth and poverty reduction);
        i. If revisions to the TOC were necessary, his should clearly present a revised TOC, and indicate the changes (which should have largely been agreed with the implementer before submission of the report, with any area of contention clearly marked, and which will need to be endorsed by the JEG and the Board on the basis of the report)
        ii. clearly mark for each linkage and each assumption, whether it is already strongly evidenced (with supporting references), whether it will be investigated through the independent evaluation (cross-referencing to the relevant questions),

whether evidence is likely to arise from other sources, or whether it will remain unsupported by evidence.

b. a stakeholders engagement approach, supported by a stakeholders mapping;
   i. a communication and dissemination plan;
   ii. this should list stakeholders, their specific interest in the evaluation, proposed means and timing of communication (which should be considered both ways)

c. an agreed set of finalised questions and evaluation framework - based on evidence gaps in the Theory of Change, stock-take on the programme to date and requirements of stakeholders of the evaluation;
   i. the inception report should list people consulted and in what form, as well as their affiliation

d. the refined evaluation design or design options, a detailed explanation of evaluation methods to be used, exploration and justification of methodological issues, project selection, proposed counterfactuals where appropriate, and proposed data collection methods;
   i. any selection process should be fully transparent, with a list of criteria and a mapping of how all the units (selected and non-selected) against these criteria
   ii. in the case of more than one option, related scope of findings, costs and risks (points 11, 13, 14)
   iii. a framework for synthesis should be provided and particular care taken to demonstrate how the information will be brought together
   iv. an articulation of other designs that have been considered but rejected, and why
   v. a discussion of potential ethical issues arising and how they will be addressed

e. an evaluation matrix, which maps the proposed evaluation design, methods and analytical plan against the evaluation questions;
   i. the evaluation matrix should provide clearly the following details (which could be thought of as column headings):
      1. Evaluation stage or report
      2. Evaluation question to be answered
      3. Methodology
      4. Indicators or analytical plan
      5. Data required to answer the question using the proposed method
      6. Data source, including quality (robustness) assessment
      7. Type of data source: including whether to be collected by the Evaluator, available from TMEA monitoring systems, TMEA internal evaluations, or available from other sources (which should be specified)
      8. Report to be included
      9. When it will be received

f. identification of programme monitoring data required from the PMU to meet evaluation needs and timings for this, particularly baseline data;
   i. identification should be down at indicator level and indicative coverage
   ii. including a timeline for the preparation of guidance and any other support

g. full quality assurance of all data to be used from TMEA's own monitoring and evaluation;
   i. appropriateness of the overall TMEA monitoring and evaluation system for the purposes of the independent evaluation;
   ii. for each full dataset or indicator, a definitive statement of the quality of the data, of what the data can be used for and what they cannot be used for;
   iii. the conclusion should be fully supported by evidence in the quality assurance review against the DQAF or other recognised quality assurance framework as agreed with DFID (including in depth assessment of specific components and of at least 15 projects; ground truthing project level data; and triangulation and/or replication of estimates);

h. proposal on collection of new primary data – including new baseline data and triangulation data;

   i. proposals should clearly delineate the scope of the data collection, including in particular but not exclusively the proposed coverage (e.g. sectoral, geographical, demographic if relevant, frequency), and sample size

i. an agreed division of labour between TMEA and the Evaluator, specific and detailed, down to activity level;
   i. for each M&E activity, the description of the division of labour needs to detail the responsibilities of TMEA, of the evaluator, and of any other party such as the EC.

j. a description of the scope of findings to be available in the reports, particularly the first report, and a clear delineation of the depth of information to be provided in each of the impact evaluation reports;
   i. an overarching table or narrative which provides, against each purpose and key question, a clear sense of the type of answers which the evaluation will provided at specific reporting times.
   ii. Ideally this would be accompanied (in inception discussion or in report annexes) by made-up conclusions to ensure key users have a clear understanding of what the evaluation will and will not provide.
   iii. in particular but not exclusively: whether the findings would provide a tentative, plausible or definite answer to each of the relevant questions, the level of disaggregation;
   iv. a detailed specification of the contents of each report.

k. a detailed workplan;
   i. including an output specification for all deliverables including evaluation reports
   ii. detailing the activities that will take place under each output, the inputs for each activity and budget by month.

l. a final costing for the implementation phase;
   i. This should provide estimated costs broken down at activity level, for example in particular:
      1. for a specific new data collection, to provide breakdown by data collection exercise (e.g. baseline/mid-term/end-term) by country, cost of sub-contractor (enumeration, data entry, analysis), cost of supervision, of translation, etc.
      2. of Quality Assuring TMEA data, and of providing guidance
      3. of each field visit by international staff

m. a review of challenges and risks, mitigating actions and fall-back options.
   i. A comprehensive risk matrix assessing the likelihood and impact of each risk.
   ii. Covering all areas of risk to the programme, including but not limited to: stakeholder, political economy, data quality, complexity, attribution, synthesis, security etc.
   iii. Thoughtful mitigation and a residual risk rating applied.

n. Initial baseline assessment:
   i. description of the methodology;
   ii. baseline for all indicators using secondary data (TMEA monitoring data and other data);
   iii. highlighting where the gaps are;
   iv. methodologies, instruments and protocols for data collection;
   v. summary of the analysis, focusing on what is considered to be of direct relevance to adjust the programme or to decisions on future funding, including in particular results to date, impact to date and expected impact, efficiency and effectiveness (details can be annexed);
   vi. confirmation of the extent for all primary data collection (including the freight forwarding survey) and when this baseline data will be presented.
   vii. evaluation findings to date.

91. Completion of some of these requirements has been deferred to the implementation phase, and absorbed in other deliverables or contract amendments deliverables specification, notably sections a, b, d ,g ,h, j, k, l, n.

92. For the deliverables to be covered by Phase 2 of the evaluation, the Design and Work Plan for Phase 2 at Annex 2 and updated proforma, in the Schedule of Prices in Section 5 of this contract amendment, provide an updated agreed basis for j, k, l in particular. These take precedence over the equivalent details originally captured in the Inception Report for the deliverables now included in the Performance Evaluation, Trade, Poverty and Gender Impact Study and Value for Money Assessment.

93. The Final Evaluation Reports should be no longer than 60 pages for the overall evaluation and 40 pages for pillar or project evaluation, excluding annexes and include: an executive summary (self-contained and with diagrams as needed so that it can also serve as a user-friendly standalone document), summary of the methodology, a full analysis of findings and recommendations tailored to the evaluation questions, and a set of actionable recommendations.

94. All reports should communicate overall approach findings in an accessible way for non-technical readers, including presentation of data in visually appealing ways, highly structured and rigorous summaries of findings and robust and accessible syntheses of key lessons. It is acceptable for the technical details to be held within the main part of the reports. Recommendations should be timely, realistic, prioritised, evidenced-based, targeted, accessible and clear, in accordance with OECD-DAC and UN guidelines.

95. Annexes should include: terms of reference, list of people consulted and interviewed at different stages of the evaluation, list of documents reviewed, any analyses, methodology, data and supporting evidence that is considered to be too detailed for the core section.

96. Draft reports will be subject to an external quality review, managed in accordance with standard DFID procedures for Quality Assurance. The evaluator should note this is subject to a 2-week turnaround once submitted by DFID for review. The evaluator should ensure they assess the draft report against the EQUALS checklist prior to submission.

97. Both parties (DFID and OPM) must be in agreement of the final specification of all deliverables prior to the deliverable due date. In addition to the above specifications, the remaining reports will be delivered in line with the Phase 2 Design & Work Plan (version of 13 November 2018 agreed by DFID on 22 November 2018) at Annex 2, the proforma in the Schedule of Prices in Section 5 of this contract amendment and taking into account the criteria set out at Annex A of the illustrative assessment considerations in the Contract Performance Management Report at Annex 3 (Annex 2 in Amendment 1, 2018).

Break clauses

98. In line with the unknowns associated with development programming, break clauses will be put in place related to continuation and scope of the programme as well as satisfactory delivery and value for money of future workplans.

99. The break clauses in the original contract were at the end of the inception phase, after deliverable 6B due in August 2017, and after 3B, C and D[20] (summative evaluations) which were due in October 2018.

[20] A correction has been made to the January 2018 ToRs which erroneously referred to 3C, D and E. The summative evaluations are 3B, C and D.

100. Under the revised contract, deliverables 3B, C and D have now been incorporated into the Performance Evaluation deliverable due in May 2019. The remaining break clause in the revised contract is therefore after the Performance Evaluation deliverable in May 2019.

101. DFID reserves the right to not proceed with the impact studies if the design identifies the studies would not be of benefit to the programme.

J. Challenges and Risks

102. Bids should clearly identify challenges, risks, and propose mitigating actions.

103. Key risks and challenges are likely to relate to:

- Complexity of the programme, including conceptual complexity, scale of the programme across multiple countries and multi-layered projects, complex strategic context;
- Reconciling the need for programme-level conclusion with the fact that causal relationships are typically more easily 'proved' at the lower level of the causal chain;
- Managing trade-offs between breadth and causal identification in order to secure both feasibility and credibility/rigour/usefulness of the evaluation;
- Examining impact – pathways to poverty reduction and the difficulties in attributing impact to TMEA;
- Uncertainty about the availability and quality of monitoring data;
- The programme and some projects having already started, without collecting all the baseline data that would ideally be used for evaluation;
- The full impact of certain programme components is likely to occur after the current programme end date and even after the current evaluation reporting dates;
- Differences in the interests of stakeholders;
- Changing political economy.
- Fiduciary risk including risk of fraud, corruption or diversion of DFID funds.
- Security risks to staff relating to the operating context.
- Safeguarding risks: Insufficient controls in place mean that individuals working with the evaluators or within the lead or consortium evaluator organisations are exposed to inappropriate behaviour or exploited.
- Staff turnover and difficulties relating to mobilisation and retention of key personnel affect effective delivery of the evaluation.
- Data protection risks, including risks around data being improperly used/stored
- Risks around effective communication with stakeholders resulting in insufficient engagement and information sharing which negatively affects the quality of relationships with stakeholders and the quality of the evaluation.

K. Abilities & Expertise to Deliver This Requirement

104. The team will require a broad set of skills to design and manage a complex evaluation of the TMEA programme. For example, private sector development and advocacy assessments will be very different to infrastructure assessments so a diverse range of expertise will be required.

105. Consortia are strongly encouraged as it is expected that this would be necessary to provide the relevant expertise and presence. They may encompass a range of actors including private companies and/or research organisations and/or evaluation institutes, at local or international level.

106. It is also expected that local expertise, knowledge and access will be essential.

107. Bidders will need to complete a conflict of interest declaration. It is expected that organisations or individuals which have had a major involvement with TMEA would be conflicted out for this independent evaluation. However, given the wide scope and size of work to date on the TMEA programme, it is also expected that a large number of organisations well qualified to contribute to this evaluation assignment may have had prior involvement. Therefore minor implementation involvement or impartial engagement in the area of evaluation or monitoring is unlikely to conflict out a bidder. Bidders should state clearly how they will manage any potential conflict of interest. Potential bidders are welcome to seek informal views from DFID early on.

108. Regarding future TMEA activities it is expected that the successful bidder would be conflicted out of future direct implementation activities that could sway the programme during the lifetime of the evaluation. It is unlikely they would be conflicted out of future monitoring or evaluation TMEA contracts, though it will be important to put in place procedures in case of any potential conflict of interest.

109. The Evaluator should combine the following expertise and experience:

Management expertise

Strong understanding and demonstrated experience of:

- designing and undertaking large and complex evaluations, at portfolio level with expertise of rigorous impact evaluations at intervention level; using mixed methods approaches that meet recognised standards for credibility and rigor;
- stakeholder management skills and ability to work flexibly with donors, partner countries, private sector entities; demonstrated ability to manage sensitive relationships tactfully and productively;
- communication skills - being strategic as well as able to communicate complex studies and findings in an accessible way for non-technical people;
- using evaluations as a tool for lesson-learning both during programme implementation and beyond;
- Knowledge management expertise.

Evaluation expertise

Strong understanding and demonstrated experience of:

- the strengths and limitations of different designs and how to interpret and present findings accurately to both researchers and non-researchers;
- various quantitative and qualitative evaluation methodologies for demonstrating impact;
- undertaking VfM analysis of complex multi-level programmes, combining quantitative and qualitative techniques;

Sectoral expertise

Strong understanding and demonstrated experience of:

- trade issues, including political economy particularly in East Africa, and experience of working on evaluations of trade policies and programmes;
- regional integration and political economy issues in the region, particularly those related to trade, familiarity with public/private dialogue and policy advocacy issues in East Africa, and understanding of social inclusion and gender issues in programming in East Africa;
- the possible impact of trade interventions in a range of areas (e.g. revenues, poverty, vulnerability) on different segments of the population, and ability to generate data to analyse programme effects for these (e.g. women vs. men, low income vs. middle income, rural vs. urban, etc.);

L. Logistics and procedures

110. The Evaluator will be responsible for all logistic arrangements required to conduct the evaluation work. TMEA will facilitate convening of meetings and site visits where necessary. All relevant expenses should be covered by the evaluation contract budget.

M. Reporting and contracting arrangements

Contact points

111. The Evaluator will report to DFID Management Group which consists of: Senior Evaluation Adviser, Senior Trade Adviser and the Prosperity Programme Manager in DFID's Africa Regional Department.

Governance

112. An Evaluation Committee (EC) is in place to steer and advise the monitoring and evaluation of the TMEA programme at key strategic points. It provides strategic direction on the independent evaluation, and has a strong coordination and facilitation role across the evaluative exercises and to ensure lessons learnt are taken forward. The EC comprises two representatives of Council members, one TMEA Board member, one senior TMEA staff member, and one representative of members of the wider stakeholder constituency.

113. The EC is an advisory sub-committee of the Council. For the independent evaluation, the Evaluation Manager (i.e. the person responsible for managing the contract for the independent evaluation) receives advice from the EC but formally reports to the Council, in order to preserve a minimum level of independence.

114. Governance and quality assurance is further strengthened by an Independent Peer Reviewer and a Donor Reference Group comprising 5 to 6 relevant DFID or other donor evaluation and growth advisers. The role of the Reference Group and Independent Peer Reviewers is to review the scientific and technical quality of the independent evaluation; to ensure that the design and implementation of the evaluation is robust and credible and that the evaluation is independent and stands up to external scrutiny. The Donor Reference Group will be coordinated by the Evaluation Manager within the donor agency (DFID) responsible for contracting the independent evaluation on behalf of the Council.

115. Further details about the governance structure for the evaluation can be found in the TORs for the governance of the evaluation.

Meetings

116. Meetings between DFID (acting as Evaluation Manager) and the Evaluator will be held monthly during the inception phase and then as required. For the remainder of the revised evaluation contract from December 2018 to December 2019, meetings will be held at least monthly.

117. The frequency and broad timing of meetings between the Evaluator, the Evaluation Manager, the EC, the Council, and Reference Group will be agreed between DFID and the Evaluator during the Inception Phase. As an indication, we expect the DRG and the Council to engage at the key report stages i.e. inception, baseline, some interim findings reports, and each of the final evaluation reports. The EC in its facilitation role might meet more frequently.

Management

118. The costed workplan should be shared with DFID's Deputy Programme Manager by the 25th of every month, confirming actual work undertaken that month and updating forecasts for future periods.

N. Budget

119. The budget for this evaluation is £2,421,697.

120. Bidders are strongly encouraged to compete on the basis of their commercial proposal, demonstrating value for money, as well as technical proposal.

121. Bidders should set out a separate budget for each of the activities outlined above along with an approach and methodology for each. In addition, bidders are requested to be very clear about methodology providing a detailed breakdown of costs for the different significant activities to be undertaken during the evaluation.

122. Bids should provide fully detailed costing for the inception phase, and as detailed as possible for the implementation phase. Parameters used for costing both phases should be very clear, and any assumption used for costing the implementation phase should be verifiable during the inception phase.

123. The original TORs anticipated that some adjustment and refinement to budget allocation for the implementation phase may be required based on the inception work. The TORs stated that the budget allocation across components of evaluation would be flexible to a reasonable extent, but that it would not be possible to increase the total envelope agreed for the contract (other than to extend the scope beyond the current phase, as indicated above).

124. Some refinement to the budget allocation across evaluation components for the implementation phase has been approved through Contract Amendments 1 and 2 based on the inception work and detailed design work for Phase 2. No further substantive changes are expected to the budget allocation across evaluation components for the remainder of the evaluation contract.

125. Key Performance Indicators (KPIs) are included in the Contract Management Plan. Bidders are encouraged to make provisions in their commercial tenders to ensure that their fees are linked and subject to performance.

O. Duty of care

126. The Supplier is responsible for the safety and well-being of their Personnel (as defined in Section 2 of the Contract) and Third Parties affected by their activities under this contract, including appropriate security arrangements. They will also be responsible for the provision of suitable security arrangements for their domestic and business property.

127. DFID will share available information with the Supplier on security status and developments in-country where appropriate. DFID will provide the following: A copy of the DFID visitor notes (and a further copy each time these are updated), which the Supplier may use to brief their Personnel on arrival.

128. The Supplier is responsible for ensuring that appropriate arrangements, processes and procedures are in place for their Personnel, taking into account the environment they will be working in and the level of risk involved in delivery of the Contract (such as working in dangerous, fragile and hostile environments etc.). The Supplier must ensure their Personnel receive the required level of training and complete a UK government approved hostile environment training course (SAFE)[21] or safety in the field training prior to deployment.

129. The Supplier is responsible for ensuring appropriate safety and security briefings for all of their Personnel working under this contract and ensuring that their Personnel register and receive briefing as outlined above. Travel advice is also available on the FCO website and the Supplier must ensure they (and their Personnel) are up to date with the latest position.

130. Tenderers must develop their tender on the basis of being fully responsible for Duty of Care in line with the details provided above and the initial risk assessment matrix prepared by DFID. They must confirm in their tender response that:

a. They fully accept responsibility for Security and Duty of Care.
b. They understand the potential risk and have the knowledge and experience to develop an effective risk plan.
c. They have the capability to manage their Duty of Care responsibilities throughout the life of the contract.

131. If you are unwilling or unable to accept responsibility for Security and Duty of Care as detailed above, your tender will be viewed as non-compliant and excluded from further evaluation.

132. Acceptance of responsibility must be supported with evidence of Duty of Care capability and DFID reserves the right to clarify any aspect of this evidence. In providing evidence, interested Suppliers should respond in line with the Duty of Care section in the ITT Volume 2.

P. General Data Protection Regulations (GDPR)

133. Please refer to the details of the GDPR relationship status and personal data (where applicable) for this project as detailed in Appendix A and the standard clause 33 in section 2 of the contract.

Q. References

Indicative sub-questions for Key Questions in Section E
Duty of Care risk assessment

Programme information
TMEA strategy 2013-2016
Propositions underpinning TMEA's strategy, May 2014 [TMEA Theory of Change & explanatory note]
TMEA constitution
TMEA Business Plan 2014/15

Programme monitoring and evaluation information
JEG TORS * Paragraphs 113 and 114 above reflect the updated position on JEG (now EC) membership and Reference Group (previously Peer Reviewers)
MEL approach paper

[21] UK Government approved hostile environment training course is known as SAFE (Security Awareness in Fragile Environments). The course should be booked through DFID and factored into the commercial tender.

TMEA Joint Evaluation Plan
TMEA Results Framework
Annual Review 2013
TMEA quarter 1 2014-2015 (Jul-Sep) progress report
2012 Upper Quartile report
Project list
TMEA Evaluation Inception Report
TMEA Evaluation Phase 2 Design & Workplan (13 Nov 2018)
TMEA Evaluation Schedule of Prices Contract Proforma Variances (10 Dec 2018)

TMEA Poverty research
Briefing paper; TMEA's approach to mainstreaming the poverty issue
Research concept paper

Evaluation policies
DFID Evaluation Policy (on web)
DFID Ethics principles for evaluation and research (on web)

Further supportive documents for information
DFID Business cases (on web)
DFID Elliot Stern paper (on web)
TMEA Business Plan 2013/14
TMEA quarterly progress reports
OSBP survey timetable
SWIFT surveys timetable
TMIS Overview note
Snapshot of a project monitoring plan as per TMIS
Dar Project Appraisal report
Dar MIS quarterly report
Dar monitoring plan
Mombasa Project Appraisal report
Mombasa MIS quarterly report
Mombasa monitoring plan
OSBPs – sample Project Appraisal report (Kagitumba/Mirama)
OSBPs MIS quarterly report
OSBPs monitoring plan

Department for International Development

UKaid from the British people

ANNEX 1 – Detailed Evaluation Questions (DEQ) for High level Evaluation Questions (HEQ) in Section E

The High-level and Detailed Evaluation Questions (HEQs and DEQs, respectively) contained in the tables below have been slightly updated to reflect the changes in implementation, terminology and priority areas for study since the Inception Report was approved. Where DEQs were answered in previous deliverables, this is noted with the deliverable in bold in the right column.

HEQ1[22] and its DEQs	Status and corresponding deliverable(s)
HEQ1: Has the programme been effective in delivering its <u>outputs</u>? How has this been affected by the programme's organisational performance and how could this be improved?	
DEQ1.1 To what extent are TMEA programmes' <u>outputs</u> generally consistent with the programme TOC?	**Answered:** • ***2A Preliminary Output Assessment*** mapped all projects across all three SOs against the TMEA TOC. • ***2C/3A Interim evaluation of SO1*** answers the question for SO1 • ***2D/2E Interim evaluation of SO2 and SO3*** answers this question for SO2 and SO3 outputs, based on a sample of 40 projects, with project-specific detail in Annex 5
DEQ1.2 Were project <u>outputs</u> achieved in accordance with plans/expectations and within budget? For ongoing projects, what is the likelihood of achieving the project output targets within the programme time-span?	**Answered:** • ***2C/3A Interim evaluation of SO1*** answers the question for SO1 • ***2D/2E Interim evaluation of SO2 and SO3*** answers this questions for SO2 and SO3 outputs, based on a sample of 40 projects, with project-specific detail in Annex 5
DEQ1.3 What constraints were/are encountered in achieving the project <u>outputs</u>? What are the reasons for non-achievement of the outputs?	**Answered:** • ***As above***
DEQ1.4 Who were/are the main beneficiaries of the outputs? Are there organisations or groups of people who are negatively affected by the outputs?	**Answered for SO1:** • ***2C/3A Interim evaluation of SO1*** **Partially answered for SO2 and SO3:** • ***2D/2E Interim evaluation of SO2 and SO3*** • To be completed in the ***Performance Evaluation***
DEQ1.5 To what extent have supported organisations (i.e. government agencies and the	**Answered:** • ***2C/3A Interim evaluation of SO1***

[22] HEQ1 and HEQ2 have been revised since the Inception Report. HEQ1 comprises questions about outputs, while HEQ2 and its DEQs will answer questions about outcomes. The latter is to be answered in the Performance Evaluation, while HEQ1 and its DEQs were answered in the Phase 1 deliverables.

implementing partners) built capacity and capability on relevant trade-related matters?[23]	• ***2D/2E Interim evaluation of SO2 and SO3***
DEQ1.7 To what extent does TMEA have the management arrangements, systems, processes and human resources appropriate for carrying out its mission (i.e. how suitable are these for the purposes of carrying out its activities)?	**STATUS PENDING:** • ***2B Institution and Organisation Assessment*** explicitly addresses this question, *but some queries have been raised by EQUALS review which are still being addressed* • There is also detailed information on management, systems and processes in ***2D/2E Interim evaluation of SO2 and SO3*** for 40 projects, with project-specific detail in Annex 5
DEQ1.8 To what extent do TMEA's financial (including procurement), human resource and risk management processes enable it to efficiently and effectively manage its contractual relationships with implementing partners?	**STATUS PENDING:** • ***2B Institution and Organisation Assessment*** explicitly addresses this question, *but some queries have been raised by EQUALS review which are still being addressed* • There is also detailed information on financial and risk management processes in ***2D/2E Interim evaluation of SO2 and SO3*** for 40 projects, with project-specific detail in Annex 5 • There is also detailed information on financial and risk management process in SO1 in ***2C/3A Interim evaluation of SO1***
DEQ1.9 To what extent do the processes TMEA has in place promote organisational learning and sharing of good practices?	**STATUS PENDING:** • ***2B Institution and Organisation Assessment*** explicitly addresses this question, *but some queries have been raised by EQUALS review which are still being addressed* • There is also detailed information on organisational learning and good practice sharing in ***2D/2E Interim evaluation of SO2 and SO3*** for 40 projects, with project-specific detail in Annex 5
DEQ1.10 Are the M&E tools and processes in place appropriate, both in terms of results and in terms of finances? How could they be strengthened?	**STATUS PENDING:** • Our **Assessment of Monitoring and Evaluation Function** at TMEA explicitly addresses this question – *this was previously included as an annex to the Interim Evaluation Synthesis Report (6B) but will now be included as an annex to the Institutional Assessment (2B)* • **2B Institution and Organisation Assessment** includes a section on this question – *this is being re-written in response to the EQUALS review, in line with the M&E function assessment annex referred to in the previous bullet* • There is also detailed information on M&E tools and processes in ***2D/2E Interim evaluation of SO2 and SO3*** for 40 projects, with project-specific detail in Annex 5

HEQ2 and its DEQs	Status	Deliverable(s)

[23] "Government agencies" were added to DEQ1.5, given that many TMEA activities partner with national counterparts to implement programming. DEQ1.6 on outcomes has been subsumed into the new HEQ2 on programme and strategic outcomes.

HEQ2[24,25]: To what extent has TMEA been effective in achieving expected intermediate outcomes and to what extent has TMEA programme been effective in contributing to achieving programme strategic outcomes? Did the programme bring about any unintended outcomes?		
DEQ2.1 To what extent has TMEA contributed to reducing corridor trade times and increasing corridor volumes?[26] **DEQ2.2 To what extent has TMEA contributed to increasing ease of trading across borders?** **DEQ2.3 To what extent has TMEA contributed to enhancing business environment for trade, improving export capabilities and improving efficiency of trade logistics services?** **DEQ2.4 Has TMEA caused any unintended outcomes? What are they and who has been affected?**	Unanswered	Performance evaluation (3B)

HEQ3 and its DEQs	Status	Deliverable(s)
HEQ3: What is the likely impact of TMEA on trade outcomes and growth, and what factors are critical in order to ensure the sustainability of positive impacts?		
Effectiveness: programme-level trade outcomes		
DEQ3.1 To what extent have TMEA interventions, including those of a policy nature, led to a reduction in trade times, trade costs and trade risks?[27]	Unanswered	Trade and growth impact study (5B)
Trade impact		
DEQ3.2 What has been the impact of any achieved trade cost reductions from TMEA on trade (both intra- and extra-regional)?[28]	Unanswered	Trade and growth impact study
DEQ3.3 How has any improved trade policy environment led to increased trade?	Unanswered	
Economic growth impact		
DEQ3.4 To what extent has any changes in trade resulting from TMEA interventions contributed to economic growth?	Unanswered	Trade and growth impact study
DEQ3.5 What factors are critical in order to ensure the sustainability of positive impacts?[29]	Unanswered	

[24] The original HEQ2 dealt solely with OSBP and Ports projects, and was partially answered in the formative evaluation (Deliverable 3A). However, DFID asked to ensure the outcomes question (DEQ1.6) was more completely answered. This proposed new HEQ is the result.

[25] Being "effective" in achieving outcomes is added in the Sept 18, 2018 draft at DFID's request, so the language sounds the same as that from the deleted DEQ1.6.

[26] HEQ2 was previously focused only on ports and OSBPs, but is here extended to cover all strategic outcomes. The first three sub-questions were reformulated to correspond to the TOC. DEQ2.4 was added.

[27] The former DEQ3.2 was a repeat of this question, only about policy interventions. These have been combined to ensure context and intervention logic and outcomes are considered together.

[28] The word "increased" was removed from modifying "trade", as the impact has not yet been determined. "Increased" presumed an impact.

[29] This question, and 4.6, were added in response to DFID's comment that the HEQ

HEQ 4 and its DEQs	Status	Deliverable(s)
HEQ4: What is the likely impact of TMEA on poverty and gender, and what factors are critical in order to ensure the sustainability of positive impacts?		
Poverty impact		
DEQ4.1 What is the nature – and, where possible, scale – of the likely impact of the overall programme and of key TMEA projects in the portfolio on the poor—direct and indirect? Who is affected by potential short- or long-term impacts, both positive and negative, how, and how is the causality working?[30]	Partially answered	Preliminary poverty assessment (5A)
DEQ4.2 In particular, who has benefited from reduced trade costs? How are the benefits in reduced transport time and cost being passed on to poor people through lower prices or lower price increases?	Partially answered	
DEQ4.3 Are complementary policies being adopted to translate the benefits of increased trade into poverty reduction?	Unanswered	Final poverty and gender impact study (5B)
DEQ4.4 Are measures being taken, and are they successful, in mitigating potential negative impacts on any sub-groups – in particular poor people in localised areas?	Unanswered	
Cross-cutting issues		
DEQ4.5 To what extent has the programme benefited <u>women and girls</u> (noting that the programme design did not purport to benefit them equally)? Have there been any negative consequences for women and girls? Has the programme had an impact on relations, including power and influence, between girls/women and boys/men? How could the programme increase benefits to women and girls within its trade focus?	Partially answered	Preliminary poverty assessment (5A)
DEQ4.6 What factors are critical in order to ensure the sustainability of positive impacts?	Unanswered	Final poverty and gender study (5B)

HEQ5 and its DEQs	Status and deliverable(s)
HEQ5: How robust and verified are the causal links and assumptions in the TOC? What does this imply for the relevance, coherence and sustainability of the programme, and what are the lessons learnt that are relevant beyond TMEA?	
Programme relevance: TOC causal links and assumptions	
DEQ5.1 To what extent are the causal links and assumptions underpinning the TOC evidence-based or verified?[31]	**Unanswered**; to be answered in the ***Performance Evaluation***

mentions sustainability but the DEQs did not.

[30] It is critical to note that this will be speculative and subject to exogenous distortions. Tracing causality rigorously, this far along the results chain, is outside the scope of the evaluation.

[31] We eliminated DEQ5.2 “Are the results framework targets and milestones relevant and realistic?” Given the late advent of this evaluation, a year after the RF was finalised, support

	Preliminary evidence is provided in ***6B Interim Evaluation Summary Report***
DEQ5.3 To what extent does the programme support EAC regional trade development priorities?	**Partially answered** in ***6A Preliminary Relevance and Sustainability Assessment*** for outputs; to be completed in the ***Performance Evaluation***
DEQ5.4 How have changes in policy and in the political economy in the region impacted on the programme or on its relevance?	**Unanswered**; to be answered in the ***Performance Evaluation***
DEQ5.5 Do TMEA interventions complement other ongoing initiatives (both government and private sector)?	**Partially answered** in ***6A Preliminary Relevance and Sustainability Assessment*** for projects; to be completed in the ***Performance Evaluation***
Coherence and coordination	
DEQ5.6 What are the strengths and weaknesses of the working model observed to date?	**Unanswered**; to be answered in the ***Performance Evaluation*** Preliminary evidence is provided in ***2B Institution and Organisation Assessment***
DEQ5.7 Is the complementarity and coordination between national and regional levels optimal throughout all programme components and activities?	**Partially answered:** • ***6A Preliminary Relevance and Sustainability Assessment*** for projects; • To be completed in the ***Performance Evaluation***
DEQ5.8 To what extent does the TMEA model bring greater results than the sum of its parts? How could this be strengthened?	**Unanswered**; to be answered in the ***Performance Evaluation***
DEQ5.9 Is using one organisation – a not-for-profit company – the best vehicle for impact on trade, and on poverty reduction through trade? What are the strengths and weaknesses of this approach?	**Unanswered**; to be answered in the ***Performance Evaluation*** Preliminary evidence is provided in ***2B Institution and Organisation Assessment***
DEQ5.10 To what extent are the programme's governance arrangements leading to the delivery of high quality and timely outputs?	**Unanswered**; to be answered in the ***Performance Evaluation*** Preliminary evidence is provided in ***2B Institution and Organisation Assessment***
DEQ5.11 Is the operational model at donor level appropriate and efficient for delivering TMEA? What are the key enablers which need to be preserved, and what are the remaining constraints arising from donors' systems?	**Unanswered**; to be answered in the ***Performance Evaluation*** Preliminary evidence is provided in ***2B Institution and Organisation Assessment***
DEQ5.12 Did TMEA align with country systems and agencies in an effective manner for ownership, and for impact? How could this be	**Partially answered**: • ***2C/3A Interim evaluation of SO1***

to make targets and milestones more relevant and realistic is unhelpful. This is particularly true in light of their new Strategy 2 RF with deeply altered indicators, targets and milestones, and in light of the DFID Annual Reviews' intensive and detailed suggestions that underpin many of those changes.

strengthened?	• ***2D/2E Interim evaluation of SO2 and SO3*** • To be completed in the ***Performance Evaluation***
DEQ5.13 Are the focus and activities of TMEA consistent with, and additional to, those of others' development programmes in the region? To what extent has the programme facilitated improved coordination?	**Partially answered**: • ***2D/2E Interim evaluation of SO2 and SO3*** answers these questions for SO2 and SO3 outputs of a sample of 40 projects, with project-specific detail in Annex 5; and • ***2C/3A Interim evaluation of SO1*** for SO1 • To be completed in the ***Performance Evaluation***
DEQ5.14 What sorts of approaches have been more successful in working with regional institutions in Africa?[32]	**Partially answered** in: • ***2D/2E Interim evaluation of SO2 and SO3*** answers these questions for SO2 and SO3 outputs of a sample of 40 projects, with project-specific detail in Annex 5; and • ***2C/3A Interim evaluation of SO1*** for SO1 • To be completed in the ***Performance Evaluation***
Sustainability	
DEQ5.17 What benefits (both social and financial) of the programme are likely to be sustainable and would continue with or without TMEA (staffing and funding)?[33]	**Partially answered in:** • ***6A Preliminary Relevance and Sustainability Assessment*** for outputs • ***2D/2E Interim evaluation of SO2 and SO3*** answers these questions for SO2 and SO3 outputs of a sample of 40 projects, with project-specific detail in Annex 5 • To be completed in the ***Performance Evaluation***
DEQ5.20 How are stakeholders engaged through the programme and beyond its life, and how do they take TMEA lessons learnt into account?	**Partially answered** in: • ***2D/2E Interim evaluation of SO2 and SO3*** answers these questions for SO2 and SO3 outputs of a sample of 40 projects, with project-specific detail in Annex 5; and • ***2C/3A Interim evaluation of SO1*** for SO1 • To be completed in the ***Performance Evaluation***

[32] Two DEQs here, sub-titled "Cross-cutting", have been eliminated. The first read: "What has the impact been on corruption across the various components, notably at border crossings?" While the evaluation team will speak with team members about how corruption might have affected their work, this DEQ could be an impact study of its own. However, TMEA did not directly undertake projects on corruption, so looking for their impacts expends resources on a tangential pursuit. The DEQ on unintended consequences will cover this issue as and when it arises. Moreover, corruption is extremely sensitive in the context, as TMEA continue to interact with institutions that would see this as criticism of a very high and offensive order.
Similarly, DEQ5.16 asked "What impact has the programme had on other issues, such as extractives and environment/climate?" which would examine issues well outside TMEA's areas of influence and focus. While the Mombasa port project worked on "green port" practices, this is the only substantial, direct TMEA activities related to environment and climate. None related to extractives. TMEA has a difficult enough job to influence the areas it is working on directly, and the evaluation to capture them, without seeking impacts in areas where they didn't intervene. "Other issues" are better covered under the HEQ2 "unintended impact" question, than devoting attention and resources the evaluation team needs for other EQs.

[33] DEQ5.18 here read "What should be the essential components of a future exit strategy in order to sustain impact?" Exit strategies were salient at project level (and covered in detail in deliverable 2D/E and its Annex 5), but not at programme level, as TMEA intended to continue operations with or without donor funding. TMEA are currently in Strategy 2 and talking about "Strategy 3" even today. The evaluation will continue to talk about sustainability in DEQ5.17 and especially 5.20, which was are more appropriate to how TMEA operated during Strategy 1, when there effectively was no exit strategy. DEQ5.19 read "What is the likelihood that individual results and overall impact will be sustained after existing donors stop funding, and will there be a lasting positive impact on the poor" which is duplicative of DEQ5.17 and the new question at DEQ4.6.

VfM Assessment	
DEQ5.21 Is the programme providing VFM?	**Partially answered** in • ***2B Institution and Organisation Assessment*** • To be answered in the ***VFM study***
DEQ5.22 In which activities/components and countries does the programme achieve higher VFM than others and what are the lessons learnt for driving greater VFM across the board?	**Unanswered**; to be answered in the ***VFM study***

Annex C: Amendments to original TORs

The evaluation has two specific purposes:

- **Accountability**: Assessing TMEA processes, results and overall value in an independent and impartial manner consistent with generally accepted principles and standards for professional evaluation.
- **Learning**: Identifying and feeding lessons learnt into the management of the remainder of the current programme and the design of any potential continuation of the TMEA programme, as well as future regional trade integration programmes.

In addition to the two purposes of the evaluation, the terms of reference (TORs) also identify four core evaluation objectives:

1. Test the **theory of change (TOC)**, assessing all causal links and the robustness of underlying assumptions (including links between trade, growth and poverty reduction), and adjusting the TOC to serve as a reliable guide to interpret the programme and to make programme improvements.
2. Analyse and, to the extent possible, measure: the regional integration programmes' **impact** on regional trade, growth and poverty (and on the various stakeholders – in particular on men and women separately, poor and vulnerable groups, as well as traders and consumers); and **sustainability**.
3. Assess the **effectiveness** of the TMEA programme, including organisational effectiveness, and whether the programme represents **value for money (VFM)**.
4. Throughout, identify **lessons learnt relevant beyond TMEA**, i.e. insights on enabling and constraining factors, critical actions and gaps which would be generalisable to future programmes or to other contexts.

1.1 Amendments to the Evaluation Questions

The initial evaluation design was structured around answering the four high-level evaluation questions (HEQs), which correspond to the four core objectives of the evaluation set out in the TOR. However, the High-level and Detailed Evaluation Questions (HEQs and DEQs, respectively) were revised after the Inception Report was approved, to reflect the changes in implementation, terminology and priority areas for study. These differences are detailed in **Table 1**.

Table 1: Amendments to the Evaluation Questions

High-level evaluation questions in the Terms of Reference	High-level evaluation questions addressed by the Independent Evaluation
• **HEQ1:** How robust and verified are the causal links and assumptions in the TOC, and does the TOC provide a reliable guide for programme intervention? • **HEQ2:** What is the likely impact on trade, growth and poverty, and	• **HEQ1**: Has the programme been effective in delivering its outputs? How has this been affected by the programme's organisational performance and how could this be improved? • **HEQ2**[1,2]: To what extent has TMEA been effective in achieving expected intermediate outcomes and to what extent has TMEA programme been effective in contributing to

[1] The original HEQ2 dealt solely with OSBP and Ports projects, and was partially answered in the formative evaluation (Deliverable 3A). However, DFID asked OPM to ensure the outcomes question (DEQ1.6) was more completely answered. This proposed new HEQ is the result.
[2] Being "effective" in achieving outcomes is added in the Sept 18, 2018 draft at DFID's request, so the language sounds the same as that from the deleted DEQ1.6.

what is critical in order to ensure sustainability of positive impacts? • **HEQ3:** Where has the programme been effective and achieved good Value For Money, and how could this be improved? • **HEQ4:** What are the lessons learnt that are relevant beyond TMEA?	achieving programme strategic outcomes? Did the programme bring about any unintended outcomes? • **HEQ3**: What is the likely impact of TMEA on trade outcomes and growth, and what factors are critical in order to ensure the sustainability of positive impacts? • **HEQ4**: What is the likely impact of TMEA on poverty and gender, and what factors are critical in order to ensure the sustainability of positive impacts? • **HEQ5**: How robust and verified are the causal links and assumptions in the TOC? What does this imply for the relevance, coherence and sustainability of the programme, and what are the lessons learnt that are relevant beyond TMEA?

The corresponding DEQs were also adapted during the course of the evaluation. Details on each HEQ and DEQ and the deliverables in which they were answered are available in Annex D.

1.2 Amendments to Evaluation Design

The Inception Report proposed to meet the evaluation objectives and answer the evaluation questions by organising the evaluation into distinct components, each focused on different steps along the TMEA results chain. Each workstream (and its corresponding deliverables), focussing on a different set of evaluation questions. In other words, each deliverable would address a different set of evaluation questions, and together would answer all the evaluation questions.

This remains the core evaluation design, however, due to a challenging inception phase and the tragic loss of the independent evaluation team leader, the evaluation was unavoidably and significantly delayed. While several key deliverables were submitted to DFID, there was a need to consider changes to the evaluation design.

The key difficulty in this change to the timeline was that one crucial element of the design proposed in the IR was not completed in the first phase of the evaluation: an evaluation of the degree to which any outcomes seen in TMEA's data can be directly linked to TMEA's interventions. Showing TMEA's contribution to these key trade outcomes – cost and time reductions in trade – is the centrepiece of their strategy, of donors' expectations, and of the evaluation design, and as such is being taken up again with an adjustment to the design of phase 2 of the evaluation.

Another key implication of the delay was the balance initially intended between learning and accountability. DFID and the other donors made the decision to continue funding TMEA for an additional six years, from 2018 to 2023. As a result, the accountability purpose of the evaluation takes on new meaning, as a backward-looking exercise designed to capture the extent of TMEA processes, results and value relative to the scope and potential of its original design and funding.

This has also meant that the role of learning as a foundational purpose for the evaluation was somewhat changed. Where possible, the evaluation will indeed provide lessons learnt in order to inform TMEA's ongoing work, as well as for developmental efforts beyond TMEA in

trade and regional integration. However, the evaluation will not inform TMEA's Strategy 2 as anticipated. The evaluation team acknowledges the significant and important learning that TMEA have already undertaken and put into action for their current Strategy 2 activities.

The following slight adjustments were made to the evaluation from what was originally proposed in the Inception Report (November 2016).

1.2.1 Performance Evaluation

The performance evaluation design put forward in the IR was proposed as a summative evaluation only of the ports and OSBPs, as the IR timeline planned for the effectiveness study on intermediate and strategic outcomes as part of an earlier deliverable. As that level of analysis was not possible in the first phase of the evlauaiton, given the unexpected and compounded challenges discussed above, it was taken up again by the performance evaluation.

This has the effect of stretching out the period in which outcomes and impacts may have matured, which may indeed be helpful in the detection of impacts. Still, the underlying proposed analysis comes from the same school of non-counterfactual, non-experimental evaluation designs:

- While Process Tracing (PT) was proposed at inception, Contribution Tracing (CT) – a method that builds precisely on the logic of PT – was considered a stronger candidate method to substantiate TMEA's contribution claims.
- One of the elements of the IR design was an exercise to map outcomes according to categories (advocacy and policy advice, knowledge generation and studies, institutional strengthening and training, technical and or financial cooperation, and provision of infrastructure and / or direct services to final users (e.g. SWIFT)) and layers (regional, national and local). In closing the first phase of the evaluation, without the Team Leader who had designed that exercise, the new Team Leader attempted to follow his logic but found it impossible to do so without new data collection – particularly as the majority of projects had finished in the year's time since the data had been collected. TMEA viewed the resulting draft "pathway" documents as invalid as they were so out of date.
- The categories proposed in the IR, while still valid to describe the closed projects, were nonetheless not useful analytically in the manner proposed. There are no formulas for how these categories would determine or predict success, no "ideal mix" to postulate for lessons learnt. The design focuses on the necessary details to generate lessons learnt, and draws upon the categories and layers as needed in describing findings.
- Given that Strategy 1 projects were completed since the original datasets were compiled, new data collection allows the estimation of outcomes achievement and TMEA contribution to continue through intermediate outcomes levels and to strategic outcomes as well, rather than "stop" at the intermediate outcomes level, as designed in the IR.
- Similarly, the extended period for data collection and analysis on the "full" pathways through their strategic outcomes allows for a stronger analysis of complementarity across TMEA component areas, which was designed in the IR to be done with projects that were not yet completed. This was done to give stronger evidence about synergies across components and support as well the validation and refinement of hypothesized TOC linkages.

1.2.2 Trade and Growth Study

While there are no significant deviations to the approach proposed in the inception report, the current approach has taken a more targeted and measurable approach. The value chain/sector approach proposed will be able to yield more valuable insights into how TMEA interventions have triggered changes, through which channels, and how have the gains been distributed across a sector. While the proposed methodology loses some of the macro approach proposed in the inception report, we have retained the CGE modelling so as to obtain some of the higher-level impacts resulting from change in that sector. We can therefore measure the wider economic benefits arising from the sector's change, which have been brought about by TMEA's intervention in areas that have impacted that sector. The tools used in the evaluation will not substantially differ from those proposed in the inception report, namely econometrics (gravity equations in particular for the estimation of AVEs), partial and general equilibrium modelling, and other dynamic economic analysis.

It is important to note the following:

- While we expect to have **richer, more relevant and more precise data** at the sector level, we would not capture the larger macro-economic gains arising from TMEA. A larger, more comprehensive "macro" approach would have (1) either entailed a number of assumptions and weaker results, particularly with respect to measuring the contribution of TMEA at a large scale; and (2) required substantially larger resources for data collection and a longer time scale.
- The team will rely more heavily on collecting **enterprise level data**, particularly with respect to inputs, intermediary products, exports and non-tariff information. The team will aim to quantify the effects of barriers that were removed by TMEA, which is aligned to the thinking proposed in the IR.
- We will exploit the richer data available under TMEA's efforts at compiling **road and transport data** including those of the Northern Corridor Transport Observatory, and where possible, enterprise and transporters' data.
- We will **avoid duplication with the Impact Model**, an ex-ante model which is being elaborated by TMEA, while at the same time finding ways that our findings may improve the reliability and realism of the Impact Model.

1.2.3 Poverty & Gender Impact Study

No significant changes are proposed from that put forward in the IR. However, it does:

- Offer **greater detail on the original design**, including data sources and analysis methods, including how we plan to use mixed methods to triangulate the qualitative and quantitative streams of data.
- Include **comparison with the three OSBP sites visited in 2016**, which was not contemplated in the IR but which was made possible by the series of visits eventually undertaken for the PPA.
- Discuss the breakdown of methods and sources by evaluation question
- Proposes to have **more countries' national survey datasets included** in the quantitative analysis, than were present at the time of the PPA.

1.2.4 VfM Study

No significant deviations to the approach to VfM assessment in the IR was proposed. However, it is important to note the following:

- We will aim to undertake **benchmarking of key cost indicators against other programmes**, if similar programmes can be identified and if we have access to their data. The framework identifies other forms of comparative analysis for some indicators where comparison with other programmes may not be possible, including comparison with original estimates (for example costs in the Business Case or original contract, if available), comparison against TMEA's KPI targets, and review of annual trends within TMEA data.
- We do not propose to undertake **analysis of costs per output, beneficiary or outcome** because the nature of the outputs and outcomes generated in this kind of programme (e.g. infrastructure reform, process improvement. stronger institutions, policy reform) do not lend themselves to meaningful benchmarking against other programmes, and therefore do not provide useful information for making judgements on VfM.
- **Our economic evaluation at cost-effectiveness level will focus on a breakeven analysis, as described in section 3,** which can be readily performed with limited data. It will be complemented by TMEA's own cost-benefit analyses, if TMEA has collected the necessary evidence, tracked the assumptions, and repeated the necessary calculations.
- Assessment of the **sustainability of delivery processes** will be based on evidence of TMEA's transition planning in preparation for the end of Strategy 2 funding. We will not assess the mandates, capacities, resources and frameworks of the public or private institutions which may be expected to take on some of TMEA's activities

Annex D: Instruments

Trademark Evaluation: Interview Protocol for Border Committees and Border Officials

Hello, my name is [say name]. As you know, I am working with Research Guide Africa on the evaluation of the Trademark East Africa program. The purpose of this interview is to help us understand the direct and indirect impacts of TMEA activities on poverty and any differential effects on men and women. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? [*Answer any questions.*]

Thank you, then let's begin.

1. Please can you tell me your roles and responsibilities?
    a) [*If border committee member*] Who is on your committee?
    b) What is your mandate/what are you striving for?
    c) How long have you been in this position?
2. Since 2016, have there been any activities at the border/port that have helped women traders? What about activities here that have affected economically disadvantaged people who are not traders but live locally?
    a) Any activities that had a less successful outcome for local men and women? How have these women and men responded to that?
3. Do you have any interactions with groups representing the interests of women or people with disabilities? [*probe women in trade networks (such as EASSI) Women in Informal Cross Border Trade associations*]
    a) How have you worked with them?
    b) What things have they asked? Have you been able to respond? In what ways?
4. Since 2016, have you noticed any changes in the amount of goods that traders trade and the time taken?
    a) Is this change short- or long-term?
    b) Why do you think there is this change?
    c) Which factors are the most important in explaining this change in volume traded?
    d) Which factors had little effect in helping traders to trade more?
    e) What impact has this had on the trader and her household?
5. Since 2016, to what extent are traders using formal routes to trade rather than informal?
    a) Why is this the case?
    b) How has this impacted upon revenue that you are able to generate?
6. Have you heard about TMEA? How have you been working with them?
    a) How has TMEA's work affected economically disadvantaged people in this area? What about women and people with disabilities? [*ask as relevant: port activities, road expansion and OSBP*]
7. How have local traders been affected by the work of TMEA?
    a) How has TMEA been working with local traders to maximise the positive impacts to them? And minimise negative impacts?
    b) Of these, which efforts have been the most successful? And least successful? Why?
    c) How has TMEA been working with *women* traders to maximise the positive impacts to them? And minimise negative impacts? What about people with disabilities? Of these, which efforts have been the most successful? And least successful? Why?
8. Are there any recommendations you would give to TMEA management in their work to help poor groups of people, especially women and people with disabilities? How can TMEA make the positive changes sustainable?
9. Is there anything else that you would like to talk about that we haven't spoken about so far? Anything you'd like to ask me?

Trademark Evaluation Data Collection Instrument: Direct Effects Focus Group Discussion Protocol

Instructions

- Questions are intended to capture changes since 2016. Was there a major event in 2016 that we can use to trigger people's memory? _____
- Changes can be positive and negative, and we need to hear about both.
- Use your own knowledge and experience to probe on responses. Flag potential trade-related causes from the things that people say. For example, when someone says that prices have risen sharply because the truckers are all owned by one person, that is worth exploring!
- In the topline report, please note the number of respondents, the sector they work in, the date, the start and end times, and your assessment of the group dynamics (willingness to answer questions, tendency for one or two participants to try to dominate, etc.) in addition to your summary of the responses to each question.

Introduction

Thank you all for agreeing to participate in this focus group today. As you know, my name is [say your name], and I am working for Research Guide Africa, and we want to understand how trade in this area has been impacted by changes at the borders and ports since 2016. We also want to understand the impact of the programme(s) you participated in to facilitate cross-border trade and exports. We recognized that everyone may have a unique experience or opinion, and we want to hear from everyone. So please do not hesitate to share your thoughts, but we do ask that you speak one at a time so we can hear everyone clearly. You may choose not to answer any question if you are not comfortable doing so. We also ask that you keep the opinions and information shared in this group confidential and not share it with others who did not participate in the group. Does anyone have questions before we begin? [*Answer any questions that are asked.*]

I would like to start with introductions. Would you please tell us your first name, what kind of programme you had, and when you first participated in the programme.

Very good, thank you. To start our discussion, we would like to get your thoughts on the strengths of the programme you participated in and any recommendations you would make for strengthening it in the future.

Programme Experience (~40 minutes)

1. What, in your opinion, were the most useful aspects of the programme? [*Probe on specific trainings, topics, or supports provided.*] Why were these most useful?
2. How have you been able to use what you learned in the programme? [*Probe on specific examples for change stories. With female groups, probe on any changes that reduced barriers specific to women.*]
3. How would you describe the impact of the programme on your trading or livelihood activities? [*Probe for specific changes in revenue/income, quality of products/services, trade/production volume, trade time, trade costs, quality of experience at border posts, etc.*]
4. Based on the experience you have had since participating in the programme, is there anything in the programme you would change or anything you would add to make it stronger for future participants? [*Probe on specific topics, activities, supports.*]

Thank you. For the next part of our discussion, we would like to get a sense of the costs of goods that you purchase regularly for your households or businesses.

Prices and Earnings (~35 minutes)

5. How have prices of goods changed since 2016? [*Probe on when, suddenness of changes in the price of goods, up or down, by season and overall. Clarify on differences in changes in wholesale and retail prices if applicable.*]
6. Why have there been changes in prices? [*Probe trade-related costs, competition, politics, etc. Follow up on any mention of trade and OSBP. If trade/OSBP not mentioned then ask direct question on it, e.g., have they seen more traders setting up businesses, have transportation costs been reduced, etc.*].

7. How has the ease or difficulty of finding work changed here since 2016? [*Reference 2016 event if needed.*] Why has it changed? [*Probe political decisions, competition, expansion in existing firms, establishment of new firms, effects of trade interventions, trade related costs.*]
8. In your experience, how have earnings changed since 2016? [*Probe earnings for men and women separately, up or down, and whether it has reduced poverty and insecurity in the community.*] Why has it changed? [*Probe on trade-related causes if not mentioned, e.g., more traders, new businesses setting up, trade-related costs, and extent of those.*] Who has benefitted from the changes and who has lost out? *[Probe on positive and negative effects on men/women, less/more economically advantaged groups. Probe on any programmes available to mitigate negative effects.]*
9. For your business, have you had the experience of business growth and employing additional workers since 2016? Since your participation in the program (if after 2016)? Can you tell us a little about that?
10. How have the changes in prices and earnings affected you and your household or other groups of people – men and women, and less/more economically advantaged groups in this community? *[Probe on positive and negative effects. Start with households, and if respondents are reluctant to discuss, refocus on what they have seen in the community. Probe on any programmes available to mitigate negative effects.*]

Thank you. I would like to shift the discussion a little bit now to opportunities to work and earn income.

Government services (~15 minutes)

11. What government services do men, women, boys, and girls use? [*Use examples as prompts, if needed, e.g., cash transfers, health care, education, water.*] How much do these cost, if anything? [*Probe on services specific to people in poverty.*]
12. How have government services changed since 2016, if at all? [*Probe on improvements and deterioration, new services, and reductions in services.*] What has caused these changes? [*Probe on trade-related causes (e.g., more revenues for local or national government, reduced barriers, etc.)*]
13. How have changes in government services affected you and your household and different groups of people in this community *[Probe on positive and negative effects. Start with households, and if respondents are reluctant to discuss, refocus on what they have seen in the community.*]

Closing

That was our last question. I want to thank you all again for this very good discussion. We very much appreciate your help in understanding the impacts of the changes we have discussed, and we wish the best for you, your families, and your communities.

Trademark Evaluation Data Collection Instrument: Indirect Effects Focus Group Discussion Protocol

Instructions

- All groups should be homogeneous in terms of sex and relative levels of wealth or income. Differences among men and women in outcomes and experiences with corruption should be explored, as should the reason(s) they cite for their success or lack thereof.
- We would like FGDs to be homogenous by livelihood group, but across the whole sample to get a mixture of livelihood groups (e.g. some FGDs with miners, some with farmers, some with market sellers etc.).
- Questions are intended to capture changes since 2016. Was there a major event in 2016 that we can to trigger people's memory? _____
- Changes can be positive and negative, and we need to hear about both.
- Use your own knowledge and experience to probe on responses. Flag potential trade-related causes from the things that people say. For example, when someone says that prices have risen sharply because the truckers are all owned by one person, that is worth exploring!
- In the topline report, please note the number of respondents, the sector they work in, the date, the start and end times, and your assessment of the group dynamics (willingness to answer questions, tendency for one or two participants to try to dominate, etc.), in addition to a summary of the responses to each question.

Introduction

Thank you all for agreeing to participate in this focus group today. As you know, my name is [say your name], and I am working for Research Guide Africa, and we want to understand how trade in this area has been impacted by changes at the borders and ports since 2016. We recognized that everyone may have a unique experience or opinion, and we want to hear from everyone. So please do not hesitate to share your thoughts, but we do ask that you speak one at a time so we can hear everyone clearly. You may choose not to answer any question if you are not comfortable doing so. We also ask that you keep the opinions and information shared in this group confidential and not share it with others who did not participate in the group. Does anyone have questions before we begin? [*Answer any questions that are asked.*]

I would like to start with introductions. Would you please tell us your first name and what your primary job is [*if multiple jobs, focus on the one that generates the most income or meets the most needs (i.e., subsistence farming). Probe on whether or not their primary source of income has changed in the last few years.*]

Very good, thank you. To start our discussion, we would like to talk about opportunities to work and earn income.

Employment (~20 minutes)

1. How do men make money in this area? How do women make money in this area? [*Probe formal, contracted, and casual employment – any shifts in the balance among those. Probe on ease of finding work. Probe on opportunities for people with disabilities to work and earn money.*] Have there been changes since 2016?
2. How regular is this income? [*Probe on times when and reasons that it is easier/more difficult to earn. Probe on seasonal differences.*]
3. Why do men/women make money in these ways? [*Probe on beliefs about "proper" roles for men and women, differences by age (i.e., young men and women versus older men and women), and role- or industry-specific barriers (i.e., the need to travel away from home for periods, hazardous work conditions, conflicting care giving duties, etc.)*]
4. How has the ease or difficulty of finding work changed here since 2016? [*Reference 2016 event if needed.*] Why has it changed? [*Probe political decisions, competition, expansion/contraction in existing firms, establishment of new firms, closing of firms, effects of trade interventions, trade related costs.*]

Thank you. I would like to shift the discussion a little bit now to get a sense of the costs of goods that you purchase regularly for your households or businesses.

Prices and Earnings (~40 minutes)

5. How have prices of goods changed since 2016? [*Probe on when, suddenness of changes in the price of goods, up or down.*]
6. What goods have increased in price since 2016? [*Probe on seasonal changes and changes overall.*]
7. Why have there been changes in prices? [*Probe trade-related costs, competition, politics, etc. Follow up on any mention of trade and OSBP. If trade/OSBP not mentioned then ask direct question on it, e.g. have they seen more traders setting up businesses, have transportation costs been reduced, etc.*].
8. In general, how have earnings changed since 2016? [*Probe earnings for men and women separately, up or down, and whether or not it has reduced poverty and insecurity in the community.*] Why have they changed? [*Probe on trade-related causes if not mentioned, e.g., more traders, new businesses setting up, trade-related costs, and extent of those.*] Who has benefitted from the changes and who has lost out? *[Probe on positive and negative effects on men/women, less/more economically advantaged groups. Probe on any programmes available to mitigate negative effects.]*
9. How have the changes in prices and earnings affected you and your household or other groups of people – men and women, and less/more economically advantaged groups in this community? *[Probe on positive and negative effects. Start with households, and if respondents are reluctant to discuss, refocus on what they have seen in the community. Probe on any programmes available to mitigate negative effects.*]

Thank you. We would like to move to our last topic now, the services that the government provides.

Government Services (~15 minutes)

10. What government services do men, women, boys, and girls use? [*Use examples as prompts, if needed, e.g., cash transfers, health care, education, water.*] How much do these cost, if anything? [*Probe on services specific to the economically disadvantaged.*]
11. How have government services changed since 2016? [*Probe on improvements and deterioration, new services and reductions in services.*] What has caused these changes? [*Probe on trade-related causes (e.g., devolution, revenues for local or national government, changes in barriers, etc.*]
12. How have changes in government services affected you and your household and different groups of people in this community *[Probe on positive and negative effects. Start with households, and if respondents are reluctant to discuss, refocus on what they have seen in the community.*]

Closing

That was our last question. I want to thank you all again for this very good discussion. We very much appreciate your help in understanding the impacts of the changes we have discussed, and we wish the best for you, your families, and your communities.

Trademark Evaluation: Interview Protocol for Displaced Business Owners

Hello, my name is [say name]. As you know, I am working with Research Guide Africa on the evaluation of the Trademark East Africa program. The purpose of this interview is to help us understand the direct and indirect impacts of TMEA activities on poverty and any differential effects on men and women. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? [*Answer any questions.*]

Thank you, then let's begin.

1. Please can you tell me about your business before they expanded the port/border?
    d) What goods and/or services did you offer?
    e) How long were you generally open (hours per day)? How many days per week?
    f) How busy was your business? How many customers did you typically have in a day?
    g) Did you employ anyone other than yourself? [*If yes, probe on how many.*]
    h) Other than people going into or out of the port/across the border, did you have other customers from the local community? [*Probe on who – men/women, economically disadvantaged or not, etc.*]

2. Since the expansion of the port, were you able to relocate your business somewhere else? [**If no, skip to Q4**]
    a) Where is your business located now?
    b) What goods and/or services do you offer now?
    c) What are your business hours? How many days per week?
    d) How busy is your business? How many customers do you typically have in a day?
    e) Do you currently employ anyone other than yourself? [*If yes, probe on how many.*]
    f) Who are your primary customers now? [*Probe on who – men/women, economically disadvantaged or not, etc.*]

3. Would you be willing to make a map with me and show me where your new business location is compared to the old location? [**Mapping Exercise**]

4. Do you know what has happened to other businesses that also used to be located near the port? [*Probe on whether or not they were able to relocate somewhere else*]

5. How would you describe the relocation process that you experienced? Was it handled well or poorly? What should have been done differently?

6. Overall, how would you say the relocation affected your household and your community, if at all? [*Probe on employment, earnings, prices, and government services available.*]

7. Is there anything else that you would like to talk about that we haven't spoken about so far? Anything you'd like to ask me?

Trademark Evaluation: Interview Protocol for Local Government Officials, Village Chiefs, Elders, Religious Leaders

Thank you for taking time to talk to me today. My name is [say name], and I am working with Research Guide Africa on a study of changes in trade over the past several years and its impacts on poverty. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? [*Answer any questions.*]

Thank you, then let's begin.

Employment

1. What are the main economic sectors in this area? Is it easy or difficult to make money in these sector(s)? Why? Any changes since 2016?
2. How do men make money in this area? How do women make money in this area? [*probe formal employment, contracted employment, and casual work*] How has this changed since 2016? [p*robe on whether changes are perceived to be good or bad.*]
3. How easy is it for men and women to get a job around here? How has this changed since 2016? Why has it changed? [*probe political decisions, competition, expansion/contraction in existing firms, establishment of new firms, closing of firms, effects of trade interventions, trade related costs*]
4. How regular is this income? [*probe on times when it is easier/more difficult to earn, seasonality, and overall changes*]
5. Why do men/women make money in these ways? [*probe on expectations for men and women in terms of earning, ability to travel distances/be away from home, care taking responsibilities, etc.*]
6. Who in this community has benefitted/lost out from the changes in employment patterns in this area? *[probe men/women, poorer/wealthier groups, people with disabilities]*

Prices and Earnings

7. How have prices of goods changed since 2016? *[probe on when, sudden changes in the price of goods, up or down, seasonality and overall, what goods]*
8. Why has there been changes in prices? [*probe trade-related costs, competition, politics, more traders etc. Follow up on any mention of trade and OSBP, if trade/OSBP not mentioned then ask direct question on it, e.g., more traders setting up businesses, transportation costs have reduced*]
9. In general, how have earnings changed since 2016? [*probe earnings for men and women separately, up or down, seasonality and overall*] Why has it changed? [*probe about trade, if not mentioned e.g., more traders, new businesses setting up, trade-related costs*] Who has benefitted from the changes and who has lost out?
10. How have the changes in prices and earnings affected local people? How has it affected people who are economically disadvantaged? Wealthier people? Women/girls, men/boys? [*probe on positive and negative effects*]

Government Services

11. What government services do men, women, boys and girls use? *[provide examples as prompts, if needed, e.g., cash transfers, health care, education, water]* How much do these cost, if anything?
12. How have government services changed since 2016? Why? *[probe on new services, expanded services, reduced or eliminated services, and trade-related causes]*

13. How have changes in government services affected different groups of people in this community? *[probe on men, women, boys and girls, less/more economically advantaged groups]*

Direct Impacts of TMEA Interventions

14. [**At border posts and ports only**] What changes have you noticed at the port/road network/OSBP since 2016?
    a) Were you consulted about these changes? If so, what suggestions did you provide?
15. [**At border posts and ports only**] How have these changes affected local traders? How has it affected women traders? Traders with disabilities? [*Examples of direct effects include harassment, access to information, bribes/corruption, how busy market days are, amount traded, etc.]*
    b) Do you think these changes will be long-lasting or not? Why or why not?
    c) Have there been any challenges for these traders?
    d) Have these challenges been overcome? How? If not, why not?
16. [**At border posts and ports only**] How have the changes at the OSBP/port/road expansion affected other businesses in this area (other than traders)? *[probe hotel stays, restaurants, market sellers, boda-bodas (motorbike taxi drivers)]*
    a) If so, what effects have you seen?
17. [**At border posts and ports only**] Have there been any notable changes to the traders' households as a result of TMEA interventions?
    a) What about effects on their spouses (husbands/wives)? And their children? Parents/parents in law?
18. [**All respondents**] What associations or committees, if any, that represent the interests of women traders have you interacted with? What are they striving for? How effective are these groups?
19. What recommendations would you suggest for how changes in the trade sector can benefit local people who are economically disadvantaged? Can benefit women and girls?

Trademark Evaluation: Mapping Exercise

Purpose:

The purpose of this activity is to understand the journeys that traders take during their work. This can be before the TMEA intervention (e.g. OSBP) and after, so that you can get an understanding of how their work has been affected.

Approach:

You will need to provide clear instructions for this exercise, but during the drawing you will need to take a back seat and let the respondents draw the map and journey on their own. The diagram should not be viewed as an end product. You should see it as (a) as a way to get more qualitative/interview data; and (b) as a means to encourage discussion and analysis among the participants. You should take notes while participants are working to allow you to record verbal and non-verbal communication, and which may help identify differences of opinion or issues you'd like to explore in more detail later. However you might need to interject to gently encourage the quieter members of the group. Once the diagrams have been drawn try to ask as many questions about what has been drawn to understand it better—some suggested questions are provided below. If one of the respondents is illiterate then try to encourage as much as drawing as possible and as few words written down as possible, to allow the whole group to the opportunity to participate freely. Homogenous groups are vital - by gender and ideally traders who trade in same/similar products.

Things you will need:

- Multiple sheets of flip chart paper and/or tape to tape together smaller sheets of paper
- Post-it notes
- Marker pens (multiple colours – one for each participant)
- Camera (or camera phone)
- Beans
- Notebook and pen to write notes

Instructions to participants:

I would like you to draw two maps as a group. The first map is the journey that you took across the border before the OSBP was opened. The second is the journey after the OSBP was working. You should draw the whole journey from your house to the place you are trying to get to. I would like you to use this flip chart paper to draw a map of the area and the route that you took. There might be multiple routes you took in which case it would be fine to draw this. As a final activity I would like you to mark the time it took you at various points during the journey.

[Note: for individual interview respondents, use 1 piece of paper and different coloured markers.]

I'd also like for you to represent the typical amount of money you would make in one day, using these beans (one bean = 100KES, 1,000TZS, 3,000UGX, or 900RWF). You can put the beans in one corner of the sheet of paper. If you had to use some of this money for payments along the journey, please place these beans are the suitable place on your diagram where this payment was made.

You are free to share your experiences and ways of overcoming problems. It is no problem to have differences of opinion too—there is no right or wrong experience as everyone's is different. I would encourage you to have a conversation about what you will draw before you pick up the marker pens but I've got sheets of spare paper here which I can leave to the side in case you'd like to start drawing again.

Once this exercise has finished I would like to take photographs of what you have drawn. If you like I can leave the flipchart paper and the used post it notes with you to keep.

Possible questions to ask at the end:

[If these topics came up during the discussions among participants you won't need to ask. Also note that some of these topics may have been discussed in the focus group.]

1. Did everyone here similar experiences before and after the OSBP opened? Why, why not?

2. Do you think the OSBP was a good thing to happen or not? Why? Why not?

3. What are the various people you interact with on these journeys?
    a) How did they interact with you?
    b) What do you think about these interactions?

4. I can see some changes from the two maps-before the OSBP opened and after. What do you think has been the most positive change? And the most negative change?
    a) Do you think these changes are long term or short term?

5. [Count the beans]. I see that you typically make this amount of money. Do people make different amounts of money here? Why? Why not?
    a) Are there times of the year where you can make more money? Less money?

6. What do you do with your earnings?

7. I see that you made some payments to cross the border. Do you think these payments are fair? Why/why not?

8. I see that the OSBP has reduced/increased the amount of time that it takes to cross the border. What are the main reasons for this?

9. Has the OSBP resulted in any changes to your life that you haven't been able to represent on the map? What are these?

10. If you were head of this OSBP, what further changes would you make to make trading easier for you?

Trademark Evaluation: Interview Protocol for Revenue Authorities

Hello, my name is [say name]. As you know, I am working with Research Guide Africa on the evaluation of the Trademark East Africa program. The purpose of this interview is to help us understand the direct and indirect impacts of TMEA activities on poverty and any differential effects on men and women. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? [*Answer any questions.*]

Thank you, then let's begin.

1. Please tell me a bit about your role and your responsibilities here.
2. Has revenue collected from trading activities at this location increased, decreased, or stayed the same since 2016? Why is that?
3. Have you heard of TMEA? How have you worked with them?
    a) Are you familiar with any work TMEA has done to improve the lives of economically disadvantaged people, particularly women and people with disabilities?
    b) Are you familiar with work by other organizations to improve the lives of economically disadvantaged people through trade? If so, which ones?
4. Has the work of TMEA since 2016 affected revenue collection?
    a) If yes, how? [*probe corruption, amount traded through formal channels vs. informal, volumes/value of trade, job creation, efficiencies/speed of trading*]?
    b) If not, why not?
5. What advice would you give to TMEA management to increase the amount of revenue that is made from trading activities?
    a. How can TMEA work with your organization in a different way towards this same aim?
6. Anything else you would like to add? Do you have any questions for me?

Trademark Evaluation: Interview Protocol for TMEA Programme Staff (optional)

[Note: These interviews will be optional and may be conducted over the phone for the convenience of the respondent. If the staff have limited time, focus on questions 14-18.]

Thank you for taking time to talk to me today. My name is [say name], and as you know, I am working with Research Guide Africa and Oxford Policy Management to collect information for the Poverty and Gender Impact Study under the larger TMEA evaluation. The purpose of this interview is to help us understand the direct and indirect impacts of TMEA activities on poverty and any differential effects on men and women. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? [*Answer any questions.*]

Thank you, then let's begin.

1. How has TMEA shifted its thinking on poverty and gender since the start of Strategy 1?
    a) Why did these changes happen?

2. What is your thinking about the **direct** effects of TMEA interventions on poverty; on women/girls, men/boys? *[probe power and relations between men and women, probe long and short-term pathways]*
    a) How is that thinking reflected in the design of the interventions, if at all? [*probe on cooperation with poverty alleviation agencies or women's affairs agencies*]
    b) In practice, are there direct impacts on poverty? Why? Why not? Are there any bottlenecks? Were these bottlenecks overcome and is that still a challenge?

3. What is your thinking about the **indirect** effects of TMEA interventions on poverty; on women/girls, men/boys? [*probe power and relations between men and women, probe prices, wages/employment and public services*]
    a) How is that thinking reflected in the design of the interventions, if at all?
    b) In practice, are there indirect impacts? Why? Why not? Are there any bottlenecks? Were these bottlenecks overcome and is that still a challenge?

4. Which TMEA interventions had the biggest change on poverty levels; biggest impact on the lives of women or men? Why? (*note change/impact can be positive or negative*)?
    a) Who are the people who benefitted the most from TMEA interventions? How?
    b) Who were the potential losers? *[probe men and women]*

5. Has TMEA attempted to mitigate potential negative impacts on poor people and women?
    a) [If so] Were these attempts successful?
    b) [If so] What were the challenges?

6. Has TMEA attempted to maximise positive impacts on people in poverty and women?
    a) [If so] Were these attempts successful?
    b) [If so] What were the challenges?

7. Did TMEA interventions actually measure/assess the impact on poverty (including vulnerable groups)? If so, how? If not, what not? Did the interventions look at impact upon women/girls, men/boys? If so, how? If not, what not?
    a) Were there any challenges in this work?

8. Were TMEA interventions adjusted to consider findings from monitoring information on poverty or the needs of men/women?

9. To what extent have the project evaluations included poverty analyses or gender analyses? If so, what did they conclude? Was there a different impact on women and men? [*probe disaggregation of data*] If so, how? If not, why not?
    a. Did these reports have any influence? *[probe gender-specific action plans, gender mainstreaming tools, gender analysis of Mombasa port, social impact assessment, gender policy etc.]*

10. Are there any projects that you think didn't achieve the poverty/gender aims that it intended to? Why is that?

11. To what extent were TMEA's efforts on gender and poverty affected by external factors? How?
    a) How did TMEA engage with the external environment to translate the benefits of increased trade into poverty reduction for men and women?

12. Did TMEA interventions affect the way in which government programmes consider poverty/issues of women and men? Is so how? If not, why not?

13. How has TMEA attempted to sustain the positive impacts to men and women in poverty?

And then a set of questions about how things might be improved

14. How can TMEA interventions increase the benefits to people in poverty (men, women, boys and girls) within its trade focus? *[probe direct and indirect pathways]*

15. How might the processes for designing TMEA interventions better consider poverty and the needs of women/girls, men/boys?

16. What are the potential sub-groups that TMEA should be focusing on? Why?

17. How might the poverty/gender impact of TMEA programmes be better monitored or reported upon? Is there any way results from monitoring work can be better utilised within the TMEA programme?

18. Might there be opportunities to collaborate with government agencies and programmes responsible for poverty alleviation and/or gender equity to further the achievement of TMEA goals?

Trademark Evaluation: Interview Protocol for Traders

Thank you for taking time to talk to me today. My name is [say name], and as you know, I am working with Research Guide Africa to collect information for the Poverty and Gender Impact Study under the larger Trademark East Africa (TMEA) evaluation. The purpose of this interview is to help us understand the direct and indirect impacts of TMEA activities on poverty and any differential effects on men and women [*Note: in remote areas, it may be better to explain it as "to help us understand changes in trade over the past several years"*]. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? [*Answer any questions.*]

Thank you, then let's begin.

1. Since 2016, have there been major changes that have affected your ability to trade? [*probe on trade-related changes at OSBPs and/or ports*]
    a) What has made it easier to trade? Harder to trade? [*Probe on time, costs, border/port procedures, etc.*]
    b) Have you been able to overcome these barriers? How? Why? [*probe engagement with border officials, corruption/bribery, access to information, bureaucracy, transport, speed of moving across the border etc].*

2. **[Only at port and border sites. At other sites, skip to Q4]** Please tell me about the most significant change (positive or negative) you have experienced because of changes at the port/border.
    a) Why did you choose to tell me this story and not other changes you could have mentioned?
    b) Do you think this change will be long-lasting or not? Why?

3. **[Only at border sites. At other sites, skip to Q4]** When did the OSBP start operating? Please tell me about the most significant change (positive or negative) you have experienced as a result of the OSBP.
    a) Why did you choose to tell me this story and not other changes you could have mentioned?
    b) Do you think this change will be long-lasting or not? Why?
    c) [*If not mentioned earlier*] Are the processes you have to go through to cross a border quicker, slower or the same now compared to before?
    d) What about payments you have to make to cross the border - have these gone up or down? Are they fair?

[At border sites, include mapping exercise here.]

4. How have the changes that you told me about affected members of your household?
    a) How has it affected the relationships you have with them? [*probe on husband/wife, children, parents/parents-in-law, etc*.]
    b) How has it affected household responsibilities like domestic work and childcare, if at all?

5. Compared to 2016, has the amount and value of goods or services you are able to trade gone up or down? Why? Is this likely to continue? Why/why not?
    a) What happens if you are able to trade more? [*probe on impact on earnings, how earnings are typically used, balance with household responsibilities like domestic work and child care, expansion of business, etc.*]

6. Since 2016, have you joined any associations or committees? [**If yes, go to a; if no, go to d**]
    a) If so, which one(s)? What has been the role of the association(s)?
    b) Has it been helpful for you? If so, how? If not, why not?

c) Have you been able to share your opinions on trading in other ways? If so, how and with whom? [**Go to Q7**]
d) If you haven't joined an association, why not? Have you been able to share your opinions on trading in other ways? If so, how and with whom?

7. **[Only at port and border sites. At other sites, skip to Q8]** Let's imagine you are the head of the port/head of OSBP. What measure would you take to help people in your situation? What other changes would you make?

8. Is there anything else that you would like to talk about that we haven't spoken about so far? Anything you'd like to ask me?

[For Ethnography Participants Only]

Ask then to interview other adult household members if they are around, or visit again to ask to speak with them:

9. Has the OSBP affected this household? How? What have been the positive effects and the negative effects?
    a) How has it affected certain relationships?
    b) How has affected the amount and type of work that members in the household do?
    c) To what extent has it changed domestic and childcare duties?
    d) How has it affected household earnings?
    e) Has it affected what things you spend money on?
    f) Do you think these changes are for the short or long term? Why?
    g) What recommendations would you give to the border officials located in the OSBP?

Trademark Evaluation: Interview Protocol for Truckers

Thank you for taking time to talk to me today. My name is [say name], and I am working with Research Guide Africa on a study of changes in trade over the past several years and its impacts on poverty. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? *[Answer any questions.]*

Thank you, then let's begin.

1. Please tell me about your work.
   a) How long have you been a trucker?
   b) What goods are you transporting? [*What do you normally transport? – if repositioning a container*]
   c) Where are you transporting goods from and to?
   d) What borders do you cross?
   e) How many trips do you usually make each week? [*Probe on seasonal changes, and changes over time, particularly since 2016.*]

2. Since 2016, have the costs that you have had to pay to shift goods from their origin to their destination changed at all? [*Probe on both costs associated with time required for travel and direct costs such as fuel.*] If so, in what way? Why is that?
   a) Is a short or a long-term change?
   b) If there has been a reduction in costs, what could be done to ensure that costs remain lower?

3. Has the value of your goods changed since 2016? [*Probe on up or down*]
   a) Why has the value changed? Why hasn't it changed?
   b) Has anyone benefited from the change? [*probe link to fall in transport costs. This question is getting at whether trucker owner is capturing the gains from increased efficiencies*]
   c) Is a short or a long-term change? How can we make sure that these price changes are long term?

4. Compared to 2016, how long does it take to shift goods from their origin to their destination?
   a) Why has there been this change?
   b) What is the consequence of this to the company you work for?
   c) Have you experienced a change in non-tariff barriers (requests for bribes, duties, weigh stops, etc.)?
   d) Are you aware of a way to report non-tariff barriers that you encounter? [If yes] Have you had occasion to report non-tariff barriers through the non-tariff barrier SMS service? [Regional Number: *290#; Kenya National Number: 21866; Uganda National Number: *201#; Tanzania National Number: 15539].[1] If so, how did that work and what was the result?

5. Do you spend less or more time at the port/at the border compared to 2016?
   a) Are there any services you use at the port/border post now that you did not use before 2016? Are the any services you no longer use? *[probe hotel stays, restaurants, market sellers, boda-bodas (motorbike taxi drivers)]*
   b) Has anything happened to these businesses/people as a result?

6. Do you spend more or less money at the port/OSBP compared to 2016? Why? What do you spend more or less money on?

[1] No national number currently available for Rwanda.

7. What changes have you noticed at the port/at this border crossing since 2016? [*probe changes at the port, road expansion and OSBP]*
    a) How have these changes affected your work?
    b) How has it affected the transport company you work for?
    c) How have the changes affected local people (economically disadvantaged and wealthy)? How has it affected women and girls? *[probe direct and indirect effects. Examples of direct effects include harassment, access to information, bribes/corruption, how busy market days are, amount traded; indirect effects include prices, earnings, employment, public services].*

8. Are there any recommendations that you can suggest for how changes in the trade sector can benefit local people? Can benefit women and girls in particular?

Trademark Evaluation Data Collection Instrument: Walking Ethnography

Purpose

This tool will enable researchers to get a first-hand impression of what it is like to trade in a particular setting.

Approach

- Ethnography means being interested in people's everyday life—even the mundane and ordinary. You just want to blend in the background and be an "insider". You should be extremely careful in trying to adjust as much as possible to the context, following routines, clothing etiquette, even eating behaviour. You should **not** influence what would normally happen.
- This means no notebook or pens. You will listen and take in the situations that you will encounter and use your phone to take "jottings" – brief notes to yourself that will help you remember key details. You will then record descriptive and reflective notes at the end of the day, following the template provided.
- You will spend about half a day shadowing a trader going through the border. It will be important to build up a rapport with this person and to get to know them well enough so they feel comfortable in your presence. Suggest having dinner together with his/her family the night before, for example, and get to know them in an informal and relaxed setting first. It is important that researchers disclose the purpose of their presence clearly, and get consent from the people who will interact with them.
- You do not want any special treatment. So for a trader who goes across a border, you can walk with her and carry some of her traded goods for example. For anyone who asks who you are, you can say you are a friend.
- You should pay attention to details of settings, people, activities, and interactions, and make a mental note of these for later recording. You should notice the physical and social environment, and capture mental images of objects such as furniture, facilities, as well as behaviours, routines, and body language. If you encounter long waits, you can use it as an opportunity to capture information from others' about their experiences with the border crossing (both that day and typically).
- Ask to go to the toilet - is it suitable for people with physical disabilities? Is it suitable for women [disposal of sanitary products, adequate privacy etc.]?
- This should be done as a first activity before people recognise your face and associate you with being a researcher/with OPM/RGA. It may be wise to have one team member do the ethnography and the other complete the interviews with officials to reduce the chances of being associated. After all the walking ethnographies are complete then you can set up interviews with border officials etc.
- It is important to understand how your own identity, values, and beliefs may influence your experience and your description of events. Be aware of how your bearing, your speech, your clothing, your ethnic identity, your sex, and other factors may influence how you are perceived and the treatment you receive.
- After crossing the border before leaving the trader, have a brief conversation about whether the experience you had that day was typical, better than usual, or worse than usual, and how so. If you witnessed anything you found unusual or inexplicable, ask the trader to give their opinion on what it meant and how they felt when they experienced that.

Walking Ethnography Report Form

Date: Time:
Name of researcher:
Name of person who you observed:
Weather conditions:

Description of yourself:
Social background:
Age: Gender:
Nationality: Disability status:
Ethnicity/tribe: Education level:
Prior work/personal experience in relation to trading?
Any prior beliefs relating to trading?

Physical conditions of border crossing:

1. What was the physical environment like?
   a. What is the type and condition of the building?
   b. What are the objects inside?
2. What is the transport and infrastructure like to and from the border crossing?
3. Draw a diagram of the border crossing and the area surrounding it.

Activities at border crossing:

1. What activities do you observe?
2. How long do activities take?
3. What information do you notice that can be seen by traders?
   a. Is the border crossing complicated?
   b. Does the trader know what she/he is doing?
4. What payments are made?
5. What people are present and around the site? Are they male? Female? Are there people with disabilities?

Interpersonal conditions of border crossing:

1. What is the manner like of border officials?
   a. Does the border official seem competent at their job?
2. How are traders treated?
   a. Does it seem a comfortable environment or do traders feel stressed?
3. What are the social interactions like between border officials and traders? Between traders themselves?
   a. Did you witness any strong/emotional interactions?
4. Did you witness power being exercised in the interactions?

General reflections:

1. What did you participate in today? How can you best describe it?
2. What surprised you about the site? Why?
3. What is your new understanding of this situation/context after being involved in it?
4. What does it feel like being in that situation/context?
5. What are your reflections in relation to this situation/context? How do these relate to the purpose of this project?
6. Anything else that you think is important to note?

Trademark Evaluation: Interview Protocol for Women in Trade Networks and Associations (TMEA Partners)

Thank you for taking time to talk to me today. My name is [say name], and as you know, I am working with Research Guide Africa and Oxford Policy Management to collect information for the Poverty and Gender Impact Study under the larger TMEA evaluation. The purpose of this interview is to help us understand the direct and indirect impacts of TMEA activities on poverty and any differential effects on men and women. Your participation is voluntary. You can choose not to answer any question or to end the interview at any time. Your responses will be kept confidential and only reported as part of an aggregated qualitative analysis. Do you have any questions about this interview or the evaluation? [*Answer any questions.*]

Thank you, then let's begin.

1. Please can you tell me what your association/network does?
    a) What are your roles and responsibilities in the association/network?
    b) How have you been working with women traders?
    c) What are the main successes in your work? What are the main challenges?

2. Have you heard of TradeMark East Africa (TMEA)? **[If yes, go to sub-questions; if no, skip to Q3]**
    a) Have you worked with them? How?
    b) How is TMEA working with people who are economically disadvantaged, women, and people with disabilities?
    c) To what extent are they having a positive impact on these groups of people?
    d) What improvements could be made?

3. Have you been involved in making decisions on border controls (requirements and processes for cross-border trading)/port activities (requirements and processes for export of goods)? How? If not, why not?

4. If you compare what was trading [doing business] like in 2016 and what it is like now, what are the most significant changes? [*Probe on differences for larger and smaller businesses.*]
    a) Have there been any factors which have made it easier for women to trade? Harder for women to trade? [*Get their answers, and if they do not mention them, probe on port development, OSBP operationalisation/road expansion.*]

5. What has been the impact (positive and/or negative) of port development/OSBP operationalisation/road expansion on women's ability to trade? [*Probe on changes in time and cost, volume, earnings, etc.*]
    a) Do you think this impact will be long-lasting or not? Why?

6. Compared to 2016, has the amount that woman traders [business operators] have been able to trade gone up or down? What about the value of those goods? Why has this changed? Are the processes they have to go through to cross a border quicker or slower nowadays compared to before?
    a) Are these changes likely to continue in the long term? Why/why not?
    b) What happens if woman traders [business operators] are able to trade more? *[probe earnings and what they spend the money on]*
    c) What about payments to cross the border - have these gone up or down? Are they fair? How often do women have to give bribes, if at all? How does this affect earnings?
    d) Has the change in volume/value of goods traded affected what women spend their money on?

7. Have women been able to overcome the challenges to trading [cross-border or export business operations]? How?

8. How have the changes that you have mentioned affected household members that live with the women traders [business operators]? *[probe relationships, responsibilities for domestic work and childcare]*

9. Let's imagine you get a new job as the Minister of Trade in this country. What measures would you take to improve women's ability to trade?

10. Is there anything else that you would like to talk about that we haven't spoken about so far? Anything you would like to ask me?

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Annex F: Endline Assessment of TMEA Poverty Impact – Rwanda

Endline Assessment of TMEA Poverty Impact

Quantitative study: RWANDA

Dr. Sebastian Silva-Leander

July 2019

Oxford Policy Management

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List of abbreviations

OPM	Oxford Policy Management
EICV	Enquête Intégrale des Conditions de Vie
RCT	Randomised Control Trial
ATT	Average Treatment Effect
TMEA	Trade Mark East Africa

1 Introduction

This report presents the results of the quantitative assessment of the impact of TMEA on poverty. As explained in the methodological note, the evaluation strategy used to assess the impact of TMEA on poverty is a contribution analysis, meaning that it will not be possible to establish with certainty that the observed impacts can be directly attributed to TMEA. Instead, the evaluation aims to explore the various channels through which TMEA is thought to have effected poverty, with a view to forming a global picture of the likely relation between TMEA and observed changes in poverty.

This study focuses on the three channels defined by economic theory through which trade is thought to effect poverty, namely: (1) the price channel, (2) the wage and employment channel, and (3) the public expenditure channel[1]. The extent to which these links can be explored is constrained by the data and techniques being used. For this reason, the study will only be answer part of the research questions posed in the ToRs, and it will, consequently, be important to complement these quantitative findings, with the results from the ongoing qualitative and other studies that will help to answer other parts of these questions.

This report is structured as follows: Section 2 presents the methodology and data used for the analysis. Section 3 presents the main results regarding the impact of exposure to trade on poverty and consumption. Section 4 explores the three channels through which trade is thought to effect on poverty (prices, wages/ employment, and public expenditure). This will help to understand how the outcomes observed in section 2 were generated. Section 5 concludes.

[1] See Berg & Krueger, 2003; Dollar and Kraay, 2004; Hertel and Reimer, 2005; Hoekman and Olarreaga, 2007; Hoekman et al, 2001; McCulloch et al., 2001; Ravallion, 2005; Winters et al., 2004.

2 Methodology

2.1 EICV Survey

For this analysis, we used the Integrate Household Survey (EICV) 2010/11 and 2016/17.

The EICV is a nationally representative survey, which contains information on household characteristics, consumption, and other relevant welfare indicators.

The EICV is statistically representative down to the province level. Households were grouped into different categories depending on their proximity to the trade corridor and relevant indicators were estimated for each province separately, or for the group as a whole, depending on the needs of the analysis.

Data used to identify the trade corridors was obtained from Transit Facilitation Agency.

2.2 Assessment methodology

The main method used in this study to assess the impact of exposure to trade on poverty and other indicators is the so-called difference-in-differences method (diff-in-diff for short). The diff-in-diff method involves comparing the changes over time in specified outcome indicators for a treatment group (in this case, households exposed to trade), and a control group (households not exposed to trade).

The quantitative analysis of impact is based on the comparison of a range of indicators between “treatment” households (i.e. households located in the trade corridor, or households working in the tradable sector) and “control” households. The key impact measure is the Average Treatment Effect on the Treated (ATT) which is estimated using a difference-in-difference approach. The ATT estimator for the direct effects of exposure to trade on selected households is defined as:

$$ATT = E[Yi \mid Ti=1] – E[Yi \mid Ti=0] \quad (1)$$

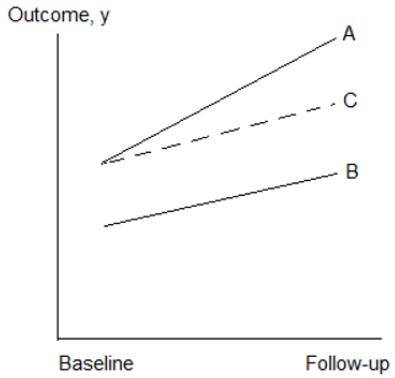
where Y is the outcome variable and ‘i’ indexes households. T is the treatment indicator, with a value of 1 if it a household is “treated”, 0 if in a “control” household. The ATT compares the outcome variable for “treatment” households and “control” households. Equation (1) shows the expected outcome households that have been exposed to trade (i.e. located in the trade corridor or working in the tradable sector) minus the expected outcome among households not exposed to trade.

The difference-in-difference estimation method is designed to be used in the context of randomised control trials (RCTs) and similar experimental and semi-experimental design settings. In this case, the study is using secondary data, which means that no ex-ante design could be used. This means that there is no guarantee that our “treatment” and “control” groups will be comparable. In fact, there are strong reasons to believe that the two groups are not identical, since the poverty profile carried out in 2015 showed large differences between these different groups. These differences need not in themselves be problematic, so long as the factors influencing change over time have been the same for the different groups.

Indeed, one key assumption in the DID approach is the assumption of common trend. The assumption specifies that control households must evolve from the baseline to the follow-up period in the same way treatments would have done had they not been treated. This assumption, which is needed for the consistency of the DID estimator, imply that treatment and control households are affected in the same way by macro shocks.

A graphical representation of common trend is presented in the figure below. When applying first difference in outcome, the trend of the control (line B) is substituted for the counterfactual situation

for the treatment households (non-treatment) (or line C). If this assumption holds the unbiased estimate becomes the difference in the trend between line A and C.



This is a key implicit assumption that must hold for the results in this report to be interpreted as representing the "treatment" effect of being exposed to trade. This is an assumption that cannot be verified, and therefore must be seen as an inherent limitation of this study.

The difference in difference model is estimated in the following functional form:

$$Yit = a + b1Ti + b2t + b3Ti *t + ct (Xit) + eit \quad (2)$$

where the indicator for treatment or control for household i (Ti) is interacted with a dummy indicating the follow-up round (period 1). The equation incorporates a population time trend (captured by parameter b2), and a group fixed effect indicated by the parameter b1. The difference in difference estimator is provided by parameter b3.

In the case of binary outcomes, model specification (2) is be estimated using a logit model, though the coefficients on the treatment and interacted dummy respectively cannot be directly interpreted as the marginal treatment effect on probability without the necessary transformation of the probability function. For non-binary variables Ordinary Least Squares (OLS) regressions were used. For the depth and severity of poverty indicators (FGT1 and FGT2), Tobit regressions were used, where the lower limit truncation was set to zero. This reflects the fact that there are variations in wellbeing above the poverty line that will not be captured as the poverty measures are, by definition, truncated at the poverty line.

It is important to point out that the diff-in-diff method is normally used with formal impact evaluation techniques, such as Randomised Control Trials (RCTs), to quantify the effect of a given treatment on a treatment group. In our case, the underlying design of the study does not meet the requirements of an RCT or equivalent evaluation methods, since we were working from secondary data available in the EICV surveys. These surveys were not designed to assess the impact of trade on poverty. Consequently, the resulting impacts cannot be directly interpreted as representing the effect of trade on poverty. Instead, they should be seen as providing indications of possible relations, to be further explored through the various other studies, as part of the overall contribution analysis.

For this study, synthetic treatment and control groups had to be constructed for the purpose of answering the research questions outlined in the ToRs. The following groups were defined:

- Physical distance to trade corridor, based on GPS coordinates (definition 1) – excluding households located in Kigali and households in districts adjacent to trade corridor:
  - Treatment: households located within 10 kms of the trade corridor (except households located in Kigali).
  - Control: households located more than 20 kms from the trade corridor.

  - Note that households located more than 3 hours from the nearest all-weather road are considered remote (i.e. far from corridor) regardless of the physical distance to the trade corridor. Households located 1-3 hours from the nearest all-weather road are considered "far" (i.e. control) if located 10-20kms from the corridor and adjacent (i.e. neither treatment nor control) if located 0-10kms from the corridor.

- Physical distance to trade Corridor, based on GPS coordinates (definition 2) – including households located in Kigali and households in districts adjacent to trade corridor:
  - Treatment: households within 20 kms of the trade corridor (including households located in Kigali).
  - Control: households located more than 20 kms away from trade corridor.
  - Note that households located more than 3 hours from the nearest all-weather road are considered remote (i.e. far from corridor) regardless of the physical distance to the trade corridor. Households located 1-3 hours from the nearest all-weather road are considered "far" (i.e. control) if located 10-20kms from the corridor and adjacent (i.e. treatment) if located 0-10kms from the corridor.

The trade-corridor definitions used for Rwanda were different from those used in the other three countries. This is due to two facts: (1) Rwanda is smaller, so the entire country is located less than 50 kms from a trade corridor. Consequently, the 50km threshold could not be used in Rwanda. (2) Rwanda is hilly, so 20kms on a map typically represents a further real travel distance in Rwanda than in, say, Kenya or Tanzania.

- Sector of employment of the head of household (definition 1) – excluding those working in agriculture and those working in intermediary tradeable/ non-tradeable sectors:
  - Treatment: households headed by someone working in the tradable sector (excl. households working in agriculture).
  - Control: households headed by someone working in the non-tradable sector (excl. households working in mixed or partly tradable sectors).
- Sector of employment of the head of household (definition 2) – including those working in agriculture and those working in intermediary tradeable/ non-tradeable sectors:
  - Treatment: households headed by someone working in the tradable sector (including households working in agriculture).
  - Control: households headed by someone working in the non-tradable sector (including households working in mixed or partly tradable sectors).

Unless specified otherwise, we report results for definition 1 of the treatment/control groups, as these tend to yield sharper results, due to the clearer distinction between treatment and control groups. Results for the definition 2 groups are contained in the statistical tables and referred to as necessary in the main report.

Table 1: Employment sector of the head of household (%), by distance to trade corridor

	Kigali	In TC: excl. Kigali	Adjacent	Far from Corridor	Total
Sector:					
Unemployed	5.73	4.28	5.99	4.58	4.83
Tradable Agric.	15.5	75.2	62.13	71.67	64.02
Tradable (non-agr.)	5.6	2.66	3.42	3.97	3.51
Mixed	33.55	7.64	12.63	9.79	12.53
Non-tradable	39.62	10.23	15.82	9.99	15.11
Total	**100**	**100**	**100**	**100**	**100**

Source: Author's calculations based on EICV 5.

Table 2: Proportion of poor and male-headed households (%), by sector of employment and distance to trade corridor

	Poverty Incidence (FGT0)		Male-headed households		Observations	
Year:	**2010/11**	**2016/17**	**2010/11**	**2016/17**	**2010/11**	**2016/17**
Kigali	26.6	13.2	78.1	82.0	1,276	1,619
In TC: excl. Kigali	46.6	38.5	77.0	79.4	6,127	6,685
Adjacent to TC	41.3	40.3	77.3	81.7	2,597	2,419
Far from TC	47.1	48.0	77.2	81.3	3,808	3,857
Unemployed	28.8	44.0	80.9	74.5	717	736
Tradable Agric.	48.0	44.7	74.2	76.0	11,222	9,577
Tradable (non-agr.)	38.5	35.2	88.8	93.8	369	523
Mixed	18.1	20.3	88.7	88.1	951	1,769
Non-tradeable	21.0	20.7	93.2	92.9	1,049	1,975
Total	**43.4**	**37.7**	**77.2**	**80.6**	**13,808**	**14,580**

Source: Author's calculations based on EICV 3/ 5.

Table 3: Key macro-economic indicators for Rwanda (2010-2018)

Year:	2010	2011	2012	2013	2014	2015	2016	2017	2018
GINI index (World Bank estimate)	47.2	..	..	45.1	..	..	43.7	..	..
GDP per capita (constant 2010 US$)	576	606	643	657	690	732	756	781	826
GDP growth (annual %)	7.34	7.78	8.82	4.71	7.62	8.87	5.98	6.06	8.67
Inflation, consumer prices (annual %)	-0.25	3.08	10.27	5.92	2.35	2.53	7.17	8.28	-0.31

Source: World Bank WDI databank.

3 Results

3.1 Poverty by trade corridors

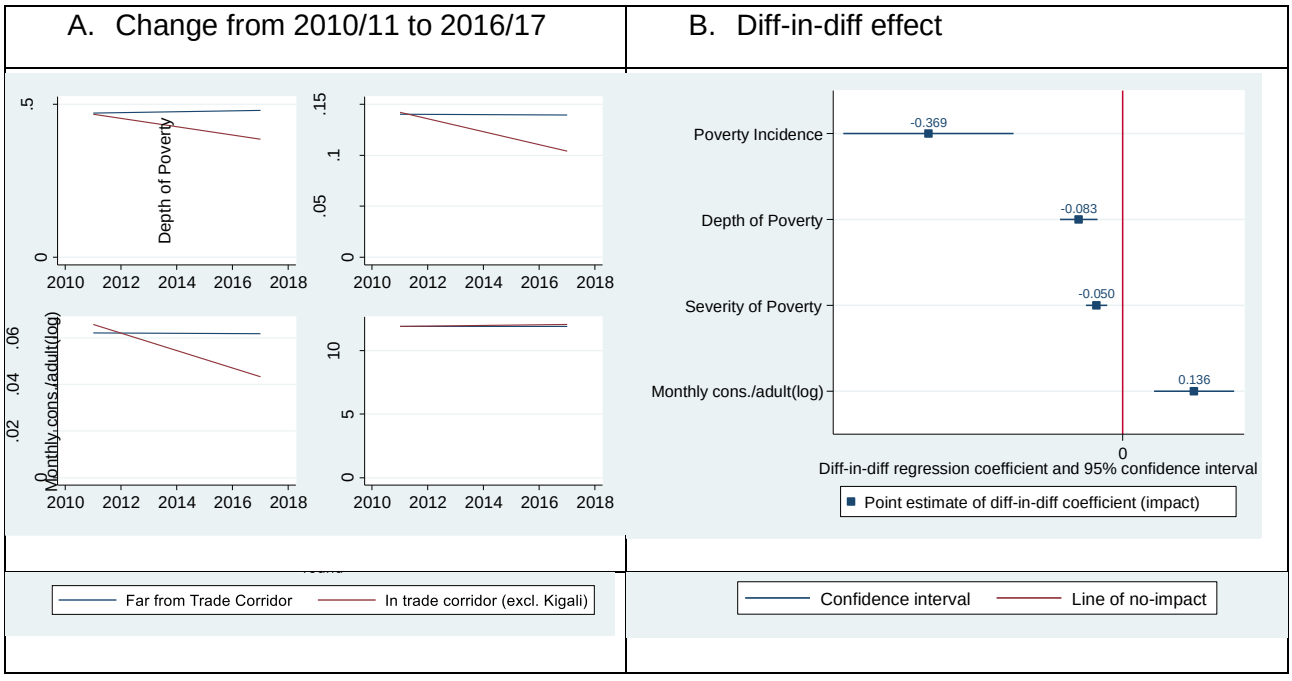
This section presents the results of the disaggregation by distance to the trade corridor for the incidence (FGT0), depth (FGT1) and severity (FGT2) of poverty, as well as for per adult equivalent consumption (lnpc_mon_cons).

Figure 1 presents the results comparing areas located in the trade corridor ("treatment"), compared to areas located far away from the trade corridor ("control"). In other words, it excludes areas that are adjacent to the trade corridor, so as to get a clearer contrast between "treatment" and "control" groups. We also excluded Kigali from this assessment, as it has very different pricing structure and could bias the results. More detailed results, including Kigali and areas adjacent to the trade corridors, are available in the statistical tables below (Tables 4 and 5).

The results show that the official poverty rate (FGT0) decreased by more than 8 percentage points between 2010/11 and 2016/17 in the trade corridor, but increased slightly in areas located far away from the trade corridor. Similar patterns are observed for the depth (FGT1) and severity (FGT2) of poverty. The treatment effect[2] for all three indicators is statistically significant at the 1% level, meaning that poverty decreased more along the trade corridor than far away from the corridor.

The data also show that per adult consumption has increase much faster in the trade corridor than in areas far from the corridor. The effect is statistically significant at the 1% level.

Figure 1: Poverty and consumption, by distance from trade corridor



[2] Treatment effect refers to the additional drop in poverty experienced by households exposed to trade (treatment group in this case), compared to households not exposed to trade (control group). A negative treatment effect indicates that poverty fell faster in the treatment group than in the control group. For consumption, a negative treatment effect would indicate that consumption rose more slowly in the treatment group than in the control group. In these tables as throughout the report and annexes, * denotes statistical significance at .10, ** denotes statistical significance at .05, and *** denotes statistical significance at .01, representing progressively less likelihood that a result occurred by chance alone.

Point estimates for figure 1A

Distance to trade corridor	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./adult (log)
Far from	2010/11	47.1	14.0	6.2	11.89
trade corr.	2016/17	48.0	13.9	6.2	11.91
In trade	2010/11	46.6	14.2	6.6	11.91
corridor	2016/17	38.5	10.4	4.3	12.06

Source: Author's calculations based on EICV 3/ 5.

At a more detailed level, the following two tables show the treatment effects of exposure to trade across a range of indicators designed to capture aspects of poverty and other relevant social indicators (e.g., employment, education, and use of health services). The first table shows the effects for all households, while the second table shows the results for female-headed households. Households exposed to trade tended to fare better than those not exposed to trade, across the measures, but most noticeably where households were located in the trade corridor. The first two columns of the two tables show these results, both excluding and excluding the capital city, since major cities tend to have very different pricing structures and could bias the results.

For example, in Rwanda, poverty incidence, depth of poverty, and severity of poverty all fell for all households, and the results that include Kigali were stronger than those where Kigali was excluded. Still, these key measures showed positive results (i.e., less poverty, depth and severity) in the trade corridor than not in the corridor, whether or not Kigali was included. Consumption rose for all households (for treatment effects of -0.136 when excluding Kigali, and -0.200 when including Kigali). Each of these findings was highly statistically significant.

For those households that reported that their income came from a tradable sector, the results were not often statistically significant, particularly on the key indicators of poverty, depth and severity, as shown below. In this case, two columns of figures are offered: the first excludes agriculture and the second includes it. While all households reported increased consumption (with treatment effects of 0.255 for tradable sector excluding agricultural households, and 0.167 for households in tradable sectors including agriculture), this finding was only significant for the tradable sector without agriculture.

Table 4: Treatment effect of being exposed to trade vs. not exposed to trade (all households)

	Trade-corridor		Tradable sector	
	Excl. Kigali/ Adjacent to TC	Incl. Kigali/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	-0.369***	-0.457***	-0.123	-0.199
Depth of poverty	-0.083***	-0.107***	-0.062	-0.039
Severity of poverty	-0.050***	-0.061***	-0.042	-0.020
Consumption p.c.	0.136***	0.200***	0.255**	0.167
Price index	-0.055***	-0.081***	0.014	0.100***
Share tradable cons. (non-food)	-0.012	-0.022***	-0.036**	-0.015*
Agricultural sales	-0.333	-0.334	-0.201	-0.474*
Transfers	0.067	0.017	-0.033	0.005
Wages	0.992***	0.760***	1.167**	0.806**
Non-agri. sales	0.118	0.689	-2.340	-1.770*
Unemployment	-0.003	-0.011*	-	-
Formal employment	0.027	0.063***	0.083*	-0.245***
Self-Employed	0.035**	0.040**	-0.162***	-0.031*
Agriculture empl.	0.061***	0.042*	0.000	-0.020
All children (6-18) attending school	-0.065***	-0.053***	-0.021	0.036

	Trade-corridor		Tradable sector	
Prop. attending public schools	-0.089***	-0.084***	0.047*	0.046***
Share educational expenditures/ total	0.000	-0.002	0.014**	0.008**
Sick but did not consult medical	-0.016	0.017	-0.086	-0.046*
Prop. consulted public health facil.	-0.243***	-0.145***	0.062	-0.014
Share health expenditures/ total	-0.004***	-0.005***	0.006***	0.008***

Source: Author's calculations based on EICV 3/ 5

The pattern repeated for female-headed households, as shown in Table 5: trade corridor households had important treatment effects in poverty incidence (-0.308 for the corridor excluding Kigali, and -0.378 for the corridor including Kigali), depth of poverty (-0.073 for the corridor excluding Kigali, and -0.092 for the corridor including Kigali), and severity of poverty (-0.042 for the corridor excluding Kigali, and -0.051 for the corridor including Kigali. Each of these findings was statistically significant.

Table 5: Treatment effect of being exposed to trade (Female-headed households)

	Trade-corridor		Tradable sector	
	Excl. Kigali/ Adjacent to TC	Incl. Kigali/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	-0.308**	-0.378***	-1.449*	-0.206
Depth of poverty	-0.073**	-0.092***	-0.439**	-0.055
Severity of poverty	-0.042**	-0.051***	-0.234**	-0.028
Consumption p.c.	0.091	0.145***	0.556**	0.138
Price index	-0.055***	-0.073***	0.061	0.131***
Share tradable cons. (non-food)	-0.022	-0.031**	-0.057	-0.018
Agricultural sales	-0.096	-0.071	0.553	-0.920
Transfers	0.127	-0.048	-0.023	0.269***
Wages	0.406	0.219	0.083	-0.420
Non-agri. sales	0.118	0.689*	-2.340	-1.770
Unemployment	-0.021*	-0.008	-	-
Formal employment	0.009	0.045	-0.131	-0.160**
Self-Employed	0.014	0.030	0.035	-0.058
Agriculture empl.	0.066***	0.010	-	-
All children (6-18) attending school	-0.086**	-0.073**	0.206	0.068
Prop. attending public schools	-0.105***	-0.092***	0.248***	0.108***
Share educational expenditures/ total	-0.001	-0.007*	0.075***	0.021*
Sick but did not consult medical	-0.005	0.021	-0.322*	-0.126*
Prop. consulted public health facil.	-0.275***	-0.166***	0.093	-0.009
Share health expenditures/ total	-0.003	-0.005	0.012**	0.010**

Source: Author's calculations based on EICV 3/ 5

While there are important differences from indicator to indicator and depending upon how 'trade corridor' and 'tradable sector' are defined, the general picture is one of a correlation between exposure to trade and positive poverty outcomes. Additional figures from these two tables will be discussed in the relevant sections of this annex, below.

3.2 Poverty by sector of employment

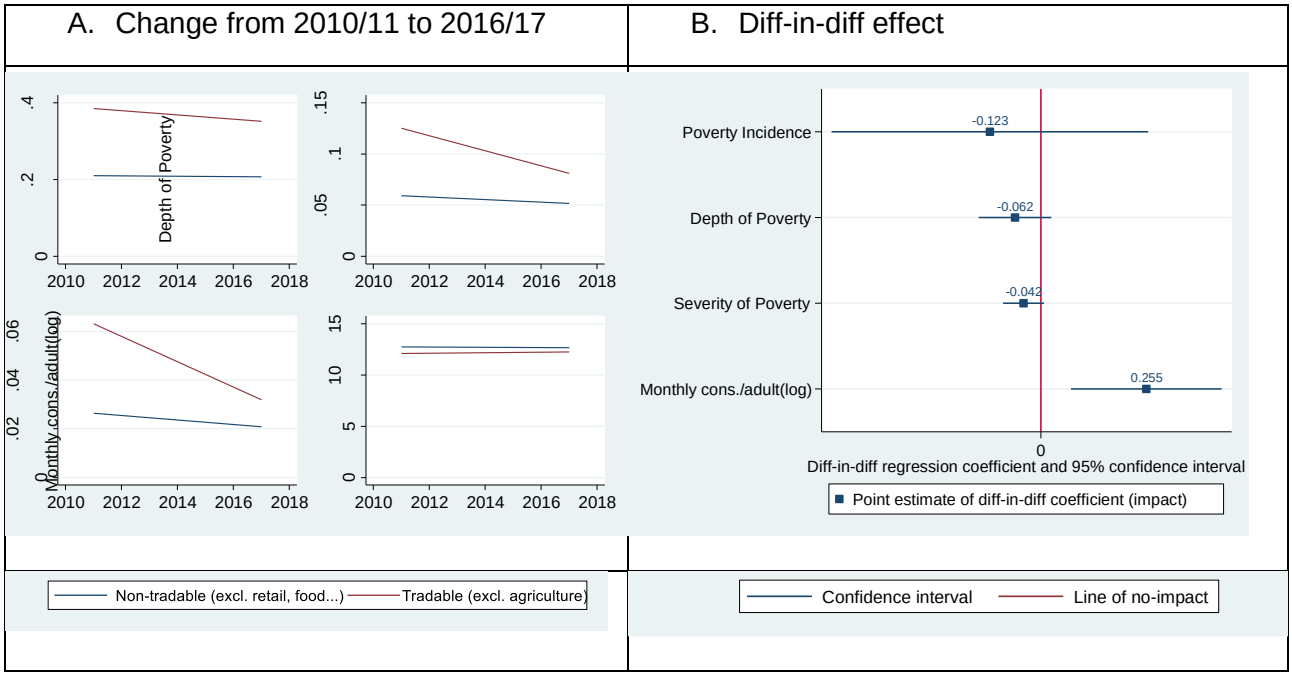
This section presents the findings comparing changes in poverty for household whose head is employed in the tradable sector ("treatment") and those employed in the non-tradable sector ("control"). For clarity, we have excluded household employed in subsistence agriculture, which is formally considered a tradable sector, although these households cannot benefit from potential gains of trade if they do not sell their produce in the market. We have also excluded intermediary sectors that have both tradable and non-tradable components. For instance, the retail sector is usually considered a non-tradable sector, but insofar as it retails tradable goods, it would be strongly affected by changes in trading conditions. More detailed results, including for subsistence agriculture and intermediary sectors, are available in the statistical tables.

The results show that the incidence of poverty incidence (FGT0) decreased by 3 percentage points amongst households employed in the tradable sector, while it barely changed at all in the non-tradable sector. In 2010/11, poverty was significantly higher in the tradable than in the non-tradable sector, which means that there was a slight convergence between the two poverty rates over this period. However, the changes are not statistically significant.

For depth (FGT1), and severity (FGT2) of poverty, the convergence was much more pronounced, but again, the results are not statistically significant. This may partly reflect the relatively small sample sizes involved, as the non-agricultural tradable sector (i.e. manufacturing and mining) remain very small in Rwanda.

The results for per adult consumption show a strong and statistically significant (at 5%) convergence between the average consumption in the tradable and non-tradable sectors. This suggests that high incomes in the tradable sector have increased faster that average and lower incomes.

Figure 2: Poverty and consumption, by sector of employment of the household head



Point estimates for figure 2A

Employmt of hhd. Head	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./adult (log)
Non-trade sector	2010/11	21.0	5.9	2.6	12.74
	2016/17	20.7	5.2	2.1	12.65
Tradeable sector	2010/11	38.5	12.5	6.3	12.08
	2016/17	35.2	8.1	3.2	12.25

Source: Author's calculations based on EICV 3/ 5.

3.2.1 Poverty impact amongst female-headed households

The terms of reference request that estimates are produced for the specific impact of TMEA on women. The extent to which this can be assessed using quantitative methods applied to households survey data from the EICV is limited, due to the fact that most indicators are defined at the household level and, therefore, do not allow us to differentiate between the impact on different members within the household. For this reason, our assessment will be limited to the impact on female-headed household. A more thorough assessment of the impact on other women will be made through the qualitative study.

The evidence presented in Table 6 below indicates that women employed in the tradable non-agricultural sector benefited more from trade-liberalisation than their male counterparts: the treatment effects for female-headed households are much larger and statistically significant at the 5% level for all indicators. This reflects the fact that poverty dropped by 25 percentage points amongst women employed in the tradable sector (see Table 8 below).

However, when looking at trade corridors, there is no major difference between male and female headed households in terms of the treatment effect: poverty fell by 10 percentage points amongst female-headed households in the trade corridor (see Table 7 below), compared to 8 percentage points for the whole population (see Figure 1.A above), resulting in similar treatment effects of -0.369 for all households (Figure 1.B) and -0.308 for female-headed (Table 6). Also, when we include agriculture in the tradable sector, the difference between treatment effects for male- and female-headed households all but disappears. This suggests that the gender-positive effect of trade is limited to women employed in manufacturing (and mining, if any).

Table 6: Treatment effect of exposure to trade on poverty for female-headed households

	Trade corridor		Tradable sector	
	Excl. Kigali/ Adjacent to TC	Incl. Kigali/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	-0.308**	-0.378***	-1.449*	-0.206
Depth of poverty	-0.073**	-0.092***	-0.439**	-0.055
Severity of poverty	-0.042**	-0.051***	-0.234**	-0.028
Consumption p.c.	0.091	0.145***	0.556**	0.138

Source: Author's calculations based on EICV 3/ 5

Table 7: Point estimates for poverty indicators, by distance to trade corridor (excl. Kigali and districts adjacent to the corridor)

Distance to trade corridor	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./ adult(log)
Far from trade corr.	2010/11	50.4	15.8	7.2	11.84
	2016/17	48.5	15.0	6.9	11.87
In trade corridor	2010/11	49.2	15.4	7.0	11.88
	2016/17	39.7	11.2	4.9	12.00

Table 8: Point estimates for poverty indicators, by sector of employment of the household head (excl. agriculture and intermediary sectors)

Employmt of hhd. Head	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./ adult(log)
Non-trade sector	2010/11	8.6	1.9	0.7	13.01
	2016/17	11.9	3.4	1.4	12.83
Tradable sector	2010/11	50.0	19.4	10.2	11.90
	2016/17	25.3	5.7	2.7	12.28

4 Explaining the results

The results presented in section 3 above convincingly show that poverty decreased much more rapidly along the trade corridor, than in areas located far from the trade corridor. There is also some evidence of convergence between households employed in the tradable and non-tradable non-agricultural sectors, especially amongst female-headed households. However, those result do not tell us why that is the case.

In order to answer the main research question, and understand whether TMEA might have contributed to improving living conditions among the poor, it is thus necessary to look at the various channels through which trade is hypothesised to impact on poverty, namely (1) the price channel, (2) the wage and employment channel, and (3) the public spending channel.

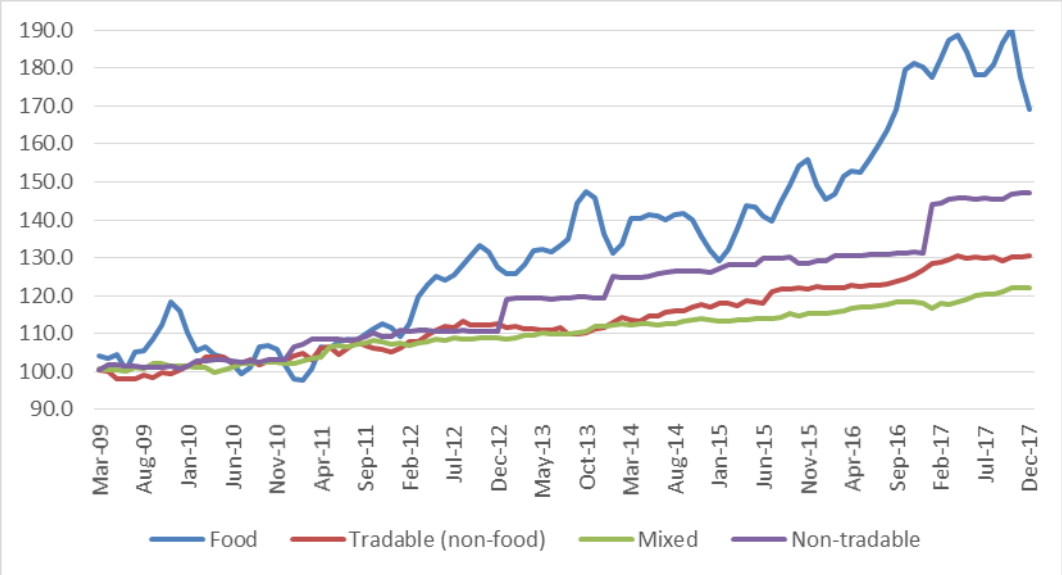
4.1 Price channel

Figure 3 below shows the evolution of tradable vs. non-tradable goods between 2009 and 2017 in Rwanda. For clarity, we have separated food from other tradable goods, as food represents a large share of consumption in Rwanda and may partly be driven by other factors, such as local weather conditions, etc. We have also separated out what we call “mixed” goods. Those are goods that would normally be classified as non-tradable goods, but which contain a large proportion of tradable inputs. This includes, for instance, the transport sector, which is heavily reliant on fuel prices, and restaurants, which depend on food prices.

The graph shows that the price of food items has increased more rapidly than other items, especially since 2015. However, other tradable goods seem to have had relatively modest price increases – far less, for instance, than pure non-tradable goods.

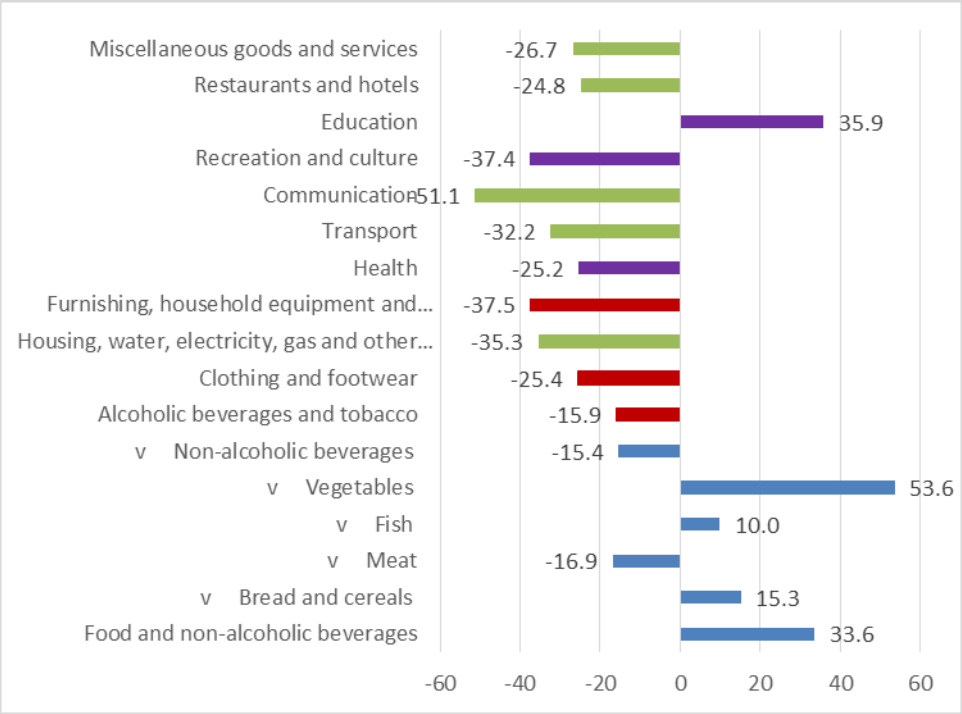
A further disaggregation by item-type showed that during the period of interest for this study (2011-2017), the increase in the price of non-tradable items was exclusively driven by the price of education, which rose by 35%. By contrast, all food prices, except meat and non-alcoholic beverages, increased more than the average CPI increase (see Figure 4 below).

Figure 3: CPI (2009-2017), by sector



Source: UBOS

Figure 4: Change in sector CPI relative to total CPI (2011-2017)

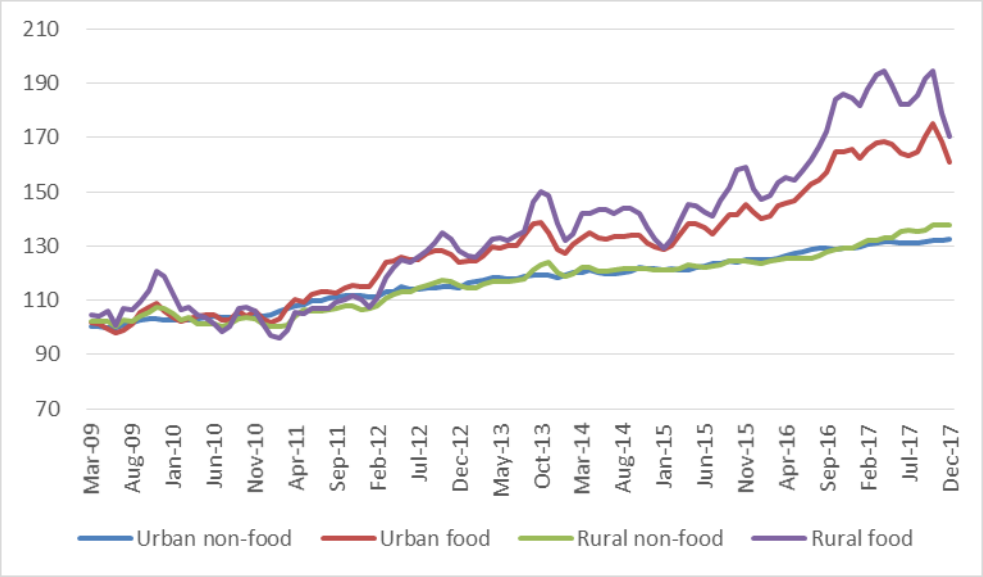


Source: Author's calculations based on NISR data

While CPI data could not be disaggregated by trade corridor for this study, due to data constraints, Figure 5 below shows the evolution of food and non-food price by area of residence. In Rwanda, most major urban centres are located in the trade corridor, whereas all areas located far from the corridor would be rural areas. This may therefore be seen as an imperfect proxy for the distance from the trade-corridor (a more detailed analysis is provided in Figure 8 below).

The figure shows that food prices increased more in rural areas than in urban areas. For non-food prices, there is little difference between urban and rural areas until 2016. In 2016 and 2017, non-food prices seem to have increased slightly more rapidly in rural areas than in urban areas.

Figure 5: Food and non-food prices, by area of residence

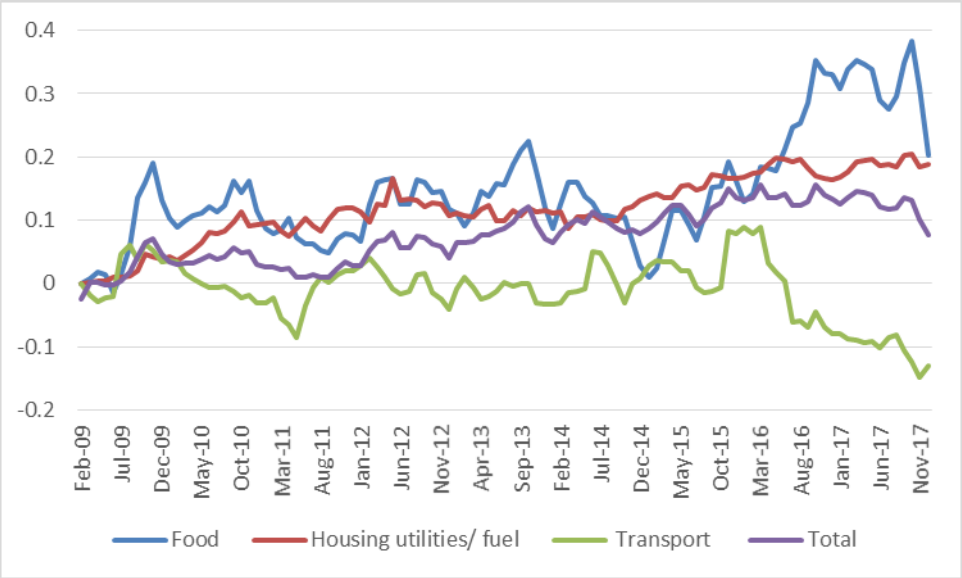


Source: EICV 3/5

Figure 6 shows the evolution of local vs. imported prices since 2009. It shows that for all items, except transport, local prices increased more rapidly than the prices of imported items. This suggests that greater exposure to trade could have contributed to reduce prices faced by consumers.

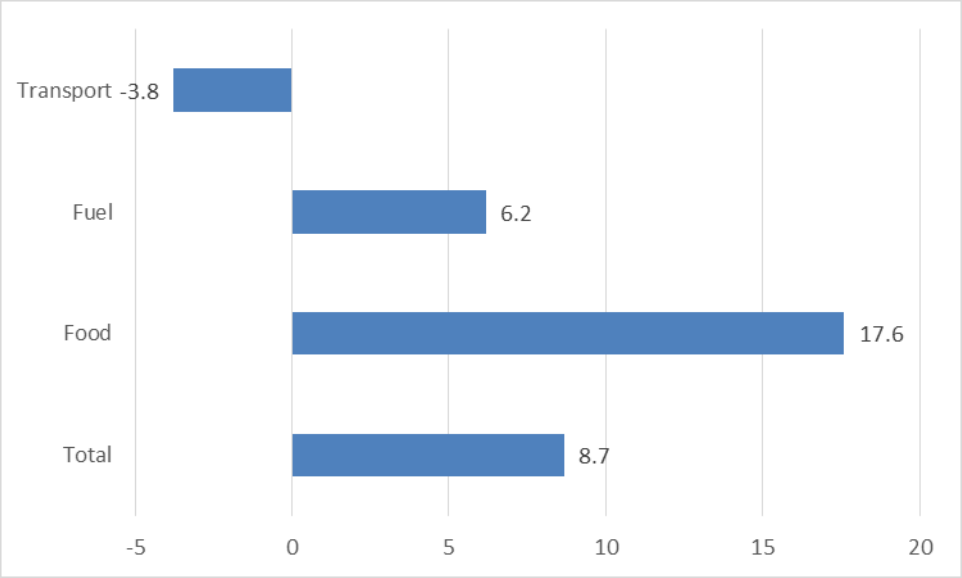
The difference between local and imported prices was largest for food items: between January 2011 and January 2017, local food prices rose almost 18% more than imported food prices (see Figure 7 below).

Figure 6: Local vs. imported prices, by type of expenditure



Source: EICV 3/5

Figure 7: Difference between local and imported price changes between January 2011 and January 2017



Source: EICV 3/5

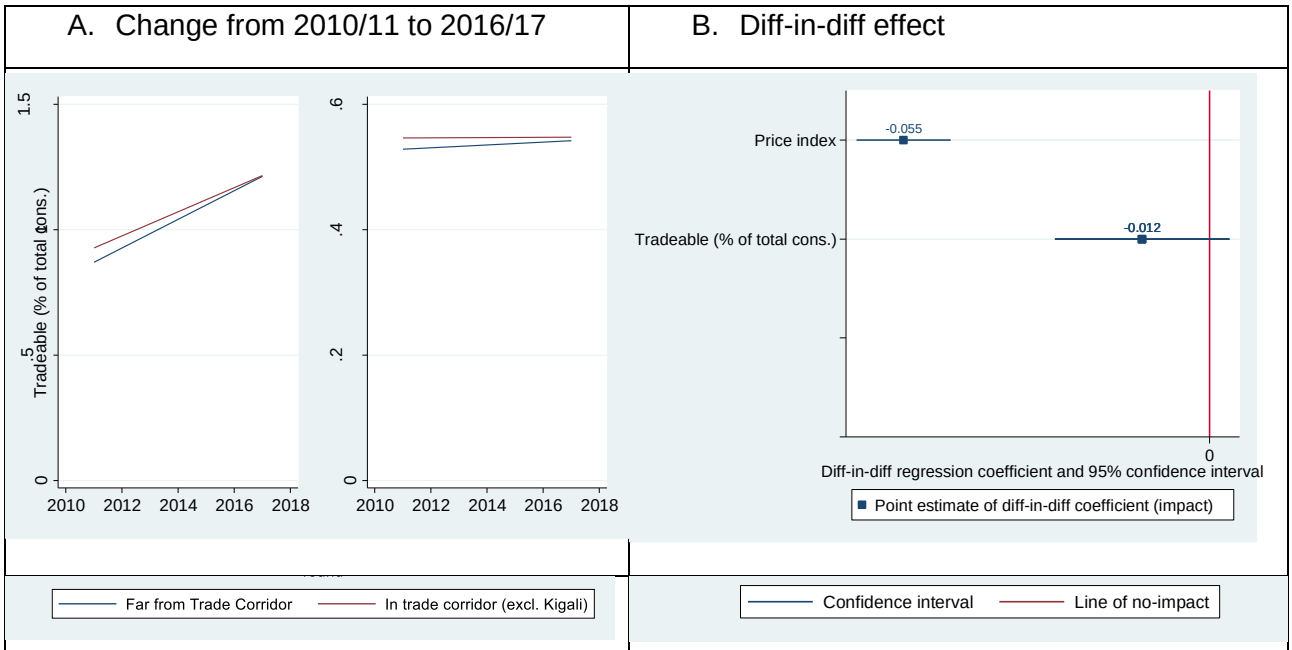
Figure 8 below looks at the average prices (pdeflator) faced by households in the various analysis groups, as well as the share of tradable goods in non-food consumption (SHR_tradenonfood). The choice was made to exclude food consumption (a tradable good) from this analysis because the share of food consumption is closely related to poverty and average income and could therefore bias the results.

The analysis confirms that prices have increase much more slowly along the trade corridor than in areas located far from the trade corridor. The result is statistically significant at the 1% level.

On the other hand, the data does not show any statistically significant change in the share of tradable goods being consumed in the trade-corridor compared to areas located far away.

When Kigali is included among the trade-corridor areas, the price convergence is even stronger. This suggests that Kigali prices decreased more in relative terms than prices elsewhere in the trade corridor (see statistical tables).

Figure 8: Average price index value and share of tradable goods in non-food consumption, by distance from trade corridor



Point estimates for figure 8A

Distance to trade corridor	Year	Price index	Tradeable (% of total cons.)
Far from trade corr.	2010/11	86.9	52.8
	2016/17	121.3	54.2
In trade corridor	2010/11	92.8	54.6
	2016/17	121.6	54.7

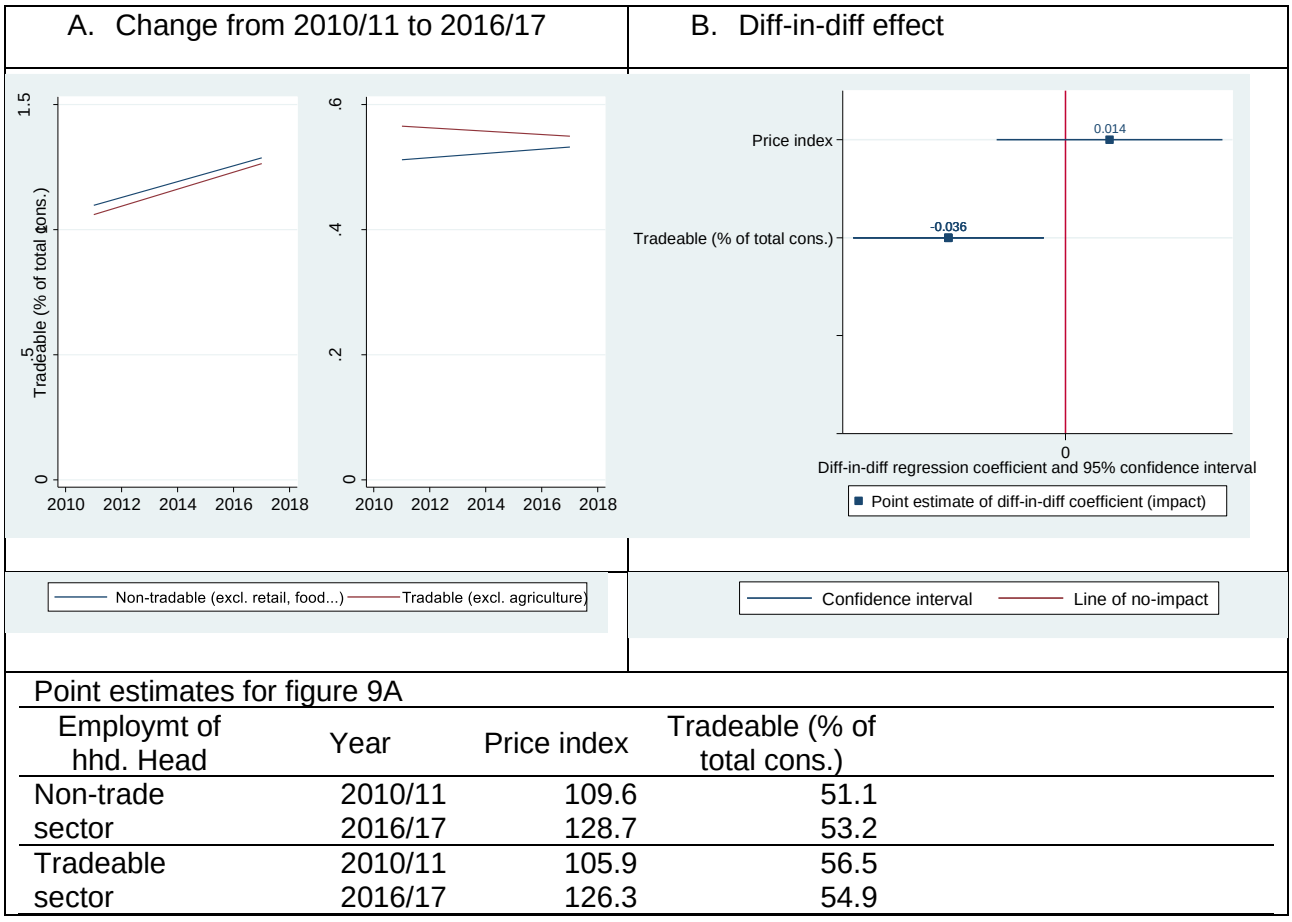
Source: Author's calculations based on EICV 3/ 5.

The analysis by sector of employment of the household head does not show any statistically significant effect on prices nor on consumption patterns of tradable non-food goods (see Figure 9 below). This finding is consistent with theory, as there is no theoretical reason why consumer prices faced by people employed in these sectors should differ from those employed in non-tradable sectors, unless the tradability of jobs is strongly correlated with the distance to the trade corridor, which does not appear to be the case – Table 1 above shows that tradable non-agricultural jobs are less common in the trade corridor (excl. Kigali) than elsewhere.

However, it is worth noting that when agriculture is included in the tradable sector, there is a positive and statistically significant treatment effect for the price deflator faced by people employed

in the tradable sector. This is consistent with the finding presented in Figure 5 above, which showed that prices increased more rapidly in rural than in urban areas (assuming, naturally, that most of those employed in agriculture live in rural areas).

Figure 9: Average price index value and share of tradable goods in non-food consumption, by sector of employment of the household head



Point estimates for figure 9A

Employmt of hhd. Head	Year	Price index	Tradeable (% of total cons.)
Non-trade sector	2010/11	109.6	51.1
	2016/17	128.7	53.2
Tradeable sector	2010/11	105.9	56.5
	2016/17	126.3	54.9

Source: Author's calculations based on EICV 3/ 5.

4.2 Wage/ employment channel

4.2.1 Income

This subsection looks at changes in different income sources (agricultural sales, social transfers, wages and non-agricultural sales) by distance from the trade corridor, and by sector of employment.

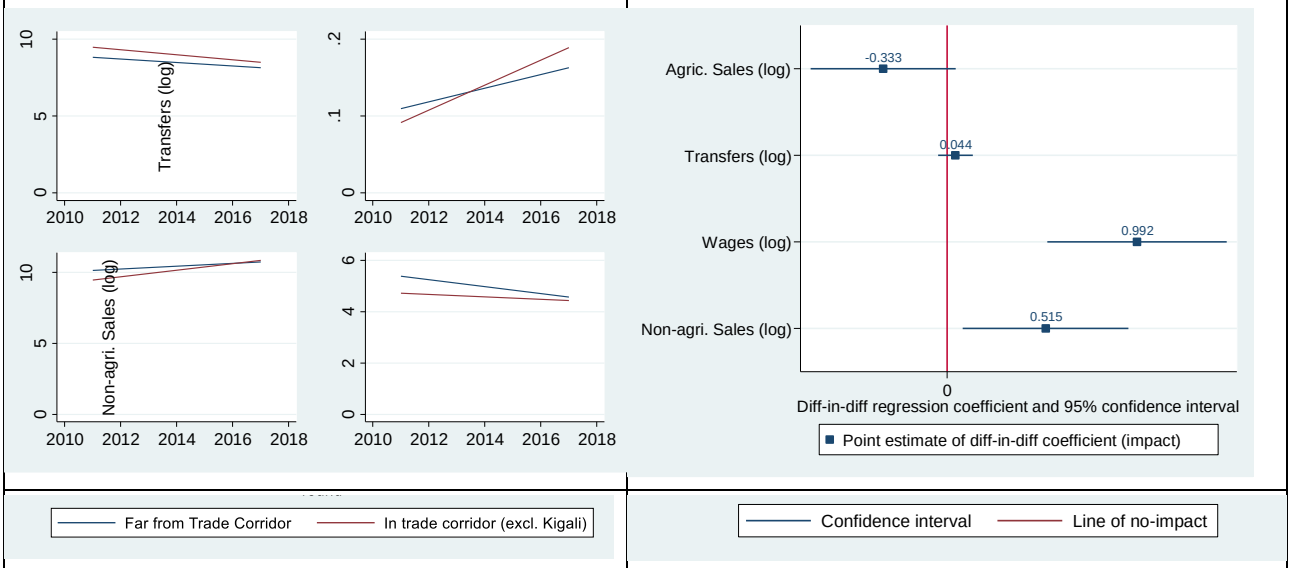
Figure 10 below shows that agricultural sales decreased in the trade corridor, both in absolute terms and in comparison to areas far from the corridor. However, the effect is not statistically significant. Similarly, social transfers changed very little and did not yield statistically significant treatment effects.

Income from wages, on the other hand, increased significantly in the trade corridor, compared to areas located far from the corridor. The treatment effect is statistically significant at the 1% level. Similarly, we find a statistically significant treatment effect (10% level) for non-agricultural sales. However, it should be noted that non-agricultural sales fell in all areas, meaning that the positive treatment effect reflects a slower decline in the trade-corridor, rather an increase in sales.

These results suggest that the improvements in living conditions along the trade corridor identified in section 3 above were linked primarily to increases in wages, rather than to sales or social transfers.

Figure 10: Sources of income, by distance from trade corridor

C. Change from 2010/11 to 2016/17 | D. Diff-in-diff effect



Point estimates for figure 10A

Distance to trade corridor	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Far from trade corr.	2010/11	8.81	0.11	10.12	5.38
	2016/17	8.14	0.16	10.74	4.57
In trade corridor	2010/11	9.47	0.09	9.46	4.72
	2016/17	8.48	0.19	10.84	4.44

Source: Author's calculations based on EICV 3/ 5.

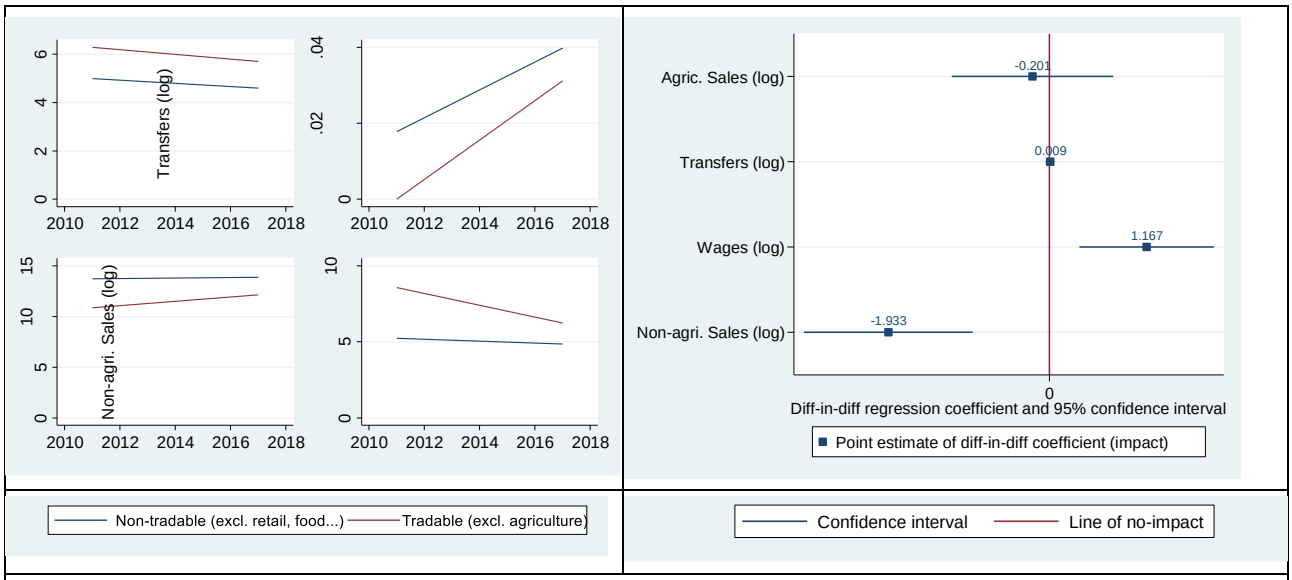
The analysis by employment sector shows very similar patterns: no detectable treatment effect was found for agricultural sales, nor for social transfers. However, there was a positive treatment effect on wages for people working in the tradable sector[3]. Non-agricultural sales actually decreased amongst households employed in the tradeable sector, resulting in a negative and significant treatment effect for this variable. This might reflect the fact the increased wages reduced the need for side-activities for households working in the tradable sector.

This suggests that wages were the main channel through which incomes increased amongst households working in the tradable sector in Rwanda.

Figure 11: Sources of income, by sector of employment of the household head

C. Change from 2010/11 to 2016/17 | D. Diff-in-diff effect

[3] Trade sectors are defined as follows: Agriculture: Agriculture, forestry and fishing; Tradable: Mining and Quarrying, Manufacturing, Mixed: "Electricity, gas, steam and air conditioning supply, Water supply; sewerage, waste management and remediation activities, Wholesale and retail trade; repair of motor vehicles and motorcycles, Transportation and storage, Accommodation and food service activities, Information and communication, Financial and insurance activities, Professional, scientific and technical activities, Activities of extraterritorial organizations and bodies; Non-tradable: Construction, Real estate activities, Education, Human health and social work activities, Arts, entertainment and recreation, Other service activities, Activities of households as employers; undifferentiated goods- and services-producing activities of households.



Point estimates for figure 11A

Employmt of hhd. Head	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Non-trade sector	2010/11	5.0	0.02	13.7	5.2
	2016/17	4.6	0.04	13.9	4.8
Tradeable sector	2010/11	6.3	0.00	10.9	8.6
	2016/17	5.7	0.03	12.1	6.2

Source: Author's calculations based on EICV 3/ 5.

4.2.2 Employment

Figure 12 shows no effect on unemployment in the trade corridor.

Formal employment[4] improved somewhat in the trade corridor, compared to areas far from the corridor. However, the effect is not statistically significant. When Kigali is included in the trade corridor, the treatment effect becomes more pronounced and statistically significant at the 1% level, indicating that employment improved more in Kigali than in other areas.

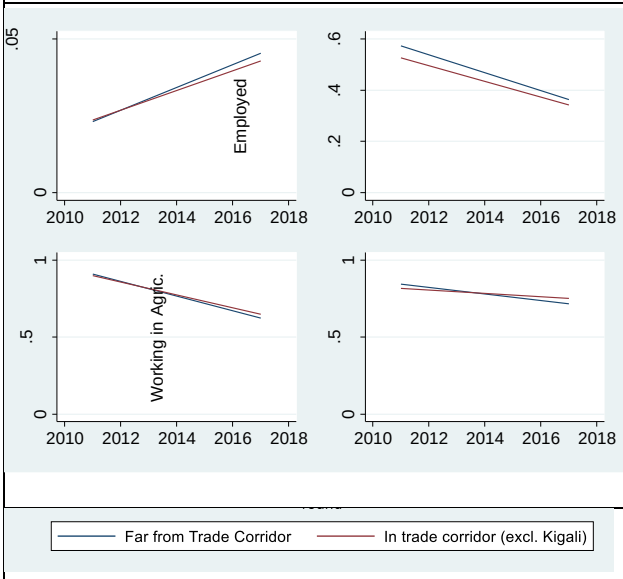
Self-employment and employment in the agricultural sector decreased in all areas, but the decline was less pronounced in the trade corridor, resulting in statistically significant treatment effects for these variables (5% and 1% significance, respectively).

Further research would be required to understand what these results mean and whether these changes reflect a voluntary shift towards more attractive jobs, or whether they reflect lack of availability of work in these areas due to economic decline.

[4] By formally employed we mean paid employees or employers, as opposed to unpaid family workers, apprentices or other type of work. We do not mean that they are employed in the formal sector.

Figure 12: Employment status, by distance from trade corridor

A. Change from 2010/11 to 2016/17



B. Diff-in-diff effect

Point estimates for figure 12A

Distance to trade corridor	Year	Unemployed (%)	Employed (%)	Self-employed (%)	Working in Agric. (%)
Far from trade corr.	2010/11	2.3	57.3	90.9	84.3
	2016/17	4.5	36.3	62.3	71.7
In trade corridor	2010/11	2.4	52.5	89.9	81.7
	2016/17	4.3	34.2	64.8	75.2

Source: Author's calculations based on EICV 3/ 5.

Self-employment decreased more rapidly in the non-agricultural tradable sector than in the non-tradable sector. The treatment effect is statistically significant at 1%.

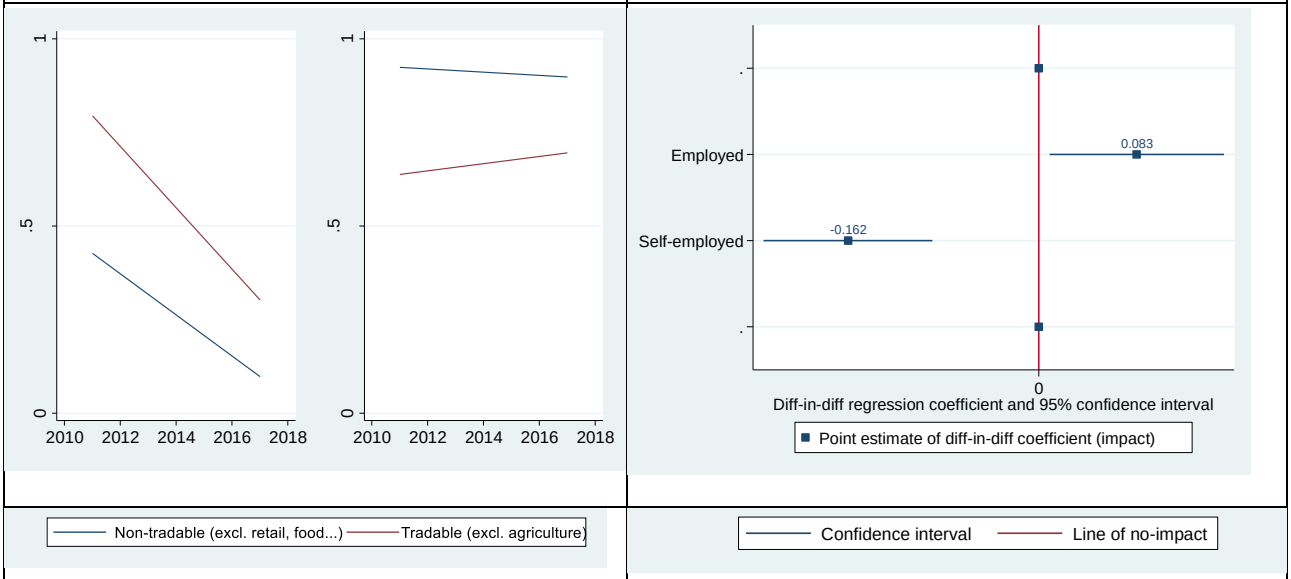
At the same time, formal employment increased in the tradable sector, relative to the non-tradable sector (significant at 10% level).

The trends point towards a possible formalisation of the tradable sector, which is consistent with the earlier finding that wages were the main channel through which incomes improved amongst households exposed to trade.

Figure 13: Employment status, by sector of employment of the household head

E. Change from 2010/11 to 2016/17

F. Diff-in-diff effect



Point estimates for figure 13A

Employmt of hhd. Head	Year	Unemployed (%)	Employed (%)	Self-employed (%)	Working in Agric. (%)
Non-trade sector	2010/11	-	92.3	42.7	-
	2016/17	-	89.8	9.7	-
Tradeable sector	2010/11	-	63.7	79.4	-
	2016/17	-	69.5	30.2	-

Source: Author's calculations based on EICV 3/ 5.

4.2.3 Impact on wages and employment of female-headed households

The evidence presented in Table 9 below indicates that the income channel does not appear to have played the same important role amongst female-headed households as it did for other households: the treatment effects of exposure to trade on wages in Table 9 below are smaller in absolute terms than for the entire population (see Figure 10 and Figure 11 above), and are not statistically significant in the case of female-headed households.

Neither does the analysis for female-headed households show any significant effect of exposure to trade on self-employment and employment patterns.

One of the few statistically significant effects we find for female headed households are transfers, which appeared to have increased amongst female-headed households employed in agriculture, at the same time as formal employment decreased for this group in both absolute and relative terms. This suggests that transfers might have played a mitigating role, compensating for the loss of other sources of income amongst this group, reflected in the negative coefficients on agricultural sales, wages and non-agricultural sales in the right-most column of Table 9 below. Indeed, the results presented in Table 6 above had shown that there was no positive effect from exposure to trade for female-headed households working in the agricultural sector.

Table 9: Treatment effect of exposure to trade on wages and employment of female-headed households

	Trade-corridor		Tradable sector	
	Excl. Kigali/ Adjacent to TC	Incl. Kigali/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Agricultural sales	-0.096	-0.071	0.553	-0.920
Transfers	0.127	-0.048	-0.023	0.269***
Wages	0.406	0.219	0.083	-0.420
Non-agri. sales	0.118	0.689*	-2.340	-1.770
Unemployment	-0.021*	-0.008	-	-
Formal employment	0.009	0.045	-0.131	-0.160**
Self-Employed	0.014	0.030	0.035	-0.058
Agriculture empl.	0.066***	0.010	-	-

Source: Author's calculations based on EICV 3/ 5

4.3 Public spending channel

The third hypothesised transmission channel from trade to poverty reduction is the public spending channel: if increased trade generates increases in public revenue and if these additional resources are spent on pro-poor activities, then this could theoretically contribute to reducing poverty. Here we will only focus on one small aspect of pro-poor spending, namely spending on public health and education.

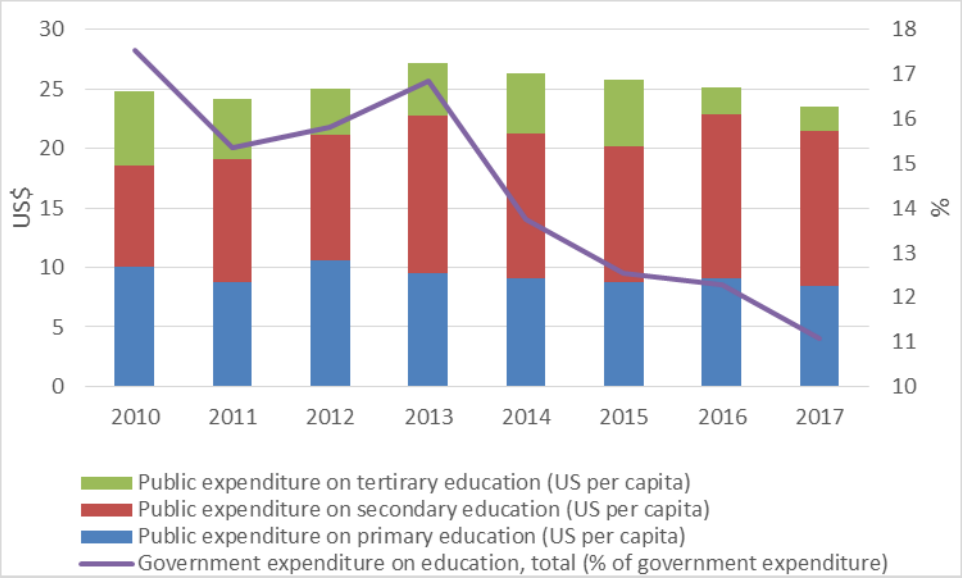
Another potential channel through which public spending could have a direct effect on poverty is through social transfers. Consolidated data on government spending on social protection is not readily available in most countries and could not be accessed for this study. However, the EICV allows us to estimate the transfers received by households. Since the EICV sample is nationally representative, the total transfers received by households should correspond to total government expenditures on social transfers. The EICV indicates that between 2010/11 and 2016/17, average government transfers received by Rwandan household increased in nominal terms from 892Rwf to 1044Rwf per person per year. However, this increase is not statistically significant. Furthermore, the increase is lower than inflation over this period, which suggests that transfers decreased in real terms over the period.

4.3.1 Education

Figure 14 shows that public expenditures on education have decreased in Rwanda over the period of interest for this study (2011-2017) both as a percentage of total government expenditures, and in per capita terms.

This indicates that if education expenditures have had any effect at all on poverty, it would have had to be through the type and distribution of public spending, rather than through the amount. However, the proportion going to primary education decreased over the period, suggesting that spending might have become less pro-poor (poor households are more likely to use primary education, rather than secondary and tertiary).

Figure 14: Public expenditures on education (2010-2017)



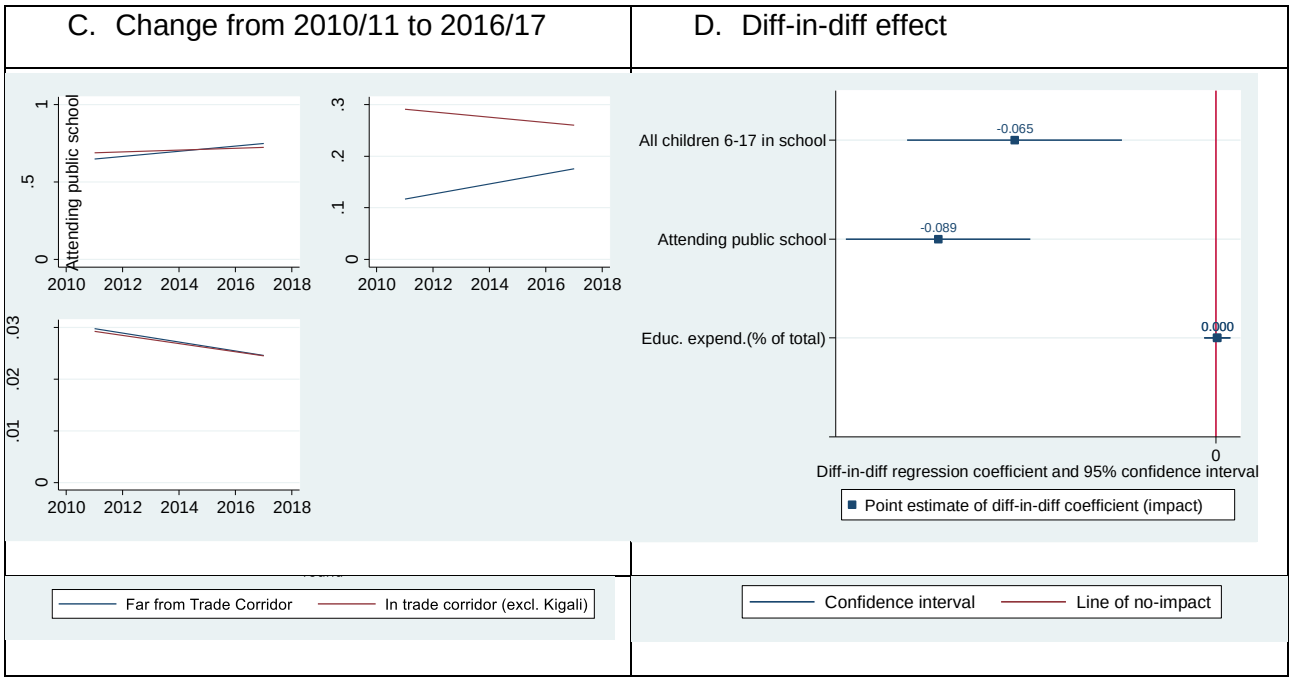
Source: WDI databank

Figure 15 shows that the proportion of households with all school-aged children enrolled in school (Edu_allattend) increased more rapidly in areas located far from the corridor than in areas located in the corridor.

This improvement appears to be driven at least partially by increases in public school, as the proportion of children enrolled in public schools (Edu_public) increased in those areas, while it decreased slightly in the trade corridor.

While we did not have access to geographically disaggregated public expenditure data, these findings suggest that public expenditure on education may have played an equalising role in Rwanda, helping to improve enrolment rates most in the areas furthest away from the corridor, that thus benefitted the least from the improvements in trading conditions.

Figure 15: Education indicators, by distance from trade corridor



Point estimates for figure 15A

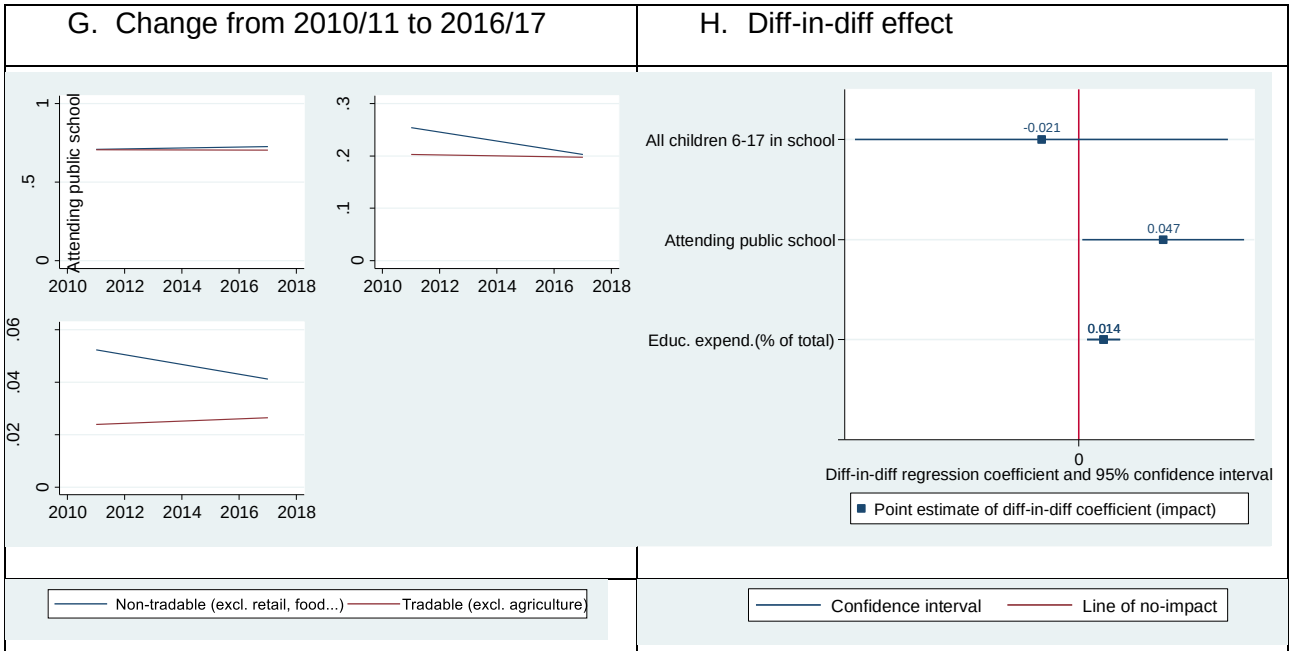
Distance to trade corridor	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend.(% of total)
Far from trade corr.	2010/11	64.8	11.7	3.0
	2016/17	74.7	17.5	2.5
In trade corridor	2010/11	68.9	29.1	2.9
	2016/17	72.4	26.0	2.4

Source: Author's calculations based on EICV 3/ 5.

The breakdown by sector of employment shows no statistically significant effect on school enrolment nor on the use of public schools. This suggests that increase public spending on education benefited those employed in tradable and non-tradable sector equally.

When agriculture is included in the tradable sector, we find positive treatment effects for attendance and the share of public school enrolment (significant at 1%). Since agricultural households tend to be located further away from the trade corridor, this finding is consistent with the previous finding regarding the seemingly equalising role of public education spending.

Figure 16: Education indicators, by sector of employment of the household head



Point estimates for figure 16A

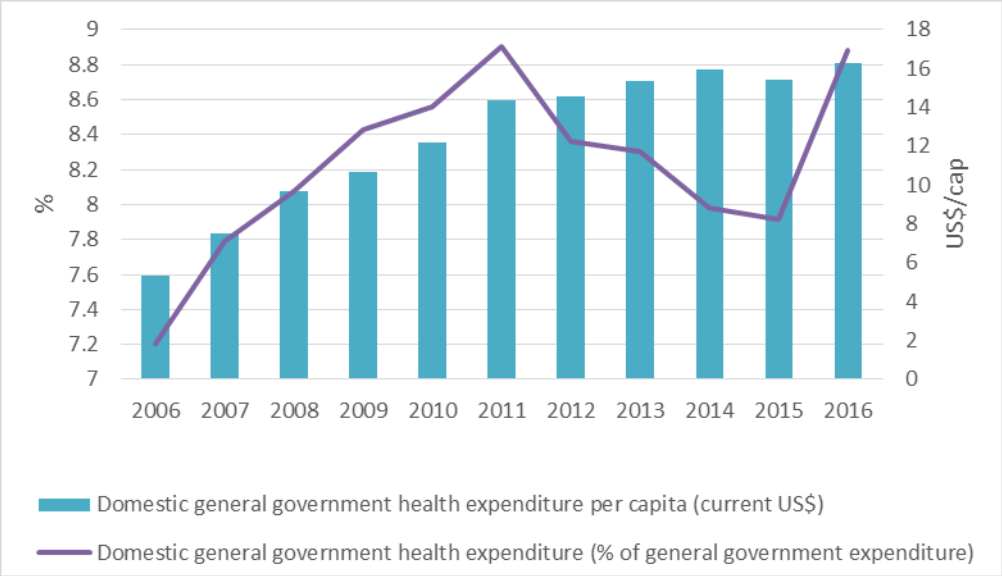
Employmt of hhd. Head	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend.(% of total)
Non-trade sector	2010/11	70.7	25.4	5.2
	2016/17	72.6	20.2	4.1
Tradeable sector	2010/11	70.6	20.2	2.4
	2016/17	70.4	19.8	2.6

Source: Author's calculations based on EICV 3/ 5.

4.3.2 Health

The public expenditure data presented in Figure 17 below indicates that public expenditures on health decreased as a percentage of total government expenditure and as a percentage of GDP between 2011 and 2015, but then rose sharply in 2016. Due to strong economic growth, however, the per capita spending increased in absolute terms over the period.

Figure 17: Public expenditures on health (2006-2016)



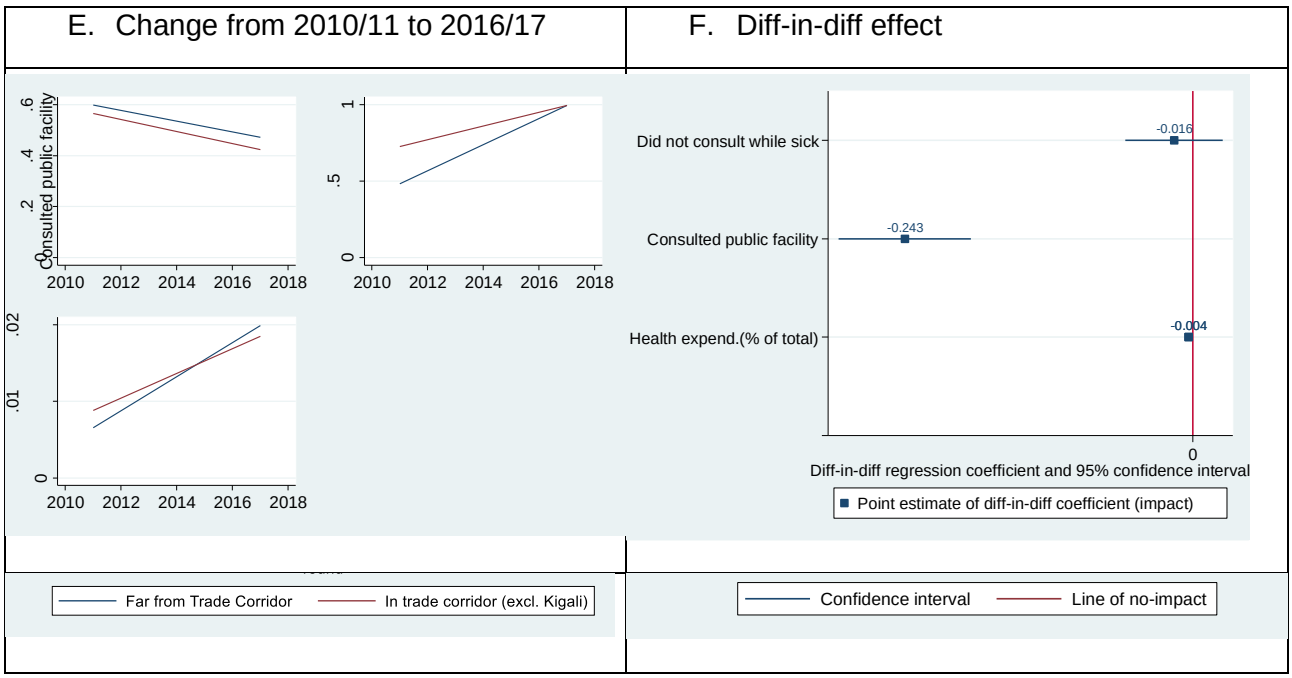
Source: WDI databank

The disaggregated results by distance from the trade corridor show shows that the proportion of household who did not consult a medical centre at their last sickness (HLT_sicknoconsult) fell in similar proportions in the trade corridor and elsewhere.

At the same time, the proportion of household using public health facilities converged over the period, meaning that they increased faster in areas located far from the corridor. This effect is statistically significant at the 1% level with or without Kigali.

This indicates that health expenditures may have played a similar equalising role as education expenditure, reaching in priority the areas that benefitted the least from trade.

Figure 18: Health indicators, by distance from trade corridor



Point estimates for figure 18A

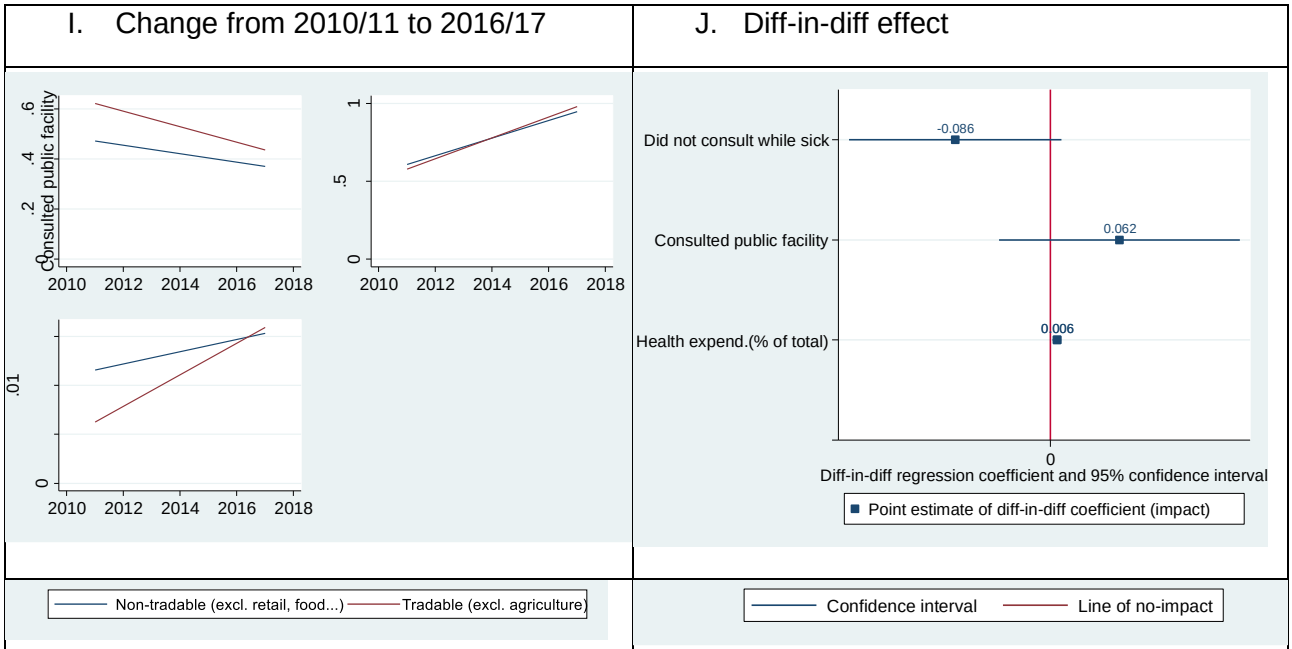
Distance to trade corridor	Year	Did not consult while sick (%)	Consulted public facility(%)	Health expend.(% of total)
Far from trade corr.	2010/11	59.8	48.4	0.7
	2016/17	47.2	99.4	2.0
In trade corridor	2010/11	56.5	72.7	0.9
	2016/17	42.3	99.4	1.8

Source: Author's calculations based on EICV 3/ 5.

The disaggregation by sector of employment shows that consultations and usage of public health facilities increased amongst all households.

However, there is no detectable difference between the two groups in terms of the rate of decrease. This suggests that increased public spending on health benefited both groups in equal measure.

Figure 19: Health indicators, by sector of employment of the household head



Point estimates for figure 19A

Employmt of hhd. Head	Year	Did not consult while sick (%)	Consulted public facility(%)	Health expend.(% of total)
Non-trade sector	2010/11	47.1	60.7	1.2
	2016/17	37.1	94.7	1.5
Tradeable sector	2010/11	62.2	57.7	0.6
	2016/17	43.6	97.9	1.6

Source: Author's calculations based on EICV 3/ 5.

5 Conclusion

The evidence presented in this study strongly indicates that, between 2011 and 2017 in Rwanda, living standards, as measured by poverty and consumption, improved more rapidly in the trade corridor, than far from the corridor. The evidence for people working in the tradable (non-agricultural) sector is less conclusive, although it appears that poverty decreased substantially amongst women employed in this sector.

The analysis of the various transmission channels suggests that the main factors explaining the relative decrease in poverty amongst households exposed to trade were prices and wages: prices of imported goods increased more slowly than prices of local goods, and prices increased much less along the trade corridor than in remote areas (possibly due to the greater availability of imported goods).

At the same time wages increased sharply in the trade-corridor and amongst people employed in the tradable sector, while self-employment decreased amongst households working in the tradable sector. This suggests that the relative decrease in poverty might, at least in part, have been driven by increased formalisation of employment in that sector.

The analysis of the public expenditure channel, suggests that public expenditures on health and education might have played an equalising role in Rwanda, since the areas that appeared to have benefited the most from public expenditures in those sectors between 2011 and 2017, are the areas located furthest from the trade corridor. However, the potential impact of the public expenditure channel would have been limited by the fact that total public expenditures on health and education decreased over the study period.

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Annex G: Endline Assessment of TMEA Poverty Impact – Uganda

Endline Assessment of TMEA Poverty Impact

Quantitative study: UGANDA

Dr. Sebastian Silva-Leander

July 2019

Oxford Policy Management

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List of abbreviations

OPM	Oxford Policy Management
UNPS	Uganda National Panel Survey
RCT	Randomised Control Trial
ATT	Average Treatment Effect
TMEA	Trade Mark East Africa

1 Introduction

This report presents the results of the quantitative assessment of the impact of TMEA on poverty. As explained in the methodological note, the evaluation strategy used to assess the impact of TMEA on poverty is a contribution analysis, meaning that it will not be possible to establish with certainty that the observed impacts can be directly attributed to TMEA. Instead, the evaluation aims to explore the various channels through which TMEA is thought to have effected poverty, with a view to forming a global picture of the likely relation between TMEA and observed changes in poverty.

This study focuses on the three channels defined by economic theory through which trade is thought to effect poverty, namely: (1) the price channel, (2) the wage and employment channel, and (3) the public expenditure channel[1]. The extent to which these links can be explored is constrained by the data and techniques being used. For this reason, the study will only be answer part of the research questions posed in the ToRs, and it will, consequently, be important to complement these quantitative findings, with the results from the ongoing qualitative and other studies that will help to answer other parts of these questions.

This report is structured as follows: Section 2 presents the methodology and data used for the analysis. Section 3 presents the main results regarding the impact of exposure to trade on poverty and consumption. Section 4 explores the three channels through which trade is thought to effect on poverty (prices, wages/ employment, and public expenditure). This will help to understand how the outcomes observed in section 2 were generated. Section 5 concludes.

[1] See Berg & Krueger, 2003; Dollar and Kraay, 2004; Hertel and Reimer, 2005; Hoekman and Olarreaga, 2007; Hoekman et al, 2001; McCulloch et al., 2001; Ravallion, 2005; Winters et al., 2004.

2 Methodology

2.1 UNPS Survey

For this analysis, we used the third wave of the Uganda National Panel Survey (UNPS) 2011/12 and 2015/16.

The UNPS is a nationally representative survey, which contains information on household characteristics, consumption, and other relevant welfare indicators.

The UNPS is statistically representative down to the regional level. Households were grouped into different categories depending on their proximity to the trade corridor and relevant indicators were estimated for each district separately, or for the group as a whole, depending on the needs of the analysis.

Data used to identify the trade corridors was obtained from Transit Facilitation Agency.

2.2 Assessment methodology

The main method used in this study to assess the impact of exposure to trade on poverty and other indicators is the so-called difference-in-differences method (diff-in-diff for short). The diff-in-diff method involves comparing the changes over time in specified outcome indicators for a treatment group (in this case, households exposed to trade), and a control group (households not exposed to trade).

The quantitative analysis of impact is based on the comparison of a range of indicators between “treatment” households (i.e. households located in the trade corridor, or households working in the tradable sector) and “control” households. The key impact measure is the Average Treatment Effect on the Treated (ATT) which is estimated using a difference-in-difference approach. The ATT estimator for the direct effects of exposure to trade on selected households is defined as:

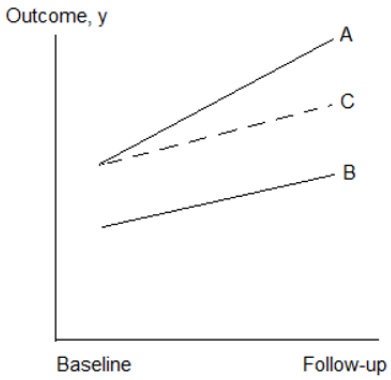
$$ATT = E[Yi \mid Ti=1] – E[Yi \mid Ti=0] \quad (1)$$

where Y is the outcome variable and ‘i’ indexes households. T is the treatment indicator, with a value of 1 if it a household is “treated”, 0 if in a “control” household. The ATT compares the outcome variable for “treatment” households and “control” households. Equation (1) shows the expected outcome households that have been exposed to trade (i.e. located in the trade corridor or working in the tradable sector) minus the expected outcome among households not exposed to trade.

The difference-in-difference estimation method is designed to be used in the context of randomised control trials (RCTs) and similar experimental and semi-experimental design settings. In this case, the study is using secondary data, which means that no ex-ante design could be used. This means that there is no guarantee that our “treatment” and “control” groups will be comparable. In fact, there are strong reasons to believe that the two groups are not identical, since the poverty profile carried out in 2015 showed large differences between these different groups. These differences need not in themselves be problematic, so long as the factors influencing change over time have been the same for the different groups.

Indeed, one key assumption in the DID approach is the assumption of common trend. The assumption specifies that control households must evolve from the baseline to the follow-up period in the same way treatments would have done had they not been treated. This assumption, which is needed for the consistency of the DID estimator, imply that treatment and control households are affected in the same way by macro shocks.

A graphical representation of common trend is presented in the figure below. When applying first difference in outcome, the trend of the control (line B) is substituted for the counterfactual situation for the treatment households (non-treatment) (or line C). If this assumption holds the unbiased estimate becomes the difference in the trend between line A and C.



This is a key implicit assumption that must hold for the results in this report to be interpreted as representing the "treatment" effect of being exposed to trade. This is an assumption that cannot be verified, and therefore must be seen as an inherent limitation of this study.

The difference in difference model is estimated in the following functional form:

$$Yit = a + b1Ti + b2t + b3Ti *t + ct (Xit) + eit \quad (2)$$

where the indicator for treatment or control for household i (Ti) is interacted with a dummy indicating the follow-up round (period 1). The equation incorporates a population time trend (captured by parameter b2), and a group fixed effect indicated by the parameter b1. The difference in difference estimator is provided by parameter b3.

In the case of binary outcomes, model specification (2) is be estimated using a logit model, though the coefficients on the treatment and interacted dummy respectively cannot be directly interpreted as the marginal treatment effect on probability without the necessary transformation of the probability function. For non-binary variables Ordinary Least Squares (OLS) regressions were used. For the depth and severity of poverty indicators (FGT1 and FGT2), Tobit regressions were used, where the lower limit truncation was set to zero. This reflects the fact that there are variations in wellbeing above the poverty line that will not be captured as the poverty measures are, by definition, truncated at the poverty line.

It is important to point out that normally the diff-in-diff method is used with formal impact evaluation techniques, such as Randomised Control Trials (RCTs), to quantify the effect of a given treatment on a treatment group. In our case, the underlying design of the study does not meet the requirements of an RCT or equivalent evaluation methods, since we were working from secondary data available in the national panel surveys (UNPS). These surveys were not designed to assess the impact of trade on poverty. Consequently, the resulting impacts cannot be directly interpreted as representing the effect of trade on poverty. Instead, they should be seen as providing indications of possible relations, to be further explored through the various other studies, as part of the overall contribution analysis.

For this study, synthetic treatment and control groups had to be constructed for the purpose of answering the research questions outlined in the ToRs. The following groups were defined:

- Physical distance to trade corridor (definition 1) – excluding households located in Kampala and households in districts adjacent to trade corridor:

  - Treatment: households located within 50 kms of the trade corridor (except households located in Kampala).
  - Control: households located more than 100 kms from the trade corridor.

- Physical distance to trade Corridor (definition 2) – including households located in Kampala and households in districts adjacent to trade corridor:
  - Treatment: households within 50 kms of the trade corridor (including households located in Kampala).
  - Control: households located more than 50 kms away from trade corridor.
- Sector of employment of the head of household (definition 1) – excluding those working in agriculture and those working in intermediary tradeable/ non-tradeable sectors:
  - Treatment: households headed by someone working in the tradable sector (excl. households working in agriculture).
  - Control: households employed by someone working in the non-tradable sector (excl. households working in mixed or partly tradable sectors).
- Sector of employment of the head of household (definition 2) – including those working in agriculture and those working in intermediary tradeable/ non-tradeable sectors:
  - Treatment: households headed by someone working in the tradable sector (including households working in agriculture).
  - Control: households employed by someone working in the non-tradable sector (including households working in mixed or partly tradable sectors).

Unless specified otherwise, we report results for definition 1 of the treatment/control groups, as these tend to yield sharper results, due to the clearer distinction between treatment and control groups. Results for the definition 2 groups are contained in the statistical tables and referred to as necessary in the main report.

Table 1: Employment sector of the head of household (%), by distance to trade corridor

	In TC (excl. Kamp)	Kampala	Adjacent	Far from Corridor	Total
Sector:					
Tradable Agric.	47.58	4.66	59.18	63.9	57.07
Tradable (non-agr.)	5.72	5.61	4.16	4.67	4.87
Mixed	20.4	33.47	15.54	11.12	14.62
Non-tradeable	20.4	33.47	15.54	11.12	14.62
Unemployed	7.41	20.97	8.86	7.19	8.13
Total	**100**	**100**	**100**	**100**	**100**

Source: Author's calculations based on UNPS 2015/16.

Table 2: Proportion of poor and male-headed households (%), by sector of employment and distance to trade corridor

	Poverty Incidence (FGT0)		Male-headed households		Observations	
Year:	2011/12	2015/16	2011/12	2015/16	2011/12	2015/16
In TC (excl. Kampala)	39.7	33.0	71.7	67.2	967	694
In TC: Kampala	23.4	25.5	65.1	68.5	176	206
Adjacent to TC	48.1	35.3	79.3	69.4	489	372
Far from TC	47.4	46.6	72.7	73.0	1,134	2,154
Unemployed	44.2	61.2	60.3	62.4	226	304
Tradable Agric.	48.0	45.9	71.6	67.7	1,578	1,860
Tradable (non-agr.)	47.6	32.9	74.4	73.7	130	169
Mixed	33.3	26.5	76.2	76.5	449	518
Non-tradeable	34.3	31.9	82.3	83.5	412	575
Total	**43.5**	**41.5**	**73.1**	**71.2**	**2,795**	**3,426**

Source: Author's calculations based on UNPS 2011/12 and 2015/16.

Table 3: Key macro-economic indicators for Uganda (2010-2018)

Year:	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP growth (annual %)	5.64	9.39	3.84	3.59	5.11	5.19	4.78	3.86	6.09
GDP per capita (constant 2010 US$)	622	660	663	665	676	687	694	694	710
GINI index (World Bank estimate)	..	..	41	..	..	..	42.8	..	..
Inflation, consumer prices (annual %)	3.98	16.5	12.68	4.91	3.08	5.59	5.71	5.21	2.62

Source: World Bank WDI databank.

3 Results

3.1 Poverty by trade corridors

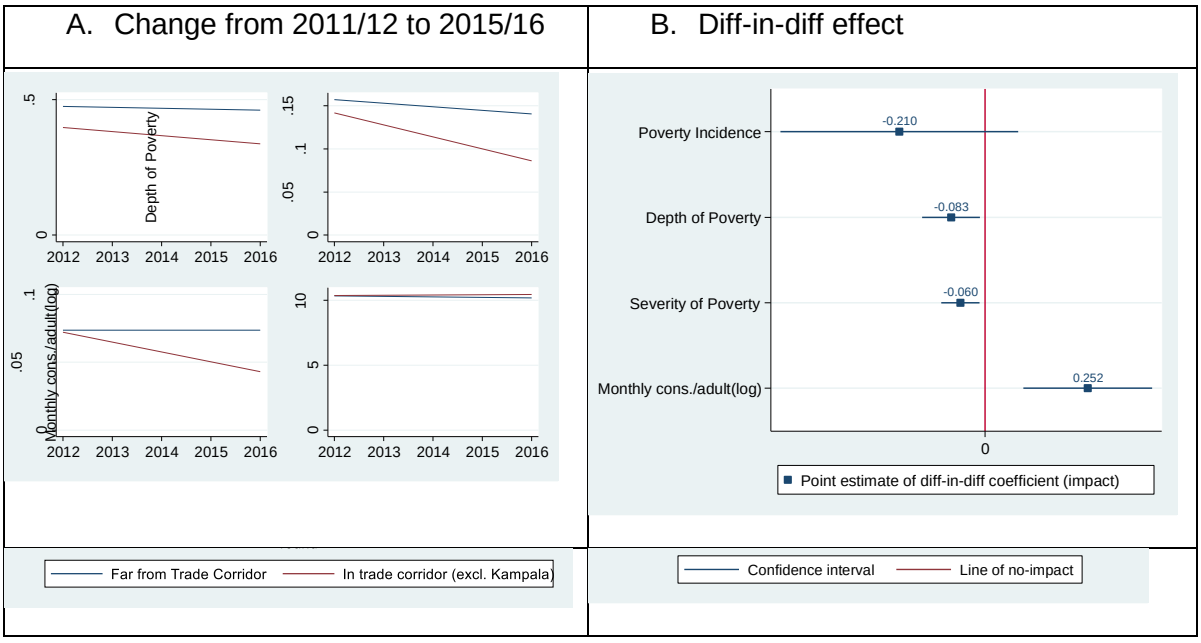
This section presents the results of the disaggregation by distance to the trade corridor for the incidence (FGT0), depth (FGT1) and severity (FGT2) of poverty, as well as for per consumption (lnpc_mon_cons).

Figure 1 presents the results comparing areas located in the trade corridor ("treatment"), compared to areas located far away from the trade corridor ("control"). In other words, it excludes areas that are adjacent to the trade corridor, so as to get a clearer contrast between "treatment" and "control" groups. We also excluded Kampala from this assessment, as it has very different pricing structure and could bias the results. More detailed results, including Kampala and areas adjacent to the trade corridors, are available in the statistical tables.

The results show that poverty incidence decreased by almost 7 percentage points between 2011/12 and 2015/16 in the trade corridor, but less than 1 percentage point in areas located far away from the trade corridor. The decrease is even more marked for depth and severity of poverty, indicating that living conditions improved most for the worst off households. The treatment effect[2] for FGT1 and 2 is statistically significant at the 5% level, meaning that poverty decreased more along the trade corridor than far away from the corridor.

The data also show that per capita consumption has increase in the trade corridor, while it decreased far away from the trade corridor. The effect is statistically significant at the 1% level.

Figure 1: Poverty and consumption, by distance from trade corridor



[2] Treatment effect refers to the additional drop in poverty experienced by households exposed to trade (treatment group in this case), compared to households not exposed to trade (control group). A negative treatment effect indicates that poverty fell faster in the treatment group than in the control group. For consumption, a negative treatment effect would indicate that consumption rose more slowly in the treatment group than in the control group. In these tables as throughout the report and annexes, * denotes statistical significance at .10, ** denotes statistical significance at .05, and *** denotes statistical significance at .01, representing progressively less likelihood that a result occurred by chance alone.

Point estimates for figure 1A

Distance to trade corridor	Year	Poverty Incidence (%)	Depth of Poverty(%)	Severity of Poverty(%)	Monthly cons./adult(log)
Far from	2011/12	47.4	15.7	7.4	10.33
trade corr.	2015/16	46.1	14.1	7.4	10.17
In trade	2011/12	39.7	14.1	7.2	10.35
corridor	2015/16	33.7	8.6	4.3	10.44

Source: Author's calculations based on UNPS 2011/12, UNPS 2015/16.

At a more detailed level, the following two tables show the treatment effects of exposure to trade across a range of indicators designed to capture aspects of poverty and other relevant social indicators (e.g., employment, education, and use of health services). The first table shows the effects for all households, while the second table shows the results for female-headed households. Households on the trade corridor tended to fare better than those not exposed to trade, when Kampala was excluded. The first two columns of the two tables show these results, both excluding and excluding the capital city, since major cities tend to have very different pricing structures and could bias the results.

In Uganda, depth and severity of poverty fell for households on the corridor (excluding Kampala) and for households in a tradable sector (excluding agriculture). These key measures showed a treatment effect of -0.083 in trade corridor households and -0.129 for households in tradable sectors excluding agriculture, on the measure of depth of poverty. For severity of poverty, non-Kampala trade corridor households averaged a treatment effect of -0.061, and those in non-agricultural tradable sectors had a treatment effect of -0.076. All of these effects were at statistically significant levels. Consumption rose for non-Kampala corridor households with an effect of 0.252, but there was no similar effect for households in the tradable sectors. In fact, for households in tradable sectors including agriculture, the treatment effect was negative, -0.104, that was the only statistically significant effect.

Table 4: Treatment effect of being exposed to trade vs. not exposed to trade

	Trade-corridor		Tradable sector	
	Excl. Kampala/ Adjacent to TC	Incl. Kampala/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	-0.210	-0.123	-0.505	0.084
Depth of poverty	-0.083*	-0.057	-0.129*	0.007
Severity of poverty	-0.061**	-0.042	-0.076*	0.006
Consumption p.c.	0.252***	0.147	0.082	-0.104*
Price index	-0.026*	-0.037**	0.024	0.020**
Share tradable cons. (non-food)	0.012	0.022*	0.025	-0.040***
Agricultural sales	-0.545	-0.668	2.589***	0.331
Remittances	0.488	0.112	0.677	0.259
Wages	2.894**	2.269*	-2.241	-3.579***
Non-agri. sales	1.835***	2.012***	-2.267***	-1.719***
Unemployment	-0.021	-0.022*	-0.019	0.046***
Formal employment	0.017	-0.005	-0.036	-0.066**
Self-Employed	0.083**	0.073**	0.122	-0.177***
Agriculture empl.	-0.092**	-0.091**	-	-
All children (6-18) attending school	0.142***	0.106***	0.059	-0.056
Prop. attending public schools	0.065*	0.037	-0.009	0.032
Share educational expenditures/ total	0.002	0.006**	-0.016***	-0.012***

	Trade-corridor		Tradable sector	
Sick but did not consult medical	-0.035*	-0.039*	0.007	0.012
Prop. consulted public health facil.	0.130***	0.112***	-0.001	-0.046
Share health expenditures/ total	-0.001	0.002	0.002	-0.007

Source: Author's calculations based on UNPS 2011/12 and 2015/16.

The gains noted above for all households disappeared for female-headed households. No statistically significant treatment effects were found on poverty incidence, depth or severity for female-headed households. Wages for female-headed households had statistically significant and substantial gains for all trade-exposed households except those in agricultural sectors.

Table 5: Treatment effect of being exposed to trade (Female-headed households)

	Trade-corridor		Tradable sector	
	Excl. Kampala/ Adjacent to TC	Incl. Kampala/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	0.241	0.325	-0.657	0.149
Depth of poverty	-0.012	0.009	-0.064	0.017
Severity of poverty	-0.026	-0.009	-0.023	0.023
Consumption p.c.	0.242	0.138	0.110	-0.221
Price index	-0.029	-0.040**	0.031	0.020
Share tradable cons. (non-food)	0.002	0.013	-0.011	-0.039**
Agricultural sales	-1.300*	-1.098*	4.079**	0.012
Remittances	1.062	0.609	2.148	-0.348
Wages	4.904**	4.949***	4.932	-1.538
Non-agri. sales	1.950***	2.187***	-4.501***	-0.879**
Unemployment	-0.053**	-0.043*	-0.002	0.063
Formal employment	0.073	0.064	-0.173	-0.191***
Self-Employed	0.117**	0.052	0.293**	-0.175***
Agriculture empl.	-0.965	-0.056	-	-
All children (6-18) attending school	0.038	0.007	-0.108	-0.074
Prop. attending public schools	0.011	-0.002	-0.012	0.025
Share educational expenditures/ total	0.008	0.012**	-0.023*	-0.010
Sick but did not consult medical	-0.050	-0.067*	-0.028	-0.009
Prop. consulted public health facil.	0.141**	0.178***	0.133	-0.086
Share health expenditures/ total	-0.003	-0.009	-0.001	0.000

Source: Author's calculations based on UNPS 2011/12 and 2015/16.

While there are important differences from indicator to indicator and depending upon how 'trade corridor' and 'tradable sector' are defined, the general picture is one of a correlation between exposure to trade and positive poverty outcomes, for all households in the Uganda sample. However, the notable feature of these findings is that they did not extend to female-headed households. Additional figures from these two tables will be discussed in the relevant sections of this annex, below.

3.2 Poverty by sector of employment

This section presents the findings comparing changes in poverty for household whose head is employed in the tradable sector ("treatment") and those employed in the non-tradable sector ("control"). For clarity, we have excluded household employed in subsistence agriculture, which is formally considered a tradable sector, although these households cannot benefit from potential gains of trade if they do not sell their produce in the market. We have also excluded intermediary sectors that have both tradable and non-tradable components. For instance, the retail sector is usually considered a non-tradable sector, but insofar as it retails tradable goods, it would be strongly affected by changes in trading conditions. More detailed results, including for subsistence agriculture and intermediary sectors, are available in the statistical tables.

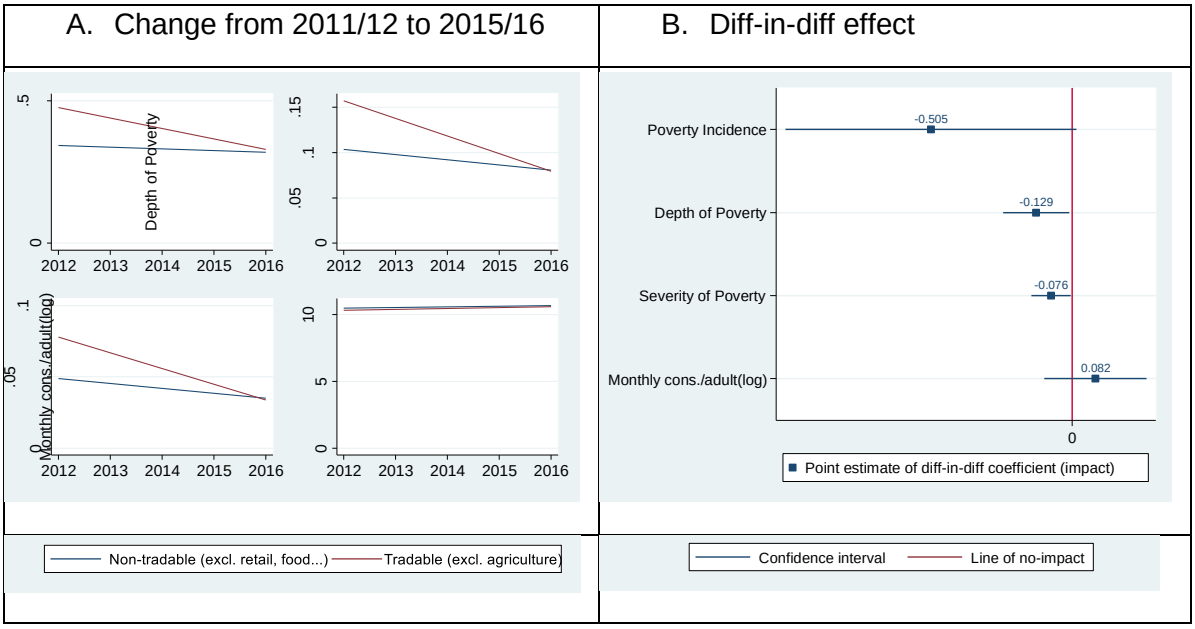
The results show that the incidence of poverty decreased by almost 15 percentage points amongst households employed in the tradable sector, while it only decreased by 2 percentage points in the non-tradable sector. In 2011/12, poverty was significantly higher in the tradable than in the non-tradable sector. But by 2015/16, the two poverty rates were almost identical.

The results for depth and severity of poverty are even stronger, resulting in reversals of poverty rankings between tradable and non-tradable sectors. The results for depth and severity of poverty are statistically significant at the 10% level, whereas the effect for poverty incidence is not statistically significant. The fact that the results are less significant than for trade corridors, despite the fact that they are larger in absolute terms reflects the fact that the sample sizes are much smaller in this case, as very few people work in the tradable non-agricultural sectors (manufacturing and mining) in Uganda.

The results for per capita consumption show a slight, but statistically insignificant, convergence between incomes in the tradable and non-tradable sectors.

It is worth noting that when agriculture is included in the tradable sector, the positive treatment effect disappears, which suggests that the people employed in the agricultural sector did not benefit from trade liberalisation, or that other factors dominated in that sector (see statistical tables).

Figure 2: Poverty and consumption, by sector of employment of the household head



Point estimates for figure 2A

Employmt of hhd. Head	Year	Poverty Incidence (%)	Depth of Poverty(%)	Severity of Poverty(%)	Monthly cons./adult(log)
Non-trade sector	2011/12	34.3	10.4	4.9	10.48
	2015/16	31.9	8.1	3.5	10.68
Tradeable sector	2011/12	47.6	15.7	7.8	10.32
	2015/16	32.9	8.0	3.4	10.60

Source: Author's calculations based on UNPS 2011/12 and 2015/16.

3.2.1 Poverty impact amongst female-headed households

The terms of reference request that estimates are produced for the specific impact of TMEA on women. The extent to which this can be assessed using quantitative methods applied to households survey data from the UNPS is limited, due to the fact that most indicators are defined at the household level and, therefore, do not allow us to differentiate between the impact on different members within the household. For this reason, our assessment will be limited to the impact on female-headed household. A more thorough assessment of the impact on other women will be made through the qualitative study.

The evidence presented in Table 6 below indicates that female households did not benefit as much from trade as male headed households. In general, the treatment effects were smaller in absolute terms than for male-headed households and they were statistically insignificant in all cases, meaning that we are not able to say with certainty whether poverty has improved more amongst female-headed households exposed to trade, than amongst those not exposed.

In the case of female-headed households employed in the tradeable sector, we find a sizable 18 percentage point drop in poverty, compared to 1 percentage point in the non-tradable sector (see Table 7 and Table 8). This is higher than the overall drop in poverty for households working in the tradeable sector (15 percentage points, see Figure 2 above). However, due to the limited sample size, the results are not statistically significant (Table 6).

Table 6: Treatment effect[3] of exposure to trade on poverty for female-headed households

	Trade-corridor		Tradable sector	
	Excl. Kampala/ Adjacent to TC	Incl. Kampala/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	0.241	0.325	-0.657	0.149
Depth of poverty	-0.012	0.009	-0.064	0.017
Severity of poverty	-0.026	-0.009	-0.023	0.023
Consumption p.c.	0.242	0.138	0.110	-0.221

Source: Author's calculations based on UNPS 2011/12 and 2015/16.

[3] Treatment effect refers to the additional drop in poverty experienced by households exposed to trade (treatment group in this case), compared to households not exposed to trade (control group). A negative treatment effect indicates that poverty fell faster in the treatment group than in the control group. For consumption, a negative treatment effect would indicate that consumption rose more slowly in the treatment group than in the control group.

Table 7: Point estimates for poverty indicators, by distance to trade corridor (excl. Kampala and districts adjacent to the corridor)

Point estimates for figure A

Distance to trade corridor	Year	Poverty Incidence	Depth of Poverty	Severity of Poverty	Monthly cons./adult(log)
Far from trade corr.	2011/12	54.1	19.0	8.7	10.27
	2015/16	49.1	16.2	8.6	10.10
In trade corridor	2011/12	37.4	14.5	7.5	10.37
	2015/16	39.1	9.5	4.2	10.45

Source: Author's calculations based on UNPS 2011/12 and 2015/16.

Table 8: Point estimates for poverty indicators, by sector of employment of the household head (excl. agriculture and intermediary sectors)

Employmt of hhd. Head	Year	Poverty Incidence (%)	Depth of Poverty(%)	Severity of Poverty(%)	Monthly cons./adult(log)
Non-trade sector	2011/12	31.3	11.9	6.4	10.47
	2015/16	30.1	6.1	1.9	10.80
Tradable sector	2011/12	60.2	17.1	7.8	10.12
	2015/16	42.6	9.6	3.6	10.57

Source: Author's calculations based on UNPS 2011/12 and 2015/16.

4 Explaining the results

The results presented in section 3 above convincingly show that poverty decreased much more rapidly along the trade corridor and in households working in the (non-agricultural) tradable sector, than in areas located far from the trade corridor and households employed in the non-tradable sector. However, those result do not tell us why that is the case.

In order to answer the main research question, and understand whether TMEA might have contributed to improving living conditions among the poor, it is thus necessary to look at the various channels through which trade is hypothesised to impact on poverty, namely (1) the price channel, (2) the wage and employment channel, and (3) the public spending channel.

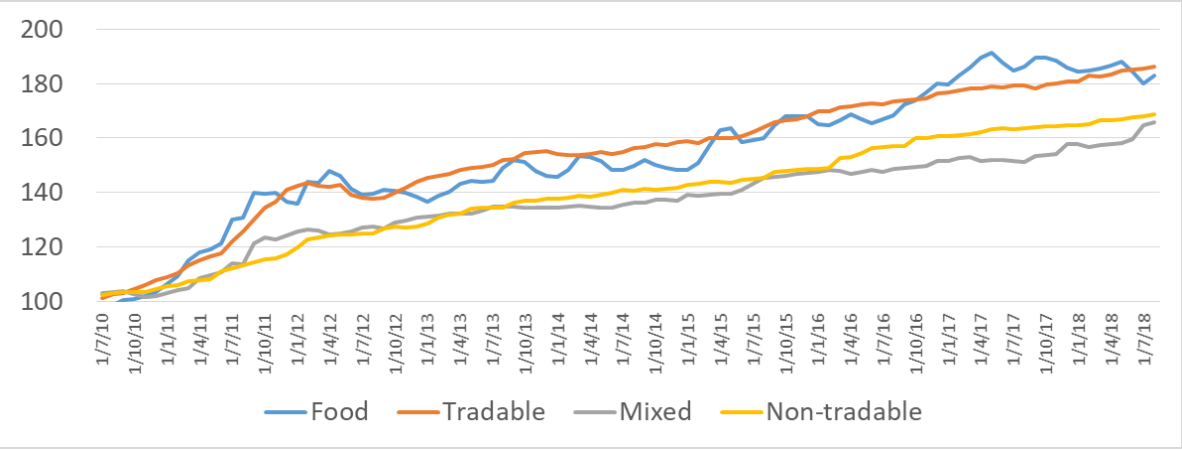
4.1 Price channel

Figure 3 below shows the evolution of tradable vs. non-tradable goods between 2010 and 2018 in Uganda. For clarity, we have separated food from other tradable goods, as food represents a large share of consumption in Uganda and may partly be driven by other factors, such as local weather conditions, etc. We have also separated out what we call “mixed” goods. Those are goods that would normally be classified as non-tradable goods, but which contain a large proportion of tradable inputs. This includes, for instance, the transport sector, which is heavily reliant on fuel prices, and restaurants, which depend on food prices.

The graph shows that the price of tradable items (both food and non-food) has increased more rapidly than the price of non-tradable goods (mixed and pure non-tradable) since 2010.

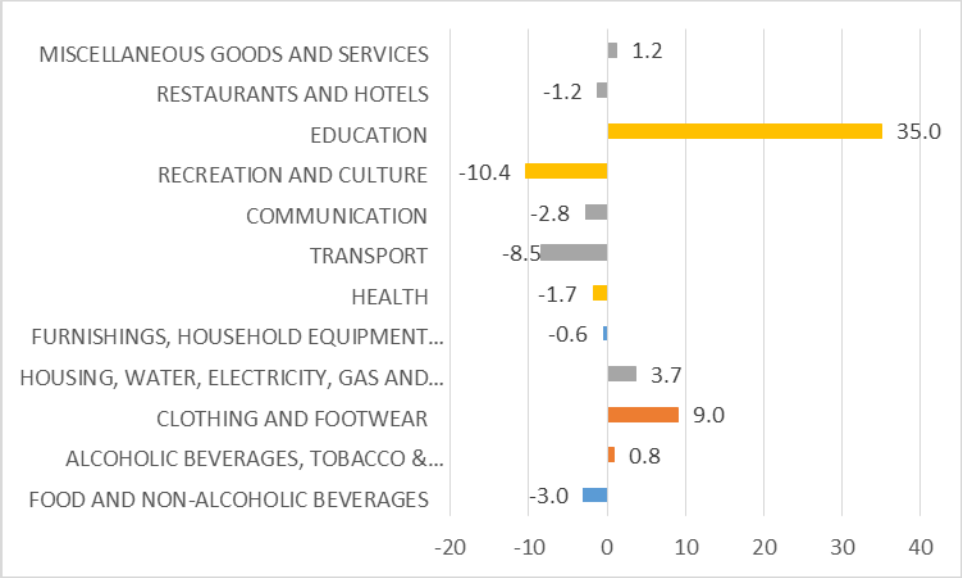
However, over the period 2012-2016, which this study focuses on, food prices increased less than the total CPI, while the non-tradable CPI increased more than the total CPI – driven chiefly by education (see Figure 4 below).

Figure 3: CPI (2010-2018), by sector



Source: UBOS

Figure 4: Change in sector CPI relative to total CPI (2012-2016)



Source: Author's calculations based on UBOS data

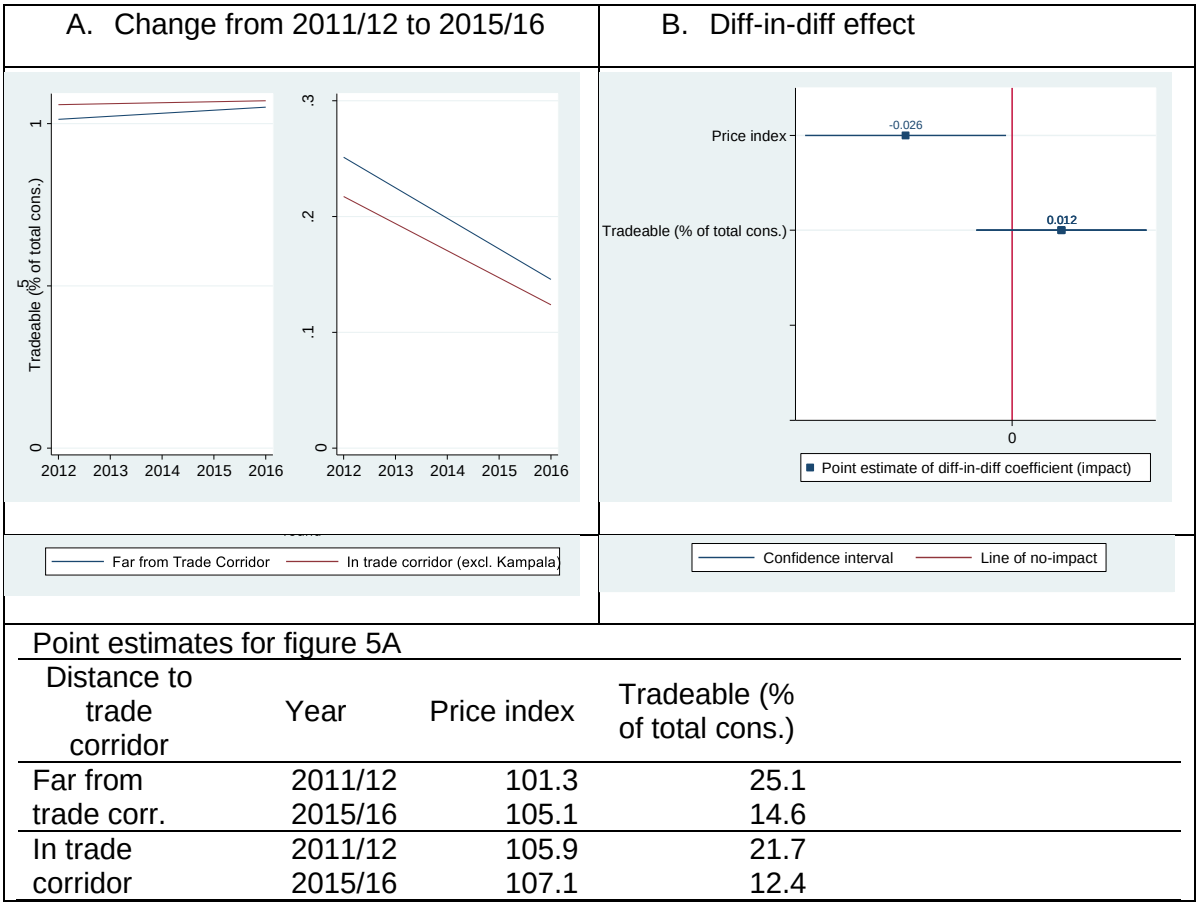
Figure 5 below looks at the average prices (pdeflator) faced by households in the various analysis groups, as well as the share of tradable goods in non-food consumption (SHR_tradenonfood). The choice was made to exclude food consumption (a tradable good) from this analysis because the share of food consumption is closely related to poverty and average income and could therefore bias the results.

The analysis does appear to indicate that prices have increase more slowly along the trade corridor than in areas located far from the trade corridor. The result is statistically significant at the 10% level.

On the other hand, the data does not show any statistically significant change in the share of tradable goods being consumed in the trade-corridor compared to areas located far away.

When Kampala is included among the trade-corridor areas, the price convergence is even stronger and more significant statistically. This suggests that Kampala prices decreased more in relative terms than prices elsewhere in the trade corridor. When Kampala is included, there is also a statistically significant increase in the share of tradable non-food goods being consumed in the trade corridor, compared to areas outside the trade corridor (see Statistical Tables).

Figure 5: Average price index value and share of tradable goods in non-food consumption, by distance from trade corridor



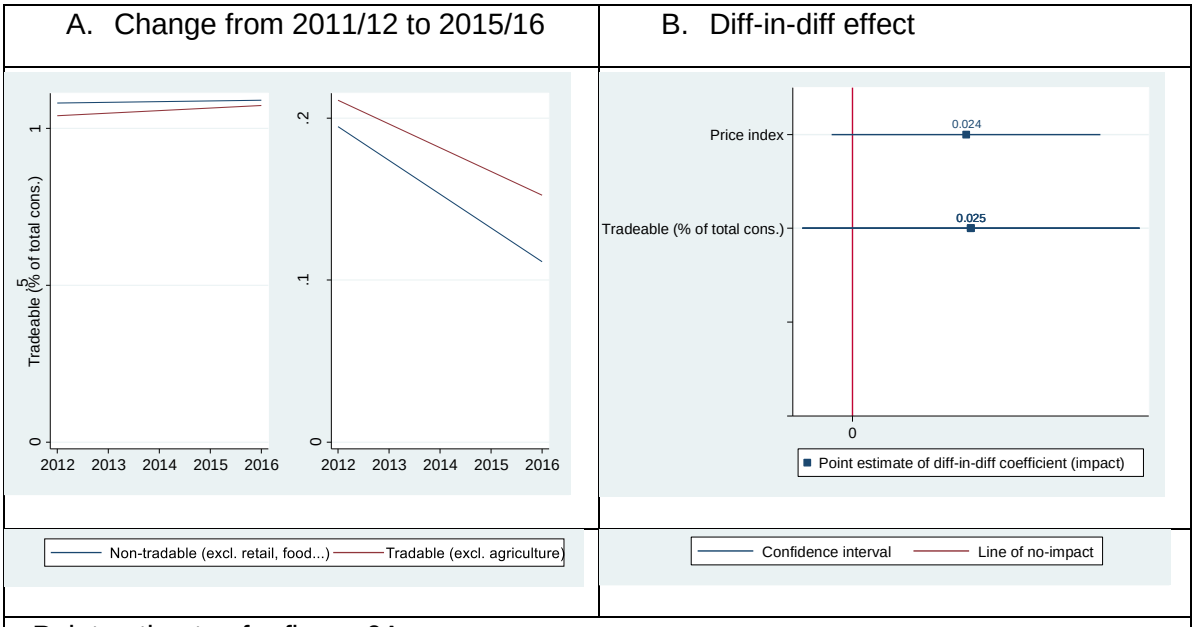
Point estimates for figure 5A

Distance to trade corridor	Year	Price index	Tradeable (% of total cons.)
Far from trade corr.	2011/12	101.3	25.1
	2015/16	105.1	14.6
In trade corridor	2011/12	105.9	21.7
	2015/16	107.1	12.4

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

The analysis by sector of employment of the household head does not show any statistically significant effect on prices nor on consumption patterns of tradable non-food goods (see Figure 6 below). This finding is consistent with theory, as there is no theoretical reason why consumer prices faced by people employed in these sectors should differ from those employed in non-tradable sectors, unless the tradability of jobs is strongly correlated with the distance to the trade corridor, which does not appear to be the case – Table 1 above shows that both tradable and non-tradable non-agricultural jobs are more common in the trade corridor.

Figure 6: Average price index value and share of tradable goods in non-food consumption, by sector of employment of the household head



Point estimates for figure 6A

Employmt of hhd. Head	Year	Price index	Tradeable (% of total cons.)
Non-trade sector	2011/12	108.1	19.5
	2015/16	109.0	11.1
Tradeable sector	2011/12	104.0	21.1
	2015/16	107.3	15.2

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

4.2 Wage/ employment channel

4.2.1 Income

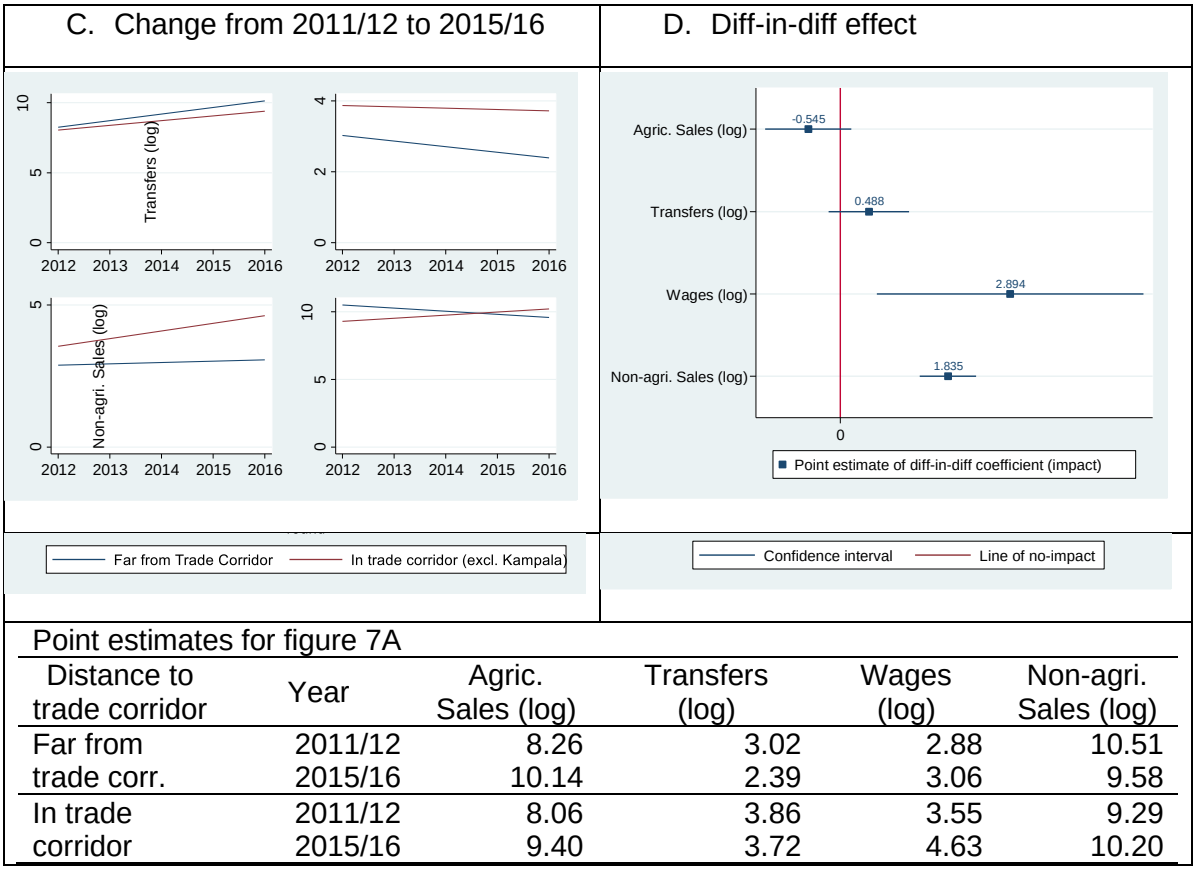
This subsection looks at changes in different income sources (agricultural sales, social transfers, wages and non-agricultural sales) by distance from the trade corridor, and by sector of employment.

Figure 7 below shows that agricultural sales increased more slowly in the trade corridor than in areas far from the corridor. However, the effect is not statistically significant.

Income from wages and non-agricultural sales, on the other hand, increase very significantly in the trade corridor, compared to areas located far from the corridor. The effects are statistically significant at the 5% and 1% level, respectively. In areas far from the corridor, non-agricultural sales actually decreased in absolute terms between 2011/12 and 2015/16.

These results suggest that the improvements in living conditions along the trade corridor identified in section 3 above were linked primarily to increases in wages and non-agricultural sales, and not to improvements in agricultural sales. These findings are consistent with the finding reported in section 3.2 above, which indicated that there was no improvement in living conditions amongst households employed in the agricultural sector.

Figure 7: Sources of income, by distance from trade corridor



Point estimates for figure 7A

Distance to trade corridor	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Far from trade corr.	2011/12	8.26	3.02	2.88	10.51
	2015/16	10.14	2.39	3.06	9.58
In trade corridor	2011/12	8.06	3.86	3.55	9.29
	2015/16	9.40	3.72	4.63	10.20

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

The analysis by employment sector show no positive effect on wages or non-agricultural sales for people employed in the tradable sector[4]. In fact, non-agricultural sales even decreased in absolute terms among households employed in the tradable sector (see Figure 8). Further research would be needed to interpret this seemingly counter-intuitive result.

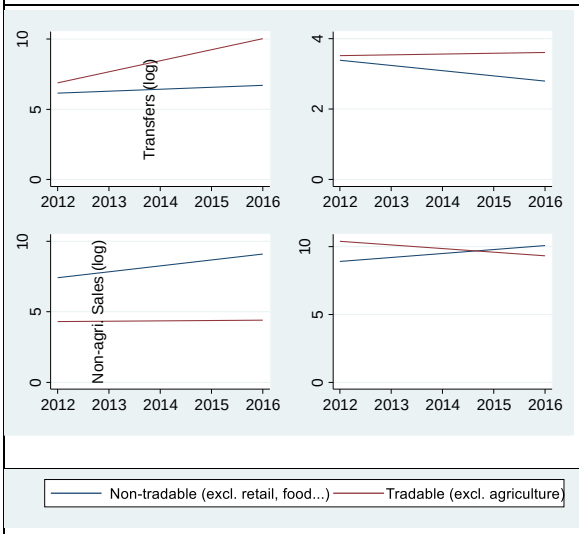
At the same time, we see a sharp and statistically significant increase in agricultural sales amongst households employed in the tradable sector, which also seems counter-intuitive. It is, however, important to remember that we define the sector of employment as the main activity of the head of household. These agricultural sales could thus be generated by other household members working in the agricultural sector, or even by residual side-activities carried out by the head of household.

When agricultural households are included in the analysis, the positive effect of agricultural sales largely disappears (see statistical tables). This suggests, that the noted increase in agricultural sales amongst this small group of households employed in the tradable non-agricultural sector does not reflect a general improvement of the agricultural sector as such.

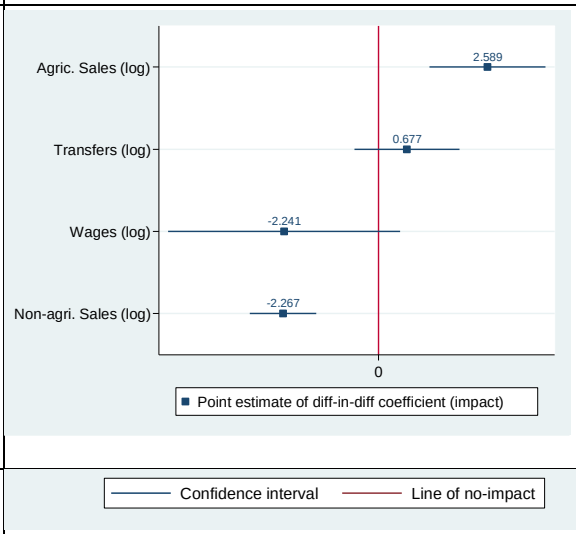
[4] Trade sectors are defined as follows: Agriculture: Agriculture, forestry and fishing; Tradable: Mining and Quarrying, Manufacturing, Mixed: "Electricity, gas, steam and air conditioning supply, Water supply; sewerage, waste management and remediation activities, Wholesale and retail trade; repair of motor vehicles and motorcycles, Transportation and storage, Accommodation and food service activities, Information and communication, Financial and insurance activities, Professional, scientific and technical activities, Activities of extraterritorial organizations and bodies; Non-tradable: Construction, Real estate activities, Education, Human health and social work activities, Arts, entertainment and recreation, Other service activities, Activities of households as employers; undifferentiated goods- and services-producing activities of households.

Figure 8: Sources of income, by sector of employment of the household head

C. Change from 2011/12 to 2015/16



D. Diff-in-diff effect



Point estimates for figure 8A

Employmt of hhd. Head	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Non-trade sector	2011/12	6.1	3.38	7.4	8.9
	2015/16	6.7	2.79	9.1	10.1
Tradeable sector	2011/12	6.9	3.51	4.3	10.4
	2015/16	10.0	3.60	4.4	9.3

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

4.2.2 Employment

Figure 9 shows no statistically significant effect on formal employment in the trade corridor[5]. On the other hand, there is a significant effect on self-employment, which increased sharply in the trade corridor, while it decreased in areas far from the corridor. Unemployment increased in all areas, but the increase was less pronounced in the trade corridor, resulting in a statistically significant treatment effect for this variable (5% level).

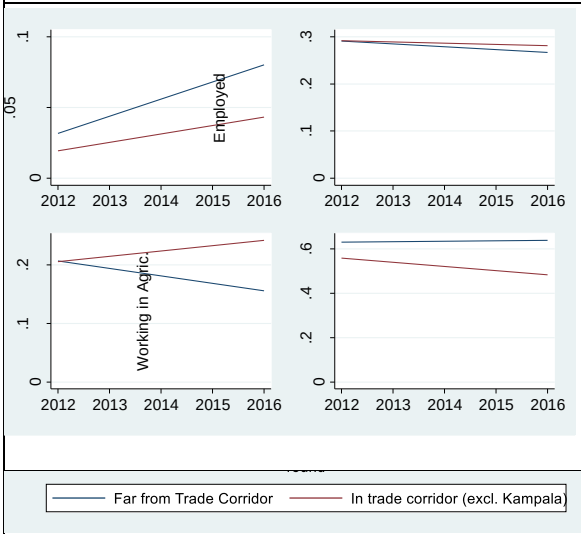
Further research would be required to understand what these results mean, i.e. what type of self-employment has been generated and whether these reflect voluntary entrepreneurial endeavours or disguised unemployment.

The analysis also shows that the proportion of households employed in agriculture decreased in the trade corridor, whereas it remained constant far from the corridor. The treatment effect is significant at the 1% level. This would also have contributed to decreasing poverty in the trade corridor, as people moved out of the low-paid agricultural employment and into higher paid manufacturing and service jobs.

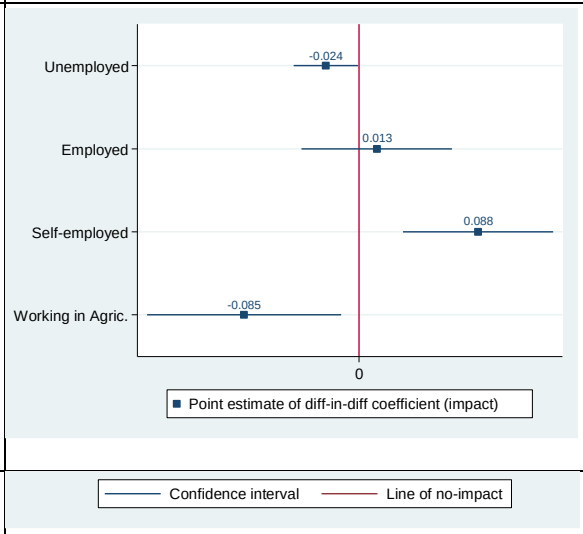
[5] By formally employed we mean paid employees or employers, as opposed to unpaid family workers, apprentices or other type of work. We do not mean that they are employed in the formal sector.

Figure 9: Employment status, by distance from trade corridor

A. Change from 2011/12 to 2015/16



B. Diff-in-diff effect



Point estimates for figure 9A

Distance to trade corridor	Year	Unemployed (%)	Employed (%)	Self-employed (%)	Working in Agric. (%)
Far from trade corr.	2011/12	3.2	29.0	20.7	62.9
	2015/16	8.0	26.7	15.5	63.8
In trade corridor	2011/12	1.9	29.1	20.6	55.8
	2015/16	4.3	28.1	24.2	48.3

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

When disaggregating the results by sector of employment, we find no statistically significant effects. Self-employment did increase sharply amongst households working in the tradable sector, but this increase is not statistically significant due to the small sample sizes involved.

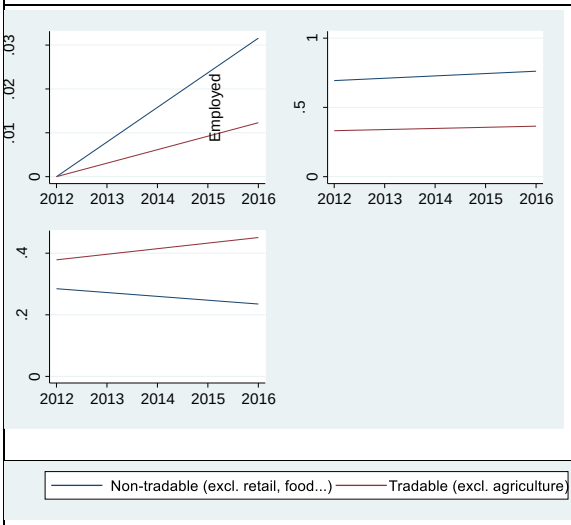
The conclusion is that the employment channel does not appear to have been one of the major channels through which living conditions improved in the tradable sector, or at least that the effects on employment were not sufficiently large to be detectable at the sample sizes that we had available for this study.

When the agricultural sector is included, however, the possible positive effects of trade are reversed, with a non-significant increase in unemployment, coupled with statistically significant decreases in formal employment and self-employment (see statistical tables).

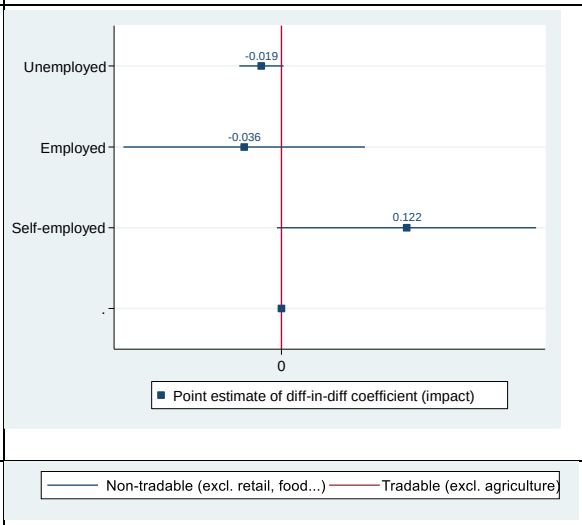
This finding is consistent with earlier indications that there have not been any significant improvements in the agricultural sector.

Figure 10: Employment status, by sector of employment of the household head

E. Change from 2011/12 to 2015/16



F. Diff-in-diff effect



Point estimates for figure 10A

Employmt of hhd. Head	Year	Unemployed (%)	Employed (%)	Self-employed (%)	Working in Agric. (%)
Non-trade sector	2011/12	0.0	69.3	28.4	0.0
	2015/16	3.2	76.0	23.5	0.0
Tradeable sector	2011/12	0.0	33.3	37.8	0.0
	2015/16	1.2	36.4	45.1	0.0

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

4.2.3 Impact on wages and employment of female-headed households

The evidence presented in Table 9 below confirms the main findings obtained above for female and male-headed households, namely (1) agricultural sales increased significantly amongst households employed in the tradable non-agricultural sector (see Table 11), but changed little for those working in the agricultural sector resulting in insignificant treatment effect (right-most column in Table 9), (2) non-agricultural sales decreased significantly amongst households employed in the tradable sector (Table 11), and (3) self-employment increased in the tradable non-agricultural sector, resulting in a significantly positive treatment effect (Table 9).

Female-headed households employed in the tradable sector saw a relative increase in their wage-income (Table 11), but the change is not statistically significant (Table 9), so we cannot conclude that they benefited more than male-headed households or more than those employed in other sectors.

The proportion of women moving out of agriculture and into the more lucrative manufacturing and service sectors was smaller than for men (Table 10 and Figure 9), resulting insignificant treatment effects (left-most column in Table 9). This may also explain why female-headed household did not benefit as much from trade liberalisation as male-headed ones.

Table 9: Treatment effect of exposure to trade on wages and employment of female-headed households

	Trade-corridor		Tradable sector	
	Excl. Kampala/ Adjacent to TC	Incl. Kampala/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Agricultural sales	-1.300*	-1.098*	4.079**	0.012
Remittances	1.062	0.609	2.148	-0.348
Wages	4.904**	4.949***	4.932	-1.538
Non-agri. sales	1.950***	2.187***	-4.501***	-0.879**
Unemployment	-0.053**	-0.043*	-0.002	0.063
Formal employment	0.073	0.064	-0.173	-0.191***
Self-Employed	0.117**	0.052	0.293**	-0.175***
Agriculture empl.	-0.065	-0.056	-	-

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

Table 10: Point estimates for employment indicators, by distance to trade corridor (excl. Kampala and districts adjacent to the corridor)

Point estimates for figure A

Distance to trade corridor	Year	Unemployed	Employed	Self-employed	Working in Agric.
Far from trade corr.	2011/12	2.7	21.8	23.0	66.6
	2015/16	9.2	14.4	15.2	69.8
In trade corridor	2011/12	2.7	19.3	16.5	61.6
	2015/16	3.8	19.3	20.4	59.1

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

Table 11: Point estimates for income indicators, by sector of employment of the household head (excl. agriculture and intermediary sectors)

Point estimates for figure A

Employmt of hhd. Head	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Non-trade sector	2011/12	6.7	6.18	7.1	8.2
	2015/16	6.1	5.94	8.9	10.0
Tradeable sector	2011/12	7.1	4.07	1.4	11.2
	2015/16	9.9	5.23	4.1	8.5

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

4.3 Public spending channel

The third hypothesised transmission channel from trade to poverty reduction is the public spending channel: if increased trade generates increases in public revenue and if these additional resources are spent on pro-poor activities, then this could theoretically contribute to reducing poverty. Here we will only focus on one small aspect of pro-poor spending, namely spending on public health and education.

Another potential public spending channel through which public spending could have a direct effect on poverty is through social transfers. Consolidated data on government spending on social

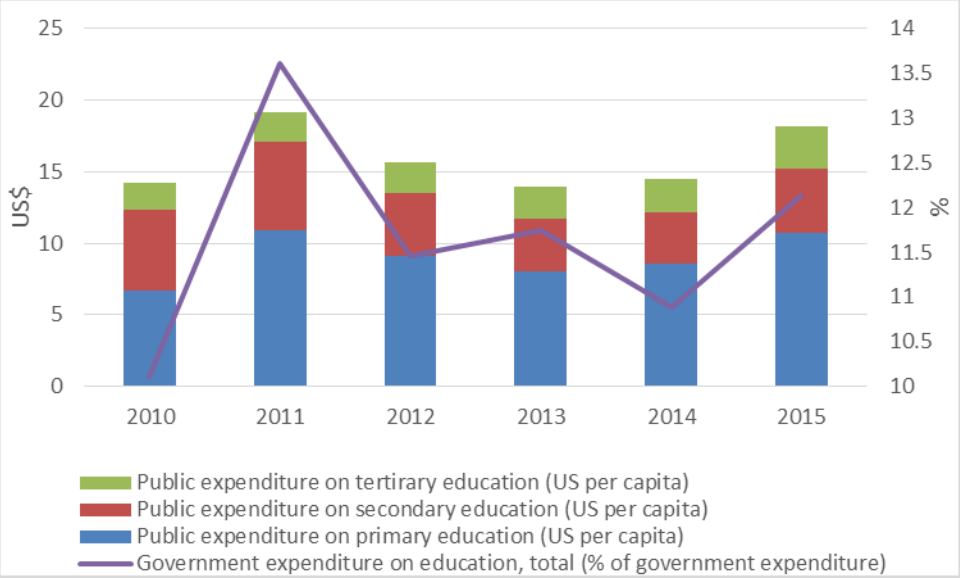
protection is not readily available in most countries and could not be accessed for this study. However, the UNPS allows us to estimate the transfers received by households. Since the UNPS sample is nationally representative, the total transfers received by households should correspond to total government expenditures on social transfers. The UNPS indicates that between 2011/12 and 2015/16, average transfers received by Ugandan household decreased from 5353USh to 4126 USh per person per year. However, this decrease is not statistically significant. Furthermore, the UNPS does not clearly specify the source of the transfer. Consequently, some of these transfers could come from charities or family members.

4.3.1 Education

Figure 11 shows public spending on education remained fairly stable in Uganda between 2012 and 2015, both as a percentage of total government expenditure and in absolute terms (USD per capita). Furthermore, public spending on education appears to have decreased significantly in Uganda since its peak in 2005, when it represented up to 20% of total government expenditures.

This indicates that if education expenditures have had any effect at all on poverty, it would have had to be through the type and distribution of public spending, rather than through the amount.

Figure 11: Public expenditures on education (2010-2015)



Source: WDI databank

Figure 12 shows that the proportion of households with all school-aged children enrolled in school (Edu_allattend) increased sharply in the trade corridor, but not in areas located far from the trade corridor. This evolution may reflect the general improvement in living standards in the trade corridor, rather than any specific public spending on education in these areas.

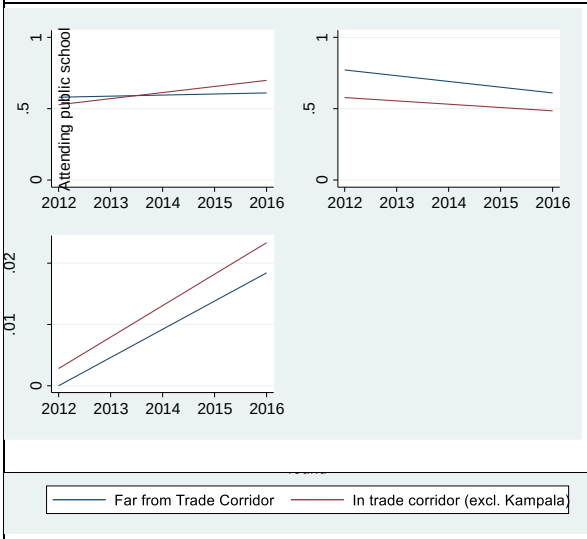
In fact, the data show that the proportion of children enrolled in public schools (Edu_public) has decreased over the period, both in the trade corridor and elsewhere. However, the decrease was less pronounced in the trade corridor than in remote areas (significant at 10%).

At the same time, the share of out-of-pocket expenditure on education in total household expenditures (SHR_edu) has increased over the period, in similar proportions in the trade corridor and elsewhere.

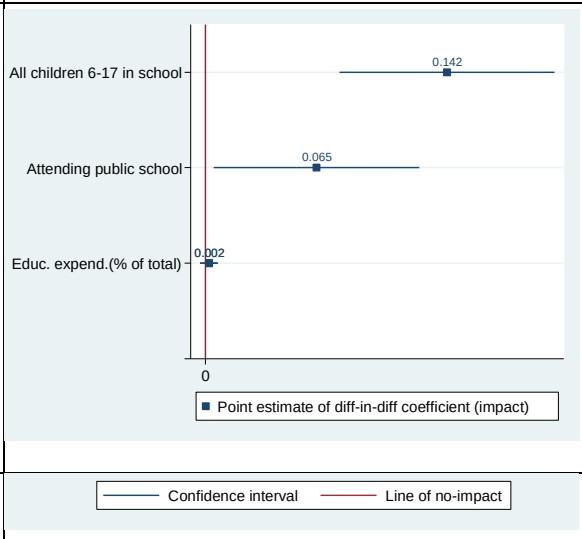
Taken together, these findings suggest that public expenditure on education probably did not play a significant part in explaining the changes in poverty over this period. If they had any influence at all on poverty figures, it would have been through the fact that the shift away from public education was slower in areas close to the trade corridor, which may reflect the fact that those areas received comparatively more public spending.

Figure 12: Education indicators, by distance from trade corridor

C. Change from 2011/12 to 2015/16



D. Diff-in-diff effect



Point estimates for figure 12A

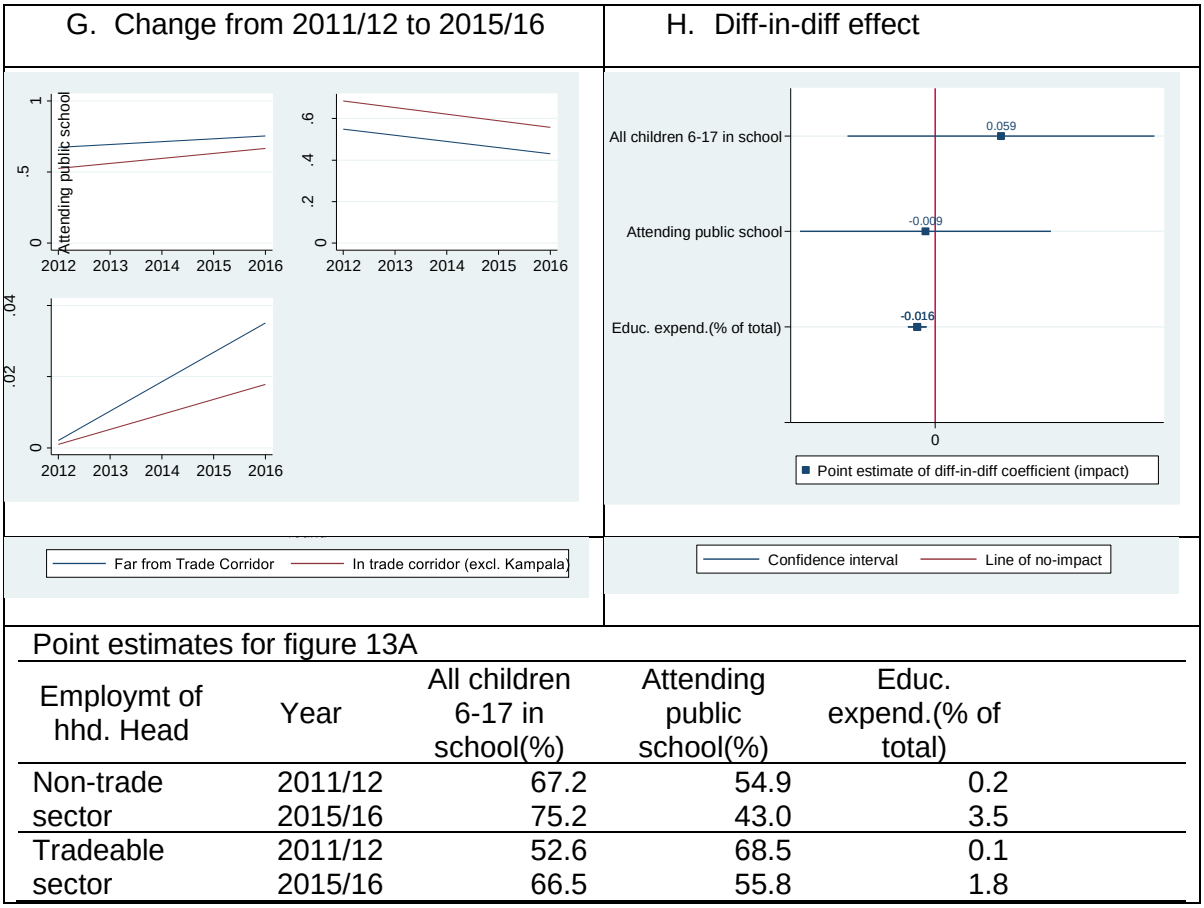
Distance to trade corridor	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend. (% of total)
Far from trade corr.	2011/12	58.0	77.1	0.0
	2015/16	61.0	61.1	1.8
In trade corridor	2011/12	52.8	57.9	0.3
	2015/16	69.9	48.5	2.3

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

The breakdown by sector of employment shows no statistically significant effect on school enrolment nor on the use of public schools. This suggests that increase public spending on education benefited those employed in tradable and non-tradable sector equally.

This conclusion is maintained when including households employed in the agricultural sector in the analysis.

Figure 13: Education indicators, by sector of employment of the household head



Point estimates for figure 13A

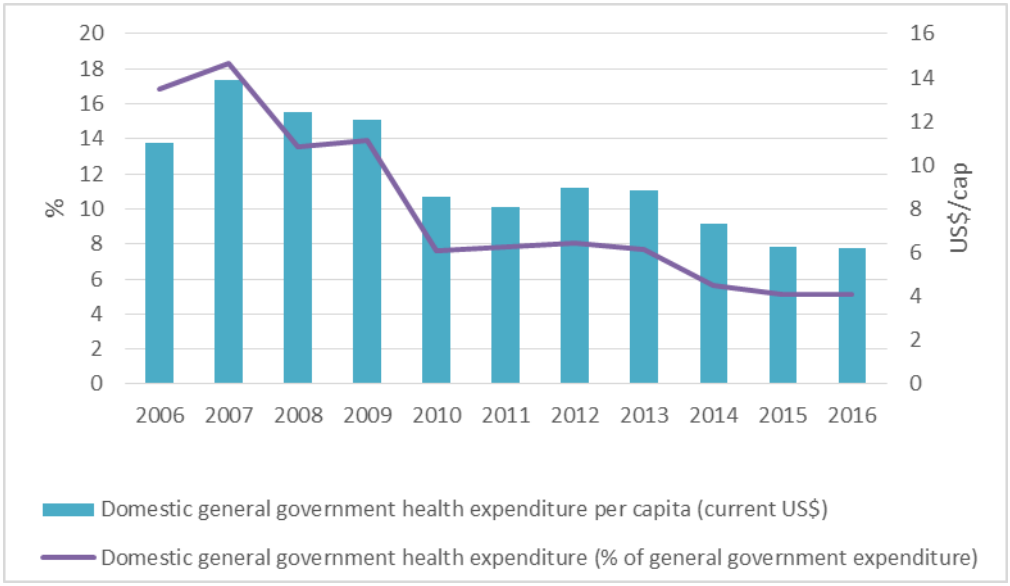
Employmt of hhd. Head	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend.(% of total)
Non-trade sector	2011/12	67.2	54.9	0.2
	2015/16	75.2	43.0	3.5
Tradeable sector	2011/12	52.6	68.5	0.1
	2015/16	66.5	55.8	1.8

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

4.3.2 Health

The public expenditure data presented in Figure 14 below indicates that public expenditures on health decreased as a percentage of total government expenditure and in per-capita between 2012 and 2016). Consequently, public health spending would not be expected to be one of the channels that contributed to decreasing poverty overall in Uganda over this period.

Figure 14: Public expenditures on health (2006-2016), %



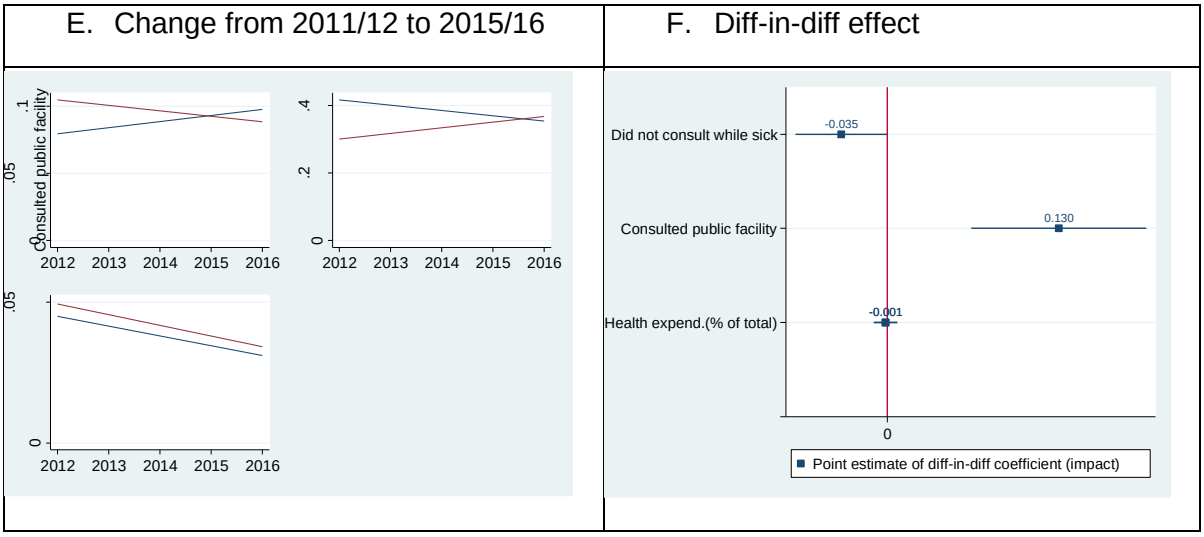
Source: WDI databank

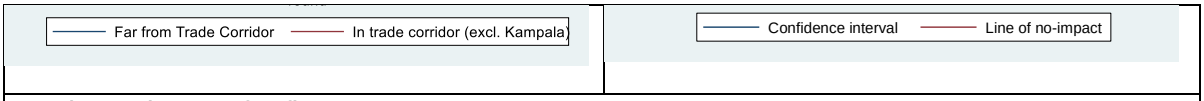
The disaggregated results by distance from the trade corridor show shows that the proportion of household who failed to consult a medical centre at their last sickness (HLT_sicknoconsult) fell in the trade corridor, while it increased amongst households located far from the trade corridor. However, the effect is only statistically significant when Kampala is included in the trade corridor.

At the same time, the proportion of household using public health facilities increased sharply in the trade corridor, while it decrease sharply in other areas. This effect is statistically significant at the 1% level with or without Kampala. This suggests that the improved consultation rates in trade-corridor areas can at least be attributed to improved access and use of subsidised public health facilities in these areas.

The proportion of total household expenditures going to health care (SHR_hlt) decreased both in the trade corridor and far from the corridor, without any detectable difference between the two in terms of the comparative rate of decrease.

Figure 15: Health indicators, by distance from trade corridor





Point estimates for figure 15A

Distance to trade corridor	Year	Did not consult while sick (%)	Consulted public facility(%)	Health expend. (% of total)
Far from trade corr.	2011/12	8.0	41.7	4.5
	2015/16	9.8	35.4	3.1
In trade corridor	2011/12	10.5	30.1	4.9
	2015/16	8.8	36.8	3.4

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

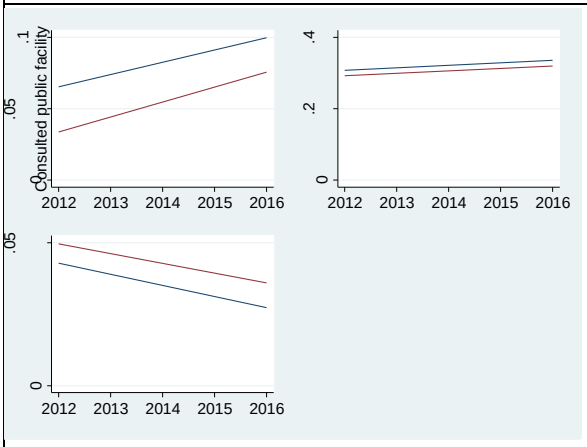
The disaggregation by sector of employment shows that consultations and usage of public health facilities increased amongst all households, while out-of-pocket expenditures decreased.

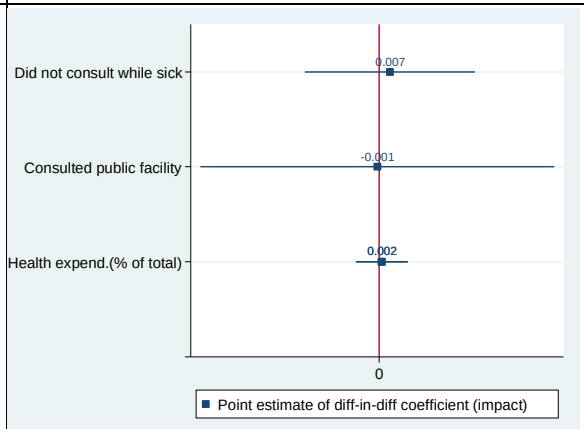
However, there is no detectable difference between the two groups in terms of the rate of decrease. This suggests that increased public spending on health benefited both groups in equal measure.

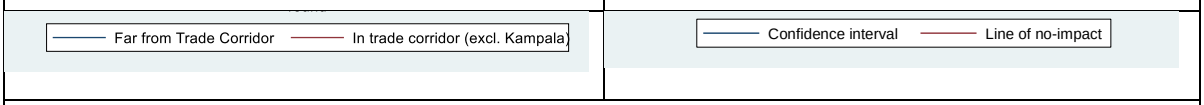
Figure 16: Health indicators, by sector of employment of the household head

I. Change from 2011/12 to 2015/16

J. Diff-in-diff effect







Point estimates for figure 16A

Employmt of hhd. Head	Year	Did not consult while sick (%)	Consulted public facility(%)	Health expend. (% of total)
Non-trade sector	2011/12	6.5	30.8	4.3
	2015/16	10.0	33.6	2.7
Tradeable sector	2011/12	3.4	29.2	5.0
	2015/16	7.6	31.9	3.6

Source: Author's calculations based on UNPS 2011/12 and UNPS 2015/16.

5 Conclusion

The evidence presented in this study strongly indicates that, between 2011/12 and 2015/16, living standards, as measured by poverty and consumption, improved more rapidly in Uganda amongst the groups exposed to trade (in the trade corridor or working in tradable sectors), than amongst the groups that were not exposed to trade (far from the trade corridor or working in non-tradable sectors).

The analysis of the various transmission channels suggests that prices may have played a part in improving living conditions for the poor along the trade corridor, as prices appear to have increased less rapidly in the trade-corridor than elsewhere.

There is also some evidence that wages and non-agricultural sales increased in the trade corridor, both in absolute terms and relative to areas further away from the corridor. However, there is no indication that this improvement in income was driven by workers employed in the tradable sector.

While there is no evidence of decreases in unemployment amongst households exposed to trade, self-employment appears to have become more common in the trade corridor and in the tradable (non-agricultural) sector. More research would be required to understand the causes and significance of those changes. Another factor explaining the decrease in poverty in the trade corridor is that a significant proportion of households moved out of agriculture and into the more lucrative manufacturing and service sectors in the corridor.

Finally, while there is no evidence of increases in overall public spending on health and education, there is evidence of increased use of public services in the trade corridor. As we did not have access to geographically disaggregated public expenditure data, we do not know if this reflects increased public investments in those areas, relative to other areas.

The analysis for female-headed households indicates that female-headed households did not benefit as much from exposure to trade as male-headed households. Data limitations prevented us from making a more fine-grained assessment of the impact on women within non-female-headed households. It is hoped that the qualitative study will help to refine the understanding of this issue.

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Annex H: Endline Assessment of TMEA Poverty Impact – Tanzania

Endline Assessment of TMEA Poverty Impact

Quantitative study: TANZANIA

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July 2019

Oxford Policy Management

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List of abbreviations

OPM	Oxford Policy Management
TNPS	Tanzania National Panel Survey
RCT	Randomised Control Trial
ATT	Average Treatment Effect
TMEA	Trade Mark East Africa

1 Introduction

This report presents the results of the quantitative assessment of the impact of TMEA on poverty. As explained in the methodological note, the evaluation strategy used to assess the impact of TMEA on poverty is a contribution analysis, meaning that it will not be possible to establish with certainty that the observed impacts can be directly attributed to TMEA. Instead, the evaluation aims to explore the various channels through which TMEA is thought to have effected poverty, with a view to forming a global picture of the likely relation between TMEA and observed changes in poverty.

This study focuses on the three channels defined by economic theory through which trade is thought to effect poverty, namely: (1) the price channel, (2) the wage and employment channel, and (3) the public expenditure channel[1]. The extent to which these links can be explored is constrained by the data and techniques being used. For this reason, the study will only be answer part of the research questions posed in the ToRs, and it will, consequently, be important to complement these quantitative findings, with the results from the ongoing qualitative and other studies that will help to answer other parts of these questions.

This report is structured as follows: Section 2 presents the methodology and data used for the analysis. Section 3 presents the main results regarding the impact of exposure to trade on poverty and consumption. Section 4 explores the three channels through which trade is thought to effect on poverty (prices, wages/ employment, and public expenditure). This will help to understand how the outcomes observed in section 2 were generated. Section 5 concludes.

[1] See Berg & Krueger, 2003; Dollar and Kraay, 2004; Hertel and Reimer, 2005; Hoekman and Olarreaga, 2007; Hoekman et al, 2001; McCulloch et al., 2001; Ravallion, 2005; Winters et al., 2004.

2 Methodology

2.1 TNPS Survey

For this analysis, we used the second and fourth wave of the Tanzania National Panel Survey (TNPS) 2009/10 and 2014/15. Income indicators were not available in a comparable format in TNPW 2009/10, so for these indicators we used TNPS 2012/13 as our baseline survey.

The TNPS is a nationally representative survey, which contains information on household characteristics, consumption, and other relevant welfare indicators.

The TNPS is statistically representative down to the province level. Households were grouped into different categories depending on their proximity to the trade corridor and relevant indicators were estimated for each province separately, or for the group as a whole, depending on the needs of the analysis.

Data used to identify the trade corridors was obtained from Transit Facilitation Agency.

2.2 Assessment methodology

The main method used in this study to assess the impact of exposure to trade on poverty and other indicators is the so-called difference-in-differences method (diff-in-diff for short). The diff-in-diff method involves comparing the changes over time in specified outcome indicators for a treatment group (in this case, households exposed to trade), and a control group (households not exposed to trade).

The quantitative analysis of impact is based on the comparison of a range of indicators between “treatment” households (i.e. households located in the trade corridor, or households working in the tradable sector) and “control” households. The key impact measure is the Average Treatment Effect on the Treated (ATT) which is estimated using a difference-in-difference approach. The ATT estimator for the direct effects of exposure to trade on selected households is defined as:

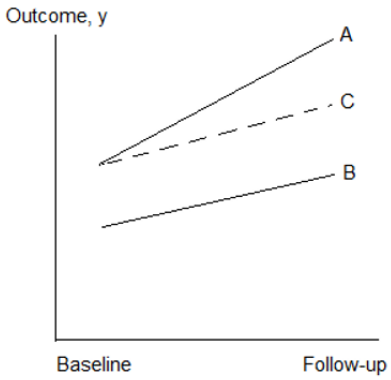
$$ATT = E[Yi \mid Ti=1] – E[Yi \mid Ti=0] \quad (1)$$

where Y is the outcome variable and ‘i’ indexes households. T is the treatment indicator, with a value of 1 if it a household is “treated”, 0 if in a “control” household. The ATT compares the outcome variable for “treatment” households and “control” households. Equation (1) shows the expected outcome households that have been exposed to trade (i.e. located in the trade corridor or working in the tradable sector) minus the expected outcome among households not exposed to trade.

The difference-in-difference estimation method is designed to be used in the context of randomised control trials (RCTs) and similar experimental and semi-experimental design settings. In this case, the study is using secondary data, which means that no ex-ante design could be used. This means that there is no guarantee that our “treatment” and “control” groups will be comparable. In fact, there are strong reasons to believe that the two groups are not identical, since the poverty profile carried out in 2015 showed large differences between these different groups. These differences need not in themselves be problematic, so long as the factors influencing change over time have been the same for the different groups.

Indeed, one key assumption in the DID approach is the assumption of common trend. The assumption specifies that control households must evolve from the baseline to the follow-up period in the same way treatments would have done had they not been treated. This assumption, which is needed for the consistency of the DID estimator, imply that treatment and control households are affected in the same way by macro shocks.

A graphical representation of common trend is presented in the figure below. When applying first difference in outcome, the trend of the control (line B) is substituted for the counterfactual situation for the treatment households (non-treatment) (or line C). If this assumption holds the unbiased estimate becomes the difference in the trend between line A and C.



This is a key implicit assumption that must hold for the results in this report to be interpreted as representing the "treatment" effect of being exposed to trade. This is an assumption that cannot be verified, and therefore must be seen as an inherent limitation of this study.

The difference in difference model is estimated in the following functional form:

$$Yit = a + b1Ti + b2t + b3Ti * t + ct(Xit) + eit \quad (2)$$

where the indicator for treatment or control for household i (Ti) is interacted with a dummy indicating the follow-up round (period 1). The equation incorporates a population time trend (captured by parameter b2), and a group fixed effect indicated by the parameter b1. The difference in difference estimator is provided by parameter b3.

In the case of binary outcomes, model specification (2) is be estimated using a logit model, though the coefficients on the treatment and interacted dummy respectively cannot be directly interpreted as the marginal treatment effect on probability without the necessary transformation of the probability function. For non-binary variables Ordinary Least Squares (OLS) regressions were used. For the depth and severity of poverty indicators (FGT1 and FGT2), Tobit regressions were used, where the lower limit truncation was set to zero. This reflects the fact that there are variations in wellbeing above the poverty line that will not be captured as the poverty measures are, by definition, truncated at the poverty line.

It is important to point out that normally the diff-in-diff method is used with formal impact evaluation techniques, such as Randomised Control Trials (RCTs), to quantify the effect of a given treatment on a treatment group. In our case, the underlying design of the study does not meet the requirements of an RCT or equivalent evaluation methods, since we were working from secondary data available in the national panel surveys (TNPS). These surveys were not designed to assess the impact of trade on poverty. Consequently, the resulting impacts cannot be directly interpreted as representing the effect of trade on poverty. Instead, they should be seen as providing indications of possible relations, to be further explored through the various other studies, as part of the overall contribution analysis.

For this study, synthetic treatment and control groups had to be constructed for the purpose of answering the research questions outlined in the ToRs. The following groups were defined:

- Physical distance to trade corridor (definition 1) – excluding households located in Dar and households in districts adjacent to trade corridor:

  - Treatment: households located within 50 kms of the trade corridor (except households located in Dar).
  - Control: households located more than 100 kms from the trade corridor.

- Physical distance to trade Corridor (definition 2) – including households located in Dar and households in districts adjacent to trade corridor:
  - Treatment: households within 50 kms of the trade corridor (including households located in Dar).
  - Control: households located more than 50 kms away from trade corridor.
- Sector of employment of the head of household (definition 1) – excluding those working in agriculture and those working in intermediary tradable/ non-tradable sectors:
  - Treatment: households headed by someone working in the tradable sector (excl. households working in agriculture).
  - Control: households employed by someone working in the non-tradable sector (excl. households working in mixed or partly tradable sectors).
- Sector of employment of the head of household (definition 2) – including those working in agriculture and those working in intermediary tradable/ non-tradable sectors:
  - Treatment: households headed by someone working in the tradable sector (including households working in agriculture).
  - Control: households employed by someone working in the non-tradable sector (including households working in mixed or partly tradable sectors).

Unless specified otherwise, we report results for definition 1 of the treatment/control groups, as these tend to yield sharper results, due to the clearer distinction between treatment and control groups. Results for the definition 2 groups are contained in the annex and referred to as necessary in the main report.

Table 1: Employment sector of the head of household (%), by distance to trade corridor

	Dar-es-Salaam	In TC (excl. Dar)	Adjacent	Far from Corridor	Total
Sector:					
Unemployed	7.7	2.71	3.52	3.9	3.88
Tradable Agric.	9.48	71.63	75.37	72.24	65.99
Tradable (non-agr.)	4.48	2.27	1.32	2.53	2.49
Mixed	1.44	0	0.14	0.16	0.24
Non-tradable	76.9	23.39	19.65	21.16	27.4
Total	**100**	**100**	**100**	**100**	**100**

Source: Author's calculations based on TNPS 2014/15.

Table 2: Proportion of poor and male-headed households (%), by sector of employment and distance to trade corridor

	Poverty Incidence (FGT0)		Male-headed households		Observations		
Year:	**2009/10**	**2014/15**	**2009/10**	**2014/15**	**2009/10**	**2012/13**	**2014/15**
In TC (Dar)	13.5	1.9	78.6	73.8	644	770	552
In TC (excl. Dar)	26.2	31.5	77.7	79.9	685	1,184	696
Adjacent to TC	25.1	26.1	81.3	77.0	434	574	368
Far from TC	29.5	28.8	78.6	73.4	1,913	2,482	1,736
Unemployed	26.6	12.9	65.7	63.1	253	319	204
Tradable Agric.	31.4	34.1	80.2	74.7	1,538	2,752	1,809
Tradable (non-agr.)	26.4	11.1	79.9	85.8	211	217	103
Mixed	13.5	0.0	78.3	98.5	197	29	18
Non-tradable	22.1	11.6	78.0	79.6	1,725	1,657	1,210
Total	**26.7**	**26.5**	**78.5**	**75.9**	**3,924**	**5,010**	**3,352**

Source: Author's calculations based on TNPS 2009/10 to 2014/15.

Table 3: Key macro-economic indicators for Tanzania (2010-2018)

Year:	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP growth (annual %)	6.34	7.67	4.50	6.78	6.73	6.16	6.87	6.79	5.20
GDP per capita (constant 2010 US$)	743	777	788	817	846	872	904	937	957
GINI index (World Bank estimate)	..	37.8	..	..	..	..	..	..	..
Inflation, consumer prices (annual %)	6.20	12.7	16.00	7.87	6.13	5.59	5.17	5.32	3.49

Source: World Bank WDI databank.

3 Results

3.1 Poverty by trade corridors

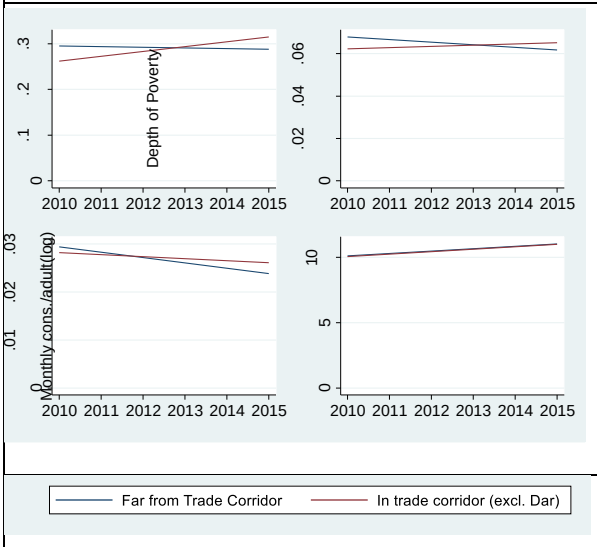
This section presents the results of the disaggregation by distance to the trade corridor for the incidence (FGT0), depth (FGT1) and severity (FGT2) of poverty, as well as for per consumption (lnpc_mon_cons).

Figure 1 presents the results comparing areas located in the trade corridor ("treatment"), compared to areas located far away from the trade corridor ("control"). In other words, it excludes areas that are adjacent to the trade corridor, so as to get a clearer contrast between "treatment" and "control" groups. We also excluded Dar from this assessment, as it has very different pricing structure and could bias the results. More detailed results, including Dar and areas adjacent to the trade corridors, are available in the annex.

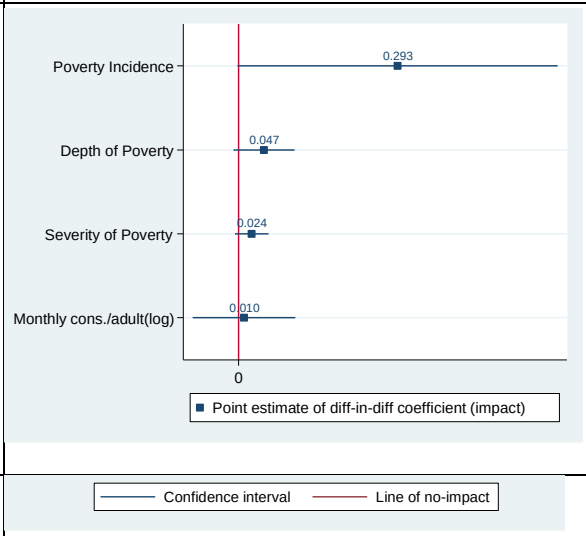
The results show that the official poverty rate (FGT0) increased by more than 5 percentage points between 2009/10 and 2014/15 in the trade corridor, but decreased slightly in areas located far away from the trade corridor. The depth (FGT1) of poverty slightly increased while severity (FGT2) of poverty slightly decreased; these treatment effects are statistically significant.[2]

Figure 1: Poverty and consumption, by distance from trade corridor

A. Change from 2009/10 to 2014/15



B. Diff-in-diff effect



Point estimates for figure 1A

Distance to trade corridor	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./ adult(log)
Far from trade corr.	2009/10	29.5	6.8	2.9	10.10
	2014/15	28.8	6.2	2.4	11.02
In trade corridor	2009/10	26.2	6.2	2.8	10.05
	2014/15	31.5	6.5	2.6	10.97

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

[2] Treatment effect refers to the additional drop in poverty experienced by households exposed to trade (treatment group in this case), compared to households not exposed to trade (control group). A negative treatment effect indicates that poverty fell faster in the treatment group than in the control group. For consumption, a negative treatment effect would indicate that consumption rose more slowly in the treatment group than in the control group. In these tables as throughout the report and annexes, * denotes statistical significance at .10, ** denotes statistical significance at .05, and *** denotes statistical significance at .01, representing progressively less likelihood that a result occurred by chance alone.

At a more detailed level, the following two tables show the treatment effects of exposure to trade across a range of indicators designed to capture aspects of poverty and other relevant social indicators (e.g., employment, education, and use of health services). The first table shows the effects for all households, while the second table shows the results for female-headed households. The first two columns of the two tables show the results for households in the trade corridor, both excluding and excluding Dar es Salaam, since major cities tend to have very different pricing structures and could bias the results.

In Tanzania, there were few statistically significant results. Depth and severity of poverty increased for all households on the corridor when excluding Dar es Salaam, but the magnitude of the treatment effect was very small (0.05 for depth of poverty and 0.02 for severity of poverty). Consumption went up among these same households by an equally small increment (0.01 – statistically significant) but the treatment effect for all corridor households including Dar es Salaam was higher (-.20), positive, and statistically significant.

For those households that reported that their income came from a tradable sector, the treatment effects were only statistically significant when households whose primary sector was agriculture are included. The key indicators of poverty, depth and severity all worsened, with treatment effects of 0.85, 0.16 and 0.09, respectively – and these were all statistically significant. Consumption also reduced (treatment effect of -0.51) for these households.

Table 4: Treatment effect of being exposed to trade vs. not exposed to trade (all households)

	Trade-corridor		Tradable sector	
	Excl. Dar/ Adjacent to TC	Incl. Dar/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	0.29	0.03	-0.28	0.85***
Depth of poverty	0.05**	-0.01	-0.04	0.16***
Severity of poverty	0.02**	-0.01	-0.03	0.09***
Consumption p.c.	0.01***	0.20***	-0.01	-0.51***
Price index	0.14***	0.10***	-0.01	-0.04***
Share tradable cons. (non-food)	-0.01	-0.04***	-0.01	0.06***
Agricultural sales	-0.31	-0.30	-0.52	0.31
Transfers	0.17**	-0.03	-0.03	-0.09
Wages	0.30	-0.43	0.65	1.13**
Non-agri. sales	0.09	0.23	-0.32	0.19
Unemployment	-0.01*	0.01***	0.01	-0.03***
Formal employment	-0.03	-0.03	0.06	-0.07***
Self-Employed	0.00	0.04*	-0.10	0.00
Agriculture empl.	0.01	-0.04	0.00	0.06
All children (6-18) attending school	0.02	0.01	0.08	-0.05
Prop. attending public schools	0.00	-0.01	-0.04	0.05**
Share educational expenditures/ total	0.06***	0.03***	0.03	0.05***
Sick but did not consult medical	0.14***	0.11***	0.00	-0.02
Prop. consulted public health facil.	0.04	0.06	-0.10	-0.04
Share health expenditures/ total	-0.01**	-0.01**	0.00	0.00

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15

The pattern repeated and was even worse for female-headed households, as shown in Table 5: trade corridor households had negative treatment effects in poverty incidence (1.06 for the corridor excluding Dar es Salaam, and 0.55 for the corridor including Dar es Salaam). These were both statistically significant. For depth and severity of poverty, only the treatment effects for corridor households excluding Dar es Salaam were statistically significant, with a treatment effect of 0.18 for depth of poverty and 0.10 for severity of poverty; consumption also fell here. Notably, these figures are all worse than for all households, indicating that female-headed households fared even more poorly than all households. Each of these findings was statistically significant. Treatment effects on households in tradeable sectors, whether agriculture was included or not, also worsened significantly, as shown below, and did so for female-headed households at a level much worse than that of all households. The treatment effects for poverty incidence, depth of poverty and severity of poverty were all statistically significant, showing a strong trend for female-headed households to have suffered important setbacks on poverty measures during the TMEA period.

Table 5: Treatment effect of being exposed to trade (Female-headed households)

	Trade-corridor		Tradable sector	
	Excl. Dar/ Adjacent to TC	Incl. Dar/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	1.06***	0.55*	2.37**	1.63***
Depth of poverty	0.18***	0.09	0.54**	0.28***
Severity of poverty	0.10***	0.05	0.32**	0.16***
Consumption p.c.	-0.10*	0.14	-0.58	-0.72***
Price index	0.15***	0.12***	0.01	-0.04***
Share tradable cons. (non-food)	0.02	0.00	0.15	0.06***
Agricultural sales	-0.90	-0.77	-2.64	0.18
Transfers	0.03	0.09	0.10*	0.07
Wages	1.11	0.51	1.96	1.57
Non-agri. sales	0.37	0.74	0.01	-0.31
Unemployment	-0.01	0.02	0.11	-0.02
Formal employment	-0.02	0.03	-0.11	-0.13***
Self-Employed	0.01	0.05	0.39**	-0.03
Agriculture empl.	-0.03	-0.14**	0.00	0.08
All children (6-18) attending school	0.01	0.08	0.19	-0.16**
Prop. attending public schools	-0.06	-0.05	0.05	0.04
Share educational expenditures/ total	0.07**	0.04**	-0.01	0.02
Sick but did not consult medical	0.17**	0.15**	0.30	0.01
Prop. consulted public health facil.	0.02	0.03	0.18	0.03
Share health expenditures/ total	0.00	0.00	-0.03***	-0.01

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15

While there were some differences from indicator to indicator and depending upon how 'trade corridor' and 'tradable sector' are defined, the general picture is one of a correlation between exposure to trade and worsening poverty outcomes, particularly for female-headed households. Tanzania was the only country of the four under study to have shown such consistently negative and statistically significant outcomes with respect to exposure to trade. Additional figures from these two tables will be discussed in the relevant sections of this annex, below.

3.2 Poverty by sector of employment

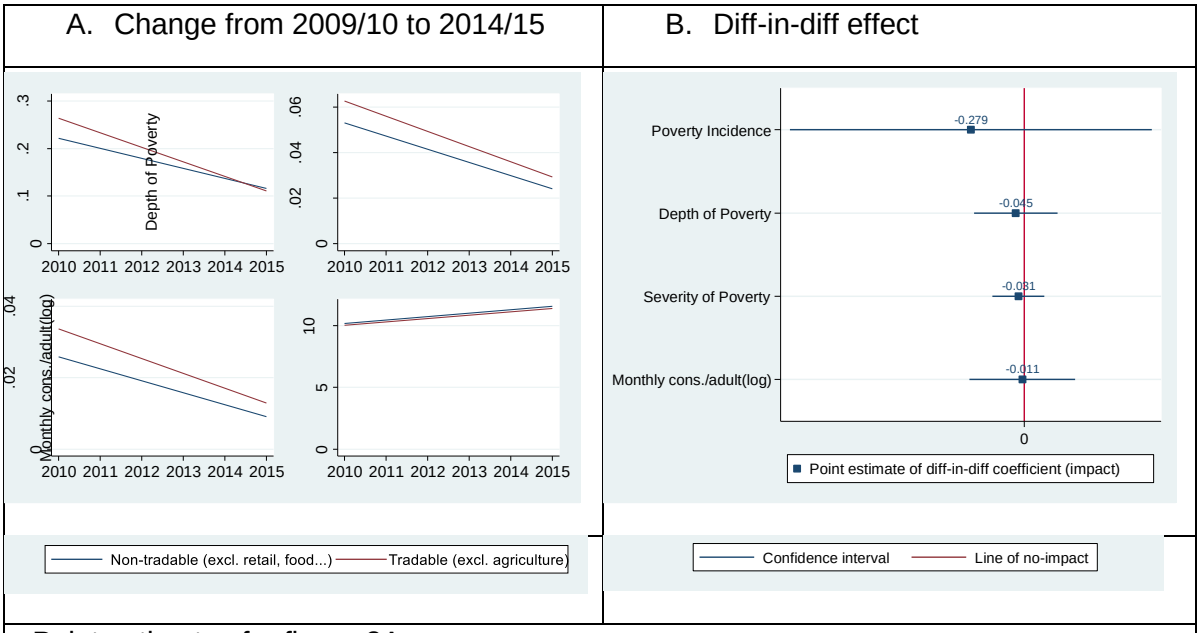
This section presents the findings comparing changes in poverty for household whose head is employed in the tradable sector ("treatment") and those employed in the non-tradable sector ("control"). For clarity, we have excluded households employed in subsistence agriculture, which is formally considered a tradable sector, although these households cannot benefit from potential gains of trade if they do not sell their produce in the market. We have also excluded intermediary sectors that have both tradable and non-tradable components. For instance, the retail sector is usually considered a non-tradable sector, but insofar as it retails tradable goods, it would be strongly affected by changes in trading conditions. More detailed results, including for subsistence agriculture and intermediary sectors, are available in the annex.

The results show that the incidence of poverty decreased by more than 15 percentage points amongst households employed in the tradable sector, and by 10 percentage points in the non-tradable sector. However, the difference between the tradable and non-tradable sectors is not statistically significant.

The results for depth and severity of poverty are similar, but not statistically significant.

It is worth noting that when agriculture is included in the tradable sector, the positive treatment is reversed and becomes strongly statistically significant. This suggests that the people employed in the agricultural sector did not benefit from trade liberalisation, or that other factors dominated in that sector (see annex B).

Figure 2: Poverty and consumption, by sector of employment of the household head



Point estimates for figure 2A

Employmt of hhd. Head	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./ adult(log)
Non-trade sector	2009/10	22.1	5.3	2.6	10.16
	2014/15	11.6	2.4	0.9	11.56
Tradable sector	2009/10	26.4	6.3	3.4	10.01
	2014/15	11.1	2.9	1.3	11.39

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

3.2.1 Poverty impact amongst female-headed households

The terms of reference request that estimates are produced for the specific impact of TMEA on women. The extent to which this can be assessed using quantitative methods applied to households survey data from the TNPS is limited, due to the fact that most indicators are defined at the household level and, therefore, do not allow us to differentiate between the impact on different members within the household. For this reason, our assessment will be limited to the impact on female-headed household. A more thorough assessment of the impact on other women will be made through the qualitative study.

The evidence presented in Table 6 below indicates that female households in the trade-corridor suffered even more than male-headed ones, as poverty increased by 17 percentage points amongst female-headed households in the trade corridor (Table 7), compared to +5 percentage points for all households in the trade corridor (Figure 1). In areas located far from the corridor, poverty decreased both amongst female-headed and male-headed households (Table 7 and Figure 1). The effects were statistically significant for all indicators (Table 6).

The results also show a strong and statistically significant positive treatment effect for women employed in the tradable sector (Table 6), meaning that poverty increased for this group both in absolute terms, and compared to women employed in the non-tradable sector (Table 8).

Table 6: Treatment effect[3] of exposure to trade on poverty for female-headed households

	Trade-corridor		Tradable sector	
	Excl. Dar/ Adjacent to TC	Incl. Dar/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	1.06***	0.55*	2.37**	1.63***
Depth of poverty	0.18***	0.09	0.54**	0.28***
Severity of poverty	0.10***	0.05	0.32**	0.16***
Consumption p.c.	-0.10*	0.14	-0.58	-0.72***

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15

Table 7: Point estimates for poverty indicators, by distance to trade corridor (excl. Dar and districts adjacent to the corridor)

Distance to trade corridor	Year	Poverty Incidence	Depth of Poverty	Severity of Poverty	Monthly cons./adult(log)
Far from trade corr.	2009/10	36.9	9.4	4.4	10.05
	2014/15	30.8	6.2	2.2	10.96
In trade corridor	2009/10	25.0	5.8	2.6	10.06
	2014/15	42.4	8.0	3.0	10.86

[3] Treatment effect refers to the additional drop in poverty experienced by households exposed to trade (treatment group in this case), compared to households not exposed to trade (control group). A negative treatment effect indicates that poverty fell faster in the treatment group than in the control group. For consumption, a negative treatment effect would indicate that consumption rose more slowly in the treatment group than in the control group.

Table 8: Point estimates for poverty indicators, by sector of employment of the household head (excl. agriculture and intermediary sectors)

Employmt of hhd. Head	Year	Poverty Incidence	Depth of Poverty	Severity of Poverty	Monthly cons./adult(log)
Non-trade sector	2009/10	30.5	7.4	3.4	10.09
	2014/15	9.2	1.5	0.5	11.65
Tradable sector	2009/10	21.1	3.9	1.5	10.14
	2014/15	39.8	12.3	5.5	11.11

4 Explaining the results

The results presented in section 3 above convincingly show that poverty decreased much more rapidly along the trade corridor and in households working in the (non-agricultural) tradable sector, than in areas located far from the trade corridor and households employed in the non-tradable sector. However, those result do not tell us why that is the case.

In order to answer the main research question, and understand whether TMEA might have contributed to improving living conditions among the poor, it is thus necessary to look at the various channels through which trade is hypothesised to impact on poverty, namely (1) the price channel, (2) the wage and employment channel, and (3) the public spending channel.

4.1 Price channel

For Tanzania, we did not have access to disaggregated CPI data by item-type. Consequently, it was not possible to compare the evolution of the price of tradable vs. non-tradable goods, as has been done in the other countries.

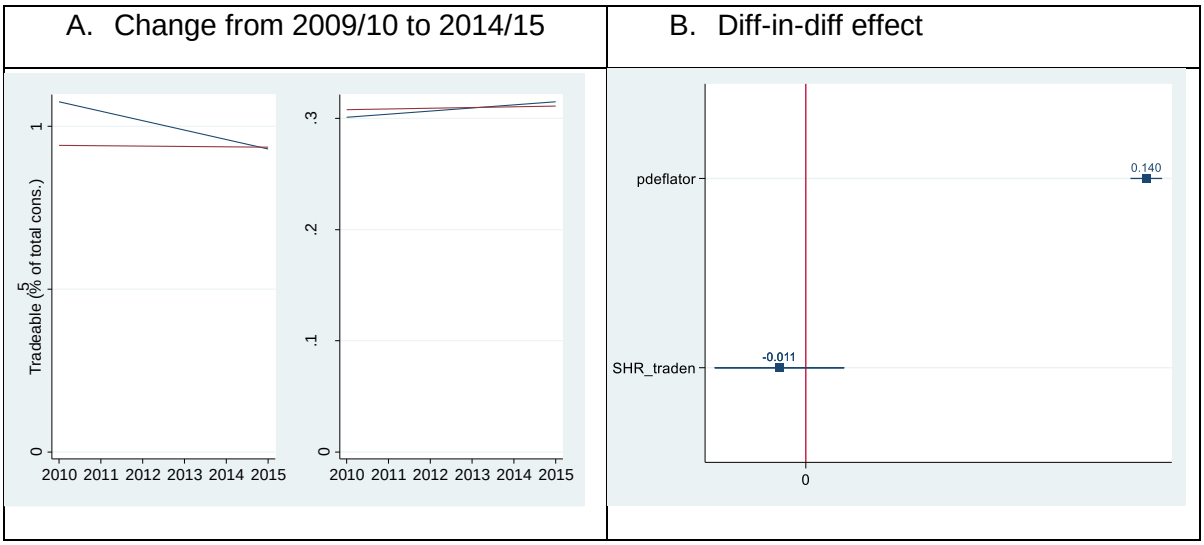
Instead, Figure 3 below looks at the evolution of the overall price index (pdeflator) faced by households in the various analysis groups, as well as the share of tradable goods in non-food consumption (SHR_tradenonfood). The choice was made to exclude food consumption (a tradable good) from this analysis because the share of food consumption is closely related to poverty and average income and could therefore bias the results.

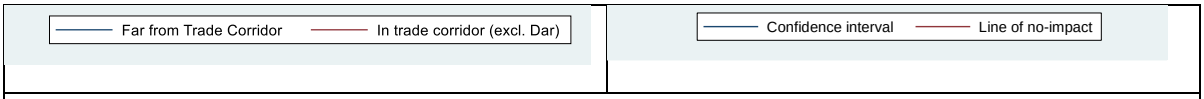
The analysis does appear to show a strong convergence of price far from the corridor, towards the lower price level existing in the trade corridor. The result is statistically significant at the 1% level.

At the same time, the data show an increase in the share of tradable good consumed by households in areas far from the corridor, but in this case, the difference between trade-corridor and non-trade-corridor areas is not statistically significant.

When Dar is included among the trade-corridor areas, the treatment effect for this indicator becomes statistically significant, due to the slight decrease in the share of tradable goods in Dar (see statistical tables).

Figure 3: Average price index value and share of tradable goods in non-food consumption, by distance from trade corridor





Point estimates for figure 3A

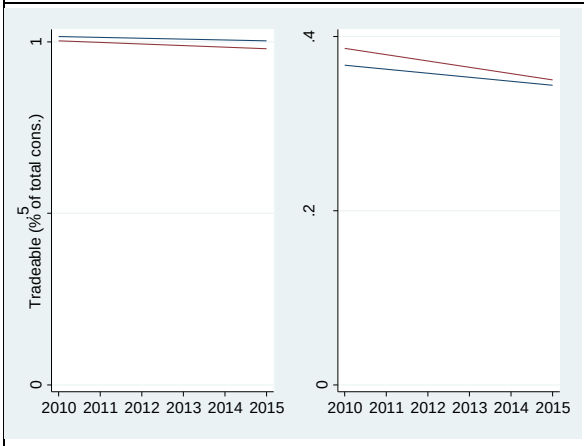
Distance to trade corridor	Year	Price index	Tradable (% of total cons.)
Far from trade corr.	2009/10	107.6	30.1
	2014/15	93.1	31.5
In trade corridor	2009/10	94.2	30.8
	2014/15	93.6	31.1

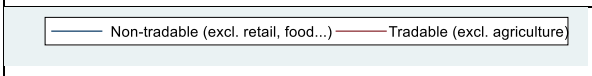
Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

The analysis by sector of employment of the household head does not show any statistically significant effect on prices nor on consumption patterns of tradable non-food goods (see Figure 4 below). This finding is consistent with theory, as there is no theoretical reason why consumer prices faced by people employed in these sectors should differ from those employed in non-tradable sectors, unless the tradability of jobs is strongly correlated with the distance to the trade corridor, which does not appear to be the case (see Table 1 above).

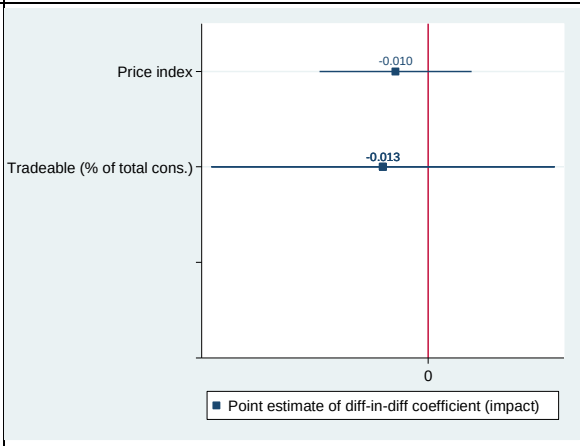
Figure 4: Average price index value and share of tradable goods in non-food consumption, by sector of employment of the household head

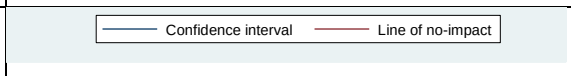
A. Change from 2009/10 to 2014/15





B. Diff-in-diff effect





Point estimates for figure 4A

Distance to trade corridor	Year	Price index	Tradable (% of total cons.)
Far from trade corr.	2009/10	101.6	36.7
	2014/15	100.3	34.4
In trade corridor	2009/10	100.2	38.6
	2014/15	98.0	35.0

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

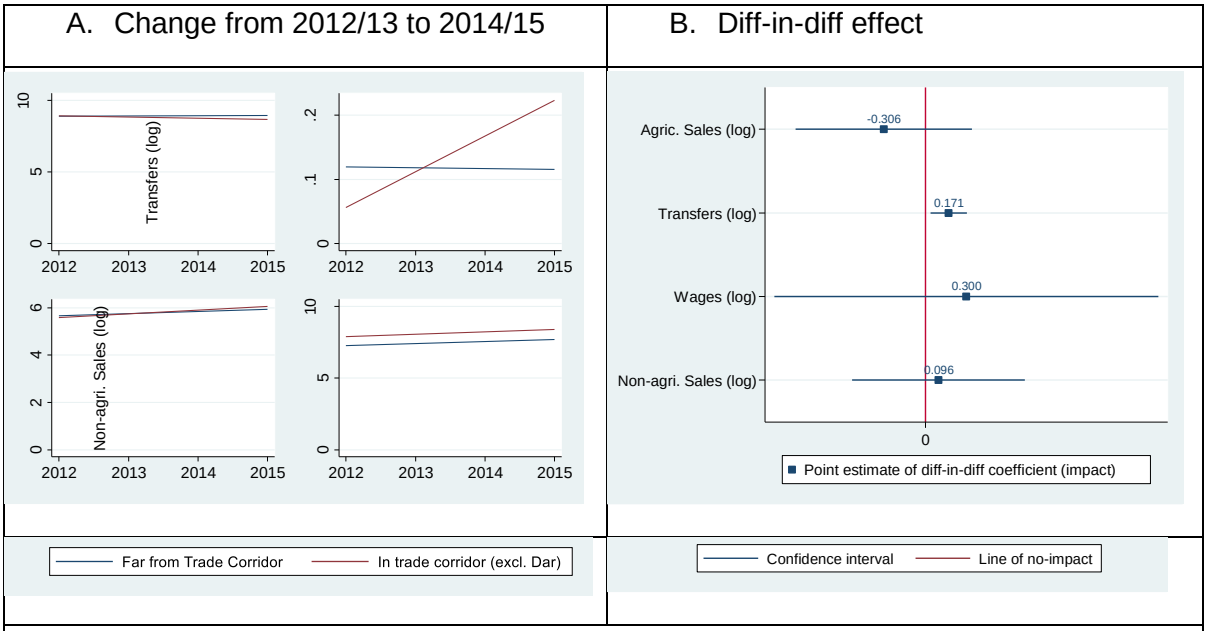
4.2 Wage/ employment channel

4.2.1 Income

This subsection looks at changes in different income sources (agricultural sales, social transfers, wages and non-agricultural sales) by distance from the trade corridor, and by sector of employment.

Figure 5 below shows that there the only indicator for which we could detect a statistically significant treatment effect were social transfers (5% significance). This indicates that the observed increase in poverty in the trade corridor cannot be explained through the income channel. However, it appears that increased social transfers might have helped to mitigate the impact of price increases in the trade corridor, meaning that poverty might have increased even more in the trade corridor, had it not been for social transfers.

Figure 5: Sources of income, by distance from trade corridor



Point estimates for figure 5A

Distance to trade corridor	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Far from trade corr.	2012/13	8.89	0.12	5.67	7.27
	2014/15	8.94	0.12	5.94	7.68
In trade corridor	2012/13	8.92	0.06	5.59	7.88
	2014/15	8.67	0.22	6.06	8.38

Source: Author's calculations based on TNPS 2012/13, TNPS 2014/15.

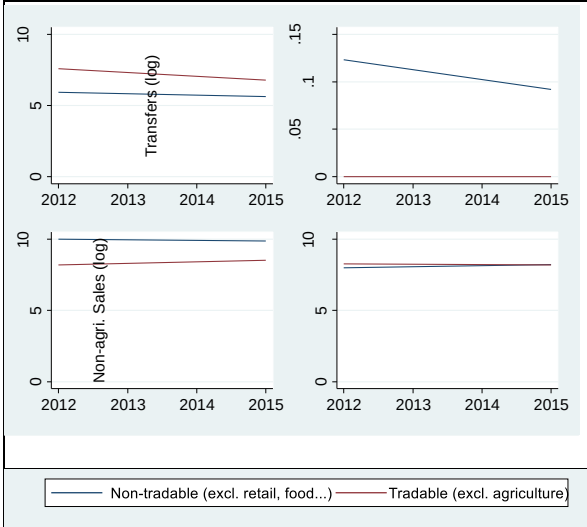
The analysis by employment sector shows no significant treatment effects on any of the income variables[4].

[4] Trade sectors are defined as follows: Agriculture: Agriculture, forestry and fishing; Tradable: Mining and Quarrying, Manufacturing, Mixed: "Electricity, gas, steam and air conditioning supply, Water supply; sewerage, waste management and remediation activities, Wholesale and retail trade; repair of motor vehicles and motorcycles, Transportation and storage, Accommodation and food service activities, Information and communication, Financial and insurance activities, Professional, scientific and technical activities, Activities of extraterritorial organizations and bodies; Non-tradable: Construction, Real estate activities, Education, Human health and social work activities, Arts, entertainment and recreation, Other service activities, Activities of households as employers; undifferentiated goods- and services-producing activities of households.

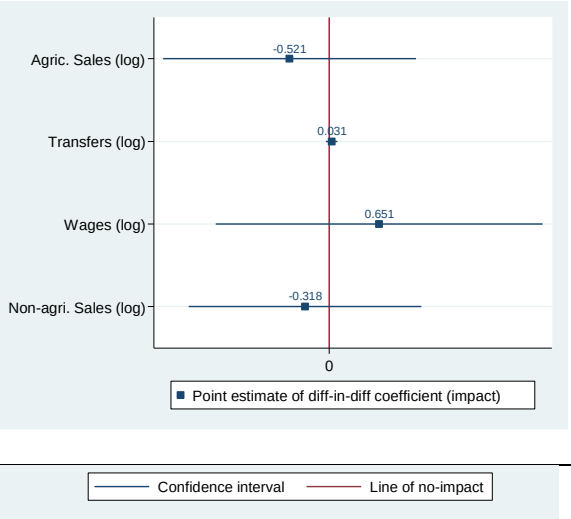
When agricultural households are included in the analysis, however, there is a positive and statistically significant treatment effect on wages for people employed in the tradable sector (see statistical tables). This suggests that wages increased in the agricultural sector, presumably amongst people employed in commercial agriculture, as opposed to self-employed subsistence farmers.

Figure 6: Sources of income, by sector of employment of the household head

A. Change from 2012/13 to 2014/15



B. Diff-in-diff effect



Point estimates for figure 6A

Employmt of hhd. Head	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Non-trade sector	2012/13	5.92	0.12	10.01	7.99
	2014/15	5.62	0.09	9.87	8.22
Tradable sector	2012/13	7.59	0.00	8.21	8.28
	2014/15	6.77	0.00	8.52	8.19

Source: Author's calculations based on 2012/13, TNPS 2014/15.

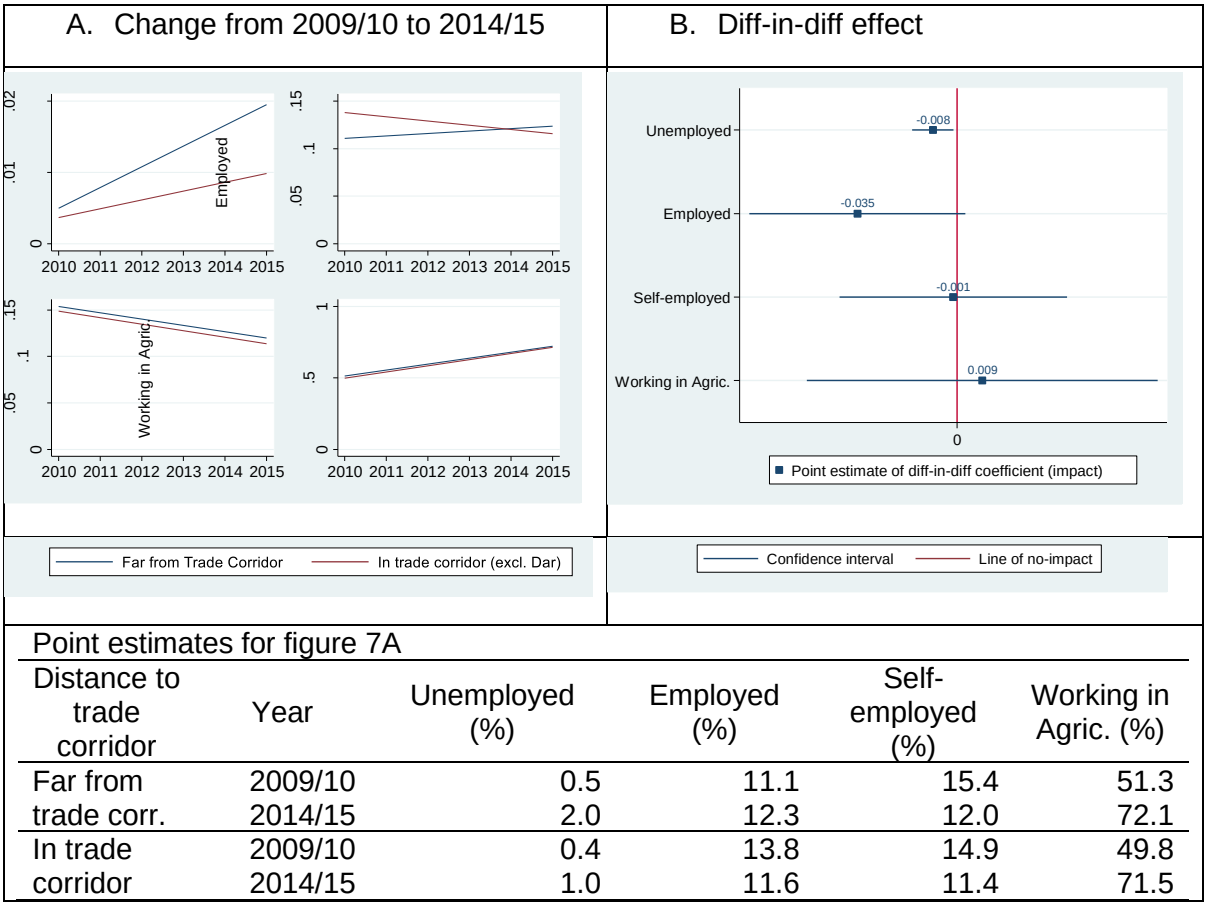
4.2.2 Employment

Figure 7 shows that unemployment increased faster between 2009/10 to 2014/15 in areas located further from the trade corridor. However, the effect is only statistically significant at the 10% level[5].

There is no detectable treatment effect on any of the other employment indicators. This suggests that the employment channel did not play a major role in explaining changes in poverty levels over this period.

[5] By formally employed we mean paid employees or employers, as opposed to unpaid family workers, apprentices or other type of work. We do not mean that they are employed in the formal sector.

Figure 7: Employment status, by distance from trade corridor



Point estimates for figure 7A

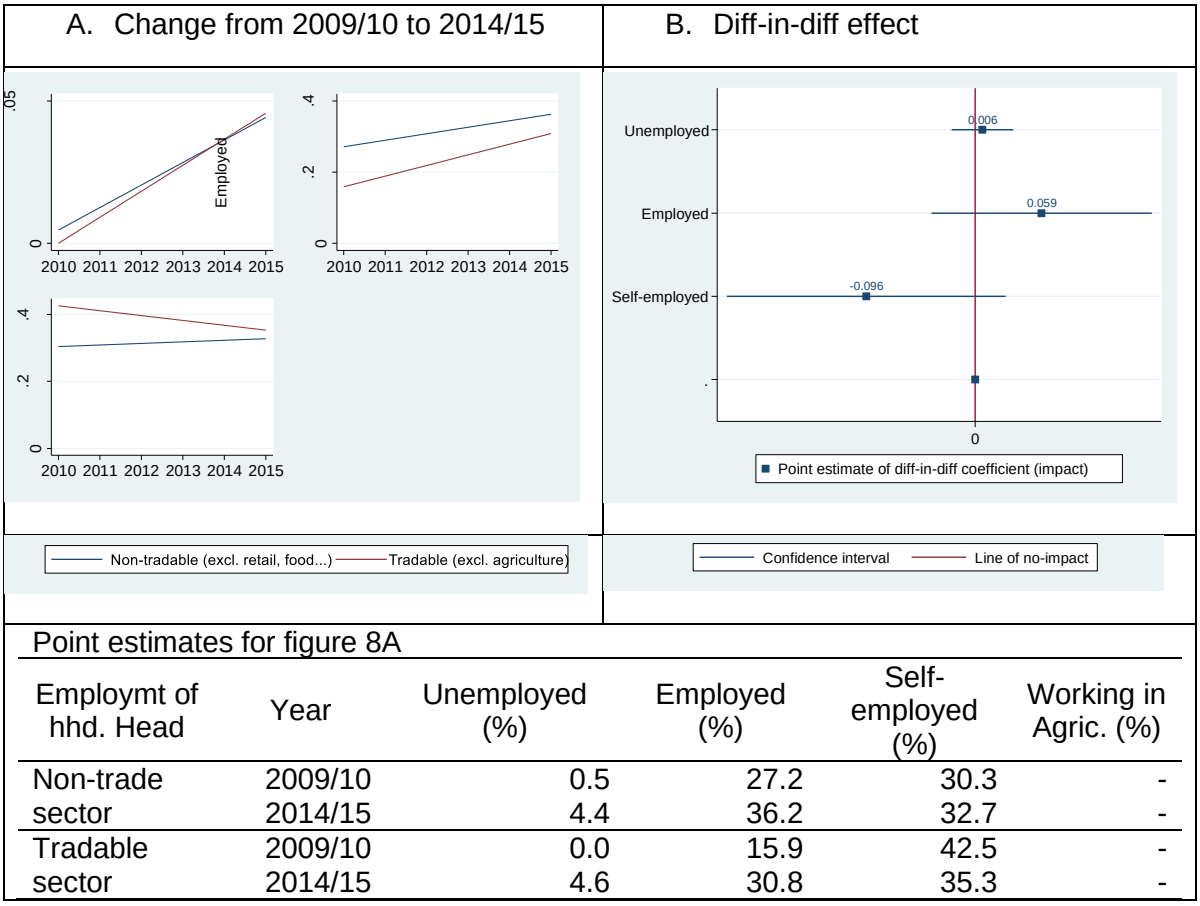
Distance to trade corridor	Year	Unemployed (%)	Employed (%)	Self-employed (%)	Working in Agric. (%)
Far from trade corr.	2009/10	0.5	11.1	15.4	51.3
	2014/15	2.0	12.3	12.0	72.1
In trade corridor	2009/10	0.4	13.8	14.9	49.8
	2014/15	1.0	11.6	11.4	71.5

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

When disaggregating the results by sector of employment, we find no statistically significant effects.

The conclusion is that the employment channel does not appear to have been one of the major channels through which living conditions improved in the tradable sector, or at least that the effects on employment were not sufficiently large to be detectable at the sample sizes that we had available for this study.

Figure 8: Employment status, by sector of employment of the household head



Point estimates for figure 8A

Employmt of hhd. Head	Year	Unemployed (%)	Employed (%)	Self-employed (%)	Working in Agric. (%)
Non-trade sector	2009/10	0.5	27.2	30.3	-
	2014/15	4.4	36.2	32.7	-
Tradable sector	2009/10	0.0	15.9	42.5	-
	2014/15	4.6	30.8	35.3	-

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

4.2.3 Impact on wages and employment of female-headed households

The evidence presented in Table 9 below confirms that the wage and employment channels were not significant drivers of changes in poverty for female-headed households either.

In most cases, the treatment effects are larger for female- than for male-headed households, especially as regards the decrease in agricultural sales and increases in wages for females employed in the tradable sector. However, those effects are still not statistically significant, partly due to the smaller sample sizes when looking at female-headed households only.

Table 9: Treatment effect of exposure to trade on wages and employment of female-headed households

	Trade-corridor		Tradable sector	
	Excl. Dar/ Adjacent to TC	Incl. Dar/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Agricultural sales	-0.90	-0.77	-2.64	0.18
Transfers	0.03	0.09	0.10*	0.07
Wages	1.11	0.51	1.96	1.57
Non-agri. sales	0.37	0.74	0.01	-0.31
Unemployment	-0.01	0.02	0.11	-0.02
Formal employment	-0.02	0.03	-0.11	-0.13***
Self-Employed	0.01	0.05	0.39**	-0.03
Agriculture empl.	-0.03	-0.14**	0.00	0.08

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15

4.3 Public spending channel

The third hypothesised transmission channel from trade to poverty reduction is the public spending channel: if increased trade generates increases in public revenue and if these additional resources are spent on pro-poor activities, then this could theoretically contribute to reducing poverty. Here we will only focus on one small aspect of pro-poor spending, namely spending on public health and education.

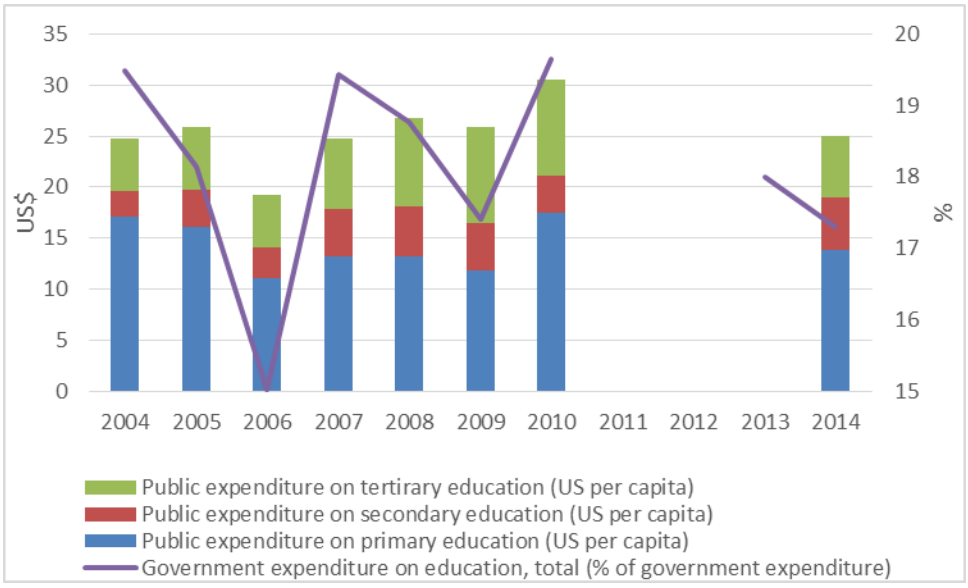
Another potential channel through which public spending could have a direct effect on poverty is through social transfers. Consolidated data on government spending on social protection is not readily available in most countries and could not be accessed for this study. However, the TNPS allows us to estimate the transfers received by households. Since the TNPS sample is nationally representative, the total transfers received by households should correspond to total government expenditures on social transfers. The TNPS indicates that between 2012/13 and 2014/15, average government transfers received by Tanzanian household increased from 1268TSh to 2074TSh per person per year. However, this increase is not statistically significant.

4.3.1 Education

Figure 9 shows that overall public expenditures on education decreased from over $30 per capita to $25 per capita between 2010 and 2014. However, when taking a longer-term look, public expenditure levels appear to be within historical ranges in per capita terms.

Furthermore, the proportion of public education going to primary education, which tends to be the most pro-poor, has been fairly stable over time.

Figure 9: Public expenditures on education (2004-2014)



Source: WDI databank

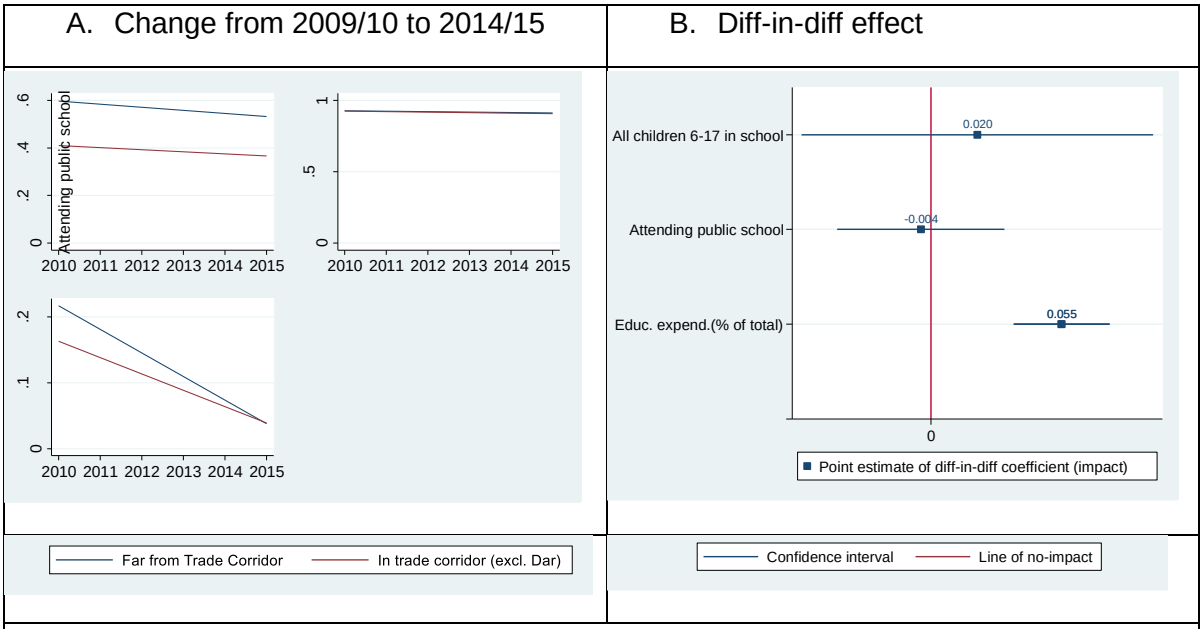
Figure 10 shows no significant differences between trade-corridors and other areas in terms of school attendance (Edu_allattend) and in terms of the proportion of children enrolled in public schools (Edu_public).

However, the share of out-of-pocket expenditure on education in total household expenditures (SHR_edu) decreased more rapidly in areas far from the corridor. This could simply be a by-product

of the fact that poverty increased in the trade-corridor, meaning that educational expenditures represented a larger share of total expenditures for those households.

Taken together, these findings suggest that public expenditure on education probably did not play a significant part in explaining the changes in poverty over this period.

Figure 10: Education indicators, by distance from trade corridor



Point estimates for figure 10A

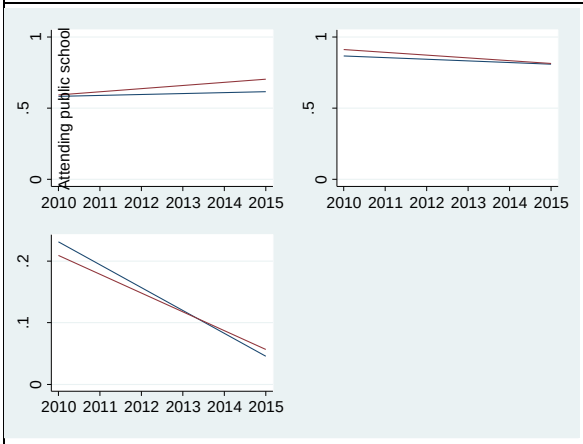
Distance to trade corridor	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend. (% of total)
Far from trade corr.	2009/10	59.6	92.7	21.7
	2014/15	53.2	91.1	3.8
In trade corridor	2009/10	41.1	92.5	16.3
	2014/15	36.6	90.6	3.9

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

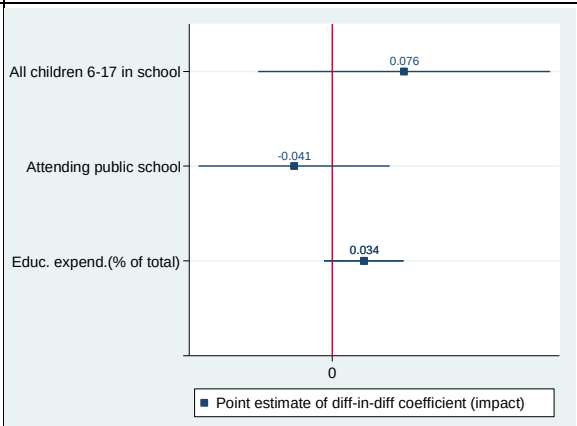
The breakdown by sector of employment shows no statistically significant effect on school enrolment nor on the use of public schools. This suggests that increase public spending on education benefited those employed in tradable and non-tradable sector equally.

Figure 11: Education indicators, by sector of employment of the household head

A. Change from 2009/10 to 2014/15



B. Diff-in-diff effect



Point estimates for figure 11A

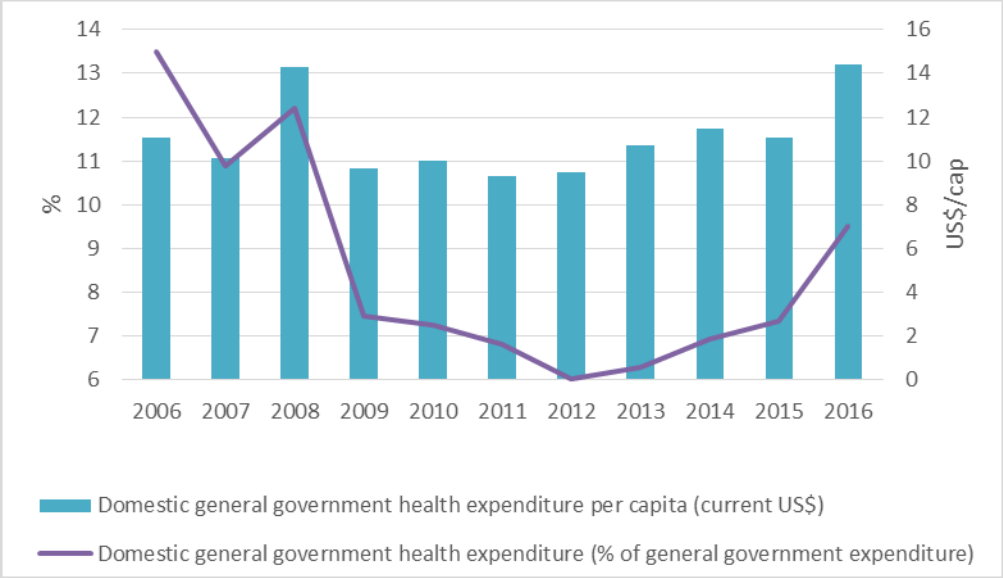
Employmt of hhd. Head	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend. (% of total)
Non-trade sector	2009/10	58.2	86.6	23.2
	2014/15	61.6	80.9	4.6
Tradable sector	2009/10	59.4	91.1	20.9
	2014/15	70.4	81.3	5.7

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

4.3.2 Health

The public expenditure data presented in Figure 12 below indicates that public expenditures on health increased remained almost constant in per capita terms between 2010 and 2015. There was an increase in public health expenditure in 2016, but this could not affect the survey results, as the survey was conducted in 2014/15.

Figure 12: Public expenditures on health (2006-2016), %



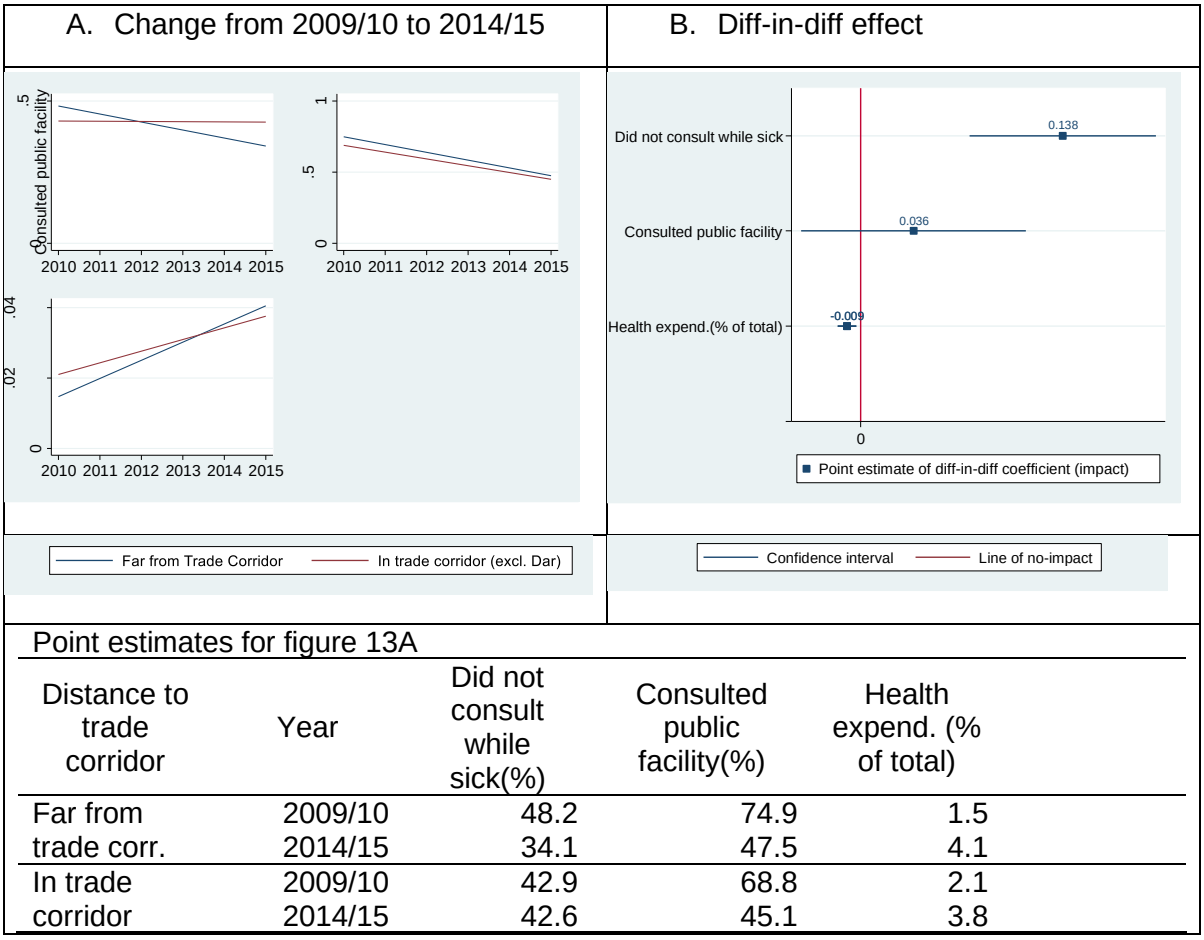
Source: WDI databank

The disaggregated results by distance from the trade corridor shows that the proportion of household who failed to consult a medical centre at their last sickness (HLT_sicknoconsult) fell in far from the trade corridor, while it while it remained constant in the trade corridor. The effect is statistically significant at the 1% level.

The proportion of household using public health facilities fell in both areas, but there is no detectable difference between the two in terms of the size of the fall. This suggests that the improvement in utilisation figures in areas far from the trade corridor, are likely to be driven by general improvements in living conditions in these areas, which would have contributed to easing financial barriers to access to health services in these areas.

This is also confirmed by the fact that the share of household spending going to health increased much more rapidly in areas far from the trade corridor than in the corridor itself. This suggests that households paid out-of-pocket for their additional consultations, rather than getting them for free through increased public spending on health services in those areas.

Figure 13: Health indicators, by distance from trade corridor



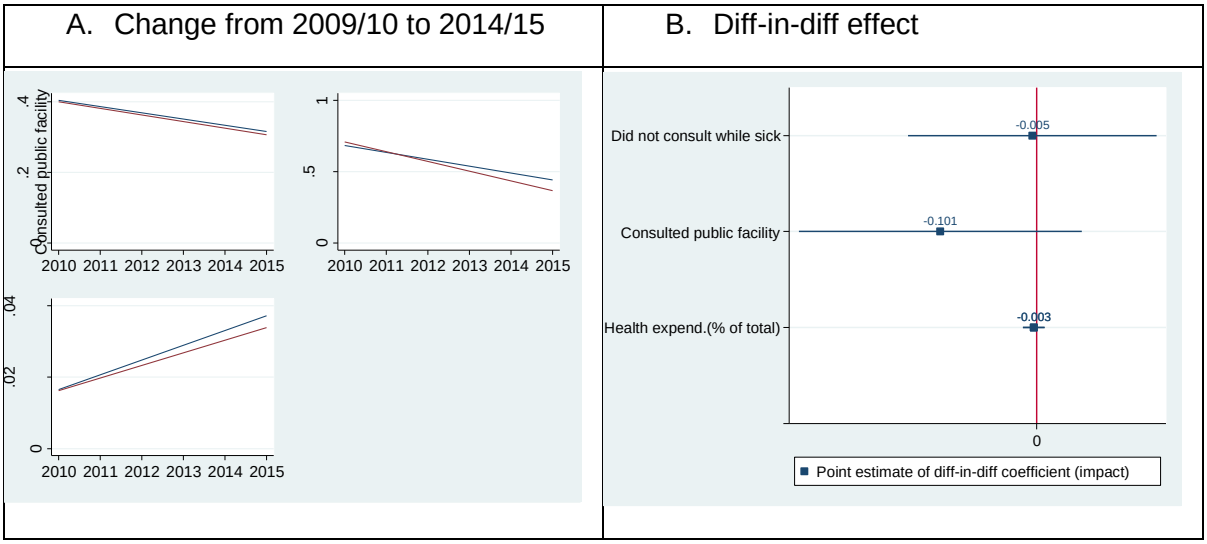
Point estimates for figure 13A

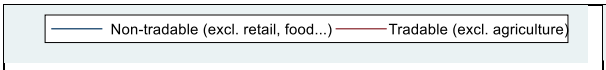
Distance to trade corridor	Year	Did not consult while sick(%)	Consulted public facility(%)	Health expend. (% of total)
Far from trade corr.	2009/10	48.2	74.9	1.5
	2014/15	34.1	47.5	4.1
In trade corridor	2009/10	42.9	68.8	2.1
	2014/15	42.6	45.1	3.8

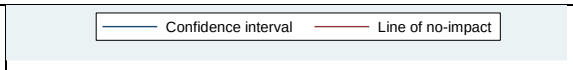
Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

The disaggregation by sector of employment does not show any significant treatment effects for any of the indicators considered.

Figure 14: Health indicators, by sector of employment of the household head







Point estimates for figure 14A

Employmt of hhd. Head	Year	Did not consult while sick (%)	Consulted public facility(%)	Health expend. (% of total)
Non-trade sector	2009/10	40.5	68.3	1.7
	2014/15	31.6	44.4	3.7
Tradable sector	2009/10	40.1	70.7	1.6
	2014/15	30.7	36.7	3.4

Source: Author's calculations based on TNPS 2009/10, TNPS 2014/15.

5 Conclusion

The evidence presented in this study does not provide any indication of positive effects resulting from exposure to trade in areas close to the trade-corridor or amongst households working in the tradable sectors in Tanzania. In fact, poverty appears to have increased slightly along the trade corridor over the study period.

The analysis of the various transmission channels suggests that neither incomes nor employment improved amongst households exposed to trade, compared to those not exposed to trade.

Furthermore, there is no evidence of increased social spending on health and education, nor any indication that public spending on these sectors would have benefited the studied groups more than others.

However, there is some indication that the price channel might have played a role in Tanzania. In particular, the data appear to show that relative prices converged downwards over this period in areas far from the corridor, towards the lower levels of prices experienced in the corridor. A finer analysis of prices by type of goods could not be carried out in Tanzania, due to lack of available data.

The analysis for female-headed households indicates that female-headed households in the trade corridor and those employed in the tradable sectors suffered even more than their male counterparts. In addition to prices, female-headed households appear to have suffered from decreases in agricultural sales, although the effects are not statistically significant.

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Statistical tables

Annex I: Endline Assessment of TMEA Poverty Impact – Kenya

Endline Assessment of TMEA Poverty Impact

Quantitative study: KENYA

Dr. Sebastian Silva-Leander

July 2019

Oxford Policy Management

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List of abbreviations

OPM	Oxford Policy Management
KIHBS	Kenya Integrated Household Budget Survey
RCT	Randomised Control Trial
ATT	Average Treatment Effect

1 Introduction

This report presents the results of the assessment of the quantitative assessment of the impact of TMEA on poverty. As explained in the methodological note, the evaluation strategy used to assess the impact of TMEA on poverty is a contribution analysis, meaning that it will not be possible to establish with certainty that the observed impacts can be directly attributed to TMEA. Instead, the evaluation aims to provide explore the various channels through which TMEA is thought to have effected poverty, with a view to forming a global picture of the likely relation between TMEA and observed changes in poverty.

This study focuses on the three channels defined by economic theory through which trade is thought to effect poverty, namely: (1) the price channel, (2) the wage and employment channel, and (3) the public expenditure channel[1]. The extent to which these links can be explored is constrained by the data and techniques being used. For this reason, the study will only be answer part of the research questions posed in the ToRs, and it will, consequently, be important to complement these quantitative findings, with the results from the ongoing qualitative and other studies that will help to answer other parts of these questions.

This report is structured as follows: Section 2 presents the methodology and data used for the analysis. Section 3 presents the main results regarding the impact of exposure to trade on poverty and consumption. Section 4 explores the three channels through which trade is thought to effect on poverty (prices, wages/ employment, and public expenditure). This will help to understand how the outcomes observed in section 2 were generated. Section 5 concludes.

[1] See Berg & Krueger, 2003; Dollar and Kraay, 2004; Hertel and Reimer, 2005; Hoekman and Olarreaga, 2007; Hoekman et al, 2001; McCulloch et al., 2001; Ravallion, 2005; Winters et al., 2004.

2 Methodology

2.1 KIHBS Survey

For this analysis, we used the Kenya Integrated Household Budget Survey (KIHBS) 2005/06 and 2015/16.

The KIHBS is a nationally representative survey, which contains information on household characteristics, consumption, and other relevant welfare indicators.

The KIHBS is statistically representative down to the district level. This property was used to for our analysis. Districts were grouped into different categories depending on their proximity to the trade corridor and relevant indicators were estimated for each district separately, or for the group as a whole, depending on the needs of the analysis.

Data used to identify the trade corridors was obtained from Transit Facilitation Agency.

2.2 Assessment methodology

The main method used in this study to assess the impact of exposure to trade on poverty and other indicators is the so-called difference-in-differences method (diff-in-diff for short). The diff-in-diff method involves comparing the changes over time in specified outcome indicators for a treatment group (in this case, households exposed to trade), and a control group (households not exposed to trade).

The quantitative analysis of impact is based on the comparison of a range of indicators between “treatment” households (i.e. households located in the trade corridor, or households working in the tradable sector) and “control” households. The key impact measure is the Average Treatment Effect on the Treated (ATT) which is estimated using a difference-in-difference approach. The ATT estimator for the direct effects of exposure to trade on selected households is defined as:

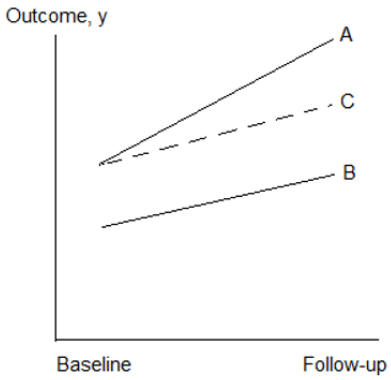
$$ATT = E[Yi \mid Ti=1] – E[Yi \mid Ti=0] \quad (1)$$

where Y is the outcome variable and ‘i’ indexes households. T is the treatment indicator, with a value of 1 if it a household is “treated”, 0 if in a “control” household. The ATT compares the outcome variable for “treatment” households and “control” households. Equation (1) shows the expected outcome households that have been exposed to trade (i.e. located in the trade corridor or working in the tradable sector) minus the expected outcome among households not exposed to trade.

The difference-in-difference estimation method is designed to be used in the context of randomised control trials (RCTs) and similar experimental and semi-experimental design settings. In this case, the study is using secondary data, which means that no ex-ante design could be used. This means that there is no guarantee that our “treatment” and “control” groups will be comparable. In fact, there are strong reasons to believe that the two groups are not identical, since the poverty profile carried out in 2015 showed large differences between these different groups. These differences need not in themselves be problematic, so long as the factors influencing change over time have been the same for the different groups.

Indeed, one key assumption in the DID approach is the assumption of common trend. The assumption specifies that control households must evolve from the baseline to the follow-up period in the same way treatments would have done had they not been treated. This assumption, which is needed for the consistency of the DID estimator, imply that treatment and control households are affected in the same way by macro shocks.

A graphical representation of common trend is presented in the figure below. When applying first difference in outcome, the trend of the control (line B) is substituted for the counterfactual situation for the treatment households (non-treatment) (or line C). If this assumption holds the unbiased estimate becomes the difference in the trend between line A and C.



This is a key implicit assumption that must hold for the results in this report to be interpreted as representing the "treatment" effect of being exposed to trade. This is an assumption that cannot be verified, and therefore must be seen as an inherent limitation of this study.

The difference in difference model is estimated in the following functional form:

$$Yit = a + b1Ti + b2t + b3Ti * t + ct\,(Xit) + eit \qquad (2)$$

where the indicator for treatment or control for household i (Ti) is interacted with a dummy indicating the follow-up round (period 1). The equation incorporates a population time trend (captured by parameter b2), and a group fixed effect indicated by the parameter b1. The difference in difference estimator is provided by parameter b3.

In the case of binary outcomes, model specification (2) is be estimated using a logit model, though the coefficients on the treatment and interacted dummy respectively cannot be directly interpreted as the marginal treatment effect on probability without the necessary transformation of the probability function. For non-binary variables Ordinary Least Squares (OLS) regressions were used. For the depth and severity of poverty indicators (FGT1 and FGT2), Tobit regressions were used, where the lower limit truncation was set to zero. This reflects the fact that there are variations in wellbeing above the poverty line that will not be captured as the poverty measures are, by definition, truncated at the poverty line.

It is important to point out that normally the diff-in-diff method is used with formal impact evaluation techniques, such as Randomised Control Trials (RCTs), to quantify the effect of a given treatment on a treatment group. In our case, the underlying design of the study does not meet the requirements of an RCT or equivalent evaluation methods, since we were working from secondary data available in the national household budget surveys (KIHBS). These surveys were not designed to assess the impact of trade on poverty. Consequently, the resulting impacts cannot be directly interpreted as representing the effect of trade on poverty. Instead, they should be seen as providing indications of possible relations, to be further explored through the various other studies, as part of the overall contribution analysis.

For this study, synthetic treatment and control groups had to be constructed for the purpose of answering the research questions outlined in the ToRs. The following groups were defined:

- Physical distance to trade corridor (definition 1) – excluding households located in Nairobi and households in districts adjacent to trade corridor:

  - Treatment: households located in districts located on the trade corridor (except households located in Nairobi).
  - Control: households located in districts far from the trade corridor (i.e. not on the trade corridor, nor adjacent to the trade corridor).

- Physical distance to trade Corridor (definition 2) – including households located in Nairobi and households in districts adjacent to trade corridor:
  - Treatment: households located in districts located on the trade corridor (including households located in Nairobi).
  - Control: households located in districts not on the trade corridor (including districts adjacent to the trade corridor).
- Sector of employment of the head of household (definition 1) – excluding those working in agriculture and those working in intermediary tradeable/ non-tradeable sectors:
  - Treatment: households headed by someone working in the tradable sector (excl. households working in agriculture).
  - Control: households employed by someone working in the non-tradable sector (excl. households working in mixed or partly tradable sectors).
- Sector of employment of the head of household (definition 2) – including those working in agriculture and those working in intermediary tradeable/ non-tradeable sectors:
  - Treatment: households headed by someone working in the tradable sector (including households working in agriculture).
  - Control: households employed by someone working in the non-tradable sector (including households working in mixed or partly tradable sectors).

Unless specified otherwise, we report results for definition 1 of the treatment/control groups, as these tend to yield sharper results, due to the clearer distinction between treatment and control. Results for the definition 2 groups are contained in the statistical tables and referred to as necessary in the main report.

Table 1: Employment sector of the head of household (%), by distance to trade corridor

	Nairobi	In Corridor	Adjacent	Far from Corridor	Total
Sector:					
Tradable Agric.	2.01	24.74	39.57	35.73	**30.74**
Tradable (non-agr.)	29.92	23.89	19.22	16.04	**20.82**
Mixed	26.17	17.06	12.34	11.94	**14.9**
Non-tradeable	33.48	26.22	22.69	23.2	**24.84**
Unemployed	8.41	8.09	6.18	13.1	**8.7**
Total	100	100	100	100	**100**

Source: Author's calculations based on KIHBS 2015/16.

Table 2: Proportion of poor and male-headed households (%), by sector of employment and distance to trade corridor

	Poverty Incidence (FGT0)		Male-headed households		Observations	
Year:	**2005/06**	**2015/16**	**2005/06**	**2015/16**	**2005/06**	**2015/16**
TC: Nairobi	20.1	16.7	82.9	79.7	606	554
Corridor (other)	50.4	35.4	74.5	70.4	2,566	5,765
Adjacent to TC	43.3	35.0	73.9	70.1	3,331	8,814
Far from TC	51.0	47.3	70.6	67.0	6,114	6,640
Tradable Agric.	50.6	44.9	71.2	62.0	4,087	6,062
Tradable (non-agr.)	38.2	28.2	77.1	72.3	2,081	3,774
Mixed	48.8	32.3	83.3	83.9	1,745	2,506
Non-tradeable	29.8	32.7	88.3	74.5	2,432	4,486
Unemployed	58.8	50.2	53.8	49.3	2,272	2,110
Total	**46.3**	**37.0**	**73.6**	**69.4**	**12,617**	**21,773**

Source: Author's calculations based on KIHBS 2015/16.

3 Results

3.1 Poverty by trade corridors

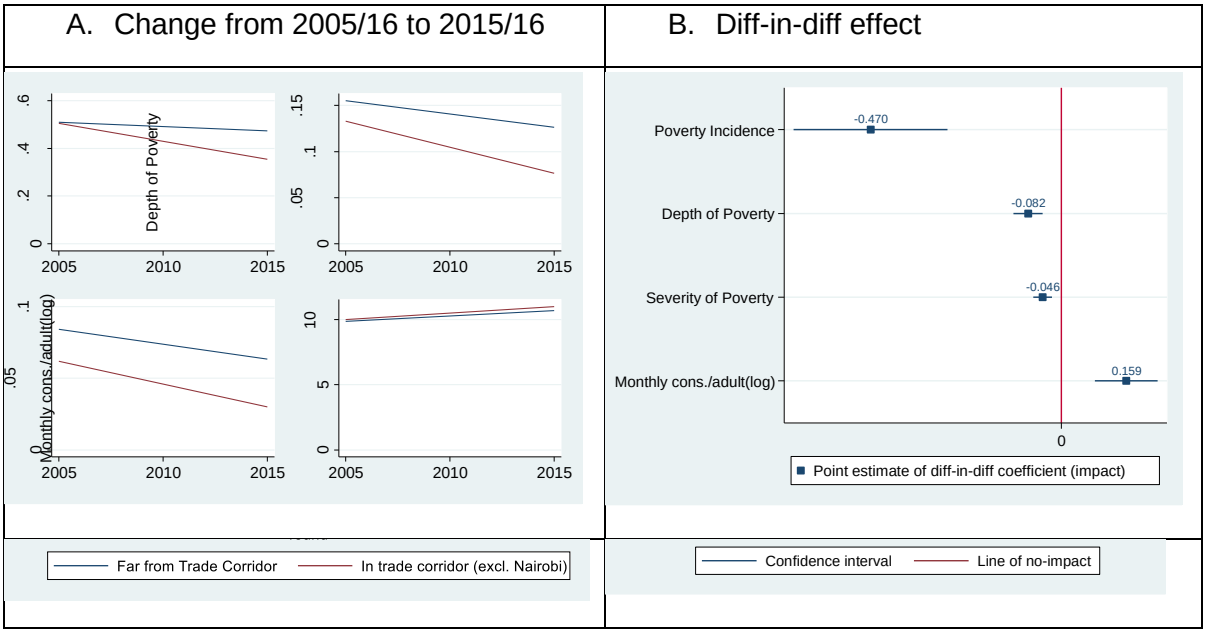
This section presents the results of the disaggregation by distance to the trade corridor for the incidence (FGT0), depth (FGT1) and severity (FGT2) of poverty, as well as for per consumption (lnTotal_cons).

Figure 1 presents the results comparing areas located on the trade corridor ("treatment"), compared to areas located far away from the trade corridor ("control"). In other words, it excludes areas that are adjacent to the trade corridor, so as to get a clearer contrast between "treatment" and "control" groups. We also excluded Nairobi from this assessment, as it has very different pricing structure and could bias the results. More detailed results, including Nairobi and areas adjacent to the trade corridors, are available in the statistical tables.

The results show that poverty incidence decreased by 15 percentage points between 2005/16 and 2015/16 in the trade corridor, but barely changed in areas located far away from the trade corridor. Similar, but less pronounced, trends are observed for depth and severity of poverty. All results show a statistically significant treatment effect,[2] meaning that poverty decreased more along the trade corridor than far away from the corridor.

The data also show that per capita consumption has increase more rapidly in the trade corridor that far away from the trade corridor. The effect is statistically significant.

Figure 1: Poverty and consumption, by distance from trade corridor



[2] Treatment effect refers to the additional drop in poverty experienced by households exposed to trade (treatment group in this case), compared to households not exposed to trade (control group). A negative treatment effect indicates that poverty fell faster in the treatment group than in the control group. For consumption, a negative treatment effect would indicate that consumption rose more slowly in the treatment group than in the control group. In these tables as throughout the report and annexes, * denotes statistical significance at .10, ** denotes statistical significance at .05, and *** denotes statistical significance at .01, representing progressively less likelihood that a result occurred by chance alone.

Point estimates for figure 1A

Distance to trade corridor	Year	Poverty Incidence (%)	Depth of Poverty(%)	Severity of Poverty(%)	Monthly cons./ adult(log)
Far from trade corr.	2005/06	51.0	15.5	8.4	9.86
	2015/16	47.3	12.6	6.3	10.70
In trade corridor	2005/06	50.4	13.3	6.2	10.00
	2015/16	35.4	7.6	3.0	11.01

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

At a more detailed level, the following two tables show the treatment effects of exposure to trade across a range of indicators designed to capture aspects of poverty and other relevant social indicators (e.g., employment, education, and use of health services). The first table shows the effects for all households, while the second table shows the results for female-headed households. Households exposed to trade tended to fare better than those not exposed to trade, across the measures, but most noticeably where households were located in the trade corridor. The first two columns of the two tables show these results, both excluding and excluding the capital city, since major cities tend to have very different pricing structures and could bias the results.

In Kenya, poverty incidence, depth of poverty, and severity of poverty all fell for all households in the trade corridor. These key measures showed positive results (i.e., less poverty, depth and severity) in the trade corridor than not in the corridor, whether or not Nairobi was included. Poverty incidence saw a treatment effect of -0.470 when Nairobi is excluded, and -0.244 when Nairobi is included. Similarly, depth of poverty saw a treatment effect of -0.082 outside of Nairobi on the trade corridor, and -0.043 on the corridor including Nairobi. The treatment effect on severity of poverty was -0.046 on the corridor excluding Nairobi, and -0.022 including Nairobi. Each of these findings was statistically significant.A positive treatment effect of 0.159 on consumption per capita was also statistically significant for corridor households outside Nairobi.

For those households that reported that their income came from a tradable sector, the results were quite positive when agriculture was excluded from the category. Treatment effects showed decreases in poverty incidence (-0.590), depth (-0.100) and severity (-0.049), all of which were statistically significant, as shown below, for households in tradable sectors except agriculture. When agriculture is included, there was no statistical significance of the treatment effects, except for a positive effect on consumption (0.149).

Table 3: Treatment effect of being exposed to trade vs. not exposed to trade (all households)

	Trade-corridor		Tradable sector	
	Excl. Nairobi/ Adjacent to TC	Incl. Nairobi/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	-0.470***	-0.244**	-0.590***	-0.140
Depth of poverty	-0.082***	-0.043**	-0.100***	-0.019
Severity of poverty	-0.046***	-0.022*	-0.049***	-0.009
Consumption p.c.	0.159***	0.058	0.240***	0.149***
Price index	-0.010	0.001	0.008	-0.003
Share tradable cons. (non-food)	0.019***	0.017***	0.003	-0.009**
Agricultural sales	0.388	0.846***	0.000	-0.065
Remittances	0.583**	0.496**	0.096	-0.807***
Wages	-1.560***	-2.567***	4.402***	6.816***
Non-agri. sales	1.386***	1.357***	2.400***	-2.385***
Unemployment	-0.054***	-0.033**	-0.012**	0.018**
Formal employment	0.013	0.016	-0.353***	-0.234***
Self-Employed	0.041	0.017	0.365***	0.216***

	Trade-corridor		Tradable sector	
All children (6-18) attending school	0.124***	0.042**	0.011	-0.007
Prop. attending public schools	-0.031	-0.051**	-0.086***	-0.025
Share educational expenditures/ total	-0.006	-0.005	0.034***	0.016***
Sick but did not consult medical	-0.069**	-0.055**	-0.068**	-0.006
Prop. consulted public health facil.	0.013	-0.008	0.004	0.038
Share health expenditures/ total	-0.021**	-0.020***	-0.009*	0.005

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

The pattern repeated for female-headed households, as shown in Table 5: trade corridor households had important treatment effects in poverty incidence (-0.550 for the corridor excluding Nairobi, and -0.382 for the corridor including Nairobi), depth of poverty (-0.079 for the corridor excluding Kigali, and -0.054 for the corridor including Nairobi), and severity of poverty (-0.039 for the corridor excluding Nairobi, and -0.022 for the corridor including Nairobi. All of these except the last were statistically significant. In the case of Kenya, gains for female-headed households were at times more pronounced than for all households.

Table 4: Treatment effect of being exposed to trade (Female-headed households)

	Trade-corridor		Tradable sector	
	Excl. Nairboi/ Adjacent to TC	Incl. Nairobi/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	-0.550***	-0.382**	-0.790**	0.065
Depth of poverty	-0.079**	-0.054*	-0.091	0.052
Severity of poverty	-0.039*	-0.022	-0.034	0.040
Consumption p.c.	0.138**	0.066	0.292**	-0.007
Price index	-0.001	0.008	0.041***	-0.001
Share tradable cons. (non-food)	0.010	0.009	-0.007	-0.009
Agricultural sales	0.424	0.879**	-0.607	-0.141
Remittances	-0.446	-0.365	0.541	0.578
Wages	-0.407	-2.650***	5.058***	6.504
Non-agri. sales	0.706***	0.751***	3.212***	-1.895
Unemployment	-0.101**	-0.055	0.007	0.033
Formal employment	0.037	0.076**	-0.284***	-0.250
Self-Employed	0.064	-0.021	0.277***	0.216
All children (6-18) attending school	0.102**	0.034	-0.009	-0.038
Prop. attending public schools	-0.047*	-0.046	-0.132***	0.000
Share educational expenditures/ total	0.000	-0.001	0.058***	0.028***
Sick but did not consult medical	-0.032	-0.030	-0.068**	-0.006
Prop. consulted public health facil.	0.045	-0.003	0.004	0.038
Share health expenditures/ total	-0.008	-0.009	-0.009*	0.005

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

While there are important differences from indicator to indicator and depending upon how 'trade corridor' and 'tradable sector' are defined, the general picture is one of a correlation between exposure to trade and positive poverty outcomes, with particular gains for female-headed households. Additional figures from these two tables will be discussed in the relevant sections of this annex, below.

3.2 Poverty by sector of employment

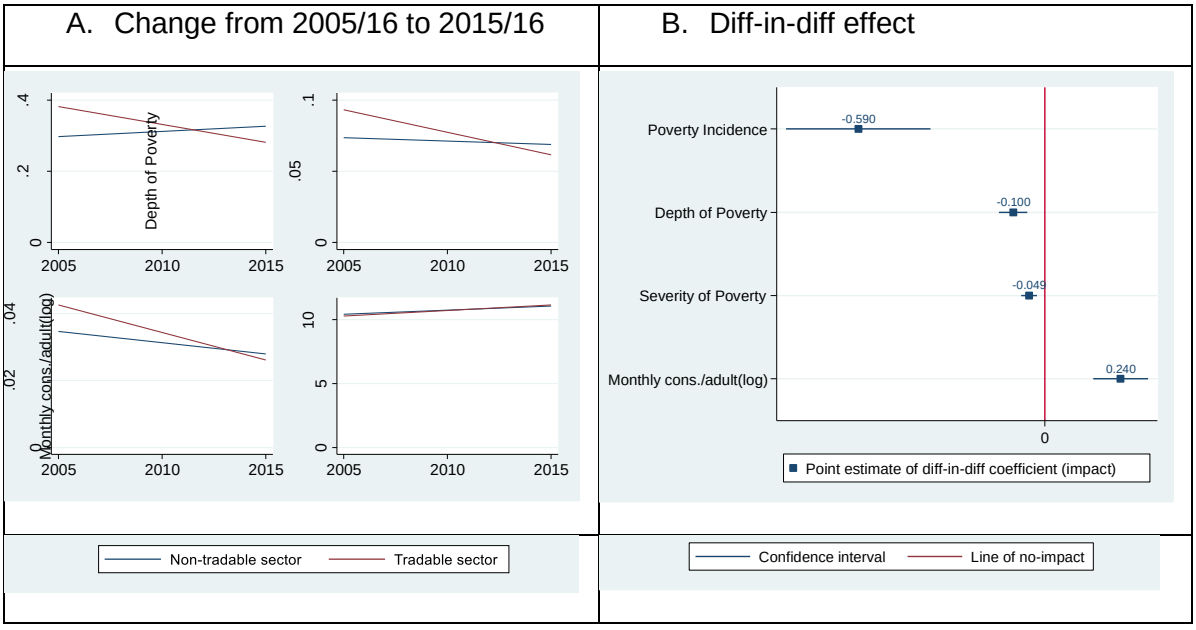
This section presents the findings comparing changes in poverty for household whose head is employed in the tradable sector ("treatment") and those employed in the non-tradable sector ("control"). For clarity, we have excluded household employed in subsistence agriculture, which is formally considered a tradable sector, although these households cannot benefit from potential gains of trade if they do not sell their produce in the market. We have also excluded intermediary sectors that have both tradable and non-tradable components. For instance, the retail sector is usually considered a non-tradable sector, but insofar as it retails tradable goods, it would be strongly affected by changes in trading conditions. More detailed results, including for subsistence agriculture and intermediary sectors, are available in the statistical tables.

The results show that the incidence of poverty decreased by almost 10 percentage points amongst households employed in the tradable sector, while it increased slightly in the non-tradeable sector. In 2005, poverty was significantly higher in the tradable than in the non-tradable sector. But by 2015, the roles had been reversed, and poverty was higher in the non-tradable sector.

The results for depth and severity of poverty show similar trends and reversals of poverty rankings between tradable and non-tradable sectors. All results show that the treatment effect of being in a tradable sector is statistically significant, meaning that employment in a tradable sector significantly reduces poverty.

The results for per capita consumption confirms that living standard increased more rapidly in the tradable sector than in the non-tradable sector, with a significant treatment effect and rank reversal between the two groups.

Figure 2: Poverty and consumption, by sector of employment of the household head



Point estimates for figure 2A					
Employmt of hhd. Head	Year	Poverty Incidence	Depth of Poverty	Severity of Poverty	Monthly cons./adult(log)
Non-trade sector	2005/06	29.8	7.4	3.5	10.42
	2015/16	32.7	6.9	2.8	11.06
Tradeable sector	2005/06	38.2	9.3	4.3	10.28
	2015/16	28.2	6.2	2.6	11.16

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

3.2.1 Poverty impact amongst female-headed households

The terms of reference request that estimates are produced for the specific impact of TMEA on women. The extent to which this can be assessed using quantitative methods applied to households survey data from the KIHBS is limited, due to the fact that most indicators are defined at the household level and, therefore, do not allow us to differentiate between the impact on different members within the household. For this reason, our assessment will be limited to the impact on female-headed household. A more thorough assessment of the impact on other women will be made through the qualitative study.

The evidence presented in Table 5 below shows that the treatment effect on poverty incidence of being exposed to trade was larger for female headed household than for other households (treatment effect of being in the trade corridor: -0.55 for female-headed households vs. -0.47 for all households; treatment effect of working in the tradable sector: -0.79 vs -0.59). Amongst female-headed households, poverty decreased by 16 and 13 percentage points, respectively, in the trade corridor and in the tradeable sector (see Table 6 and Table 7 below). The national decrease in poverty was 15 and 10 percent, respectively, for these two groups (see Figure 1 and Figure 2 above). This suggests that female-headed households benefitted even more than male-headed households from being exposed to trade.

The effects on depth and severity of poverty are very similar for male- and female-headed households. However, the sample size is smaller for the latter group, meaning that the results typically have a lower level of statistical significance.

Table 5: Treatment effect[3] of exposure to trade on poverty for female-headed households

	Trade-corridor		Tradable sector	
	Excl. Nairboi/ Adjacent to TC	Incl. Nairobi/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Poverty incidence	-0.550***	-0.382**	-0.790**	0.065
Depth of poverty	-0.079**	-0.054*	-0.091	0.052
Severity of poverty	-0.039*	-0.022	-0.034	0.040
Consumption p.c.	0.138**	0.066	0.292**	-0.007

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

Table 6: Point estimates for poverty indicators, by distance to trade corridor (excl. Nairobi and districts adjacent to the corridor)

Point estimates for figure A

[3] Treatment effect refers to the additional drop in poverty experienced by households exposed to trade (treatment group in this case), compared to households not exposed to trade (control group). A negative treatment effect indicates that poverty fell faster in the treatment group than in the control group. For consumption, a negative treatment effect would indicate that consumption rose more slowly in the treatment group than in the control group.

Distance to trade corridor	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./ adult(log)
Far from trade corr.	2005	54.5	18.8	11.2	9.74
	2015	52.0	15.4	8.3	10.63
In trade corridor	2005	54.7	14.2	6.4	9.93
	2015	38.7	8.6	3.5	10.96

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

Table 7: Point estimates for poverty indicators, by sector of employment of the household head (excl. agriculture and intermediary sectors)

Point estimates for figure A

Employmt of hhd. Head	Year	Poverty Incidence (%)	Depth of Poverty (%)	Severity of Poverty (%)	Monthly cons./ adult(log)
Non-trade sector	2005	29.3	9.5	5.6	10.42
	2015	35.0	7.1	2.8	11.06
Tradeable sector	2005	49.6	13.1	6.4	10.13
	2015	36.7	9.0	4.2	11.06

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

4 Explaining the results

The results presented in section 3 above convincingly show that poverty decreased much more rapidly along the trade corridor and in households working in the tradable sector, than in areas located far from the trade corridor and households employed in the non-tradable sector. However, those result do not tell us why that is the case.

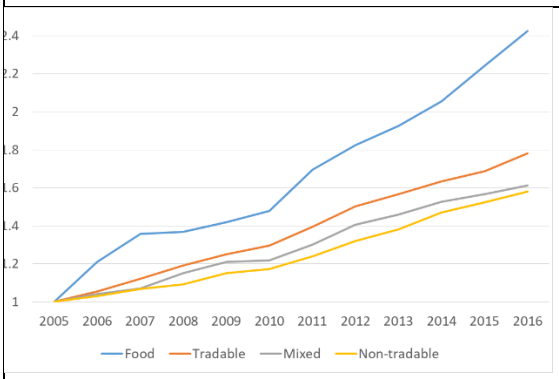
In order to hone in on the main research question, and understand whether TMEA might have contributed to improving living conditions among the poor, it is necessary to look at the various channels through which trade is hypothesised to impact on poverty, namely (1) the price channel, (2) the wage and employment channel, and (3) the public spending channel.

4.1 Price channel

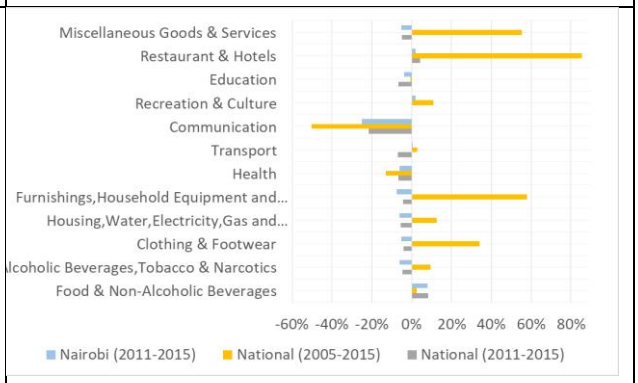
This subsection looks at the average prices (pdeflator) faced by households in the various analysis groups, as well as the share of tradable goods in non-food consumption (SHR_tradenonfood). The choice was made to exclude food consumption (a tradable good) from this analysis because the share of food consumption is closely related to poverty and average income and could therefore bias the results.

Figure 3: CPI (2005-2016), by sector

A. CPI change by trade sector[4]



A. Change in sector CPI relative to total CPI



Source: Author's calculations based on CPI data

The analysis does appear to indicate that prices have increase more slowly along the trade corridor than in areas located far from the trade corridor. However, the result is only statistically significant at the 15% level, which is not strong enough to conclude with confidence that decreasing prices have contributed to improving living conditions in the trade corridor.

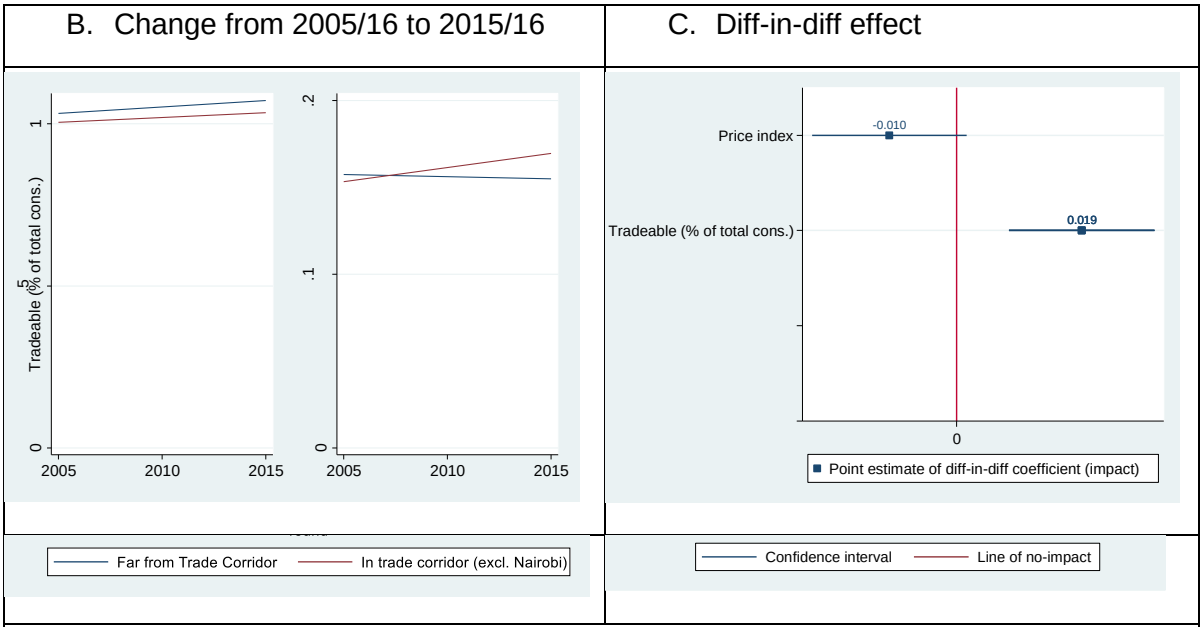
On the other hand, the data show that the share of tradable non-food goods increased sharply in the trade corridor, while it decreased in areas located far away from the trade corridor. The CPI data presented in Figure 3 above suggests that this might be due to the fact that the price of non-tradable goods, such as health and education, increased more slowly than general CPI between

[4] Trade sectors are defined as the unweighted averages of the following sectors: Food = food & non-alcoholic beverages; Tradable = Alcoholic beverages and tobacco, clothing & footwear, water, electricity, gas & fuel; Mixed = household equipment & maintenance, transport, communication, restaurants & hotels, other goods & services; Non-tradable = Health, education, recreation & culture.

2005 and 2015, while tradable goods, such as clothing and footwear, became relatively more expensive.

Over the period 2011-2015, food prices increased relative to almost all other goods, both tradable and non-tradable. However, the data do not show any significant differences between Nairobi and the rest of the country in terms of the evolution of tradable vs. non-tradable goods. Disaggregated CPI data for other areas within the trade-corridor were not available.

Figure 4: Average price index value and share of tradable goods in non-food consumption, by distance from trade corridor



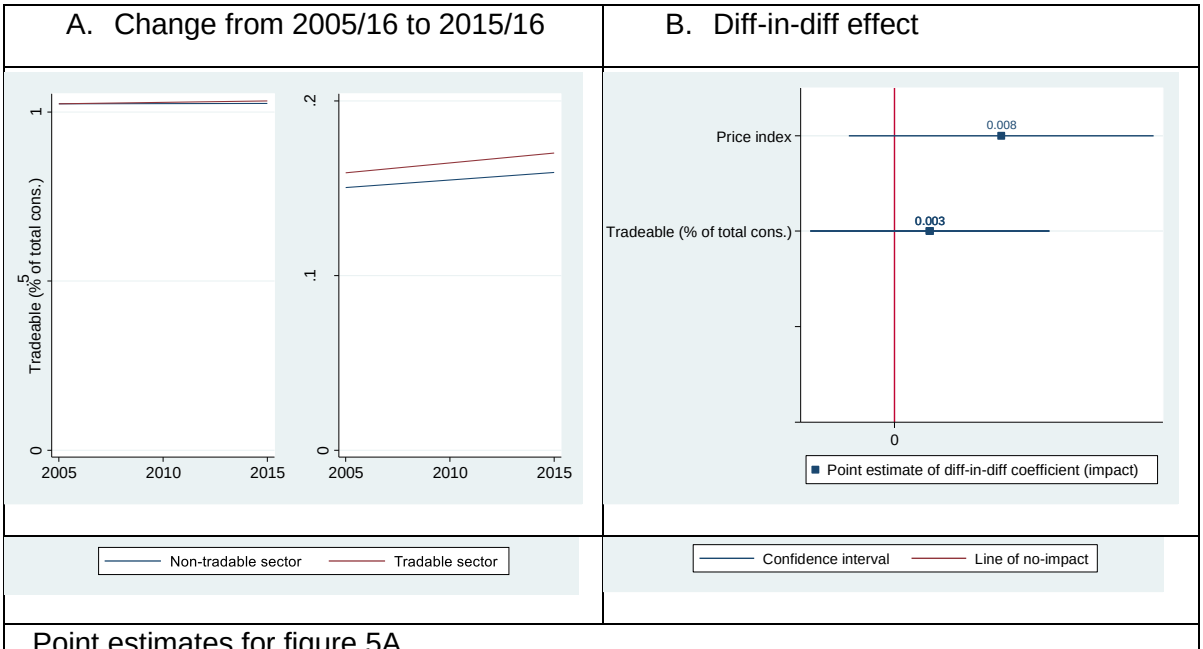
Point estimates for figure 4A

Distance to trade corridor	Year	Price index	Tradeable (% of total cons.)
Far from trade corr.	2005/06	103.2	15.7
	2015/16	107.3	15.5
In trade corridor	2005/06	100.4	15.3
	2015/16	103.5	17.0

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

The analysis by sector of employment of the household head does not show any statistically significant effect on prices nor on consumption patterns of tradable non-food goods (see Figure 5 below). This finding is consistent with theory, as there is no theoretical reason why consumer prices faced by people employed in these sectors should differ from those employed in non-tradable sectors, unless the tradability of jobs is strongly correlated with the distance to the trade corridor, which does not appear to be the case – Table 1 above shows that both tradable and non-tradable non-agricultural jobs are more common in the trade corridor.

Figure 5: Average price index value and share of tradable goods in non-food consumption, by sector of employment of the household head



Point estimates for figure 5A

Employmt of hhd. Head	Year	Price index	Tradeable (% of total cons.)
Non-trade sector	2005/06	102.4	15.0
	2015/16	102.5	15.9
Tradeable sector	2005/06	102.3	15.9
	2015/16	103.3	17.0

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

4.2 Wage/ employment channel

4.2.1 Income

This subsection looks at changes in different income sources by distance from the trade corridor, and by sector of employment.

Figure 6 below shows that agricultural sales increased slightly in the trade corridor, while they decreased in areas far from the trade corridor. However, the effect is not statistically significant. When areas adjacent to the trade corridor are included in the analysis, however, the effect becomes statistically significant, indicating that agricultural sales increased more rapidly in the trade corridor that in the rest of the country (see statistical tables).

Income from remittances and social transfers decreased far from the corridor, but not in the corridor, resulting in a positive treatment effect (significant at 5% level).

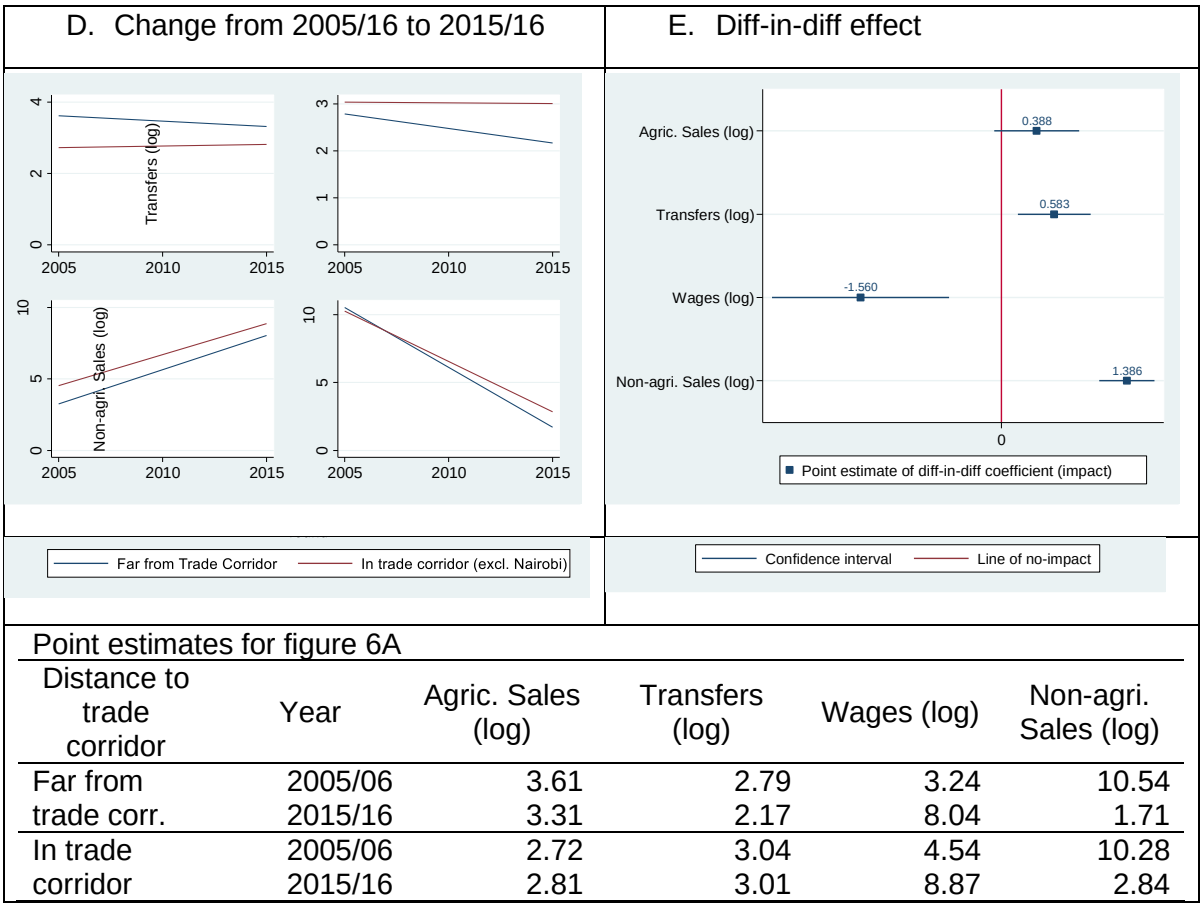
Income from wages increased in all areas, but the increase was less pronounced in the trade corridor than in other areas, resulting in a negative treatment effect (significant at 1% level).

Information on income from non-agricultural sales was not available in KIHBS 2005. Consequently, we estimated it as a residual income in 2005: total household consumption minus all other sources of income. This change in methodology means that the calculated value of non-agricultural sales decreased sharply between the two surveys. Assuming that the measurement error due to this

change in methodology is constant across groups, however, it should still be possible to estimate the treatment effect of being in the trade corridor.

The results indicate a strongly positive and statistically significant effect of being in the trade corridor, meaning that non-agricultural sales increased more rapidly in the trade corridor than elsewhere.

Figure 6: Sources of income, by distance from trade corridor



Point estimates for figure 6A

Distance to trade corridor	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Far from trade corr.	2005/06	3.61	2.79	3.24	10.54
	2015/16	3.31	2.17	8.04	1.71
In trade corridor	2005/06	2.72	3.04	4.54	10.28
	2015/16	2.81	3.01	8.87	2.84

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

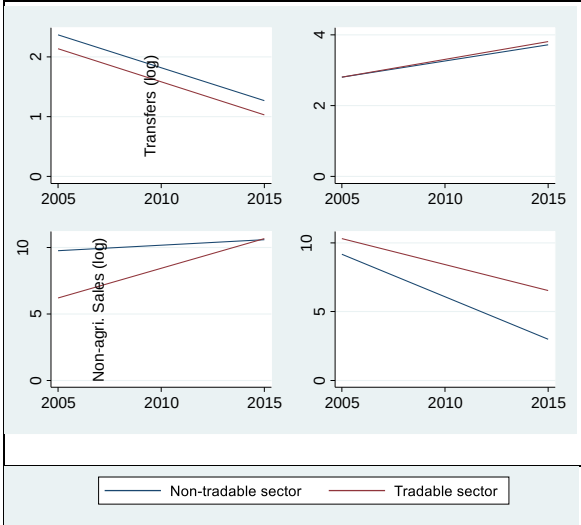
The analysis by employment sector show no statistically significant effect on agricultural sales (see Figure 7). This result remains when subsistence agriculture is included among the tradable sectors. Similarly, there is no effect on remittances.

On the other hand, we find a very sharp increase in wages among households employed in the tradable sector, while wages in the non-tradable sector barely changed. This finding is confirmed by aggregated wage data downloaded from the Kenyan statistics institute, which shows that real private-sector wages in the agricultural and tradable sectors increased from 2010 to 2017, while they decreased in the mixed and non-tradable sectors over the same period (see Figure 8 below).

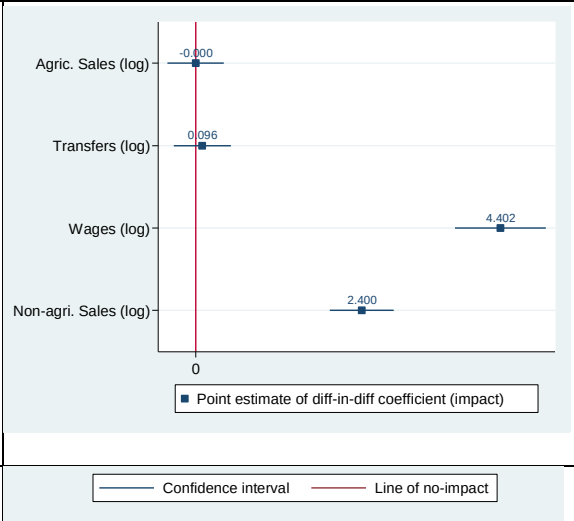
Non-agricultural sales also increased sharply (in relative terms) amongst households working in the tradable sector, compared to those working in the non-tradable sector.

Figure 7: Sources of income, by sector of employment of the household head

C. Change from 2005/16 to 2015/16



D. Diff-in-diff effect

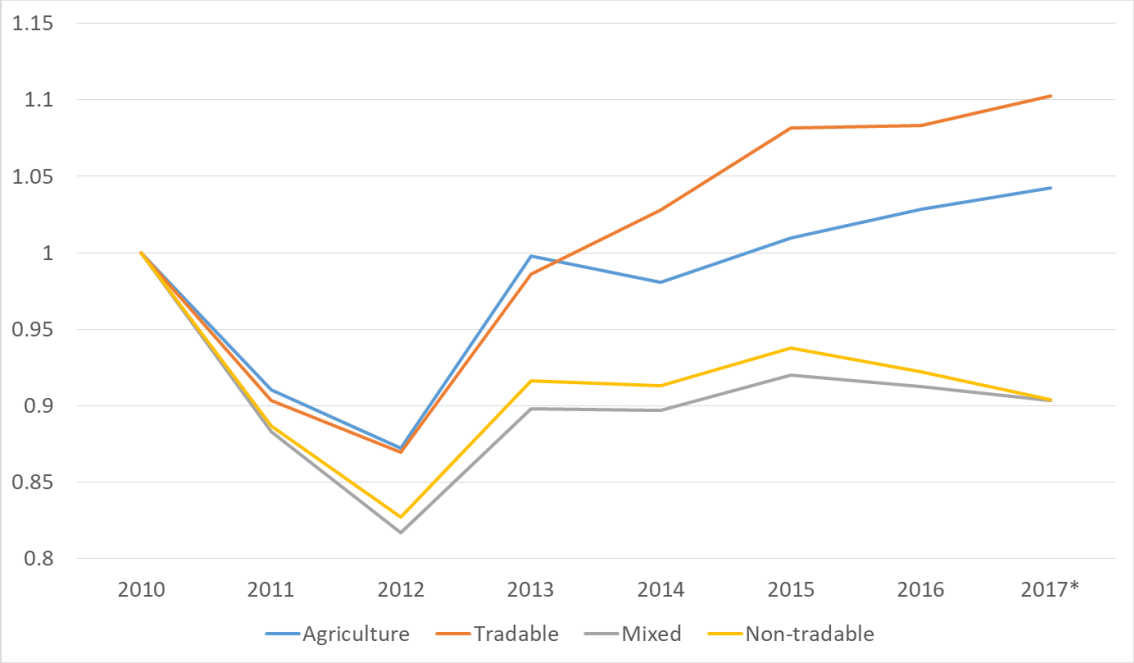


Point estimates for figure 7A

Employmt of hhd. Head	Year	Agric. Sales (log)	Transfers (log)	Wages (log)	Non-agri. Sales (log)
Non-trade sector	2005/06	2.37	2.81	9.75	9.17
	2015/16	1.27	3.71	10.59	3.00
Tradeable sector	2005/06	2.14	2.80	6.21	10.30
	2015/16	1.03	3.81	10.67	6.53

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

Figure 8: Evolution of real private-sector wages (2010-2017), by trade sector[5]



Source: Author's calculations based on aggregated data from economic surveys.

4.2.2 Employment

Figure 9 shows that unemployment decreased more rapidly in the trade corridor than in other areas. The effect is statistically significant.

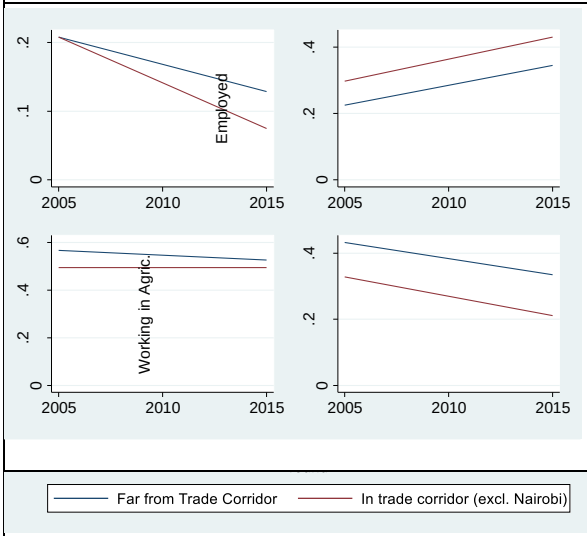
On the other hand, there was no detectable effect on the proportion of people formally employed[6], nor on the number of self-employed persons.

[5] Trade sectors are defined as the unweighted averages of the following sectors: Agriculture: Agriculture, forestry and fishing; Tradable: Mining and Quarrying, Manufacturing, Electricity, gas, steam and air conditioning supply, Mixed: "Electricity, gas, steam and air conditioning supply, Water supply; sewerage, waste management and remediation activities, Wholesale and retail trade; repair of motor vehicles and motorcycles, Transportation and storage, Accommodation and food service activities, Information and communication, Financial and insurance activities, Professional, scientific and technical activities, Activities of extraterritorial organizations and bodies; Non-tradable: Construction, Real estate activities, Education, Human health and social work activities, Arts, entertainment and recreation, Other service activities, Activities of households as employers; undifferentiated goods- and services-producing activities of households.

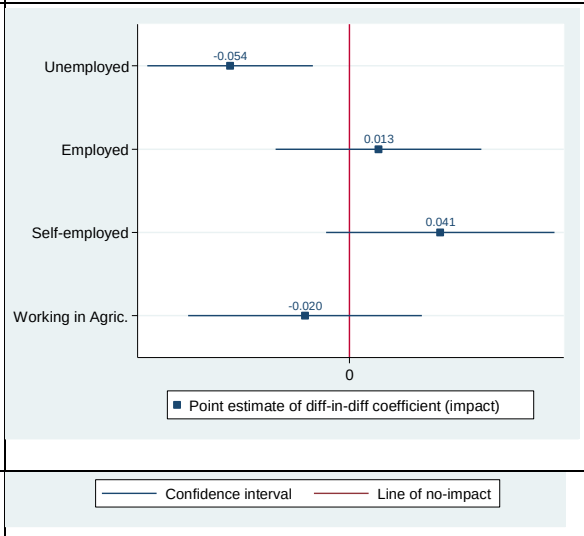
[6] By formally employed we mean paid employees or employers, as opposed to unpaid family workers, apprentices or other type of work. We do not mean that they are employed in the formal sector.

Figure 9: Employment status, by distance from trade corridor

A. Change from 2005/16 to 2015/16



B. Diff-in-diff effect



Point estimates for figure 9A

Distance to trade corridor	Year	Unemployed	Employed	Self-employed	Working in Agric.
Far from trade corr.	2005/06	20.8	22.6	56.7	43.3
	2015/16	12.8	34.6	52.6	33.5
In trade corridor	2005/06	20.8	29.8	49.4	32.9
	2015/16	7.5	43.1	49.4	21.1

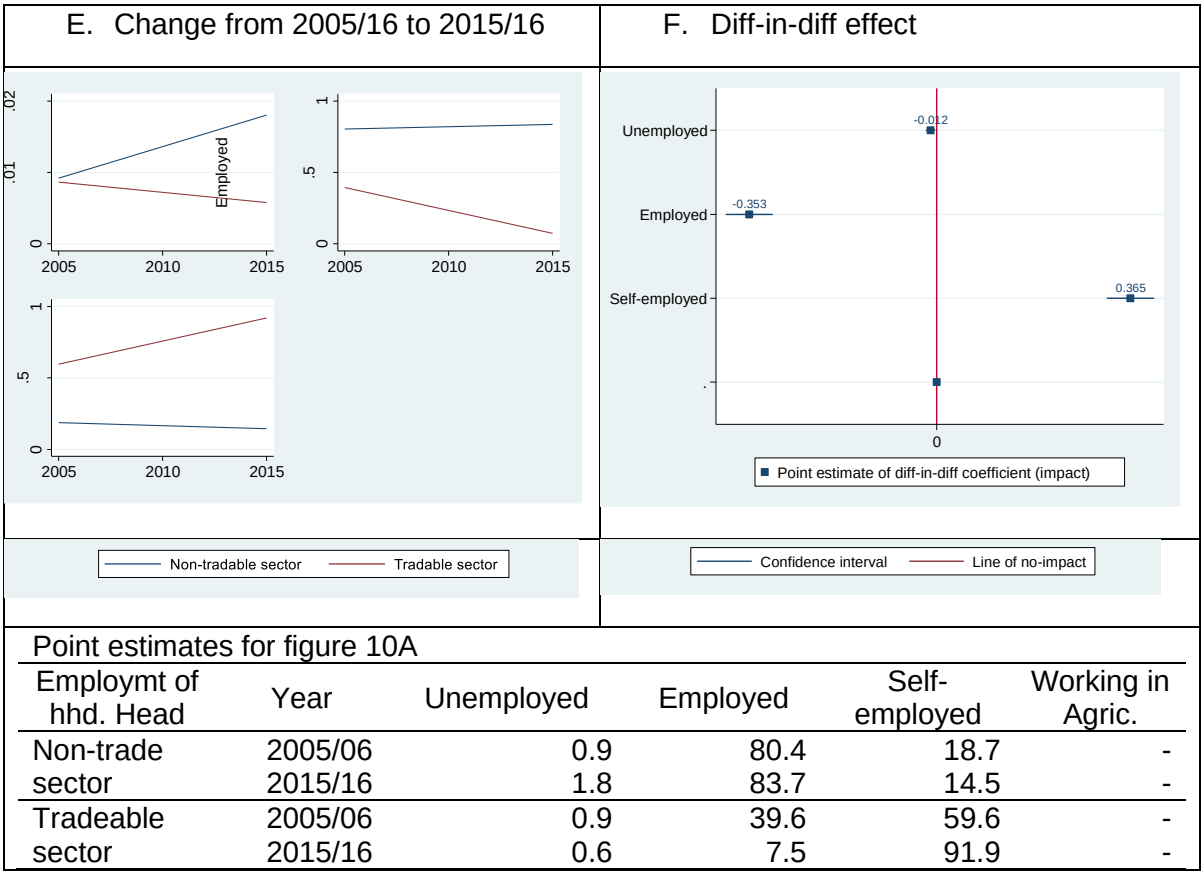
Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

When disaggregating the results by sector of employment, we find a weaker negative effect on unemployment (significant at 5%). Unemployment decreased slightly amongst adult household members living in households headed by someone working in the tradeable sector, whereas it increased in households headed by someone employed in the non-tradeable sector.

On the other hand, we find a significant decrease in the proportion of formally employed individuals in the tradable sector, and a correspondingly large increase in the proportion of self-employed individuals.

Further evidence, including from qualitative data, would be needed to understand whether these changes reflect a deterioration in employment standards (i.e. a shift from formal employment to insecure day-labour type work), or whether they reflect voluntary changes related to increased entrepreneurship, etc. The fact that both wages and revenue from non-agricultural sales appear to have increased sharply in the tradable sector (see Figure 7 above and Figure 8 above), suggests that it might be the latter.

Figure 10: Employment status, by sector of employment of the household head



Point estimates for figure 10A

Employmt of hhd. Head	Year	Unemployed	Employed	Self-employed	Working in Agric.
Non-trade sector	2005/06	0.9	80.4	18.7	-
	2015/16	1.8	83.7	14.5	-
Tradeable sector	2005/06	0.9	39.6	59.6	-
	2015/16	0.6	7.5	91.9	-

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

4.2.3 Impact on wages and employment of female-headed households

The evidence presented in Table 8 below indicates that improvements in wages and non-agricultural sales played an even more important role among female-headed households employed in the tradable sector than amongst other male headed-households (wages: +5.06 for female-headed vs. +4.4 for all households; non-agricultural sales: +3.21 vs. +2.4).

For female-headed households living in the trade-corridor, the decrease in unemployment was a significant factor (-0.10 for female-headed vs. -0.05 for all households), as well as increases in agricultural sales (+0.88 vs. +0.85). However, the level of statistical significance was lower than for the whole sample, due to the smaller sample size.

Table 8: Treatment effect of exposure to trade on wages and employment of female-headed households

	Trade-corridor		Tradable sector	
	Excl. Nairboi/ Adjacent to TC	Incl. Nairobi/ Adjacent to TC	Excl.Agriculture/ Mixed sector	Incl. Agriculture/ Mixed sector
Agricultural sales	0.424	0.879**	-0.607	-0.141
Transfers	-0.446	-0.365	0.541	0.578
Wages	-0.407	-2.650***	5.058***	6.504
Non-agri. sales	0.706***	0.751***	3.212***	-1.895
Unemployment	-0.101**	-0.055	0.007	0.033
Formal employment	0.037	0.076**	-0.284***	-0.250
Self-Employed	0.064	-0.021	0.277***	0.216

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

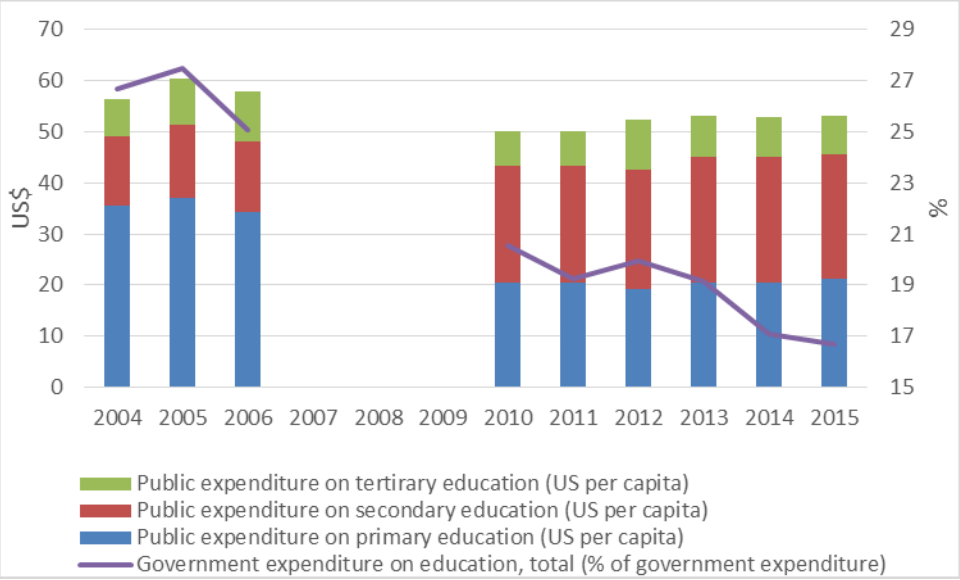
4.3 Public spending channel

The third hypothesised transmission channel from trade to poverty reduction is the public spending channel: if increased trade generates increases in public revenue and if these additional resources are spent on pro-poor activities, then this could theoretically contribute to reducing poverty. Here we will only focus on one small aspect of pro-poor spending, namely spending on public health and education.

Another potential channel through which public spending could have a direct effect on poverty is through social transfers. However, consolidated data on government spending on social protection is not readily available in most countries and could not be accessed for this study. Furthermore, the KHBS does not contain detailed information on social transfers from government. Consequently, this channel could not be explored here.

4.3.1 Education

Figure 11: Public expenditures on education (2004-2015)



Source: WDI databank

Figure 12 shows that the proportion of households with all school-aged children enrolled in school (Edu_allattend) increased sharply in the trade corridor, but not in areas located far from the trade corridor. This evolution probably reflects the general improvement in living standards in the trade corridor, rather than any specific public spending on education in these areas.

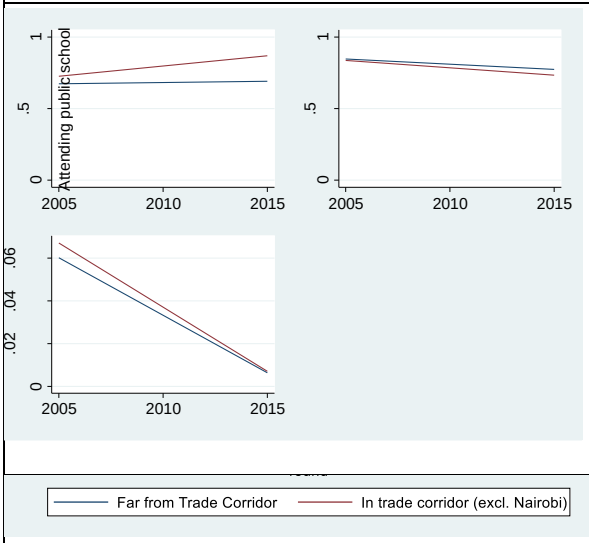
In fact, the data show that the proportion of children enrolled in public schools (Edu_public) has decreased over the period, both in the trade corridor and elsewhere. At the same time, the share of out-of-pocket expenditure on education in total household expenditures (SHR_edu) has increased over the period, both in the trade corridor and elsewhere.

These findings suggests the improvement in school enrolment rates may not be primarily driven by increases in public spending on education, but by improvements in living standards. This is confirmed by public expenditure data presented in Figure 11 above, which shows that public expenditure on education decreased both as a percentage of total public expenditure, and in per capita terms between 2005-2015. Furthermore, the data show that the proportion of public

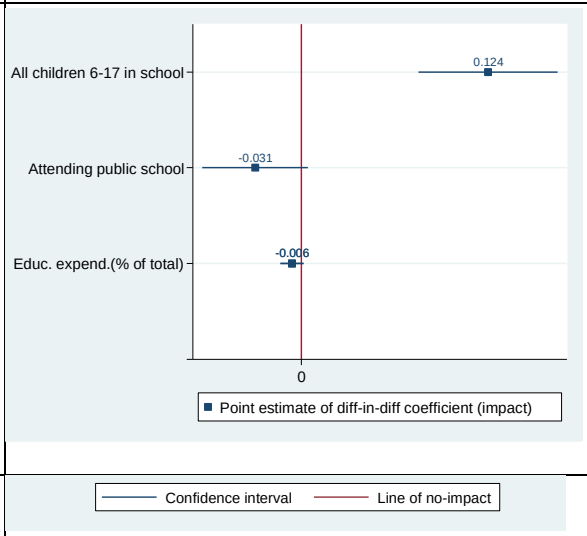
expenditures going to primary education decreased sharply over this period. This suggests that education expenditures became less pro-poor, as poor people are more likely to use primary education services rather than secondary and tertiary education.

Figure 12: Education indicators, by distance from trade corridor

C. Change from 2005/16 to 2015/16



D. Diff-in-diff effect



Point estimates for figure 12A

Distance to trade corridor	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend. (% of total)
Far from trade corr.	2005/06	67.4	84.6	6.0
	2015/16	69.2	77.4	0.6
In trade corridor	2005/06	72.7	83.6	6.7
	2015/16	86.9	73.3	0.7

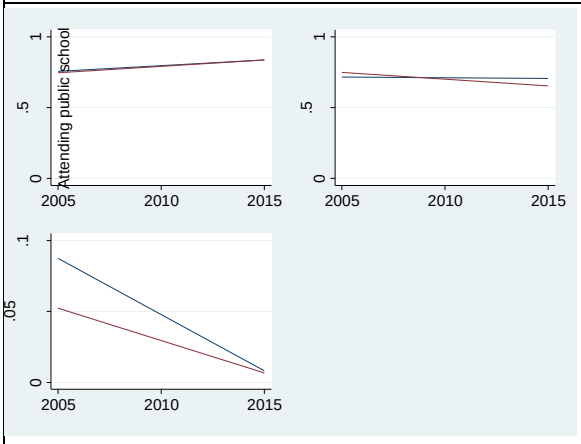
Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

The breakdown by sector of employment shows even more clearly the role of private education in the increasing school attendance rates. While the school attendance rate improved in both the tradable and non-tradable sectors, in the former case, the increase appears to have been largely carried by the private sector, as the proportion of children enrolled in public schools decreased sharply. In the non-tradable sector, the proportion of children enrolled in public schools remained almost constant, despite the sharp overall increase in school attendance.

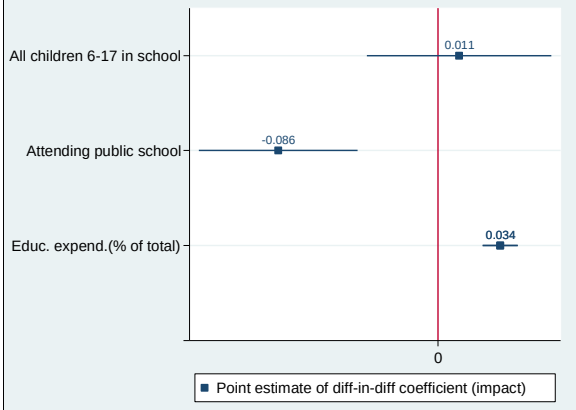
This suggest that there might also have been a qualitative element to this change, as better-off households in the tradable sectors appear to have moved increasingly towards private education over the decade. There is no theoretical reason to think that public expenditures would target those two groups differently.

Figure 13: Education indicators, by sector of employment of the household head

G. Change from 2005/16 to 2015/16



H. Diff-in-diff effect



Point estimates for figure 13A

Employmt of hhd. Head	Year	All children 6-17 in school(%)	Attending public school(%)	Educ. expend. (% of total)
Non-trade sector	2005/06	75.7	71.5	8.7
	2015/16	83.7	70.5	0.8
Tradeable sector	2005/06	74.5	74.8	5.2
	2015/16	83.6	65.2	0.7

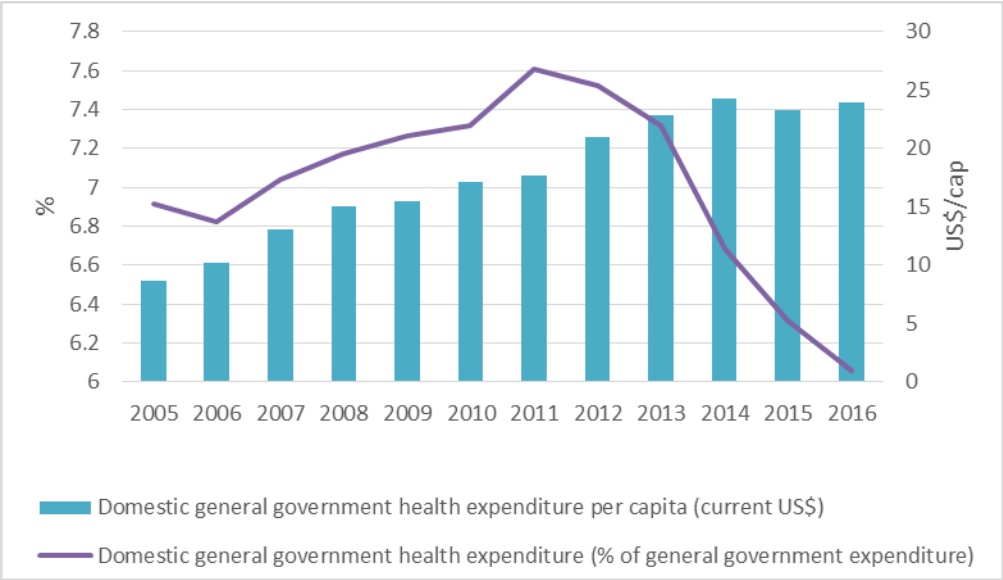
Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

4.3.2 Health

This subsection looks at selected health indicators. It shows that the proportion of household who failed to consult a medical centre at their last sickness (HLT_sicknoconsult) fell more sharply in the trade corridor and amongst households working in the tradable sector, than for the households located far from the trade corridor or employed in the non-tradable sector.

At the same time the proportion of total household expenditures going to health care (SHR_hlt) did not increase as rapidly amongst the groups exposed to trade as in the other groups.

Figure 14: Public expenditures on health (2005-2016), %

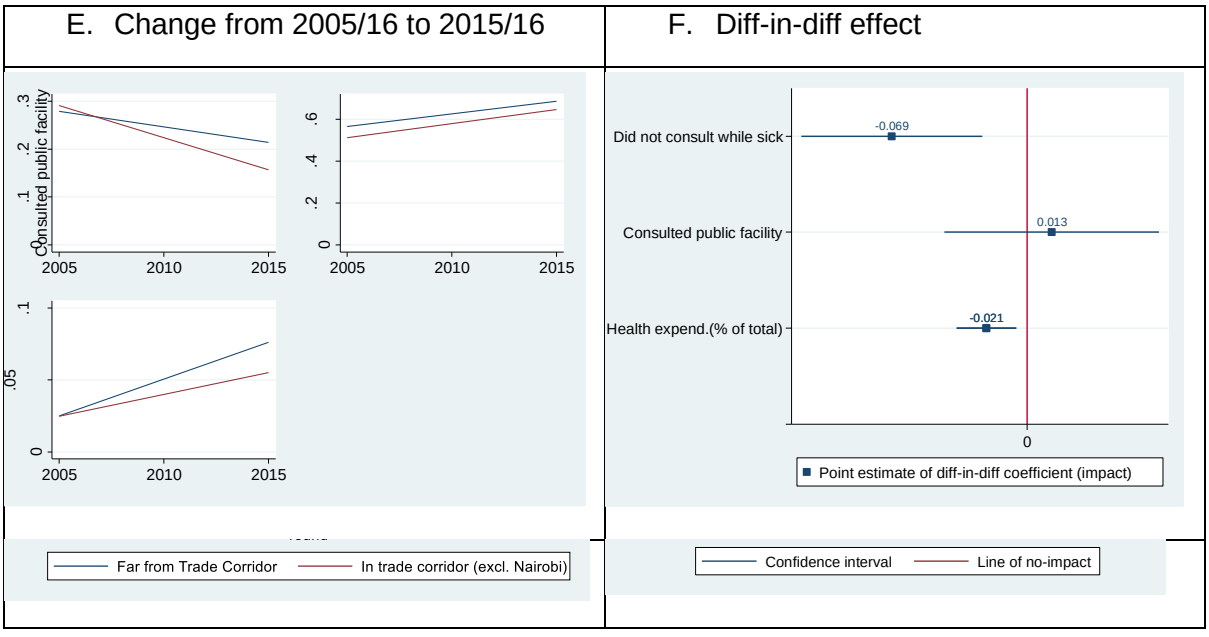


Source: WDI databank

However, there is no evidence of any difference between the two sets of groups in terms of their usage of public versus private health facilities. Indeed, the proportion of households having used public health facilities rather than private (HLT_proppublichlt) appears to have increased at the same rate amongst households exposed to trade as amongst households not exposed to trade.

Furthermore, the public expenditure data presented in Figure 14 above indicates that public expenditures on health decreased as a percentage of total government expenditure between 2005 and 2015, although it increased in absolute terms due to strong economic growth over this period.

Figure 15: Health indicators, by distance from trade corridor



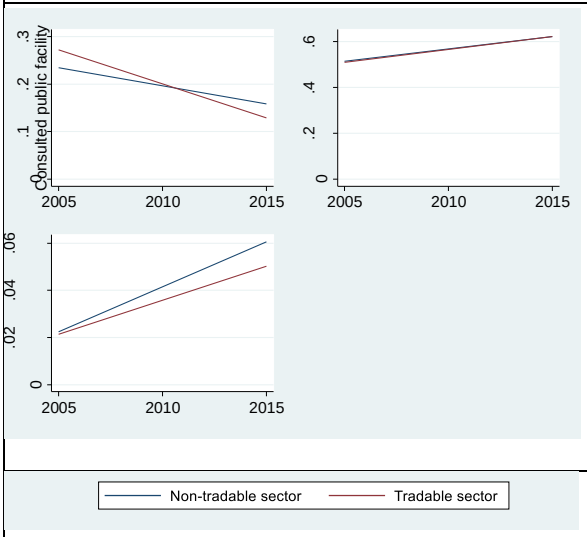
Point estimates for figure 15A

Distance to trade corridor	Year	Did not consult while sick (%)	Consulted public facility (%)	Health expend. (% of total)
Far from trade corr.	2005/06	27.9	56.5	2.5
	2015/16	21.4	68.6	7.6
In trade corridor	2005/06	29.1	51.2	2.5
	2015/16	15.7	64.6	5.5

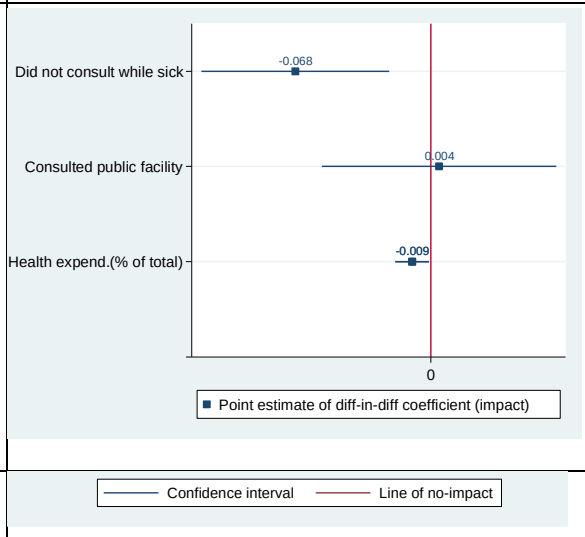
Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

Figure 16: Health indicators, by sector of employment of the household head

I. Change from 2005/16 to 2015/16



J. Diff-in-diff effect



Point estimates for figure 16A

Employmt of hhd. Head	Year	Did not consult while sick (%)	Consulted public facility(%)	Health expend. (% of total)
Non-trade sector	2005/06	23.4	51.5	2.2
	2015/16	15.9	62.3	6.1
Tradeable sector	2005/06	27.2	51.0	2.1
	2015/16	12.9	62.2	5.0

Source: Author's calculations based on KIHBS 2005/06, KIHBS 2015/16.

5 Conclusion

The evidence presented in this study strongly indicates that living standards, as measured by poverty and consumption, improved more rapidly amongst the groups exposed to trade (in the trade corridor or working in tradable sectors), than amongst the groups that were not exposed to trade (far from the trade corridor or working in non-tradable sectors).

The analysis of the various transmission channels provided no evidence that this improvement in living standards could be attributed to increased public spending on health and education. Furthermore, the evidence regarding the price channel was weak and inconclusive: prices of tradable goods increased more rapidly than prices of non-tradables between 2005/16 and 2015/16, but it is unclear whether this increase in prices was beneficial to poor people or not, as we were unable to establish whether they are net producers or consumers of those goods. Furthermore, there is some indication that the overall price index increased more slowly in the trade corridor than elsewhere, but this finding is only statistically significant at the 15% level, which is weak.

On the other hand, there is strong indications that the wage and employment channel played a significant part in improving living standards amongst the groups exposed to trade: Wages increased more rapidly in the tradable than in the non-tradable sectors, and unemployment decreased more rapidly in the trade corridor than elsewhere. Increases in non-agricultural sales were important for both groups, while agricultural sales do not appear to have been significant in explaining the improvement in living standards for either of these groups.

The analysis for female-headed households indicates that exposure to trade had an even more important impact on female-headed households than on other households. Here, again, wages and non-agricultural sales were a major factor for households employed in the tradable sector, whereas the decrease in unemployment and increase in agricultural sales largely explain the improvement for female-headed households living in the trade-corridor. Data limitations prevented us from making a more fine-grained assessment of the impact on women within non-female-headed households. It is hoped that the qualitative study will help to refine the understanding of this issue.

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Annex J: Qualitative Findings of Indirect Impact

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Table of contents

Introduction

This annex contains summary tables of indirect impacts of TMEA programming based on a convenience sample of wealthier and poorer male and female respondents in selected communities around the four countries. The sources of information for these tables were the interviews with local leaders (25), traders (31), and truckers (15). In addition, 30 indirect focus groups drew 213 respondents from among populations that had no contact with TMEA. These groups were single-sex, and in any given community, at least two were conducted, one male and one female. To try to capture some of the differences on impacts among wealthier and poorer groups, the data collection plan specified whether groups were to include relatively poorer or wealthier respondents by local standards. In order to identify appropriate respondents, the data collection teams first interviewed local leaders to present research approvals, as required in Rwanda and Tanzania, and to gain an initial perception of local conditions. The team then used a screener and recruited from among people in markets and business associations to fill the groups with individuals meeting the screening requirements.

Table 1: Indirect FGDs by type of site

Sites	Poorer Women	Poorer Men	Wealthier Women	Wealthier Men	Total FGDs	Total Participants
TMEA OSBPs (3)	3 (22)	3 (20)	3 (21)	3 (22)	12	85
Non-TMEA border post (1)	0	1 (6)	1 (6)	0	2	12
Port communities (2)	2 (16)	2 (16)	2 (15)	2 (16)	8	63
Community > 50 km from trade corridor (4)	2 (12)	2 (12)	2 (15)	2 (14)	8	53
Total FGDs	7	8	8	7	30	213
Total Participants	**50**	**54**	**57**	**52**	**213**	**213**

The tables that follow provide a summary of the indirect impacts by site.

Kenya

Table 2: Impacts in Kenya by site

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
Busia (TMEA OSBP and women and trade project site)	• Prices: Indirect beneficiaries stated that prices had increased, particularly for cereals, cooking oil, and other food stuffs. Cement prices decreased because a new plant was set up in Tororo, Uganda, that reduced demand from Kenya. Prices are also higher on the Kenyan side of the border than the Ugandan side of the border. Direct beneficiaries reported that prices they paid had decreased because they were able to take advantage of cross-border trade to obtain some goods more cheaply on the Ugandan side of the border, which the poorer indirect beneficiaries said wealthier traders do. Prices of groceries tend to increase in dry seasons and decrease in rainy season. The introduction of customs has enhanced businesses and encouraged growth because goods are now safely transported across the borders and no bribes are paid. • Employment: The OSBP has made difficult to find transportation jobs because manufacturers now choose to transport the goods themselves rather than contract out that work. Fish mongers are also finding their livelihoods constrained, as they are no longer allowed to go to Uganda to get fish due to the trading rules. Mpesa and money changing outlets have expanded. • Income: Men's income has declined because they used to depend on the thriving smuggling business through the	• Some women said that the OSBP has created new opportunities for men, allowing them to be 'the pillars of their homes', while others said that men with declining incomes are marrying women in business to support them. • Poorer men noted that women at the Kenyan border are gaining from the new system, and it is evident by the way they are dressing lately and their patterns of consumption that improve their households' standard of living. They also noted that households are being run mostly by women since they are free to move and trade more since the opening of the OSBP, which seems to indicate they do not feel that same freedom. • Women reported they are concentrated in less capital-intensive businesses because they have less access to capital. Poorer men, however, said they have fewer opportunities than women, as they have no source of 'cheap' loans. • Women reported that some trades are still closed to women. Young (Ugandan) men transport charcoal from Uganda to Kenya, and some young men push carts for the rich, while Kenyan youths are mostly in schools. Some young women, however, engage in sex work to earn money.	• Poorer men said that their earnings are used on school fees, but they take fewer meals in the household to make ends meet, they eliminate luxurious foods like milk and bread, substitute less desirable foods like porridge and ugali for more expensive and nutritious foods, and they work more with their wives at the farms to increase their produce. • Poorer men also noted that the central government provides bursaries for girls' education, but that boys have to 'hustle a lot' to get educated. • Poorer respondents noted that health services were lacking, and water and electricity were unreliable. • Perceptions are that access to cross-border trade is unequal. As a local leader explained, 'Women from Uganda have benefitted more because they are allowed to trade on the Kenyan side unlike Kenyan women who are not allowed to hawk their wares in the Ugandan side'. In the focus group of poorer women, however, they explained, 'The effect on the community is that you find many Ugandans on the Kenyan side selling their products because our shilling has more value than UGX. There are fewer Kenyan traders hawking or selling their products on the Ugandan side, hence the Ugandans do more business than us.'

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	panya routes. The youth are getting their income through bodaboda riding. • Government services: In addition to national benefits of free maternity services from government hospitals, education bursaries, and a cash transfer programme for the elderly, the county government provides (and monitors) grants to business owners. The grants are geared towards helping the community become self-sufficient (respondents cited specific groups receiving amounts between 20,000 KES and 500,000 KES). • Other:		
Chuka (far from the trade corridor)	• Prices: Poorer respondents said that prices had increased significantly, particularly sugar and transportation prices. The causes for this are taxes, drought, and higher fuel prices. Prices on some goods fluctuate with the season as well. • Employment: Respondents reported that the population of Chuka has doubled in recent years, and there is not enough employment for all the job seekers. Formal employment in the public sector is limited (and perceived to be obtained only through nepotism), but there is a deliberate effort to reserve some tenders for women and people with disabilities. Most men work in agriculture, construction, or low-level service jobs, while women are more concentrated in services and small-scale trade. Water scarcity in the region limits what farmers can grow and trade. People with disabilities have more limited options, and although there are resources to assist them with	• While respondents said there is no stigma and that gender norms around work are disappearing (with women taking construction and bodaboda jobs when they need money), cultural norms around unpaid domestic work remain. • Women have to balance paid and unpaid work. Care giving represented an opportunity cost to some women, as they had to close down their businesses to care for ailing family members. • Poorer women have difficulty obtaining capital except at extremely high interest rates. The Women's Enterprise Fund, they said, is only accessible to those who have connections. • Poorer women felt that decreases in incomes fell more heavily on them, as the men would leave the women to provide for the family. • Poorer women noted that they sometimes had difficulty paying rent on their business	• Most respondents said that the main result of earnings being stagnant or decreasing in the face of rising prices was that there is less food for families, children are taken out of school, and many people who were able to save some money before are no longer able to do so.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	small-scale business start-up, the county market is not accessible to many of them. Self-employed traders in the market have to pay an annual license fee of 4700 KES, which is unaffordable for many of the poorer residents, including many people with disabilities. • Income: All respondents said that trade is increasing overall, but earnings are not. The reasons they cited included high tax rates imposed by the county government, competition, and higher commodity prices. • Government services: One of the main services that respondents discussed was loans from the government (including county loans and national funds for women and youth). They also noted a cash transfer programme for the elderly, health services (many of which are actually fee-based), education (which has many hidden costs), and utilities. An interviewee with disabilities noted there was also a cash transfer programme for people with disabilities (2000 KES/month), but only for those with severe impairments. • Other: Relationships between the county council law enforcers and the traders is affected negatively because the traders try to evade the daily tax.	premises, and this brought them into conflict with their spouses.	
Kaviani (women and trade project site)	• Prices: Respondents said that prices had increased, particularly on food (the cost of potatoes tripling and the cost of sugar doubling, for example). Part of the increase, they thought was taxes, along with fuel prices, which they noted had also increased.		• Farmers have greater access to capital for investment than some other businesses might. • Youth unemployment is a particular problem, and insecurity in the community increases when youth are idle.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	• Employment/income: It continues to be to find employment in Kaviani and hard to start a business. There is little capital available, and many households live hand to mouth. • Government services: Devolution has improved government services, but there are no programmes to assist the farmers. Respondents noted the cash transfer programme for the elderly, the NHIF, and free access to health care (though that was limited based on what the local clinic offered and one's ability to travel if referrals were needed for complex conditions), as well as education bursaries for school-aged children. Some had also heard of youth funds, but were unfamiliar with its requirements and procedures. They were familiar with, and some had accessed government loans from the Women's Enterprise Fund. • Other:		
Mombasa (port)	• Prices: Prices in the port area have been on an upward trend, though the fluctuate within that upward trajectory, 'We were talking 50 or 60 shillings, it has gone to 70 as we are talking the government said 90 and it has gone to 100, everyone has its own price. Think of a person who survives in selling mahamri to sustain a living, he has to buy flour, sugar, in the morning the price you can never determine prices of the basic products now.' • Employment: Most of the current employment opportunities are a mix of casual and permanent jobs, but overall there has been reduction in jobs due to	• Employment opportunities for women at the port have increased. Local residents also have preference in hiring, according to some respondents but not to others. • Local leaders thought men had been more impacted by the changes at the port, primarily through fewer opportunities for trucking. Although there are a few women in trucking, the workforce remains predominantly male.	• Local leaders thought that the improvements in the port had not translated to benefits to the local community. They noted that there had been a lot of coordination with Kilifi and Ganze, but not the immediate environment. • Community engagement has not focused on the community, rather on contractors who might compete for the tenders to complete the work being contracted.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	changes (particularly loading and off-loading along with trucking volume decreases). Those jobs are no longer directly hired by companies, but outsourced for lower cost labour. Restaurants, hotels, kiosks, and bodaboda businesses have been negatively affected, with businesses closing for lack of customers, shedding labour, or relocating, usually with poor results. Unemployment in the local area increased significantly, particularly for the 'common mwananchi'. • Income: Compared to 2016, people are making less money. This is because 'the industrial area was marked for relocation from CBD to the places out of town…they have moved to places like Mariakani, leaving the others with no economic activity'. • Government services: Respondents were negative about changes in government services. With the reduced population in the area, some services had been reduced. They cannot longer access the health clinic at the port that was formerly accessible to them. They also noted the cash transfer programme for the elderly, but few of the local population are within that age range and receive that benefit. • Other: Transport time was reduced due to better infrastructure at Mombasa port (e.g. digital weigh bridge) and due to OSBPs (since 2017/18). Truckers also experience fewer delays on the road, making delivery times more predictable. • Other: Cost to transport goods was reduced because time decreased and bribery has been reduced due to digital		

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	tracking. One of the other effects of digital tracking has been the imposition of fines on truckers if they are delayed in reaching their destination, which reduces or eliminates any incentives they have to spend money at businesses along their routes.		
Nairobi (export capability project site)	• Prices: Respondents reported that prices had fluctuated since 2016, attributable in part to political unrest, but overall prices had increased significantly, as had the cost of doing business. Plastics, airfares, air freight, and fuel were the three categories they noted in particular. They also noted increased competition, particularly in relation to their own businesses, and inflation as key factors. The market for luxury goods has shrunk, they said, because people are only willing to pay for the basics. • Employment: There was consensus that finding work and business (as entrepreneurs) has been difficult. Increasing EU certification requirements for agricultural products (along with pests, poor harvesting practices – see discussion under Kaviani – and competition from South American produce) greatly reduced the profitability of trade in agriculture. Participants also expressed their dissatisfaction about how difficult it was particularly to do business with government. • Income: Some respondents thought that incomes had increased, but not necessarily more than prices. Others reported that earning had decreased for both men and women.	• Participants noted disparities in government services for men and women – loans for women but not men and limited support for childbirth and maternity care, as women are billed for many items during their hospital stay. • Female participants said that even with the 10% allocation for women with AGPO registration, it was difficult to increase revenues because doing business with the government means giving kick-backs. • Water scarcity has affected women more than men, as women are typically the ones responsible for getting water for the household if taps are not available or not working.	• Wealthier respondents reported that poverty was deepening, with many poor households going without food, education, and shelter. They also noted that there were few services for people with disabilities.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	• Government services: All respondents noted that taxes have been an increased burden. Devolution has increased responsiveness in some ways, and Huduma Centres have simplified the process and reduced the time for obtaining government documents. Corruption has also decreased somewhat, as people now know how to report it (though it is still a problem). Public schools are readily accessible, they said, but class sizes were too large. Health care services often relied on fees rather than government subsidies, and access to water was increasingly problematic. They also noted the existence of loan programmes for women and youth and cash transfers for people over age 75, widows, and orphans. Health care was a significant concern, with participants noting that government hospitals are largely are non-functional, so they have to pay to go to private facilities. • Other: Several respondents noted that tribalism had affected the acquisition of trading permits. • Other: Horticulture has overtaken tea as an export because the producers/brokers understand the market requirements, and the regulatory body has been very supportive with information and automation.		
Taveta (TMEA OSBP and women and trade project site)	• Prices: Respondents said that the price of many commodities had risen steadily over the past few years, but the price of fruits, flour, rice, and sugar depend on the season. Many locally consumed products come from Tanzania with the exception of cooking oil, which many respondents said had destroyed Kenyan production. One trader	• More women are engaging in paid work, and some have been employed to clean the market (three-month rotational contracts rather than full-time employment). • Access to women's enterprise funds has decreased, according to respondents, because of corruption and tribalism. Whereas	• Respondents said that tribalism is a challenge - only one community in the region gets benefits, while the other communities have no voice. When it comes to recruiting for the police, the army and employing people in the government, only one tribe is given these opportunities

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	noted that corruption is very high in this region, and it affects prices as traders have to build the cost of bribes into their pricing. • Employment: Few opportunities for formal employment exist in the region. People work casual jobs, but it is difficult to get these jobs as prices have increased. Farmers said that they are limited by inability to access markets and lack of modern and automated farming methods. • Income: Respondents agreed that incomes had decreased due to a reduction in job opportunities, high taxes, and corruption. • Government services: Respondents said they use health care, schools, utilities, and funds designated for women and youth entrepreneurs, but they were critical of the quality of all of those services, and noted that public facilities were poorly maintained. They also said that the funds for women and youth are largely inaccessible to local residents.	they had previously been successful in accessing funds, recent proposals and requests for funding were not awarded.	• Poorer people live in difficult conditions and some children go to school hungry with torn clothes. • Respondents said that wealthy people are in a position to benefit from easier movement and economies of scale, while there is no system to ensure that profits get allocated throughout the distribution chain (i.e., hired truckers, producers, retailers, etc.). They felt that wealthy business people took advantage of their poorer suppliers and workers, 'There are more poor people while the rich are becoming millionaires.' • Respondents thought that successfully competing for government tenders required giving bribes and kickbacks, for which poorer business owners lack capital. They also spend more money to take their commodities to the market. • Respondents also thought that Tanzanians gained more than they did through cross-border trade. As one said, 'Tanzanian people freely come to Kenya to do business, but when a Kenyan wants to go for business to Tanzania it's a challenge, they are not allowed there. This is the biggest challenge Kenyans encounter; we are not wanted in Tanzania.'

Rwanda

Table 3: Impacts in Rwanda by site

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
Kagitumba (TMEA OSBP and women and trade project site)	• Prices: Prices have fluctuated, but food and imported goods from Uganda have increased in price, particularly beans, maize, ground nuts, and soya beans. They attributed these changes to bad weather, high transport costs, high rent, and taxes. • Employment/income: Formal employment is limited in the community, and most people take on casual work or work in agriculture. There are few people in the region with high levels of education, but literate youths are able to obtain work in the security forces. Manufacturing and small-scale factories (for example, maize milling), however, have mushroomed due to availability of electricity. Successful traders have increased the amount and value of their goods through diversification and value addition. Wealthier male and female respondents said that income had increased for most, whereas many poorer respondents said that incomes had increased, but less than price increased. • Government services: Respondents noted irrigation services, the OSBP, and roads making things easier for local residents. • Other: The border infrastructure has been improved, as have the procedures, and it has made it easier for women to cross the border. While payments are up, the fees are legal and transparent.	• Some women earn more since 2016 because they are more organised, have greater access to markets, and have improved value addition, earning them more than before. Other women are earning less because the taxes they now pay reduce their profit margins. • Gendered pattern of work: men doing jobs that required a higher level of capital investment, mobility and energetic, wider networks and level of innovation and aggressiveness. Women went for low investment trading that did not require higher level of mobility, low on energy, proximity to their homes, limited networks. • Women who have engaged in trade had earned greater respect in their households and in the community respect.	• Some wealthier respondents thought trading had become easier and quicker. Other poorer respondents felt that the closure of the panya routes hindered trade, making everything more expensive and less viable. • Wealthier respondents were able to pay for health insurance and school fees on time, while poorer women said they struggled to keep their households afloat, were unable to pay school fees and the health insurance, and eliminated any domestic help that they had.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
Kigali (export capability and women and trade project site)	• Prices: Respondents reported that prices have been volatile and largely dictated by global pricing of goods. They noted low prices for agricultural products in particular. They cited speculation, shifts in demand and supply, and poor handling of agricultural products for the changes in prices. • Employment/Income: Respondents noted that the labour market and government cannot absorb all job seekers (but were unable to comment on whether employment had increased or decreased). • Government services: Decentralisation was a key feature of government service delivery since 2016. Respondents felt the government's gender policy had had positive results the empowerment of women and youth. They also noted improvements in access to education and access to clean water. • Other:	• Respondents thought that women had overcome some challenges to trade (reductions in time, cost, and insecurity), but continued to lack information, capital, and time to develop strategies to strengthen their business finances (for example, by searching for cheaper suppliers). Therefore, many have smaller margins on their sales than they might, and larger marginal profits are captured by middle men.	• Respondents though that poorer households probably benefited most from expanded access to education and clean water. They also noted that life expectancy is at its highest recorded level and that workers retire later than they used to as they are in better health.
Ruhengiri/Musanze (far from the trade corridor)	• Prices: Prices have increased very rapidly since 2016 with potatoes, beans, maize, rice, and clothing doubling in cost, which was attributed to increased demand, taxes, rent increases, increased cost of a trading license (up from 6000 RWF to 30000 RWF), and a government ban on second-hand clothes and shoes. Prices also fluctuate by season. • Employment/income: Although some new firms have opened, it is still very hard to find formal employment, as most of the opportunities seem to be casual labour. Automation is also reducing the number of	• Gendered patterns of work continue, as women are not strong enough for physical labour, and men are 'ashamed' to take on some jobs 'because of the culture understanding that such petty jobs are for weak women', according to poorer male respondents. Some women are breaking into construction jobs, however, and female respondents said there was no difference in the work done by men and women. • Despite gendered patterns of work, male respondents said that it was positive to have women working in paid positions, as it helps increase household income.	• Some poorer men said that increased in income improved their living standards, enabled their children to attend schools with all required materials, and decreased conflicts within the family. Others, however, noted that the price increases were much more than the increases in their incomes, and they have had to reduce their consumption and pull their children out of school. Women's responses were similarly mixed.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	opportunities for work in some sectors. Government building and infrastructure projects have increased the availability of construction jobs. However, agricultural producers belong to cooperatives and have limited autonomy to sell their produce as they would like. Men and women reported that their incomes had increased, except for a few in the trading sector as competition and costs were very high. • Government services: Respondents cited the VUP programme, Girinka munyarwanda, Irembo services, electrical power, roads, water, and a programme of land consolidation and subsidised seeds to improve agricultural outputs in the region. • Other: The government exercises eminent domain to take land for roads, and some farmers lost their prime land with lower compensation than they thought the land was worth and payments were late, causing financial distress for the family.	• Women said there was no conflict between paid work and care giving duties. However, there were cases of a husband going to work far away and marrying other women in that area, which did cause conflict. • Women felt men had benefited from the change because they were no longer required to meet all the family's needs. They also felt they had benefited in terms of self-esteem and self-confidence.	
Rusumo (non-TMEA OSBP comparison site)	• Prices: The costs of goods have increased due to three years of drought, increased transportation costs (due to weight limits being properly enforced), changes in exchange rates, and tax increases. • Employment/income: Formal employment is very limited, and competition is high for those positions. People look for any opportunity to earn money in casual and informal labour. Poorer men said earnings had decreased. Among the wealthier women, responses were mixed – some	• Gendered patterns of work are disappearing – both sexes take whatever work is available with the exception of hazardous work, which is still male-dominated. Work opportunities for women have increased. • Wealthier women reported that they had started businesses or grown their businesses because the OSBP had reduced the time and cost of trading. They no longer wait for Tanzanians to bring crops to their market, but go to the farms in Tanzania and bring them back (i.e., moved up the value chain). They also said they had begun to take loans to	• Poorer men said their decreased earnings affected their spouses and children most, as it reduced their standard of living. They said they were saving less, and they were unable to pay school fees. • Wealthier women said they have been better able to pay for food, family health insurance and private school fees. They also said they can loan their neighbours money when they are in need. A few had been able to build new houses for their families.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	had increases in earnings and some had decreases in earnings. • Government services: Poorer men noted that the VUP programme helps some poor people in the community. Most people in the community use the health services, Irembo services, and water (for a fee). They also mentioned an ongoing irrigation project that should improve cultivation in the dry season. • Other: Time and cost to cross the border decreased significantly. More people are using the gazetted route than illegal panya routes. Traffic on the roads has increased.	expand their businesses, and have been able to repay them on time. • Wealthier women also noted that they had shared their experiences and encouraged other women to trade across the border through legal channels (rather than smuggling) with good results.	

Tanzania

Table 4: Impacts in Tanzania by site

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
Dar es Salaam (port, export capability and women and trade project site)	• Prices: The prices of goods other than food have gone up (particularly fuel, transport, charcoal, cooking oil, and beverages), as in 2016 the government increased taxes on fuels thus increasing prices all round. In addition, wealthier men noted that, 'Suppliers want to maintain their profits, especially those who supply around the port.' Overproduction of food crops for over two years have pushed the prices down. [Note: it is more likely the government ban on exports that made food production seem oversupplied.] • Employment: Since 2016, job opportunities have decreased in the area, as the number	• Gendered patterns of work continue, but many women are now encouraged by their spouses to undertake paid work of some sort. Poorer women also reported that they are hassled when attending their food kiosks if they are not busy (while men are not), so they are quicker to take any offer that comes along. • Poorer women are willing to take lower paid work in order to earn something (typical wages for poorer respondents were 5000 TZS per day for men and 3000 per day for women). However, if a customer/employer says s/he cannot pay at the end of the day, men more often get paid because they insist whereas women often do not as that would	• Most of the poorer respondents said that the only relief comes from relatives, but that is limited because their relatives are typically not much better off than they are. • Poorer respondents thought that owners of trucks, importers, and big businesses were the biggest beneficiaries of increased trade at the port. • Poorer respondents said their households had to change their diets (reducing the number of meals and choosing less expensive and nutritious food) and move children from private to public schools, and some even sent their children upcountry.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	of businesses has declined and many firms have downsized their employee pools. Most people in the port area are casual labourers paid on a daily basis. All respondents said it was easier to find work during coffee harvesting as companies hire additional labourers for sorting the coffee. Since 2016, it has become harder to find work, as some larger firms have closed down their operations in the area, while other new ones have opened, but the new ones are not labour-intensive businesses and have not hired very many workers (for example, the oil depot). The number of government employees has also been reduced, as those dismissed for having fake certificates were never replaced. The parking ban along the roads in the port area have reduced the customer base for kiosks, which also faced new competition from canteens inside the port. • Income: Poorer respondents were unanimous in saying their earnings have decreased because they had less work. Wealthier men said that earnings had decreased because the government had closed tax loopholes. • Government services: TASAF funds are available, but they only reach a select few (and wealthier respondents said that it is 'riddled with corruption'). Respondents also mentioned road improvements, health care for the elderly, and education (but classrooms are overcrowded). Other services are fee-based, but electricity is unreliable. Many households do not have	culturally inappropriate. As the wealthier women noted, 'Men cannot accept to work for 3000 shillings or less, also once you agree with a man to pay say 5000 shillings at the end of the work, he will not accept less even if the business is bad. Women are more understanding and when the sales are bad, they can even take 2000 shillings or just their fare home.' • Poorer men thought they were the most affected because of the expectations on men to provide for their families. Poorer women, however, thought they were the most affected because they have the responsibility of managing household affairs on a much-reduced budget. • The divorce rate has gone up especially amongst poor Moslems, according to the wealthier men, so women have to find a way to survive including those who have no skills. Thus, there is an increased in the number of female-headed households.	Wealthier respondents reduced the number of family outings, reduced the number of loans they take, reduced the number of visits to the salon, stayed at home to watch television rather than going to the pub, limited alcohol consumption, reduced the number of friends (who might ask for support in lean times). While these measures were not welcome, the wealthier respondents said that the poor suffered most because there is no programme to support them.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	tapped water and have to rely on bore holes. • Other:		
Dodoma (women and trade project site)	• Prices: Respondents indicated that commodity prices had increased, specifically citing fruits, cooking oil, wheat, clothing materials, and fuel. Some noted that cooking oil prices increased because of the ban on baobab oil and stand off on importation of semi-refined oil from Malaysia. Packaging prices have also gone up, affecting some traders. • Employment: Respondents said it was difficult to find employment, and that government jobs were being cut, which had a ripple effect on local businesses. In addition to rising prices, respondents cited low circulation of money and an increase in poverty as a result. • Income: Wealthier respondents thought earnings had gone up, but at an equal rate to or less than the increases in cost of living, while poorer respondents thought that earnings had decreased. One trader noted that the purchasing power of customers has steadily dropped, meaning traders make very little profit. • Government services: The tax burden has increased on most people (some said that more taxes had been introduced while others said that the government had closed tax loopholes such that all traders now have to pay taxes), and the value of the shilling has decreased against major currencies. • Other: Those traders who engaged in international trade indicated that trading had	• Women are more active in starting businesses because of the economic pressure, and many are becoming the main income earners. • Women continue to do the bulk of domestic work and care-giving tasks within the household in addition to the work they are taking on outside the household. • Women with young children and elderly relatives to care for may have less success balancing work and family responsibilities.	• Some wealthier individuals engaged in international trade experienced significant improvements in income and well-being, 'My income has improved and now my family can eat whatever meal they would like, I am also able to provide them with quality education and healthcare. I have actually been able to buy a car which the family uses even as I use it for my business too.' • Other poorer traders whose business is local reported decreasing revenues, decreasing profit margins, and a need to find new sources of revenue through diversification or starting up new businesses.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	become easier because the OSBP reduced the time spent at the border and simplified the procedures of crossing the border with goods.		
Holili (TMEA OSBP)	• Prices: Since 2016, prices have greatly increased due to increasing fuel and transportation costs and seasonal fluctuations, though competition may have slowed the price increases. • Employment: The OSBP brought some employment opportunities to Holili (as cleaners and casual workers). Trade has increased as people formerly lacked awareness of the business opportunities found across the border, but now they know how to cross and have generated more trade. The new VAT that Kenya introduced caused temporary disruptions in the coconut and banana trade, and Holili benefitted as those markets are now concentrated there. • Income: Earnings have gone up. It has changed because many people started trading since the creation of OSBP. Women benefited most because the number of those crossing the border to trade increased, but men also benefited by providing boda services to traders in need of transportation. • Government services: There are funds for women and youth to obtain capital with low interest, but according to local leaders, no one in Holili has benefited from those funds. They also mentioned TASAF transfers for the elderly, orphans, people with disabilities, and the less fortunate in the community, and education for orphans –but they have to be	• According to officials, about 90% of the traders crossing the border are women. Any improvements have helped the women more than the men.	• Although the physical infrastructure is accessible, the local data collection team did not see any traders with disabilities, and the officials and local leaders also said that people with disabilities have not benefited because they do not trade. • While many households have benefitted somewhat, local leaders thought that big business people had benefited most because they can now clear large amounts of goods and do not have to split their shipments into smaller consignments (which used to create employment for local traders).

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	deeply investigated first to prove that they are orphans.		
Mpwapwa (far from the trade corridor)	• Prices: Respondents' perceptions of changes in prices varied. Some thought commodity prices has been constant, while others thought they had increased (one trader noted that the value of her goods increased, but the additional taxes and levies she paid meant her revenues decreased). Some reported that locally grown agricultural products prices decreased (such as the sunflower), which some attributed to a lack of demand because food production had increased in other parts of the country, and others attributed to a [June 2017] government ban on exports, which they noted hurt the farmers, and they also noted that imported food products (potatoes and bananas) had increased in price. Others said the cost of building materials and transportation increased. They attributed price increases to levies and taxes and the proliferation of licensing (for fee) required. Price increases have also resulted in households spending less, which has contributed to the decrease in circulation of money. • Employment: Formal employment is extremely limited in Mpwapwa. In 2016, the government fired a number of employees who had fraudulent certificates, and they were never replaced, so the number of unemployed increased and the incomes they used to spend in the community were not replaced. • Income: Many people, including those with steady jobs, also have an alternate source	• More women are trading, and they have largely taken over the markets, according to a local leader. • Women reported that they are less selective than men about the type of work they will take on and will try to work with even tiny amounts of capital, while the men prefer not to engage in agriculture. Hardship seems to have initially increased women's participation in savings groups as a means of mutual support, but as incomes continued to fall, some dropped out of the groups. • The male respondents agreed that, 'Men have suffered, but women have suffered more because they are the primary care givers, and men tend to be away from the family for many hours a day'. The women concurred, saying, 'The women have to carry the burden because when things get tough men escape to the hills pretending to farm or burn charcoal or mining but it is just an excuse to run away.' • Women are sometimes excluded from agricultural work because the farms are far away from their homes, and at times require farmers to stay in the fields for an extended periods (days). The male respondents felt it was not safe for them and that they needed to be close to home to take care of the children and the household. Therefore, more women are taking on work like washing clothes for people. • The men also noted that there is 'over-reliance on relatives who are also fed up', which indicates that the networks of	• The impacts of recent price and income changes on the wealthier families have been moving children from private schools to public schools, reducing consumption of meat (from three times per week to once) and the number of meals per day (from three to two), and watching television in the evenings rather than going out after work. • Although most respondents were wealthier, they said that poor people walk around from very early in the morning looking for any kind of work, and they are ready to work for food if a customer cannot pay in cash. This sometimes comes at the cost of working on their own farms, which then reduces their potential for future income from that asset.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	of income, but many people are selling the same products, which saturates the market and drives prices down. All respondents agreed that earnings have decreased in the area. For farmers, income is seasonal, and most workers are paid on a daily or per piece basis. Some of the poorest workers are paid in food. The stronger enforcement of the tax regime has increased costs for businesses (and of their products), and many businesses have closed. Further, many women have started kitchen gardens rather than buying vegetables in the market, which has caused a number of businesses to close. • Government Services: Respondents primarily used security services, health care, water, education, electricity, and roads provided by the government. Other than education, the rest are based on user fees (though some have health insurance and pregnant women and the elderly receive free care at the public health clinics. Electricity has become more widely available, but it has also become more unreliable. Access to water has also improved, and has considerable impacts on household well-being. Respondents thought services had improved overall, and corruption in obtaining public services had decreased. Respondents in both groups mentioned TASAF, and most thought its coverage was poor, its benefit was too small to alleviate poverty, and that its administration was corrupt. One man, however, clarified that, 'People say TASAF is corrupt but I don't think they understand.	reciprocity that work as a social safety net in many small communities are strained.	

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	TASAF gives quotas, for example, they can say we have money for 80 poor families in Mpwapwa, but in the district there could be more that 500 poor households. Whichever way you choose the 80 households many will see it as unfair.' • Other: Transport has become more expensive, particularly for the transport of goods the last 52km from Mbande on the main highway to Mpwapwa, which one person said was three times the cost to transport goods 200km from Morogoro to Mbande because of the very poor condition of the road. • Other: Security has improved, mugging has gone down even petty theft		
Rusumo (non-TMEA OSBP comparison site)	• Prices: The respondents did not note changes in prices other than the regular seasonal fluctuations. Transport prices have fluctuated with the cost of fuel. • Employment: Casual employment opportunities (assisting traders with carrying or loading goods) and taxi services have increased with the opening of the OSBP. Hotels and restaurants in particular lost out with the opening of the OSBP, as the trucks now leave Tanzania very rapidly, and little volume comes from Rwanda to Tanzania through this border. Trading opportunities have also increased. Formal employment in office jobs has not increased, as most of the people in those government positions come from other parts of the country. • Income: Many people rely on agriculture for their income, which then is seasonal, but	• The number of women in trade (and working outside the home in general) has increased.	• Improved incomes had reduced theft in the community and improved families' abilities to pay for basic needs and for school fees.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	respondents thought that incomes had increased overall. • Government services: A new small hospital has opened, and the community has schools and clean water. Electricity has also become more accessible, and some people in the community receive government transfers. • Other: The border crossing process is much easier, simpler, and transparent than in the past. • Other: The OSBP reduced corruption among custom officers. Custom officers go straight and clear clients' goods within a very short period of time and give back the papers to the client. • Other: Trade volumes have increased because shipments clear more quickly, and more people have begun to engage in trade due to the easy in clearance of goods at the border.		

Uganda

Table 5: Impacts in Uganda by site

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
Busia (TMEA OSBP and women and trade project site)	• Prices: Female respondents reported that prices had generally increased. The price of fuel has gone up, and so have the prices of most commodities (milk, rice, sugar, clothes). There was a sudden decrease in prices around 2017 due to political unrest in Kenya, reducing the flow of goods across the countries, but it reverted to normal after the political situation in Kenya calmed. The male respondents, however, said there had been no big variation in commodity prices. Since the OSBP opened, however, Kenyans enter and go directly to the farmers in Tira to buy their own cereals, which has affected middlemen traders a lot. Competition is very high, and transportation costs have risen. • Employment: Male respondents thought it was easy to find work in the area, 'Work is easy to find if you're not choosy. There is plenty of work to do in Uganda, if you're hard-working then you will make it very easily.' Gendered patterns of work remain, and money changing, loading and offloading is a preserve of men because they have the physical capability to lift loads and have the aggressiveness that is needed to do money changing, according to the female respondents. Lighter, casual jobs like washing clothes, farming, and small-scale trade are mostly done by women because they can balance those with other domestic work.	• Many women are breaking gender norms as the breadwinners in their families or working in fields that used to be considered only suitable for men: construction and brewers of alcohol. Some also work as prostitutes. • The participation of women's organizations in border committees and other trade organizations has facilitated greater participation by women in trade. • According to the wealthier women, women are seen a special gender and their voices are nowadays heard better even than their male counterparts, especially when there are cases of violence against women. • Poorer women reported that increased income results in greater financial independence and more respect at home, 'My husband respects me more now because I don't borrow money from him as much, and when he has a challenge in…clearing [a debt], I chip in.' • The wealthier women reported that some women in the village are languishing in poverty, especially those who solely depend on seasonal income from farming. • Local truckers observed that prostitution had decreased because fewer truckers stay overnight, and women are no longer harassed at the border as they cross. • Women trading across the border reported that it no longer results in marriages ending because they have had to engage in sexual	• Respondents observed that there are a substantial number of traders with disabilities who use bicycles to transport their goods across the border, exempt from duties or taxation. • Wealthier women said their increase in incomes had enabled them to maintain their standard of living despite the increasing cost of goods. Some have been able to build houses and pay for their children's education. • Poorer women said that when they trade more, they purchase better food and clothing and ensure that their children have their school fees and supplies on time. They also noted that it gives them more time to spend time with their children since they can go home earlier. • Youth have particular finding work because of their lack of experience. • Government programmes to assist people with disabilities and youth raise capital for their businesses are not well known. Local leaders attributed it to a lack of awareness on their part.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	• Income: Female respondents said there was no difference in earnings between men and women. Earnings have increased since 2016, and trade has expanded. Women mostly earn their incomes on market days (weekly), and the amount they make depends on the exchange rate. Earnings from agricultural produce vary because of seasonality and availability. • Government services: The government has expanded roads, increased the number of health centres and improved service delivery in the sub-counties, built more schools, undertaken rural electrification, and built a modern market. There has been free secondary and primary education since 1999, and the entry requirements for girls to attend universities have been lowered to allow more girls to enrol in tertiary education. Respondents also cited cash transfers to orphans, the elderly, and people with disabilities. • Other: Time and cost of transport across the border have been reduced significantly. Security has also improved, reducing theft from trucks that were waiting to cross the border.	relations with police or officials in order to cross the border.	
Hoima (women and trade project site)	• Prices: Respondents said that prices for some goods had increased significantly (beans, flour, fuel), while others fluctuated (maize). They attributed the changes to seasonality, drought, increasing fuel prices, plant diseases, inflation, high taxes, and border closures. Most respondents noted that their goods were sold at the farm gate, and that they did not have Qmark or Smark	• Some respondents stated that women are particularly vulnerable to sexual harassment on the job, which may discourage them from applying. Others noted that the cultural norms in the area prohibit women from working outside the home or family-owned land, which limits their opportunities to participate in trade.	

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	or value addition, which limited their ability to command a higher price. • Employment: In Hoima, it is not easy to find work due to: nepotism, mismatch between education and skills needed by employers, sexual harassment of women, corruption and fraud, inefficiency in the agriculture sector (land fragmentation), and the supply of job seekers exceeding the workers needed by employers. • Income: Some respondents noted that they were earning more because they have diversified their businesses (agriculture was not providing an increase in their incomes). Others noted that they were earning less because of the high cost of raw materials, rent, and taxes. All involved in agriculture indicated that income varied depending on season. • Government services: Respondents noted that there were more government services than before, though they were difficult to access. They also specifically noted the improvements in schools with support from private donor organizations. Finally, and perhaps most importantly, they mentioned a rural electrification programme to extend power to local villages. • Other:		
Kampala (export capability project site)	• Prices: All respondents reported increased prices overall, and particularly for fuel, milk, soap, raw materials, and detergents. Many reasons were cited for the increase: more taxes, appreciation of land, higher fuel and utility costs affecting prices of other goods, drought affecting food prices, foreign	• Since 2016, more women are trading and more women are crossing the border. • Women traders are experiencing increasing volumes of business, helped in part by obtaining quality marks. • However, women still lack of access to financing because most lack collateral. They	• Connections and resources remain paramount in accessing jobs and information, which reproduces patterns of exclusion of poorer households. • Packaging of information about trade processes has not been favourable to women overall, but particularly not for

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	exchange fluctuations, higher demand (growing expatriate community and middle-class driving demand). Some noted that food prices have fluctuated depending on season, and that low-quality Chinese imports have increased competition in the market, but quality is important to consumers. • Employment: Respondents felt it was still very hard to find a job in Kampala due to a number of factors: nepotism, tribalism, unrealistic job requirements (i.e., significant experience for an entry-level job), discrimination based on appearance, bribery and kickbacks (including sexual harassment of female applicants), contracting of foreign firms that import their own nationals as workers, and the supply of job seekers exceeding the demand for workers. Increasing competition in some sectors also increases job insecurity as firms shed labour to be more cost efficient. • Income: They had mixed perceptions about the impacts on income. Some respondents experienced increases in income and household well-being, but noted that lower earnings for others might result in families failing to pay for basic needs like food and health care. • Government services: Information access, especially through e-channels, has been enhanced, which has helped some women traders, but information gaps persist, particularly for women with fewer resources and lower levels of education. Some respondents thought that education services had improved along with access to health	also see gaps in resources for managing business growth and succession. • Women are also still marginalised in most companies. • Gender norms are shifting, and some social norms and traditional beliefs that prevented women from trading are being broken. • Women reported having more control of their households with more income and greater involvement of household members in their businesses. However, increased earning has increased their responsibility for household financing and increased secrecy between spouses, especially the women, because they want to assert control over their assets or because husbands are intimidated by a spouse that earns more than he does. Respondents noted that this causes marital instability and disharmony in some homes. • Respondents disagreed on some of the household-level impacts of increased trade and increased income among women traders. Some reported that domestic violence had increased among women in trade, whereas others said it had been reduced.	those with lower levels of education and resources.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	care and better facilities. They noted that more children are staying in school and fewer families are defaulting on school fees. • Other:		
Mirama Hills (TMEA OSBP and women and trade project site)	• Prices: Respondents agreed that prices had increased, but they varied in how large they thought increases had been. All groups cited large price increases on bread, clothes, food (other than bananas and milk), alcoholic beverages, and fuel. They attributed it to a range of reasons, including increasing demand from population growth (an influx of officials and of construction workers) and increased standards of living, taxation and levies, increased rent costs, increased utility costs, increased fuel prices and transport costs, poor weather and drought. Truckers also noted that prices for services like lodging and food have increased because the informal services have been eliminated. As competition has grown in a number of sectors, however, costs may not have risen as much as they would have otherwise. • Employment: Respondents agreed that it had never been easy to find formal employment in Mirama Hills, and the population growth and increased competition in some sectors has made it harder. The primary causes respondents cited were: nepotism, more job seekers than open positions, late retirement of current workforce, and lack of skills of labour market entrants. Some businesses have grown, however, particularly in the service sector, to meet the demands of the growing population. The overall perception seems to	• Women are more organised, trading more (and more through formal channels) and earning more, however, recent increases in export duties may be hindering trade growth. Women also lack adequate market linkages to expand their trading operations. • Male and female respondents indicated that the border services favour women now more than before. • Although women have greater access to capital through their cooperatives, SACCOs, and government programmes, they said they continue to have less access to capital than men. • Cultural and social norms continue to confine some women at home. Poorer women said that men were jealous and did not want to give them money to help start up their businesses. They also noted that women fear adventure. • Other women have taken advantage of the new system and increased their income. Women have growing ambitions for trade, growing responsibilities and respect within the household, and improved self-esteem and self-confidence. • Women and children have access to more and free health services e.g. immunisation and prenatal services. • Some female respondents reported having more peaceful households, as stresses about money had been reduced.	• According to local leaders, the poor have remained poor, while the rich have grown richer. • Some of those direct beneficiaries said that their children eat better, and the family is healthier as nutrition improved. They also can now afford decent homes. • Traders with disability are excused from queues, and in most cases, some are exempted from taxes if they are dealing in small trade items • According to truckers, some local people, particularly the economically disadvantaged, were relocated for the expansion of the border

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	be that people have more access to income through casual labour, and idleness has decreased. • Income: Wealthier men stated that people were earning more since 2016, as businesses expanded to meet the growing demand. Wealthier women and female participants in TMEA-sponsored programmes also said they were earning more, but poorer women said they were earning less due to rising costs and fees, high taxes, and a limited customer base. This reduced income had negative impacts on their ability to save. • Government services: Multiple respondents remarked that road accessibility has increased, which supports people who are in business. In addition, respondents said they benefited from improved security, electricity, water, and government hospitals and schools. Services have increased and are more accountable, notwithstanding the variable quality in some sectors like health. Some respondents reported that there had been more donor/partner funding of government services in the region. • Other: Trade has increased, and the time and cost to cross the border has decreased significantly. Respondents cited the improved road network, scanner services which minimise the time to offload and load goods, better organisation and transparency, and greater efficiency of the border operations, though delays remain a problem at times.		

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	• Other: Profit margins from selling in Rwanda seem to have decreased. • Other: The warehousing facilities at Mirama Hills has helped women traders improve the quality of their products, as they have a secure, controlled location to store them between market days. • Other: A mismatch between the quality of products that are “bulked” to be sold in a larger quantity together sometimes causes conflict and affects price of the bulked products.		
Pallisa (far from the trade corridor)	• Prices: Prices increased overall, and respondents indicated that increases were greatest on rice, tomatoes, millet, and beans (though millet fluctuated over that period). The reasons cited were increasing demand in neighbouring regions and countries especially for cereals, high exchange rates, climatic changes, deforestation, high transport costs, high taxation, increasing rents, and land fragmentation, which decreased agricultural productivity. Kenya had a drought for several years, so many traders were crossing the border and coming over to Uganda to buy produce, creating a bigger demand for cereals and other produce. Pallisa is also running a water project and has ongoing road construction for the highway, which have led to an influx of people to the district and created more demand for goods and services. • Employment: According to local leaders, the district has very limited formal	• More women are working and more women are trading since 2016. • Women are earning more as they enter the workforce, but there is also more pressure for women to cover household expenses. • Both wealthier men and wealthier women said that many men have ‘absconded from their household responsibilities’ and left them to their wives who are now earning money. • Poorer male respondents noted that decreases in their incomes caused tension and stress at home, as their wives thought their husbands had deliberately ignored the family. • As some men have been less able to fully provide for the needs of their households (to fully meet the expectations within the current gender norms in many communities), mistrust has emerged between spouses. • Some financial institutions have reduced the barriers for women (who rarely have title to land or other forms of collateral) to access credit. Through women associations, it is now easier for women to get collateral-free credit.	• Poorer men who experienced reductions in income cited the following impacts: no more luxuries, rationing and prioritising, less to eat, inability to pay school fees, inability to pay rent, inability to pay back loans and fear of loan sharks, stress in the household, inability to pay for preventive medical measures and increased medical bills for acute conditions. • People with disabilities are marginalised and most community development programmes are not accessible to them other than the Community Driven Demand Fund.

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	employment opportunities, male-dominated and hired according to tribe. • Income: Many respondents were in the agriculture sector, and they noted that their incomes are dependent on the seasons and on production levels, and truckers' incomes in the region follow the same pattern. Earnings and household welfare have increased for many, but increased prices offset some of that gain. Both male and female respondents said they had diversified their crops to generate additional income or try to sell to cross-border traders who might buy at a higher price than local buyers. Some respondents noted that low incomes impinge on their ability to pay their loans. Wealthier respondents reported that poverty and hunger had increased. • Government services: Poorer participants complained of increased rates of bribery and corruption, especially at health centres to access 'free' medicine. Those who could not or refused to pay bribes were denied services. All respondents noted the high costs of water and electricity. Participants also mentioned district-level programmes to provide entrepreneurship support to people with disabilities. • Other: The opening of the Elegu-Nimule border has increased on the trade between Uganda and Southern Sudan, and Pallisa has been affected by this. Business traffic through the town has increased (to and from Jinja), created more demand for trade-related activities. • Other: The financial ecosystem has improved somewhat, but increasing taxes	• Some local government programs provide support to economically disadvantaged rural female-headed households.	

Site	Overall Impacts (indirect)	Gendered Impacts (indirect)	Distributional Impacts (indirect)
	on mobile money transactions have led to a drop-in transaction traffic. • Other: Truckers are more comfortable crossing the borders, and they reported that they no longer have to bribe officials. They did note that they are subject to illegal fees on the road, and they were not aware of how to report NBTs.		

Annex K: Qualitative Findings of Direct Impact

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Introduction

This annex contains summary tables of direct impacts of TMEA programming on a convenience sample of participants from its Women and Trade and Export Capability activity streams. The sources of information for these tables were the interviews with TMEA programme staff (3), associations representing women in trade (18), revenue authorities (7), border officials and committees (4), and displaced businesses in the port communities (5). In addition to the data collected by the PGIS team directly, the analysis included interviews completed by OPM's Performance Evaluation (PE) team with TMEA staff (5); port and revenue officials at the ports (4), and some border and revenue officials at the OSBPs.

The data collection teams also conducted two focus groups with a sample of women who were direct beneficiaries in each of the OSBP sites, the project sites, and the capital cities (the exception being in Juba, where only one FGD was held) for a total of 25 direct beneficiary focus groups. For the capital city focus groups, sampling was random. The PGIS team had lists of beneficiaries, the lists were randomised, and people were contacted until a group had been filled. The focus groups at the project sites and OSBPs were selected for convenience or snowballed, as the data collection teams did not have full beneficiary contact lists for those projects, but rather organised groups with the assistance of the TMEA partners that administered the programme locally.

The composition of the direct beneficiary focus groups reflected the characteristics of the individuals targeted for TMEA interventions. At the OSBP border communities, most of the training targeted small-scale women traders who are relatively poor by national standards and were classified as poorer in the analysis, as were most of the project sites because the women traders targeted were typically not well off by local standards. Although the team made efforts to include women traders with disabilities, the partner organisations' efforts did not specifically target women traders with disabilities in S1[1]. In the capital cities, programs targeted export-ready firms (mostly with female ownership, but not exclusively), whose owners are reasonably well off by local standards, and they were thus classified as wealthier for the purposes of analysis. As these are larger firms, however, the owner or principal was not always the training participant, and the focus groups thus reflected the sex of the training participants.

Table 1: Direct FGDs by type of site

Sites	Poorer Women	Wealthier Women	Mixed - Wealthier Women & Men	Wealthier Men	Total Groups	Total Participants
TMEA OSBPs (4)	8	0	0	0	8	49
Project sites (4)	7	1	0	0	8	57
Capital cities (5)	0	6	1	2	9	56
Total Groups	15	7	1	2	25	162
Total Participants	**101**	**43**	**7**	**11**	**162**	**162**

Note: Numbers in parentheses indicate the total number of participants. The mixed sex group was in Juba, and it comprised six women and one man.

The tables that follow provide a summary of the direct impacts by site.

[1] Interview with TMEA WIT Director, July 31, 2018.

Kenya

Table 2: Impacts in Kenya by site

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
Busia (TMEA OSBP and women and trade project site)	• Revenue collection at the border has increased because of the existence of a common place of approvals for all stakeholders including KEBS, KEPHIS, and KenTrade among others. • Trade volume has increased between countries, especially in agricultural products from Uganda to Kenya and manufactured good from Kenya to Uganda. • The ease of doing business between countries has encouraged new businesses to be engage in trade. However, some people have lost opportunities due to TMEA's work, including guest houses, hoteliers, brokers at the border, and smugglers. • Participants in trainings noted that they learned about book keeping, saving, managing prices of goods, exchange rates, and procedures for using the gazetted routes when crossing with their goods. Many reported that they had ceased using panya routes. Avoiding panya routes has reduced bribery and loss en route and made transportation easier. • Participants gained self-confidence, and their incomes have increased somewhat. They have expanded their operations so many are trading well away from Busia (Eldoret and Nairobi) or diversified their business interests. Some have also	• The most critical impact for the participants was the increase in self-reliance.	• All respondents with children indicated that they have been able to pay school fees on time as a result of the increased in their incomes.

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	increased the number of employees working in their operations.		
Kaviani (women and trade project site)	• In 2016, TMEA through their partner FPEAK worked with MoFarm, a fresh produce exporter to facilitate trainings in horticulture best practices to farmers in Kaviani. The objective was to empower the farmers with capacity to increase yields translating to improved household incomes. Notable courses included IPM, safe use of pesticides, food safety principles, traceability, occupational health and safety, environmental conservation, record keeping and internal audits, site history and soil management, propagation materials, irrigation and fertilizer use, and waste and pollution management. All respondents reported knowledge increases. • The participants expanded their operations and began producing more and better-quality fruit. However, they expected that the support received would extend to market linkages, but it did not. As one said, 'They came, motivated us to form a group, we formed a group and from there, they came, we signed some documents, we were given certificate and…we never saw them again.' Another elaborated, 'They had promised us to come back and buy our produce, and we had high hopes, but they never came back again. They wasted our time. We did a lot of work with them, they even gave us the money to meet the standards they recommended, they gave us training on how to raise the shades, a high-tech training, and they talked sweet but never came back.'	• Women farmers noted that they are heavily relied on within the household in addition to their farming activities.	• Unlike some other groups of female respondents, this group indicated that capital and government loans were not a significant hurdle, as their groups can access women's enterprise funds.

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	• Income from avocado farming did not increase, and in fact, actually decreased because their output increased and there is a limited market for their products. ‘There is no market. We are selling more than we used to do before, but they promised us higher returns…now we are selling at a cheaper price, but if their programme was to go as they had promised we could go far. We have more quantity but the market forces affected the prices. Eight avocados are going for 10 shillings, unlike what they had promised to buy in a range of 7 to 10 [shillings] per piece.’ They also attributed the problem to the sale of produce to brokers who frequently come before the crop is ready to be harvested, resulting in wastage. As a result, they are reducing the number of employees who help them on their farms. • Farmers would prefer to be able to engage in selling and exporting directly without middle men, but lack the knowledge of how to do it. • Participants utilized the existing association to venture in other activities. This included table banking (Chama) whereby each member contributes some money and the contributions are advance to members as loans to be repaid with a little interest. Furthermore, they got into another venture whereby they purchased sits and tents for hire. This income generating activities have been instrumental in offsetting decreased from farming and increasing household incomes.		

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
Mombasa (port)	• Small-scale businesses supported by the truckers who waited outside the port gates have been negatively affected. Although there was space set aside for them, some did not choose to relocate there, feeling that they would not recover their business. One respondent noted that his sales have never recovered and that the others who had shops around his did not reopen. Two other respondents were able to restart their businesses elsewhere serving the community rather than the port, but their income has suffered (higher expenses and lower margins and greater risk). One of the respondents noted her income was reduced by one third to one half.	• Small-scale business owners were both male and female, and it was not possible to obtain a roster of how many of the affected businesses were owned by men or women.	•
Nairobi (export capability project site)	• Participants have applied what they learned in pricing, branding, marketing (including online), and cost control, in addition to trade and export regulations, and some reported they were able to expand their businesses, but others were not successful, usually due to not having a robust pipeline that can sustain a flow of goods. • Several participants reported that trade takes less time and costs less than before, and those costs are now transparent. • Some participants reported an increase in revenue from their adjusted pricing strategies or reduced waste, and their increased margins provided them the opportunity to reinvest in the business and expand their production. A few noted that they have been able to employ some casual workers as a result of this growth.	• Women reported that they have become more independent within their households, no longer depending on husbands or boyfriends to do things for them. • TMEA-sponsored interventions did not necessarily help female participants overcome challenges to exporting. While some conditions did change, the respondents did not attribute those to the programme. • To the extent that women or men are concentrated in more competitive industries, there may be some gendered effects in terms of decreases in revenue, but there is insufficient data to understand what those impacts might be. • Respondents noted that men's earnings had increased. Some reported that their husbands give them money to expand their businesses, which was a new development. Others, however, noted that there had been an	• The respondents whose incomes had decreased said that they had to adjust their lifestyles, using public transportation rather than cars, moving children from boarding schools to day schools, reducing the food budget or not feeding children between meals, not buying in bulk, but only as items are needed, or pooling resources to buy in bulk and dividing it among themselves.

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	• Some participants combined their efforts and put their products together on an online platform. • Many participants noted the increase in competition in their sectors, to the point of saturation. Margins and earnings have decreased for participants in highly competitive sectors. • Value addition in agricultural production has been critical to improve earnings. One respondent said women's earning in the sector had improved because they engaged in value addition and effective marketing. Some interviewees claimed that farmers who got certified could sell at higher price than before, so their income would be higher because of better prices. [Note: this was not borne out by the data from Kaviani.] • Agricultural brokers reported positive outcomes, even in the face of fluctuating prices, for example for tea. A wealthier avocado broker reported increased sales and increased value of traded goods due to improved quality. [Note: in contrast to the experience of avocado farmers in Kaviani, in which their revenues decreased.] • Increases in taxes (on profits, on real estate, etc.) have been challenging for participants.	increase in domestic violence due to harsh economic times (though not necessarily their own experience).	
Taveta (TMEA OSBP and women and trade project site)	• TMEA-supported interventions were successful in providing information to women traders on the processes and requirements for conducting cross-border trade and in encouraging more women to engage in trade.	• According to respondents, husbands recognize the success of the cross-border traders, and some provide funds for table banking if needed. • Respondents noted non-payment by customers as a problem. While the problem affects both men and women, women seem to	• Respondents did not feel that the allocation of plots was equitable, with the wealthy traders getting the best plots near the road, 'Those who divide plots are the rich and they give themselves the good ones first.'

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	• Participants reported that they were able to grow their businesses and their incomes. • Time and costs to trade across the border have been significantly reduced, for example reductions in costs from 2000 KES to 500 KES. • Many women (though not all) have switched from the panya routes to the official border, and they cite increased security as a primary benefit, 'In the past the police would harass those crossing the border and demand bribes, which are not being asked for as much as before.' • Table banking encouraged saving and also allowed women cross-border traders to get loans for their businesses. • Women also benefited from ongoing support in group meetings, where they could exchange ideas on how to improve their businesses. • There is no information readily available at the border, unlike in 2016, and cross-border traders find it hard to get current news regarding the border rules. [Note: this is in contrast to the finding in Holili that quarterly information meetings are held, indicating that those meetings are not reaching certain populations of cross-border traders or potential cross-border traders.]	be more constrained (by social norms) in their efforts to pursue remedies. If too many customers are in arrears, businesswomen may have difficulty continuing their operations as they do not have significant savings or credit to cover their operating costs.	

Rwanda

Table 3: Impacts in Rwanda by site

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
Kagitumba (TMEA OSBP and women and trade project site)	• TMEA-supported training was effective in providing information to women traders to enable them to use the official border rather than panya routes. • Women are now using the OSBP and no longer using panya routes across the border. As a result, they are not experiencing losses of their goods or unexpected fees. • Participants have expanded their businesses, and more women are trading now than in 2016. • Women traders' incomes have increased through their trade activities, even as they are now paying taxes. Women producers in the agriculture sector, however, indicated that weather had not been favourable and they were not able to command good prices for their products, thus their incomes were stagnant or decreasing. • Provision of machines/equipment has improved productivity of women's businesses.	• Women reported having a stronger sense of self and less of an inferiority complex vis-à-vis men. They have participated in other programmes since their TMEA-sponsored training and are prepared to advocate for their interests, and they are more effective in their efforts. • Participants reported increased marital stability due to the fact that both men and women work now and a decrease in marital misunderstandings and domestic violence. • Some women also noted that they pay more attention to their personal hygiene as a result of their confidence and self-esteem.	• The participants who were traders said they had been able to pay for medical insurance and children's education. They did not have to hustle to meet family needs. • Participants in the agriculture sector, however, felt that the fluctuations in commodity pricing (and their incomes) had negative impacts on them and resulted in them having less access to some services.
Kigali (export capability project site)	• Participants have increased the volume of their businesses and trade, which has increased their income. Some businesses have diversified. There has also been some increase in formalisation of enterprises. One limitation, however, is the underutilization of productive capacity of local firms. • Cooperatives have expended dramatically, with focus on value addition and	• Overall, women are gaining respect in their households. Improved incomes allow them to better meet family needs. Some reported that men have taken up some domestic responsibilities to share the burden more equitably. Others noted that they had hired house girls. • Domestic violence continues to be a problem for some women traders when they return home late or with less money than expected.	• Some participants noted that they are now able to satisfy their needs and that household welfare has improved. • Many are able to pay for school fees for their children. • Many women who are cross border traders have house girls, and it was not clear from the information shared whether or not they were school-aged girls working and going to school, out-of-school school-

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	formalisation of their businesses. They have also adopted stronger accounting practices. • Small-scale women traders are crossing the borders legally rather than using panya routes. They are also paying taxes, which the typically did not do before. Their volume of trade has increased, although depending on the products they trade, the value may have increased or decreased. Some reported improvements in income, which allowed them to meet family needs or build their family houses. • Time and cost have been reduced, allowing small-scale traders to cross the border up to 10 times per day (compared to 2 before the implementation of OSBP). • Rwanda received its first certification for Garden Fresh, and participants reported improved access to the EU market. • TMEA also supported the implementation of quality standards and certification of fair-trade coffee for small-scale women producers. • Some advocates for small-scale traders, however, viewed standardisation as being a barrier to women traders when they are adopted in one country but not in others. • Security remains a concern at border crossings with DRC and even in Uganda and Burundi.	• Women traders with small children have been supported in two ways: (1) temporary passes at the Gatuna border children to cross with a parent, and (2) a nursery where one can leave a child for the time needed to trade.	aged girls (ages 7-15), or youth who had completed their compulsory education. Domestic work is largely unregulated and, depending on the conditions, may be considered child labour.

Tanzania

Table 4: Impacts in Tanzania by site

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
Dar es Salaam (women and trade project site)	• Decreasing costs of taxes on trade and simplification of business formalization has made it easier to trade. The reduction of non-tariff barriers, implementation of OSBPs, and improved roads have helped substantially. • The most significant change is that the corruption networks have been largely destroyed, and corruption has become very expensive. • While there are still challenges (the biggest being providing information about cross-border trade at scale), women traders are included in the border committees and the help desk at the OSBP provides assistance if they have any difficulties at the border.	• OSBPs have been critical for improving security for women traders, and harassment has been effectively eliminated at the OSBP locations. • Women traders' households are better off than before. • Some husbands who lack self-confidence feel threatened by a woman's success but after some time they learn it is the best thing for the family.	
Dar es Salaam (port)	• Small-scale businesses supported by the truckers who waited outside the port gates have been negatively affected. Their incomes decreased, the number of employees they have decreased, and some of them went out of business entirely.	• Small-scale business owners were both male and female, and it was not possible to obtain a roster of how many of the affected businesses were owned by men or women.	
Dodoma (women and trade project site)	• Overall, respondents said that crossing OSBP border was much easier than in the past. As one respondent said, 'In the past it was hell we had to pay to pass through with our goods, we had to pay bribes and some women had bribe with their bodies and some were raped because they were forced to sleep in the open with their goods.' One challenge that remains, however, is getting	• More women are opening businesses than men (among both wealthier and poorer groups). • Wealthier respondents said that more family members are participating in women's business, and the quality of life has generally improved in the family. • Poorer respondents noted, however, than when incomes had decreased the women sometimes made more sacrifices then men to	

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	TFDA certification without a big consignment for export. • The respondents in the wealthier group indicated that their earning had increased, and that women's income has increased compared to men's income. In the poorer group, however, they reported no increase or a decrease in income. The impacts of those decreases included: opening another line of business, reducing luxuries like going to the salon, and decreasing the number of meals per day (to 1 for the poorest families) or substituting less expensive food options. • Wealthier respondents stated that their business had increased (with some exporting) and the quality of their products and packaging had improved as a result of what they learned through TMEA-sponsored trainings. • Some respondents indicated that they trained their workers and other traders with whom they deal regularly, creating a spread effect.	sustain the household (going on a 'diet', eliminating trips to the salon, etc.).	
Holili (TMEA OSBP and women and trade project site)	• The time to cross the border has been greatly reduced – consignments that took 2-3 days now take 3 hours. The volume of trade has increased, as there was previously one track and now there are 5 to 6 tracks crossing per day. Monthly revenue collection at the border has doubled since 2016 (from 3 billion TZS to 6 billion TZS). • The cost to cross has been reduced to the collection of payments through Mpesa or banks has reduced corruption and increased transparency.	• Women who used to fear crossing the border, fear the police, shy away from buying large quantities to trade now cross with no fear and do not feel concerned about buying in bulk. The transparency of the system has increased the volume of trade. • Many women have become the main earners in their families and others contribute significantly to household expenses. • Women no longer stay at home, making work and trade more acceptable for girls to pursue in the future.	• Although these respondents were wealthier (on the whole) their businesses had shifted as bigger truck traders took some of the business they used to have. Despite that, their incomes increased, which made it easy for them to afford food, shelter, clothing, health, education, entertainment among other things. • Some respondents said their children were studying in very good and expensive schools, while others noted reduced household expenses for education

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	• Women traders have learned how to cross the border, and they do so with confidence. Most no longer use panya routes, as one respondent said, 'We…stopped using the panya roots where women used to be raped.' • Some women have started trading businesses since attending TMEA-sponsored training. • Respondents' incomes have generally increased despite increased competition and complaints about lower prices than they would like to charge or charged previously. With those increased incomes, they have built or purchased permanent houses, cattle, and supplies for their businesses, as well as meeting daily needs of the household. • There has been a reduction in large businesses breaking up their shipments into smaller ones distributed among a large number of traders, which was one way in which small traders made their living previously. • OSBP personnel conduct quarterly meetings to educate traders on how to use the official border other than using the panya routes.		because free (public) education eliminated the school fees they had paid in the past.

Uganda

Table 5: Impacts in Uganda by site

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
Kampala (export capability project site)	• In the experience of these participants, trade barriers have been minimised and trade processes are now more transparent and easier to comprehend. • Export capability participants reported the expansion and diversification of their businesses, as well as improvement and streamlining of their products and internal systems and processes (including market scans and pricing, accessing credit, client management, branding and communication, and scaling markets). • Several participants noted that certification of products and network referral was key in pushing their volumes. • Participants reported that they now think about managing their employees differently and focus on value addition. They focus on the financial health of their enterprises and track growth. • Participants indicated that they had expanded their market base. As one noted, 'Ugandan products are penetrating other markets easily.' Ease of export has been critical for scaling markets.	• On the whole, women indicated that earning had increased since 2016. However, they noted that with increased earnings came bigger responsibilities to shoulder. • Female respondents in these wealthier groups noted that they were more independent than before and that their images (dressing 'decently') were a higher priority. • Women also reported being more in control of their households and having more peaceful homes. • Some also cited the involvement of more household members in their businesses and that they used what they learned in the training to effectively manage family dynamics in the business.	• One aspect of focus on financial health is that participants reported they are more careful with their money and some prioritised finding cheaper labour (displacing the more expensive labourers they had) as a means to reduce their costs.
Hoima (women and trade project site)	• Participants cited the most important impacts as their transformation into economically and socially active people in their community, and said their achievements were greater when they worked collectively.	• Women have become more organized for both business and civic engagement in Bunyoro. • Some respondents noted that they help other women in their village develop their skills, creating a spread effect.	• Some respondents indicated that their children stay in school longer because the fees are more affordable (both girls and boys).

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	• Participants also noted the benefits to their children, as they were learning from the association (both boys and girls). • TMEA-sponsored training assisted with business diversification, record keeping practices, Qmark and Smark considerations, concepts of differentiated value and adding value addition. • TMEA activities have resulted in increased access to knowledge among women; expansion and diversification of women's activities (e.g., tailoring, crafts, jewelry, soap making); use of cooperatives to sell in bulk; and the overall mobilization of women in trade. • Respondents also noted that capital re-investment that has helped business growth, as has saving and access to loans to rebuild businesses. Customer engagement and relationship management has improved, which has also increased volume of business. • Overall, participants have expanded their income streams, and some have hired more workers. • One respondent noted that profits in one business stream were down because middlemen have affected the prices.	• Some women reported improvements in their relationships at home with greater stability and increased status at home and in the community as they shared the responsibility for meeting basic needs and paying for school fees. • Other women noted that men feel insecure with the changing dynamics and that responsibilities have been shifted to women. They also said that jealousy was a problem within the community as they were more successful.	
Busia (TMEA OSBP and women and trade project site)	• OSBP has reduced the cost and time taken at the border point. It is now easier, quicker, and simpler to cross the border, which increases the trade volumes. • The EASSI office desk and the single window system has simplified the process and provided a clear support structure for traders.	• More women are trading formally and crossing the border via OSBP instead of panya routes because crossing the border is safer, quicker, cheaper, and easier. One respondent indicated that 50% of women who were using panya routes are now using the OSBP.	• Economically disadvantaged women benefited from training on value addition, marketing, and branding and given capital for initial trade costs.

Site	Overall Impacts (direct)	Gendered Impacts (direct)	Distributional Impacts (direct)
	• Participants reported increased understanding of the system, including how to seek help (e.g., to report about informal fees, sexual harassment, etc.), and because they are more knowledgeable and informed about their rights, they are more confident in the system.	• The number of women trading also appears to be on the rise. • One respondent noted that despite the very effective empowerment of small-scale traders, sexual harassment is still a challenge for some women at the border.	
Mirama Hills (TMEA OSBP and women and trade project site)	• OSBP has reduced the cost and time taken at the border point. Such improvements are reported to have resulted in better, safe, professional, quicker and easier services at the border which reduce costs and time to cross the border and increase the volume of transporting goods. • More people are using the gazetted legal routes, because sensitisation has been successful and the use of national IDs and temporary movement permits has reduced the documentation required. • Participants are earning more than before and are now more ambitious. Prior to OSBP, on a good day, they had higher profit margins, but risked rape, theft, beating, and demands for bribes. TMEA-sponsored trainings and the OSBP increased their security and self-esteem, decreased the number of trips required (trading in higher volumes, decreasing cost and increasing time available for other activities), eliminated illegal payments through agents, reduced transit times, and helped them meet with other traders and organize for bulking goods and for advocacy.	• Prior to 2016, accessing the border was hard for women crossing with children because of the legalities of documents. Now, women can access temporary movement permits for their children. • Fewer women are using panya routes to trade across the border. Participants created a credit/loan and savings association to lend to individual women, thus helping them secure collateral-free loans. • TMEA interventions were successful in breaking barriers affecting women in trade, e.g., harassment, tax obligations, capital availability etc • Women reported that their husbands are now recognising the impact of working women.	• The female participants reported an improved standard of living and welfare, for the entire household including their children (without distinguishing between impacts on girls and boys). • With increased earnings, participants are spending on business diversification, food, school fees, home improvements, debt reduction, education and self-improvement, support for extended family, and contracted labour for the farm/garden.