



**Transport, Agriculture and Integrated Development Project (TrAIDe); Supply Chain Management for Smallholder Farmers and Cooperatives Formative Research**

**Project Location:** Halaba, Hawassa, Ethiopia

**Project Start date:** April 2013

**Project duration:** (Phase One) 6 months

**Introduction:** The Transport, Agriculture and Integrated Development Project (TrAIDe) was designed with two phases. The first phase was a six month formative research programme conducted in Hawassa, Ethiopia in partnership with Hawassa University and the Kuehne Foundation between April and September 2013.

The objectives of this project were to assess market access and the logistics challenges faced by smallholder farmers. Specifically to:

1. Explore the major type and nature of agricultural products produced in the study area
2. Identify the factors which significantly affect market access by the smallholder farmers
3. Evaluate the marketing margins farmers are getting from their agricultural produce
4. Assess the major modes of transportation compatible for input and output marketing
5. Identify supply chain challenges faced by smallholder farmers and recommend possible interventions

**Methodology:**

- **Scoping visit to Ethiopia 12<sup>th</sup>-25<sup>th</sup> March.** Stakeholder meetings, field visits, focus group discussions with farmers and project planning with Hawassa University.
- **Monitoring and Evaluation workshop. 26<sup>th</sup>-27<sup>th</sup> April.** The aim of the workshop was to gather key stakeholders together to inform them about the development of the project and in particular develop a monitoring and evaluation framework.
- **Formative Research. 20<sup>th</sup>-24<sup>th</sup> May.** The field team collected primary data from farmers and traders, and obtained secondary data from government offices, NGOs, cooperatives and trader's associations through focus group discussions and brief surveys.
- **Project Launch. 26<sup>th</sup> June.** The aim of the launch was to establish an informative platform for all stakeholders to discuss project aims and progress. The findings of the formative research were presented to all stakeholders during this event. Comments and observations were recorded and included in the main research.
- **Main research Data Collection. 29<sup>th</sup> July- 13<sup>th</sup> August.** The aim was to identify the main challenges the farmers face while seeking to transport their produce to market. The

methodology included one-on-one interviews with 500 farmers, focus group discussions with stakeholders and meetings with cooperatives and traders.

- **Main Research Data Analysis. 14<sup>th</sup>-21<sup>st</sup> August.** An expert team of eight lecturers and researchers from Hawassa University conducted comprehensive statistical analysis on both the primary and secondary data sets. The team also spent considerable time cross-referencing the data with market pricing data and sector specific peer reviewed papers.
- **Phase One Final Report. 21<sup>st</sup> August-15<sup>th</sup> September**

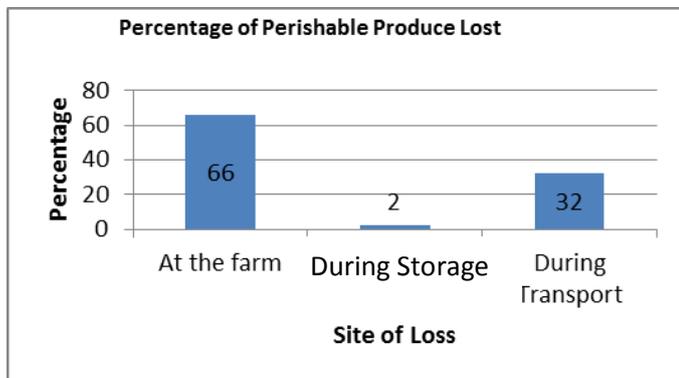
**Outcomes/Findings:** A final report was produced which includes findings from the following six sections: Demographics, Market Information, Market Access, Transport, Storage and Cooperatives.

The research undertaken produced a picture of fragmented, costly, and inefficient agriculture supply chains in Halaba, Ethiopia. Post-harvest loss rates within the supply chain average 23% for non-perishable and 27% for perishable produce but have been reported at levels of up to 66%. Detailed surveys and complex statistical analysis illustrate that this problem stretches across markets for both perishable and non-perishable produce:

| What happens to unsold produce? | Non-perishable | Perishable |
|---------------------------------|----------------|------------|
| <b>Loss due to spoilage</b>     | 0.7%           | 19.9%      |
| <b>Family consumption</b>       | 2.4%           | 55.5%      |
| <b>Sell at lower price</b>      | 49.1%          | 3.0%       |
| <b>Store and sell later</b>     | 36.5%          | 12.0%      |
| <b>Process it</b>               | 11.3%          | 9.6%       |

The evidence identifies that a lack of consolidation, inadequate warehousing infrastructure and practices, and uncoordinated/ill-managed transport result in high costs (both in terms of money and time), product wastage, duplicated effort and general inefficiency.

The majority of post-harvest loss (which accounts for averages at 23.2% for non-perishable and 27.9% for perishable produce) occurs at the farm, with the remainder happening during storage or transport. Perishable products show a significant 32% loss during transport.



The result of this is that farmers consistently incur costs which are avoidable, and therefore don't have the surplus funds they need to invest in their farm, their family or their community – thus undermining efforts to strengthen food security and build resilience.

The activities laid out in the final report will strengthen existing supply chains (in some cases establishing entirely new chains) through a series of interventions which are scalable, sustainable, and locally owned. The benefits brought by these interventions will result in better post-harvest handling and higher incomes for farmers. This will enable farmers to invest in the health and education of their family and result in significant secondary gains including reduced maternal morbidity, increased access to education, and considerable progress towards poverty alleviation.

**Conclusions:** The importance of agriculture to local, regional and national economy in Ethiopia is without doubt. Smallholder farming is the main source of income generation for the majority of the country's rural citizens. In Ethiopia, more than 77% of rural families must travel more and 20km just to access local marketplaces. The literature review revealed a number of constraints to the development of the smallholder sector which limit farmers' ability to generate income. Therefore, it concludes that an efficient and affordable transport system would provide an enabling environment for smallholder farming in Sub-Saharan Africa. It would also incentivise efforts to increase crop yields, and therefore lead to improved living standards for many rural households, while making an important contribution to economic growth, locally, regionally and nationally.

The conclusions of the final report recommend an intervention to establish a large scale role model supply chain for agricultural produce in Halaba. The supply chain will be based on a pull principle; whereby cooperatives draw produce from the farmers by providing farm to market transport, offering storage facilities, and negotiating logistics arrangements for onward transport to market at regional and national levels. This will significantly shift the responsibility for managing the supply chain from a situation whereby the onus is on the farmer to one where the responsibility resides with the cooperative. This will centralise control of the supply chain with the cooperatives; focusing coordination and consolidation at the cooperative level.

This intervention will be best implemented through a series of connected activities including;

- Logistics training for cooperative staff
- Transport asset procurement for cooperatives
- Transport management training for cooperatives
- Warehouse construction for cooperatives
- Implementation of warehouse management processes
- Establish the necessary credit facilities to support local farmers in establishing their own transport/storage hubs

Once these activities are complete, and the supply chain has been reengineered to be cooperative-centric, the movement of information and farm produce will be more cost effective, wastage (through exposure to weather and pests) will be reduced, and access to market will be increased. This approach will also capitalise on the secondary benefits brought through working with cooperatives; fair and fixed purchase prices for commodities, access to marketing support and agricultural extension services. A series of Key Performance Indicators (KPIs) have been developed a means of tracking the success of the implementation phase of this project. It is envisioned that the output of this intervention will dramatically reduce the time, cost and wastage currently associated with the transport and storage of agricultural produce in Halaba.

**Tools Utilised:** Monitoring & Evaluation workshop report, formative research report, tools for monitoring head loading & demonstration opportunities and data collection tools.

**Partners:** Hawassa University, Kuehne Foundation, FARM Africa

#### About Transaid:

Transaid is an international UK development charity that aims to reduce poverty and improve livelihoods across Africa and the developing world through creating better transport. Transaid was founded by Save the Children and the Chartered Institute of Logistics and Transport. Our Patron is HRH The Princess Royal. Transaid specializes in the following:

- Building the capacity of public health authorities to provide effective, safe and cost efficient transport management systems to promote equitable access to primary health care services.
- Developing and improving logistics and supply chain systems to enhance the delivery of medicines, equipment and relief services to vulnerable communities.
- Promoting effective partnerships to support and enhance community participation in developing sustainable transport solutions in rural areas.
- Developing and delivering transport and logistics training and qualifications for public and private sector operators.

Transaid has the capacity and reach to lead projects throughout the developing world, but is equally capable of providing niche technical assistance to large scale health systems strengthening projects. Transaid maintains strong relationships with a number of leading international organizations including donor agencies such as DfID, DANIDA and USAID, and implementing organizations such as Health Partners International, Options Consulting, John Snow Inc. and Management Sciences for Health.

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