REPORT

Learning Exchange Visit

Delegation from Ethiopia

9th Mar - 14th Mar

Participants:

Agricultural Transformation Agency (ATA)

Dr. Chimdo Anchala & Dr. Kebede Teshome

SNV

Mr. Messele Chora & Ms. Mahlet Yohannes

Precise Consults

Mr. Henock Assefa & Mr. Tedla Bekele

Delegates in front of the SELCO kalahandi field office with the entire team

Table of Content

Context and Objective

Global Hubs Program: SELCO Foundation seeks to conceptualize and implement a knowledge platform based on the learnings from different parts of the developing South. As part of this Global Hubs program, that aims to position UN's SDG 7 as a critical catalyst for a sustainable and equitable future for the poor, the foundation intends to develop 'Horn of Africa' Global Hub based out of Ethiopia. It is aimed towards establishing effective models and processes in the delivery of sustainable energy solutions while advocating ecosystem approach for accelerated adoption of decentralized sustainable energy, which could then be replicated in the region and beyond.

Workshop at Addis, 2019: The learning exchange visit was the result of conversations and discussions that were initiated with some of the stakeholders in Ethiopia during the workshop that was conducted with the collaboration of SELCO Foundation, Precise Consults and RMI in Addis Ababa in October 2019. Through the discussions, programs for sustainable energy and agriculture livelihood nexus in Ethiopia emerged as one of the first entry points. Post workshop, multiple interactions and first draft of proposals were initiated with three partners – Precise Consult, ATA and SNV. Thus, to provide practical exposure to some of the potential value chain interventions that could be proposed by these three partners, the learning exchange visit was organized from 9th to 14th March, 2020.

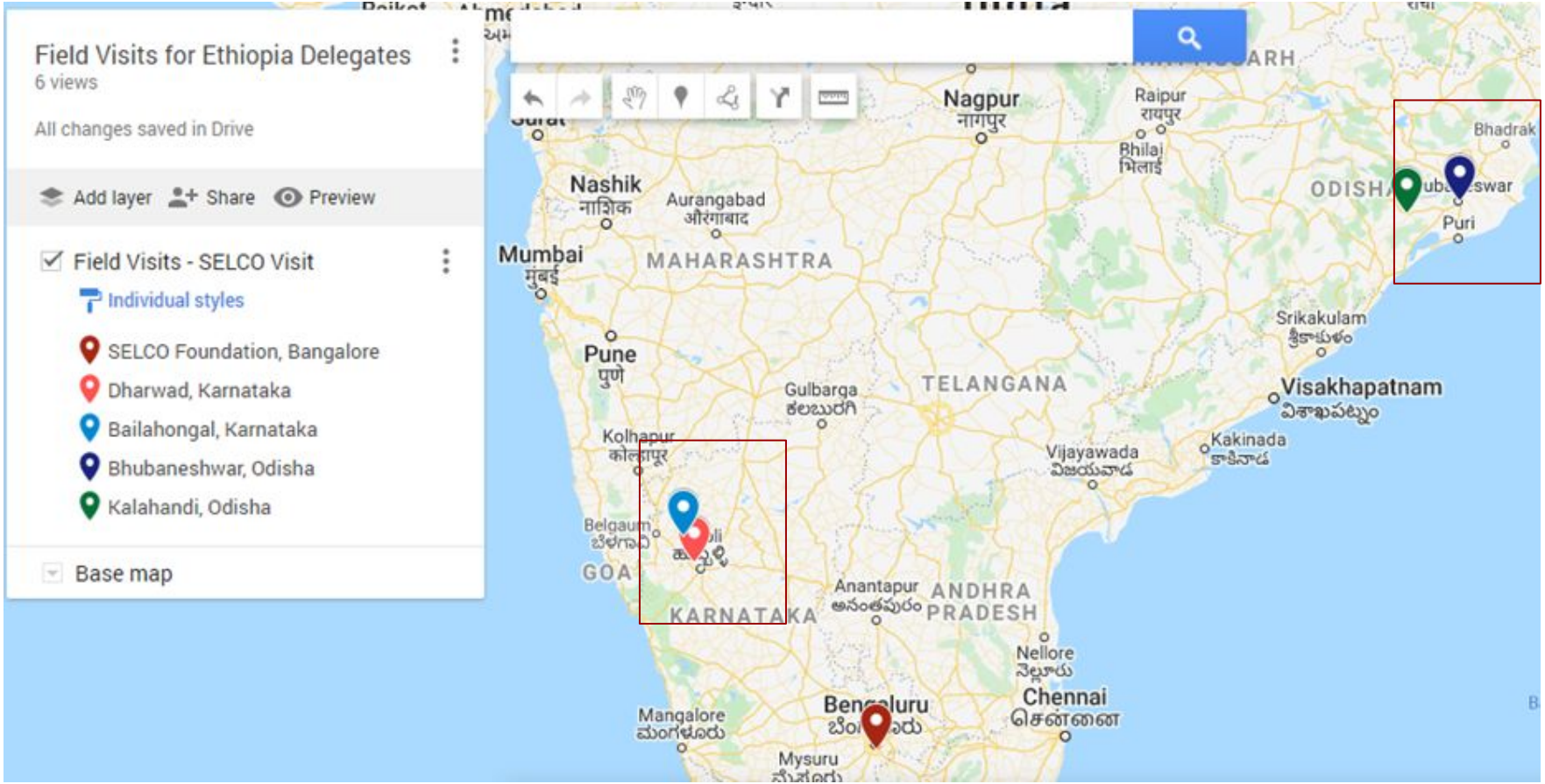
Learning Exchange Visit, March 2020: The objective of the visit was to facilitate understanding the criticality of sustainable energy interventions and participation of different ecosystem stakeholders at different points in various agriculture value chains. The visits and discussions with various ecosystem stakeholders were designed to lay foundation for agriculture- energy nexus programs in Ethiopia with visited organizations. The identified actors for learning exchange program have sufficient understanding on the role of energy access, and thus the visit also provided a great platform for SELCO to learn and understand the effective models from Ethiopia.

Image 1: Delegates interact with the Blacksmith entrepreneur in North Karnataka

Geographies visited:
North Karnataka & Odisha

Stakeholders interactions & visits:
Local enterprise, Livelihood Skill Center, Local MFI, District Agriculture Training Center, Livelihood NGO, Farmer Producing Organization, Farm/ Non-farm livelihood entrepreneurs

Field Visit Geographies



For more details on the field sites; Click Link

Field visits and Interactions

1st Leg - North Karnataka

Agenda: To introduce the concept of productives use of energy, role of ecosystem actors, tech/ finance and delivery model demonstration, mainly within non farm sectors and dairy value chain.

Sites:

- HD Blower
- Sewing Machine
- Bat making Community (lighting for livelihood)
- Puffed rice making
- Sugarcane Juicer
- Dairy value chain site
- Pottery wheel
- 100l Fridge

2nd Leg - Odisha

Agenda: To deep-dive into agri-livelihood energy nexus, identify user typology, role of ground partners and different stakeholders and importance of farmer organizations like FPOs.

Sites:

- Rice Huller + Polisher
- Spice grinder
- Irrigation Pump
- Poultry lighting
- Agri-cold storage

Image 2: Basavaraj from Deversighalli in North Karnataka practising Blacksmithy. Solar powered Blower intervention was followed with Power Hammer. Post interventions, his earnings per day has doubled due to the reduction in drudgery and efficiency in the machinary.

Leg 1 - North Karnataka

Objective: To facilitate the Ethiopian delegates to draw parallels to their programs in productive use of energy, while providing on-ground examples of interventions with multi-stakeholder participation.

SKDRDP Training Centre

The discussions with centre head of SKDRDP provided unique insights into the diverse skills and capacity building programs in non-farm and farm sectors. The training centre provides a platform to bring community members, financial institution and enterprises to come together while providing practical examples of solar powered livelihood solutions.

Image 3: Delegates interact with Mr. Bhat, Incharge of SKDRDP training centre

DATC session:

The session underpinned the importance of government agri centers in facilitating training for communities on agri-innovations for farmers and creating outreach channels which leads to better engagement with them.

Image 4: Mr Puttenevar delivering session on grassroots innovations in Agriculture training centre

Day 1

Blacksmithy blower - *Innovation - repurposing ; SKDRDP finance; agri-tools making*
Sewing Machine - *Home based entrepreneur; bank financial linkage;*
Sugarcane Juicer - *Add-on business with blacksmithy*
Bat-Making community - *Migratory community; lighting for livelihoods;*
Puffed Rice making - reduced *drudgery; innovation - direct;*

Day 2

Power Hammer - *labour savings; frequent power cut*

100l Fridge - *road site petty shop; travellers refreshment point*

Pottery Wheel - *pottery cluster; pug mill ; blunger;*

Dairy site - *milking machine; khova making; biogas; chaff cutter; market linkage ; matured ecosystem*

Discussion Points:

- ATA positive about exploring energy within livelihoods based on the visits. ATA wants to develop milk collection points in Addis; hence wants to develop milk collection + process technology.
- Shallow water harvesting is low hanging fruit and usage of irrigation pumps has to be explored.
- Linking energy with business economics is important for SNV; hence they need enterprise incubation support from SELCO.
- Dearth of hard currency is restricting the import of solar tech into the country.
- Precise can conduct value chain analysis, incubation and volunteer to coordinate with partners on the ground.

Leg 2 - Odisha

Objective: To introduce the Ethiopian delegates into opportunities and possibilities of agri-energy nexus, user typologies, roles of ground partner and relevance of collectivization models in energy access.

Image 5: Delegates inspecting the hulled rice from solar rice huller machine in Kalahandi.

Agriculture - livelihood interventions with Harsha Trust provided examples of how different ecosystems around the energy solutions need to come together for them to be sustainable over long-term.

- Community ownership of the solutions
- Collectivization of farmers to scale up productivity and implement different technologies
- Leveraging on government policies and schemes
- Market access support for small farmers to take up commercial farming
- Local enterprise providing installation, servicing & maintenance
- Incubation support to local enterprises (from SELCO Foundation)
-

Day 4

Rice huller + Polisher- *service Model individual entrepreneur; Innovation - direct*

Pottery wheel - *master trainer; Reduced drudgery;*

Day 5

Poultry, Vaccination cold storage, Irrigation Pump, Agri-cold storage, Spice processing center: Cooperative owned models and individual entrepreneur ownership with the support of Harsha Trust and its FPO/ FPCs.

Discussion Points:

- ATA suggests that scoping visit to Ethiopia to be conducted at the earliest. ATA value chains - Tomato, onion, mango, avocado & banana.
- ATA has innovation validation program that looks at scaling up successful innovations. This could also be leveraged.
- ATA will take lead in creating policy changes, if required.
- SNV works in value-chains: honey, dairy, horticulture, poultry; SELCO can look at BRIDGE program separately. Innovation against poverty is another incubation program in SNV.
- Precise suggest to go with pilots first, understand the challenges in delivery and installation of technology and then take it from there.

Key Considerations and Way forward

Outcomes:

- One of the critical points emerged was the criticality of strengthening different enabling environments (community ownerships, policies, financing linkage, technology innovation, local enterprise ecosystem) around energy access for livelihoods to become sustainable
- Discussions also facilitated a shift in thinking towards incremental innovations before bringing systematic changes.
- Critical value chains where potential interventions could be developed through different programs in Ethiopia are: Shallow water harvesting (water pumps, drip irrigation, etc), Dairy value chain (Milking machine, Milk Chillers, butter churners, value addition products (Khova), Cold storage for horticulture and other farm-gate cooling interventions, Poultry, Agri-processing machines (rice, flour, spice grinding, etc)
- Delivery models such as collectivization of farmers (small farmer cooperatives) become critical for Ethiopia as currently most of the cooperatives are government owned and are commercial and large sized.

Image 7: Sugarcane vendor in Dharwad. The Sugarcane is crushed and squeezed using solar powered DC sugar cane juicer.

Action Points:

- **Precise**: Re-engineering Precise proposal to include the learning from the field visit.
- Possibilities of including other partners in the proposal will be considered based on the inputs from SNV and ATA in the upcoming discussions
- **SNV**: SNV to discuss with the internal team, and come back on next steps.
- Selected value chain pilots with ATA as a first step, while building a concept note for 1-2 years program which would be initiated with the visit from SELCO team to Ethiopia (different partner sites); and then co-developing bigger proposal for 3-5 years - leveraging on the evolving agri-infrastructure in the country.

Photographs from the visit

Image 8: An efficient and sustainable dairy model followed by Manjunath Degavi in Bailahongal, who conducts end-to-end activities across the value chain. Here, the biogas is used to heat for the preparation of Khova (milk based sweet).

Image 9: Delegates taking group photo at Farmer producer group called Swarnajyoti farmer produce group. The producer group engages in horticulture, livestock and poultry activities using sustainable energy as catalyst.

Image 10: Delegates inspecting solar irrigation pump owned by the community that supports the farmers of the village to cultivate vegetables for commercial purposes. The intervention is an example of how resources from different stakeholders could be leveraged for long-term sustainability of the program. Community ownership, utilizing grant support, government schemes and constant market linkage support are the key points in the intervention.

Photographs from the visit

Image 11: Delegates interacting with director, Mr Gautam of Harsha Trust, on different models of collectivization of producer groups. Also, different financial and governance models of these FPOs were discussed too.

Image 12: Delegates inspecting the site area of Rice huller + polisher in Kalahandi, Odisha. The entrepreneur runs a service model, where customers from nearby villages come to hull and polish their rice. The technology pilot has also enabled the entrepreneur to buy paddy at bulk and sell rice to the local communities

Image 13: Delegates taking group photo at Dharwad region branch where they interacted with Mr. Prasanna Hegde, from SELCO Solar Pvt Ltd, on the strategic and operational aspects of running a last mile enterprise in rural areas, and the criticality of establishing partnerships with local stakeholders