

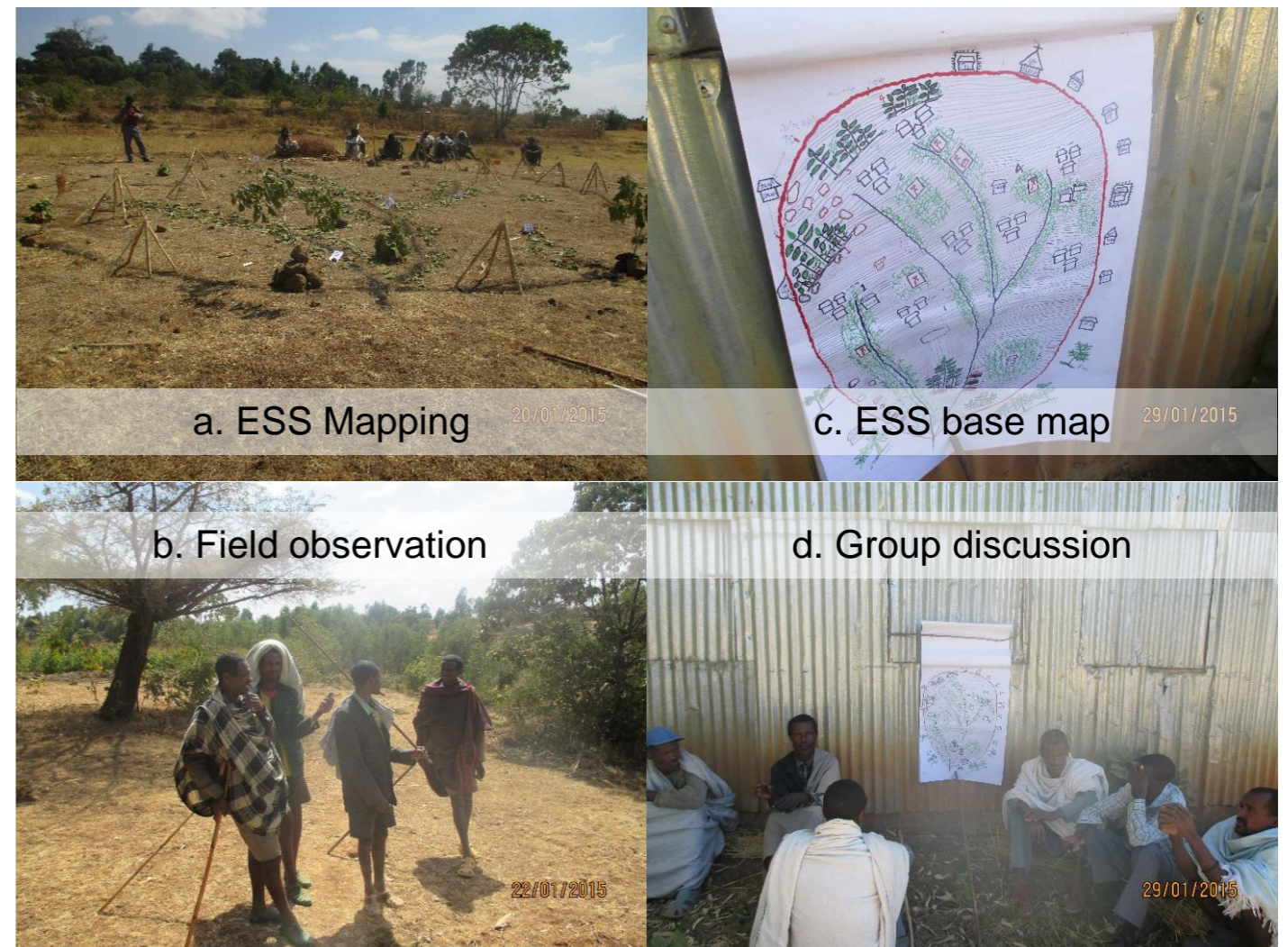


Farmers as researchers for sustainability of local livelihoods and the environment

Understanding the experience of farmers and land users in **Ecosystem Services (ESS)** as part of participatory-orientated research helps to identify local problems and solutions and to understand how ESS can be managed more sustainably.

Participatory rural appraisal (PRA) for detail situation analysis

1. Household surveys: random groups of active female and male farmers.
2. Key informants: Farmers that know the community and its environment, have access to information and a meaningful ability to absorb it, and are willing and able to communicate their knowledge when interviewed.



3. Focus group discussions: purposive sampling to ensure different points of view; considering active farming representatives, diverse gender and age (see pictures above).

Rooftop water harvesting



Stream flow and soil loss



Groundwater level

Environmental monitoring by farmers

1. Investigating water harvesting and groundwater accessibility.
2. Conducting experiments to increase awareness on monitoring their own environment and considering farmers' experiences in the evidence generation.
3. Creating a platform for knowledge sharing among farmers.

Impacts of this participatory research

- Continuous knowledge generation and exchange about ESS by the local community, and strengthened citizen science.
- Developing resilience and adaptive capacity to unexpected occurrences against the farming practices such as climate change.
- Livelihood and environmental sustainability.

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