What are the challenges for the sustainability of smallholder irrigation schemes in Ethiopia?

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Context and issues:

- Ethiopia situated in North-Eastern part of Africa.
- Irrigation is necessary in Ethiopia to achieve better economy return and food security at household level.
- With this objective 5.8% of the 4.3 million potential irrigation land is currently exploited.
- These smallholder irrigation schemes are in poor status technically, institutionally and economically.
- Assessing the technical and economic viability of these existing schemes helps to know the challenges for the upcoming new schemes.
- The smallholder schemes featured low intensification level and loose communication between farmers, the management entity and external role players.

Method of investigation:

- Literature review
- Farmers interview from six different schemes
- Field visit and discussion with local and regional experts
- Secondary sources from different offices

Results:

- The average family size ranges from 4.76 to 7.78 members per household
- Average plot size of farmer ranges from 0.20 to 0.68 hectare
- The fertilizer application is very variable and below to the standards
- The average cropping intensity ranges from 94.92 to 226.99 %
- Low cost recovery related to operation and maintenance of the irrigation schemes (E.g. maximum observed 10.88 Euros per year).

Conclusions

- The population pressure has impact on the size of irrigation land
- Access to inputs have impact on fertilizer application (intensification)
- Access for credit related to the strength of management entity in place and closely linked to access to inputs
- The management entity in place has to establish standards to collect the cost recovery for the sustainability of the irrigation schemes.
