



Institutional collaboration and up scaling of water harvesting as key adaptation measure in Tigray, Ethiopia.

The Experience of Relief Society of Tigray

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#### Content

1. The context

2. Piloting and Up-scaling water harvesting technologies in collaboration with Government Institutions.

3. Challenges and way forward.





#### The context

- Tigray is one of the most vulnerable region to climate change in Ethiopia with frequent incidence of drought- on avarage every 3 years.
- Agriculture production is Rain fed with little use of irrigation (less than 2.5% at national level)
- Thus, Agriculture productivity is highly susceptible to change in rainfall pattern.
  - Growing unpredictability in local climate impacting farmers' decision in planning seasonal activities and their confidence.
  - Farmers becoming reluctant to invest in yield enhancing technologies





#### The Context

- In 2002-2003 severe drought left over 13 million people in Ethiopia food insecure including 1.4 Million in Tigray.
- Previous response to drought used to focus on emergecy aid deliver.
- Since 2004- shift in approach with a major focus on water harvesting and strengthening livelihood security with a emphasize on water harvesting.







### Up scaling water harvesting technologies

- Learning for good practices on water harvesting from different part of the world involving regional and district level policy makers.
- Local capacity building for government staffs
   Development Agents, Baitos (village councils) and community members. Monitoring by all groups.
- Piloting various water harvesting technologies (Trench bunds, ponds, underground tankers, HDW, river diversion, check dams) at community level in collaboration with regional, local governments and community institutions.



### Up scaling water harvesting technologies

- Up-scaling focused on small scale, labor intensive water harvesting technologies.
- Organizing community on watershed basis and under take participatory planning
- Community mobilization for public work in collaboration with local Baito







### Water harvesting using trenches on farm lands





### Water harvesting using Percolation ponds for recharging underground water table.







## er harvesting using check dans on gully sites, Tigray





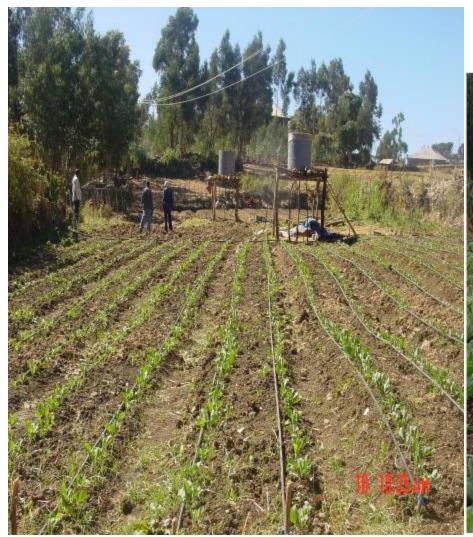


## 'ater harvesting using ponds and wells for irrigation





# Promoting water saving technologies (drip irrigation), Tigray









#### Achievement thus far

- Nearly 1,4million ha (50%) of the regional land mass covered with SWC measures currently.
- Increased access to dry season irrigation from 4,000ha in 2005 to 50,000 hectare, with plans to expand to 300,000 hectares over next 2 years
- Irrigation now practiced at HH, group, community level

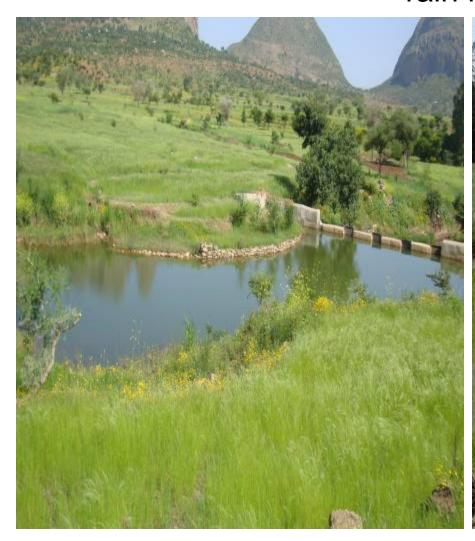








### Harvested water used to supplement field crops at time of rain failure









#### Lessons learned

- Integrating good adaptation practices into existing development planning at community, regional and national level to achieve faster up-scaling.
- Up scaling is possible through collaboration with local institutions and the Government.
- Collaboration needs to start from planning stage to create ownership and follow.
- Facilitating knowledge, experience sharing and joint planning in building better adaptive capacities of all stakeholders – a continuous process.
- Addressing structural constraints to adaptation, such as policies for water user right, both at community and regional level (prevent conflict).





### Thank You

