# Shumsheha site-specific topic: Irrigation

Irrigation is one of the important government agricultural development packages that has been promoted/ implemented among the Shumsheha farming community. Government intervention has been mainly in terms of providing related extension services through DAs stationed at the kebele. In addition, local semi-NGOS such as Amhara Credit and Saving Institution (ACSI), Amhara Development and Rehabilitation Association(AMELD) and International NGOS, particularly Plan International have been financially/technically sponsoring related projects being implemented in the kebele. To mention among related interventions, Lutheran Federation had sponsored the construction of an irrigation canal at Derewa river with a capacity of 27 hectares (2000). Plan International and AMELD jointly sponsored the construction of an irrigation dam/canal on the same river with a capacity of 13 hectares (2010).

From the government side, the DAs have been intensively providing community wide education, targeted trainings, and advice to irrigators. The DAs help irrigators to organise into user associations and to manage canal maintenance and water distribution. Government experts at all levels facilitate access to related technologies including water pumps, pipes for drip irrigation, and improved vegetable/fruit seed varieties, and provide advice on input application, farming methods, and marketing of outputs. According to data obtained from the DAs, there are currently 358 households involved in irrigation crop production covering 111.32 hectares of irrigated land in the kebele. The DAs also reported that the wereda long term plan was to help each farmer to grow crops with irrigation at least on a certain plot of his land using river and ground water, using canals and pumps. Shumsheha was considered as one of the high potential ground water irrigation beneficiaries.

There are different sources and methods of irrigation practised in the community. Farmers grow irrigated crops along semi/perennial river banks and/or around springs through traditional methods of watering – by diverting river water through narrow/small soil canals to individual farms, watering from springs with buckets, and using concrete canals/small structures and pumps. Drip irrigation was also introduced to the community by providing droplet pipes to interested farmers on credit.

All the various long-term interventions coming from different actors seem to have combined gradual effects on the community in terms of changed crop growing patterns and output allocation between consumption and marketing. As a result, around 10% of the total households in the community are involved in growing irrigated cash crops along with rainfed food grain production. The data from all sources, DAs, kebele officials, irrigation association leaders and non/irrigators, indicate that irrigators often sell almost all vegetables and fruits they produce, mostly in Lalibela. Many respondents from both non/irrigators argued that growing irrigated cash crops on small plots of land was far more rewarding than growing –large-scale food grain crops spending much energy.

Farmers are thus deliberately growing them as a means of cash income, which could imply a trend of induced change in livelihood development or community perceptions about the very purpose of production-consumption vis-à-vis saving.

On the other hand, sustainability of irrigation farming is highly dependent on the capacity of streams and springs available. Thus farmers commonly reported that in some years characterised by longer dry seasons, their perennial fruit trees either didn’t bear fruit or dried out due to absence of water as streams dried up too early and more often they had total damage of vegetables. Regarding the social organisation of irrigation schemes, there were 10 river irrigation users’ groups/ associations being involved in water distribution, canal maintenance, and dispute management. Both irrigation users’ group leaders and members reported that they did not have any dispute case over water distribution as users could receive water according to turns allocated to user teams each formed from upper to downstream.

As indicated above, discontinuity/decrease in water flow of existing rivers/streams was the main problem irrigation users described as a constraint preventing them from expanding their scale of production. Non-user respondents also appreciated the benefits of irrigation farming and many of these reported that they could have been involved if they had any irrigable land, still others reported they would grow marketable vegetables if they find irrigable land through share cropping arrangements. Although for different apparent reasons, both users and non-users suggested the government should help them in digging out/developing ground water for irrigation; the latter described this in view of the absence of own land accessible to river water, the latter in response to unsustainability of river water flow.

The Lalibela administration takes water for Lalibela from a borehole, whereas the people use river or spring water.