

A smallholder agro-forester who converted his degraded land into a forest of fruit trees

Mohammed Abdu is a 61 years old farmer living in Jari village, Tehuledere district in South Wollo zone, Ethiopia. He does farming for living. Like most people living in rural areas, Mohammed's parents were farmers and he was grew up supporting his family since his childhood. He followed his parent's footsteps and became a farmer. Mr. Mohammed said that he once stopped farming and started working on other business. But his business did not go as planned and he chose to get back to farming when he got a piece of land from the government.

The land he received from the government was very small, degraded and rocky. His plot is located in the hill side right next to a river which makes it vulnerable to soil erosion. Mr Mohammed said that he couldn't grow crops in his degraded land and he had to look for options to revitalize his plot. Soil conservation and reforestation works were among his plans to rehabilitate his plot.

In the year 2013, Mr Mohammed was one of the beneficiaries who received fruit seedlings support from Organization for Rehabilitation & Development in Amhara (ORDA). He received 12 Orange and 12 mango seedlings and planted them in his small plot of land. ORDA extended its support and helped him build an irrigation canal around his plot. With the use of the constructed water canal, Mr Mohammed intercropped onion and peppers with his fruit crops until the tree canopy increases. The vegetables were his source of income until he got his first harvest from the fruits in five years' time.

Mr Mohammed expanded his agro forestry practices over the years. His farm is transformed from once a degraded place to a cool and refreshing place around. His plot is now converted into a forest of fruits including avocado, banana, coffee, lemon, orange and mango trees. He mentioned that he spent much time treating his plot with compost and farmyard manure. It is evident that the soil went through a significant change which Mr Mohammed attributed it to the farmyard manure and compost treatment.

Soil erosion was the other main challenge of Mohammed's farming work. Since the place is sloppy the soil was eroded whenever there was a rain. Even there was times when the river took the land in the winter season.

His hillside plot is prone to soil erosion – especially when there is huge rain. He had to put much effort on soil conservation work. The fact that his farm is located next to a

river demanded him much work than other nearby farmers. Mr Mohammed said that he once visited Konso, Southern Ethiopia, and said the experience he got from his visit was a game changer. He said that he was in awe about the land management practices of the Konso people. Mr Mohammed remembered what he did after the Konso visits and said; “I started terracing right after my trip from Konso and that helped me overcome soil erosion challenges”.

His hard work on terracing and other conservation activities was acknowledged by the regional government and was rewarded with gabion wire which he used for conservation work on the river bank. He constructed the gabion along the river bank in his plot of land. He mentioned that constructing the gabion costed him 40, 000 Birr and the cost was covered by sales from his fruits. He said that it was a worth doing investment to protect his plot which is a major a source of income for him and his family.

Mr Mohammed started beekeeping, production of herbs and medicinal plants in his backyard. He also has dairy cows and these are some of his income sources besides the income he make from the agro forestry – fruits.

He is now one of the lead farmers who implement and promote healthy production system with good yield from his diversified fruit and other crops. He managed for the economy and ecology to go hand in hand. He treated the exhausted soil and bring it to life when then helped him alleviate the ecological damage. In the face of recurring climate change and increasing soil degradation, agroforestry is an area of focus to tackle the problems in the future. Practical experiences of smallholder agro-foresters can be documented and shared to areas which are prone such problems.

Mr Mohammed is one of the farmers who have been part of the Ecological Organic Agriculture Project implemented by the Institute for Sustainable Development (<https://www.isd-bio.org/>)