FMNR made visible difference

during the 2015 drought in Ethiopia

Introduction



One of the World Vision's Global contributions to this planet is the innovation of Farmer Managed Natural Regeneration (FMNR) devised in 1980s. FMNR was formally introduced to Ethiopia in 2004. Currently, WV is implementing FMNR in more than 36 districts across the country in 5 Regional States. FMNR is basically a low-cost, sustainable landrestoration technique used to combat desertification and natural resource degradation. The vegetation rehabilitated through FMNR is adaptable to the areas and the regrowth from the existing live stumps and soil seed banks by simply protecting from human and livestock disturbances.

In FMNR farmers are encouraged to conduct forest management practices such as pruning, thinning and coppice reduction based on farmers' preferences. The FMNR technique plays significant roles in revitalizing and regenerating the ecosystems services of the areas. Unlike the artificial plantation, the FMNR technique is rich in biodiversity. Biodiversity restoration of the native vegetation is significantly contributing livelihood diversifications and builds resilience of the ecosystem. The multiple benefits of FMNR include slowing down of runoff, restore soil fertility, improves ground water recharging potential, increase supply of wood for energy, increase supply of fodder for livestock feed, increase supply of food for human consumption, stabilize microclimate, restores biodiversity, and contributes to non-forest timber production for income generation. In addition FMNR is easily integrated into other programming and models within World Vision Ethiopia to improving diversify of livelihoods and attaining resilience in agriculture, economic empowerment and disaster risk reduction by laying a more resilient villages and communities across the operational areas.

Case from Humbo, Soddo, Abre Wetsbah and Medebay Zana

World Vision

Ethiopia

FMNR practices begun in Humbo, Soddo, Abreha Weatsbeha and Medebay Zana districts in 2004, and it is practiced over the areas of more than 600Ha of land.WVE with local government office has implemented FMNR projects in communal and individual farmlands. Following the farmland and chains of hills protection from the interference of human and livestock, endogenous vegetation have been rehabilitated remarkably. As farmers complemented it with pruning, tinning and coppices reduction, the entire mountain turned to a jungle forest over a span of less than a decade. Consequently the following are some of impacts:

• In Humbo and Soddo Districts in South Ethiopia: 13 springs were restored and five of them became permanently flowing, the agricultural productivity in the downstream has increased by more than three folds, the income source from the sales of deadwood, grasses and fodder has sharply increased for forest cooperatives by more than 10 folds, apiculture production is integrated and household's income from this source increased by 750USD, cooperatives opened eco-truism activities, and the cooperatives were paid about USD 425,074 as a carbon credit for sequestering 1,070,322 tons of CO2 equivalent. From the carbon revenue the cooperative members have constructed a big grain store for price stabilization, constructed irrigation schemes, planted a flour mill, and reinvested on natural resource management. As a whole the resilience of livelihood has dramatically improved, by benefiting 5062 households.



Restored Water well in Humbo, South Ethiopia, 2015

• In Abreha Weatsbeha and Medebay Zana Districts in North Ethiopia: increased the ground water recharging potential and as a result more than 650 hand dug wells that supplies water throughout the year for irrigation were constructed, slow down runoff and as a result land degradation is significantly reduced, the agricultural production has increased by more than five folds for 5130 households, income from honey production nearly reached USD 3000 per household in the year 2015 (honey is currently sent to Europe from this site), fodder production for livestock became sustainable and ample as a result livestock productivity increased, increased supply of tree for firewood and construction, enabled farmers to integrate to local value chain, and other several ecosystem service were improved. Hence, the resilience level of households and community became very strong.

Drought Situation in 2015

According to the government of Ethiopia, 8.2 million people are in need of humanitarian assistance due the current drought, coupled with successive failed seasons. These numbers go above and beyond the caseload of the Productive Safety Net Program which already covers approximately 8 million chronically food insecure people throughout Ethiopia. The Ethiopia Humanitarian Community Team (EHCT) analysis shows that 1.2 million people will require supplementary feeding, 350,000 cases of severe acute malnutrition will require life-saving therapeutic treatment, 450,000 livestock deaths may cause destroying livelihoods and contributing to food insecurity, 1.8 million Ethiopians will be without potable water for extended periods, disease outbreaks such as measles will contribute to a surge in mortality for children with nearly 15,000 measles cases in 2015, preventable diseases will likely increase and pose more severe consequences for vulnerable or malnourished children. "As current situation of government released emergency support expressed, 28 of WVE Area Programs will be under emergency and warning stages due to El Niño weather conditions and Belg rain failure resulting in crop harvest loss, livestock death and declining productivity, putting over 400,000 people under emergency support needs.

Irrespective of such humanitarian situation across the country, in these districts where the FMNR has significantly implemented exhibits the following characteristics:

- As compared to the adjacent districts, the agricultural production of the households have not been affected at all, due the high moisture reserve available, hence the nutritional status of the household is not affected;
- The rivers as well as hand dug wells have sufficient water that can supply for the next 2-3 years, if at all rain failure continues;
- Because of the nature of honey production which requires only shower of rain, the income from this source increased by two folds;
- The income from agricultural production sales increased by more than double due to the failure of production in the neighboring districts;
- The environmental services: fodder supply, wood supply, stabilization of microclimate, etc... is still intact and not affected
- The income obtained from carbon credit enabled the community to cover household expenses that include school fees, medication, improved seed purchase, etc

Therefore, FMNR can be considered as an insurance against such climate changed induced shocks and stress.





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