UTILIZATION OF VAST TRACT OF RIVERBED AREAS WITH APPROPRIATE FARMING TECHNOLOGY

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Riverbed farming has become a practice of thousands of farming households in Nepal. Riverbed farming is a traditional farming practice, and in Nepal, largely Indian farmers practiced riverbed farming in various parts of the country. From 2006 to 2008, HELVETAS Swiss Intercooperation piloted riverbed farming while grafting scientific knowledge and skills in the traditional practice, and improved farming technologies by involving 670 landless and land-poor farming households in Kanchanpur and Kailali. With its successful results, the riverbed farming technology has been promoted to 16 districts and more than 8 thousand landless, land-poor and severely flood-affected farming households farmed 1038 hectares of riverbed areas of 39 river corridors by June 2015.

As rivers leave the narrow valleys of hills and enter the plains– spread out covering vast tracts of lands in the inner valleys and Tarai region. When speed of water flow reduces, silt is deposited in large quantities and dry riverbed is formed. Wider riverbed with heavy siltation areas are the negative environmental products that contributes to flash flooding. The riverbed area mapping exercised in 21 districts and measured 78,008 hectares (Riverbed Farming Alliance, 2014).This vast riverbed tract of land illustrates the scope of riverbed farming. On the other side, the percentages of landless and land-poor farming families in Nepal are pretty high, 10.13 and 23.64 percent, respectively (Uchhastariya Baigyanic Bhumi Sudhar Ayog Report, 2067). These two scenarios depict the scope of engaging in landless and land-poor farming households in riverbed farming during the dry season.

In this context, HELVETAS Swiss Intercooperation Nepal aims to contribute to improved income and food security of landless, land-poor and flood affected people. A focus is made by establishing the Riverbed Farming Project. Survey of6219riverbed farming households (35% landless, 28% land poor and 21% flood affected and 16% smallholding households) in 2014 from 9 districts are affiliated in 304 groups and farmed in 856 hectare. Among the farmed riverbed area, public land was 49% followed by 43% private land and 9% institutional land respectively. Land poor farmers make either written or verbal land lease agreement. These farmers are provided appropriate riverbed farming technology by trained local resource persons. The vegetables, mostly cucurbits, are planted in the post-monsoon dry season (November to June). They earned average household income of NRs 20,352. When categorized farmer's income from riverbed into three categories, 21% are in learning stage (<NRs 10,000 per household), 51% are in growing stage (NRs 10,001 to 25,999 and 28% reached above set target (NRs 26,000). Furthermore, it is indicated that even though riverbed farming is seasonal farming activity, its earning is re-invested in other productive alternatives most importantly in regular vegetable cultivation in arable land, livestock purchase, grocery shop, and other small business.

This paper describes the riverbed farming technology, process and its effectiveness in increasing income and improving food security of the landless and land poor farming households. Furthermore, riverbed farming has contributed in river ecosystem management through minimizing haphazard sand extraction, controlling free range grazing and improving regeneration of vegetation in the river corridor areas.