Example on gender-sensitive approaches and tools, including good practices for the application of these approaches and tools for understanding and assessing impacts, vulnerability and adaptation to climate change[1]

Inputs provided by:

Food and Agriculture Organization of the UN

Title of practice/tool

Bagar Farming (Baluwa kheti) in the river banks in Terai region of Nepal

Description of practice/tool

Farmers cultivating along the river banks in Terai region of Nepal (e.g. Kapilvastu district) face frequent floods and subsequent land degradation that affects their livelihoods, as the sand that deposits in this area makes cultivation of crops impossible. In these situations Bagar Farming is particularly suitable for the terai region to increase employment for women and provide household level food and nutritional security. The degraded lands are better managed by women farmers by growing vegetables to meet household requirements. Seeds of melon and sweet potato are planted during the winter season during January - February in the river bed area. As part of land preparation, pits of 30 cm deep and 30 cm diameter are made with a spacing of 1m part and are left to dry for 10-15 days. The pits are then filled with farm yard manure, Di-ammonium Phosphate (DAP) and urea; and then 3-4 seeds are sown per pit. The pits are covered with mulching materials, preferably straw or tree branches to maintain soil temperature and moisture until the plants reach the 4-5 leaf stage. The vines need to be watered daily until they reach the 2-3 leaf stage. The crop is ready to harvest in the month of May. In practice, farmers usually wait for the monsoon rain and sometimes extend this cultivation through late August before transplanting rice. When sufficient rain is not received even after August for rice, sweet potato is cultivated through vegetative propagation with vine cuttings of matured crops or produced from tubers in rows at spacing of 60 cm (row to row) and 10-15cm (plant to plant). Farmers leave some tubers and vines in the field while harvesting as seed for producing tubers during the subsequent year.

With this initiative, the landless households, small farmers and particularly women who depend on daily wage labour are benefited. The cost of cultivation of the water melon in 1 kattha (67 m2) of land is Rs 4 500 (Rs 1800 for DAP and urea, Rs 1500 for improved seeds, Rs 500 is for labour cost and Rs 700 for harvesting and marketing purpose). The normal production of water melon is 3 quintal per Kattha. The total income from the 1 kattha of land is 15 000 (Rs 5 per kg for 3 000 kg). Because of the favourable cost-benefit ratio, the interest of farmers towards this crop is increasing due to its short duration, low cost technology and minimum investment. Further, farmers do not have enough employment opportunities during the period from February to June.

Sweet potato can also be grown in the lands eroded by river banks and deposited with sand. With

[1] Please use this template for providing inputs related with one example. If you have more than one example, please provide them in separate files using this template.

minimum input, better production can be achieved. There is no need to use chemical fertilizers. Per unit cost of cultivation of sweet potato in 1 kattha (~0.084 acre) of land is Rs 1 700 (Rs 500 for seeds, Rs 500 is for labour cost and Rs 700 for harvesting and marketing purpose). The total income from the same plot of land is Rs 4 500. Higher productivity can be ensured even with the traditional variety and locally available tubers. Poor and small farmers can benefit as it can be consumed at household level and sold at the local market. Farmers have proven knowledge about the cultivation of this crop. Despite the benefits of bagar farming, there are problems that reduce the scope for the farmers to up-scale the practice. Poor availability of quality seeds other inputs at reasonable price and the need for irrigation facilities at times of long dry spells are among the foremost obstacles. In addition, the collective marketing system is still poor and institutional support is required to provide technical support and to disseminate this adaptation practice.

Region

- Asia

Country

Nepal

Sector

- Food security, agriculture and fisheries

Name of implementing institution/s

FAO

Further information

Nepal: Managing climate risks and enhancing resilience in Nepal
(http://www.fao.org/climatechange/56995/en/)

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