



Multiple-use water services (MUS), Case Study; A Youth's group influencing a village to change

A six member youth from Borboripothar village, Mirogoan dist., Assam India formed the Nirmali group with the initiation of the project; *Strengthening Indigenous people's response to Multiple Use water services* supported by ARGHYAM. The group was identified during village level awareness meetings and considering the zeal advised them to undertake field level MUS activities. As the time to provide results was limited by 24 months, professional at RCSD continued to undertake brisk research to find solution to meet people's needs and expectation from the project. While with declining water trends, issues for drinking water, sanitation, food production & livelihood were critical and at stake. The strategy in identifying crops, providing quality seed, seed curing techniques, soil fertility & water management and immediate respond to call for field intervention were vital. Positive results from field crop trial coupled with village level capacity building on agronomic & water management practice for farming household helped upscale the process. A major noticeable change is the shift in the land use by the village households for winter cropping; shifting from boro paddy grown within the wetland and marshy areas to rapeseed; a less water intensive & high values crop in main farm fields thereby relieving pressure from the wetlands & other water bodies. MUS intervention in farm pond has encouraged more households into action that will lead to increased harvesting of surface runoff. As food and small scale business opportunities increases household in groups are now will to pay for better water & sanitation services.



Our initial relationship was of friendship, but when we came to know about the project through the various awareness raising meets, we resolved to form a group and exemplify the change for other to see and learn within the village. We started our first income generating activity during winter 2010 after gaining a basic knowledge on MUS & on crop water management. Our first MUS activity was with vegetable & rapeseed growing on a land that was provided by one of our group member's family as an imperative support. With free cattle grazing during winter and majority of land under fallow after the harvest of summer paddy fencing the vegetable crop area was important issue. As there was no monetary savings, another group member's family donated bamboo for fencing and for erecting a watch house, while we on our own managed land development & fencing activities.



*The experience to cultivate vegetables on a commercial scale was new to us and in the village, but our desire to **exemplify as lead change** kept our inspiration high. As our soil health was poor besides water retention being difficult initial establishment of the vegetable crops was not easy, we kept on improving by adding up dung and NADEP compost and diligently followed crop water & soil fertility management instructions. We would frequently call up and report on any crop health variation and on pest & disease impact. Our perseverance helped us gain an appreciable harvest of 180 kg potato respite a theft of half of the cultivable area in case of potato, 82 kg brinjal, 4 kg king chilly, 30 kg kidney been, 8 kg French been, 80 kg tomato & 90 kg radish as winter vegetable crops from an area of 0.11 ha and a major gain of 180 kg from rapeseed from 0.16 ha as field crops, which resulted in a cash earning of INR 6100/- from vegetables & INR 4050/- from rapeseed in addition to food surplus within our homes besides gaining high admiration within the village.*

When the exposure groups from IFAD- MRDS project visited our MUS farm sites on we felt elated & together with us our village community also felt glad & excited.



Our actual farm filed investment for rapeseed cultivation for was 1.5 kg of seeds, organic manure INR 220/-, cost for watering INR 240/- Plough INR 600/-, harvest & thrashing INR 700/-, with a total investment of INR 1960/- for 0.16 ha area.

Following the winter vegetable crop growing, on the same farm plot, without much land development & soil fertilization activities we cultivated summer vegetables; ladies finger, yard long been, pumpkin & chilly gaining major returns of 134 kg of ladies finger & 20 kg yard long been and gained INR 2410 from the sale of surplus.



To establish an ideal MUS site adjoining a homestead, by early

spring we identified an abandoned pond of 0.06 ha with home garden area and took it on lease for three



years. Finding initial labor cost for earth cutting too expensive we carried out the activity of deepening the pond base and making the embankment ourselves.

Since majority of our ponds are seasonal we as advised thoroughly ploughed the based adding dung with the onset of the monsoon, when few feet of rain water collected.

As the water level increased during the monsoon, after an initial liming we released 427 fish fingerlings; 208 Catla catla, 104 Labeo rohita, 90 mrigal, 20 Common carp, 5 kandhuli and 19 ducklings of local variety for pond fertilization during end July 2011. We continued with liming to maintain the water quality fortnightly & feed termites to help fish growth in addition to occasional feed with rice bran & oil cake. During January, the day of "Uruka" we had a queue of fish buyers from the village around the farm pond where we sold 70 kg of fish at INR 100/kg, some weighing 1.6 kg. People from the village did not go elsewhere to market for the festive occasion, those who feed once returned to buy once again saying that the fish tasted good.



We now realize that earlier none of the ponds in the village though seasonal were used for rearing fish on a marketable basis, the pond that we took on lease would rarely have any fish. It is only that if flood water entered, the pond the owner could than only have. Now that we have reared, the owner, neighbors and we too can relish. Working as a group we have plenty of vegetables for our homes & savings gained, in addition to the cash returns. As individual now we have gained access to personal bank account and are able to make savings.

We have influenced an attitudinal change in the village. Seeing us others from the village have started to follow, this winter people are now growing vegetables, you will find that the entire farm field area encircling our vegetable garden has been converted to rapeseed fields, none is under fallow, earlier it was only the rapeseed plots that we cultivated under the project. Now if we go and seek land on lease none is willing to offer, everyone wants to cultivate their own land. People are forming into groups and are requesting us to help them out. Earlier there were only three to four groups which undertook savings and credit only.

As cash returns from fish rearing is swift, in coming years we anticipate more farm ponds will come under fish & duck farming but water availability is becoming a challenge, where this year we almost have a drought light situation compared to the past.

