

Case Study:

Nutrition Sensitive Farming helping to enhance diet diversity at home

Agriculture over the ages has evolved from subsistence to surplus and thus the nature of farming has changed from ecological perspective to monocrop practice with high reliance of farmers on external inputs for production.

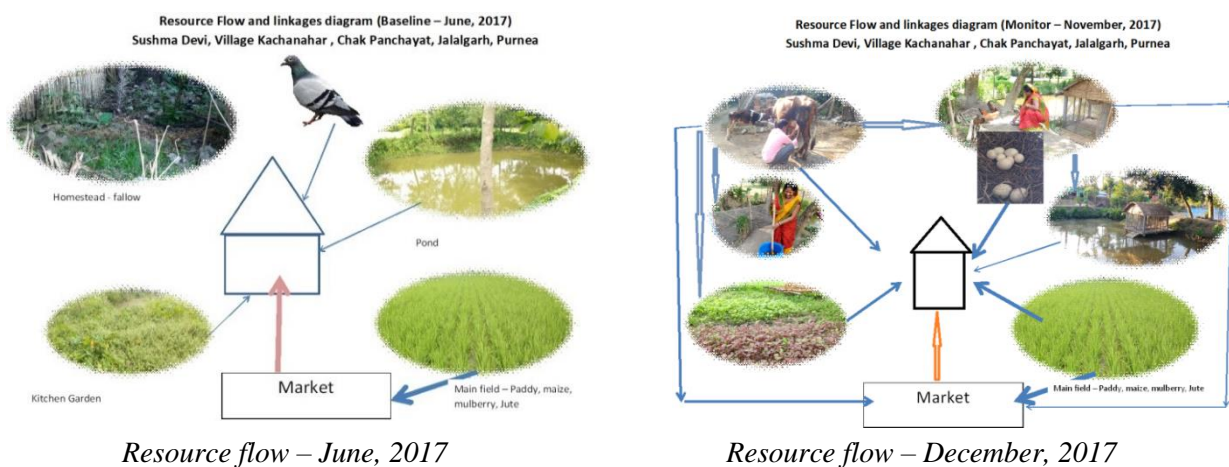
The blind following of external input based agriculture has made farming less viable and not rewarding enough to compensate the household dietary requirements in terms of diversity and seasonality.



Purnea district, an intensive agriculture belt of Bihar is witnessing the challenges

of intensive farming and its impact to overall nutritional status of people. Around 52% of the children in the district are chronically malnourished (Stunted), 46% of Adolescent girls (15-19 age) have Low BMI, and 69% of Women are anemic (as per latest NFHS-4 Survey). Nutrition Sensitive Integrated Farming System (NSIFS) approach introduced under Swabhimaan initiatives focuses on increasing the quality nutrient intakes at small and marginal households by encouraging rearing of animals, birds and kitchen gardens and establishing a resource flow relationship, such that waste from one source works as feed for the other system.

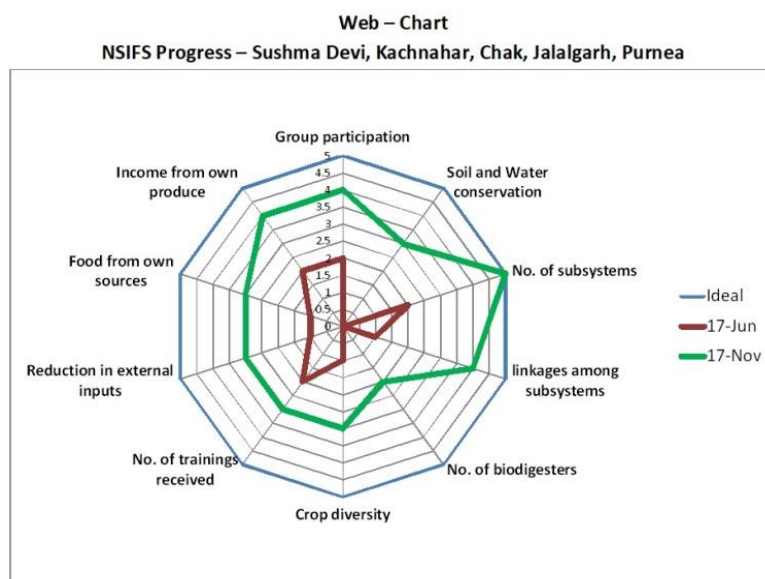
Sushma Devi, a Jeevika member and small farmer of Kachnahar village in Chak Panchayat of



Jalalgarh block is facing the lack of food diversity at home for consumption. She has a family of 6 members including her husband Suraj, their elderly in-laws and two kids. Each of them

has different kind of food choices and dietary requirement and running sort of their food because of remote markets and increasing cost of commodities. Food from their own sources is the only solution for them to feed sufficiently. The NSIFS approach introduced by Jeevika with technical inputs and pilot modelling from Abhivyakti Foundation with UNICEF support has raised her hopes of an independent farmer, with very positive results. After the training, she has more focus on increasing household food diversity. She had a 70'x70' pond, which was seldom used to produce fish. The family had production of crops like paddy, maize, mulberry and jute from their main fields apart from some vegetable production in post rainy season and some pigeons at home. Mostly the production sources were from four of the subsystems viz. crops, trees, pond and birds. The NSIFS approach helped her to add two more subsystems animals and bio-digesters apart from expanding the diversity of birds. She has also planted some banana, planktons and guava at home. Like her there are other Jeevika members progressing their way.

After setting up all these six sub-systems at home, she is getting sufficient nutrients from different sources at home in form of eggs, meat, fruits and milk on regular basis now.



She constructed a duck and hen house over the pond and rearing now 15 hens, and 13 ducks from which is she is getting 14 eggs every day. The duck and hen excreta directly dropped into the pond has saved her feeding cost of the fish she has reared in the pond. The women in the house do not consume hens or eggs so she

decided to add 10 more pigeons at home. She also bought a cow, apart from milk production the cow dung and cow urine is also now efficiently used in making compost and liquid manure for instant use in her fields. The increased income from cow and birds has helped her to invest and conserve in her fields and develop the kitchen garden more efficiently. Sushma has carefully developed her kitchen garden with green leafy vegetables, other vegetables, vitamin A rich fruits and herbs for regular supply to her kitchen. With composting, liquid manure techniques, use of biomass and recycle she has reduced the input cost of farming by one third.

Now convinced with the NSIFS approach Sushma and her husband are helping other small farmers also in their neighborhood to follow the practice for diet diversity availability at home.

“After *Maitri Baithaks* I was looking to ensure tricolor food at my home regularly, which was not possible from outside. *Poshan Kheti* helped me to develop the system where I can grow everything I need for my home and earn some income also. All the products are natural and without chemical use. My children are healthier now and I think we are spending less on medicines and doctors now.” ...

Sushma Devi, Kachnahar, Purnea