IFS is replicating slowly but surely: A Case study

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This is story of a small marginal farmer who lives at Indraprastha village in Patharpratima block of South 24 Parganas, WestBengal.

Gauri Mondal is now proud to call herself as a successful integrated farmer. She has overcome the risk of crop failure. She has a family of four. Her husband is a carpenter and two sons are involved in studies. From the beginning she was involved in farming but, after DRCSC's intervention she comes to know about the concept of integrated farming system. She thereafter had gone through various trainings of IFS. She started to do farming in a much more organised manner & in an intensive way. She comes to know about optimum utilization of space & natural resources & their interrelationship.

It was 2005 when a group was formed in her village. Name of the group is "Suryakiran Mahila Dal". She was then selected the group leader of that newly formed group. At present there are 13 members & the group's current savings is Rs. 60,000/- which is very significant.

As her village is situated near the Sunderban delta region the soil is saline. She owns total 4 bighas of land out of which 1.5 bighas of land is little far from her home. She also has a small homestead garden. She cultivates different types of vegetables throughout the year. She is able to consume fresh, poison free vegetables and able to sell the excess at the local market but at local price. She uses to go to the local market two days per week to sell her vegetables. There are some trees like subabul, coconut, guava, bamboo etc. around her farm. She cultivate paddy in kharif & rabi season. After consuming she sell paddy (roughly 4 bags of paddy in one season) and earn profit out of it. She is now not at all dependent on external market for her production. She learnt the techniques of organic farming and applying those techniques successfully. Her expense on chemical fertilizer & pesticides has reduced. She keeps vegetable seeds of local variety. She uses KB pump for utilization of water in farming. Seeing at her success many farmers in her village shifted to organic farming. She introduces mixed cropping in her farm. As she is an integrated farmer so not only crop but also various types of plants, aquatic flora, fauna, animals, insects, worms are being utilized for production. She is now able to reduce her risk of farming. This is an all-round development of agriculture, animal husbandry, fisheries in a sustainable manner.

In the year 2008-09 by taking support from DRCSC she built up a vermi-compost pit at her homestead garden. Presently she is getting 5-6 Quintals of vermi-compost per year. She gives vermi compost to other for the purpose of applying it on their field and to make them aware of its benefit. She used biogas for her cooking. It is subsidized by WBREDA.

The purposes of this model (IFS) are to increase the diversity through a farming system & to develop such a system which can withstand risk of climate change. Gauri Mondal, the integrated farmer cultivates at least 3 varieties of paddy in 2 seasons, 12-14 types of vegetables throughout the year. She has livestock (4 cows & a duck) & she reared fish in her pond. Besides, she has trees from which she gets food, fuel, fodder. By adopting this system she is now getting multiple benefit out of it, which she has never imagine or thought of before 2005-06.

From the beginning she was involved in farming but at that time she used to apply chemical fertilizer & pesticides which in terms increased her cost of production. The input cost gradually became higher & higher. To maintain the yield she had to use more & more chemicals. Thereafter from 2005 she learnt various methods of organic farming & gradually shifted to organic fertilizer.

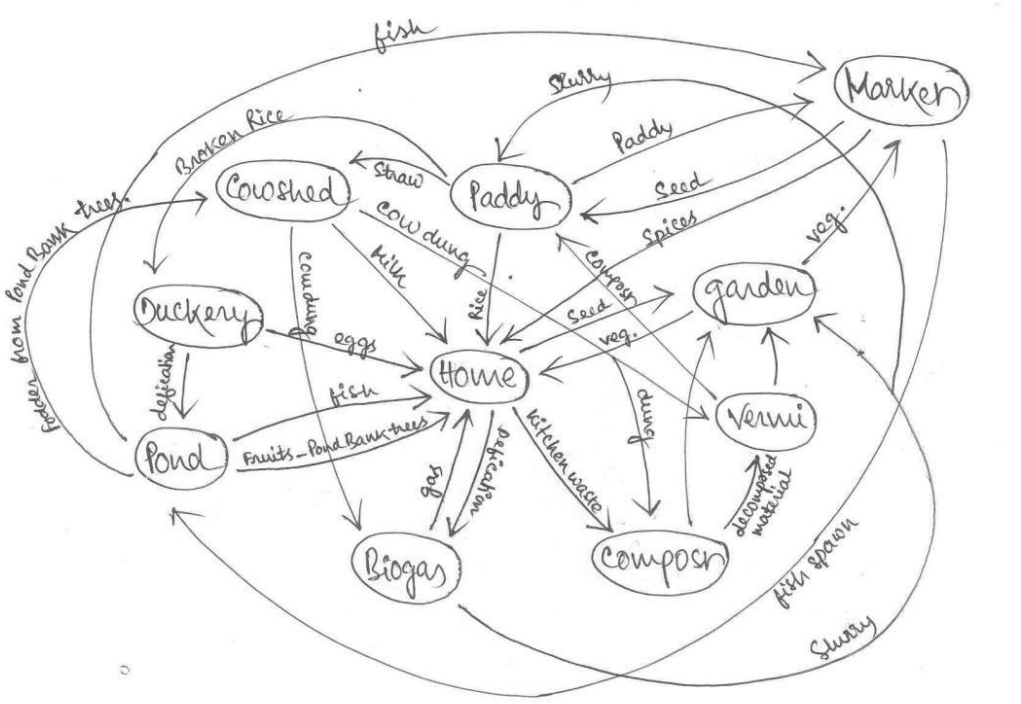

Fig: Multi-subsystem farming in Gouri Mandal's Farm

In 2007 by taking support from DRCSC she shaped her land & there after started land shaping activities. Small pond was dug out at two corner of her land and soil from that was used to raise the level of her plot. There is also a trench along the inner boundary of her plot. There she planted strategy crops and also applied the techniques like multistoried cultivation in trellis, Jute bags etc. The small pond which was excavated was connected to a big pond which helps her in fish cultivation. Trench helps as irrigation channels to paddy fields. Nevertheless her food security has increased & vulnerability to hazard has reduced.

Organic vegetables being sold by Gauri Mondal in local market

IMPACT-

Environmental impact:

Less/no use of chemical fertilizers & pesticides helps to retain soil's natural fertility. Helps to get fresh poison free crops & vegetables & thus reduce health hazards. Less emission of carbon from kitchen for using biogas.

Social impact:

People are getting interest & gradually shifting to organic farming. IFS is replicating slowly but surely.

Economic Status:

By this analysis the monthly income of a farmer from farm including daily labour is approx approx 5,000/- for integrated farmer which is more than an conventional farmer.

A cost-benefit analysis (year 2010-11) of a conventional farmer & of an integrated farmer is given below. The area of the paddy field here is taken 2 bighas for both the cases. Daily labour is being added here in the income because it is farmer's own contribution. The average monthly income is approx Rs.2,000/- for conventional farmer which is very less than a integrated farmer.

Conventional farmer

Average yearly expenses for paddy cultivation in 2 bighas	**Price in Rs**
Chemical fertilizer	600
Pesticides	400
Seeds	320
Tractor	500
Bags	200
TOTAL	**2,020**
Labour at paddy field (own contribution 20 days X 180/-)	**3,600**
Average yearly paddy Yield from 2 bighas in 1 season (1040 kg)	**9,360**
Average yearly net income from paddy cultivation	**10,940**
Average yearly income from daily-labor (60 days)	**10,800**
NET INCOME IN A YEAR	**21,740**

Integrated farmer

Average yearly expenses for cultivation in 2 bighas	**Price in Rs**
Chemical fertilizer	160
Organic Pesticides	120
Seeds	640
Tractor	1000
Bags	200
TOTAL	**2,120**
Own contribution	
Vermi-compost	**1,500**
Compost	**1,500**
Labour (150 days X 180/-)	**27,000**
Average yearly paddy yield from 2 bighas in 2 seasons (1600 kg)	
	14,400
Average yearly vegetable yield	
	16,000
Average yearly income from fish cultivation	
	600
NET INCOME IN A YEAR FROM FARM	**58,880**