

## Entrepreneurship Promoting Schemes and Organizations

**W5 L4 – Farmer Producer Organization**

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Hello friends, in this lecture, we are going to discuss about the relationship between Risk management strategy in the agriculture in general and Prime Minister Fossil Bima Yojana in particular.

According to 2015-16 agricultural census, 86.1 percent of Indian farmers are small and marginal and they own around 47 percent of the cropped area. These small and marginal farmers have very little capacity to bear risk and also have limited ability to stand back if they hit by any natural or market disaster. Now, agriculture risk is associated with negative outcomes that stem from imperfectly, predictable, biological, climatic, and price variables.

Now, what are the sources of risk in agriculture sector? There may be multiple source. So agriculture is often characterized by high variability of production outcomes or production risk, unlike a normal entrepreneur. Agricultural entrepreneur cannot predict in certainty what will be the production in the future due to involvement of the a number of external factors like weather, disease, pest, etcetera.

Now, this production risk may happen at the time of the harvesting or collection of the harvesting also. There are input and output price volatility. These are also important source of market risk in agriculture. Prices of agricultural commodities are extremely volatile. Segmented agricultural market will be influenced mainly by the local supply, demand condition, while more globally integrated market will significantly affected by international production dynamics.

Now, another kind of market risk arises in the process of delivering product in the marketplace, specially for the perishable product. The lack of infrastructure and well developed market. make it significant source of risk, especially in case of the developing countries like India. Also, the agricultural production activities stress over long periods, where the farmer must anticipate expenses that they will be able to recover only after the harvest.

So, this creates a cash flow problem or it is a source of the financial risk. So, there involve also a number of institutional risk like mostly generated by unexpected changes in regulation that influences producer activities and profitability and this is especially true for the product which are imported or exported or for dedicated support scheme.

Another source of risk is the producer liability risk. Which mostly emerge from the concern for impact of agriculture on the environment, including the introduction of the genetically modified organism, climate change, etc. Apart from this risk, there are agricultural household along with the other economic enterprises are exposed to personal risk to the well being of the people who work on the farm and asset risk, the possible damage or theft of the production equipment and asset in the process of the production or productive activity.

Now, if you look into how to manage this risk or the how to manage the agricultural risk So, FAO has classified or World Bank has classified this risk management strategies into two broad groups. One group is the informal mechanism or informal strategies, second group is the formal strategies and these informal and formal strategies were further classified into two broader area. One is the ex post facto strategies and another is ex ante strategies. Now, informal mechanism or informal strategies are based on the individual, household, community or village level action, whereas the formal strategies are either market based or based on the intervention by the government.

The ex post facto and ex ante nature of the strategy depend on the timing of the response in case of the any risky event. If the response is before the happening of the risk or the happening of the event, then it is ex ante in nature. If it is happened after the risky event, then it is ex post facto in nature.

Now, if you look into the informal mechanism for the agricultural risk management, it can start with the on farm strategies like avoiding risk or avoiding exposure to risk at all. So, most of the cases in case of the extreme poverty, the farmers become very much risk averse. So, they always avoid to take any particular activity which may open them or expose them to any risky event and thus in this process, they also miss the any opportunity for the improvement or any opportunity for improvement in the income through the participation in a some new activities or new method. So, other on farm methods, informal methods are the crop diversification, diversification of the income sources, maintenance or accumulation of the buffer stock, adoption of the different cropping, advanced cropping techniques and the sharing risk with other, those are the basically crop sharing and informal risk pool. The crop sharing activity is mostly used by the landless agricultural labourer in some of the, or most of the time.

Now, ex post facto strategy which fall under the informal mechanism are the in extreme cases sale of asset or reallocation of the labour. So, certain part of the southern India, there is an 100 percent reallocation of the labour or in case of the their failing of the monsoon in a particular season, but that is not true for the all of the farmer in India or all of the farmer in different region of India. Now, formal mechanism for the risk management, they are either market based or they are the government intervention like publicly provided agricultural extension service,

pest management service, infrastructure, contract farming or future contract or and also the insurance.

Also, in case of the ex post facto strategy, government used to provide social benefit all social assistance. They provide social funds. They provide the direct cash transfer like one of the PM under the PM kisan or Prime Minister Kisan Sam Joa, where the farmers are provided direct cash benefit for their management of the agricultural products and risk or agricultural production activity.

Now, if we concentrate on the risk management as a formal mechanism, there are two broad strategy. One is the price risk management, another is the whether . So, under the price risk management, the producer have traditionally managed the price variability by entering into the pre harvest agreement that set a specific price for the future delivery.

In simply it is the contract farming. Now contract farming, despite of having a number of advantages, it actually if in any future case, there is a positive chance from the producer. Positive chance for profit from the deviation in the price arises. In case of contract farming, the farmer may miss that particular opportunity.

So another strategy used for the risk man, price risk management as a formal mechanism is the future and option contract. Though this is not accessible to the farmers in the developing countries. So, what is future on option contract? It is an further evolution of the hedging opportunity for agricultural producer has been the development of the price option that represent a price guarantee that allows the producer to benefit from a floor price, but also from the possibility of taking advantage of the positive price changes.

So, this is an improvement over the that is contract farming or contract based farming. Another mechanism is the production or weather risk management that is mainly done through the insurance. So, insurance is an appropriate risk management solution mostly for the independent risk and it is most prevalent in the developing countries but agricultural insurance is often characterized by high administrative cost also. So that means, so there are two broad type of risk, one is the perfectly independent risk, another or it is uncorrelated risk, another is the perfectly correlated risk. So, what is correlated risk? That the one risk is associated with the another risk, like if there is a risk for the pest and disease that may affect the health.

So, total production or uncorrelated risk are the, the risk arises due to the totally uncertain event like natural calamities. So, insurance is very good mechanism for the managing the perfectly independent risk. But for perfectly correlated risk, the option and future market, forward contract like contract those are the mostly used and efficient mechanism.

Now, let us have a look into the agricultural risk management practices in the developed countries. Like in United States, the agricultural risk are managed through the Federal Crop Insurance Program, which is a public private partnership between the federal government and various private sector insurance company.

So, this program have two broad objective, one is social welfare, welfare, another is economic efficiency. So, social welfare objective is that the private companies which distribute or sell the federal crop insurance program, they cannot deny the selling of insurance to any farmer based on their past crop failure record.

So, on an average, the federal government pays approximately 70 percent of the total cost for the FCIP, but the farmer paid around 30 percent of the total cost. And these insurance policies are available over a hundred commodities. But in 2004, only the poor crop that is grown swine wheat and cotton accounted for approximately 79% of the total premiums and in United States, 72% of the national crop carriage is currently under insured under the FCIP. Now in the case of Canada, which is another developed countries. The agricultural risk management is composed of two main scheme. One is production insurance, another is income stabilization. So Canadian production insurance program is marketed, delivered and serviced entirely by the government and the cost is shared between federal and provincial government 60 is to 40 basis. And this insurance is offered over 100 different crops and also include the livestock product.

On the other hand, income stabilization program generate a payment when a producer current year production margin falls below the producer reference margin, which is based on an average of the program's previous 5 year margin, less the highest and lowest but unlike the production insurance. In case of income stabilization, producer must participate in the program with their own resources or own cost.

So, if we concentrate on India, so there are two dominant strategies are generally used for managing the agricultural risk. One is contract farming, another is the crop insurance. So, in case of the crop insurance, it was started in 1990 91 with the weather linked crop insurance program. At present, Pradhan Mantri Fasal Bima Yojana or shortly name as PMFBY is the most dominant or prominent scheme for the crop agricultural weather based risk management.

And it is, it was started in Kharif 2016. National Insurance Company started participating in PMFBY from Rabi 2016 or not, and it is currently implemented in public partnership mode. So what are the objective of this Pradhanmantri fasal bima yojna? The broader objective are firstly to provide financial support to the farmers, suffering in crop losses or damage rasing due to natural disaster or any four sine event.

Secondly, to stabilize the income of the farmers so that they can continue in the farming activity. Thirdly, encourage farmers to adopt innovative and modern agricultural practices. And fourth one is ensuring the flow of credit to the agricultural sector along with protecting the farmers from any production risk.

So, how a farmer can enroll in this PMFBY scheme? So, this scheme, the both the farmer who avail crop loan or not availing crop loan, they can enroll into the National Crop Insurance Portal which belongs to the Ministry of Agriculture and Farmers Welfare. So, in case of the lone farmer, the banks who are leading the seasonal crop loan to the lending the seasonal crop loan to the farmers are responsible to upload the data in the NCIP. In case of non loanee farmer, any intermediary like common service centre, farmer on their own or other agency can upload the data to the NCIP along with the required documents. Now, the premium for the PMFBY must be paid only through NEFT, not through DD or cheques also the offline application are not permitted under this PMFBY scheme.

So, what is the rate of premium which need to be paid by the farmer to insurance company? So, in case of the food grain, cereals crop or pulses and oilseed, in kharif season the premium rate is 2 percent and rabi season it is 1.5 percent. Whether in case of the commercial crop or horticultural crop, it is 5 percent. So, what type of risk is covered under the PMFBY scheme and what are the exclusion which are not covered? So, first one is the prevented sowing or planting or germination risk. So, if insured area is prevented from sowing, planting, germination due to deficit of rainfall or any other adverse weather condition, the insurance will be paid.

25 percent of the sum insured will be paid and the policy will be terminated. In case of standing crop from sowing to the harvesting, so comprehensive risk insurance is provided to cover yield losses due to non preventable risk like drought, dry spell, flood, pest and disease attack, fire due to natural causes, lightning, hailstorm, cyclone, etcetera, etcetera.

So what happened if, the loss happened after the harvesting? So, in case of post harvest losses, coverage is only available only up to a maximum period of the 2 weeks from the harvesting for those crop which are required to be dried in cut and spread or small bundle condition in the field after harvesting against specific perils like hailstorm, cyclone, rain or unseasonal rains also a number of localized calamity like loss or damage due to notified insured crop resulting from occurrence of identified localized risk like hailstorm, landslide cloudburst, natural fire, so, affecting the isolated farm in the notified area also covered under this PMFBY scheme. Along with these coverage, there are a number of add on coverage for crop loss due to attack by the wild animals.

So, in this case, the state may consider providing add on coverage for crop loss due to the attack by wild animals, wherever the risk is perceived to be substantial and is identifiable. So,

general exclusion is the losses in the crop arising out of war, nuclear risk, malicious damage or other preventable risk, those are excluded from the PMFBY coverage.

So, what is the main responsibility of the farmers who are availing this PMFBY scheme? The first one is the, the timely information or claim lodging for damage of the crops due to the localized calamities and post harvest losses. A number of unsettled cases due to the delay in the providing information to the insuring company by the farmers.

Secondly, to ensure that the ensured crop is same as the crop zone or availing the insurance in case of the any natural calamity or crop loss. So, now if we look into the agricultural risk management overall strategy or framework in India. So, agricultural risk management strategies overall objective is the dual objective.

It is firstly to ensure the agricultural and rural economic growth and secondly is the poverty reduction. So, what are the constraints is being faced by the, this agricultural insurance sector or agricultural risk management in India, especially the, this crop insurance based risk management. First one is that underdeveloped financial sector.

Agricultural insurance sector is underdeveloped when you, when you compared it with the other insurance sector. India has a very large number of small and marginal farmer. They are the dominant 86.1 percent of our farmer are small and marginal. So, it actually increases the cost of the agricultural insurance.

Thirdly, in a country like India dominated by the small and marginal farmer, agricultural risk management required significant government intervention, but government has a number of fiscal limitation. And lastly, still in India, the agricultural insurance sector have an underdeveloped regulatory framework for premium collection as well as the risk setting.

So, what are the policy instrument is being used by the government to ensure the better management of the agricultural risk. So, there are mechanism for transferring the catastrophic risk to the other layers. Government used to provide time to time limited subsidies in case of the, this type of catastrophic risk to the insurance company as well as the farmer and contingent funding for the disaster relief and enhanced social safety nets also provided by the government for the management of the agricultural risk in India.

So, in conclusion, today we talk about, we discussed about the type of agricultural risk, the source of agricultural risk, how they are managed in informal and formal level and what is the experience of the agricultural risk management in developed countries as well as what is the experience of the agricultural risk management in India through Prime Minister Fasal Bima Yojana.

Thank you