

agMOOCs

Cost benefit analysis for the case study done on animal management  
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Dear student and dear farmers. In the last class we have examined the cost-benefit analysis for the annual crops.

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## 7e. Cost benefit analysis for the case study done on animal



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Now at this class we will see the cost-benefit analysis for animal also since we had a discussion on case study for animal also in the last classes.

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Cost benefit analysis for the case study done on animal

### Ex-ante analysis

Weather situation: Monsoon season (Rainfall + high relative humidity)

Agro Advisory: The proposed agro met advisory is to get animal vaccinated from near by veterinary hospital or at animal camp.

**Table 1. Partial budgeting for agro met advisory for foot and mouth disease in milch and draught animals**

Stage of the animal	Losses	Amount (Rs.)	Gains	Amount (Rs)	Estimate change (Rs.) (Gain-Loss)
Animal of > 1 year	Additional cost on vaccination (taking animal to hospital- labour cost)	250.00	a. Free from diseases (saving from subsequent treatment if not get vaccinated)	1000.00	-
	Reduced return	-	Added cost	250.00	-
	Sub total		250.00		1250.00

Now this economical analysis is based on ex-ante analysis. Ex-ante analysis means before the occurrence of the things what will happen. So we are proposing a plan of action based on the economical analysis. Here as we have studied in the case study also monsoon season is there which has rainfall, which has high relative humidity and viral infection occurs as a result the animal gets foot and mouth disease. The agro advisory is go to the animal veterinary hospital and get vaccinated for these disease. This was analyzed critically animal of more than a year.

The additional cost on vaccination taken animal to the hospital and labor cost only 250, so total cost is 250 rupees. Gain is, free from disease and saving from subsequent treatment then the benefit occurs to 1000 rupees. So the added cost is 250 rupees by getting vaccinations, labor and everything, so your benefit would be 1250 subtracting the additional cost given to the animal for vaccination the farmer may get 1000 rupees extra as a benefit. So by providing vaccination or by giving vaccination to the animals before the occurrence of foot and mouth disease to the milch animal or draught animal the farmers may get a benefit rupees around 1000 rupees. This is really being happen at the field level also especially in Tamil Nadu of India in the last year this benefit of economic was obtained by many farmers.  
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Weather situation: Monsoon season (Rainfall + high relative humidity)  
 Agro Advisory: The proposed agro met advisory is to clean the udder before milking with one per cent potassium permanganate solution

**Table 2. Partial budgeting for agro met advisory for mastitis in milch animals**

Stage of the animal	Losses	Amount (Rs.)	Gains	Amount (Rs)	Estimate change (Rs.) (Gain-Loass)
Milch animal	Additional cost on preparation of potassium permangante for one month to be used per animal per month – 1kg KmNO4 / month	600.00	a. Free from bacterial contamination in the udder pores and smooth milking and this added 600 ml of additional milk every day	756.00	-
	Reduced return	-	Added cost	600	-
	Sub total	600.00		1356.00	756.00 +

Now coming to another situation this is for monsoon session again. Your rainfall is there. Your humidity is there. The proposed agromet advisory is before milking and after milking clean the udder with the potassium permanganate solution against your mastitis disease or bacterial contamination. Here the milch animal is there. Additional costs on the preparation of potassium permanganate for one month to be used per animal per month, 1 kg potassium permanganate per month, it cost about 600 rupees. What is the benefit being obtained? Free from their bacterial contamination, udder post smooth milking and the 600 milk extra on every day that comes to 756. And your additional costs being the 600 rupees, so you get 1356 rupees, the benefit is 756 rupees. So by doing this potassium permanganate solution you can

able to get to be 756 per animal. So this is also a good example for the case studies we have examined in the last classes by doing your ex-ante analysis.  
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Weather situation: Wind speed more than 20 km during day time and prevalence of dry weather  
 Agro Advisory: The proposed agro met advisory is to screen with sacks on the sides of the cage are to minimise the wind speed with in poultry shelter and also provide enough clean drinking water

**Table 3. Partial budgeting for agro met advisory for feed waste in poultry shed**

Stage of the animal	Losses	Amount (Rs.)	Gains	Amount (Rs)	Estimate change (Rs.) (Gain-Loass)
Broiler Birds one day feeding for 100 birds at 200 g each at the rate of Rs. 100 per kg of poultry feed	Additional cost on putting 100 sacks around the poultry shelter of 5 x 20 x 2 m dimension to cage 100 birds. The sack is kept for 180 days and cost per day is Rs. 5.5	5.50	a. Avoiding 30 per cent (6 kg) wastage by drifting (Total food requirement 20 kg / 100 birds/ day) @ Rs. 100/kg	600.00	-
	Reduced return	-	Added cost	5.50	-
	Sub total	5.50		605.50	600 +

Now let me also see in this doing drifting your poultry feed, this we have seen in the case studies. Now we will see the broiler birds one day feeding for 100 birds at the 200 gram each at the rate of rupees 100 per kg of poultry feed. Now the additional cost on putting 100 sacks around the poultry shelter or 5x2x2 meter dimension to cage of 100 birds. The sack is kept at for 180 days and cost per day is rupees 5.5 rupees, then total comes to 5 rupee. Then total cost, the sub-total is 5.50 rupees. So when you talk about the return in terms of gains avoiding 30% wastage of food by drifting by the winter then we get an amount of rupees 600 rupees. The added cost by putting sack is a 5.50, total comes to 605.50, so the benefit is 600 rupees. So simply by putting sack around your poultry cage or poultry shed, when wind is more than 20 kilometre and dry day is there, you can able to save 600 rupees. So this is a wonderful result we have examined through ex-ante analysis. So the farmers can opt for this simple agro advisory whenever that weather situation occurs.

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## Summary

- Results were clearly revealed that by adopting agro met advisory at field level would offer possible benefits to the farmers in terms of providing enhanced cash flow by reducing weather and climate related rice production risks.
- The study hypothesis envisaged that whenever weather based agro met advisory is adopted by the farmers, there would be profound reduction in crop production risks.

So coming to the summary, results were really reveal that adopting agromet advisory as I indicated in the crop management studies it reduces the production risks as also they benefits the farmers and also the same thing by going with agro advisories your animal production risks or crop production risks get minimized or reduced. Thank you very much. These areas are very very important for our weather based in – weather forecast in agriculture and agro advisories. Thank you.