Economic impact assessment of Agrometeorological Advisory Service on agriculture in India

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The Government of India established the National Centre for Medium Range Weather Forecasting (NCMRWF) under Department of Science & Technology (DST) in early 1988 in mission mode with the major objectives to produce weather forecast in medium range (3-10 days) using NWP model and develop operational and reliable agrometeorological advisory services (AAS) for the farming community in India. The NCMRWF in collaboration with the India Meteorological Department (IMD), Indian Council of Agricultural Research (ICAR) & State Agricultural Universities (SAUs) is providing AAS at the scale of Agroclimatic Zone to the farming community based on location specific Medium Range Weather Forecast and seasonal climate information. The country is divided into 127 agro?climatic zones with each zone covering about 2?4 districts. Agromet Advisory Bulletins comprising of expert advise on crop, soils and weather are made available to the farming community by AAS units in 82 zones, currently functioning. These units disseminate it in real time through Television, All India Radio, print media to reach to the farming community. Accordingly farmers take up/ modify cultural operations in the light of anticipated weather forecast. The AAS set-up exhibits a multi-institutional multidisciplinary synergy to render an operational service for the use of farming community.

An attempt is made to assess the economic value of AAS on agriculture and livestock management. The descriptive approach adapted in the study focuses on the actual behaviour of users (i.e., their actual information processing and decision making procedures). For the purpose of monitoring impact of new technology on sustainability, information on trends in agricultural productivity under crop cultivation WITH OR WITHOUT Agromet Advisories might well be adequate. The data for above involves productivity evaluation studies by AAS units on farmer's field which can provide information on key decisions taken on the basis of predicted weather and its interaction between technology, agricultural resource base and resultant changes in productivity with respect to those who managed their farm without the advisories.

These units have identified progressive selected farmers varying in number between 25 to 100 in different zones. These contact farmers are asked to give the feedback at fortnight interval and also to assess the economic benefit due to advisory in consultation with nodal scientist at the units. Nodal scientists at few centers have made efforts to assess the benefit of advisory by differentiating between the farmers who adopted the advisory and farmers who did not adopt advisory. These advisories have been helpful in

1) land and soil preparation
2) time of sowing of different crops
3) different intercultural operation
4) mode of fertilizer application
5) proper water management
6) accurate plant protection measures

7) harvesting and threshing time
8) storage and transportation of agricultural products

Results on monetary gain due to weather forecast based advisory adopted by the farmers will be presented.

Thursday III (Talk)