

PRESS RELEASE

Economic Benefits of Weather and Marine Services – NCAER Study

One of the primary goals of Earth System Science Organization (ESSO) is to develop and improve capability to forecast weather, and climate and hazard related phenomena and to explore Ocean Resources for societal, economic and environmental benefits. To achieve this objective, the ESSO has been providing weather/climate related services on land and ocean through its various constituent units.

Towards this direction, ESSO is making concerted efforts for improving weather and marine services, by adopting the latest technology for development of science, improving the telecommunication network for effective communication and dissemination and capacity building through training.

A study conducted by the National Council of Applied Economic Research (NCAER) on behalf of Earth System Science Organization (ESSO), Ministry of Earth Sciences has concluded that the farming community and fishermen have reaped enormous economic benefits from the Agromet and Fishery Advisory services rendered by ESSO. ESSO sponsored study is based on the data and inter-action with the end users from 12 States and 1 Union Territory of the country. The NCAER study was aimed at assessing the economic benefit and impact of ESSO's weather (agro-met), fishery advisory services, cyclone warning service, and public Weather service. The economic benefit has been estimated by NCAER at approx. Rs.50,000 crores per year and Rs.34,000 crores per year for the Agromet and Fishery Service respectively.

Fishery Advisories entail offering information to fishermen co-operatives about the areas in the ocean where the fish catch is likely to be high on a particular day. This, coupled with the information on the ocean-state, enables

fishermen to plan fishing operations in an economically effective manner in the least time. Identification of potential fishing zones increases productivity, significantly improves catch size and reduces fuel consumption while ocean state information is quite useful in timing departure and sequencing on shore activities and avoiding extreme weather-related emergency situations. In the southern peninsula the awareness of the fishery advisories among target group is the highest – in the range of 90% and even in the Eastern India which is the lowest for the country, it is as high as 60%. According to the study the economic benefits of Rs.34,000 crores is a conservative estimate. The catalytic role played by the MS Swaminathan Research Foundation (MSSRF), the adoption of the 'Fishermen Friends' programme, the PFZs leveraging technology options such as Digital Display Boards with NGOs intermediation were seen as positive outcomes in the study.

Agromet services entail weather based agro advisories specifically meant for the farming community. About 24% farmers are aware about Agromet services offered by ESSO. Spread of agro-met services has grown rapidly in the last two years and now covers 550 districts. All districts of the country would be covered by the end of the 11th Five Year Plan. Awareness among farmers is expected to grow accordingly. Since last one and half years Agromet services are also being provided through text and voice messages on mobile phones. At present over 2 million farmers are availing of this mobile service. The economic benefit of these services which has been estimated by NCAER at Rs.50,000 crores per year is extrapolated to rise to Rs.211,000 crores if the entire farming community in the country were to apply Agromet information to their agricultural activity.

The net economic benefits of accurate forecast of cyclone, tsunami, etc. are significant, as the case study of the *Nargis* cyclone has shown. In the absence of any warning mechanism, it has been estimated that in Myanmar, 200,000 lives were lost and the damage totalled \$10 billion.

Public weather service was found useful by 67 per cent of households surveyed.