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RESEARCH PAPER

Dissemination of Oil Palm Technology through Information and Communication Technology

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ABSTRACT

Mobile phone is the most pervasive form of bidirectional communication in the hands of a small holding farmer and cell phones are recently being used for sending text / voice short message service (SMS) and visual-based information in various sectors. Oil palm is an introduced crop in the country and Indian Council of Agricultural Research is reaching out to the oil palm farmers in the country on the technical know-how of the crop through Oil Palm Kisan Mobile Message Services. The content is being developed on different aspects of oil palm and disseminated to the registered oil palm farmers. This service aims at content delivery using text and voice SMS and vernacular interactive access for dissemination of information on oil palm. Initially, the mobile numbers of the oil palm growers of Andhra Pradesh were collected and messages are being sent. Further the programme is envisaged to be implemented in phase wise manner in all the potential states of oil palm in the country. This initiative forms a Mobile Information Platform that helps in intra and inter connectivity among the farmers and organizations involved in the Oil Palm Development Programme (OPDP) in the country.

INTRODUCTION

Cell phone is the most unique form of bidirectional communications in the hands of the farmer. The rapid growth of mobile telephone compared to that of land line phones and the introduction of mobile enabled information services provide a natural and potential area to enable the information to be made available irrespective of the location and time. Kisan Call Centers in the country respond to issues raised by farmers on queries related to agriculture and allied sectors. At present, the Call Centre services are available at a common toll free telephone number, which can be dialed from anywhere in the country. The location is immaterial as the calls can originate from any village, to land at a specific call centre and a specific seat which would be answered by an agriculture graduate knowing the local language and having an understanding of the local agricultural issues. However, in this case, the farmer approaches the Kisan Call Centre only when a problem arises or perceives the need for information based on the condition of the crop. The need to perceive the future requirement of the crop is required for the farmer to gather information and take a decision to adopt the same.

Oil palm is an introduced crop in the country and Indian Council of Agricultural Research is reaching out to the oil palm farmers in the country on the technical know-how of the crop through Oil Palm Kisan Mobile Message Services. As quality of information, its timeliness and trustworthiness are the important features to be ensured to enable farmers to use it effectively to improve productivity, information on oil palm is disseminated to the registered oil palm farmers. The content is being developed on different aspects of oil palm such as planting, irrigation, fertilizers, intercultural operations, intercropping, pest and disease management, harvesting etc., in different vernacular languages along with English. The service aims at content delivery using text and voice SMS and vernacular interactive access for dissemination of information on oil palm.

METHODOLOGY

The programme is conceptualized to be implemented in two stages. In the first stage, the mobile numbers of the oil palm farmers in different parts of the country are being collected. The content developed at Directorate of Oil Palm Research (DOPR) is

translated into the respective vernacular language and the message is published to these mobile numbers through a bulk SMS service provider. The message thus published is transferred to the SMS Gateway of the service provider and then moves on to the SMS Centre (SMSC) of the Service Provider i.e. available with different operators. From these SMSC, the message reaches the farmers. In the second stage, the queries / feedback is received from the farmers through a Toll Free Number available at DOPR. The queries thus received are answered with the help of a subject matter specialist in the form of text / voice SMS or directly communicating the farmer provides the necessary information (Fig.1). The mobile numbers of the farmers of Andhra Pradesh were collected and messages are being sent. This initiative helps in inter and intra connectivity among the organizations involved in the Oil Palm Development Programme, which will inturn facilitates the organizations to reach one another quickly with reliable information and disseminate oil palm technology to the farmers.

RESULTS AND DISCUSSION

Messages on oil palm cultivation viz., requirements for oil palm cultivation, soil conditions, planting of seedlings, precautions to be taken while planting, basin management, cover cropping, mulching etc., were sent as text SMS in Telugu to the unique mobile numbers of oil palm growers. Depending on the size of the message, each message was taken as a single or multiple SMS. Even when a single message was split into multiple SMS, the message delivery was found to be proper up to a maximum split of three SMS. 30 messages were published to about 8468 unique mobile numbers for 27 days. Two messages were sent

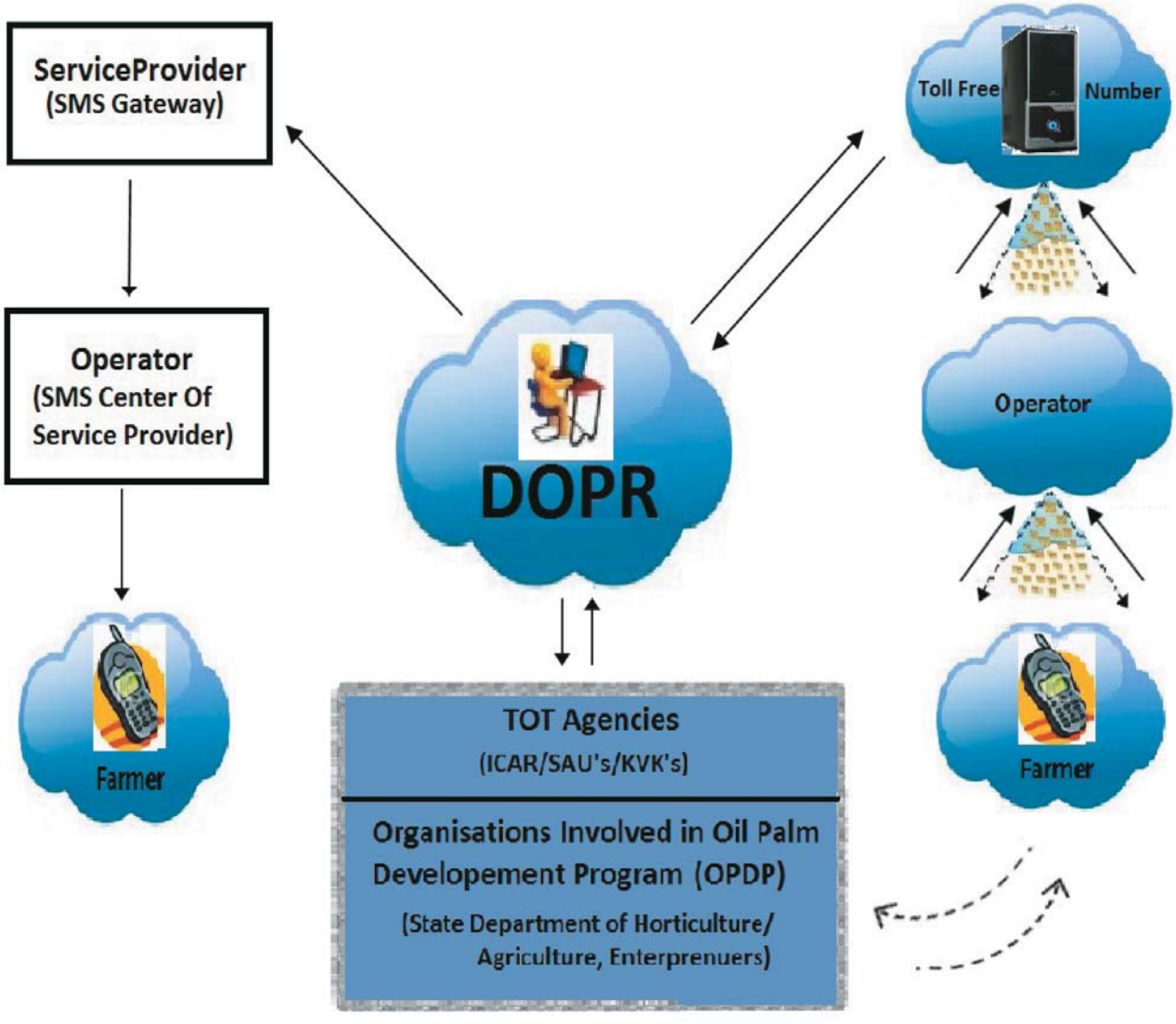

Fig. 1 Operational Model of Oil Palm Kisan Mobile Message Services

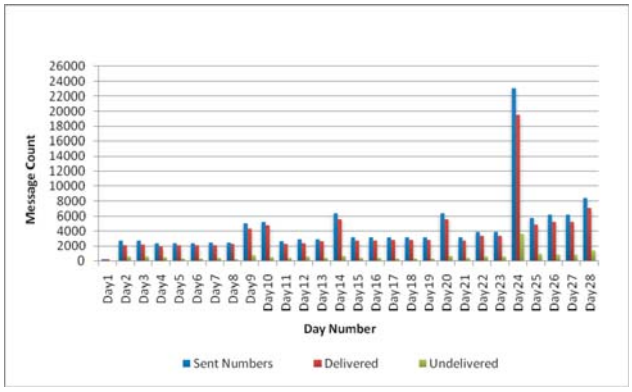

Fig. 2: Number of messages published

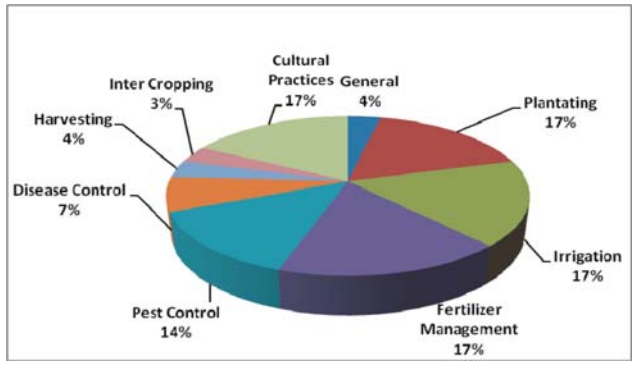

Fig. 3: Contents of messages published

on two days and four messages were sent in one day (Fig. 2). The total messages published were 1.26 lakhs with 86.7% of the messages delivered successfully. The maximum percentage of messages that reached the farmers went even upto 93%. The messages that could not be delivered were mostly under the category of undelivered list, absent or invalid subscribers and subscribers, whose message box was full. The content of message published pertained to various categories like requirements for oil palm cultivation, planting season and method, irrigation during normal and summer season, fertilizer management for initial and mature age of plantations, pest and disease control measures, cultural practices, harvesting and intercropping (Fig.3). Efforts are being made to extend oil palm mobile message services to cover all the oil palm growers of oil palm growing states in India. Feed back is being collected at random on receipt of the messages and content of the messages. Efforts are being made to provide intra and inter connectivity among oil palm growers, officials of State Department of Horticulture/Agriculture, officials of processing units, Scientists of SAUs / KVKs / and ICAR institutes in oil palm growing states in the country.

CONCLUSION

Oil Palm Kisan Mobile Message Services forms a Mobile Information Platform and Farmer Helpline specific to oil palm development in increasing the yields so as to achieve self sufficiency in vegetable oil production in the country. So far, the information on oil palm technology is able to reach 20,987 oil palm growers in Andhra Pradesh.

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