



NITI Aayog



Performance Note

— District Agromet Units —

**Ministry of Earth
Sciences**

JULY 2020

1. Introduction

1.1. Background

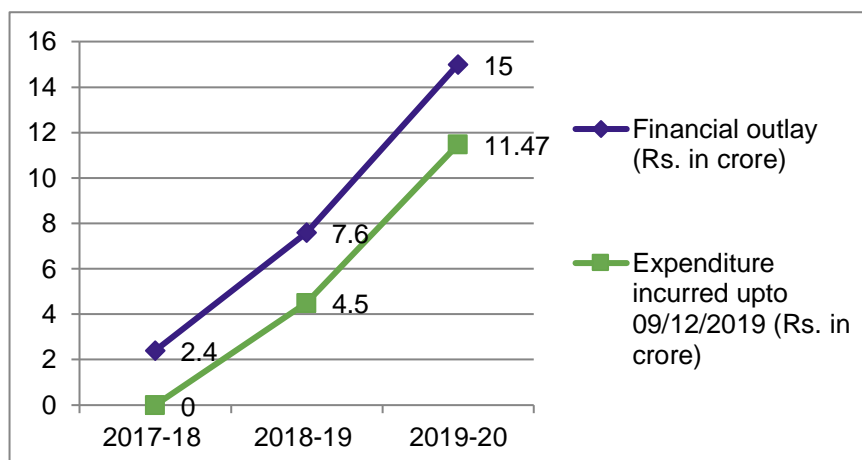
- India is one of the world's most vulnerable country to effects of climate change, with its economic sectors highly exposed to the changing climate¹
- India incurs losses of about US\$ 9-10 bn, annually, due to extreme weather events¹.

1.2. Scheme Details

- **Objective:** The scheme aims to provide impending weather alerts to the 95.4 million farm households so that farmers can take pro-active measures to save the crop.
- **Implementation Mechanism:** The scheme is implemented through KVKs. An additional man-power support in the form of Subject Matter Specialist (SMS) and observer are provided under the scheme.

2. Scheme Performance on Indicators

2.1. Fund Utilization (Planned vs. Actual)



Source: Ministry of Earth Sciences

¹ Source – Economic Survey 2016-17

2.2. Performance on Output Indicators

2.2.1. Progress of Output indicator against target

Output Indicator	Period/ Year of Baseline	Baseline	FY 2017-2020 Quantifiable	
			Target	Achievement
Number of District Agro meteorological Field Units (DAMU) established	2016-17	0	400	140*
Installation and Commissioning of Automatic Weather Stations (AWS Agro)	2016-17	0	200	0

Source: OOMF Dashboard

* only man-power available. Pending AWS installation

2.3. Performance on Outcome Indicators

2.3.1. Progress of Outcome indicator against target

Outcome Indicator	Period/ Year of Baseline	Baseline	FY 2017-2020 Quantifiable	
			Target	Achievement
Number of farmers who receive the Agro meteorological advisories	2016-17	22.71 Mn farmers	50 Mn farmers	42.1 Mn farmers

Source: OOMF Dashboard

3. Issues and Challenges

- 3.1. IMD advisories are issued at district level and ignores variations within the district. Due to large size of the districts in India, the variations are huge and generalized advisories do not hold at farmer level²:
- 3.2. Huge gap in availability of AWS stations. Currently, only 530 AWS stations are deployed by public institutions such as IMD. A single AWS can serve only 10-15³ km radius of distance leaving huge gap in terms of coverage.

² KIs conducted by DMEO

³ http://agricoop.nic.in/sites/default/files/aws_gui_cre.pdf

- 3.3. Lack of adequate infrastructure in the form of poor Internet connection and limitation of text messages to be sent at a particular month, makes KVKs handicapped in terms of sending timely alerts to the farmers².
- 3.4. Based on Key Informant Interviews (KII) conducted by Niti Aayog, we have found that AWS are not set-up in most of the KVKs²
- 3.5. Timely Nowcast information is not provided to KVKs from IMD as a result it loses its importance²
- 3.6. Advisories are not regular and reliable²
- 3.7. Meghdoot app is not showing district level advisories of some districts².
- 3.8. KVKs alert farmers through either messages on mobile application and secondly on making the same information available through Whatsapp. However, lack of smartphone puts lot of farmers out of reach due to the technology⁴.
- 3.9. Delay in fund transfer from centre to district due to delay in implementation of PFMS at states & district level for fund transfer to DAMUS^{Error! Bookmark not defined.}
- 3.10. Delay in recruitments of Subject Matter Specialist and Observer²
- 3.11. ICT methods have its benefits but are not completely free from limitations. The target group of the scheme are not very tech savvy and therefore they respond better to face to face interaction rather than advisory calls/text messages or through Mobile Applications notification⁴.
- 3.12. High attrition in Subject Matter Specialists (SMS) posts owing to contractual nature of job posts and low emoluments^{Error! Bookmark not defined.}

4. Recommendations & Suggested Interventions

- 4.1. Maharashtra Government has started a PPP model with Skymet⁵ to create a network of over 2000 Automatic Weather Stations (AWSs) for the purpose of disseminating weather forecasting information to farmers. India needs around 40000³AWSs while the current network is of only 13000⁶ AWSs (public and private sector combined). Therefore, more such partnerships and are needed to provide accurate forecasting information at the granular level to farmers.

⁴ In depth interview with stakeholders

⁵ <https://www.skymetweather.com/content/weather-news-and-analysis/govt-of-maharashtra-skymet-join-hands-for-agriculture-sustenance-through-new-age-technology/>

⁶ <https://www.cseindia.org/agrometeorological-advisory-services-india-10064>

- 4.2. Impact assessment study of the economic Benefits of the Agro Advisory service should be conducted. Third-party evaluations should be regular undertaken to understand the incremental benefits of investments made in the scheme.
- 4.3. Regional stakeholder's meetings to be conducted on regular basis to discuss the issues and challenges if any and come up with the probable solutions.
- 4.4. Capacity building of farmers at regular intervals as well as regular face to face interactions with them so that they may feel importance of ICT based advisories.
- 4.5. The PFMS training should be imparted to district level officers
- 4.6. Infrastructure facilities may be upgraded in all the KVKs
- 4.7. Timely dissemination of Nowcast is absolutely essential.
- 4.8. Quarterly progress reports are required to be prepared so that mid-term course corrections be done to improve the performance
- 4.9. Administrative issues and their solutions
 - a. Installation of AWS at higher pace required because of importance of the same.
 - b. Recruitment process of the Subject Matter Specialist needs to be done at faster pace.

Annexure

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ABOUT THIS RESEARCH

The purpose of the Performance Note series is to provide a brief analysis of a specific government scheme, and thereby suggest recommendations and interventions to help enhance scheme effectiveness and impact.

ABOUT DMEO, NITI AAYOG

The Development Monitoring and Evaluation Office (DMEO), attached to NITI Aayog, is the apex monitoring & evaluation (M&E) office in the country, with a mandate to drive evidence-based policy making through M&E of government policies and programmes. Since its inception in 2015, the Office aims to shift the discourse of public policy towards rigorous, data-driven, citizen-centric, and decentralized policymaking, to improve governance and facilitate the formation of a New India.

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