Annexure I

Total revised allocation of the PRITHVI scheme for FY 2024-25 was Rs. 685.00 Crores out of which actual expenditure has been Rs. 663.82 Crores. The sub-scheme wise physical progress is given in the tables below:

I. Atmosphere & Climate Research - Modelling Observing Systems & Services (ACROSS) (CS)

Physical and Financial target 2024-25							
OUTPUT 2024-25				**OUTCOME 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
1. Augmentation of the atmospheric observation network in India	1.1. Installation & commissioning of various atmosphere observation systems including Doppler Weather Radars (DWR), Automatic Weather Stations (AWS), New Digital Current Weather Instrument System (DCWIS) and New visibility sensors	Total-292 DWRs-4 AWOS-18 AWS-225 DCWIS-20 New Visibility Sensor-25	Total -247 DWRs- 1 AWOS-7 AWS-225 DCWIS-5 New Visibility Sensor- 9	1.1 Improved weather services for aviation safety & protection of life and property from extreme weather events	1.1 Aviation Weather services - current weather & horizontal visibility information - provided to airports and heliports.	25	15
					1.2 Increase in no. of cities/towns covered for rainfall monitoring & local forecasting services	300	210
					1.3 Increase in nowcast stations due to Radar coverage	50	3
2. Climate services	2.1 Increase in number of stations generating climate data (AWS, Agro AWS, Aviation stations, DRMS)	400	233	2. Climate diagnostics for sectoral applications	2.1 Accessing climate data through the data portal (increase in no. of users)	2500	2500
	2.2 Generation of climate data records (increase in number in lakhs)	6	6				
3. Training/Capacity Building in	3.1 No. of Trainings/ courses/ capacity building programs	15	9	3. Skill development in	3.1 Number of people trained	600	451

Physical and Financial target 2024-25							
OUTPUT 2024-25				**OUTCOME 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
operational Meteorology & Allied Sciences	conducted as a Regional Training Centre of WMO			meteorology & allied sciences			
4. Improvements in the seasonal and extended range forecasts	4.1 Implementation of the next generation model with weekly coupled Data assimilation after thorough testing with different initial conditions (in %)	100%	100%	4. Utilization of coupled model forecasts at Extended (up to 4 weeks) and Seasonal (next 3 months) time scales by IMD for various sectors	4.1 Number of homogenous regions for which Seasonal forecasts will be provided with next generation model	4	4
					4.2 Issue the experimental extended range forecasts of rainfall and temperature at subdivision level from the second-generation ERP system (No. of subdivisions)	34	34
5. Improvement of medium range weather prediction system	5.1 Use of coupled global NWP system for medium range deterministic weather prediction (in %)	100 %	10%	5. Generating medium range weather forecast using coupled NWP	5.1 Preparation of 10 days forecast products from the coupled medium range forecast (in %)	100 %	10
6. Operational use of 18PF High Performance Computing system – V3.0	6.1 Porting of the end-to-end Numerical Weather Prediction (NWP) system to the new HPC for enabling high resolution (6 km) forecasts. (in %)	100%	100%	6.High resolution numerical weather and climate prediction	6.1 Operationalization of the Numerical Weather/ climate Prediction system at higher (6 km) resolution. (in %)	100%	100
7. Atmospheric Research Data Center	7.1 Populating the Atmospheric Research Data center with	10	10	7. Easier Accessibility of	7.1 Percentage of the data populated to be	75%	75%

Physical and Financial target 2024-25							
OUTPUT 2024-25				**OUTCOME 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
	atmospheric data sets (in Tera Bytes)			observed and modeling data to researchers on a single platform	released to general public after extensive QC/QA (in %)		
8. Atmospheric Research Testbeds (ART) in India	8.1 No. of instruments/observational facilities Commissioned in ARTs in the 2nd phase of instrumentation to conduct monsoon observational campaigns	8	4	8. Improving the understanding of Climate and Monsoon related processes over core monsoon zone and orographic regions	8.1 Data processing, quality control and preparation of first level of campaign data (in %)	60%	60%
					8.2 Number of publications in SCI journals	10	10
9. Research and Development in weather modification	9.1 Establish a laboratory cloud chamber and convection setup infrastructure with measurement systems (in %)	30%	14 %	9. Fundamental understanding of boundary layer dynamics, clouds, convection and rainfall processes in the tropical conditions	9.1 Number of publications in SCI journals	10	25
	9.2 Develop cloud and precipitation physics research collaboration with several universities. (no. of universities)	5	5		9.2 Number of Research collaborations	5	5
10. Expansion and strengthening Air Quality Early Warning System	10.1 Development of high resolution air quality forecasting system (2km) equipped with chemical data assimilation capabilities (in %)	100%	100%	10. Providing high resolution air quality forecasting services to non-attainment cities in India	10.1 Non-attainment cities (new) to receive city-specific air quality forecasts which would help in effective management of local air quality. (no. of cities)	10	10

II. Ocean Services, Modelling, Applications, Resources and Technology (OSMART)

Physical target and achievements 2024-25							
Output 2024-25				**Outcome 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement as on 31 Dec 2024**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
1. Establishment of ocean observing network in the Indian Ocean.	1.1 Deployment of ocean observing platforms. (in numbers)	60	134	1.Effective monitoring and understanding of the Indian Ocean.	1.1 New ocean data records generated. (numbers in thousands)	100	14.835
					1.2 Scientific/ technical publications.	8	55
2. Generation and dissemination of ocean information, and early warning services.	2.1 No of potential fishing zone advisories issued (in days).	300	349	2. Enhanced livelihoods and safety of coastal and maritime communities.	2.1 Reduction in search time of fishermen (in %)	30%	30%
	2.2 Number of oceanogenic multi hazard early warnings issued (in % of events)	100%	100%		2.2 No of users enabled with maritime safety information. (in lakh)	4	3.457
3. Desalination plant commissioning implementation.	3.1 Chetlat and Kadamath funded by MHA and implemented by NIOT (% of work)	100%	100%	3. Technology development for dean water.	3.1 Freshwater generated per day per plant for the benefit of Lakshadweep islanders (in litres).	150000	150000
	3.2 OTEC plant at Kavaratti. (% of work)	50%	50%		3.2 Self powered desalination system (Yes/ No)	Yes	No

4. Harnessing of marinebiological resources.	4.1 Number of microbes identified for biotech application. 4.2 Number of algal/seaweed species identified and cultured. 4.3 Number of open sea cage deployed/tested.	2 2 1	2 2 1	4. Development of technology for industrial, environmental and societal application.	4.1 Technology developed for the production of nutraceuticals, biochemicals from marine microbes and algae. (Yes/ No)	Yes	Yes	
5. Exploration of marine Non-living resources	5.1.1 Area covered under bathymetric data acquisition in exclusive economic zone of India (in sq. km.)	5000	500	5.1(a) Enhancement of knowledge and new information about seabed morphology along East Coast of India	5.1.1 (a) Augmentation of the bathymetry charts (Yes/ No)	Yes	Yes	
	5.1.2 Number of cruises undertaken	2	2					
				5.1(b) Exploration of polymetallic nodules and sulfides	5.1.1(b) Continuation of work as per the contract with International Seabed Authority (Yes/ No)	Yes	Yes	
5.2. Exploration of marine living resources	5.2.1 No. of cruises for the assessment of ocean acidification, fish eggs & larval abundance	5	5	5.2 Identifying the hot spots for marine biodiversity, spawning and breeding grounds of selected fishes, ocean acidification, and augmentation of Indian Ocean	5.2.1 Area covered in the Indian coastal seas (in %)	30%	-	
	5.2.2 Generation of Barcodes of deep sea organisms	250	160		5.2.2 Development of genetic data base of marine organisms (Number of Groups)	4	4	

				Biogeographic Information System (IndOBIS)	5.2.3 Augmentation of number of voucher specimens	100	100	

6. Coastal monitoring and services	6.1 Number of locations for monitoring coastal pollution	50	50	6. Status of Monitoring the marine pollution and erosion	6.1 No. of status reports/ publications on marine pollution monitoring as part of SDG-14.	4	4
	6.2 No of states where coastal erosion is being monitored	4	4		6.2 Shoreline change atlas/publication indicating erosion hotspots	4	4
	6.3 No of studies conducted on performance of coastal structures.	2	2		6.3 Maps/publications indicating status of coastal structures (in numbers)	2	2

III. Polar Sciences Cryosphere (PACER)

Physical target and achievements 2024-25							
Output 2024-25				**Outcome 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement as on 31 Dec 2024**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
1. Expeditions to the Antarctic, Arctic and Himalayas	1.1 No of atmospheric observatories in polar regions	3	7	1. Improved understanding of polar and ocean regions and its global and regional impact	1.1 No of publications on better understanding of Antarctica, Arctic, Southern Ocean and Himalayas	50	50
	1.2 No of glaciers for	6	10		1.2 Generation of new	10	24

Physical target and achievements 2024-25							
Output 2024-25				**Outcome 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement as on 31 Dec 2024**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
	continuous monitoring in the Himalayas				geological/ cryospheric/ atmospheric/ biological/ environmental/ climate/ oceanographic data records in the Antarctic, Arctic and Himalayas (in numbers)		
	1.3 No of hydro-meteorological stations in Himalaya glacier basins	5	10				
	1.4 Expedition days at two stations each in Antarctica	365	365				
	1.5 Expedition days in Arctic	300	311				
	1.6 Expedition days in Himalaya	120	140				
2. Indian contribution to international polar science and policy domains	2.1 No. of new collaborative scientific projects launched in polar regions	15	9	2. Increased activities in scientific, strategic and policy domains in polar regions	2.1 No. of scientific research publications from the collaborative projects in polar regions	20	23
					2.2 No of international scientific committees/ bodies where	15	14

Physical target and achievements 2024-25							
Output 2024-25				Outcome 2024-25			
Output	**Indicators**	**Annual Target**	**Achievement as on 31 Dec 2024**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
					India has representation in polar domain		

IV. Seismological & Geosciences (SAGE)

Physical target and achievements 2024-25							
Output 2024-25				Outcome 2024-25			
Output	**Indicators**	**Annual Target**	**Achievement as on 31 Dec 2024**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
1.National Seismological Network (NSN)	1.1 Installation of new seismic systems (in numbers)	10	6	1. Improvement in the earthquake detection capabilities with increased accuracy in earthquake parameters.	1.1 Maintaining the minimum threshold magnitude of 3.0 (within 3 minutes) earthquake in most part of the country through the existing Network (Yes/No)	Yes	Yes
2. Seismic Microzonation reports	2.1 Four (4) cities- Bhubaneswar, Chennai, Coimbatore, and Mangalore. (in %)	80%	100%	2. Generation of large scale multi thematic risk index maps to help in planning risk resilient infrastructure.	2.1 Four (4) cities- Bhubaneswar, Chennai, Coimbatore, and Mangalore (Yes/No)	Yes	Yes
	2.2 Eight (8) cities- Agra, Amritsar, Dhanbad, Kanpur, Lucknow, Meerut, Patna and Varanasi. (Preliminary Multi-disciplinary investigations) (in %)	50%	95%		2.2 Eight (8) cities- Agra, Amritsar, Dhanbad, Kanpur, Lucknow, Meerut, Patna and Varanasi. (Preliminary multi-	Yes	Yes

Physical target and achievements 2024-25							
Output 2024-25				**Outcome 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement as on 31 Dec 2024**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
					disciplinary investigations) (Yes/No)		
	2.3 Three (3) new cities in Uttarakhand and five (5) in Arunachal Pradesh (Multi-disciplinary investigations like Geophysical and Geo Technical completed in all 8 cities. (in %)	30%	-		2.3 Three (3) new cities in Uttarakhand and five (5) in Arunachal Pradesh (Yes/No)	No	No

V. Research Education & Training Outreach (REACHOUT)

Physical and Financial target 2024-25							
OUTPUT 2024-25				**OUTCOME 2024-25**			
Output	**Indicators**	**Annual Target**	**Achievement**	**Outcome**	**Indicators**	**Annual Target**	**Achievement**
1. Extramural funding	1.1 Number of ongoing projects supported for carrying out R&D activities in various academic and research institutes of the country	75	54	1. Promoting R&D in Earth Sciences through various academic and research institutes	1.1 Number of publications based on research conducted through extramural funding	50	77
2. Outreach and awareness	2.1 Number of schools /colleges/ universities where the outreach and	40	122	2. Spreading awareness and scientific temperament in	2.1 Number of students participating in the outreach and awareness events.	600	2300

	awareness events are held.			Earth Sciences among students.			
	2.2 International Earth Science Olympiad (IESO) conducted annually.	1	1		2.2 Number of students appearing for the all India Test for IESO.	4000	3556
3. Training and capacity building in Earth Sciences.	3.1 Courses conducted in various disciplines of Earth Sciences in 3 training centres of MoES.	12	36	3. Develop skilled and trained manpower in Earth Sciences	3.1 Number of people who attended the training programmes	450	1757
	3.2 Create learning resources by internal and external faculty (in numbers)	10	158				

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