

Geography.

- 1.) The IMD accurately forecasted cyclone Biparjoy yet some short comings remain in its models. In regard discuss the role of academic institutions in improving the forecasts (200 words).

Ans.

The IMD recieved criticism for not forecasting Super Cyclone, the death of the cyclone is low and India has successfully planned and executed integrated forecast systems and computational infrastructure to reduce cyclone disaster by nearly 90% in 1st decade of 21st Century.

The Nobel Laureate Niels Bohr said that forecasting is really difficult. &

For Complex and non-linear systems like cyclones and monsoons our forecasts will never be perfect.

Academic Participation

i) Improve Computer models which particularly forecast cyclones ~~what~~

ii) Citizen Participation: We must heed the warnings, follow evacuation orders, avoid visiting places where risk is high, to ensure overall success of disaster management operations.

• (iii) India's academic climate Community - This Community can build a team with IISD to advance the cyclone process and improve cyclone^s predictions.

India has Small Community and they literally focus on Monsoon.

(iv) Today there are large number of Climate Science departments and centres at many of the academic institutions, the success in the ecosystem are currently not ~~can~~ to the national weather forecasting.

(v) Country Climate research Community - they can identify specific problems in climate variability change and trends that affect, India's food, ^{ty} water, energy, health and infrastructure security and economic growth.

(vi) Performance metrics in academia must consider the value of contributions made by researchers, bringing them not only improve cyclone forecasts, but also forecasts at all scales for safety.

Conclusion.

The early warnings, evacuations of tens of thousand in the path of the

Biparjoy cyclone and operations during and after its landfall have been improved to a world class level in recent years.

The cyclone forecast errors in intensity, duration and speed of the cyclone are the result of errors in our forecast of oceanic conditions.