Local Climate Projection and Effective Climate Policy

Why in News?

Recently, the School of Climate Change and Sustainability at Azim Premji University) has started creating district-level climate projections for every region in India.

What are the significances of local level climate projections?

- **Climatic diversity of India** - From the snow-capped Himalayas to the drought-prone Deccan Plateau, from the floodplains of the Ganga to the cyclone-ravaged coasts of Odisha, no two districts experience climate change in the same way
- **Better disaster preparedness** - If local governments had seamless access to granular, district-level climate projections, they could better prepare for the future.
- **Monsoon vagaries** - Every monsoon season brings uncertainty in terms of floods in some states or droughts in others.
- **Decision making** - Without granular data, decision-making is like navigating a storm with a broken compass.
- Farmers struggle to make planting decisions, urban planners lack reliable data to develop long-term strategies for extreme weather.
- **Proactive resilience-building** - District-level climate projections facilitates the shifting from reactive disaster management to proactive resilience-building.
- **Climate data democracy** - To ensure that every community, regardless of its resources, has equal access to scientific climate insights that affect their future.
- Climate data democratisation is essential for effective climate action for a resilient future.

What are the challenges in transferring climate science into policy?

- **Limited access to data** - A major reason for this disconnect is the limited access to accurate climate data in a usable form.
- **Complex data** - Processing complex climate data into easily usable form at a high level of granularity is difficult and hence there is a general hurdle for the policymakers to interpret the projections and apply them effectively.
- **Inadequate capacity** - Even when climate data is available, local officials may not know how to use it due to a lack of training.
- **Inadequate tools** - Without the right tools and insights, even the best climate projections fail to inform decision-making.
- **Low awareness** - Many policymakers still see climate change as a distant problem, not an urgent one.
- As a result, short-term political and economic priorities overshadow long-term planning.
- **Lack of coordination** - Government departments often work in isolation, making it

hard to use climate data in decision-making.
- Urban planners rarely consult climate scientists, leading to infrastructure projects that ignore future risks.
- Bridging this gap is essential to transforming scientific knowledge into actionable, impactful policies.

How to bridge the gap between Climate Science and Climate Policy?

- Science alone is insufficient unless it is effectively applied to benefit society, including the fight against climate change.
- If climate projection data is not effectively utilised, climate modelling efforts become meaningless and fail to benefit society.
- **Four levers of change** - The government and policymakers, the journalists and media houses, teachers and students, and the activists and the civil society organisations to collaborate to make science effective in benefitting society.
- **Data access** - Making district-level climate data accessible to journalists, educators, and community leaders can help people understand the real impact and push for change.
- **Local climate assessment** - Climate risk assessments can be conducted at every district using localized projections, allowing state governments to incorporate climate adaptation into their annual budgets.
- **Capacity building** - Workshops, training programs, and climate fellowships can be designed to equip officials with the ability to interpret and apply climate data effectively.
- **Public-Private Partnerships** - Strengthening public-private partnerships is another crucial component of building climate resilience.
- The private sector—particularly insurance companies, real estate developers, and agribusinesses—has a vested interest in understanding climate risks, as these projections can help them de-risk investments and build long-term resilience.
- Governments can facilitate collaboration with these industries, encouraging investments in climate adaptation measures that benefit both businesses and communities.

Reference

The Hindu | Climate Change Education

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