

Building Resilience to Climate Change in India

Ministry of Environment, Forest and Climate Change

Global Context

2 of UNFCCC

stabilize GHG concentrations to prevent dangerous anthropogenic interference with the climate system.

to be achieved within a time-frame sufficient to:
- allow ecosystems to adapt naturally to climate change,
- ensure that food production is not threatened; and
- enable economic development to proceed in a sustainable manner.

Climate Change Adaptation & Building Resilience

Develop strategies and implement actions with a view to:

Reduce impacts of climate change, and help manage risks;

Improve livelihoods, social & economic well-being, and responsible environmental management.

Enhance capacity of social, economic and environmental systems and infrastructure to cope with hazardous event, trend, disturbance etc. Adapt, learn and transform while maintaining essential function/identity/structure);

Climate Resilient Strategy: Key components/challenges

Assessment

- Identify vulnerabilities of communities and eco-systems and make impact assessment;
- Design dedicated programmes, projects and systems, where necessary, to address impacts, conserve/develop natural resources and manage future risks;
- Mainstream adaptation concerns in ongoing/new policies and programmes.

Capacity

- Build capacity to assess impacts;
- Strengthen Community based institutions;
- Design/implement adaptation programmes at various levels-Centre, state, communities, civil society;
- Disseminate/communicate climate change information.

Resources

- Mobilise and allocate financial resources.

India's Nationally Determined Contributions

To put forward & further propagate a healthy and sustainable way of living based on traditions & values of conservation & moderation.

To adopt a climate friendly & cleaner path than the one followed.

To reduce emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 level.

To achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030.

To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.

To better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change.

To mobilize domestic and new & additional funds from developed countries.

To build capacities, create domestic framework and international architecture for quick diffusion of cutting edge climate technology.

Framework for Climate Action in India

2008: National Action Plan on Climate Change

3 National Missions

State Action Plans: By now, 33 states/U.Ts have SAPCCs

India's NDCs submitted under Paris Climate Agreement (2015). 8 goals (3 quantitative) covering mitigation, adaptation, finance, technology development & transfer and capacity building;

Focus on -mitigation and adaptation goals with verifiability;

Ongoing National Missions

Sustainable Agriculture

Sustainable Habitat

Water

Sustaining the Himalayan Ecosystem

Strategic Knowledge

AGRICULTURE

National Mission on Sustainable Agriculture

National Mission for Integrated Development of Horticulture

National Food Security Mission

Narmaparagat Krishi Vikas Yojna

National Mission on Agricultural Extension & Technology

National Initiative on Climate Resilient Agriculture
(ICRA)

Soil health card and mobile soil-testing laboratories

National Agro-forestry Policy

WATER

National Water Mission

Pradhan Mantri Krishi Sinchayee Yojna

Neeranchal

National Mission for Clean Ganga

Accelerated Irrigation Benefit Programme

Proposed National Missions

Wind Energy Mission : To increase share of wind energy in India's energy mix - [*Ministry of New and Renewable Energy*]

Human Health Mission: To address issues related to adverse effects of climate change on human health through appropriate mitigation and adaptation measures - [*Ministry Health and Family Welfare*]

Coastal Areas Mission: Integrated coastal resource management planning and vulnerabilities mapping along entire 7000 km long shoreline- [*MoEF&CC with scientific & technical support of MoES*]

COASTS

New Coastal Mission under NAPCC

- Composite Hazard Line mapping
- Mapping of low lying coastal areas
- Assessment of current SLR using long term tide gauge observations

Island Protection Zone (IPZ) Notification 2011

Integrated Coastal Zone Management (ICZM)

Mangroves for the Future (MFF)

Coastal Regulation Zone (CRZ) Notification 2011

DISASTERS

National Cyclone Risk Mitigation Project

National Plan for Disaster Management

Urban Flood Mitigation

Centrally Sponsored Scheme of Strengthening of state Disaster Management Authorities (SDMAs)

District Disaster Management Authorities (DDMAs)

National Disaster Management policy in 2009

State and National Disaster Response Fund

National Disaster Response Force

State Action Plan on Climate Change

The objective is to create institutional capacities and implement sectoral activities to address climate change

Plans include current and future State's climate change scenarios and likely impact of climate change

Plans are focussed on adaptation in sectors such as water, agriculture, tourism, forestry, transport, habitat, energy, etc, with mitigation as co-benefit

So far, 33 States and UTs have submitted their SAPCC to MoEF&CC

NDC: Roadmap

Setting up of Guidance/approval Committees and inter-ministerial consultations

Implementation Committee

Six Sub committees on Mitigation; Adaptation; Finance; Forestry; Technology and Capacity Building; Transparency, Compliance and Legal aspects

Mapping of schemes and programmes of key Ministries and Departments

Schemes/programmes having significant mitigation impact potential and its co-benefits (addressing NDC nos. 3, 4 and 5).

Schemes/programmes having significant adaptation impact potential (addressing NDC nos. 1, 2, 6, 7 and 8).

Dedicated Domestic Finance

- ▶ National Adaptation Fund for Climate Change (NAFCC)
- ▶ Climate Change Action Programme (CCAP)
- ▶ National Clean Energy Fund (NCEF)

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
Climate Smart Agriculture for Sustainable Livelihoods
A: USD 0.969 M
PB: 8,00

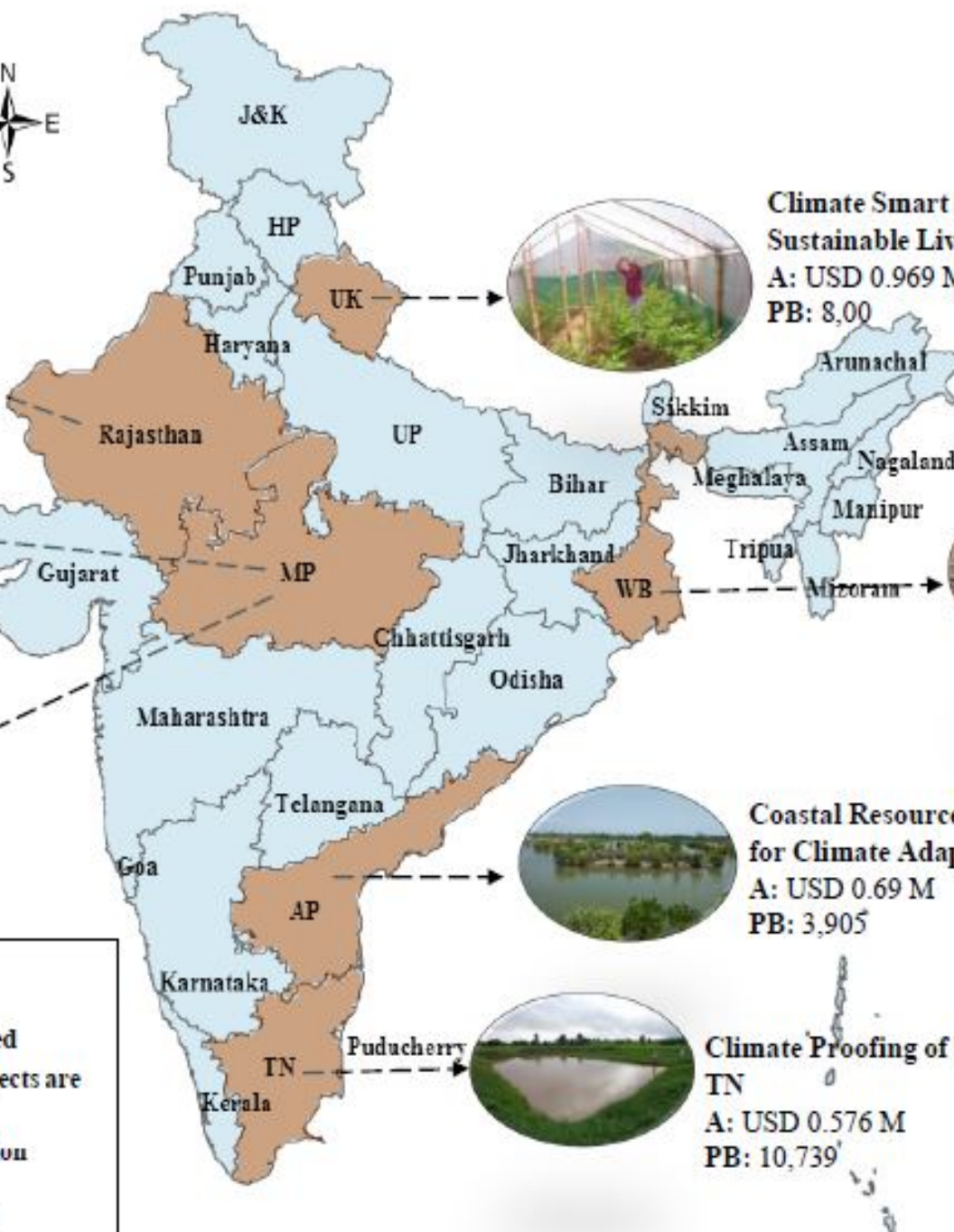
Enhancing Adap S&M Farmers
A: USD 2.51 M
PB: 22,596

Coastal Resource Conservation for Climate Adaptation
A: USD 0.69 M
PB: 3,905

Climate Proofing of Watershe TN
A: USD 0.576 M
PB: 10,739

Legend

-  ---> States where AF Projects are Sanctioned
-  ---> States where AF Projects are yet to be Sanctioned
- A ---> Amount in USD Million
- PB ---> Project Beneficiaries



Number of Projects	6
Amount Sanctioned	USD million (Cr)
Project Beneficiaries (no.)	57,000

NAFCC Projects

	State	(INR Cr.)
	Punjab	17.4
	Odisha	20
	Himachal Pradesh	20
	Manipur	10
	Tamil Nadu	24.74
	Kerala	25
	Mizoram	10.38
	Chhattisgarh	21.47
	Jammu and Kashmir	22.52
	Meghalaya	22.92
	Telangana	24
	Puducherry	16.76
	Karnataka	24.22
	Andhra Pradesh	19.83
	Madhya Pradesh	24.88
	Haryana	22.1
	West Bengal	23.12
	Assam	24.57
	Total	272.01

Climate Finance

FLOWS

PRIVATE

MULTILATERAL
World Bank, ADB
etc

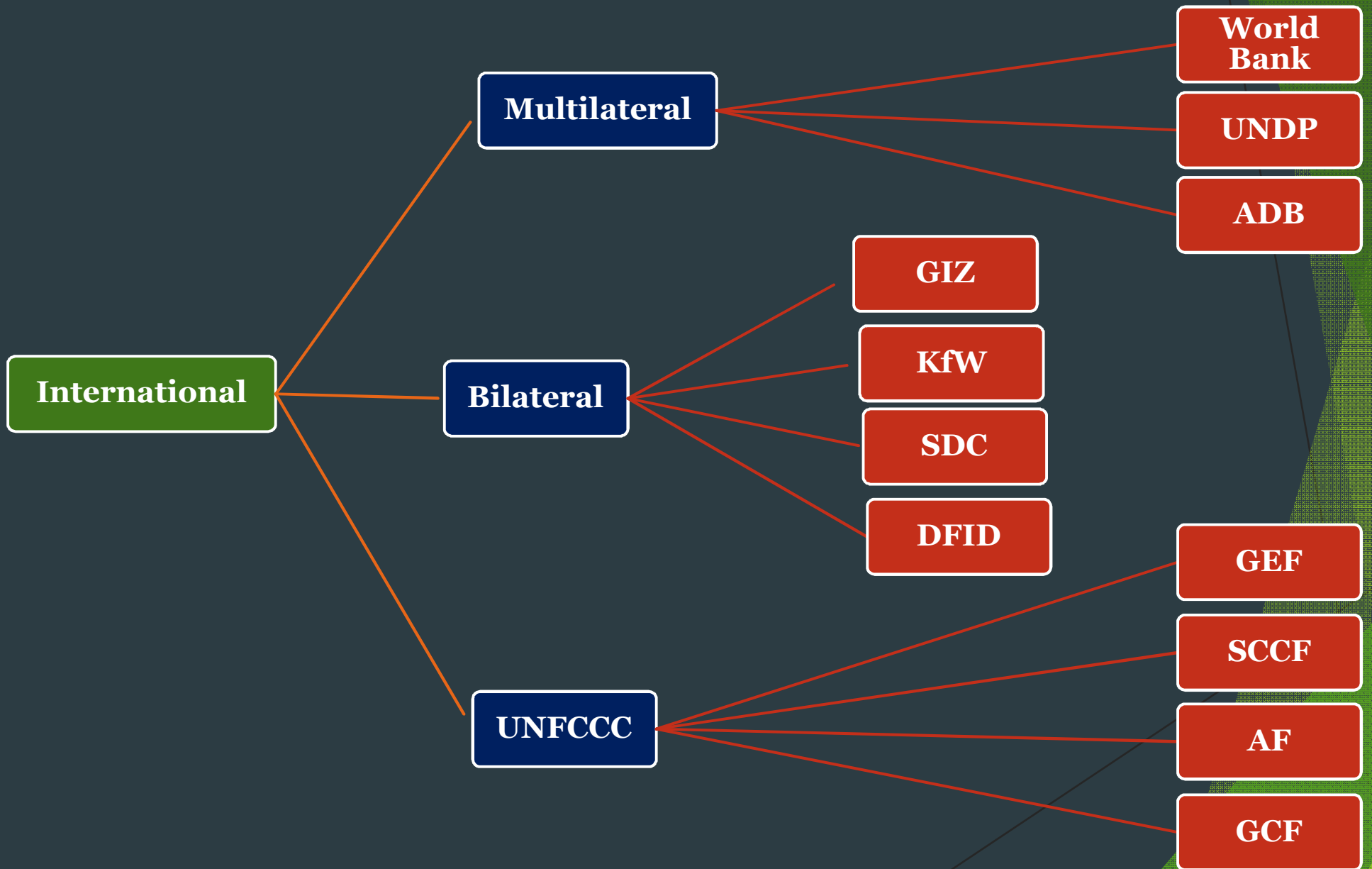
BILATERAL
as part of ODA

within the context of
UNFCCC

**DOMESTIC
ALLOCATIONS**

South Countries
DEVELOPING COUNTRIES

International Financing Mechanism



National Adaptation Fund on Climate Change

MoEFCC: Govt. of India's scheme to scale-up climate change adaptation interventions

Objective: To fund concrete adaptation projects/ programmes aligned with the relevant Missions under NAPCC and the SAPCCs based on climate scenario and vulnerability analysis and build capacity of stakeholders to adapt to climate change through various initiatives and lesson learning

Budget provision: INR 350 Crores for F.Y. 2015-16 & FY 16-17

Anchor: MoEFCC with representation from line ministries

National Implementing Entity (NIE): NABARD

Climate Change Action Programme

create and strengthen scientific and analytical capacity, institutional framework and implement climate related actions at national and state level

financial support for SAPCC preparation @ Rs 10 lakhs to State governments

capacity building projects: 3 demonstration projects approved

Punjab: Utilization of paddy straw as fuel to replace fossil fuel (Rs 3.54 crores)

Tamil Nadu: Improving ecosystem services and fisherman livelihood (Rs 67 lakhs)

Madhya Pradesh: Enhancing Adaptive Capacity to Climate Change through Conservation of Traditional Water Supply Sources (Wells and Bawdies) of Indore City (Rs 4.32 Cr.)

National Clean Energy Fund

Set up for funding research & innovative projects in clean energy and environment initiatives

Being operationalized by Department of Expenditure, M/o Finance

Financed by a coal cess of INR 400 per tonne of coal (both domestic & imported)

Proposals to be submitted to the concerned line Ministry first, which will be submitted for consideration of Inter Ministerial Group chaired by Finance Secretary

Projects formulation based on the prescribed guidelines available in website of the D/o Expenditure