

# ***“ India: Adaptation Approaches and Strategies ”***

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# *The Context*

- The Delhi Declaration - emphasized effective strategies for adaptation.
- Development of approaches for the integration of adaptation concerns into sustainable development strategies

# ***Areas/Sectors of concern***

- Agriculture
- Water resources
- Health & sanitation
- Coastal Zones
- Forests
- Extreme weather events

## *Existing Adaptation Activities*

- The Government of India has taken many policy decisions that reduce risks and enhance the adaptive capacity of the most vulnerable sectors and groups.
- These efforts are primarily driven by the objective of sustainable livelihoods and poverty alleviation.

# *Rationale of Presentation*

- Here is a baseline analysis of existing responses and strategies to manage vulnerability to current climate change risks.

# *Major Initiatives/Programmes- Agriculture*

- *Drought proofing measures*
- *Promoting zero tillage practices*
- *Developing drought – resistant varieties*
- *Promoting crop diversification*
- *Promoting on – farm water efficient technologies*
- *Farmer credit and loan system*
- *Promoting the National Agricultural Insurance Scheme*
- *Encouraging resource conserving technologies for crop production*

# *Major Initiatives/Programmes- Water Resources*

- Integrated Water Resources Management strategy.
- The National Water Policy (2002)
- Revival of diverse and community-based irrigation systems, soil and water conservation etc.
- Technological management of drought through early warning, flood mapping etc.
- Appropriate drought protection measures
- Reducing the water requirement of crops and developing crops that are less dependent on water through application of biotechnology .

# *Major Initiatives/Programmes- Coastal Regions*

- Coastal regulation zones have been formulated
- Restrictions have been imposed in the area between 200 and 500 m of the HTL (high tide line) while the area up to 200 m has been declared as a 'no development zone'.
- The coastal zone regulations are under major review, which will also take account of vulnerability to sea – level rise.



# *Major Initiatives/Programmes- Forestry Sector*

The National Forest Policy has an important focus on developing coping capacities of forest-dependent communities. Major initiatives include introduction of the Participatory Forest Management Programme, involvement of local stakeholders in the management and protection of the local forest resources, legislation to deal with the protection and conservation of natural resources etc..

# *Major Initiatives/Programmes-* ***Disaster Management***

- A new NDM policy has been unveiled for bringing disaster mitigation into the development process.
- A new law i.e. the Disaster Management Act, 2005 was enacted and notified on December 26, 2005.

# ***7 Major Components of Adaptation***

- ***Crop improvement & research (22)***
- ***Drought proofing & flood control (19)***
- ***Health improvement and prevention of disease (19)***
- ***Risk financing (6)***
- ***Disaster management (6)***
- ***Forest conservation (12)***
- ***Poverty alleviation and livelihood preservation (30)***

*(Figures in brackets indicate number of Schemes identified under each category)*

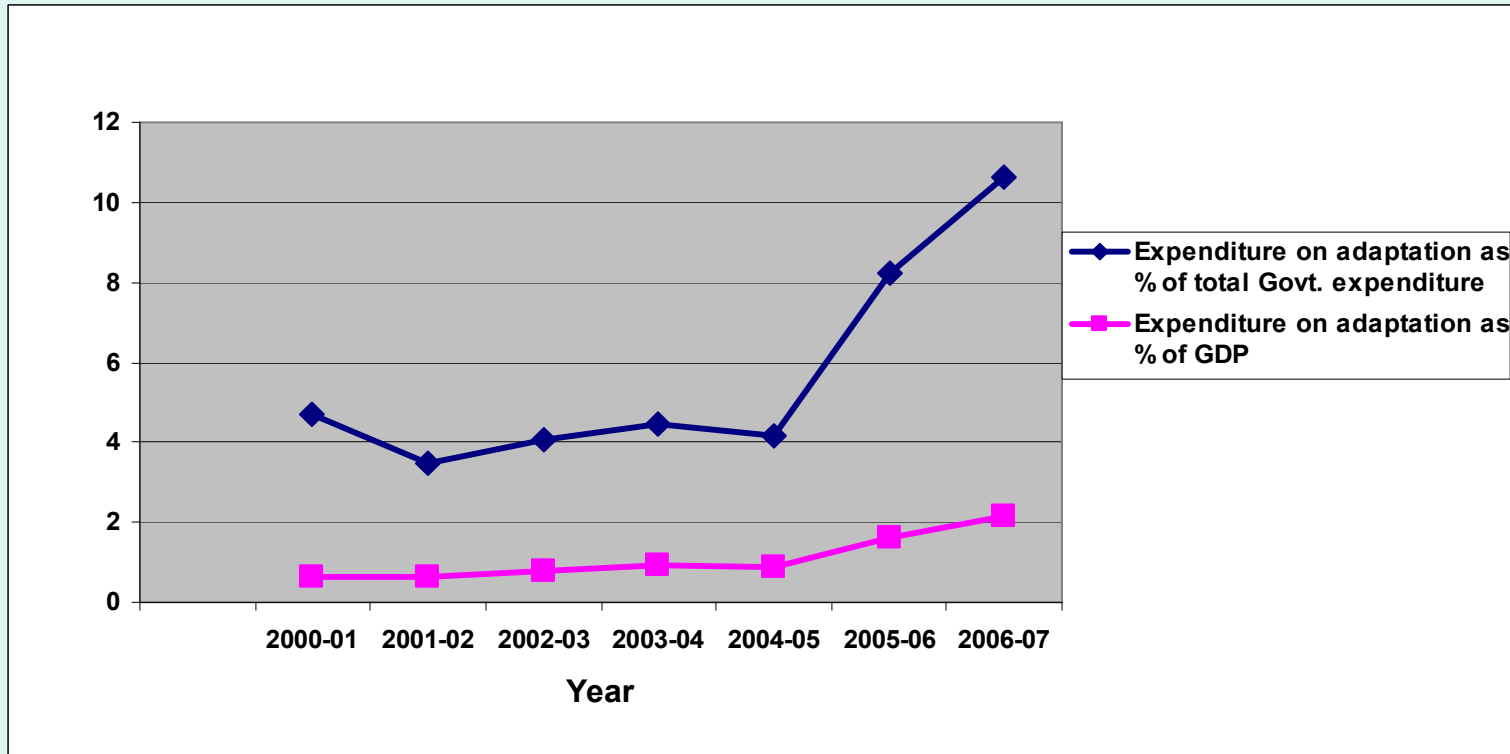
# *Approach to Listed Schemes*

- The listed schemes address adaptation issues rather directly, i.e. the schemes that are fairly ‘adaptation oriented’.
- However, there are a number of schemes which do not focus directly on adaptation but nevertheless may be considered as promoting adaptation indirectly. *We have consciously not included these schemes to maintain the focus exclusively on adaptation.*
- The basic idea here is to examine how adaptation as a policy issue is already factored in our sectoral initiatives.

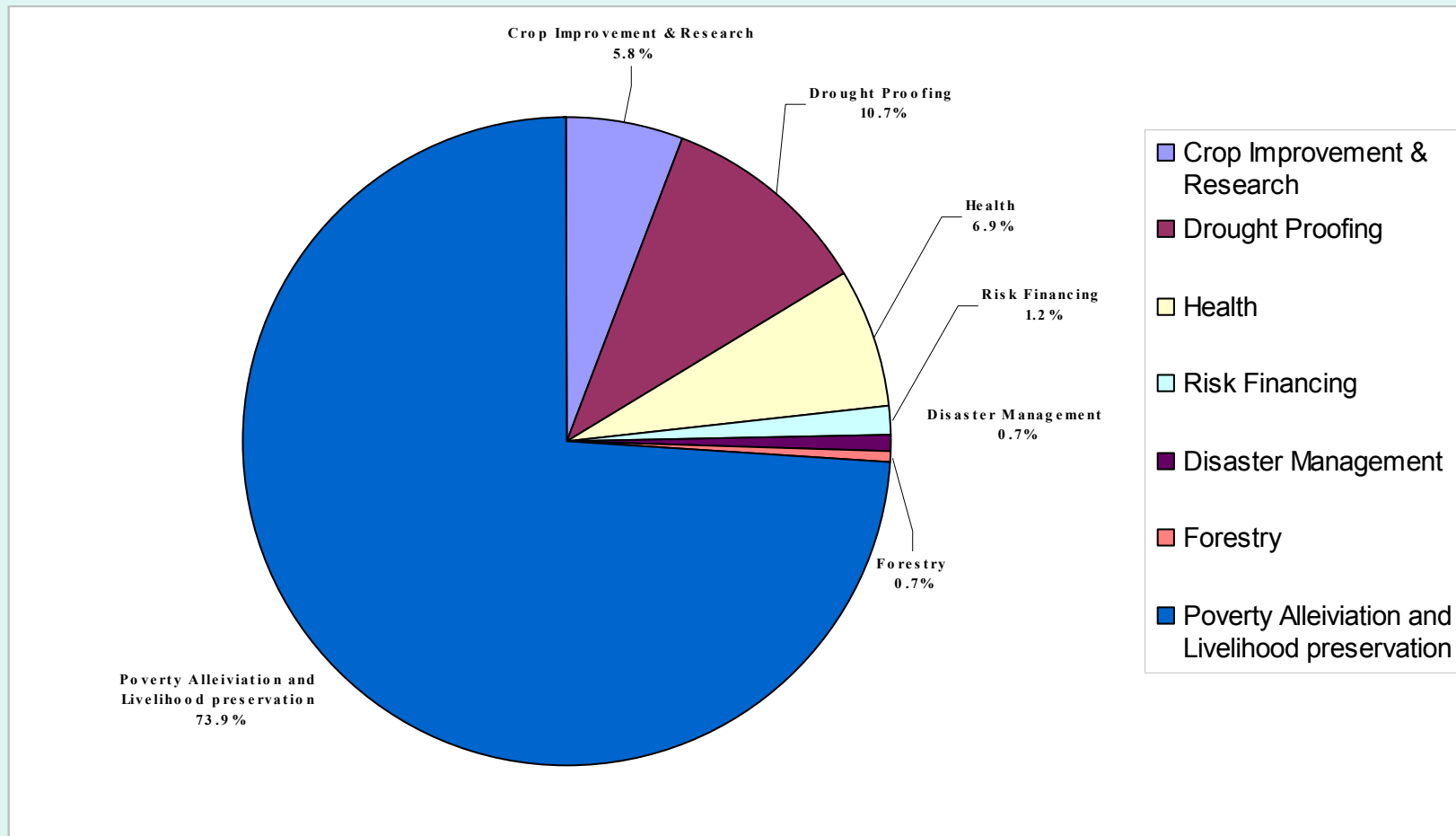
## India's Expenditure on adaptation activities as percentage of GDP and percentage of Total budgetary outlay.

Year	GDP (billion USD: at constant prices)	Total of Expenditure Budget (billion USD)	Exp. on adaptation prog (billion USD)	Exp. on adaptation as % of total Central Govt. exp	Expenditure on adaptation as % of GDP
2000-01	423.81	56.66	2.66	5	1
2001-02	448.39	82.83	2.88	3	1
2002-03	465.39	91.82	3.71	4	1
2003-04	505.13	107.79	4.81	4	1
2004-05	543.11	114.95	4.78	4	1
2005-06	591.94	115.62	9.52	8	2
2006-07	646.37	132.19	14.03	11	2

## Percentage of Adaptation Expenditure to Total Expenditure and GDP



# Weight of each component: 2006-07



# *To Conclude*

- Even though India is a developing country *with competing claim on resources, we are deploying massive fiscal resources that also address adaptation.*



## To Conclude (Contd..)

- While India is already expending over 2% of GDP programmes that also address adaptation, in order for no let up on the development effort, pure adaptation efforts need to be financed with new additional resources.

# To Conclude (Contd..)

- It is clear, that the resources, including technology R&D and transfer, required globally for Adaptation are of similar order of magnitude as for GHG Mitigation.
- For this we should realize resources from the entire carbon market, as is being done on a small scale from the 2% levy on the CDM proceeds, apart from providing new and additional resources.
- Diversion of ODA resources from economic growth and poverty alleviation in developing countries for adaptation is not the answer as development is the best form of adaptation.

**Thank you**