Mainstreaming Disaster Risk Reduction into National Development Planning and Financing in Asia-Pacific
Outline

1. Development, sustainable development and disaster
2. Guidelines for mainstreaming Disaster Risk Reduction in National Development Planning
3. Tracking public investment on DRR: Case Studies from Asia-Pacific
What is development?

- Development means “improvement in a country's economic and social conditions”.
- More specifically, it refers to improvements in ways of managing an area's natural and human resources in order to create wealth and improve people's lives (and happiness).
- Development has economic, social and environmental dimensions that are closely interrelated.
Three dimensions of development

Economic
- How wealth is generated and how wealthy a country is
  - Indicators – GDP, Per Capita Income

Social
- How economic development promotes social justice and equity for all sections of society
  - Indicators – HDI, GDI, inclusive development

Environmental
- How natural environment is protected and natural resources are used in a sustainable manner
  - Indicators – EPI, Ecological footprint

Sustainable development is a development strategy that balances the needs of society, economy and environment.

??
Sustainable Development

Environmental
- A Viable Natural Environment
- Sustainable Natural and Built Environment
- Sustainable Economic Development

Social
- Nurturing Community

Economic
- Equitable Social Environment
- Sufficient Economy
Disasters

Disaster = \textit{Dis} (bad) + \textit{Astor} (star)

Risks of disaster = \left[ \{ h \times v \} \times e \right] \div c

\textbf{h = Hazards} - \textit{Potentiality} of a physical event that may cause loss of life or property
\textbf{v = Vulnerabilities} - \textit{Factors or processes} - physical, social, economic, and environmental - which increase susceptibility of an area or a community to impact of hazards
\textbf{e = Exposure} – \textit{Exposure} to the hazards
\textbf{c = Capacities} - \textit{Strengths and resources} available within a community, society or organization that can reduce the level of risk, or the effects of a disaster.
Three dimensional view of disaster and development

1. Deficits in development create risks of disasters
2. Development creates new risks of disasters
3. Disasters erode gains of development
DISASTERS ERODE GAINS OF DEVELOPMENT
Deaths
Damaged houses
Infrastructure
Settlements
Environment
DEFICITS IN DEVELOPMENT CREATE RISKS OF DISASTERS
Poor are more vulnerable to disasters
Vulnerable settlements and houses more prone to disasters
Women
Children
Aged are vulnerable to disasters
DEVELOPMENT CREATES NEW RISKS OF DISASTERS
Unplanned developments in flood panes
Coastal settlements exposed to sea storms due to denuded mangroves
Gas leaks from industries
Releases from reservoirs
Accidents
Poor enforcement and regulation of building activities
Impacts of Disasters since the 1992 Rio de Janeiro Earth Summit

In 1992, the United Nations organized a conference on environment and development in Rio de Janeiro, called the Earth Summit. The purpose of the conference was to rethink economic growth, advance social equity and ensure environmental protection.

Twenty years later, the UN is organizing Rio+20, a chance to move away from business-as-usual and to end poverty, address environmental destruction and build a bridge to the future. Disaster risk reduction (DRR) plays an important part in this future of sustainable development.

Here’s a look at the impact of disasters since the Earth Summit (1992-2012).

**Impact by disasters**

- People Affected: 2437 people, 1112 persons, 96 persons
- Damage (USD billions): 720, 634, 480
- People Died: 7970

**Impact by top 10 countries**

- **China**: 2.5 billion people affected, 928 million people
- **USA**: 560 billion in damage (USD)
- **Haiti**: 230675 people killed

DATA SOURCES:

- OCHA/CRED International Disaster Database: Data version: 13 June 2012 - V1:10 Disasters: Natural Disasters as categorized in EM-DAT. Affected: The sum of injured, homeless, and people requiring immediate assistance during a period of emergency. It can also include displaced or evacuated people from disasters. Damage: Estimated figures. Killed: Persons confirmed as dead and persons missing and presumed dead.

Typical 3-class passenger capacity is 416.
Asia-Pacific shared major burden of disasters

<table>
<thead>
<tr>
<th>Regions</th>
<th>Disaster Events</th>
<th>Disaster Deaths</th>
<th>Disaster Injured</th>
<th>Homeless (Million)</th>
<th>Total Affected (Million)</th>
<th>Economic loss (US $ Billions)</th>
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<tbody>
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<td>64198</td>
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<td>4391367</td>
<td>35.35</td>
<td>3058.72</td>
<td>1781.70</td>
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</table>

Asia-Pacific (%) | 43.1 | 56.2 | 41.2 | 82.7 | 88.3 | 48.9
# Levels of exposure to disaster risks

<table>
<thead>
<tr>
<th>Country</th>
<th>Area exposed (%)</th>
<th>Population exposed (%)</th>
<th>Economy exposed (%)</th>
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</thead>
<tbody>
<tr>
<td>1. Bhutan</td>
<td>31.7</td>
<td>74.5</td>
<td>74.9</td>
</tr>
<tr>
<td>2. Cambodia</td>
<td>9.1</td>
<td>31.9</td>
<td>34.5</td>
</tr>
<tr>
<td>3. China</td>
<td>7.2</td>
<td>34.8</td>
<td>39.2</td>
</tr>
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<td>4. Fiji</td>
<td>60.7</td>
<td>53.5</td>
<td>81.2</td>
</tr>
<tr>
<td>5. India</td>
<td>22.1</td>
<td>47.7</td>
<td>49.6</td>
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<td>6. Indonesia</td>
<td>11.5</td>
<td>67.4</td>
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<td>7. Iran</td>
<td>31.7</td>
<td>69.8</td>
<td>66.5</td>
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<td>8. Maldives</td>
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<td>9. Mongolia</td>
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<td>11. Pakistan</td>
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<td>12. Philippines</td>
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<tr>
<td>13. Samoa</td>
<td>61.7</td>
<td>51.6</td>
<td>82.7</td>
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</table>
Mainstreaming
What is mainstreaming

- **Literal meaning:** (a) deepest part of a stream where most fishes would gather; (b) *Main* and *side* streams (tributaries or distributaries)
- **Derivative meaning:** mainstream culture, religion or politics that are dominant in a region
- **Adaptive meaning:** Since nineties many global policy frameworks adapted the term to highlight some critical cross-cutting but neglected issues to bring them to the centre-stage of development
  - Mainstreaming gender in development
  - Mainstreaming environment in development
  - Mainstreaming climate change adaptation in development
Mainstreaming DRR in Development

“Mainstreaming disaster management into the development planning process essentially means looking critically at each programme, activity and project that is being planned, not only from the perspective of reducing the existing risks disaster disasters, but also from the perspective of minimizing its potential contribution to creation of new risks of disasters.”

UNISDR
WCED, IDNDR, YSSW

• Concern for disaster risk reduction was born from the global movement for sustainable development.
• It branched off to a different track since the nineties:
  o International Decade for Natural Disaster Reduction (1990-1999)
  o Yakohama Strategy for a Safer World 1994
  o Hyogo Framework of Action 2005
Hyogo Framework of Action: 7 principles of mainstreaming

1. Institutional mechanism
   Support creation and strengthening of national integrated disaster risk reduction mechanisms,

2. Legal mechanism
   Adopt, or modify where necessary, legislation to support disaster risk reduction, including regulations,

3. Integration in development policies and planning
   Integrate risk reduction, as appropriate, into development policies and planning at all levels of government and in all sectors,

4. Financing
   Allocate resources for implementation of disaster risk reduction policies, programmes, laws and regulations,

5. Decentralisation
   Decentralize responsibilities and resources for disaster risk reduction to relevant sub-national or local authorities,

6. Capacity Building
   Develop capacity-building plans and programmes for meeting on-going and future requirements,

7. Political will
   Demonstrate the strong political determination to integrate DRR into development programming,
12 sectors for mainstreaming

1. Food security
Promote food security as an important factor in ensuring the resilience of communities to hazards, particularly in areas prone to drought, flood, cyclones and other hazards

2. Livelihood
Promote diversified income options for populations in high-risk areas to reduce their vulnerability to hazards, and ensure that their income and assets are not undermined by development policy and processes that increase their vulnerability to disasters.

3. Health
Integrate disaster risk reduction planning into the health sector; promote the goal of “hospitals safe from disaster” by ensuring that all new hospitals are built with a level of resilience that strengthens their capacity to remain functional in disaster situations

4. Infrastructure
Protect and strengthen critical public facilities and physical infrastructure, particularly schools, clinics, hospitals, water and power plants, communications and transport lifelines, disaster warning and management centres, and culturally important lands and structures through proper design, retrofitting and re-building, in order to render them adequately resilient to hazards.
5. Urban Planning
Incorporate disaster risk assessments into the urban planning and management of disaster-prone human settlements, in particular highly populated areas and quickly urbanizing settlements. The issues of informal or non-permanent housing and the location of housing in high-risk areas should be addressed as priorities, including in the framework of urban poverty reduction and slum-upgrading programmes.

6. Building codes
Encourage the revision of existing or the development of new building codes, standards, rehabilitation and reconstruction practices at the national or local levels, as appropriate, with the aim of making them more applicable in the local context, particularly in informal and marginal human settlements, and reinforce the capacity to implement, monitor and enforce such codes, through a consensus-based approach, with a view to fostering disaster-resistant structures.

7. Land use planning
Develop, upgrade and encourage the use of guidelines and monitoring tools for the reduction of disaster risk in the context of land-use policy and planning.

8. Rural development
Incorporate disaster risk assessment into rural development planning and management, in particular with regard to mountain and coastal flood plain areas, including through the identification of land zones that are available and safe for human settlement.
9. Social Protection
Strengthen the implementation of social safety-net mechanisms to assist the poor, the elderly and the disabled, and other populations affected by disasters

10. Post-disaster recovery
Incorporate disaster risk reduction measures into post-disaster recovery and rehabilitation processes and use opportunities during the recovery phase to develop capacities that reduce disaster risk in the long term

11. Risk Insurance
Promote the development of financial risk-sharing mechanisms, particularly insurance and reinsurance against disasters

12. Private sector
Promote the establishment of public–private partnerships to better engage the private sector in disaster risk reduction activities; encourage the private sector to foster a culture of disaster prevention, putting greater emphasis on, and allocating resource to, pre-disaster activities such as risk assessments and early warning systems.
Snapshot of progress in Asia-Pacific

- Average score of 58 countries of Asia-Pacific on Priority 4 was less than global average – 2.9 during 2011-13 cycle and 2.8 and 2.7 during the previous two cycles.
- 5 countries reported substantial achievements (Japan, Australia, New Zealand, China, Korea), 13 minor progress, remaining countries either did not report or reported very small achievements.
- North East Asia reported maximum progress, followed by Central, South, South East and Pacific Island countries.
- Regional initiatives: AADMER Work Programme (2005-15), SAARC Road Map, ADPC RCC
- Some countries (Indonesia, Philippines, Bangladesh, India, Sri Lanka) initiated innovative measures.
Legal-institutional framework

Policy Framework

Strategic Framework

Operational Framework

Most of the countries have developed legal-institutional framework on mainstreaming DRR in development

Many countries have announced national policies for mainstreaming DRR in development

Few countries have developed strategic framework on mainstreaming

None of the countries can be said to have developed operational framework for mainstreaming DRR across all sectors of development
Reasons for slow progress

1. Mainstreaming is difficult and complex
2. Political support for mainstreaming minimal in countries except those that suffer recurrent disasters
3. National disaster management agencies remained focused more on DM than DRM
4. Global agencies (UNDP, UNISDR, GFDRR) did not systematically follow up initial works on mainstreaming by ProVention Consortium, Cranefield Hazard research Centre, Cranefield University, Stock Environmental Institute
Approach to guidelines on mainstreaming DRR in national planning

No general set of guidelines can apply equally to all countries, regions and sectors. It would vary according to

- Levels of hazards, risks and vulnerabilities of countries and regions
- Contexts of risk dynamics in uncertain futures
- Levels of development, capacity and resources
- Types of legal, institutional and regulatory system of development planning in the countries
- Sectors of development that would need to be addressed
Three separate but interconnected processes of mainstreaming

- **National Development Plan:** Strategic framework of disaster risk management in national plans
  - Planning Commission/Planning Development Department in consultation with all stakeholders

- **National Guidelines for Mainstreaming Disaster Risk Reduction across all sectors of development**
  - National Disaster Management Authority in consultation with all sectoral Ministries/Departments

- **National guidelines for mainstreaming Disaster risk reduction in specific sectors**
  - Sectoral Ministries/Departments in consultation with National Disaster Management Authority
Strategic Framework of Disaster Risk Management in National Development Plan

1. Critical review of lessons learnt on DRM from previous plans
2. Contexts of current plan
3. Assessment of total risks

Total risks = Hazards x Vulnerabilities x Exposure ÷ Capacities

4. Strategic planning for disaster risk reduction

Total risks - Prevention + Mitigation = Acceptable risks = Preparedness

Absolute prevention

Relative to conditions specific to countries

Structural
- Heavy Engineering Solutions
- High Technical Solutions

Non structural
- Education Awareness CBDRM
- Training Capacity Building

Risk Transfer

Response
- Relief
- Recovery
- Reconstruction

Regulatory Framework
National Guidelines for Mainstreaming DRR across all sectors of development

1. Conceptual issues
The guidelines should provide clear ideas about the concepts of hazards, vulnerabilities, exposures, capacities, disaster risks, disaster risk management, disaster risk reduction, mainstreaming disaster risk reduction, and other technical terms used in the guidelines.

2. Risk Identification
Every development programme, activity and project (PAP) that is being planned should clearly identify: (a) existing risks of disasters that may impact adversely on the PAP; (b) existing risks of disasters that may be reduced due to the PAP; and (c) new risks of disasters that may be created due to the PAP.

3. Risk Assessment
Assessment of risks of disasters would include: (a) hazards, both natural and manmade; (b) vulnerabilities - physical, social, economic and environmental; (c) exposures of human being, assets; (d) existing institutional and community capacities to manage the risks of disasters.
4. Risk Analysis
Risk analysis (also known as Disaster Impact Analysis) would be both quantitative and qualitative. Quantitative analysis is quantification of risks in terms of value of (a) existing risks that would impact on PAP; (b) existing risks that may be reduced; (c) new risks that may be created; and (d) additional costs that have to be incurred due to prevention or mitigation of existing and/or new risks.

5. Cost-Benefit Analysis
Analysis of risks, in both quantitative and quantitative terms, would enable cost-benefit analysis of the project from the angle of risks of disasters, which would feed into the overall cost-benefit analysis of the project. Ideally no PAP should be taken up if the costs of disaster risks clearly outweigh the benefits.

6. Designing PAP
Every programme, activity and project (PAP) that is planned should be so designed that a risk management approach is built into it. It should not only identify, assess, and analyze the risks associated with it, but should also have a risk management plan that include measures for risk reduction, preparedness for response and recovery, training and capacity development and institutional and operational systems and processes for risk management.
7. Consultative Process
PAPs should be developed through a consultative process that is transparent, inclusive and accountable. The consultative process must give voice to poor and marginalised groups, who are often among the most vulnerable to natural hazards, and ensure that their interests are adequately addressed and their rights protected.

8. Maintenance and Upkeep
PAPs should have built in provisions for adequate upkeep and maintenance to ensure that the assets created due to development investments remain in good condition and are resilient to the risks of disasters.

9. Project Cycle Management
Every development project has its own cycle which starts with conceptualization of the project and goes through the process of feasibility study, design, appraisal, financing, implementation, operation and maintenance. The initial planning stages of the project cycle are the key entry points when risks of disasters can be factored into projects, but the process should go on during all subsequent phases of implementation and maintenance.

10. Monitoring and evaluation
Risk monitoring should be an integral part of monitoring and evaluation of all development programmes, activities and projects.
National guidelines for mainstreaming DRR in specific development sectors

1. **Social sectors**
   (Poverty reduction, education, health, gender issues, child protection, disability, aged etc.)

2. **Productive sectors**
   (Agriculture, manufacturing, services, trade etc.)

3. **Infrastructure sectors**
   (Roads and bridges, water supply, telecommunication power transmission and distribution, water supply and distribution, drainage and sewerage, housing etc.)

4. **Multi-sectoral planning processes**
   (Urban development and rural development)
Planning and budgeting

• Soviet system of national development planning which had strong influence in Asia-Pacific is almost over
• Planning is now mostly strategic and perspective planning which may guide but not determine actual budget allocations
• Budget allocations are determined by resource mobilization and competing priorities of government
• DRR investments have low priority in every government
• If DRR plans are developed into viable projects with high cost-benefit ratio chances of allocations are higher
• DRR tracking in public investments is another useful tool which can help to mainstream existing budget allocations for risk reduction
Tracking public investments on disaster risk reduction
HFA Priority for Action

‘Allocate resources for the development and implementation of disaster risk management policies, programmes, laws and regulations on disaster risk reduction in all relevant sectors and authorities at all levels of administrative and budgets on the basis of clearly prioritized actions’.

Action1(ii)(f)
Progress achieved

- **GAR 2009**: Hardly few countries provided dedicated and adequate resources for DRR, which still heavily depends on resources from bilateral and multilateral cooperation on short term stand alone project that generally do not facilitate institutionalization or sustainability.
- **GAR 2011**: less than one country in five could describe the percentage of their national budgets assigned to disaster risk management, indicating that allocating dedicated resources remains the exception and not the norm.
- **HFA Mid-term Review**: only 20 countries had dedicated budget allocations to local governments for disaster risk management even though 65 percent of all countries have made local governments legally responsible for the same
Pacific Island

- SOPAC conducted two studies which analyzed investment in disaster risk management in the Cook Islands and Vanuatu through an analysis of National Government Funding.
- The studies found that although the cost of disaster has regularly exceeded the annual allocations for, both the governments continue to regard DRM solely through the lens of response, relief, recovery and rehabilitation.
- Investment in risk reduction measures were not recognized as part of DRM and were thus invisible in the annual budgets at the sectoral level.
• World Bank had conducted a study on public investments on disaster risk management in Nepal in 2009.
• During 1998-2008 Nepal spent USD 164.4 million on ex-ante DRR and USD 237.3 million on ex-post response and reconstruction.

Ex-ante investment has remained constant, but ex-post expenses has fluctuated widely.
Indonesia

• Regulation 21 of 2008 on Disaster Management Operation structured public investments on DRR into 7 programs and 33 activities that are aligned with HFA.

• Based on these classifications 71 projects are identified and allocations made during 2006-12 in the annual budget of national government are computed.

• Analysis shows that allocation on disaster management, as also its share in national budget and GDP has increased progressively during these years.
## Trend in DRR Investment

<table>
<thead>
<tr>
<th>Year</th>
<th>DRM Allocation (IDR billion)</th>
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<tbody>
<tr>
<td>2006</td>
<td>2,548</td>
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<td>2007</td>
<td>3,558</td>
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<td>2008</td>
<td>4,386</td>
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<td>2009</td>
<td>3,807</td>
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<tr>
<td>2010</td>
<td>5,158</td>
</tr>
<tr>
<td>2011</td>
<td>8,997</td>
</tr>
<tr>
<td>2012</td>
<td>9,876</td>
</tr>
</tbody>
</table>

### Graphical Representation

- **% share of National Budget**
- **% share of Central Budget**
- **% share of GDP**
Findings

• Composition of DRR investment
  o Disaster Mitigation and Prevention (76%)  
  o Disaster Preparedness (12.7%) 
  o Research, Education and Training (5.8%) 
  o Early warning system (3.3%) 
  o Institutional Capacity Building (0.8%) 
  o Community Participation for DRR (0.7%) 
  o DM Planning (0.5%) 

• 14% of DRR budget mobilized from foreign loans and grants; 86% from domestic resources

• Average ratio of DRR budget to total budget in municipalities (1.1%) was higher than provinces (0.6%) and regencies (0.3%).
Limitations

‘Not all activities on DRR could be captured by this research. Some DRR activities are embedded in other activities that could not be separately identified from other activities. Therefore actual DRR investments could be greater than what is reflected in the study report’.
• DRR allocations are classified into three major heads:
  (a) Understanding hazards,
  (b) Minimizing exposure and
  (c) Lessening vulnerability/ building resilience.
• Further sub-classified into a number of minor heads
• Allocations computed from the GAA 2009 to 2011
• Resultant figures analyzed from various angles:
  o Trends in allocation over the years
  o Percentage allocation in terms of GDP
  o Sectoral and regional distribution of allocations
  o Source of allocations in terms of domestic resource and foreign assistance.
Analytical flow of DRR allocation

How much is the total budget allocation that goes to DRR? How is this changing over time?

What is the share of the DRR budget to the total national budget? What is the share of the DRR budget to GDP?

What is the distribution of the DRR budget among different DRR elements? Are funds targeted for pre-disaster preparedness? post-disaster recovery?

How much of the DRR budget are from external sources (foreign-assisted)?

What share of the DRR budget allocation goes to different regions? Is it targeted toward those areas in greater need?
Findings

- DRR budget allocation expanded by 61.4% during 2009-11 (mainly post typhoons Ondoy and Pepeng)
- Still it is 2.12% of national budget and 0.28% of GDP
  - Minimization exposure (62.3%)
  - Lessening vulnerability/building resilience (33%)
  - Understanding hazard’ (3.7%)
- Share of foreign loan to total DRR budget allocation increased from 7.4% in 2009 to 27.3% in 2011,
- Half of the allocations are spent on region specific projects
India

- **Identification**: to identify schemes/programmes/projects that have relevance for DRM
- **Classification**: to classify schemes so identified in terms of budgetary allocations
  - Dedicated schemes: when hundred per cent of allocations are on DRM
  - Embedded schemes: when less than hundred per cent of allocations are on DRM
- **Analysis**: two levels - (a) as per Priorities of Action of HFA; (b) as percentage of total allocations and GDP
- **Tracking**: tracking funds to their destinations –
- **Impact**: what difference such investments are making in better DRM
Dedicated schemes

• Total number of dedicated schemes: 37
• Number of Ministries/Departments: 8
• Total allocations 2011-12: Rs. 11708.47 Cr (USD 2.342 billions)
• % of total budgetary allocations on dedicated schemes: 0.94%
• % of GDP allocated on dedicated schemes: 0.1%
## Trend of allocations on dedicated schemes

<table>
<thead>
<tr>
<th>Year</th>
<th>Allocations (Rs. Cr.)</th>
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<tbody>
<tr>
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<td>5827.7</td>
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<td>2010-11</td>
<td>11417.4</td>
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<tr>
<td>2011-12</td>
<td>11708.5</td>
</tr>
</tbody>
</table>

![Graph showing trend of allocations on dedicated schemes](image)
Distribution of allocations on dedicated schemes

- HFA-1: 0.29%
- HFA-3: 1.1%
- HFA-2: 1.2%
- HFA-4: 13.52%
- HFA-5: 83.9%
Embedded schemes

• Total number of dedicated schemes: 85
• Number of Ministries/Departments: 75
• Total allocations 2011-12: Rs. 396272.26 Cr (USD 79.25 billions)
• % of total budgetary allocations on dedicated schemes: 32.02%
• % of GDP allocated on dedicated schemes: 3.38%
Trend of allocations on embedded schemes

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<th>Year</th>
<th>Allocations (Rs. Cr.)</th>
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<td>2010-11</td>
<td>1108749.20</td>
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<tr>
<td>2011-12</td>
<td>1237728.83</td>
</tr>
</tbody>
</table>
Distribution of allocations on embedded schemes

- **HFA-2**
  - Rs. 13299.36 crores
  - 3.5%

- **HFA-3**
  - Rs. 66394.42 crores
  - 16.7%

- **HFA-4**
  - Rs. 316578.5 crores
  - 79.8%
Limitations

• Budget allocations per se do not provide much information on quantum and nature of investments on embedded schemes on DRM
• Many investments on embedded schemes are not very explicit and remain hidden under broader plans and objectives of the schemes
• It is only through detailed sectoral analysis that it would be possible to locate investments in each sector and quantify them properly
• It was beyond the scope of this study to conduct such sectoral analysis
Tremendous scope for mainstreaming DRR in development

- Rs. 12,40,000 crores spent by 33 Ministries and Departments of Government of India on 83 schemes and programmes every year have elements of disaster risk management that can be mainstreamed
- No systematic exercise has been done to mainstream these expenditure for better management of disaster in the country
- This offers tremendous scope and challenge for mainstreaming DRR in development in India
Framework

Budget of National Government

Scanning of Schemes and Programmes of all Ministries and Departments of National Government and the allocations on Revenue and Capital Head of each Scheme and Programme

Analysis and Classification of the Schemes in two categories:
- a) ‘Dedicated’ Schemes on which hundred percent of the allocations are on disaster management/disaster risk reduction;
- b) ‘Embedded’ Schemes in which allocations are less, but which contain elements that have potential for disaster risk reduction

Dedicated Schemes
Measurement of allocations as share of total budget

Classification of Dedicated Schemes
- First level: As per 5 Priorities of Hyogo Framework of Action
- Second level: As per activities/sub-activities of HFA Priorities

Embedded Schemes
Measurement of allocations as share of total budget and of GDP

Classification of Embedded Schemes
- First level: As per 5 Priorities of Hyogo Framework of Action
- Second level: As per activities/sub-activities of HFA Priorities

Devolution of fund from the National to Provincial and Local Government on disaster management/disaster risk reduction

Need & Balance Study
Whether investments strike balance among all relevant needs

Tracking of investments to their destinations

Impact Analysis
Over space and time

Mainstreaming DRR in Development
Six-fold process of mainstreaming DRR in each sector of development involving all relevant stakeholders

Similar analysis of State/local budgets