

# Climate change risk management approach adopted by TA 7984-NEP

**-Pramila Adhikari**  
Department of Irrigation  
Nepal



**ADB**

This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

# What is climate change risk management?

- Climate change risk management identifies which infrastructure is **exposed to greater risk** from climate change, and **prioritises infrastructure** that is more vulnerable and requires additional protection

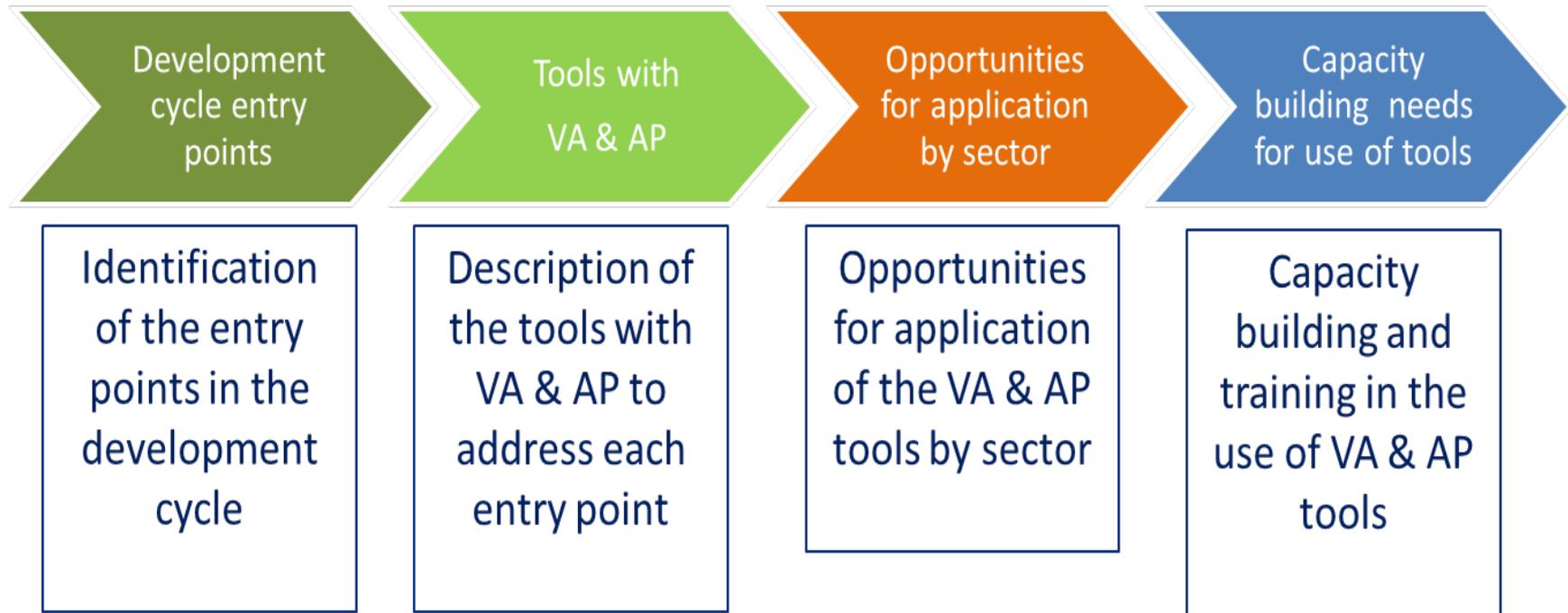


# What is a climate change risk management framework?

- The CC Risk Management Framework for Nepal infrastructure sectors provides a **series of steps for reducing the risks of infrastructure damage or loss** from climate change and extreme events

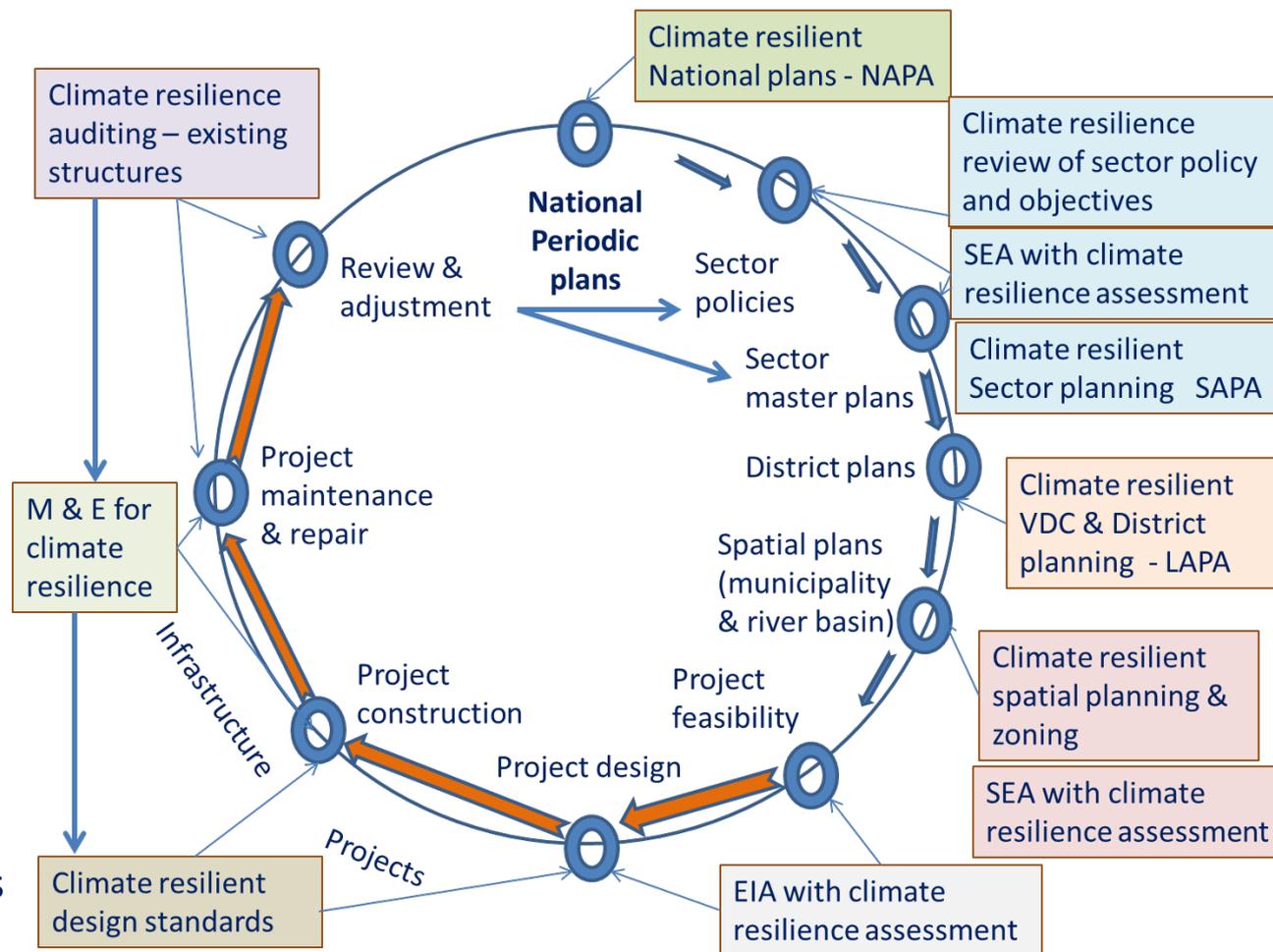


# Components of Risk Management Framework





# Tools for introducing climate resilience at different entry points

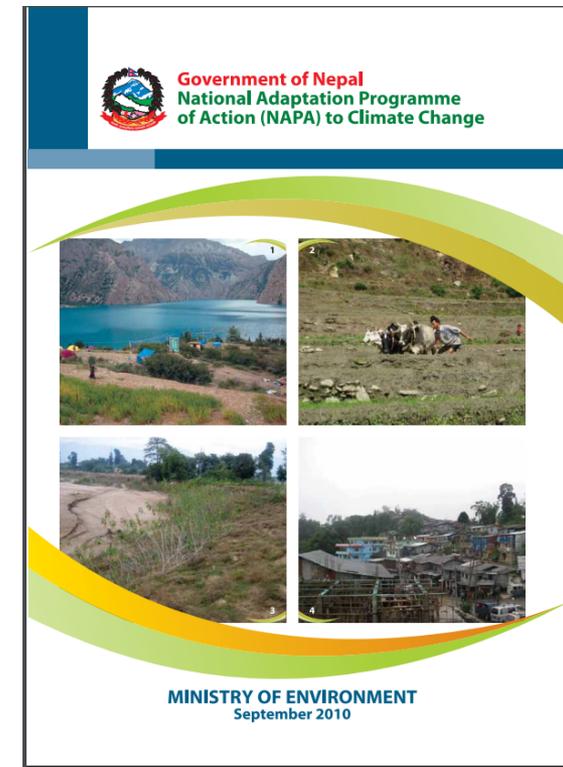


## Using Support Tools:

- VA and AP toolkit
- District CC threat profiles
- Hazard mapping
- Cost effective assessment for adaptation options

# Climate change planning tools

- 1. National Adaptation Plan:** National level comprehensive medium- and long-term climate adaptation planning
- 2. Sector Adaptation Plans:** Planning for mainstreaming climate resilience into the way sector agencies plan and go about their routine business to fulfil their mandates
- 3. Local Adaptation Plans:** Integrate top-down climate risk assessments with bottom-up community-led vulnerability assessments
- 4. Strategic Environmental Assessments:** Ensure climate change is considered in strategic planning

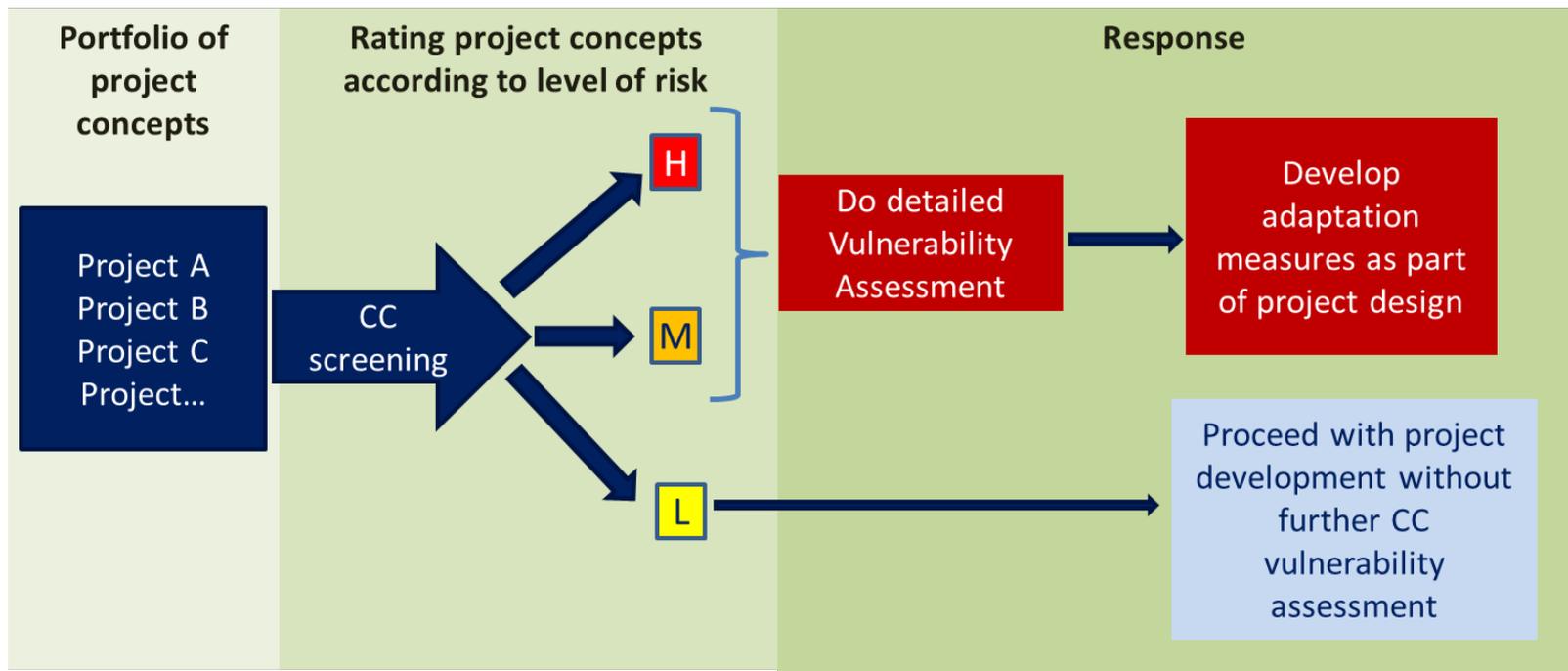


# Climate change risk management tools for resilient infrastructure

- 1. Initial screening** to identify which projects need to undergo further VA and AP assessment
- 2. Detailed VA & AP process** for new projects
- 3. IEE and EIA climate resilience appraisal guidance** for MOFALD and MOPE
- 4. Climate change resilience audit** for existing infrastructure

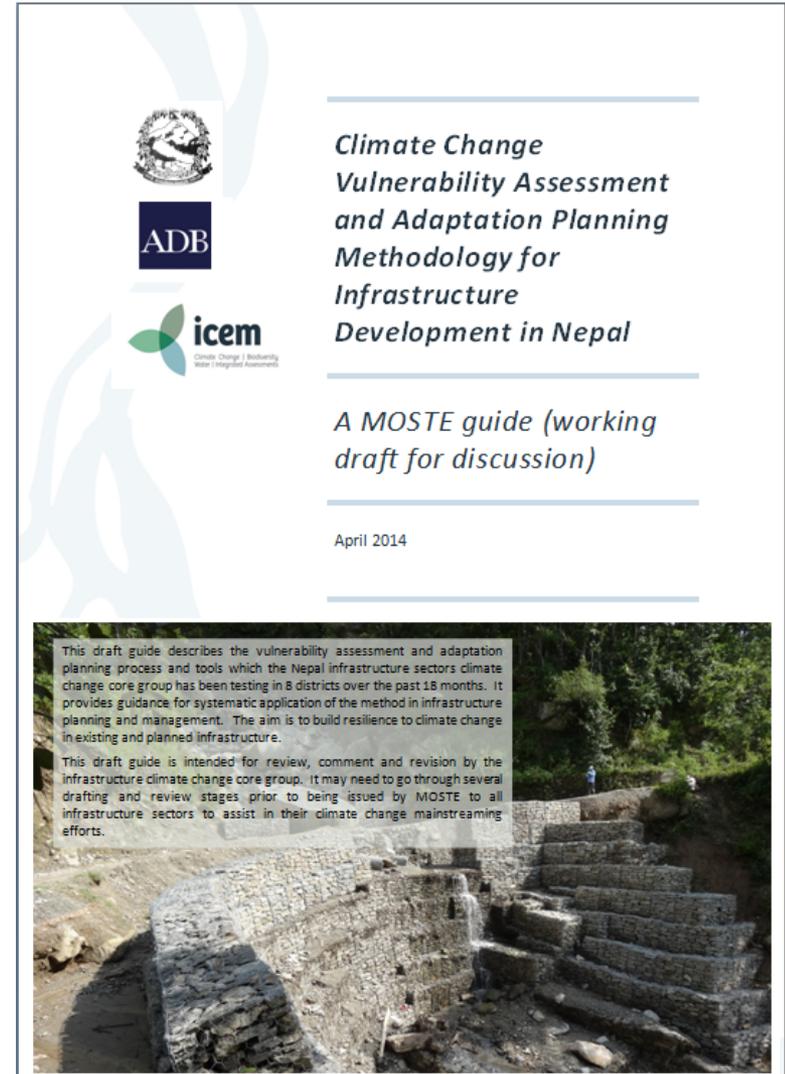
# 1. Initial climate change screening

- First step during conventional project development to identify the possible risks from climate change
- Rapid screening identifies whether detailed climate change vulnerability assessments and adaptation planning are required



## 2. Detailed vulnerability assessment and adaptation planning

- Used when **initial screening identifies a project as medium or High risk**
- **Vulnerability assessment** evaluates the **impact of climate change** on infrastructure
- **Adaptation planning** defines **adaptation options, priorities and plans**



# 3. IEE and EIA climate change resilience appraisal guidance

- **EIA regulations** should ensure that all EIAs and IEEs must have a section addressing climate change and show how design has been adapted.
- GoN officers use **checklists to make sure that climate change risks** are considered
- If not adequately addressed, **EIA/IEE sent back to add climate change risk assessment**

Checklist question	Yes	No	Don't know
• Has there been a historic risk of climate extreme events – storms, drought, flooding, flash flooding, landslides etc? Has this been described in the IEE?			
• Have extreme event hazard maps been prepared for the project area, and have they been extended for climate change? Have they been included in the IEE?			
• Have increased risks and impacts of such events due to climate change been considered in the IEE or Village Development Plan?			
• Does the IEE or Periodic Plan contain reference to or analysis of climate change threats, e.g. District Climate threat profiles?			
• Has the climate change vulnerability of the projected infrastructure been assessed in the IEE or periodic plan?			
a. Is the vulnerability assessment considered adequate?			

# 4. Climate resilience auditing

- VA & AP methodology used to audit climate resilience of existing infrastructure.
- Climate resilience auditing of the infrastructure assets of each agency should become a regular feature
  - **Defines overall risk** to the services provided by the agency,
  - **Lists adaptation measures required** and priorities
- **Requires a detailed asset database** (some departments do not have)
- Should be **incorporated into Annual maintenance plans**



# Thank you

