

## SESSION 02

TRAINING OF TRAINERS PROGRAMME

**Gender and Climate Change  
Adaptation and Resilience**

[insert date, month, year | time, time zone]

# Local and Sectoral Adaptation Models and Gender

(Insert Name and Organisation of the Presenter)

# Understanding Adaptation

- Adaptation refers to adjustment in ecological, social, and human systems in response to actual and expected climatic stimuli and their effects
  - Primarily, adaptation means risk management and reduction of vulnerability to climate variability, uncertainties, and climatic extreme events
  - Adaptation helps to cope better and harness benefits from the changed situation
- Adaptation to climate change involves anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause
- The goal is to reduce vulnerability and exposure to the harmful effects of climate change (like sea-level rise, extreme weather events, or food insecurity)
- It also encompasses making the most of any potential beneficial opportunities associated with climate change (for example, longer growing seasons or increased yields in some regions)

# Adaptation Models

- Adaptation models can be **short-term** (less than 10 years), addressing impacts that are already occurring and are likely to rise in the immediate future.
  - These are often **local measures, infrastructure or service-oriented** and often targeted to a specific risk (EWS)
- Many adaptation models are **medium or long-term responses**
  - These focus on **enhancing adaptive capacity** or the ability of a system (human, natural or managed) to adjust to climate change

Section

1

# Local Adaptation Models

# Local Adaptation Plans of Action (LAPA) in Nepal

- Initiated in 2013 as part of NAPA
- Also included in the NAP process
- LAPA is a spatial approach to adaptation planning.
  - Prepared at the local government level with coverage of a decentralized administrative or geographical unit
- May be with or without community participation
  - Although in most cases, LAPAs have mainstreamed participatory processes
- Consist of seven steps for integrating climate change resilience into local-to-national planning processes

# Seven Steps of LAPA

## Step 1: Climate Change Sensitization

Gender analysis and mobility mapping



## Step 2: Vulnerability and Adaptation Assessment

Identification of vulnerable men and women across social groups in the hotspots



## Step 3: Prioritization of Adaptation Options

Gender sensitive multi-criteria ranking to prioritize adaptation actions based on gender needs and priorities

## Step 4: LAPA Formulation

Setting milestones and targets with focus on 'how to ensure equitable benefits for women'



## Step 5: LAPA Integration into planning process

Systems for gender and social inclusion including Gender Responsive Budgeting



## Steps 6 and 7: Implementation and Progress Assessment

Gender inclusion in decision making processes and M&E based on gender, age, class, class and ethnicity disaggregated data

# City-Resilience Action Plans

- Defines Urban Resilience as
  - the capacity of individuals, communities, institutions, businesses, and systems within a city
  - to survive, adapt and grow
  - no matter what kinds of chronic stresses and acute shocks they experience
- Uses multiple strategies to help cities understand their vulnerabilities and prepare for climate impacts and disasters

# The City-Resilience Framework

- The City Resilience Framework (CRF) describes the essential systems of a city in terms of four dimensions
  - Health and Wellbeing
  - Economy and Society
  - Infrastructure and Environment
  - Leadership and Strategy
- Each dimension contains three “drivers” – a total of 12 goals
- These are further broken into 52 indicators which reflect the actions that cities can take to improve their resilience



# CRF for health and wellbeing

CITY RESILIENCE DIMENSION	RELATED DRIVERS/GOALS	DESCRIPTION OF GOALS	GENDER AND INCLUSION CONSIDERATIONS
HEALTH AND WELL-BEING	Minimal human vulnerability	Indicated by the extent to which everyone's basic needs are met.	Access to food, water, shelter and basic assets for everyone especially vulnerable groups is critical.
	Diverse livelihoods and employment	Facilitated by access to finance, ability to accrue savings, skills training, business support and social welfare.	An inclusive approach to livelihoods ensures that all citizens in a city have unrestricted access to legitimate occupations, regardless of race, ethnicity, gender or sexual orientation.
	Effective safeguards to human health and life	Relying on integrated health facilities and services, and responsive emergency services.	Accessible and affordable day-to-day individual healthcare, as well as appropriate population-based interventions. Services or facilities that target vulnerable groups ensure that preventive and responsive strategies are inclusive and able to reach the entire population.

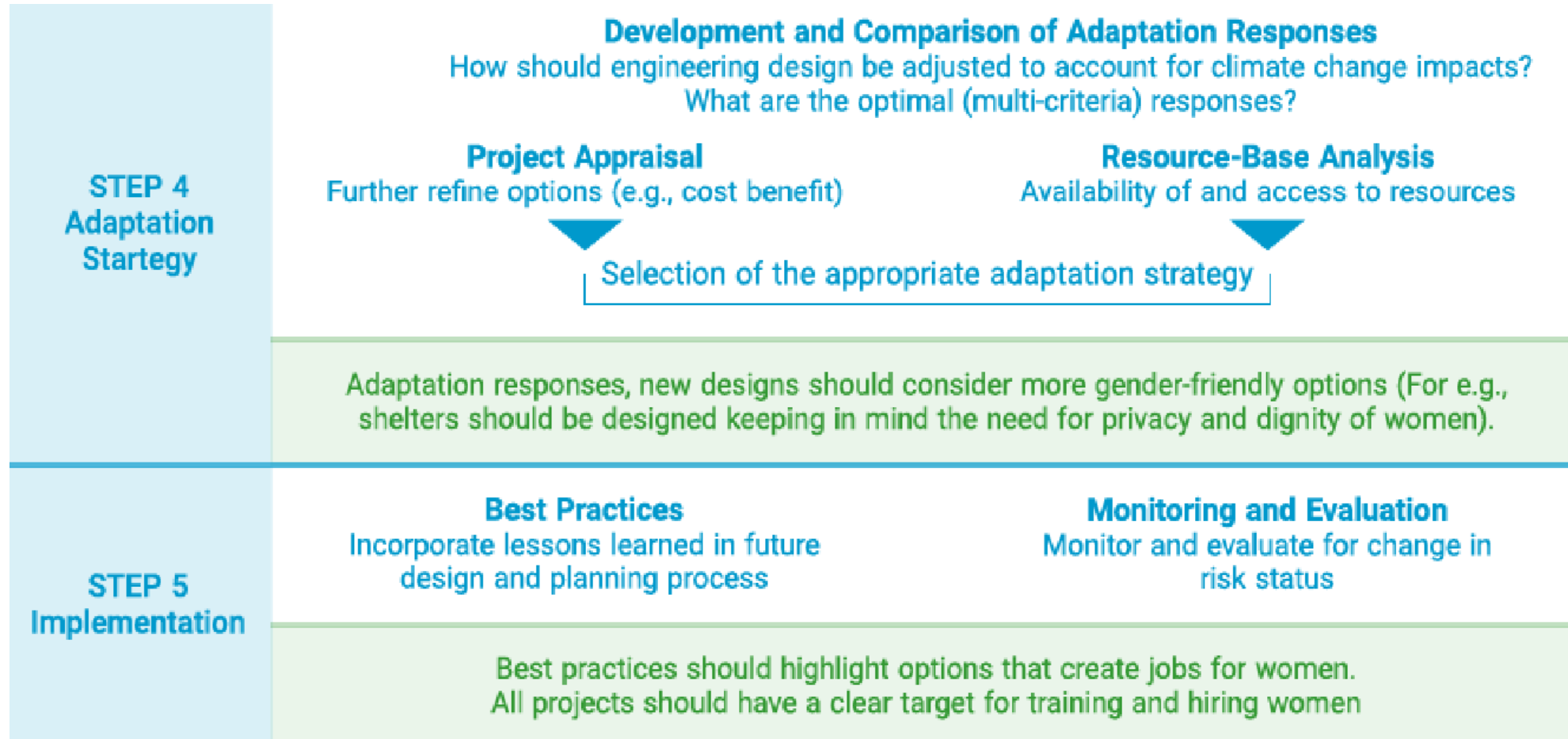
# Infrastructure-based Planning

- The approach stipulates an integration of climate change considerations in each phase of project implementation by:
  - Taking into consideration future climate conditions (along with past and current climate conditions); or
  - Considering uncertainty in the review and use of climate data through sensitivity testing and adjusting the design (for example, through a greater safety margin) or, at a minimum, adjusting the performance or service expectations of the designed structures.
- While these projects per se may seem gender-neutral, they may not essentially also benefit women due to the 'Male norm' influence in designs

# Gender-responsive infrastructure planning

- Gender-responsive infrastructure planning requires that
  - Rights, priorities, and needs of women and those with other gender identities are also considered
  - Women, along with men, are meaningfully included and represented in the planning, design, and management of the new infrastructure
  - The gender-differentiated access over infrastructure and related services is kept in mind while designing such services
- This involves mainstreaming gender across all steps of infrastructure planning and development

# Infrastructure planning process



# Ecosystem-Based Adaptation (EbA)

- Use of environmental assets and natural protection measures as solutions to address climate change and disasters
  - For example, *“floodplain forests and coastal mangroves provide storm protection, coastal defences, and water recharge, and act as safety barriers against natural hazards such as floods, hurricanes, and tsunamis; while wetlands filter pollutants and serve as water recharge areas and nurseries for local fisheries”*
- Central to the EbA concept is the importance of adopting a holistic approach to maintaining ecosystem structure and functioning, and ecosystem service provision
- However, ecosystems have limits beyond which they cannot function
  - Thus ecosystem resilience builds on developing and maintaining *“capacity of a system to tolerate impacts of drivers without irreversible change in its outputs or structure”*

# EbA and inclusion

- EbA often provides greater opportunity to target vulnerable groups whose livelihoods directly depend on natural resources
- EbA also provides a larger space for women's involvement
  - The knowledge that women have as managers of natural resources can provide important insights into the design of effective strategies

**However, gender integration is not a default process, and it is important to take steps that include local and gender-based experiences in EbA planning processes**

# Community-Based Adaptation (CBA)

- CBA is a community-led process, based on communities' priorities, needs, knowledge, and capacities, which should empower people to plan for and cope with the impacts of climate change
- CBA is generally driven by [multiple components](#)
  - Involves working in partnership with place-based communities to improve their capacity to adapt to climate risks and impacts
  - Knowledge enhancement of the communities- of both likely future changes in the climate and possible adaptation strategies
- CBA is more like a movement since it involves a community with a shared interest in advocating for institutional and financial support for vulnerable communities to adapt to climate change

# Key steps of a CBA model

- Focus on adaptive capacity-building than adaptation action
- Sustained mobilization for trust building among communities and with other stakeholders
- Recognise existing local power relations and create spaces for participation of vulnerable groups
- Integration of local wisdom and scientific knowledge through capacity building on complexities of climate change
- Community-based vulnerability assessments and resilience planning approaches
- Addressing underlying causes of vulnerability- building an integrated model
- Negotiating institutional barriers and coordination with government



# Gender mainstreaming in CBA

**Gender mainstreaming is a critical factor to the success of a CBA project**

**This requires:**

- Ensuring that women are part of all discussions of local vulnerability assessments
- Applications of participatory gender analysis tools to highlight the gender roles and gender-based vulnerabilities in the community
- Focus on knowledge and information sharing and capacity-building of women

**Section**

**2**

# **Sectoral Adaptation**

# Climate Smart Agriculture (CSA) and Food Security

- Climate Change will have an effect on the agriculture ecosystem, especially in Asia
  - Reduced average yields of most crops, especially rice, wheat, and maize
  - Sea level rise also threatens coastal and deltaic rice production areas
  - Indo-Gangetic Plains are under threat of a significant reduction in wheat yields
  - With reduced yields and production of rice and wheat, there is bound to be a “food production shortfall”

# Gender and CSA

- Women and girls will be more impacted
  - As they have the responsibility of ensuring food security within their households
  - Existing social discrimination and cultural practices with women and girls eating last and being the first to forgo nutrition in case of shortage will impact health
  - Increase water stress, will increase the work burden of women subsistence farmers who need access to water for food production and preparation
  - Changes in vegetation cover and frequent disasters will also affect women's livestock-based livelihoods more
  - Women and girls will be more impacted
- Climate Smart Agriculture (CSA) thus needs to be more gender-responsive

# Potential Gender Considerations in CSA projects

CSA-SENSITIVE PRACTICES	GENDER IMPACT	REQUIREMENTS FOR ADOPTION PRACTICE					
	Women's Control of Income from Practice	Relative Amount of Time Until Benefits are Realized	Potential for Women to Benefit from Increased Productivity	Female and Youth Labour Availability	Female Access to and Control of Land	Female Access to Water for Agriculture	Female Access to Cash and Ability to Spend It
Conservation Agriculture	Low	High	High	Low-Medium	High	Low	Low
Improved Home Gardens	High	Low	High	High	High	High	High
On-Farm Tree Planting	Low	High	Medium	High Initially, Low Later	High	High	Medium
Small-Scale Irrigation	Low-Medium	Low	High	Medium	High	High	Medium
Livestock Genetic Improvement	Low-High	High	High	Low-High	Low	High	Medium

# Gender Responsive Strategies for CSA projects

PROMOTING WOMEN'S LIVELIHOODS IN AGRICULTURE	GENDER PREPAREDNESS FOR CLIMATE-SMART AGRICULTURE	ADDRESSING STRUCTURAL CHANGES TO REDUCE GENDER BARRIERS AND DISCRIMINATIONS IN AGRICULTURE
<ul style="list-style-type: none"> <li>&gt; Analyze the impact of introducing new varieties and promote a more equitable distribution of reproductive work.</li> <li>&gt; Adapt promoted practices to the existing gender division of labour for agriculture and livestock management.</li> <li>&gt; Provide training on agricultural extension and climate smart agriculture to women.</li> <li>&gt; Make marketing facilities available.</li> <li>&gt; Institutionalize alternative provisions to accommodate women, women's groups and cooperatives that are unable to provide the collateral needed for accessing agricultural credit.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Utilize local agricultural knowledge and engage women and men, to ensure indigenous crop varieties are used where possible.</li> <li>&gt; Build community resilience on food security through the establishment of local climate-smart seed banks owned and managed by women.</li> <li>&gt; Involve women and men in conservation of biodiversity.</li> <li>&gt; Provide specific nutritional supplements for women and girls.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Facilitate equitable access to and control of resources, as well as the distribution of their benefits (including productive resources, jobs, training and credit).</li> <li>&gt; Improve women's land tenure security.</li> <li>&gt; Encourage equity in having access to irrigated land ownership.</li> <li>&gt; Expand access to credit, insurance and other financial mechanisms.</li> <li>&gt; Revise the existing strategies that enable the flow of credit from public/commercial banks and financial institutions to support and increase women's access to credit.</li> <li>&gt; Adapt participation/membership criteria and reduce participation barriers for women's active participation and leadership in decision-making bodies at all levels (i.e., forestry, watershed management, irrigation water, coastal management, biodiversity conservation and disasters).</li> </ul>

# Climate Change Adaptation with focus on Public Health and Epidemics

- Climate change is projected to increase threats to human health through direct effects of extreme events such as
  - heat-waves
  - floods and storms
- Additionally, it will have health impacts through
  - more complex pathways of altered infectious disease patterns like rising mosquito lines
  - negative effects on food and nutrition security and water scarcity

# Gender and health

- Women's time-poverty due to health care responsibilities will increase
- Mortality and health risks for women in Asia is also likely to be higher than men
  - Cultural practices leading to higher mortality risks during storms and flood events, greater risk of developing post-traumatic stress disorder (PTSD)
  - Higher impact of heatwaves, water, and vector-borne diseases (especially malaria)
  - Access to water and sanitation facilities, health care services, especially sexual and reproductive health services, will also be impacted during disasters
- There is also evidence of increased gender-based violence, child marriage, and trafficking
- It is thus important to adopt gender-responsive climate change adaptation strategies and practices in the health sector



# Adaptation strategies continued

GENDER RESPONSIVE ADAPTIVE STRATEGIES	GENDER RESPONSIVE ADAPTATION PRACTICES
<ul style="list-style-type: none"> <li>➤ Provide safe shelters and homes for both women and men</li> <li>➤ Training on gender-sensitive disaster risk reduction and early warning systems</li> <li>➤ Promote programmes that facilitate men to seek help for psychosocial problems</li> <li>➤ Empowerment of women to strengthen their capacity to question and change harmful behavioural norms that put them at risk in the case of extreme events</li> </ul>	<ul style="list-style-type: none"> <li>➤ Gender-sensitive disaster preparedness</li> <li>➤ Gender-sensitive early warning systems</li> <li>➤ Ensure women's participation on equal basis in all policy and programme cycles</li> <li>➤ Target women and men differently in communication campaigns and health promotion strategies, taking into account their gender norms and roles</li> <li>➤ Adopt strategies at all levels of programming to change norms and practices that prevent women or men from appropriate responses and coping mechanisms in situations of natural disasters</li> </ul>
<ul style="list-style-type: none"> <li>➤ A gender perspective must be incorporated into infectious disease analysis and research to target policies and programmes</li> <li>➤ Collected data must be disaggregated by sex, age, socioeconomic status, education, ethnicity, and geographical location, where appropriate</li> <li>➤ An understanding of gender and its implications for health and health-seeking behaviour should be incorporated into the training of health professionals and development of health-sector responses</li> </ul>	<ul style="list-style-type: none"> <li>➤ Ensure better availability and access to, and support by, health systems for both women and men, but especially for women, given their caregiving roles</li> <li>➤ Support outreach activities, using gender-sensitive information, education, and communication strategies and materials for advocacy and training</li> <li>➤ Promote childcare facilities and other approaches to support women's caregiving role, while trying to transform related gendered roles and norms</li> </ul>

# Gender Responsive Health Sector Adaptation

GENDER RESPONSIVE ADAPTIVE STRATEGIES	GENDER RESPONSIVE ADAPTATION PRACTICES
<ul style="list-style-type: none"> <li>➤ Promote water-saving practices that take into account the different uses and roles related to water for women, girls, and men</li> <li>➤ Address salination and arsenic contamination of water, proposing specific actions that consider the different patterns of exposure and impacts on women and men</li> <li>➤ Counter social stigma attached to the effects of arsenic poisoning on women and men</li> </ul>	<ul style="list-style-type: none"> <li>➤ Ensure affordable drinking water, taking into account the different roles and needs of women and men</li> <li>➤ Empower women and facilitate their equal participation in management of water resources at national, regional, and grassroots levels</li> <li>➤ Appropriate technologies for assuring potable water closer to where families live</li> <li>➤ Strengthen forestation and water harvesting mechanisms, considering the different roles, needs, and impacts on women and men</li> <li>➤ Promote women's rights to own land and ownership of land use certificates</li> <li>➤ Effective implementation of water policies that consider women's and men's different needs and roles for water use, provision, and consumption</li> <li>➤ Ensure equitable access to resources also in relation to payments for environmental services</li> </ul>
<ul style="list-style-type: none"> <li>➤ Build strong and supportive networks for both women and men</li> <li>➤ Promote gender-sensitive training to eliminate violence against women, girls, and boys</li> <li>➤ Capacity building within the health system to ensure early detection of domestic or sexual violence</li> <li>➤ Involve women in management of shelters and distribution activities</li> </ul>	<ul style="list-style-type: none"> <li>➤ Policy initiatives in the health, education, finance and labour sectors to be conceived as a part of a cohesive national/ international violence prevention effort that includes women, girls, men, and boys</li> <li>➤ Implement appropriate health services that respond to the specific needs of women and men based on their respective needs, roles and capacities</li> <li>➤ Design effective referral systems for cases of domestic violence Design referral system for cases of sexual harassment</li> </ul>

# Strategies continued

GENDER RESPONSIVE ADAPTIVE STRATEGIES	GENDER RESPONSIVE ADAPTATION PRACTICES
<ul style="list-style-type: none"> <li>➤ Promote programmes that facilitate men to seek help for psychosocial problems</li> <li>➤ Empower women to enhance their capacities to look after themselves and their families and specifically to use available social and other</li> <li>➤ networks to cope with increased burdens and tensions</li> </ul>	<ul style="list-style-type: none"> <li>➤ Target women and men differently in post-disaster relief, taking into account gender norms, roles and relations</li> </ul>
<ul style="list-style-type: none"> <li>➤ Involve women and men in conservation of biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>➤ Training on agricultural extension for both women and men</li> <li>➤ Better nutrition supplements for needy families</li> <li>➤ Marketing facilities</li> <li>➤ Land rights for women</li> </ul>
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# Climate Change Adaptation and Disaster Management in Coastal Zones

- Coastal and marine systems are under increasing stress from both climatic and non-climatic drivers in Asia. These would involve
  - damage to the coastal ecosystems
  - increase in disasters due to storm surges and tropical cyclones
- Causing loss of livelihoods and social impacts, especially the poor and women. For example,
  - Women involved in processing fish, preparing for market, and small-scale harvesting –activities that are close to the shore
  - Decline in near-shore resources will impact food security
  - Salt-water intrusion and disruption of water systems during extreme events will increase women's workload for fetching water

# Climate Change Adaptation and Disaster Management in Coastal Zones

- There is an observed gendered disparity in mortality during disasters, especially storms
- There is also evidence of increased gender-based violence, child marriage, and trafficking
- It is thus important to adopt gender-responsive climate change adaptation strategies and practices in coastal zones

# Gender Responsive Coastal Zone Adaptation

- Encourage leadership and women's effective participation in organizations and all decision-making processes
- Involving of women in designing and construction of spaces (physical barriers like sea-walls, gabions, etc) around them
- Shelters should be safe and have sufficient space to ensure privacy
- Providing opportunities for women in coastal adaptation infrastructure construction
- Early warning systems should be accessible to women
- Involve women in mangrove regeneration and ecosystem restoration projects
- Reproductive health needs to be incorporated in disaster relief and management programmes
- Fisheries and tourism sectors should focus on gender-sensitive research, engagement of women in planning and management, and capacity building of women for job opportunities
- Include gender criteria in Environment Impact Assessments (EIAs)

**Thank You!**

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