Urban Ecosystem-Based Adaptation Training Programme

Module 5: Creating the Enabling Environment for the Use of EbA

EbA for Urban and Peri-urban Spaces: Using Nature-Based Solutions as a Key Climate Change Adaptation Strategy for Advancing Sustainable Development in Jamaica

Tabletop Discussion... Benefits of EbA

TOPIC #7: ECOSYSTEM-BASED ADAPTATION OPTIONS FOR CITIES AND INTENDED OUTCOMES

EBA REMEDY	URBAN CHALLENGE	OUTCOME INDICATORS	ECOSYSTEM SERVICE
Urban reforestation: Boulevards, greenbelts, arboretums, grove cooperatives	Flooding and soil erosion Air quality Shade	Severity of flooding Soil erosion metrics Flood damage metrics	Supporting: nutrient cycling, soil formation Provisioning: clean air, fuel Regulating: climate, flooding
Green space creation: Parks, conservation areas, stream restoration, community gardens, groves	Heat islands, heat stress Droughts Air quality Shade	Canopy cover Microclimate temperature and humidity	Supporting: nutrient cycling, soil formation Provisioning: clean air, heat relief, fuel Regulating: climate, water purification Cultural: aesthetic, educational, spiritual, recreationa
Flood risk management zones: Walkways, bikeways, community gardens, playing fields	Flooding Transportation blockage	Infrastructure damage due to flooding; Compare commuting times	Supporting: nutrient cycling, soil formation Provisioning: transport corridors, food growing space Regulating: climate, flood Cultural: aesthetic, educational, recreational
Rainwater harvesting: Grey water supply, run-off diversion, urban gardens, community gardens,	Drought Flooding	Measure of rain accumulated and diverted from drains; usage domestically or for specific purpose	Supporting: nutrient cycling, soil formation Provisioning: water, food Regulating: climate, flood Cultural: aesthetic, educational
Permeable pavements Aquifer recharge and water storage, runoff diversion, walkway safety	Drought Flooding Land subsidence	Groundwater levels; recharge rates; run off; subsidence rates as compared to baselines	Provisioning: water Regulating: flood, water shortages Supporting: nutrient cycling, soil formation Cultural: aesthetic, recreational
Water purification: Urban gardens, water features in parks, artificial wetlands	Water and sanitation	Measurement of contaminant counts as sediments settle, algae and bacteria, etc.	Supporting: nutrient cycling, soil formation Regulating: climate, flood, water purification Cultural: aesthetic, recreational

EBA REMEDY	URBAN CHALLENGE	OUTCOME INDICATORS	ECOSYSTEM SERVICE
Nature connecting corridors: Conservation areas, bird and plant habitats, pollinators, water features, community gardens	Biodiversity loss Habitat fragmentation Water quality	Inventory of biodiversity Measure water and air quality	Supporting: nutrient cycling, soil formation Regulating: climate, flood, water purification Cultural: aesthetic, spiritual, educational, recreational
Urban design/layout: Zoning for air circulation and 15-minute city; resilience design; planning connectivity; green spaces; food production	Urban canyons Air pollution Food deserts	Compare wind speeds and air pollution before and after or unrestored vs. restored	Supporting: nutrient cycling, soil formation
Green ventilation corridors: Conservation areas, green hinterland	Inversion layer formation Heat islands	Measure temperatures at bottom of corridor vs. blocked areas	Supporting: nutrient cycling, soil formation Provisioning: clean air, heat relief Regulating: climate, flood Cultural: aesthetic, recreational, educational
Urban utility services: Composting biodegradable by-products; extracting biogas; production of biosolids from water treatment processes; providing quality fertilizer to food producers	Accumulation of biological waste and subsequent pollution Health issues from decomposing material	Amount of fertilizer sold to outlying farm enterprises; amount of fuel produced; savings of circular economy approach over dumping or landfill	Supporting: nutrient cycling, soil formation, primary production Provisioning: clean water, air, fuel, fertilizer Regulating: climate, disease regulation, water purification Cultural: aesthetic, educational

Source: Based on UNEP (2021b)

Tabletop Discussion... Benefits of EbA

- Discuss the advantages of EbA to urban and peri-urban planning and development in the Jamaica context
- How can we define EbA for urban and peri-urban resilience in Jamaica?

Topic 8 – What does effective EbA look like?

- **Human-centric:**
- **Harnesses nature's capacity to support long-term human adaptation:**
- **Draws on and validates traditional and local knowledge:**
- **Based on best available science**:
- **Benefits the world's poorest**,
- **Community-based and incorporating human rights-based principles**
- **Cross-sectoral and intergovernmental collaboration**
- **Operates at multiple geographical, social, planning and ecological scales**
- **Minimizes trade-offs and maximizes benefits**
- **Provides opportunities for scaling up and mainstreaming**
- **Involves longer-term transformational change**

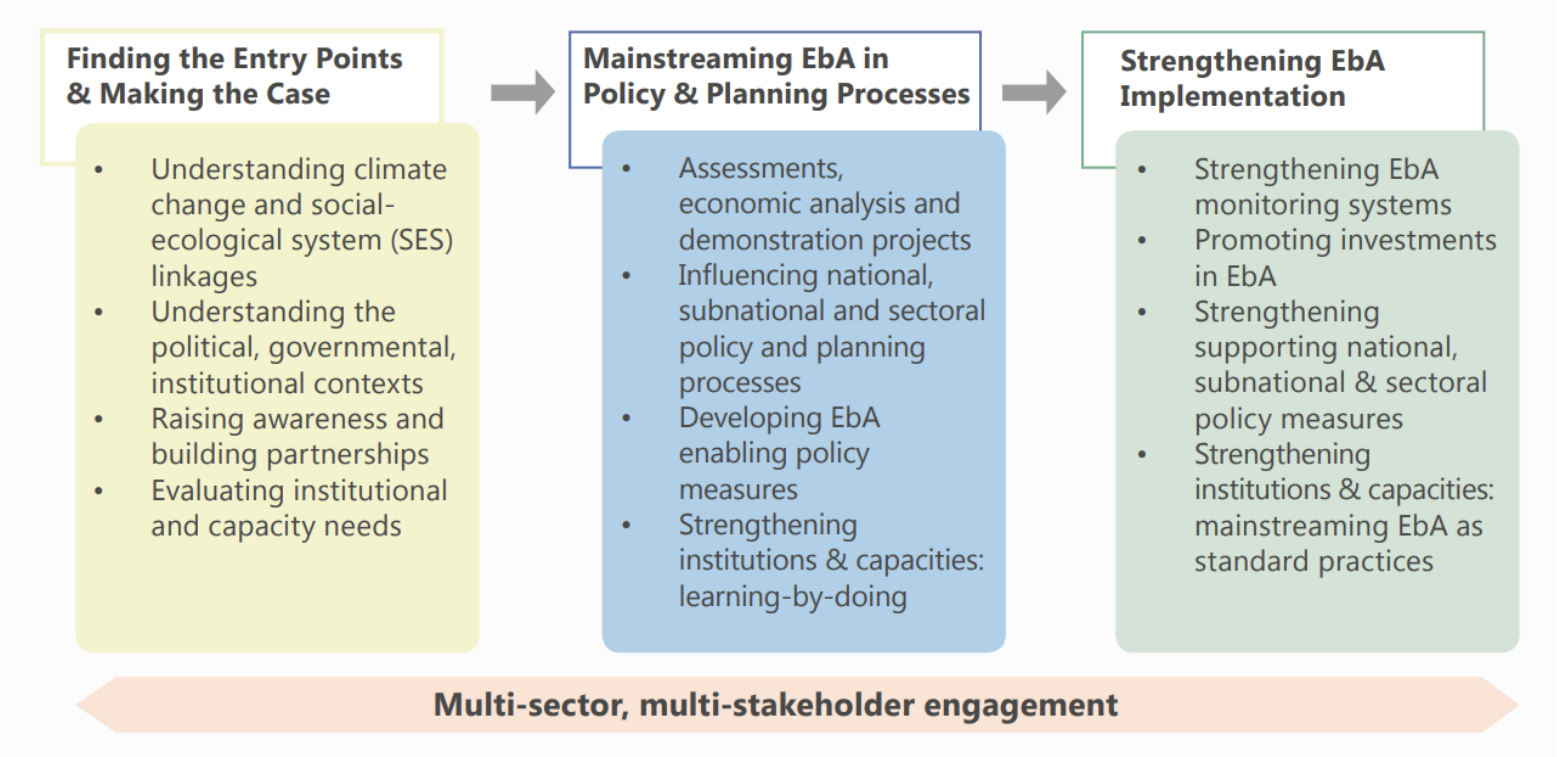
Overview of Module 5 – The Enabling Environment for EbA

- Module 5 is structured around 4 topics as follows:
  - Topic 1: Mainstreaming and Integrating EbA in National Policy Development Processes and Project Design
  - Topic 2: Mainstreaming Gender in EbA
  - Topic 3: The Inclusion of Ecosystem-based Adaptation in Countries' National Adaptation Plans (Climate Change)
  - Topic 4: Financing EbA

Objectives of Module 5

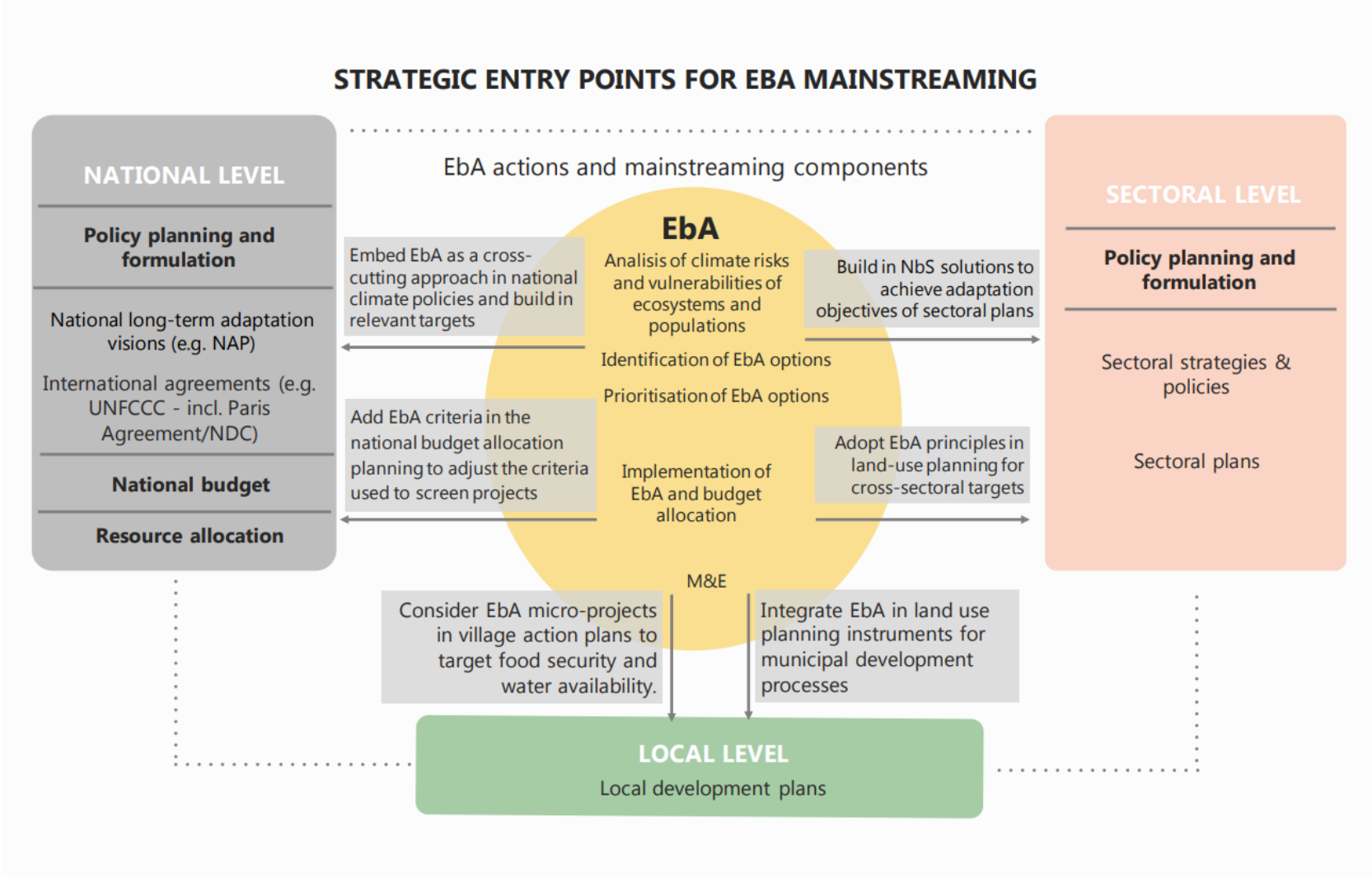
Understand	The concept of mainstreaming EbA
Know	The components of mainstreaming EbA
Examine	The key entry points for mainstreaming EbA
Know	How to mainstream EbA in development planning at the national and local levels
Understand	How to include EbA in National Adaptation Plans
Understand	How to mainstream gender in EbA

Topic 1: Mainstreaming and Integrating EbA in National Policy Development Processes and Project Design



- To better harness the potential of EbA it needs to be fully mainstreamed into development policy and practice
- The framework of mainstreaming EbA into development planning consists of three major components:
  - Finding the entry points and making the case
  - Mainstreaming EbA in policy and planning processes
  - Strengthen EbA implementation

Strategic Entry Points for EbA Mainstreaming



- National planning and development processes
- Local and community planning processes
- Sectoral policy,
- Land-use plans
- Finance and decision-making

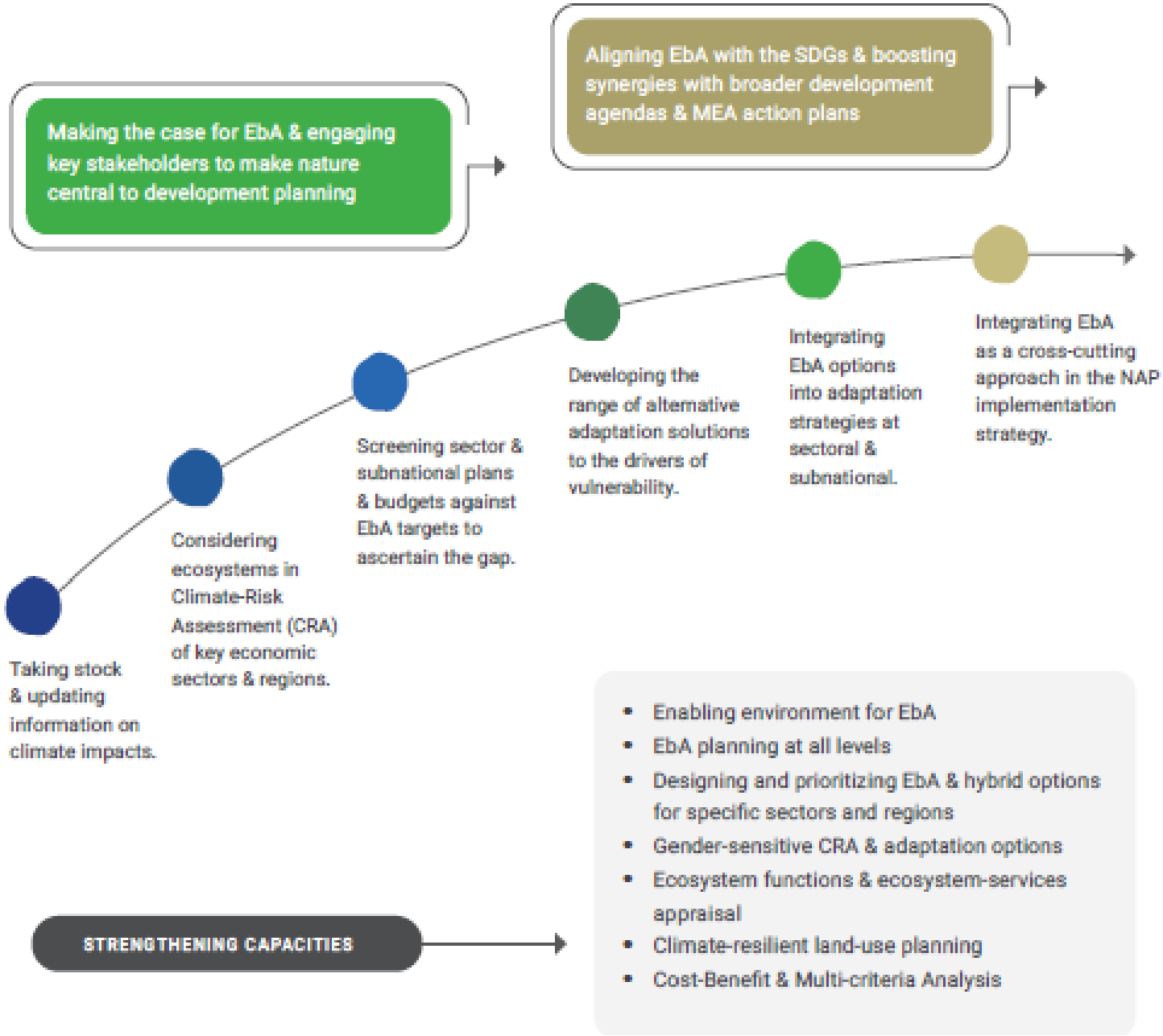
Mainstreaming EbA into NAPs

- As part of the Paris Agreement, Countries who are party to the UNFCCC are required submit NDCs which outline the actions they will take to reduce their national emissions and adapt to the impacts of climate change.

- A recent analysis of the NDC submissions found that 133 governments (the equivalent of 66 per cent of all nations that have signed the Paris Agreement) have committed to restoring or protecting ecosystems in their climate targets (2020).

- This includes 104 governments that have included EbA or conservation action in the adaptation components of their NDCs, 77 countries that have included them both in their adaptation and mitigation components and 27 governments that have included them in their mitigation targets (2020).

Mainstreaming EbA into NAPs



01

Applying an ecosystem and gender equality and social inclusion (GESI) lens to analyze the adaptation context

02

Assessing the gender-differentiated vulnerability and risks before deciding on the most effective EbA option

03

Demonstrating how the ecosystem services protected provide benefits to women and girls, disadvantaged and vulnerable groups and persons with disabilities

04

Designing a GESI action plan to be included as an integral part of the EbA project design

05

Ensuring that the GESI action plan is adequately resourced in the project financing

06

Combining EbA and GESI indicators in the monitoring and reporting system

Mainstreaming Gender into EbA