NAMA Development for the Building Sector

Realising the Potential for Mitigation in the Building Sector

UNFCCC-UN Environment Joint Workshop

31 July – 01 August 2017

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UN Environment-Economy Division

Why NAMA for Buildings?

- Including indirect building emissions from power generation, buildings and construction represent nearly 40% of energy-related CO2 emissions; Enormous potential for low-cost GHG emission reduction in the building sector
- Buildings and construction, including manufacturing of materials, account for more than one-third of global final energy consumption
- 60% of world's electricity consumed in residential and commercial buildings
- Energy used for heating, cooling, ventilation lighting, plug loads, water production, etc.
- Significant Opportunities for Co-benefits and Market Transformation
- Growth regions: Asia, Africa, Middle East, and Latin America

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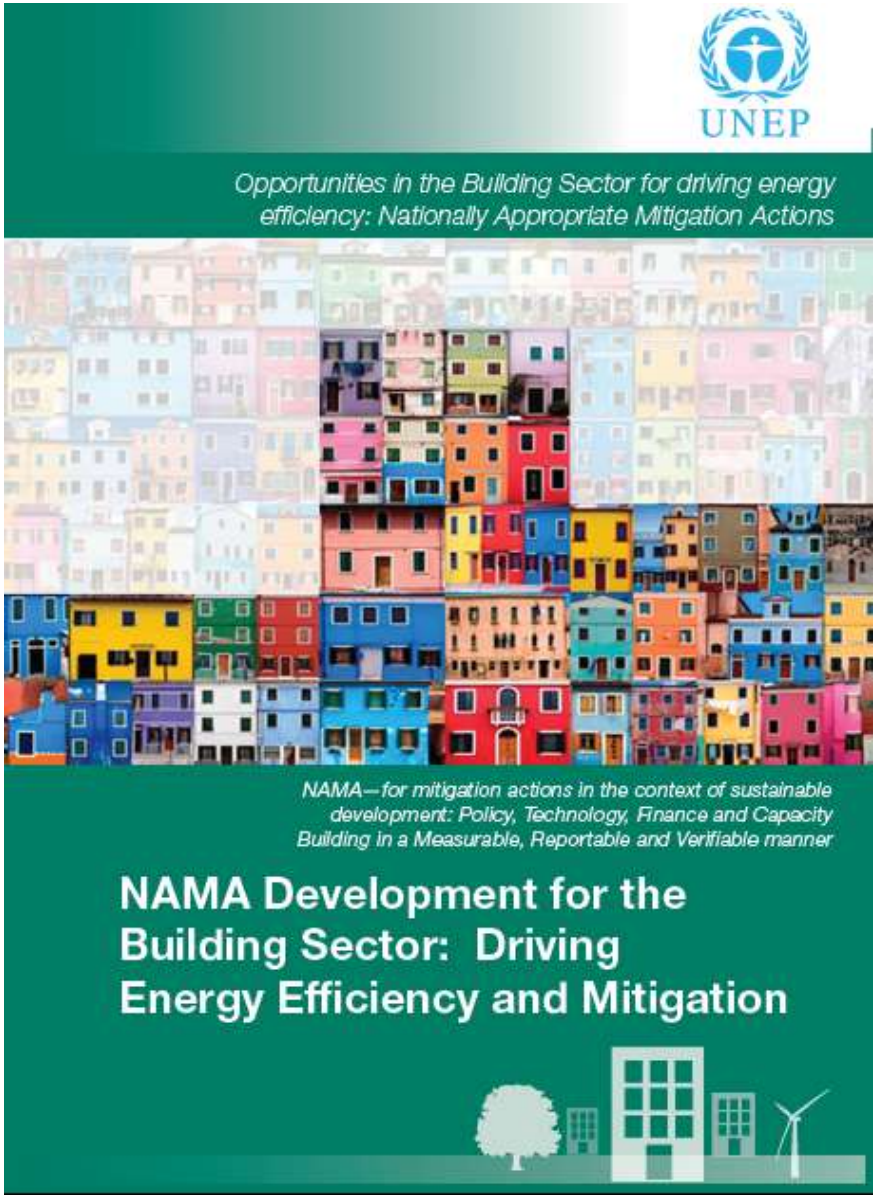
International Climate Initiative- NAMA Development for the Building Sector

UN Environment developed a five year project, funded by Germany's Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMUB) to facilitate building sector mitigation actions in Asia, assisting Indonesia, The Philippines, Thailand and Viet Nam, and to develop a sector-specific MRV methodology based on UN Environment's Common Carbon Metric.

Project runs from 2013-2017



Supported by:

Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

based on a decision of the German Bundestag

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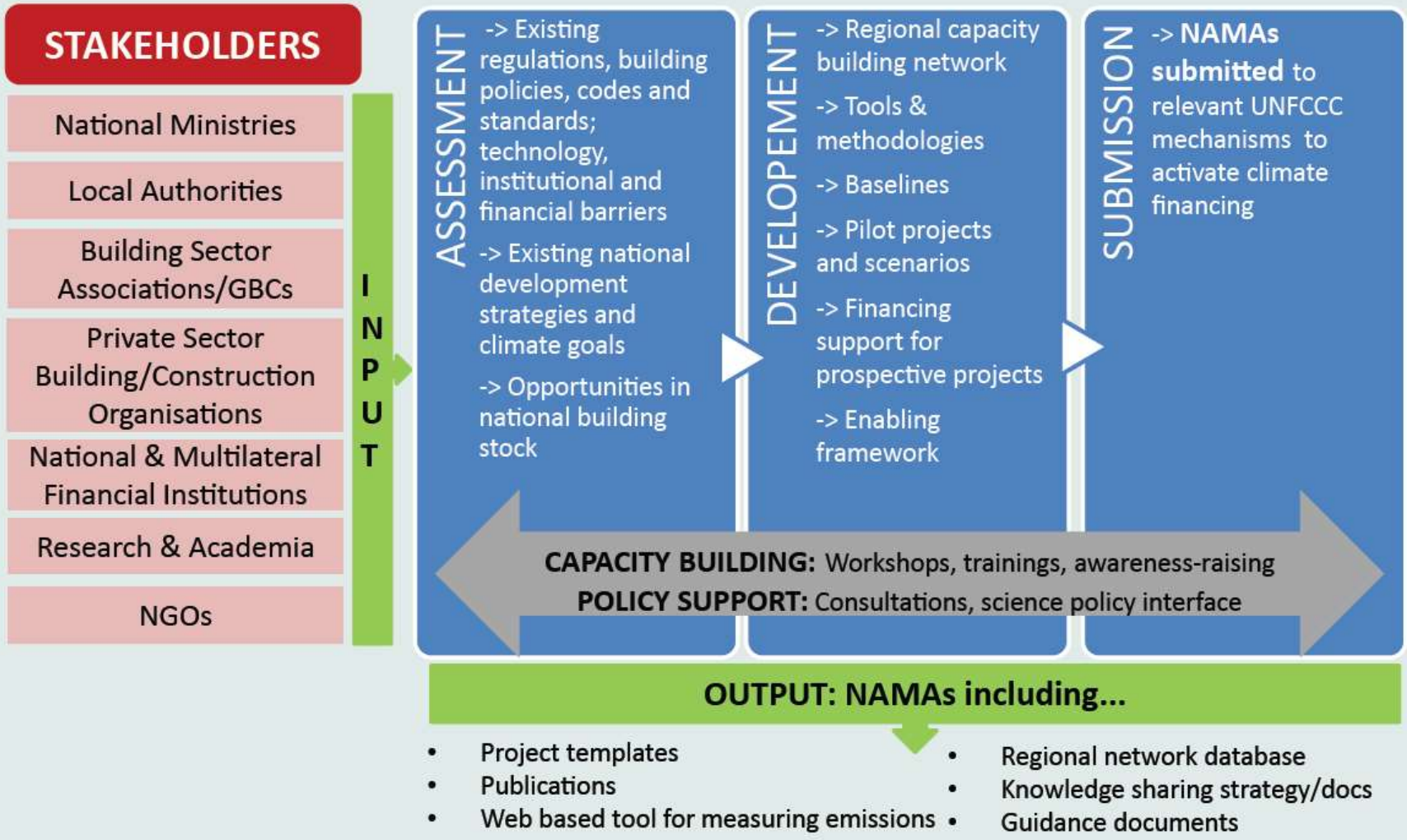
Project Approach



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NAMA Development for the Building Sector

Key Issues:

- Reduce Energy Needs; Increase Efficiency
- Increase Share of Renewables;
- Incorporate in National Strategies (NDCs)
- Challenge of Post-Occupancy impacts

Barriers

- Access and Availability of technologies
- Low Ambition levels (technological, financial, political feasibility)
- Affordability and Lack of financing
- Skills and operation
- Fragmentation/Lack of Coordination
- Clarity about NAMAs post-2020

Opportunities

- Building Energy Codes and Ambitious Targets
- Equipment Standards/Labeling
- Applications of appropriate technologies
- Housing and targeted sub-sector initiatives
- NDCs

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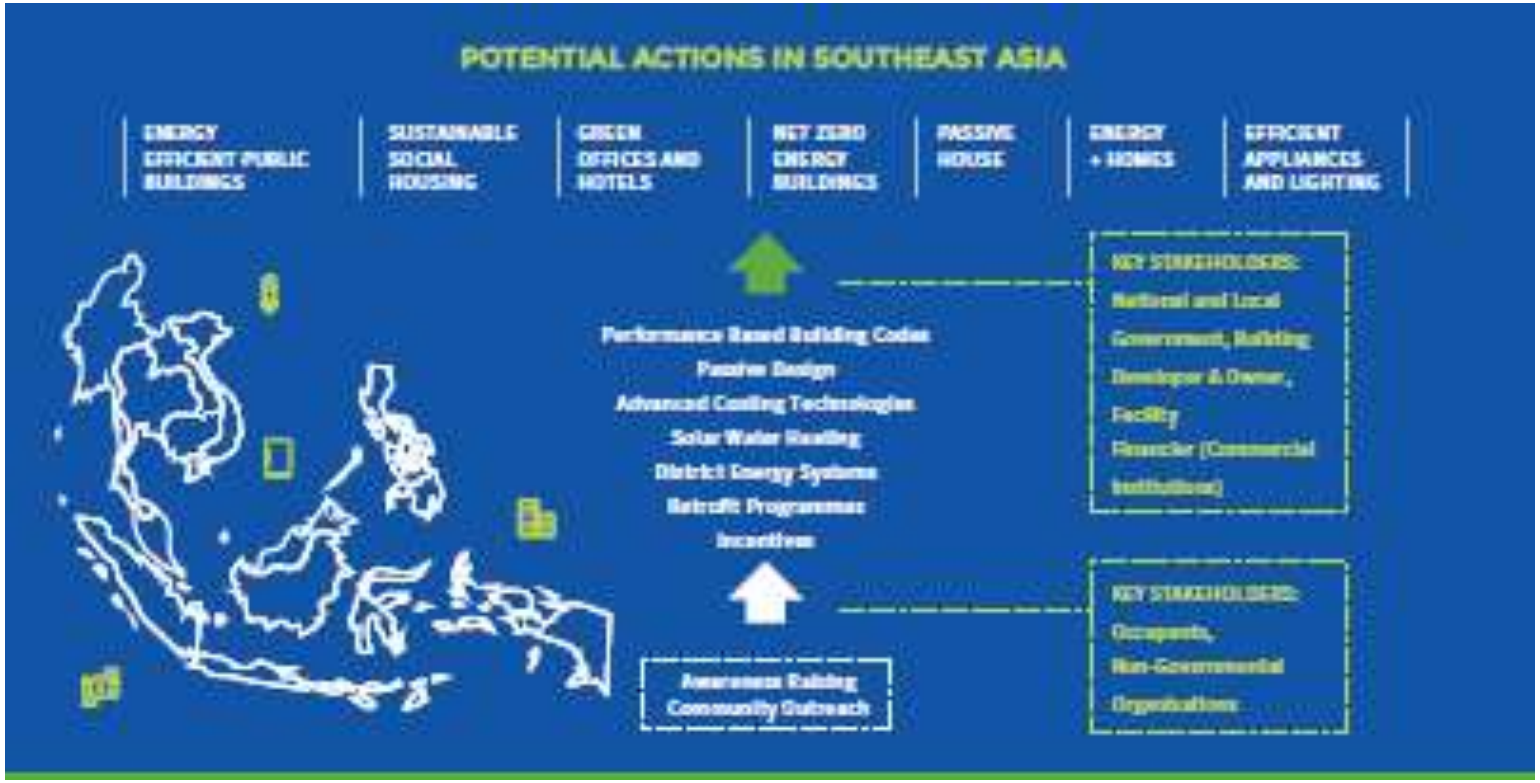
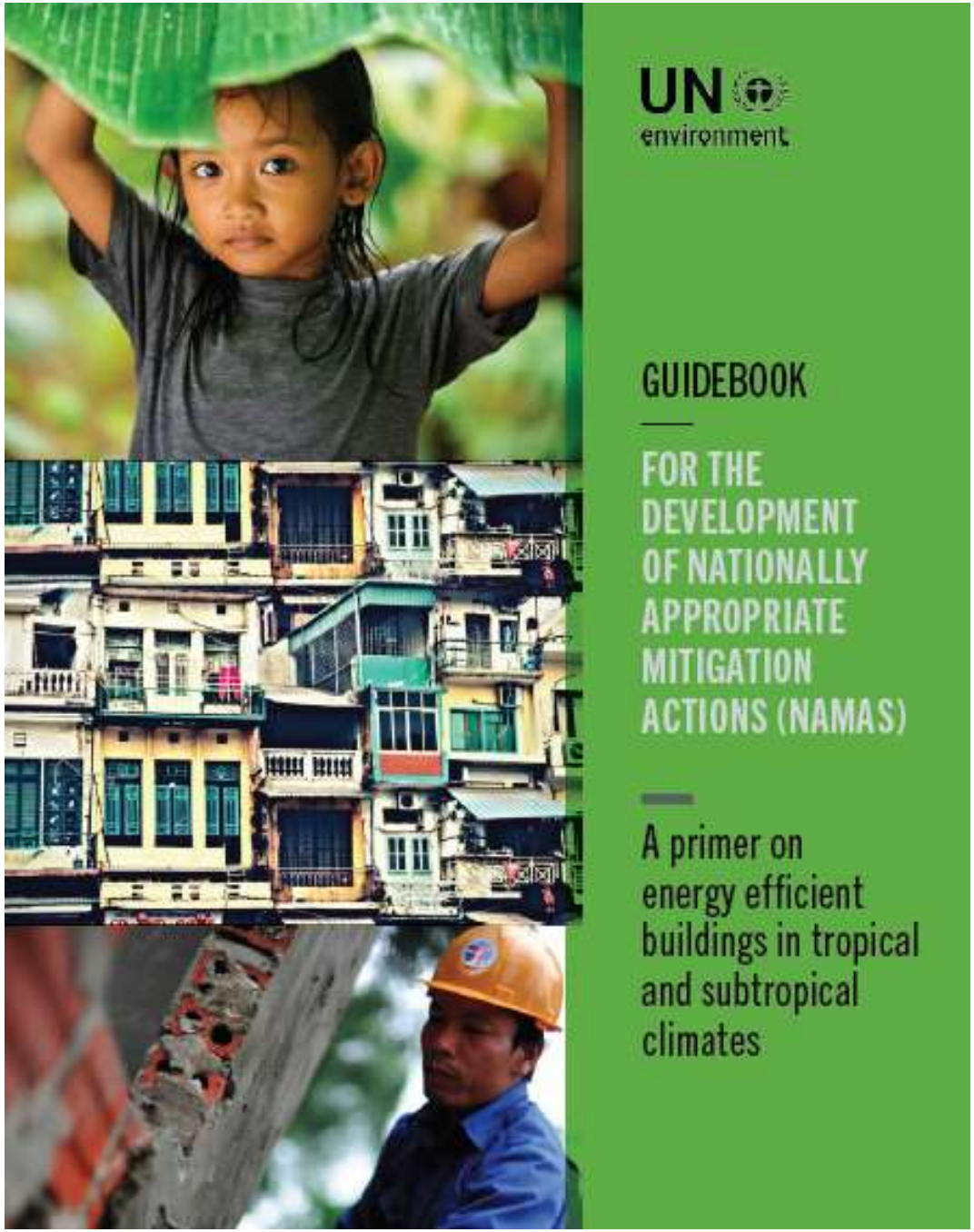
Identified NAMA Priorities and Objectives

- Scaling up Solar Water Heating in Residential
- Promote market instruments and labeling to facilitate energy efficient equipment (Air Conditioning) in Residential and Commercial Buildings
- Supporting implementation of Building Energy Codes and market mechanisms for Building Energy Code +
- Low-carbon Hotel Development
- Resilient and low-carbon Residential and Social Housing developments



NAMA Guidebook

- Developed as part of the NAMA for Building Sector in Asia project
- Will serve as a primer and provide guidance to countries on NAMA for energy efficient buildings
- Builds on the experience of NAMA project partner countries
- Focused on Warm Climate interventions



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NAMA Guidebook

- Includes overview of NAMAs, getting started, and possible interventions and technologies, as well as structuring a NAMA

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NAMA Guidebook

DEFINING NAMAS

In 2013, the UNFCCC Secretariat, together with UNDP and UNEP, published a non-prescriptive guidance for NAMA development (UNFCCC/UNEP/UNDP, 2013). Its definitions are used in the following. A number of elements of NAMAs have been negotiated, but ultimately the nature of NAMAs will emerge through implementation and sharing of best practices. The national basis for NAMAs allows host countries to interpret what a NAMA means in their own situations and contexts. A first differentiation of NAMAs, also in the NAMA Registry, is made according to the source of financing:

- Unilateral NAMA (for recognition): entirely financed by the host country;
- Supported NAMA: enabled in part by international technology, financing and/or capacity building.

Few, if any, internationally supported NAMAs for energy efficient buildings will be implemented solely on the basis of support from developed countries. The host country is expected to contribute to the NAMA financially or through other means, particularly by: setting minimum energy performance standards; establishing supporting polices for financing; adopting environmentally sound management practices; and, following through by monitoring, verifying and enforcing relevant standards related to energy efficient buildings equipment.

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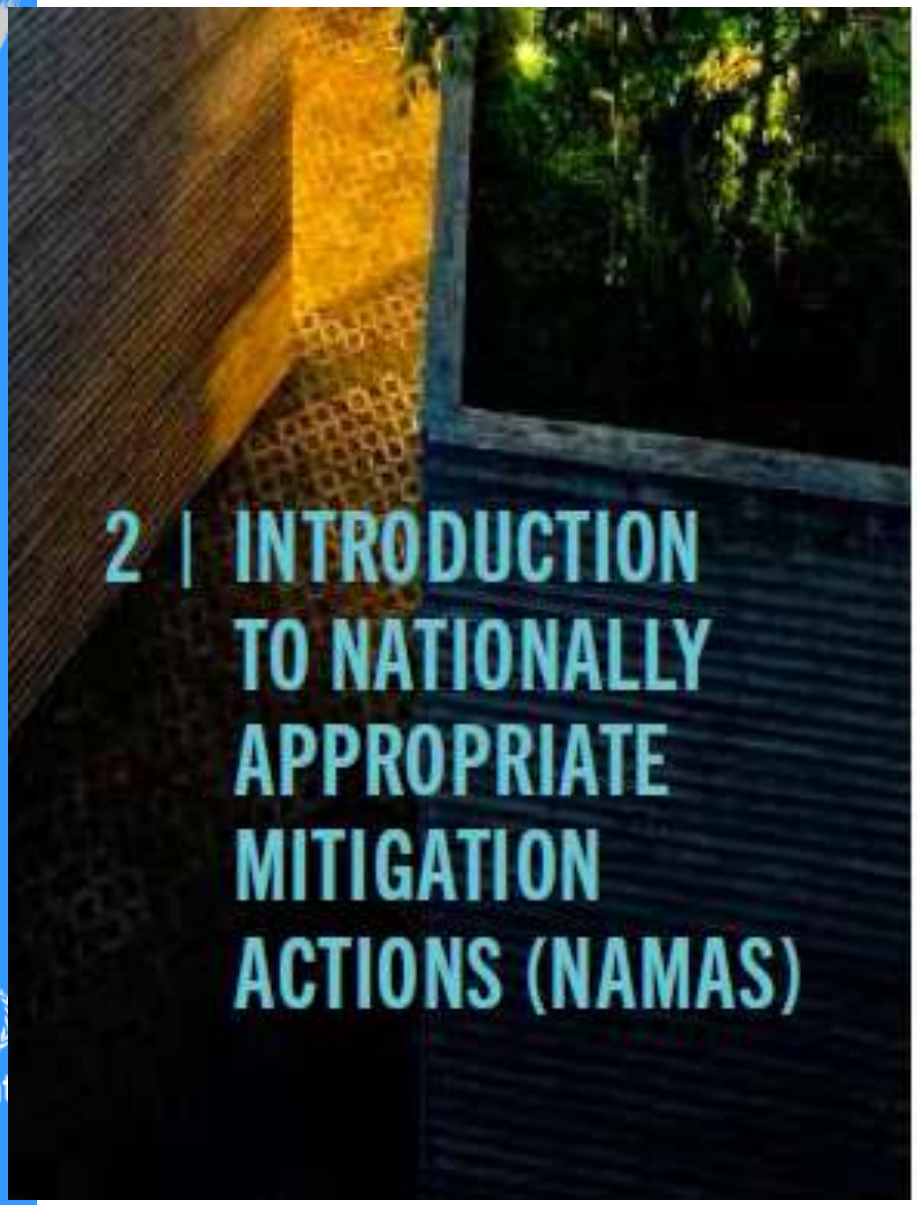
NAMA Guidebook – help to define NAMAs



Another differentiation is made between policy and programme NAMAs and project NAMAs:

- Policies and Programmes are interventions implemented by a government in order to promote or discourage technology options, impact economic activity or change consumer behaviour. Examples include: lending programmes for energy efficient buildings equipment, government subsidies for energy efficient buildings installations, performance standards for energy efficient buildings equipment; and mandatory use of energy efficient equipment and materials in new buildings.
- Projects are specific activities undertaken by private or public organizations. They are clearly limited in duration, scope and geography, but they are generally of a significant magnitude before they are relevant as NAMAs. Project NAMAs encompass defined activities which typically require technology investments. An example would be a large scale public building complex or a large scale city district development employing above standard energy efficiency equipment and materials with an aim to expand such approaches into further construction projects.

NAMA Guidebook – Steps to take

Table 2: Steps to develop, promote and implement a NAMA

STEP 1 **ENGAGE KEY STAKEHOLDERS**	Engage key national stakeholders, promoters and implementers in a transparent consultation process: Ensure active stakeholder support and encourage their public endorsement of the NAMA Engage policy makers and secure the necessary support for carrying out implementation of the NAMA
STEP 2 **DEVELOP THE NAMA PROPOSAL**	Develop a structured NAMA proposal, using one of the detailed formats available (e.g. the NINO) based on the national strategy for energy efficient buildings, if such a strategy exists, and linked to other national priorities (energy, environment), describing and quantifying as accurately as possible: The array of direct and indirect benefits to different stakeholders Existing policies and actions targeting these benefits National (financial or regulatory) contribution A measurement, reporting and verification system or the preparedness to develop it An estimate of the expected greenhouse gas emissions reduction
STEP 3 **PUBLISH THE NAMA**	Develop a NAMA proposal in the NAMA Registry format: Extract information from the structured NAMA proposal Make sure that key information from Step 2 is included Submit the proposal to the NAMA Registry, through the nation's NAMA focal point (if established)
STEP 4 **FINALIZE AND PROMOTE THE NAMA**	Promotion and finalization: Ensure that all supporting information has been published Circulate NAMA proposal to and meet with relevant donors Keep stakeholders engaged Further develop the proposal through interaction with donors

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NAMA Guidebook – Identify co-benefits

BENEFITS OF DEVELOPING NAMAS FOR ENERGY EFFICIENT HOUSING

While NAMAs generally refer to 'mitigation action', it is a common understanding that in most policies that have emissions reduction effects other benefits are the prime motivations for the development of the NAMA. Thus, most often the emissions reduction is a co-benefit to other more central development objectives of the NAMA host country.

By any standards, the economically feasible potential for increased use of energy efficient building technologies and materials can be immense. As already mentioned, almost 60% of the world's electricity is consumed in residential and commercial buildings. Depending on local circumstances, most energy efficiency investments employ commercially viable and available technology. Only due to different market barriers, these technologies have not reached the market penetration rate that it ought to reach from simple profitability considerations. The market penetration rate for different energy efficiency technologies varies widely among countries worldwide, mainly influenced by the setting of energy efficiency standards and the price of energy.

manufacturing and enhanced employment opportunities may also be a motivation for the promotion of energy efficient buildings, particularly in programmes for rehabilitation of existing buildings, possibly combined with increased product quality through standard setting.

- Support of energy efficient buildings may be a strategy to reduce effects of a reduction of energy subsidies.

Thus, there are many possible benefits of policies and programmes that increase the energy efficiency of buildings. Framing them as NAMAs may have the added benefit of access to additional sources of financing, or it may serve as a contribution to national emissions reduction commitments, if any. Unilateral NAMAs for energy efficient buildings may also be used to make the case for international support for other, more capital intensive or less profitable NAMAs. Thus, promoting energy efficient buildings through NAMAs may bring the action into a larger international context, which may hold added benefits in the form of access to financial resources.

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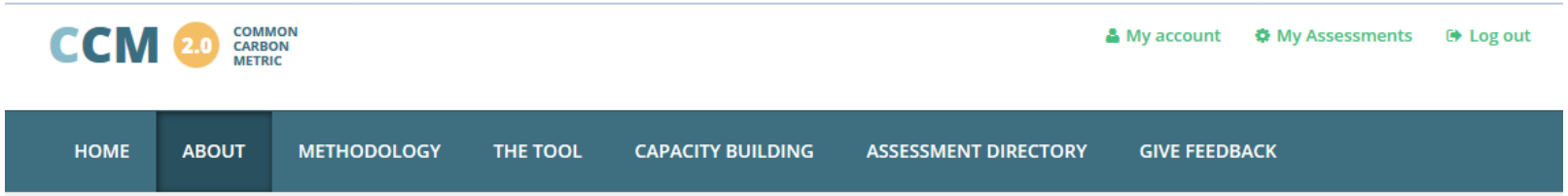
Common Carbon Metric- supporting MRV



- Migrated from Excel to web-based tool
- Baseline and Futureline
- Can validate operational savings
- Potential for robust methodology in conjunction with other tools (front-end/back end)

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Thank You

Curt.Garrigan@unep.org
Michelle.bosquet.affiliate@unep.org

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