

Strategic Planning for Sustainable Energy NAMAs in the Caribbean

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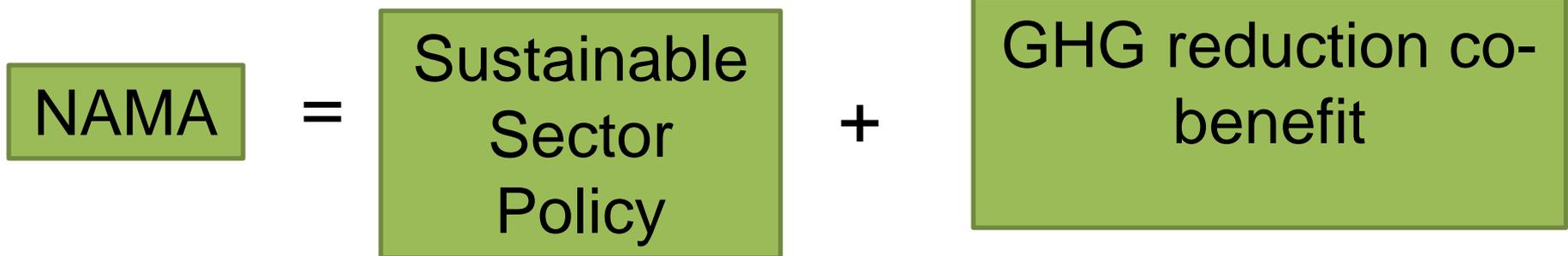
Regional Workshop of PoA and NAMAs
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- Introduction to NAMAs in the context of Sustainable Development
- Policy Planning and Implementation
- NAMA Specific Considerations
- Examples



Introduction to NAMAs in the Context of Sustainable Development

Nationally Appropriate Mitigation Actions (NAMAs) are voluntary actions taken by developing countries, in the context of sustainable development, in a measurable, reportable and verifiable manner, and supported by financing, technology, and capacity building from developed countries



There are discussions on 3 broad types of NAMAs:

Unilateral NAMAs

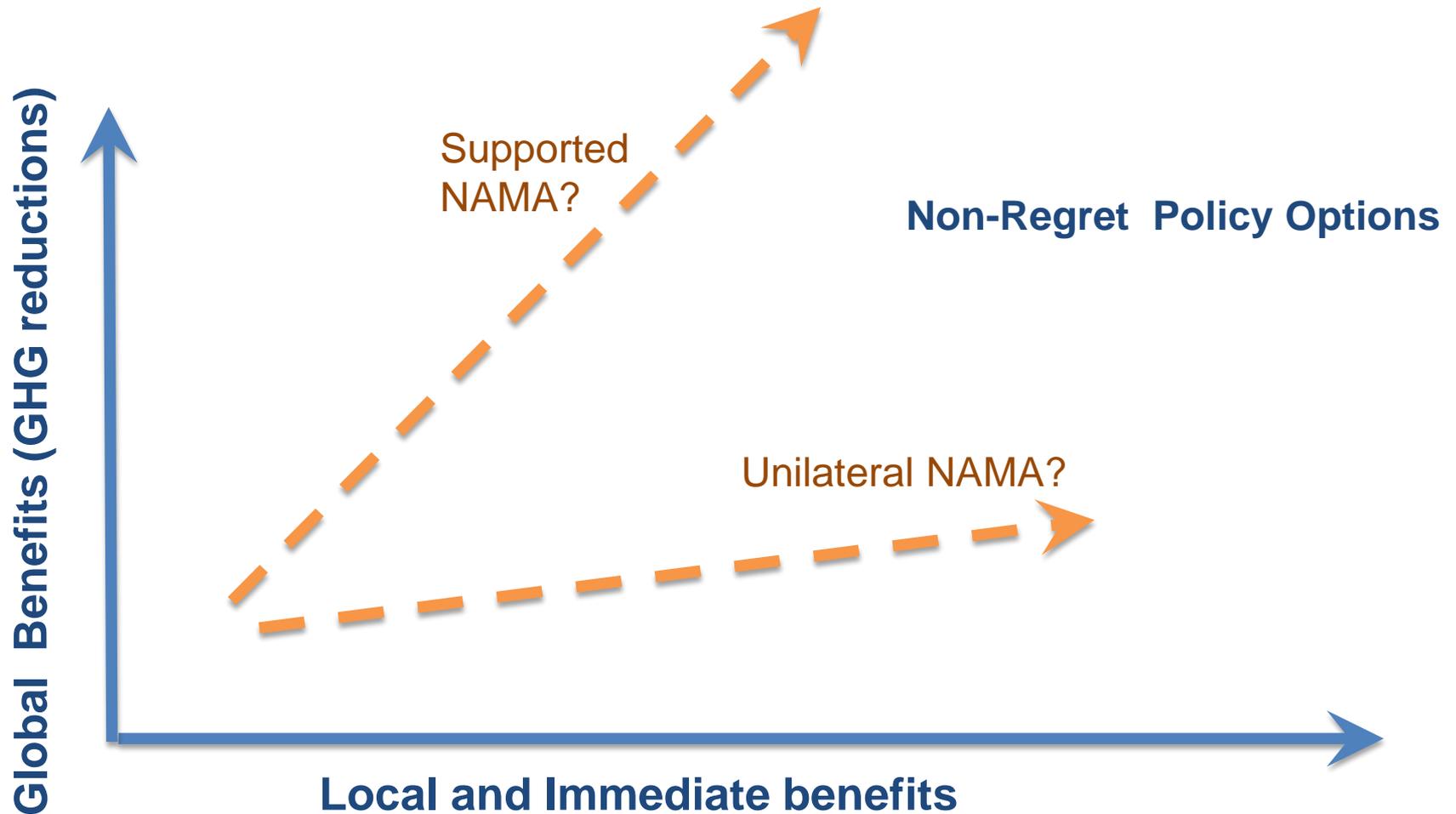
Actions taken by developing countries without the support of developed countries

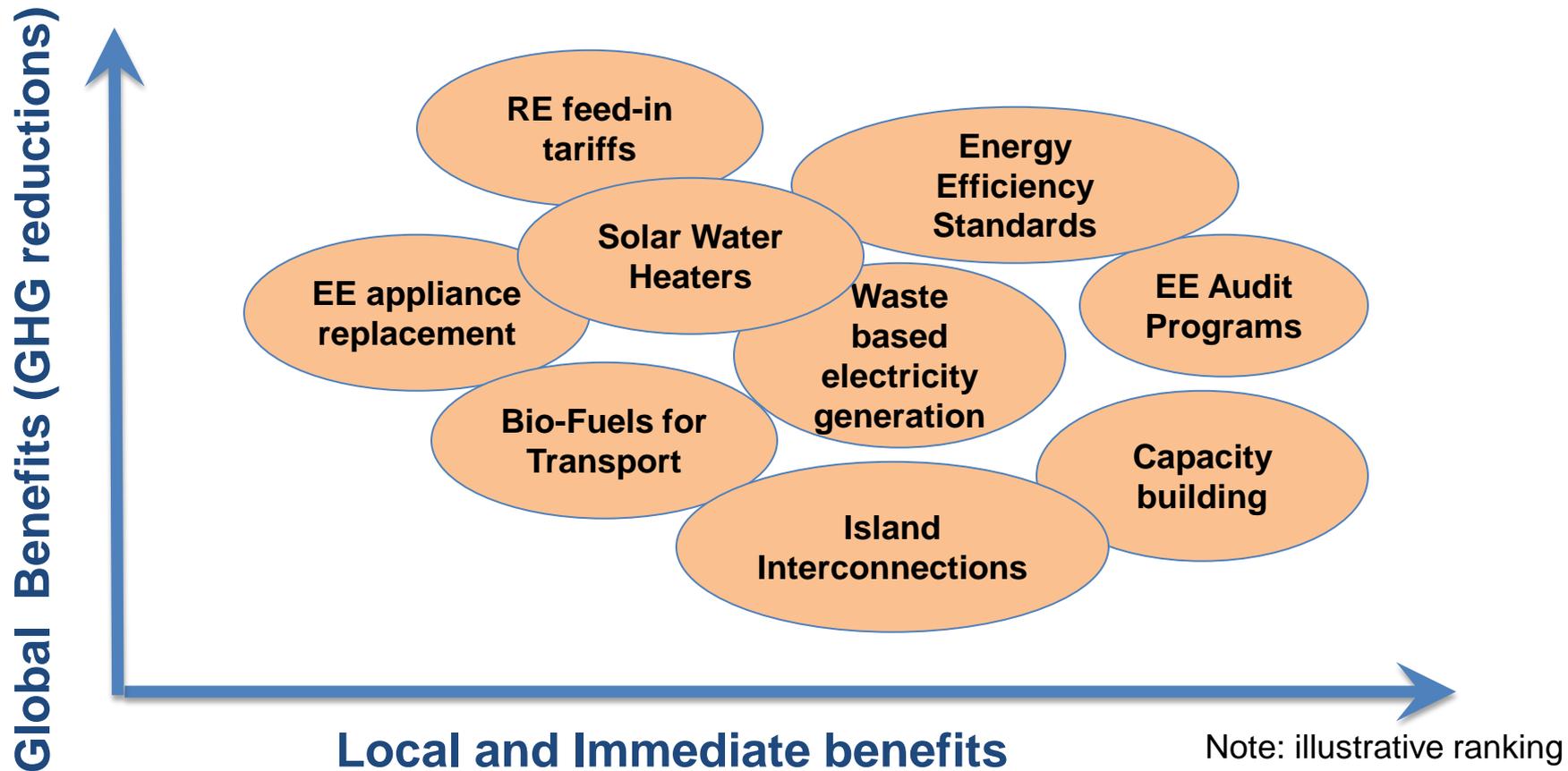
Supported NAMAs

Actions that require support (technology, capacity building, and financing) from developed countries in order to proceed with implementation.

Credited NAMA

actions that achieve quantifiable emissions reductions and may be traded and funded through the international carbon market





Advancing a Shared Vision for Supported NAMAs

Developing Country Priorities?

Efforts consistent with
national priorities

Advance economic and
sustainable
development goals

Contributing Country Priorities?

Significant, well-
documented
emission
reductions + MRV

Maximization of
investment impact
– leverage effect

What can be the outcomes of Energy NAMAs in the Caribbean Achieve?

Sustainable Development Objectives

Increased Energy Security through reducing the dependence on fossil fuels and exposure to volatile prices.

Environmental Benefits such as reduced air pollution

Increased Efficiency and Productivity

New economic opportunities and employment

Greenhouse Gas Reductions



Developing Countries:

Rapidly developing NAMAs,
Beginning to seek international
support for implementation

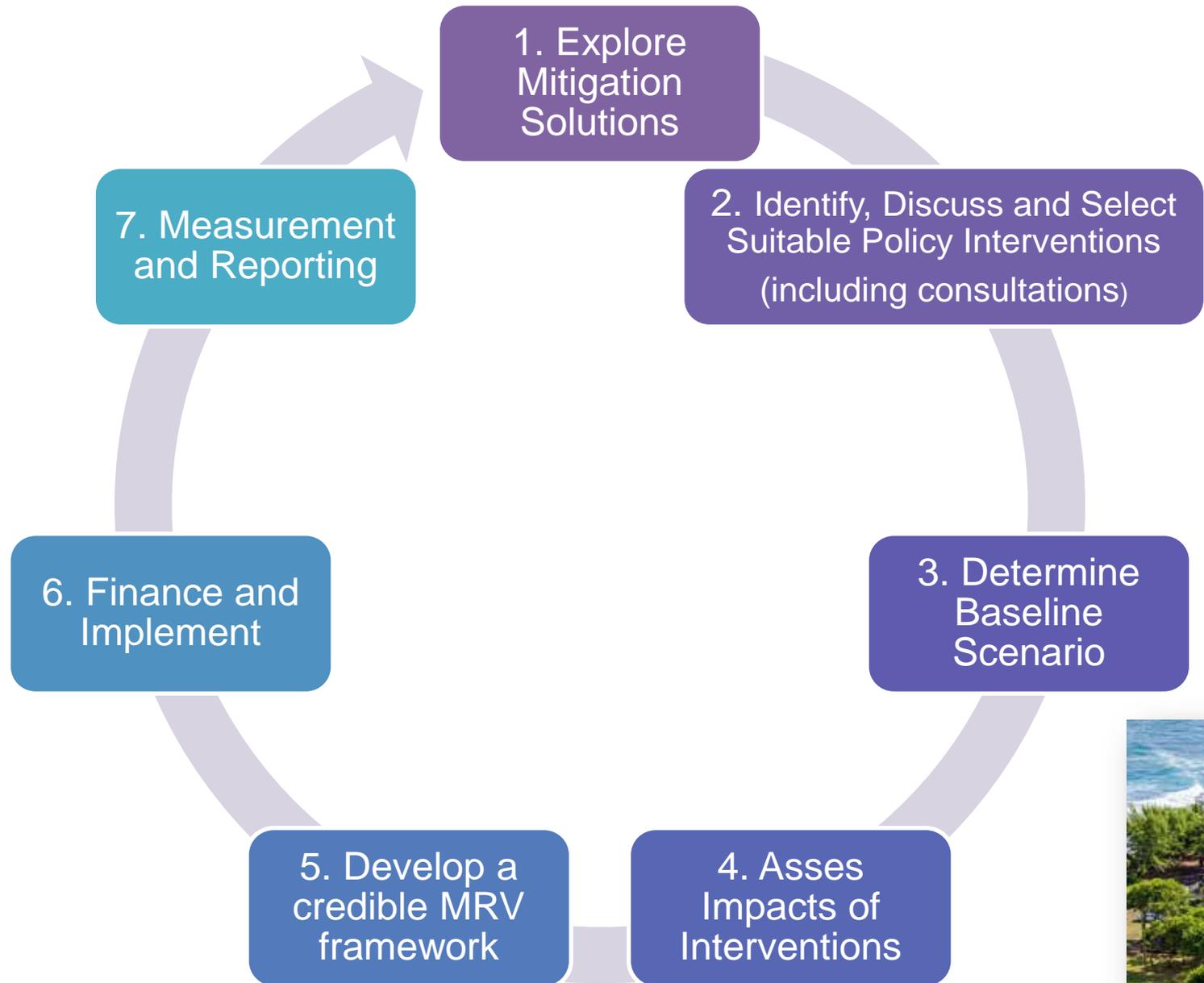
Contributing Countries:

Support focusing on dialogues,
capacity building, strategic planning
Recently, support for implementation

The Green Climate Fund is likely still several years away from disbursing funds
for NAMA implementation

But, NAMA short-term implementation support may come from bilateral and
other funding sources

- **Global Environmental Facility**
- Norway's **Energy Plus Initiative** will provide \$1.8 bn through 2015 for renewable energy development and energy access.
- UK will channel 2.9 billion pounds through the **International Climate Fund** from 2011 to 2015. May include some for LED and NAMAs
- **Private Sector RE Investment Facilities**

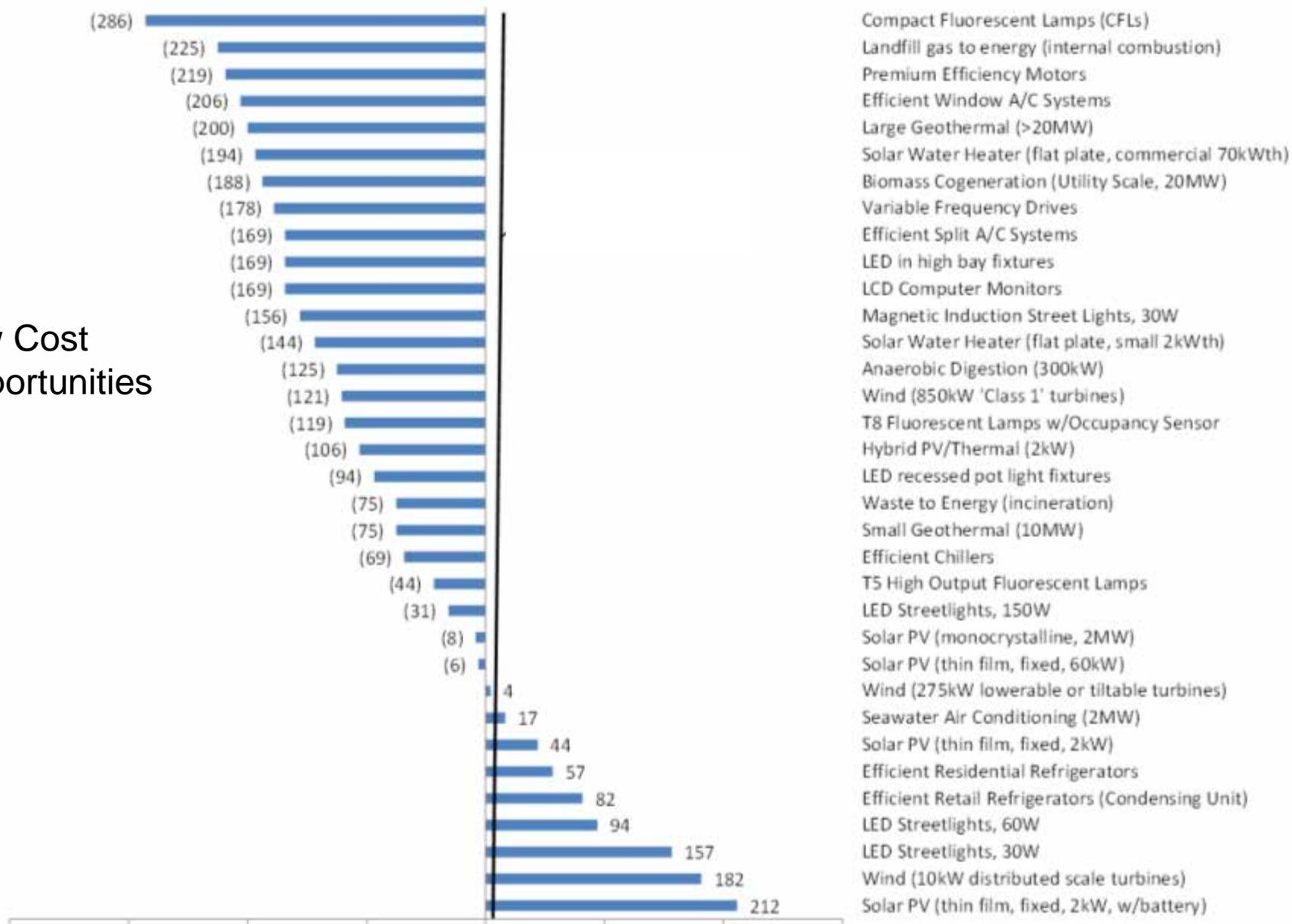


Exploring Mitigation Opportunities

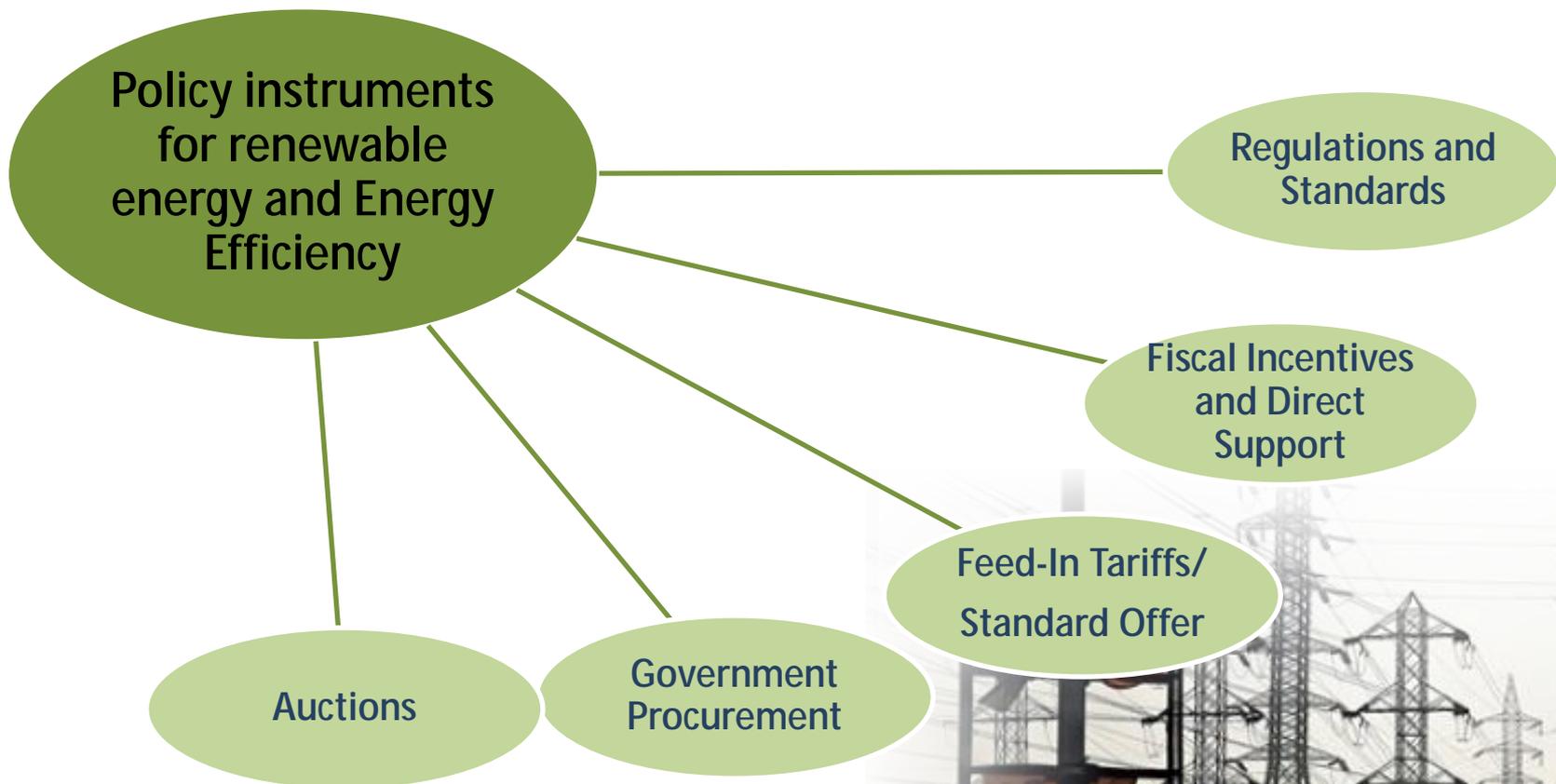
Example: MAC Curve in OECs Countries



Low Cost Opportunities



Identify Suitable Policy Interventions



Examples:

1. Building Codes for RE

2. Renewable Energy Mandates

Solar hot water mandates require a certain energy share or equipment requirement for a building to come from renewable energy sources



3. Flexible Grid Access

Net Metering allows a two-way flow of electricity and only charges consumers for their net electricity use.



Fiscal Incentives and Direct Support

Production and
Investment tax
credits

Public
Investment
loans, or grants



Feed-in Tariffs and Standard Offers

The design of FIT policies typically involves three key provisions:

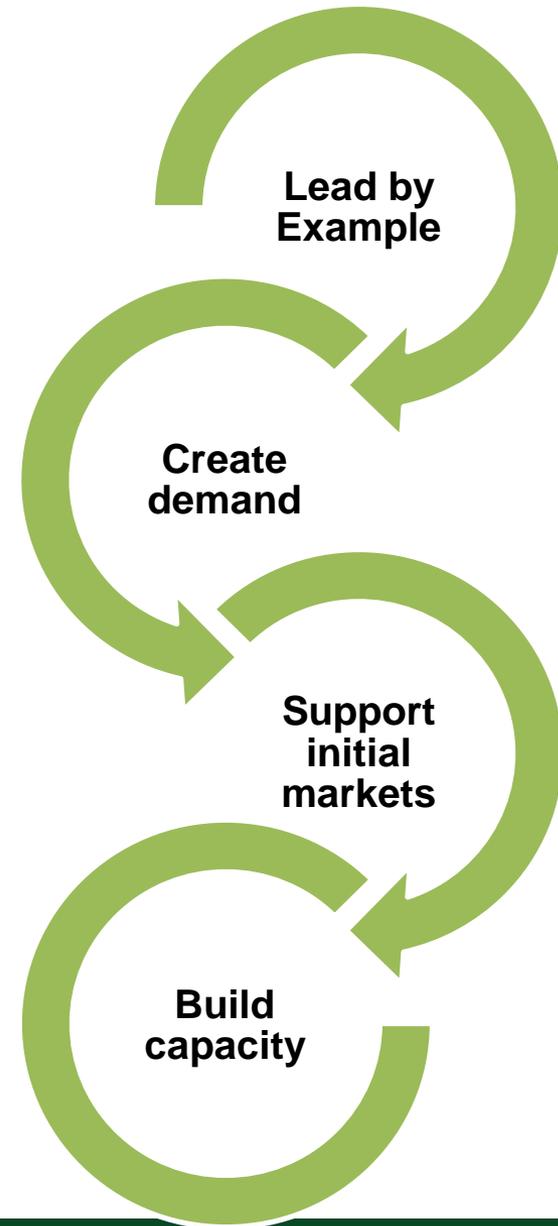
A preferential tariff

Guaranteed purchase of the electricity produced for a specified period

Guaranteed access to the grid



- Governments are often a very large energy consumer
- Government purchasing and procurement decisions affect the market
- Procurement requirements are a tool for national and sub-national governments to mature renewable-energy markets and build capacity



- An auction is a selection process to allocate goods and services competitively, based on a financial offer
 - eg. eBay
- In a 'reverse auction', electricity generators bid their supply to distribution companies and the process is designed to select the lowest price.
- Auctions can be used to discover appropriate tariff rate for FiT policy
- Auctions can be a very attractive mechanism for attracting new renewable energy supply



NAMA design:

- Procedures for establishing a baseline for calculating emission reductions
- Methodology for estimating emission reductions
- Framework for establishing environmental integrity of mitigation actions and preventing doubling-counting
- System for monitoring, data collection and management, verification and reporting



Technical considerations in setting a baseline include:

1. Identifying possible baseline technologies, practices, or conditions;
2. Determining for how long the baseline will be valid;
3. Choosing an approach to determining baseline activity data and emissions; and
4. Identifying triggers and procedures for updating the baseline.

Approaches for Baseline Development

Approaches:

- 1. Use actual data.** In many (if not most) instances, actual measurements of activity data may be used to estimate baseline activity data.
- 2. Extrapolate from historical data.** It may often be appropriate to estimate future baseline activity data by looking at recent historical activity.
 - How far back in time to collect data in order to establish an appropriate projection
 - Whether to use average historical activity levels or a projection of activity trends to set the baseline.
- 3. Use financial, economic, engineering, or behavioral modeling.**
 - If insufficient relevant historical activity data
 - New legal requirements, economic conditions, technology shifts, or physical constraints may make historical data a poor indicator of future activity levels.

MRV: Before a MRV system is developed, think about the following:

Criterion	Key question
Environmental Integrity	Does the MRV system safeguard environmental integrity by ensuring high levels of completeness, accuracy and consistency? Is conservativeness guaranteed?
Data Availability	Are all the data required to determine baseline and actual emissions available, including activity data, emissions or conversion factors, etc.? To which extent data needs to be gathered before the start of the system and which data may be considered sensitive since it would be considered as confidential business data?
Transparency	Are the emission data gathered made publically available for any interested person or body? Are additional data made publically available and if yes, which additional data?
Cost-efficiency	Does the MRV system result in unreasonably high cost? How could the costs of MRV be reduced without undermining environmental integrity?
Institutional feasibility	Which bodies need to be established to apply the MRV system and to which extent already existing bodies can be mandated with the required tasks?
Transferability	In which context is the MRV system applied so far? Can it be transferred to developing countries and which criteria in terms of size, governance, institutional framework, etc. those countries need to comply with

Source: Oko Institut, Perspectives Climate Change and U. Zurich (2011)

Example and Discussion:

Building on the OECS MAC curve, some options for consideration may be:

Performance-based energy efficiency retrofits in public and private facilities

A standard offer contract for renewable generation

Waste management and waste-based electricity generation

Activities can achieve quantifiable emissions reductions ..

Can a Regional NAMA work?