

# STANDARDIZED BASELINES (SB) –Potential use in NAMA context (Baseline)

**AFRICAN REGIONAL WORKSHOP**

**16-19 April 2013  
Maseru, Lesotho**



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### **What is standardized baseline ?**

- ✓ Baseline established for a Party or a group of Parties to facilitate the calculation of emission reductions and removals; and/or
- ✓ Used for determination of additionality for CDM project activities, while providing assurance for environmental integrity.

### **Why Standardised baselines ?**

- Reduce transaction costs;
- Enhance transparency, objectivity and predictability;
- Facilitate access to the CDM;
- Scale up, while ensuring Environmental Integrity;
- Complexity is at the end of regulatory body, easing PPs' life;
- Enhanced participation of LDCs in CDM

# Background

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## **CMP6 decision**

- Parties, PPs, and other admitted entities, through the host country's DNAs, may submit proposals for SBs, for consideration by the Board;
- Requests the Board to develop SBs, as appropriate, in consultation with relevant DNAs, taking into account the outcome of the workshop on SBs.

## **Work done so far by CDM Executive Board**

- Standardised baselines is one of the largest projects on MAP of 2012, 2013
- Based on work programme adopted by the Board.

## **Key documents approved**

- Guidelines for the establishment of sector specific standardized baselines (SB guidelines);
- Guidelines for establishment of SBs for afforestation and reforestation project activities under the CDM (AR-SB guidelines)
- Procedure for submission and consideration of standardized baselines (SB procedures), including modalities for underrepresented countries in CDM for financial support and modalities on data template submission and revision;
- Guidelines for data quality in the establishment of SBs (QA/QC guidelines).



### 1. Why an approach based on measure?

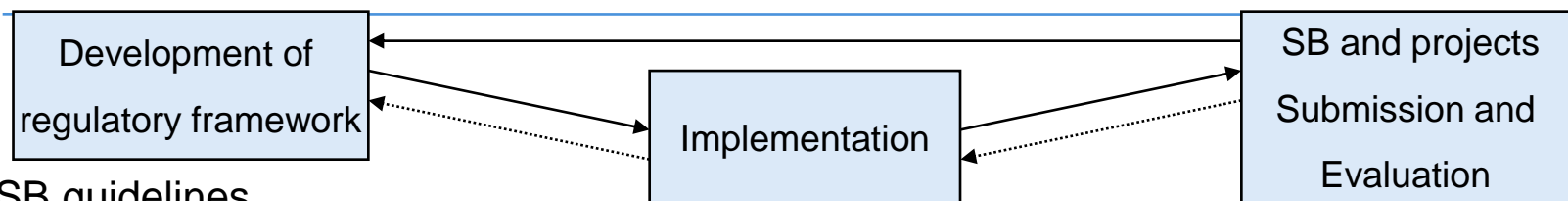
### 2. How does it works?

- Objective requirements are established in the framework for four measures and are to be translated into simple criteria for additionality demonstration and baseline setting in the SBs.

#### **Measures:**

- Fuel switch
- Switch of technology and energy source
- Methane destruction
- GHG formation avoidance

## Developmental phases of Standardized Baselines



- SB guidelines
- QA/QC guidelines
- Thresholds setting guidelines
- Guidelines on update frequency and vintage
- Data template
- SB website
- Web-based Database
- Transport sector SB guidelines
- A/R sector SB guidelines
- Sectoral EF guidelines/ software
- Developing FAQs/ revise guidelines

- SB procedure
- Modalities for support to countries
- Impact on existing regulatory documents
- Capacity building of DNAs (a separate project)

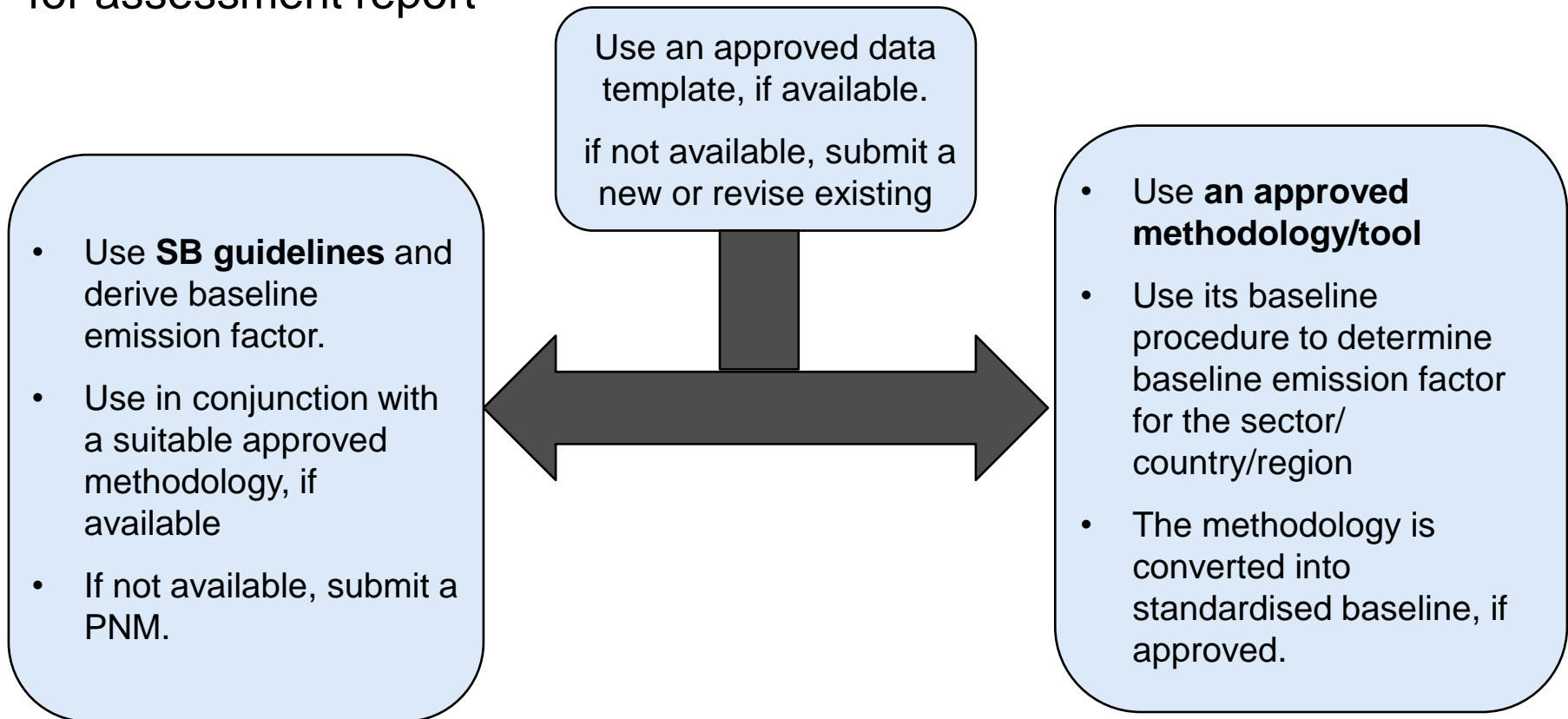
- SB submissions and approval
- SB project cycle



## SB submissions

Parties, PPs, international industry organisations, admitted observer organisations can submit SBs to UNFCCC through DNA.

DNAs with less than 10 projects as on 31 Dec 2010, get financial support for assessment report



# What is the difference between a methodology and an SB ?

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## CDM Methodologies/ tools

- International Standards
- To calculate emission reduction of specific projects
- Specific Applicability conditions
- Specific project boundary
- Project-by-project baseline scenario determination and demonstration of additionality
- Baselines using 48(a) (historical or actual), 48(b) (most attractive course of action), or 48(c) (Average of top 20%)
- Project emissions
- Data not monitored
- Data monitored

## Standardised Baselines

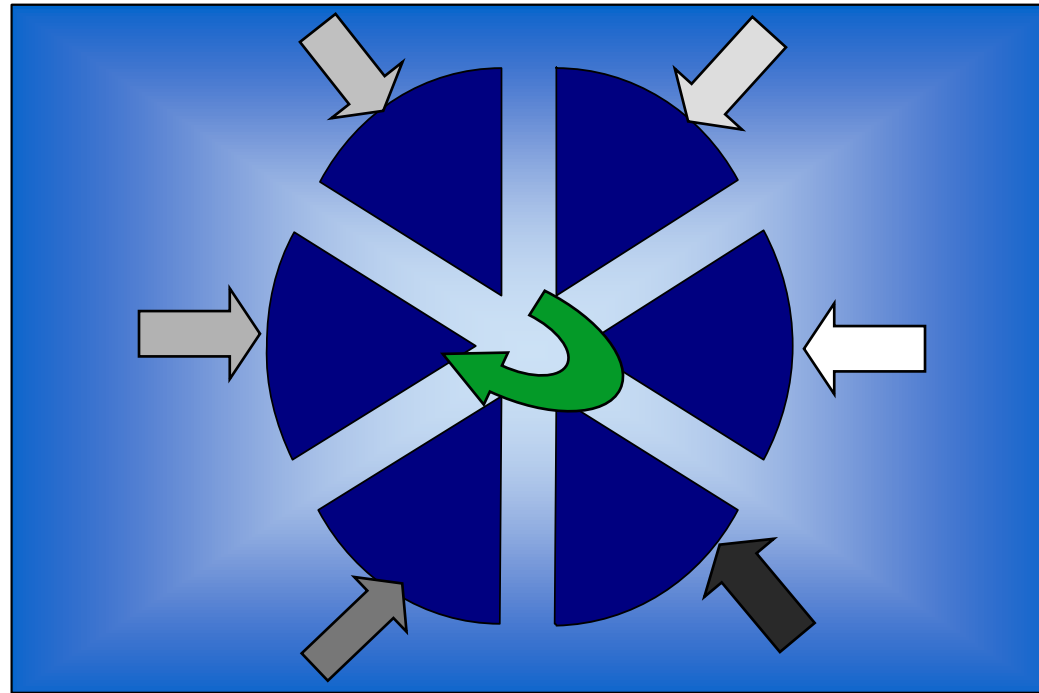
- Sector-specific standards (Could be regional, national or international);
- Takes into account the specificities of sectors;
- Either calculate baseline emission factor for broad class of mitigation activities (measures) taken up in the sector; or baseline emission factor for entire sector;
- Baseline emission factor to be used for baseline emission calculations and demonstration of additionality;
- To be used in conjunction with an approved methodology/tool.
- No need for “prior consideration” for demonstration of additionality.



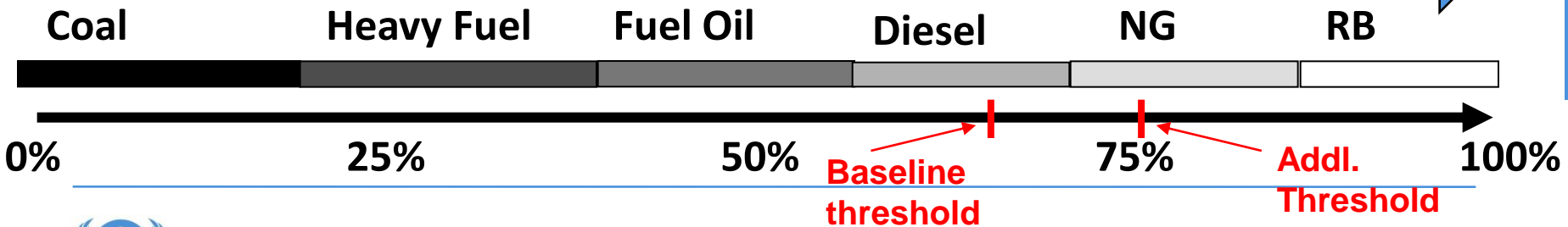
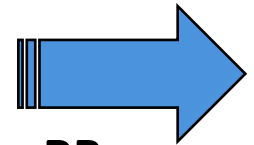


# Introduction to SB concepts (SB Guidelines)

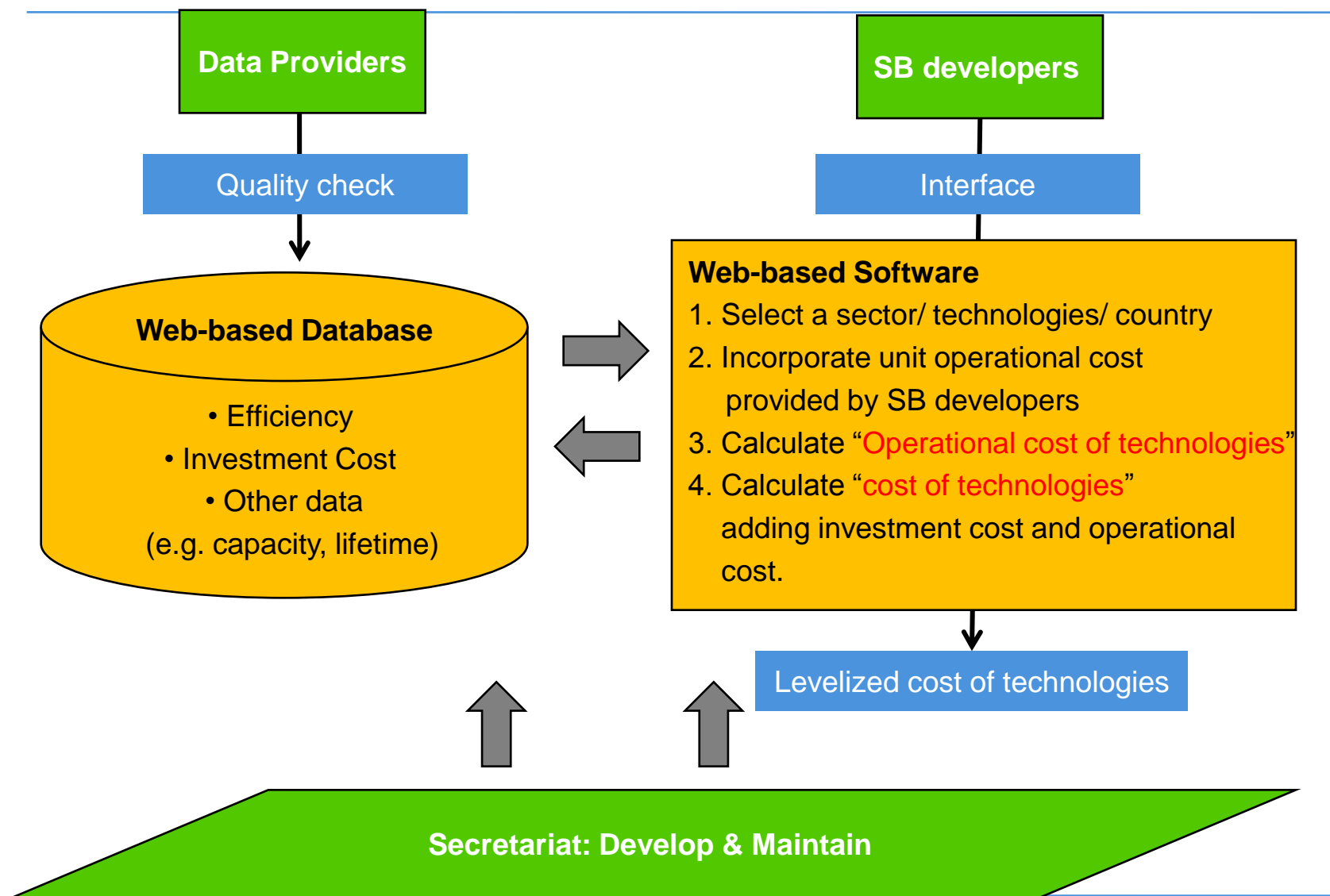
## General Approach for measure of fuel/feedstock switch and technology switch



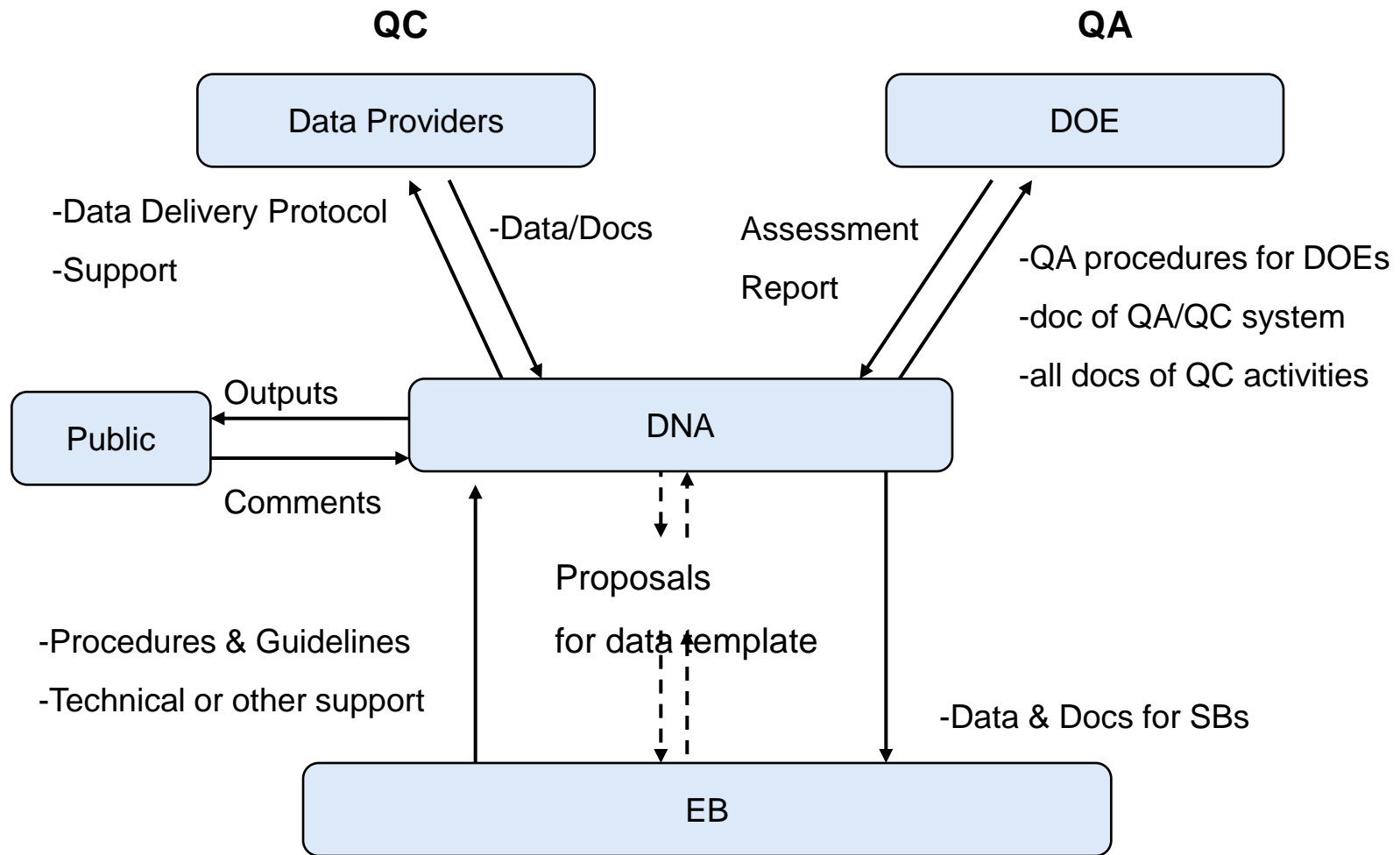
Technologies/  
Fuels in  
Positive list  
are less  
attractive



# Overview of the document-Usage of web-based database & software



# QA/QC processes for Data to be used for SB development



## QA/QC processes for Data to be used for SB development

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- The development of SBs is a data intensive process. The collection of data from multiple sources can lead to inconsistencies in levels of details, data formats and data quality. It also poses difficulties in achieving data integrity, data validity and completeness.
- The QA/QC guidelines aim to define best practices for DNAs to ensure data quality up front as well as continuous improvement.
- Upfront quality gate increase efficiency in processes related to SBs.
- Continuous improvement processes could help DNAs improve their institutional capacities for data management.



## QA/QC processes for Data to be used for SB development

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- QA/QC Guidelines are applicable to collection, processing, compilation and reporting of data needed for the SBs.
  - a) DNAs develop or validate the datasets used for the establishment of standardized baselines;
  - b) DOEs assess the quality of the data management system of the DNA rather than checking the quality of a specific set (or sets) of data.
  - c) Project participants or other entities (Parties as well as international industry organizations or admitted observer organizations) develop standardized baselines.
- QA/QC Guidelines include the quality control (QC) procedures for assessing the quality of a given datasets and the quality assurance (QA) procedures for ensuring the overall quality of the datasets.
- The guidelines establishes data quality objectives to be achieved by QA/QC system established by DNA.
- The guidelines describes the general provisions that QA/QC system must have.
- The guidelines establishes the requirement of documentation needed.



# QA/QC processes for Data to be used for SB development

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- 1.**Relevance** : be appropriate to the establishment of sector specific standardized baselines.
- 2.**Completeness** : require procedures to avoid, identify and handle missing data.
- 3.**Consistency** : be compatible with other related data.
- 4.**Credibility** : identify/utilize authoritative data sources. Primary data collection is a priority.
- 5.**Currentness** : utilize the most recent data available.
- 6.**Accuracy** : reduce errors and uncertainties as far as is practical and cost effective.
- 7.**Objectivity** : avoid biased, prejudiced and partial information.
- 8.**Conservativeness** : not lead to an overestimation of the baseline emissions.
- 9.**Security** : maintain restricted access to the datasets & the security of the datasets.
10. **Transparency** : disclose the data and processes to allow monitoring.
- 11.**Traceability** : document all data sources & processes for reproduction or review .

## Data Quality Objectives

Wherever other objectives in this document could not be met, a conservative approach

- (e.g. use of pre determined conservative default values) should be applied to substitute for missing, incomplete, invalid, old or incorrect data.)



### Level of aggregation for the data collection

- Generally one sector in one country
- Further aggregation
  - Based on homogeneity
  - Geographically, may be expanded to a group of countries
- Disaggregation
  - Based on heterogeneity
  - Geographically, may be restricted to a region within a country (e.g. regional grid)
  - Availability of certain fuels/feedstocks

### **Issues of methodology based approach addressed by SB guidelines**

#### **Complexity issues**

- Comparative analysis or financial benchmark;
- Realistic and credible alternative;
- Baseline is the most attractive alternative while the list of alternatives is not exhaustive.

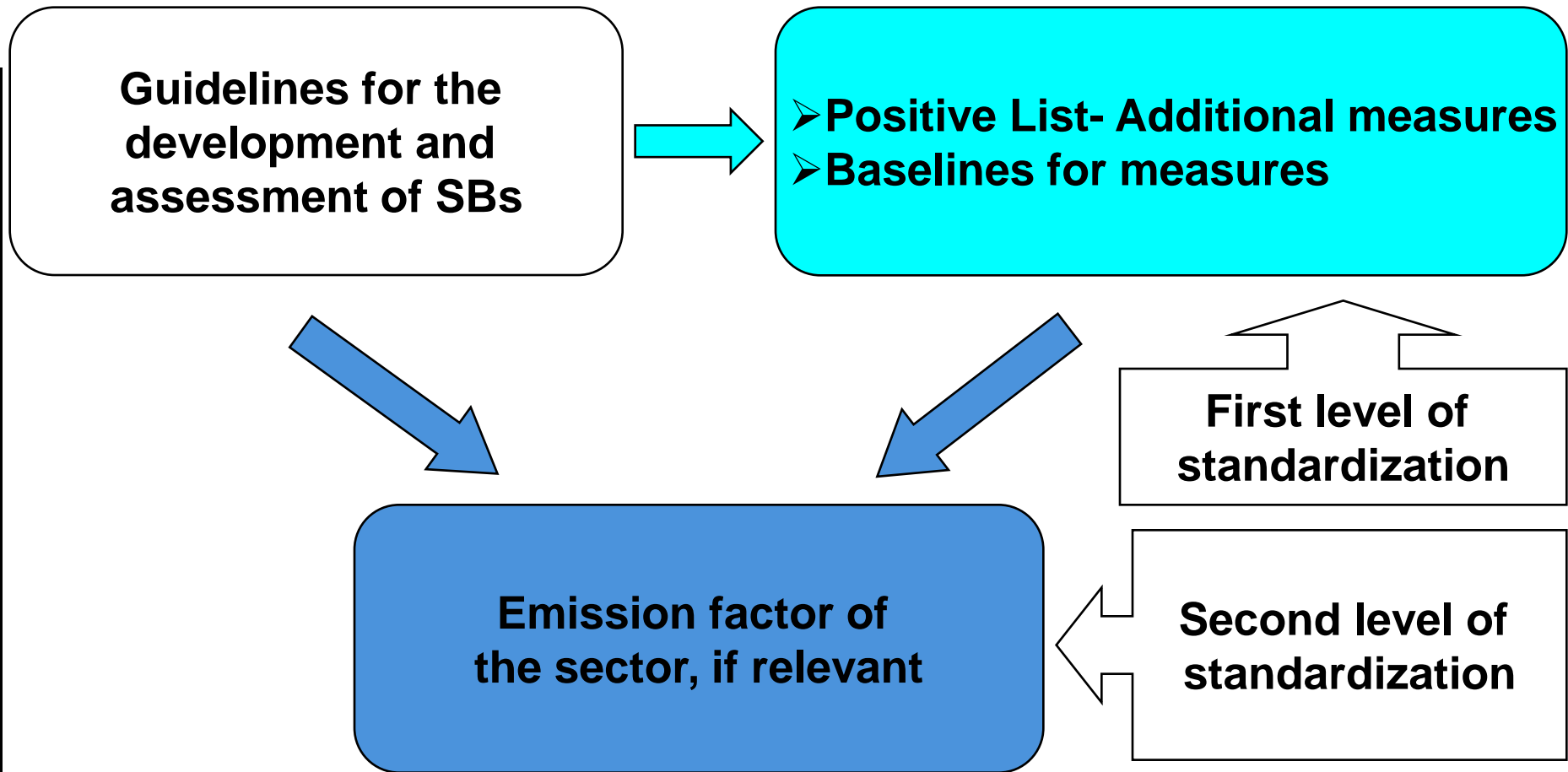
#### **Issues specific to performance benchmark**

- Performance benchmark and additionality;
- Free riders are minimal;
- Data intensity is much lower (design data on specific energy, specific raw material and facility data on output)





## Standardised baselines- Two phases of standardisation



## Five bottom up SB submissions-under processing

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- Charcoal production Sector- DNA of Uganda (under process)
- Cement sector-DNA of Ethiopia (under process)
- Power sector-DNA of Botswana of behalf of group of 9 countries in South of Africa (SAPP)
- Rice mill sector- DNA of Cambodia (under process)
- Power sector – Uzbekistan (under process)



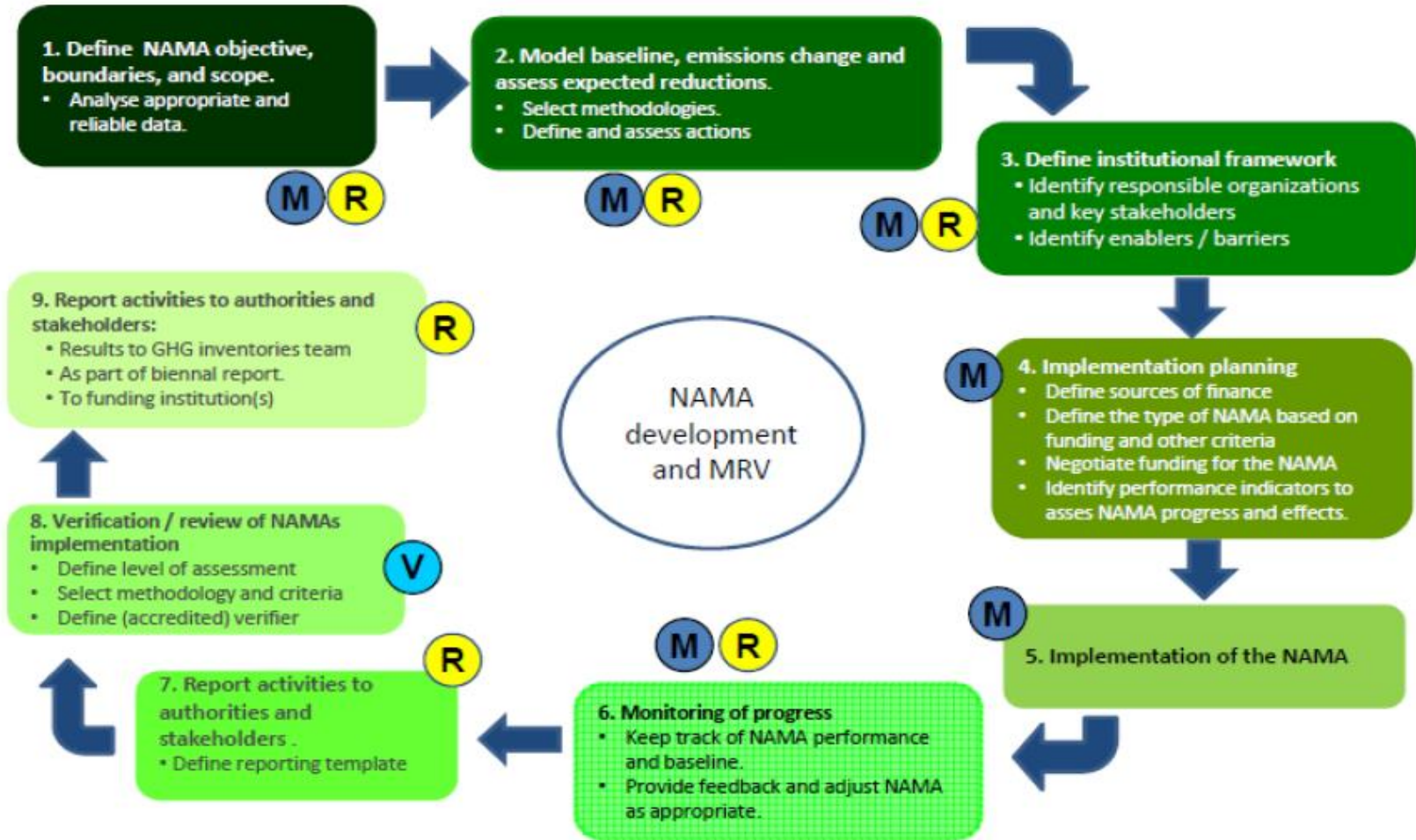
# Stay tuned to forthcoming documents on SB regulatory framework

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- Database on the cost and efficiency of technologies
- Guidelines to determine thresholds on baseline and additionality
- Guidelines and work programme for Standardised Baselines for Transport sector
- Data template for standardised baselines in cement sector
- Work flow for submission of SBs.
- Web-based system for submission of SBs.
- Guidelines/ software on sectoral emission factor
- Revision of SB regulatory framework based on lessons learnt and development of FAQs.
- Guidelines for frequency of update and vintage of data for SBs, procedure for update/revision of SBs, Framework SB document.
- Procedures on update/revision, clarification, and deviation from SBs.
- A framework document on Standardised Baselines.



# SB in the context of NAMAs



Source : GAP ANALYSIS REPORT (EU/GIZ)

## SB in the context of NAMAs – How it helps?

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- Scalability
- Specificities of countries
- Sectoral emission estimation and ladder for supported and sectoral crediting (credited NAMA)
- Environmental integrity (different thresholds for offsetting and domestic efforts)
- Net emission reductions
- Issue of double counting



## SB in the context of NAMAs – Why it is required?

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- Development and Implementation of NAMA requires reference level or pathway against which to measure its performance
- Baseline (Level of emissions) – BAU Baseline Scenario comprise present economical, technological, demographical and social trends without consideration of any climate change mitigation policy towards defined national emission reduction targets.
- Defined set of indicator to monitor the baseline (spatial ,time boundary, growth rate and trends as well as associated emissions).
- Setting of targets – (one or multiple measures)



## SB in the context of NAMAs – Advantage of having established methods

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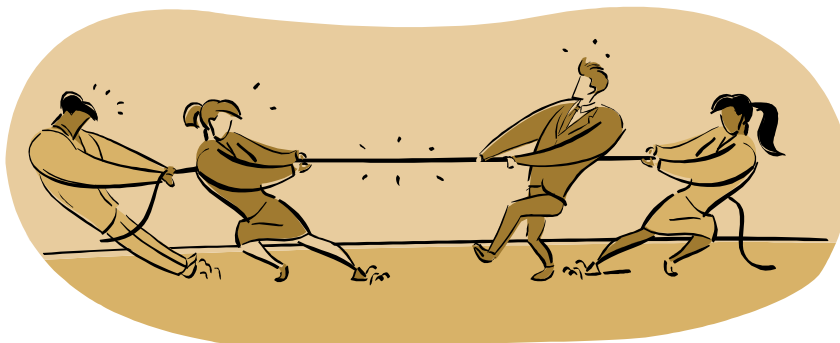
- Transparent - Methods, Emission factors and Activity data
- Accurate – Neither an over-estimate or underestimate
- Consistent – Same method ,same data source
- Complete – Source ,Sink and Gas
- Comparable – Inter region and country



## Can CDM sampling standard be used in NAMA

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**How good is good enough, compared against what?**



**-Simplification/Usability**

**-Broad applicability**

**-Standardization**

**-Transaction cost**

**-Time lines**

**-Environmental Integrity**

**-Consistency**

**-Monitoring rigor**

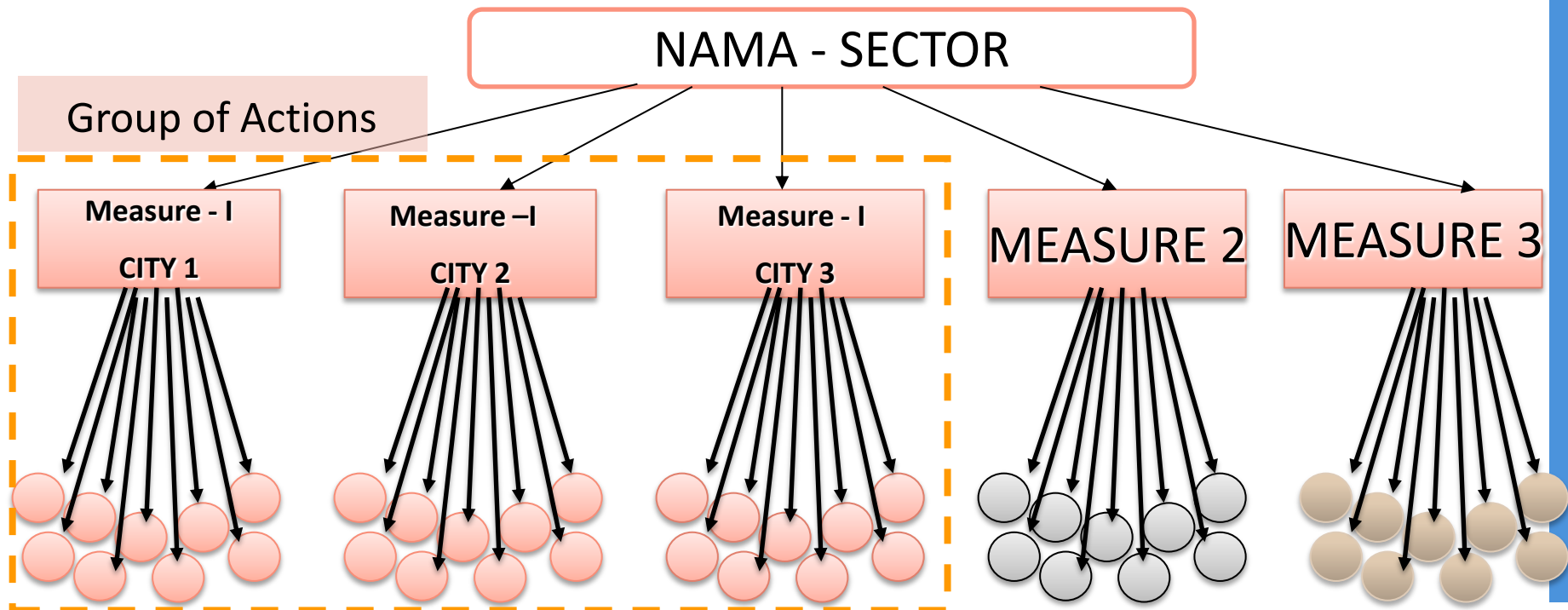
**-Conservative**





## Can CDM sampling standard be used in NAMA

- Sampling allowed for a group of homogeneous CPAs under a small scale PoA; populations of all CPAs in the group are combined for a single survey



## Can sampling standard be used in NAMA - Sampling Requirements

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1) Use the following confidence/precision requirements:

- 90/10 for small-scale and 95/10 for large-scale;
- Unless specified in the applicable methodology;

2) For precision (i.e.  $\pm 10\%$ ), use “relative” percentage terms when parameter of interest is both a proportion and a mean value;



➤  *$\pm 10\%$  when one expects 50% of cook stoves still to be operational means that population value is to be within  $\pm 5\%$ .*

➤  *$\pm 10\%$  when average usage of a CFL is 3.5 hours implies that the population parameter is to be within  $\pm 0.35$  hours.*

# Can suppressed demand concept of CDM be used in NAMA

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## SCOPE AND APPLICABILITY

- Applicable where the minimum service level is not met (Basic lighting demand, purified water, water treatment);
- Provides methodological approaches for two issues:
  - The identification of the **baseline measure** under a suppressed demand situation; and
  - The identification of the **baseline service level** that should be used to calculate baseline emissions in a suppressed demand situation.



# Can suppressed demand concept of CDM be used in NAMA

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**LED lamps**



**Compact fluorescent lamps (CFLs)**



**Incandescent lamps**



**Large hurricane lamps or pressure lamps**



**Small wick lamps**



**THANK YOU!**

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