

GUIDANCE NOTE

Standardized Baselines

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ENVIRONMENT AND ENERGY

Definition

Standardized Baseline (or 'SB') is *'a baseline established for a Party or a group of Parties to facilitate the calculation of emission reduction and removals and/or determination of additionality for clean development mechanism project activities, while providing assistance for assuring environmental integrity'.*

(Decision 3/CMP6/Para44)

Introduction

In a popular fable, six blind individuals who have never known an elephant before, interpret their own version of the creature after sensing different parts of the same animal. Philosophical interpretations aside, the story highlights a human tendency to view issues through a particular lens and thus the need to have a common understanding or a 'basis' (an imagery line or value or scenario) from which issues (such as anthropogenic emissions) can be measured or compared.

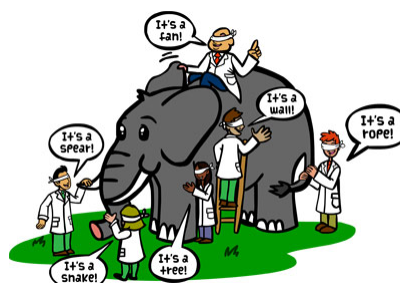


Fig 1: The need to have a common basis for decision making

The Clean Development Mechanism (CDM) Glossary¹ defines 'Baseline Scenario' as the scenario for a CDM component project activity (CPA) that reasonably represents the anthropogenic emissions by sources of greenhouse gases (GHGs) that would occur in the absence of a proposed CDM project activity.

'Baseline Emissions' are GHG emissions that would occur in a Baseline Scenario. Standardization can be understood as adoption of a generally accepted procedure(s) to enable objective comparison or judgment to simplify and add more predictability to decision making. Thus, establishing 'Standardized Baselines' can help reduce transaction costs, enhance transparency, objectivity and predictability of CDM projects, while facilitating (quicker) access to carbon finance particularly for underrepresented regions and project types.

(Source 1: CDM Glossary - http://cdm.unfccc.int/Reference/Guidclarif/glos_CDM.pdf)

Audience and Objectives of the Guide

The 'Procedure for Submission and Consideration of Standardized Baseline'² elaborates on the process for submission of SB and states that proposals can be submitted by a host country DNA and developed using either an:

- Approved CDM Methodology or Tool (primarily the 'Tool to determine the emission factor of an electricity system'), or
- 'Guidelines for the Establishment of Sector Specific Standardized Baseline'.

This Guidance Note (the 'Note') is intended primarily for Designated National Authorities (DNAs), Coordinating and Managing Entities (CMEs), and consultants involved with the development of SBs using the above stated Guidelines. The Note builds a case for SBs, provides a scheme to identify potential sectors and an outline for developing a 'Terms of Reference'. Thereafter the Note focuses on the current UNFCCC rules and regulations (Standards and Guidelines) with an emphasis on establishing a Quality Management System. The last section looks at the application of SB in the evolving climate change frameworks. The objective of this document is to make SBs comprehensible and easy to implement thus promoting its wider application across a broad range of relevant sectors.

(Source 2: SB Procedure - <https://cdm.unfccc.int/Reference/Procedures/index.html#meth>)

Why Standardized Baselines?

Consider the rice mill sector in the Kingdom of Cambodia. With over 27,000 mills of varying production capacity and fuel sources (e.g. use of diesel generators to supply electricity), mill owners looking to implement CDM projects were deterred by several barriers including relatively small size of individual projects, long project cycle, and high transaction costs.

The proposed 'SB for energy use in rice mill sector of Cambodia'³, developed by IGES, Japan for the DNA of Cambodia intends to tackle these barriers by making it easier for identification of a baseline, standardization of additionality demonstration, and making available an approved baseline emission factor. Unlike CDM methodology AMS-I.B for 'Mechanical energy for the user with or without electrical energy', the proposed SB reduces the number and complexity of monitoring parameters to two (2) from a maximum of six (6) as defined in the small-scale methodology while defining the default values for three parameters as shown below:

Emission Reduction (tCO₂) = Baseline Emissions (tCO₂) – Project Emissions (tCO₂)

- Baseline emissions = **Quantity of Milled Rice (tons of rice)** x Baseline emission factor for milled rice (tCO₂/ton of rice)
- Project emissions = **Diesel Consumed (liters)** x Diesel density (GJ/liter) x Emission factor (tCO₂/GJ)

The two monitored parameters under the SB are the quantity of milled rice and diesel consumed, while the default parameters were defined for the emission factors (milled rice and density) and the density of diesel.

(Source 3: SB Cambodia Rice Mills - https://cdm.unfccc.int/methodologies/standard_base/cambodia.pdf)

As can be seen from the above example, establishing a SB can help reduce monitoring of several parameters and therefore the need for multiple calculations on an individual project basis. SBs provides an agreed standard method of calculating GHG emissions for a defined project/sector type - thus **reducing time and costs** in comparison to large and small scale CDM methodologies.

In a project involving the rice mill sector in Cambodia, the process of standardization and data monitoring is aligned to the day-to-day operations of a rice mill, i.e. the quantity of rice milled and diesel consumed. This reduces the complexity of the data monitoring process encouraging a greater uptake for energy efficiency measures. Under the current UNFCCC regulations, this standardization can be defined for:

- Identification of the baseline emissions for a project or programme,
- Establishing additionality, and
- Calculation of baseline emissions;

! Note: When developing a SB, stakeholders can pursue either one or more of the above standardization, however this needs to be clarified in the Form 'F-CDM-PSB' at the time of submission of documents to the UNFCCC.

Advantage to LDCs, SIDS and Underrepresented Countries

The definition and principles for SBs were formalized in 2010 at Cancun through the official Decision 3/CMP6, Section V⁴. The decisions encourage the development of SBs in Least Developing Countries (LDCs), Small Island Developing States (SIDS) and underrepresented countries (countries with 10 or less registered CDM projects as on 31st Dec 2010). Some of the key decisions include:

- Proposals for SBs can be submitted by project participants, international industry organizations, and observer organizations - through a host country DNA.
- Additionally, encourages the UNFCCC to develop SBs in consultation with DNAs and
- Recommends the exploration of different sources to finance the development of SBs for LDCs, SIDS and underrepresented project types and regions.
- Rests the application of a SB at the discretion of the host country DNA.
- Requests the UNFCCC to periodically review SBs (e.g. to ensure that SB reflects the current market scenario).
- And encourages Annex 1 countries to undertake capacity building and support the development of SBs.

(Source 4: SB Decision - <http://unfccc.int/resource/docs/2010/cmp6/eng/12a02.pdf#page=2>)

! Note: Unlike the submission for CDM Methodologies which can be undertaken by project participants, submission of SBs for approval to the Executive Board (EB) can be done only through a **host country DNA**.

Sector Identification for SBs

As the onus for promoting SBs lies with the DNA (typically located under a Ministry of Energy or Environment), this government agency is ideally placed to conduct a review of national and sectoral policies to determine the GHG potential of various sectors and sub-sectors within the host country. The process of identification for developing SBs should not only check for sectors/sub-sectors that can benefit from the process of standardization, but can also help identify “neglected” sectors that can potentially benefit from climate action.

! Note: The below flowchart (Fig 2) is aimed at supporting DNAs with the decision making process for sector identification, however it must be noted that the proposed scheme is elementary and requires the further development of a more robust decision making tool.

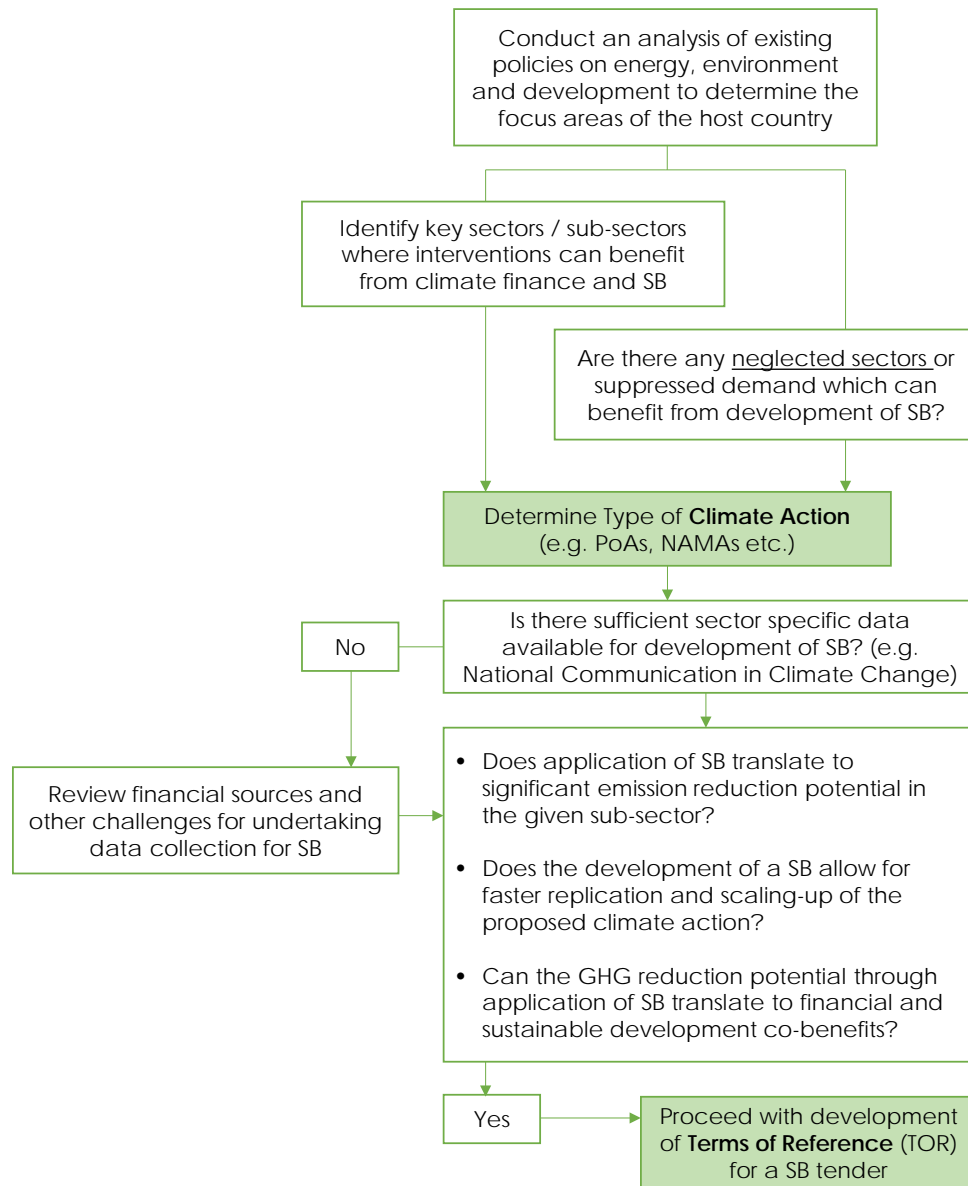


Fig 2: Schematic decision making process for SB sector identification

Developing a Terms of Reference

The nature of expertise required for developing SBs will require the participation of qualified 3rd party consultants to participate in a bidding process. As with any tender process, a well written TOR ensures greater clarity to the bidders while allowing the most qualified consultant to be shortlisted for the project activity.

! Note: A well drafted TOR should clarify the expectations, roles and responsibilities of the different stakeholders involved with the process, provide a plan for the overall activity, including follow-up. Time and effort spent in preparing a TOR can go a long way in ensuring the overall quality of the SB, its relevance and usefulness in undertaking climate actions.

Box 1: Contents of a TOR

Section 1 - General Conditions:

- Location: State where is the activity expected to be undertaken
- Language: The primary language for documentation and communication
- Start Date: Anticipated start date of the project activity
- Duration: Total length in months for completion of the activity.
- Travels expected and special security requirements: As necessary
- Currency: The currency in which the proposal needs to be submitted
- Payment Terms: Outputs and percentage of payments
- Criteria for Contract Award: Weightage for scoring

Section 2 – Background for proposing the TOR:

Provide a short introduction between global climate action and SB. Include information if the SB development forms part of any international programme or donor finance or host country initiative.

Elaborate on the climate actions of the host country and relevant information on the identified sector relevant to the SB.

Additional information that is relevant for the bidder to know in the context of the SB (e.g. suppressed demand)

Section 3 - Objective:

State the overall purpose of the assignment

State the specific tasks required to be performed by the consultants, e.g.:

- Build the SB on the most applicable CDM small-scale-methodology;
- Assess the required data sources in the country for the selected methodology;
- Collect the required data for SB calculation;
- Establish the eligibility criteria;
- Develop the baseline for the eligible measures;
- Develop the procedures for updating the baseline;
- Calculate the Standardized Baseline;
- Assist throughout the UNFCCC review process until approval of SB

Section 4 - Deliverables and Timeline:

State key deliverables (e.g. mission to host country) and the expected timelines for the respective deliverables from the time of signing of contract. This may be linked to the payment schedule.

Section 5 – Reporting Requirements:

Indicate the time gap (e.g. weekly, bi-weekly), the designation (e.g. project manager) and the means of periodic reporting (e.g. email / phone calls) for the entire duration of the contract.

Section 6 – Key Performance Indicator:

State the key activities that need to be completed. A deliverable may consist of one or more indicator, e.g.:

- Site visit to Host Country completed;
- Required data for SB development assessed and collected;
- Eligibility criteria formulated;
- Baseline for eligible measure determined;
- Procedures for updating the baseline developed;
- Standardized Baseline calculated,
- Standardized Baseline reviewed and approved by the EB.

Section 7 - Experience and Expertise:

State knowledge and skills expected in the bidding entity:

- Familiarity with CDM procedures and guidelines for SB development;
- Proven record in writing of CDM methodologies;
- Experience in working on CDM project development with a variety of stakeholders, including government agencies, NGOs, Civil Society, communities;
- Asset: Work experience in the particular sector/region

Standards and Procedures for Establishing SB

This section looks at the current UNFCCC decision making process and in the context of the 3 key documents:

- **Procedure for Submission and Consideration of Standardized Baseline**
- **Guidelines for the Establishment of Sector Specific Standardized Baseline**
- **Guidelines for Quality Assurance and Quality Control of Data Used in the Establishment of Standardized Baselines.**

The 'Procedure for Submission and Consideration of Standardized Baseline' (the 'Procedure') elaborates on the process for submission of a proposed SB by a host country DNA. The 'Guidelines for Establishment of Sector Specific Standardized Baseline' (the 'Sector Specific Guideline') provides a framework for development and assessment of SBs. The 'Guideline for Quality assurance and Quality control of Data used in establishment of SBs (the 'QA/QC Guideline') deals with quality assurance and quality control of data used in establishment of SBs. For a complete list of all relevant documents pertaining to SB, please refer to Box 2 below:

Box 2: Key Resource Database

Background / Decision:

- Decision 3/CMP6

Procedure:

- EB68/Annex 32: Procedure for submission and consideration of standardized baselines

Guidelines:

- EB 65/Annex 23: Establishment of sector specific standardized baseline
- EB 66/Annex 49: Quality assurance and quality control of data used in establishment of standardized baselines

Key Forms:

- F-CDM-PSB-RF: Request for funding for assessment report form
- F-CDM-PSB: CDM proposed standardized baseline form
- F-CDM-PSB-IA: CDM proposed standardized baseline initial assessment form
- F-CDM-PSB-REC: CDM recommendation form for proposed SB

(Note: The above documents have been updated up to EB75. The most up-to-date procedures, forms and other documents related to SBs can be found at: https://cdm.unfccc.int/methodologies/standard_base/new/sb6_index.html)

Procedure for submission and consideration of standardized baselines

Step 1 - Submission of a standardized baseline proposal to the CDM Executive Board:

As noted in the official Procedure (EB68, Annex32), SBs can be developed by a single or a group of parties and for a single or number of host countries; however the submission to the UNFCCC Executive Board (EB) must be done by a single DNA (mutually agreed between the parties) as schematically explained in Fig 3 below:

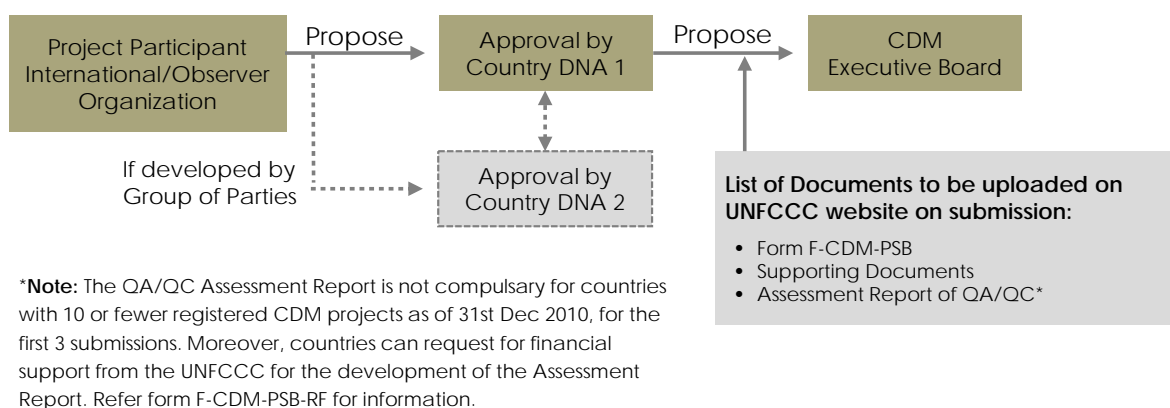


Fig 3: Submission of a SB proposal to CDM EB.

SB proposals can be developed by a single or a group of parties and for a single or number of host countries; however the submission to the UNFCCC Executive Board (EB) must be done by a single DNA (mutually agreed between the parties).

Step 2 - Initial Assessment:

Following the receipt of the SB proposal, the EB undertakes an initial assessment and provides feedback to the DNA. The typical number of working days for the assessment phase is indicated in Fig 4 below:

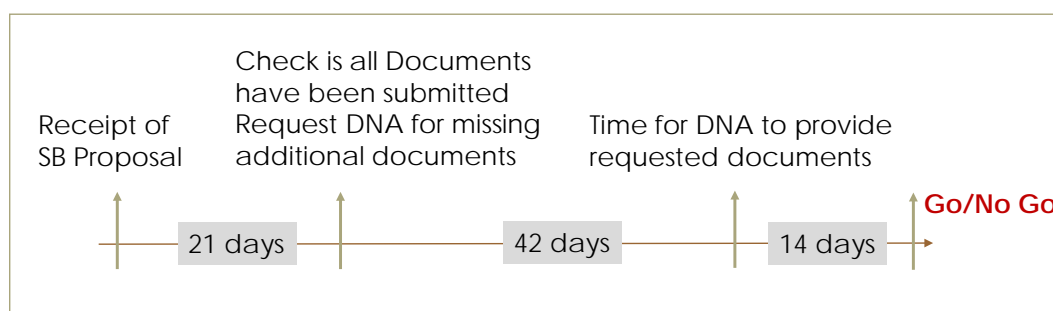


Fig 4: Initial assessment period

At the end of the assessment period, the EB informs the DNA whether the proposal meets the submission requirements (e.g. all appropriate documents have been submitted) and if found wanting can suspend the process until further notice.

Step 3 - Preparation of Recommendation and Final Decision:

Within 28 days of satisfactory conclusion of the initial assessment, the EB undertakes the following:

- Provides a reference number to the SB
- Makes necessary information publicly available on its website
- Prepares a draft recommendation

The draft recommendation may approve / disapprove the SB or request for additional information. Upon conclusion of the information exchange process with the DNA, the EB takes a final decision on whether to approve or reject the SB.

Guidelines for Establishment of a Sector Specific SB:

The Sector Specific Guidelines is applicable for 4 project categories for development of SB (referred to as 'Measures'):

- **Fuel and Feedstock Switch** (e.g. Carbon intensive with less carbon intensive fuel)
- Energy efficiency and Switch of technology with/without change of energy source
- **Methane destruction** (e.g. Recovery, flaring or capture of methane from landfills)
- **Methane formation avoidance** (e.g. Use of agriculture residues left to decay)

The premise for developing SB is made by comparing emission performance (referred as '**Performance standard**' in other SB literature) of similar project types (e.g. electricity can be supplied by harnessing coal, diesel, natural gas, biomass, etc.). This aggregation of similar project types or '**homogeneous group**' helps to determine the baseline scenario and a '**positive list**' of technologies / projects that can be deemed as automatically additional by defining a '**threshold**' limit. This is further explained through the example of 'SB for energy use in rice mill sector of Cambodia', below.

Box 3: The 4 steps in developing SB

- **Step 1:** Define the 'Level of Aggregation'
- **Step 2:** Establishing the additionality criteria – This pertains to defining a 'Positive list' of fuels / biomass or technologies that can benefit from the SB
- **Step 3:** Identification of baseline – e.g. Defining baseline fuel, best available technology (refer Example 3).
- **Step 4:** Determine the baseline emission factor as applicable

Step 1 – Level of Aggregation:

Aggregation of data is done by defining a **homogeneous group** consisting of the following factors. For the Cambodia rice mill sector, the level of aggregation was elaborated as:

- **Host Country:** Kingdom of Cambodia.
- **Sector:** Energy generating equipment in Rice Mill Sector. Either newly installed or retrofitted with the rated output capacity not more than 5 MW.
- **Output:** Milled Rice. Rice production is capped at 3,000 tonnes per year.
- **Measure:** Energy efficiency and Switch of technology

Step 2 – Establishing the Additionality Criteria:

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_12066

