

**CDM-MP87-A01**

## Concept note

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# Ensuring the consistency in definitions of market penetration metrics and thresholds for additionality demonstration

Version 01.0



**United Nations**  
Framework Convention on  
Climate Change

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## 1. Procedural background

1. The Executive Board of the clean development mechanism (CDM) (hereinafter referred to as the Board), at its 108<sup>th</sup> meeting (EB 108), considered the concept note “Consistent use of market penetration metrics for additionality, common practice and FOIK” and agreed to conclude the conceptual work. The Board appreciated the work undertaken and requested the Methodologies Panel (MP), based on the analysis contained in the concept note and the guidance provided by the Board at this meeting, to:
  - (a) Propose definitions for the terminologies associated with penetration of technology/measure with a view to include them in the **“Glossary: CDM terms”**;
  - (b) Propose a consistent approach to the data vintage and data sources used for the determination of penetration of technology/measure with a view to include them in the **CDM project cycle procedures or the CDM project standards**; and
  - (c) Revise **“TOOL23: Additionality of first-of-its-kind project activities”** and **“TOOL24: Common practice”** to explore including an appropriate penetration threshold for technology/measure (e.g. 2.5 per cent).
2. In response to the above mandate by the Board, the MP, at its eighty-fourth meeting (MP 84), provided input to the revision of the “Glossary: CDM terms” and to the “Amendments to the CDM project standards”. The MP also considered the revision of the methodological tools “TOOL23: Additionality of first-of-its-kind project activities” and “TOOL24: Common practice” and agreed to continue working on the revisions at its next meeting.
3. The Board, at EB 110, considered the draft revised “Glossary: CDM terms” that introduced definitions of new terms associated with market penetration of technology/measure, and **requested the MP to analyse the existing approved methodologies and methodological tools with regard to the consistency in the use of these terms and related guidance, and to recommend revision to the methodologies and tools, as appropriate, based on the analysis.**
4. Further, the Board requested the secretariat, in conjunction with these revisions, to propose a draft revised “Glossary: CDM terms” containing revised definitions of the terms associated with market penetration of technology/measure that are consistent with the methodologies and tools.

## 2. Purpose

5. The purpose of this concept note is to address the mandates provided at EB 108 and EB 110 referred above and make a recommendation to the Board.

## 3. Definitions of new terms associated with market penetration of technology/measure and consistent use of the terms and thresholds in methodologies and tools

6. Existing provisions in the various large scale and small-scale methodologies, tools and guidelines, where the guidance on demonstration of additionality makes reference to market share, market penetration and penetration rate, are included in **Appendix 1**. Also,

some examples of the application of market penetration thresholds in programme of activities design documents (PoA-DDs) are included in **Appendix 2**.

7. Thresholds applied to demonstrate automatic additionality in the existing CDM methodologies and tools include 2%, 5%, and 10%. Methodologies for projects involving distributed units generally apply 5% threshold, whereas methodologies for grid-connected renewable energy projects apply 2% threshold.
8. The table below lists the diffusion thresholds applied by CDM methodologies and tools for different technologies to demonstrate automatic additionality.

**Table 1. Diffusion threshold ranges for automatic additionality**

Technologies/measures	Threshold value	CDM tools and methodologies
Solar Water Heaters High efficiency biomass fired system Solar lamps	≤ 5%	TOOL19
Efficient cookstoves	≤ 5%	AMS I.E AMS II.G
Electric and hybrid vehicles	≤ 5%	AMS III.C
E-bikes	≤ 5%	AMS III.BM
Improved efficiency of vehicle fleets	≤ 5%	AMS III.BC
Renewable energy power generation in national grids or isolated grid	≤ 2%	TOOL32
LNG buses	≤ 5%	AMS III.AY
Increasing composition of blend in cement production	≤ 5%	ACM0005
Agricultural waste as feed stock for paper, cardboard and bio oil production	< 10%	AM0057

9. Under the following section, recommendations are made for improvements of definitions of terminology and consistent use of the terms and thresholds in the methodologies and tools.

### 3.1. Definitions on market penetration metrics

10. Following new definitions should be included in CDM glossary of terms:

<i>Term</i>	<i>Definition</i>
Market penetration / share	The following terms are defined in the context of the percentage share of a specific technology for demonstrating additionality or determining common practice or first-of-its-kind (FOIK). The share of the specific technology may be expressed in relation to i) stock of functional or operational technology at the user end, or ii) sales volume of the technology, or iii) installed capacity or production capacity or service amount (e.g. MW of installed capacity, GWh of electricity generation, passenger-km travelled).

**Market penetration:** the percentage share of a specific technology in the 'target market size' during a specified period (e.g. percentage of monthly or annual sales in the target market) or at a specific point of time (e.g. percentage of stock of functional equipment at the user end in the preceding year of analysis in the target market).

**Market share:** the percentage share of a specific technology in the 'total market size' during the specified period (e.g. percentage of monthly or annual sales in the total market) or at a specific point of time (e.g. percentage of stock of functional equipment at the user end in the preceding year of analysis in the total market).

In these definitions, '**Target market size**' is the potential size of the market for a specific technology in the total market (e.g. passenger car vehicles that may adopt the technology in the total market for all passenger car vehicles) in the applicable geographical area (hence, it is usually smaller than the total market size). '**Total market size**' is the expected total market for a technology and is equal to the total population or capacity (e.g. all end-users, all vehicles) in the applicable geographical area.

The target market size is defined as follows:

Project participants first need to determine the 'total market size' in the applicable geographical area for the specific technology, and then determine the 'target market size' within that total number.

The target market size may be determined based on the market data from a publicly available source or based on the information collected from a market survey conducted by project participants or a combination of the two.

When determining the target market size, project participants shall bear in mind that only a segment of the total market may be served by the specific project technology, taking into consideration the conditions/constraints below, inter alia:

- (a) Product, technology constraints (e.g. project technology may work only under certain technological conditions such as stable grid connectivity);
- (b) Socio-economic characteristics (e.g. project technology may be targeted only for certain income level);
- (c) Geographical, topographical, and climate conditions (e.g. project technology may be workable or suitable only under certain conditions);
- (d) Cultural, demographic, behavioral, and psychographic conditions (e.g. project technology may be accepted only for certain group of people).

In case it can be demonstrated that no constraint for the deployment of technologies exists, the target market size may be considered to be equal to the total market size.

### **3.2. Revision of the methodologies and tools**

11. As mandated at EB110, the MP analysed the existing approved methodologies and methodological tools with regard to the consistency in the use of the terms and related guidance, and recommended revisions to the relevant methodologies and tools as contained in **Appendix 1** (proposed changes are indicated in yellow-highlight).

### **3.3. Revision of the TOOL23**

12. "TOOL23: Additionality of first-of-its-kind project activities" allows only the very first project in the applicable geographical area applying the technology to qualify.
13. Based on the findings from Rogers' (1962) diffusion model that a technology is considered to be in the innovation stage until reaching the 2.5% diffusion level (refer to Annex 9 to MP83 meeting report regarding the Roger's theory of diffusion), the MP agreed to recommend that an additional option for assessing first of its kind (i.e. 2.5% threshold) should be proposed as a complimentary approach to the current FOIK test (i.e. very first in the region), indicating where it is applicable (e.g. for distributed applications).
14. Recommended revision to the FOIK tool is contained in **Appendix 3** (proposed changes are indicated in yellow-highlight).

## **4. Impacts**

15. The proposed work will:
  - (a) Improve the understanding of market penetration rate and market share in the context of the CDM project activities and programme of activities and its application when demonstrating additionality and conducting common practice analysis;
  - (b) Lead to consistent use of the criteria and thresholds across CDM methodologies and tools where these values are based on relevant references/sources;
  - (c) Ensure consistency amongst the various CDM methodologies and tools, when demonstrating additionality.
  - (d) Expand the universe of projects applying automatic additionality with reduced risks to environmental integrity. Statistical results, when available will strengthen the CDM process.

## **5. Subsequent work and timelines**

16. The MP agreed to launch a call for public input on the proposed changes to the relevant methodologies and methodological tools as shown in this concept note, and any input received will be discussed with the MP and forwarded to the Board for its consideration. With regard to the proposed revision to the TOOL24, the MP will continue the work and conclude at its next meeting.

## **6. Recommendations to the Board**

17. The MP recommended that the Board consider the concept note and provide further guidance.

## Appendix 1. Proposed revision to the additionality related requirements that used thresholds based on market penetration or market share in identified methodologies and tools

### 1. Methodological Tools

#### 1.1. TOOL19: Demonstration of additionality of microscale project activities

1. The **market** penetration<sup>1</sup> of the proposed technology (i.e. Solar water heating system, Clean and energy efficient cookstoves, High efficiency biomass fired devices (e.g. energy efficient cookstoves<sup>2</sup>) and Solar lamps) is equal to or less than **2.5 per cent of the technologies/measures (providing similar services to end-users) based on stock of units, or 5 per cent based on annual sales of units**, in the **applicable geographic area region**<sup>3</sup> in order to be considered as automatically additional.
2. The **market** penetration shall be determined using one of the following options:
  - (a) Official statistics or reports, relevant industry association reports or peer-reviewed literature;
  - (b) Results of a sampling survey conducted by project participants or a third party as per the latest version of "Standard: Sampling and surveys for CDM project activities and programme of activities"; covering technologies/measures providing similar services as the project technology/measure.
3. To determine the **market** penetration using the **above paragraph data based on stock of units**, the most recent data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used, and the data vintage used shall not include data older than three years prior to: (a) the start date of the CDM project activity; or (b) the start of validation/inclusion, whichever is earlier. **If the market penetration is determined using the data based on annual sales of units, the most recent three years' data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used. A minimum of three years of historical sales data are necessary to capture variations of the sales data from year to year. Exceptionally, historical sales data covering less than three years, but of a minimum one year, may be used with due justifications (e.g. demonstrated unavailability of data despite the efforts made).**

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<sup>1</sup> ~~Refers to proportion of stock of functional equipment at the user end, also termed as market saturation.~~

<sup>2</sup> All single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 20 per cent or higher.

<sup>3</sup> **Region**/Applicable geographical area should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country.

4. Here are some examples.

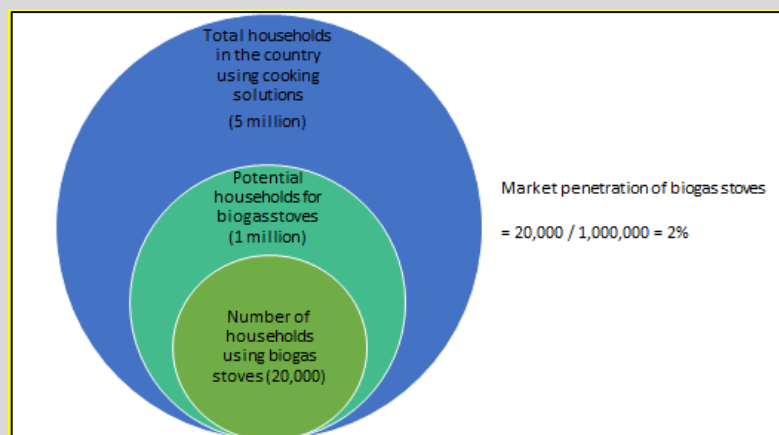
**Box 1. Non-binding best practice example 1**

Project technology: Biogas stoves

The installation and use of biogas stoves may be limited to the rural area of host country X (e.g. households with availability of animal manure and with availability of the land for biodigesters installation), not in the urban area.

Even though the total market size is the number of households using cooking solutions in the host country X, it cannot be considered that all of them will be potential consumers for the biogas stoves. The potential target market for biogas stoves may include households using traditional three stone fired stoves, improved cook stoves, LPG stoves & electric stoves and with good availability of biomass waste as well as the land for biodigesters installation. The estimation of “market penetration” of the biogas stoves, considering “target market size” respectively are given in the figure below.

Figure. “Market penetration” related to the target market size in the host country X



As shown in the table above, the market penetration of biogas stoves is 2% (based on stock). Therefore, it can be considered that the technology has market penetration of less than 2.5% and is automatically additional.



**Box 2. Non-binding best practice example 2**

**Project technology: Solar water heaters**

Market penetration is determined as the percentage of solar water heaters units at a specific point in time, based on stock of all units of water heater technologies (i.e. solar, electric, gas water heaters, etc) deployed in the applicable geographical area.

Table xx below illustrates based on market penetration of different water heating systems in Country Y in 2021. Since there is no constraint for the use of solar water heater (it can be used anywhere by anyone among the population), the total market is considered in this example.

**Table xx. Market share of solar water heating systems in Country Y in 2021 (based on stock)**

No.	Water heater type	Market share (%) based on stock
1	Electric water heater (electric storage)	52.1%
2	Electric water heater (electric instantaneous)	26.7%
3	Gas water heater (gas instantaneous)	13.0%
4	Solar water heater	8.2%
	Total	100%

In Country Y, the technologies providing similar water heating services are electric storage, electric instantaneous, gas instantaneous and solar water heating systems.

As shown in the table above, the market penetration of solar water heating systems in Country Y had reached 8.2% (based on stock) in 2021. Therefore, it can be considered that the technology has market penetration of more than 2.5% and is not automatically additional.

**1.2. TOOL32: Positive lists of technologies**

5. A specific technology listed in paragraph 13 above is defined as automatically additional if at the time of PDD submission<sup>4</sup> any of the following conditions is met:
  - (a) The **percentage market share** of the ~~total installed capacity~~ **total electricity generation** of the specific technology in the ~~total installed grid connected power generation capacity~~ **total electricity generation of the grid** in the host country is **equal to or less than 2.5two per cent**; or
  - (b) The total installed capacity of the technology in the host country is less than or equal to 50 MW.

<sup>4</sup> For registration of the project activity or inclusion of the component project activity (CPA) in a programme of activities.

**Box 3. Non-binding best practice example 3**

Project technology: grid-connected solar photovoltaic (PV) technology

Table xx below illustrates, based on the market share of different electricity generation systems in Afghanistan in 2019.

**Table xx. Market share of solar PV technology in Afghanistan in 2019**

	<b>Electricity Generation (GWh)</b>	<b>% of total electricity generation</b>
On-grid Solar PV	16	1.4%
Hydro	1012	86.5%
Fossil Fuels	141	12.1%
<b>Total</b>	<b>1169</b>	<b>100%</b>

Source: IRENA (2021), Renewable capacity statistics 2021 International Renewable Energy Agency (IRENA), Abu Dhabi

Since the percentage share of the solar PV technology generation in the total electricity generation of the grid in Afghanistan is equal to or less than 2.5 per cent, it can be considered automatically additional.

6. A specific technology listed in paragraph 15 above is defined as automatically additional if at the time of PDD submission<sup>5</sup> any of the following conditions is met:
  - (a) The **percentage market share** of the ~~total installed isolated grid power generation capacity~~ **total electricity generation** of the specific technology in the ~~total installed isolated grid power generation capacity~~ **total electricity generation of the isolated grid** in the host country is **equal to or less than 2.5 two per cent**; or
  - (b) The total installed isolated grid power generation capacity of the specific technology in the host country is less than or equal to 50 MW.

**2. Transport methodologies**

**2.1. AMS III.C: Emission reductions by electric and hybrid vehicles**

7. Demonstrate ex ante that **the market share penetration of project electric/hybrid vehicles is equal to or smaller than 5 per cent** of the vehicles of the same category (e.g. if project vehicles are electric scooters, market **share penetration** of electric two wheelers is equal to or smaller than 5 per cent of all motorized two wheelers, irrespective of the manufacturer, which may be determined on annual sales data) in the region. **To determine the market penetration, the most recent three years' data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used.**

<sup>5</sup> For registration of the project activity or inclusion of the component project activity (CPA) in a programme of activities.

A minimum of three years of historical sales data are necessary to capture variations of the sales data from year to year. Exceptionally, historical sales data covering less than three years, but of a minimum one year, may be used with due justifications (e.g. demonstrated unavailability of data despite the efforts made).

#### Box 4. Non-binding best practice example 4

Project technology: Electric vehicles

Market penetration is determined as the percentage of electric vehicles in the target market size, based on sales data, in the applicable geographical area.

Table xx below illustrates based on market penetration of passenger cars by fuel type in Country X in 2019, 2020 and 2021. In this example, **the target market is considered as private 4 wheelers only for household use.**

**Table. New passenger cars by fuel type in country X in 2019, 2020 and 2021**

	Petrol	Diesel	Electric
2019	67%	32%	1%
2020	62%	30%	8%
2021	59%	25%	16%
Average	62.7%	29.0%	8.3%

As shown in the table above, the market penetration of electric vehicles, based on the most recent three years' sales data from 2019 to 2021 was 8.3%.

Therefore, based on the most recent three years' sales data, it can be considered that

- Electric vehicles have the market penetration of more than 5% and is not automatically additional.

## 2.2. AMS III.AY: Introduction of LNG buses to existing and new bus routes

8. Additionality is demonstrated using one of the options below:

- (a) Option 2: Demonstrate ex ante that the market share of project buses is less than or equal to 2.5% of the buses (not only public transport bus) in the region.

## 2.3. AMS III.BC: Emission reductions through improved efficiency of vehicle fleets

9. Additionality may be demonstrated based on typical barriers faced by energy efficiency projects, including but not limited to:

- (a) Common practice barrier: energy efficiency technologies are often not common practice. Fleet owners are often sceptical of such practices and resistant to adopt them. A project activity is considered to be additional if **the market penetration**

**rate share** of each of the planned project measures is less than **2.5 per cent** for the types of vehicles included in the fleets<sup>6</sup>.

#### **2.4. AMS III.BM: Lightweight two and three wheeled personal transportation**

10. Other activities that do not satisfy the conditions under paragraph 18 are considered additional if:

- (a) Activities that are type 7 (i.e. introduction of e-bikes) and the **market share (penetration)** of e-bikes in bicycle in use in the city is below or equal to **2.5%** based on number **of** annual bicycle trips undertaken in the city or based on **stock market share**; or

### **3. Energy and or heat generation / consumption and Energy transmission methodologies**

#### **3.1. AM0057: Avoided emissions from biomass wastes through use as feed stock in pulp and paper, cardboard, fibreboard or bio-oil production**

11. The barriers may include the following:

- (a) The use of agricultural waste may face technological barriers;
- (b) The raw material is either not used or, in the case of pulp and paper, cardboard or fibreboard, **less than 10 2.5% of production in the region** is based on agricultural waste.

### **4. Manufacturing related methodologies**

#### **4.1. ACM0005: Increasing the blend in cement production**

12. First-of-its-kind - In order to demonstrate additionality using "First of its Kind" barrier, the applicable geographical area shall **include the entire domestic market** in the host country and the methodology requires information concerning the market share for blended cement sold in the domestic market in the host country. The project activity shall be considered as the one that applies a technology that is different from any other technologies able to deliver the same output (blended cement) if the **market share for blended cement in the host country is below 5 %**.

13. The market share shall be calculated as the percentage of the amount of blended cement in the total amount of all cement types produced in the host country (tons blended cement/total tons cement production x 100%) during the last three years prior to: (a) the start date of the CDM project activity; or (b) the start of validation, whatever is earlier. The **market share shall value must** be based on reliable and publicly available data

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<sup>6</sup> **Market Share is Penetration rates are** assessed for the specific categories of vehicles in which the measures are implemented, and not for the fleet as a whole, because a project may implement specific measures only on some vehicles and not the entire fleet. To assess the **market share penetration rate** for the fleet, a weighting based on the number of each type of vehicle is made. Each planned measure must fulfil the threshold value of **2.5 per cent** individually if this barrier is used.

sources (e.g. cement manufacturers associations or governmental agencies). Other CDM projects shall be included in this assessment.

## 5. Distributed unit methodologies

### 5.1. AMS-I.E.: Switch from non-renewable biomass for thermal applications by the user

14. Demonstrate ex-ante that the **market** penetration<sup>7</sup> of the project technology is equal to or less than **2.5 per cent** of the technologies/measures providing similar services **to end users using the data based on stock of units, or 5 per cent using the data based on annual sales of units**, in the **applicable geographic area region** in order to be considered as automatically additional.
15. The **market** penetration shall be determined using one of the following options:
  - (a) Official statistics or reports, relevant industry association reports or peer-reviewed literature;
  - (b) Results of a sampling survey conducted by project participants or a third party as per the latest version of "Standard: Sampling and surveys for CDM project activities and programme of activities"; covering technologies/measures providing similar services as the project technology/measure.
16. The **region/applicable** geographical area to determine the penetration should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country.
17. To determine the **market** penetration using the **above paragraph data based on stock of units**, the most recent data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used, and the data vintage used shall not include data older than three years prior to: (a) the start date of the CDM project activity; or (b) the start of validation/inclusion, whichever is earlier. **If the market penetration is determined using the data based on annual sales of units, the most recent three years' data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used. A minimum of three years of historical sales data are necessary to capture variations of the sales data from year to year. Exceptionally, historical sales data covering less than three years, but of a minimum one year, may be used with due justifications (e.g. demonstrated unavailability of data despite the efforts made).**

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<sup>7</sup> Refers to proportion of stock of functional equipment at the user end, also termed as market saturation.

**5.2. AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass**

18. Demonstrate ex ante that the **market** penetration<sup>8</sup> of high efficiency biomass fired devices (e.g. energy efficient cookstoves<sup>9</sup>) is equal to or less than **2.5 per cent** of the technologies/measures providing similar services **to end users based on stock of units, or 5 per cent based on annual sales of units**, in the **applicable geographic area region** in order to be considered as automatically additional.
19. The **market** penetration shall be determined using one of the following options:
- Official statistics or reports, relevant industry association reports or peer-reviewed literature;
  - Results of a sampling survey conducted by project participants or a third party as per the latest version of "Standard: Sampling and surveys for CDM project activities and programme of activities"; covering technologies/measures providing similar services as the project technology/measure.
20. The **region**/applicable geographical area to determine the penetration should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country.
21. To determine the **market** penetration using the **above paragraph data based on stock of units**, the most recent data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used, and the data vintage used shall not include data older than three years prior to: (a) the start date of the CDM project activity; or (b) the start of validation/inclusion, whichever is earlier. **If the market penetration is determined using the data based on annual sales of units, the most recent three years' data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used. A minimum of three years of historical sales data are necessary to capture variations of the sales data from year to year. Exceptionally, historical sales data covering less than three years, but of a minimum one year, may be used with due justifications (e.g. demonstrated unavailability of data despite the efforts made).**

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<sup>8</sup> ~~Refers to proportion of stock of functional equipment at the user end; also termed as market saturation.~~

<sup>9</sup> In accordance with paragraph 3, consider all single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 20 per cent or higher.

## Appendix 2. Examples of market penetration 5% threshold in PoA-DDs

Ref. and Project/ PoA title	Texts	Source
10512	<p>As per Bangladesh Government's Country Action Plan for Clean Cookstoves, <b>current market penetration represents just 3% of the target population</b>. At present, about 1 million stoves are thought to be in use, amongst over 30 million households in Bangladesh. Therefore, the ICS PoA is considered to be automatically additional.</p>	
10613	<p><b>The penetration rate for high efficiency based biomass fired cookstove in Papua New Guinea is less than 1%.</b></p> <p>At present, about 90% of the population is using firewood for cooking and all are predominantly based on three stone open firing practice. Additionally, there is no other project or program in the country related to cookstove or household energy related activities, which can be verified from the CDM database and also from the Clean Cook Alliance. Therefore, the PoA is considered to be automatically additional.</p>	<p>a) This can be referred from the Assessment of Domestic Fuelwood Consumption in Papua New Guinea, January 2020. <b>The penetration is generally estimated as = (ICS owners x 100)/(total sample size)</b>, and as per this assessment study the sample used for the study is found to be without any ICS, only open firing is the practice.</p> <p>b) Report 'Domestic Fuelwood Consumption in Papua New Guinea, January 2020,</p> <p>c) <a href="https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2013/Sep/Papua-New-Guinea.pdf?la=en&amp;hash=3E847FD95A91ADAA4CC34614F7A325F80CE36D39">https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2013/Sep/Papua-New-Guinea.pdf?la=en&amp;hash=3E847FD95A91ADAA4CC34614F7A325F80CE36D39</a> (page 4)</p>
10610	<p>According to the National Charcoal Survey for Uganda 2015, the rate of traditional cookstove in Uganda is 80%. In addition, according to the World Bank report, <b>the penetration rate of the ICS in the Uganda is equal or less than 5%</b>. It means that use of ICS in Uganda is not widespread without PoA.</p> <p>According to the 2016 UDHS survey, only 52% of people in Uganda use water treatment. This means that 48% of people do not use the water treatment method for drinking water at all. <b>In Uganda, the population using water purifiers is only 0.8% (Ceramic, sand or other filter: 0.7%, Solar disinfection: 0.1%)</b>. This means that</p>	<p>The World Bank, Uganda Clean Cooking Behavioral Diagnostic, p.6 (2019) <a href="https://openknowledge.worldbank.org/handle/10986/31283">https://openknowledge.worldbank.org/handle/10986/31283</a></p> <p>Uganda Bureau of Statistics, Demographic And Health Survey (2016): page 21 <a href="https://dhsprogram.com/pubs/pdf/FR333/FR333.pdf">https://dhsprogram.com/pubs/pdf/FR333/FR333.pdf</a></p>

Ref. and Project/ PoA title	Texts	Source
	water purifiers are rarely used in Uganda, and water purifiers will not universally used without PoA.	
<b>10516</b>	The report "Access to Clean Cooking Energy and Electricity" from 2018 states that <b>just 0.77% of rural households are using an improved biomass cookstove or biogas for cooking</b> , a number which is also referred to in the report "Roadmap for Access to Clean Cooking Energy in India" from 2019. In this report it is also stated that improved biomass cookstoves are not relevant for urban households, so that the penetration rate of 0.77% can be used for whole India.	Jain et al. 2018, p.58: Access-to-Clean-Cooking-Energy-and-Electricity-Survey of the States 2018-1 <a href="https://www.ceew.in/sites/default/files/CEEW-Access-to-Clean-Cooking-Energy-and-Electricity-11Jan19_0.pdf">https://www.ceew.in/sites/default/files/CEEW-Access-to-Clean-Cooking-Energy-and-Electricity-11Jan19_0.pdf</a>

*Note:*

- Date of AMS-I.E and AMS-II.G approval when 5% market penetration threshold was included: 31 August 2018
- Date of TOOL19 approval when 5% market penetration threshold was included: 29 November 2018



## **Appendix 3. Revision to FOIK Tool**

### **1. Introduction**

1. This methodological tool provides a general approach for the demonstration of additionality of first-of-its-kind project activities.

### **2. Scope, applicability, and entry into force**

#### **2.1. Scope**

2. This methodological tool describes the first-of-its-kind approach for demonstration of additionality of project activities.

#### **2.2. Applicability**

3. This methodological tool is applicable to project activities that wish to use the "first-of-its-kind" approach to demonstrate additionality and that use versions of baseline and monitoring methodologies, or the "Tool for the demonstration and assessment of additionality" or the "Combined tool to identify the baseline scenario and demonstrate additionality", which allow using the "first-of-its-kind" approach for demonstrating additionality.

#### **2.3. Entry into force**

4. Immediately upon adoption of the methodological tool at the eighty-fourth meeting of the Board (28 May 2015).

### **3. Normative references**

5. Project participants shall follow the applicable provisions for the demonstration of additionality in the CDM Project Standard.
6. This methodological tool refers to the following documents:
  - (a) Methodological tool: "Tool for the demonstration and assessment of additionality";
  - (b) Methodological tool: "Combined tool to identify the baseline scenario and demonstrate additionality";
  - (c) "Non-binding best practice examples to demonstrate additionality for SSC project activities" (EB 35 Annex 34).

### **4. Definitions**

7. The definitions contained in the Glossary of CDM terms shall apply.
8. Applicable geographical area - should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as

province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country.

9. Measure<sup>1</sup> - (for emission reduction activities) is a broad class of greenhouse gas emission reduction activities possessing common features. Four types of measures are currently covered in the framework:
- (a) Fuel and feedstock switch (example: switch from naphtha to natural gas for energy generation, or switch from limestone to gypsum in cement clinker production);
  - (b) Switch of technology with or without change of energy source including energy efficiency improvement as well as use of renewable energies (example: energy efficiency improvements, power generation based on renewable energy);
  - (c) Methane destruction (example: landfill gas flaring);
  - (d) Methane formation avoidance (example: use of biomass that would have been left to decay in a solid waste disposal site resulting in the formation and emission of methane, for energy generation).
10. Output - is goods/services produced by the project activity including, among other things, heat, steam, electricity, methane, and biogas unless otherwise specified in the applied methodology.
11. Different technologies - are technologies that deliver the same output and differ by at least one of the following (as appropriate in the context of the measure applied in the proposed clean development mechanism (CDM) project activity and applicable geographical area):
- (a) Energy source/fuel (example: energy generation by different energy sources such as wind and hydro and different types of fuels such as biomass and natural gas);
  - (b) Feed stock (example: production of fuel ethanol from different feed stocks such as sugar cane and starch, production of cement with varying percentage of alternative fuels or less carbon-intensive fuels);
  - (c) Size of installation (power capacity)/energy savings:
    - (i) Micro (as defined in paragraph 24 of decision 2/CMP.5 and paragraph 39 of decision 3/CMP.6);
    - (ii) Small (as defined in paragraph 28 of decision 1/CMP.2);
    - (iii) Large.

## 5. Methodology procedure

### 5.1. Identification of a first-of-its-kind project activity

12. A proposed project activity is the first of its kind in the applicable geographical area if:

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<sup>1</sup> Identified measures do not cover the industrial gases, transport and afforestation/reforestation projects.

- (a) The project is the first in the applicable geographical area that applies a technology that is different from technologies<sup>2</sup> that are implemented by any other project, which are able to deliver the same output and have started commercial operation in the applicable geographical area before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of the proposed project activity, whichever is earlier. Alternatively, the market penetration of the technology in terms of the stock is less than or equal to 2.5 per cent of the target market size.; and
- (b) The project implements one or more of the measures; and
- (c) The project participants selected a crediting period for the project activity that is “a maximum of 10 years with no option of renewal”.

## 5.2. Additionality of the first-of-its-kind project activity

- 13. A proposed project activity that has been identified as a first-of-its-kind project activity is additional.

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### Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	21 February 2022	MP 87, Annex 1 To be considered by the Board at EB 113. A call for public input will be issued for this draft document. Any input will be discussed with the MP and forwarded to the Board for its consideration together with this document.

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 Document Type: Information note  
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<sup>2</sup> While identifying other technologies, project participants may also use publically available information, for example from government departments, industry associations, international associations on the market penetration of different technologies etc.