विद्युत मंत्रालय
MINISTRY OF
POWER

सत्यमेव जयते

METHODOLOGICAL TOOL

BM-T-001

Combined tool to identify the baseline scenario and demonstrate additionality

INDIAN Carbon MARKET

Publication Date: 27 March 2025

Version 1.0

Table of Contents

1. Introduction

1. This tool provides a stepwise approach to identify the baseline scenario and simultaneously demonstrate additionality.

2. Definitions

2. For the purpose of this methodology, the following definitions apply:

   (a) **Applicable geographical area** is India.

   (b) **Measure** (for emission reduction activities) is a broad class of greenhouse gas emission reduction activities possessing common features.

   (c) **Output** is good/services produced by the project activity including, among other things, heat steam, electricity, methane, and biogas unless otherwise specified in the applied methodology.

3. Scope & Applicability

3.1. Scope

3. Non-obligated entity shall apply the following four Steps:

   (a) STEP 1. Regulatory Analysis;

   (b) STEP 2. Analysis of Lock-in Risk;

   (c) STEP 3. Investment analysis/Barrier Analysis/ Performance-based Approach;

   (d) STEP 4. Common practice analysis.

4. The procedure is summarized in Figure 1. For more specific detail regarding the flowcharts please refer to the text.

3.2. Applicability

5. The tool is applicable to all types of proposed project activities. However, in some cases, methodologies referring to this tool may require adjustments or additional explanations as per the guidance in the respective methodologies. This could include, inter alia, a listing of relevant alternative scenarios that should be considered in Step 1, any relevant types of barriers other than those presented in this tool and guidance on how common practice should be established.

4. Additionality Demonstration: Procedure

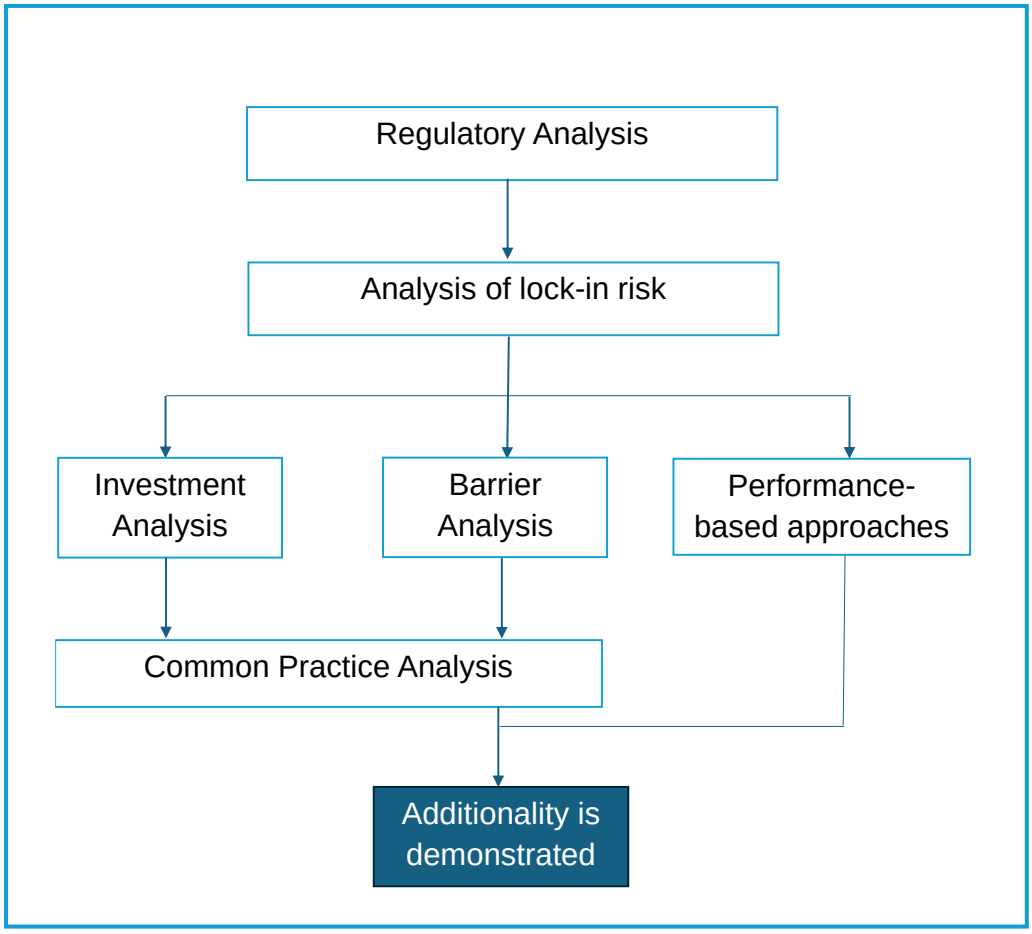

Figure 1: Flowchart of the stepwise approach

4.1. Overview of Approaches to demonstrate Additionality

6. This standard establishes requirements for the following approaches to demonstrate additionality:

(a) **Regulatory analysis**: Regulatory analysis shall require demonstration that the proposed project activity represents mitigation that exceeds any mitigation that is required by law or regulation, unless the law or regulation refers to or formally integrates the mechanism as an instrument for implementation. A law or regulation applicable to the proposed project activity that may require a certain technological, performance or management action shall be considered, noting that regulatory environments vary.

(b) **Analysis of lock-in risk**: Demonstration that the implementation of an ICM project activity does not lead to locking in levels of emissions of carbon-intensive technologies or practices;

(c) **Investment analysis**: Demonstration that an ICM project activity is not financially viable in the absence of revenues from CCCs (and that such revenues make the determining difference in increasing the financial performance of the ICM project activity and can make the ICM project activity financially viable);

(d) **Barrier analysis**: Demonstration that an ICM project activity would be prevented by barriers and that the incentives from the offset mechanism make the determining difference for overcoming the barriers.

(e) **Common practice analysis**: Demonstration that the relevant technology or practice is not common practice (e.g. it has a low market penetration);

(f) **Performance-based approach**: Demonstration that an ICM project activity is unlikely to be implemented without the incentives from the offset mechanism if it outperforms other project activities in one or several indicator(s) (e.g. an emissions benchmark) that are a good proxy for the likelihood of additionality for the relevant technology or practice.

4.2. Possible combinations of approaches

4.2.1. Step 1: Regulatory Analysis

7. This Step shall be addressed in all ICM PDDs.

4.2.1.1. Requirement of specific approach

8. PDDs shall include provisions to demonstrate that the emission reductions or net removals resulting from an ICM project activity would not occur as a result of any law or regulation, unless the law or regulation refers to or formally integrates the offset mechanism as an instrument for implementation. A law or regulation applicable to the proposed project activity that may require a certain technological, performance or management action shall be considered, noting that regulatory environments vary.

9. The analysis supporting this demonstration shall confirm that legal requirements, except for those that refer to or formally integrate the offset mechanism as an instrument for implementation, do not:

(a) Directly require the implementation of a project activity (e.g. a regulation requires capture of landfill gas);

(b) Indirectly require the implementation of a project activity, by requiring a certain technological, performance or management action or by preventing potential alternative scenarios to the implementation of the project activity (e.g. a regulation establishing air pollution requirements for landfill sites that cannot be met without capturing the landfill gas;

(c) Establish a support scheme that:

(i) Is designed to achieve a quantitative target or outcome for the relevant technologies or practices;

(ii) Is applicable to the project activity; and

(iii) Would likely result in the same amount of emission reductions or net removals if the project activity would not be implemented.

10. The analysis shall be based on credible and current evidence and be justified.

11. The methodology shall specify the appropriate frequency for updating the analysis, taking into account the context of the type of project activity, as follows:

(a) Where the analysis is applied by non-obligated entities, the analysis shall be conducted at the latest at each renewal of the crediting period;

(b) Where the analysis is applied through a standardized baseline, the methodology shall specify for how long the standardized baseline may be valid (i.e. by when the standardized baseline would need to be updated to confirm that the conclusion of the analysis is still valid).

4.2.2. Step 2: Analysis of Lock-in Risk

12. Lock-in risks shall be analysed in all methodologies or project activities. Analysis of lock-in risk should preferably be applied by the methodology developer but may also be applied by non-obligated entities;

4.2.2.1. Requirement of specific approach

13. Methodologies or non-obligated entities shall ensure that the analysis of lock-in risk follows a neutral approach with regards to technology and source.

14. The ICM project activity:

(a) Does not lead to the adoption or the prolongation of the lifetime of technologies or practices that are incompatible with long term goals of the Paris Agreement, taking into account different national circumstances, approaches and pathways;

(b) For technologies or practices with a long lifetime, relies on a technology or practice that is among those within the lowest greenhouse gas intensity in the relevant region taking into account the lifetime of the technology or practice in line with national circumstances, approaches and pathways; and

(c) Does not involve a technology or practice that constitutes an inefficient use of a resource that is important for mitigating climate change or achieving other policy objectives.

15. The non-obligated entity shall either provide appropriate justification that the project activity eligible under the methodology meets the above requirements, as per paragraph 14(a) above, or include a methodological procedure to demonstrate the above requirements, as referred to in paragraphs 14(b) and 14(c) above.

16. The analysis shall consider socio-economic contexts, existing infrastructure and any path dependencies. The analysis shall also consider:

(a) The technical or operational lifetime of the technologies or practices established as part of an ICM project activity.

(b) The emissions intensity of these technologies and practices;

(c) The scale of the ICM project activity and

(d) Availability and feasibility of alternative options given national circumstances.

17. Where the technologies or practices applicable under the methodologies have a technical or operational lifetime of no more than 10 years, a methodology may assume that no lock-in risk exists. Appropriate evidence and justification shall be provided for the estimation of the technical or operational lifetime of the technology or practice.

18. The analysis shall be implemented in a conservative manner and be appropriately justified.

4.2.3. Step 3.1.a. Investment Analysis

19. The investment analysis shall be used as the default approach. Alternatively, the non-obligated entity shall appropriately explain and justify why an investment analysis is

infeasible or inappropriate. In this case, the methodology developer shall nevertheless include information on the financial viability of eligible ICM project activities or require non-obligated entities to provide such information.

4.2.3.1. Types of analysis

20. The following types of investment analyses may be used:

(e) Simple cost analysis: Demonstration that the implementation of an ICM project activity is associated with costs and does not generate any cost savings or revenues other than from CCCs.

(f) Benchmark analysis: Comparison of the financial attractiveness of an ICM project activity with a financial benchmark; or

(g) Investment comparison analysis: Comparison of the financial attractiveness of an ICM project activity with alternative options.

21. The type of analysis applied shall be suitable for the context of the type of ICM project activities that are eligible under the methodology. For example, where the type of project activity can only be implemented by the non-obligated entities (e.g. energy efficiency improvements at existing plants) and the non-obligated entities face different alternative investment options, the investment comparison analysis is most suitable. The methodology developer shall justify the choice of analysis.

22. Where the analysis is applied by non-obligated entities, the methodology shall specify which of the analysis referred to in paragraph 20 above shall be used by the non-obligated entity. The methodology shall set out a detailed procedure on how the analysis shall be conducted.

4.2.3.2. General requirements for conducting the Investment Analysis

23. The analysis shall include all relevant costs, including capital expenditure (CAPEX) and operational expenditure (OPEX), including any barriers that can be monetized and quantified as an additional cost, and all revenues and cost savings, including any public funding such as subsidies, where applicable.

24. All parameters and assumptions used in the analysis shall be internally consistent. For example, cash flows shall be expressed in either real or nominal terms consistently and be determined consistent with the financial indicator used. The assumptions, data and conclusions in the investment analysis shall be transparently documented, appropriately justified and substantiated by evidence.

25. The analysis shall be implemented in a conservative manner. To ensure conservativeness, the analysis shall include a sensitivity analysis to demonstrate that the conclusion of the analysis is robust to reasonable variations in the critical parameters and assumptions, including CAPEX, OPEX, revenues and cost savings, as applicable.

26. The analysis of the financial viability of ICM project activities without revenues from CCCs shall not include any transaction costs associated with generating CCCs (e.g. costs for preparing the PDD, validation and verification, fees to be paid to the ICM). Where the analysis is applied by the methodology developer, the analysis shall demonstrate that it is very likely that ICM project activities that are eligible under the methodology satisfy the investment analysis. The analysis shall be based on data and information that is representative for the ICM technology or practice. The analysis may be supported by information from the literature or data from a sample of project activities. The analysis shall be publicly disclosed with the proposed methodology.

27. Where the analysis is applied by the non-obligated entity, the following applies:

(a) The analysis shall be based on data and information applicable to the proposed ICM project activity, except otherwise specified in this standard;

(b) The analysis shall be based on data and information that is consistent with information presented to the entity's decision-making management and investors/lenders at the start date of the ICM project activity, as defined in the "Detail Procedure for Offset Mechanism."

(c) Where public funding for an ICM project activity, expressed in grant equivalents, is larger than the expected revenues from CCCs, the non-obligated entity shall require demonstration that public funding would not have filled the funding gap in the absence of revenues from CCCs. This may, for example, apply to public funding schemes that are designed to pay for the funding gap of mitigation activities.

(d) For transparency purpose, non-obligated entities may specify the abatement costs as part of the PDD or monitoring reports.

4.2.3.3. Requirements applicable to Simple Cost Analysis

28. The simple cost analysis shall demonstrate that the implementation of an ICM project activity is associated with costs and does not generate any cost savings or revenues other than from CCCs.

4.2.3.4. Requirements applicable to benchmark analysis and investment comparison analysis

29. A suitable financial indicator for the financial viability of an ICM project activity shall be used, such as the net present value or internal rate of return.

30. The period of assessment shall reflect the period of expected operation of the underlying technology or practice and include the residual value of the assets at the end of the assessment period. Other periods and approaches may be proposed with appropriate justification.

4.2.3.5. Requirements applicable to benchmark analysis

31. The financial benchmark shall be derived in a conservative manner.

32. Where the benchmark analysis is used, the following applies:

(a) Where the ICM project activity can only be implemented by the non-obligated entities, and not by any other entities, the financial benchmark shall be based on the benchmark used by the entity implementing the ICM project activity. This may apply, for example, to modifications to an existing plant;

(b) Where the ICM project activity could also be implemented by other entities, the financial benchmark shall be based on the more conservative value between (i) the benchmark used by the entity implementing the ICM project activity and (ii) the weighted average cost of capital (or the cost of equity, as applicable) that is commonly applicable to the country, sector and type of project activity. This may apply, for example, to the installation of greenfield plants.

33. An ICM project activity shall only be considered additional if the analysis demonstrates that the ICM project activity would not be financially viable, based on credible data and input parameters to the investment analysis.

4.2.3.6. Requirements applicable to investment comparison analysis

34. In most sectors (e.g. energy, industry, waste), the alternative scenarios considered shall provide the same type and level of products or service as the ICM project activity. This requirement does not apply to some land-use project activities, such as afforestation or avoided deforestation, where there could be a change in the type of service between the scenario with the ICM project activity and the baselines scenario.

35. An ICM project activity shall only be considered additional if the analysis demonstrates that the project activity would not be financially viable, based on credible data parameters to the investment analysis.

4.2.4. Step 3.1. b: Barrier analysis

36. This step may be used as an alternative to the investment analysis, subject to the applicability conditions in section 4.2.4.1 below and appropriate justification.

4.2.4.1. Applicability

37. The barrier analysis may be applied for ICM project activities that are:

    (a) Implemented at individual households (e.g. distribution of efficient cookstoves); or

    (b) Undertaken by small public or private entities that typically do not have access to commercial or public third-party finance (e.g. schools, small commercial enterprises that do not have sufficient credit worthiness to access loans).

38. Other cases for the application of the barrier analysis may be proposed with due justification and demonstration that such barriers are prohibitive, including examples of relevant barriers.

4.2.4.2. Requirements for conducting the Barrier Analysis

39. The following barriers may be considered:

    (a) Institutional barriers (e.g. the investor not being the beneficiary of cost savings associated with the investment);

    (b) Information barriers (e.g. lack of awareness in households of the lifecycle costs of energy efficient appliances);

    (c) Financial barriers (e.g. lack of access to loans by rural households);

    (d) The project activity is first-of-its kind (e.g. no other similar project activities have been implemented in the relevant geographical area).

40. Investment barriers (e.g. high interest rates for loans due to high perceived country risks) and other relevant barriers shall be considered as part of an investment analysis.

41. The barrier analysis shall:

    (a) Identify and describe relevant barriers faced by the ICM project activity;

    (b) Demonstrate that the barriers prevent the ICM project activity from being implemented without the incentives from the offset mechanism.

    (c) Demonstrate that there are no other programs or incentives, such as subsidies, that would incentivize the ICM project activity;

(d) Demonstrate that the incentives from the offset mechanism are the determinant element in overcoming the identified barriers (e.g. that the revenues from CCC can overcome the barriers);

(e) Demonstrate that at least one plausible alternative to the ICM project activity does not face significant barriers, including the barrier faced by the ICM project activity.

42. The barrier analysis shall take into account:

(a) All relevant national and sub-national policies, including legislation.

(b) Current practices within the sector and geographic area;

(c) Indigenous Traditional Knowledge and customary laws, where applicable and

(d) Relevant national circumstances, approaches and pathways.

43. Barriers that are unique to a proposed ICM project activity may only be used if the project activity can only be implemented by the non-obligated entities (e.g. energy efficiency improvements in an existing plant).

44. The barrier analysis shall be supported by credible evidence. Such evidence may include independent studies, publicly available surveys, relevant verifiable market data, or data from national or international statistics but shall not include anecdotal evidence. The evidence shall be interpreted in a conservative manner (i.e. that it is unlikely that the effect of the barrier is overestimated).

4.2.5. Step 3.2: Common Practice Analysis

45. Where investment analysis or barrier analysis are used, this may be complemented by a common practice analysis.

46. ICM project activities that use a common practice analysis shall include provisions to demonstrate that these are not common practice. This shall include:

(a) An appropriate definition of a suitable indicator to assess common practice based on the recent uptake or existing stock or diffusion of technologies, services or practices in relation to a realistic maximum market size or potential, taking into account any constraints for the uptake of the relevant technology, service, or practice.

(b) A definition of the appropriate geographical boundary for assessing common practice for the type of technology, service or practice, considering relevant market boundaries, where applicable; and

(c) The specification of an appropriately conservative threshold that may not be surpassed for an ICM project activity to be deemed additional.

4.2.6. Step 3.1.c. Performance-based approaches

47. This step may be used as an alternative to the investment analysis, barrier analysis and common practice analysis, subject to the applicability conditions in section 4.2.6.1 below and appropriate justification.

4.2.6.1. Applicability

48. A performance-based approach may be applied to types of ICM project activities where all of the following conditions are met:

(a) The type of project activity involves the production of a highly homogeneous product or the provision of a highly standardized service (e.g. electricity);

(b) The performance of the type of project activity can be defined through one or several suitable indicator(s).

(c) Information is available to demonstrate that project activities with a better performance in respect to the indicator(s) have a higher likelihood of additionality.

(d) Data is available or can be collected on the performance of project activities with respect to the indicator(s), and the data is robust and representative.

49. The non-obligated entity shall demonstrate and justify that these conditions are fulfilled.

4.2.6.2. Requirements for conducting Performance-based Approaches

50. Project activities shall define one or several suitable indicators and thresholds for the performance-based approach and specify the approach to the use or collection of data.

4.2.6.2.1. Establishment of indicator(s)

51. The indicator(s) shall be a good proxy for the likelihood for additionality. This means that project activities with a better performance in respect to the indicator(s) shall have a demonstrably higher likelihood of additionality. Indicator(s) may be based on different metrics such as greenhouse gas emissions intensity, market penetration or other unique characteristics of the type of project activity.

52. Non-obligated entities shall demonstrate and justify the suitability and appropriateness of the proposed indicator(s) for the context of the type of project activity and geographical areas to which the methodology is applicable. Where possible, the correlation between the indicator(s) and the likelihood of additionality should be quantified.

4.2.6.2.2. Establishment of threshold(s)

53. The threshold(s) shall be defined such that an ICM project activity is only deemed additional if the indicator(s) pass the threshold(s) (passing may mean being above or below the threshold, depending on the type of indicator).

54. The threshold(s) shall be set ambitiously, by:

(a) Ensuring that an ICM project activity is very likely (i.e. at least 90% probability) to be additional; and

(b) Using an ambitious benchmark approach where the baseline is set at least at the average emission level of the best performing comparable activities providing similar outputs and services in a defined scope in similar social, economic, environmental and technological circumstances)

55. It shall be very unlikely (i.e. less than 10% probability) that the threshold(s) are exceeded by an ICM project activity due to other influencing factors that are unrelated to the ICM project activity (e.g. interannual variations in climatic conditions).

56. Non-obligated entities shall specify the duration of the validity of any threshold(s) provided in the methodology and how threshold(s) will be updated.

57. Non-obligated entities shall demonstrate and justify the suitability and appropriateness of the proposed threshold(s) for the context of the type of project activity and geographical areas to which the methodology is applicable.

4.2.6.2.3. Use and collection of data

58. The non-obligated entity shall specify the approach to data collection, or which existing data shall be used. The data used shall be:

    (a) Representative, reliable, accurate, consistent and transparent.

    (b) Recent, especially in dynamic technological environments.

    (c) Sufficiently disaggregated, considering differences in relevant technologies, geographical or climate conditions, and the political, economic and social environment; and (d) Verifiable.

59. Uncertainty in the outcome shall be quantified and addressed through conservative approaches (e.g. uncertainty reductions). Where sampling is involved, the sampling approach and any statistical analyses shall be described.

60. Non-obligated entities shall demonstrate and justify the suitability and appropriateness of the approach towards using or collecting data in the context of the type of project activity and geographical areas to which the methodology is applicable.

4.2.6.2.4. Use of threshold(s) for determining baseline emissions

61. Where a threshold is defined as greenhouse gas emissions per unit of output, it may also be used for determining baseline emissions, as long as the requirements in the baseline options of the applied methodology are fulfilled.

Revision/Changes in the Document

Version	*Date*	*Description*
1.0	27 March 2025	Initial Adoption