

TOOL TO IDENTIFY THE BASELINE SCENARIO AND TO DEMONSTRATE  
ADDITIONALITY OF ZERO2NATURE™-PREFOR PROJECT ACTIVITIES

Version 1.0

Adapted from “Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities” version 01, UNFCCC.





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Version I.0 – Scope I7

May 2012

### I. SCOPE, APPLICABILITY AND ENTRY INTO FORCE

#### Scope

- 1 This tool provides a general framework and the path that allows to identify the baseline scenario simultaneously demonstrating the additionality of ZERO2NATURE™-PREFOR project activities.
- 2 The application of this tool allows clear identification of the baseline scenario, enabling the conservative establishment of net negative emissions removals by sinks baseline scenario for ZERO2NATURE™-PREFOR project activities.
- 3 Project participants who choose to propose new baseline methodologies may incorporate this tool to the proposal. Moreover, project participants may also propose other approaches for baseline scenario and demonstration of additionality identification for the ZERO2NATURE™ technical committee evaluation.
- 4 In validating the application of this tool, certifiers should assess and verify the reliability and credibility of all data, rationales, assumptions, justifications and documentation provided by project participants to support the selection of the baseline and demonstration of additionality. The elements checked during this assessment and the according conclusions should be documented transparently in the validation report.

#### Applicability

- 5 This tool is applicable under the condition of preservation of the area located within the ZERO2NATURE™-PREFOR proposed project activity, as long as no law has been infringed.

#### Entry into force

- 6 The date of entry into force of this tool is May 8, 2012.

### PROCEDURE

- 7 Project participants shall apply the following steps:

Step I. Preliminary screening based on the beginning of the activities that culminated in ZERO2NATURE™-PREFOR proposed project activity, showing that the sale of 02NCs was of

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fundamental importance in the realization and implementation of the project;

Step 2. Identification of alternative scenarios that would have occurred in the absence of the ZERO2NATURE™-PREFOR proposed project activity in a detailed and credible way, with presentation of objective evidence;

Step 3. Barrier analysis;

Investment barriers, inter alia:

- Similar activities have only been implemented with grants or other non-commercial finance terms. In this context similar activities are defined as activities of a similar scale that take place in a comparable environment with respect to regulatory framework and are undertaken in the relevant geographical area;

- No private capital is available from domestic or international capital markets due to real or perceived risks associated with investments in the country where proposed ZERO2NATURE™-PREFOR project activity is to be implemented, as demonstrated by the credit rating of the country or other country investment reports of reputed origin;

- Debt funding is not available for the land-use scenarios;

- Lack of access to credit.

- Institutional barriers, inter alia:

- Risk related to changes in government policies or laws;

- Lack of enforcement of land-use-related legislation.

- Technological barriers, inter alia:

- Lack of access to necessary materials, for example planting materials;

- Lack of infrastructure for implementation of the technology.

- Barriers related to local tradition, inter alia:

- Traditional knowledge or lack thereof, laws and customs, market conditions and practices;

- Traditional equipment and technology.

- Barriers due to prevailing practice, inter alia:

- The land use scenario is the “first of its kind”: No activity of this type is currently operational in the host country or region.

- Barriers due to local ecological conditions, inter alia:

- Degraded soil (e.g. water/wind erosion, salination, etc.);

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- Catastrophic natural and / or human-induced events (e.g. land slides, fire, etc);
- Unfavourable meteorological conditions (e.g. early/late frost, drought);
- Pervasive opportunistic species preventing land use (e.g. grasses, weeds);
- Unfavourable course of ecological succession;
- Biotic pressure in terms of grazing, fodder collection, etc.
- Barriers due to social conditions, inter alia:
  - Demographic pressure on the land (e.g. increased demand on land due to population growth);
  - Social conflict among interest groups in the region where the project takes place;
  - Widespread illegal practices (e.g. illegal grazing, non-timber product extraction and tree felling);
  - Lack of skilled and/or properly trained labour force;
  - Lack of organisation of local communities.
- Barriers relating to land tenure, ownership, inheritance, and property rights, inter alia:
  - Communal land ownership with a hierarchy of rights for different stakeholders limits the incentives to undertake the land-use scenarios;
  - Lack of suitable land tenure legislation and regulation to support the security of tenure;
  - Absence of clearly defined and regulated property rights in relation to natural resource products and services;
  - Formal and informal tenure systems that increase the risks of fragmentation of land holdings;
  - Possibilities of large price risk due to the fluctuations in the prices of products over the project period in the absence of efficient markets and insurance mechanisms;
- Barriers relating to markets, transport and storage;
- Unregulated and informal markets for products and services prevent the transmission of effective information to project participants;
- Remoteness of land area and undeveloped road and infrastructure incur large transportation expenditures, thus eroding the competitiveness and profitability of products from the land use;
- Possibilities of large price risk due to the fluctuations in the prices products over the project period in the absence of efficient markets and insurance mechanisms;
- Absence of facilities to convert, store and add value to products resulting from land use limits the possibilities to capture rents from the land use scenario.

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Anecdotal evidence can be included, but this alone is not sufficient proof of barriers. The type of evidence to be provided may include:

- Relevant legislation, regulatory information or environmental/natural resource management norms, acts or rules;
- Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, associations, companies, bilateral/multilateral institutions, etc;
- Relevant statistical data from national or international statistics;
- Documentation of relevant market data (e.g. market prices, tariffs, rules);
- Written documentation from the company or institution developing or implementing the ZERO2NATURE™-PREFOR project, such as minutes from meetings, correspondence, feasibility studies, financial or budgetary information, etc;
- Documents prepared by the project developer, contractors or project partners in the context of the proposed project activity or similar previous project implementations;
- Written documentation of independent expert judgements from agriculture, forestry and other land-use related Government / Non-Government bodies or individual experts, educational institutions (e.g. universities, technical schools, training centres), professional associations and others.

Finalized the barrier analysis, follows the application of the decision tree below:

Is preservation without being registered as ZERO2NATURE™-PREFOR project activity included in the list of land use scenarios that are not prevented by any barrier?

→ **If yes, then:**

Does the list contain only one land use scenario?

→ If yes, then the proposed ZERO2NATURE™-PREFOR project activity is not additional.

→ If no, then continue with Step 4: Investment analysis.

→ **If no, then:**

Does the list contain only one land use scenario?

→ If yes, then the remaining land use is the baseline scenario. Continue with Step 5: Common practice test

→ If no, then through qualitative analysis, assess the removals by sinks for each scenario and select one of the following options:



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Option 1: Baseline scenario is the land use scenario that allows for the highest baseline negative emissions removals by sinks. Continue with Step 5: Common practice test, .

Option 2: Continue with Step 4: Investment analysis.

### 4. Investment Analysis (if necessary)

Determine whether to apply simple cost analysis, investment comparison analysis or benchmark analysis. If the planned ZERO2NATURE™-PREFOR project activity generates no financial or economic benefits other than 02NCs related income, then apply the simple cost analysis (Option I). Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Note, that Options I, II and III are mutually exclusive hence, only one of them can be applied.

#### Option I. Apply simple cost analysis

21. Document the costs associated with ZERO2NATURE™-PREFOR project activity and demonstrate that the activity generates no financial benefits other than 02NCs related income.

Document the incomes and costs associated with each of the land use scenarios that are not prevented by any barrier.

→ If at least one land use scenario that is not prevented by any barrier generates financial benefits then select as the baseline the land use scenario that allows for the highest difference between incomes and costs over the crediting period. Proceed to **Sensitivity analysis**.

→ Otherwise, select as the baseline the land use scenario that allows for the highest baseline negative emissions removals by sinks. If the baseline is the proposed ZERO2NATURE™-PREFOR project activity then it is not additional. Otherwise, proceed to **Common practice test**.

#### Option II. Apply investment comparison analysis

Identify the financial indicator, such as IRR7, NPV, payback period, cost benefit ratio most suitable for the project type and decision-making context.

#### Option III. Apply benchmark analysis

24. Identify a suitable financial indicator, such as IRR8, NPV, payback period, cost benefit ratio, or other (e.g. required rate of return (RRR) related to investments in agriculture or forestry, bank deposit interest rate corrected for risk inherent to the project or the opportunity costs of land, such as any expected income from land speculation) most suitable for the project type and decision context. Identify the relevant benchmark value, such as the required rate of return (RRR) on equity. The benchmark is to represent standard returns in the market, considering the specific risk of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Benchmarks can be derived from:



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- Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert;
- Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects;
- A company internal benchmark (weighted average capital cost of the company) if there is only one potential project developer (e.g. when the proposed project land is owned or otherwise controlled by a single entity, physical person or a company, who is also the project developer). The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark.

Calculation and comparison of financial indicators (only applicable to options II and III):

Calculate the suitable financial indicator for the proposed ZERO2NATURE™-PREFOR project activity without the financial benefits from the O2NCs and for all the land use scenarios that are not prevented by any barrier. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding O2NCs revenues, but including subsidies/fiscal incentives where applicable), and, as appropriate, non-market cost and benefits in the case of public investors.

Present the investment analysis in a transparent manner and provide all the relevant assumptions in the PDD ZERO2NATURE™-PREFOR, so that a reader can reproduce the analysis and obtain the same results. Clearly present critical economic parameters and assumptions (such as capital costs, lifetimes, and discount rate or cost of capital). Justify and/or cite assumptions in a manner that can be validated by the Certifier. In calculating the financial indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions (e.g. insurance premiums can be used in the calculation to reflect specific risk equivalents).

Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.

If Option II (investment comparison analysis) is used then apply the following decision tree:

Is preservation without being registered as a ZERO2NATURE™-PREFOR project activity included in the list of land use scenarios that are not prevented by any barrier?

→ If yes, then:

Has the proposed ZERO2NATURE™-PREFOR project activity a less favourable financial indicator (e.g. IRR), than at least one land use scenario that is not prevented by any barrier?

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→ If yes, then select as the baseline scenario the land use scenario that allows for the highest value of the financial indicator (e.g. IRR). Proceed to **Sensitivity analysis**.

→ If no, then the proposed ZERO2NATURE™-PREFOR project activity is not additional.

If Option III (benchmark analysis) is used then apply the following decision tree:

Is preservation without being registered as a ZERO2NATURE™-PREFOR project activity included in the list of land use scenarios that are not prevented by any barrier?

→ If yes, then:

Has the proposed ZERO2NATURE™-PREFOR project activity a financial indicator (e.g. IRR) that does not meet the benchmark and at least one of the land use scenarios that are not prevented by any barrier has a financial indicator that meets the benchmark?

→ If yes, then select as the baseline scenario the land use scenario that meets the benchmark and allows for the most favourable financial indicator (such as IRR, NPV, cost benefit ratio). Proceed to **Sensitivity analysis**.

→ If no, then

→ If the financial indicator of the ZERO2NATURE™-PREFOR project activity meets the benchmark, then the proposed ZERO2NATURE™-PREFOR project activity is not additional.

→ If the financial indicators of neither the ZERO2NATURE™-PREFOR project activity nor any of the alternatives meets the benchmark then the baseline scenario is the continuation of the pre-project land use.

→ If no, then:

Has at least one of the land use scenarios that are not prevented by any barrier the financial indicator that meets the benchmark?

→ If yes, then select as the baseline scenario the land use scenario that has the most favourable financial indicator (such as IRR, NPV, cost benefit ratio). Proceed to **Sensitivity analysis**.

→ If no, then the baseline scenario is the continuation of the pre-project land use.

Sensitivity analysis (for Option II and III)

Include a sensitivity analysis to assess whether the initial conclusion regarding the financial attractiveness of the baseline scenario is robust to reasonable variations in the critical assumptions. The investment analysis only provides a valid argument in identifying the baseline scenario and demonstrating additionality if it consistently supports (for a realistic range of assumptions) the initial conclusion of



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the analysis.

3I. Apply the following decision tree:

Is forestation without being registered as a ZERO2NATURE™-PREFOR project activity included in the list of land use scenarios that are not prevented by any barrier?

→ If yes, then:

Is the sensitivity analysis conclusive?

→ If yes, then the selection of baseline scenario is valid. Proceed to **Common practice test**.

→ If no, then the proposed a ZERO2NATURE™-PREFOR project activity is not additional.

5. Business as usual analysis:

The previous steps shall be complemented with an analysis of the extent to which forestation activity has already diffused in the geographical area of the proposed ZERO2NATURE™-PREFOR project activity. This test is a credibility check to demonstrate additionality which complements the barrier analysis and, where applicable, the investment analysis.

Provide an analysis to which extent similar preservation activities to the one proposed as the ZERO2NATURE™-PREFOR project activity have been implemented previously or are currently underway. Similar preservation activities are defined as that which are of similar scale, take place in a comparable environment, *inter alia*, with respect to the regulatory framework and are undertaken in the relevant geographical area, subject to further guidance by the underlying methodology. Other registered ZERO2NATURE™-PREFOR project activities shall not to be included in this analysis. Provide documented evidence and, where relevant, quantitative information. Limit your considerations to any period since 31 December 1989.

If preservation activities similar to the ZERO2NATURE™-PREFOR project activity are identified, then compare the proposed project activity to the other similar preservation activities and assess whether there are essential distinctions between them. Essential distinctions may include a fundamental and verifiable change in circumstances under which the proposed ZERO2NATURE™-PREFOR project activity will be implemented when compared to circumstances under which similar forestations were carried out. For example, barriers may exist, or promotional policies may have ended. If certain benefits rendered the similar preservation activities financially attractive (e.g., subsidies or other financial flows) explain, why the proposed ZERO2NATURE™-PREFOR project activity cannot use the benefits. If applicable, explain why the similar preservation activities did not face barriers to which the proposed ZERO2NATURE™-PREFOR project activity is subject.

→ If Step 5 is satisfied, i.e. similar activities can be observed and essential distinctions between the



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proposed ZERO2NATURE™-PREFOR project activity and similar activities cannot be made, then the proposed ZERO2NATURE™-PREFOR project activity is not additional. Otherwise, the proposed ZERO2NATURE™-PREFOR project activity is not the baseline scenario and, hence, it is additional.

	Document information	
Version	Date	Description
1.0	May 8, 2012	Tool