

## **ACR TOOL FOR DETERMINING THE BASELINE AND ASSESSING ADDITIONALITY IN REDD PROJECT ACTIVITIES<sup>1</sup>**

Project Proponents shall use this tool to demonstrate additionality, and as applicable determine the baseline scenario, in REDD project activities. The tool is consistent with and amplifies the “three-prong” additionality guidance in the *ACR Standard* and *ACR Forest Carbon Project Standard*.

The tool provides a step-by-step approach to identify credible alternative land use scenarios, evaluate both the alternatives and the proposed project scenario, and demonstrate the additionality of the project scenario.

In verifying the application of this tool, the ACR-approved verifier shall assess credibility of data, rationales, assumptions, justifications and documentation provided by the Proponent to support the selection of the baseline and demonstration of additionality.<sup>2</sup>

### **A. Regulatory Surplus Test**

The Project Proponent shall apply the guidance in the *Forest Carbon Project Standard*, Chapter 4, to demonstrate that there is no existing and enforced law, regulation, statute, legal ruling, or other regulatory framework in effect as of the Start Date that effectively requires the REDD activity and its associated GHG emissions reductions/removals.

### **B. Demonstration and Assessment of Additionality in REDD Project Activities**

This tool provides a step-by-step approach to identify credible alternative land use scenarios, evaluate both the alternatives and the proposed project scenario, and demonstrate the additionality of the project scenario.

In verifying the application of this tool, the verifier will assess credibility of all data, rationales, assumptions, justifications and documentation provided by the Proponent to support the selection of the baseline and demonstration of additionality.<sup>3</sup>

#### **1. Procedure**

Project Proponents shall apply Steps 0, 1, 2, 3 and/or 4, and 5:

- STEP 0. Preliminary screening based on the Start Date of the REDD project activity;
- STEP 1. Identification and demonstration of validity of planned deforestation activity
- STEP 2. Identification of alternative land use scenarios to the REDD project activity;
- STEP 3. Investment analysis to determine that the proposed project activity is not the most economically or financially attractive of the identified land use scenarios; *or*
- STEP 4. Barriers analysis; *and*
- STEP 5. Common practice analysis.

<sup>1</sup> This Tool was developed as part of, and is incorporated in, ACR methodologies for Reducing Emissions from Deforestation and Degradation (REDD). It is here published for ease of use as a separate stand-alone tool, but does not differ from the additionality guidance in ACR REDD methodologies.

<sup>2</sup> See also *ACR Verification Guideline, v1.0*.

<sup>3</sup> See also *ACR Verification Guideline, v1.0*.

## **STEP 0. Preliminary screening based on the Start Date of the REDD project activity**

Per the *Forest Carbon Project Standard*, the earliest project Start Date generally recognized is 1 November 1997. For projects started after this date, the Proponent must demonstrate additionality but is not required to document GHG mitigation as an original project objective.

For projects with a Start Date earlier than 1 November 1997, the Project Proponent must verifiably demonstrate that the project was designed and implemented as a GHG mitigation project from its inception. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available to third parties at, or prior to, the Start Date.

## **STEP 1. Identification and demonstration of validity of planned deforestation activity**

### **1.1 Identify the agent of planned deforestation in each baseline stratum**

In the simplest scenario the agent is an already defined individual, organization or corporation. If the agent is not yet defined (i.e. the Government or an alternative agent currently controls the land and the exact agents of deforestation are yet to be determined, but will have government sanction) then the most likely “class of deforestation agents” shall be identified. Examples of deforestation agent classes include:

- Entities (individuals, companies, associations) practicing similar deforestation practices and post-deforestation land use practices such as:
  - Agribusinesses implementing industrial scale agriculture
  - Large scale agriculturalists practicing farming on parcels larger than 500 ha
  - Ethnic or religious groups pursuing large scale agriculture
- Individuals or entities implementing specific legal land use regulation(s)

The selection of class of agent must be justified through stratification of the region and demonstration with historical records that the identified class of agent is the most common purchaser of similar lands in the identified strata.

For Avoiding Planned Deforestation (APD) the deforestation agent or class of agents is by definition transparent. While the identified agent may be headquartered elsewhere, this is immaterial; what matters is the agent’s sanctioned plan to conduct deforestation in the project area.

### **1.2 Demonstration of threat of deforestation**

For all APD projects, there must be an immediate site-specific threat of deforestation that is concrete and would lead to deforestation within a defined period of time. This threat must be demonstrated by documentary proof of the following:

- Legal permissibility for deforestation<sup>4</sup>;
- Suitability of project area for conversion to alternative non-forest land use<sup>5</sup>;

<sup>4</sup> Permissibility shall be with reference to relevant laws and legal requirements. When considering legal permissibility the area of allowed deforestation shall be considered relative to total property areas including areas already deforested.

- If applicable, evidence of likely transfer of ownership to baseline agent of deforestation or class of agent must be demonstrated by one of the following forms of evidence originating prior to the date of all evidence on pursuit of carbon finance/consideration of REDD:
  - *Bona fide* bidding process for the project area that reflects value of the area with the expressed intent to deforest;
  - Purchase offer of the project area by an entity that is clearly dedicated to agricultural, grazing or urban development activities;
  - Other evidence that control of the project area would have been transferred to the baseline agent or class of agent in the absence of the project.
- If government approval is required for deforestation to occur, the intention to deforest within the project area must be demonstrated by evidence:
  - Recent approval from relevant government department (local to national) for conversion of forest to an alternative land use; or
  - Documentation that a request for approval has been filed with the relevant government department for permission to deforest and convert to alternative land use.
- Intent to deforest<sup>6</sup>: the intent to deforest must be demonstrated by the following form of evidence originating prior to the date of all evidence on pursuit of carbon finance/consideration of REDD:
  - Where deforestation is by an identified class of agent, a documented history (for example government data or maps) of similar planned deforestation activities by the class of agent, of planned deforestation within the five years previous to without-project deforestation.
  - Where a specific baseline agent has been identified, either a valid and verifiable land use management plan for deforesting the project area, or a documented history (for example government data or maps) of similar planned deforestation activities by the baseline agent within the five years previous to without-project deforestation.

## **STEP 2. Identification of alternative land use scenarios to the proposed REDD project activity**

Identify realistic and credible land-use scenarios that would have occurred on the land within the project boundary in the absence of REDD project activity. The scenarios should be feasible for the Proponent or similar project developers taking into account relevant national and/or sectoral policies and circumstances, historical land uses, practices and economic trends. The list of scenarios should capture all reasonable project alternatives; this list will subsequently be tested through investment, barrier and common practice analysis as described below.

The identified land use scenarios shall include, at minimum:

- The projected planned deforestation as estimated using this methodology;
- Projected unplanned deforestation or forest degradation;
- Avoiding deforestation and/or forest degradation within the project boundary performed without being registered as a REDD project activity;
- If applicable, avoided deforestation activities on at least a part of the land within the project

<sup>5</sup> Suitability should include accessibility to relevant markets, suitability of soils, topography and climate.

<sup>6</sup> Intent to deforest by baseline agent of deforestation

boundary of the proposed REDD project at a rate resulting from:

- Legal requirements; or
- Extrapolation of observed activities stopping deforestation in the geographical area with similar socio-economic and ecological conditions to the proposed REDD project activity, occurring in the 10-year period before the Start Date.

To identify realistic and credible scenarios, land use records, field surveys, data and feedback from stakeholders, and information from other appropriate sources, including Participatory Rural Appraisal (PRA)<sup>7</sup> may be used as appropriate.

All land uses within the boundary of the proposed REDD project activity or the geographical area with similar socio-economic and ecological conditions to the proposed REDD project activity, that are currently existing or that existed at some time in the 10-year period before the Start Date but no longer exist, may be deemed realistic and credible. For all other land use scenarios, credibility shall be justified. The justification shall include elements of spatial planning information (if applicable) or legal requirements, and may include assessment of economic feasibility of the proposed land use scenario.

**Outcome of Step 2:** List of credible alternative land use scenarios that would have occurred on the land within the project boundary of the REDD project activity.

→ *Proceed to Step 3 (Investment analysis) or Step 4 (Barrier analysis). Only one is required.*

### **STEP 3. Investment analysis**

Determine whether the proposed project activity, without carbon market-related revenues, is economically or financially less attractive than at least one of the other land use scenarios. Investment analysis may be performed as a stand-alone analysis or in combination with Barrier analysis (Step 4). To conduct the investment analysis, use the following sub-steps:

#### ***Sub-step 3a. Determine appropriate analysis method***

Determine whether to apply simple cost analysis, investment comparison analysis, or benchmark analysis. If the REDD project activity generates no financial or economic benefits other than carbon market-related income, then apply the simple cost analysis (Option I). Otherwise, use investment comparison analysis (Option II) or benchmark analysis (Option III). Options I, II and III are mutually exclusive; only one of them can be applied.

#### ***Sub-step 3b – Option I. Simple cost analysis***

Document the costs associated with the REDD project activity and demonstrate that the activity produces no financial benefits other than carbon market-related income.

<sup>7</sup> Participatory rural appraisal (PRA) is an approach to the analysis of local problems and the formulation of tentative solutions with local stakeholders. It makes use of a wide range of visualisation methods for group-based analysis to deal with spatial and temporal aspects of social and environmental problems. This methodology is, for example, described in:

Chambers R (1992): *Rural Appraisal: Rapid, Relaxed, and Participatory*. Discussion Paper 311, Institute of Development Studies, Sussex;

Theis J, Grady H (1991): *Participatory rapid appraisal for community development*. Save the Children Fund, London.

If activities stopping deforestation and/or forest degradation in the project area, or in the geographical area with similar socio-economic and ecological conditions to the proposed REDD project area, occurred in the 10-year period before the Start Date but have ceased, the Proponent shall identify incentives/reasons/actions that allowed for the past activities stopping deforestation and/or forest degradation, and demonstrate that the current legal/financial or other applicable regulations or socio-economic, ecological or other local conditions have changed to an extent that justifies the conclusion that the REDD project activity produces no financial benefits other than carbon market-related income.

→ *If it is concluded that the proposed REDD project activity produces no financial benefits other than carbon market-related income, proceed to Step 5 (Common practice analysis).*

**Sub-step 3b – Option II. Investment comparison analysis**

Identify the financial indicator, such as Internal Rate of Return (IRR)<sup>8</sup>, Net Present Value (NPV), payback period, or cost-benefit ratio, most suitable for the project type and decision-making context.

**Sub-step 3b – Option III. Benchmark analysis**

Identify the financial indicator, such as IRR<sup>9</sup>, 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 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 Proponent. Benchmarks can be derived from:

- 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 (e.g. weighted average capital cost of the company) if there is only one potential Project Proponent (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 Proponent). The Proponent 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.

---

<sup>8</sup> For the investment comparison analysis, IRRs can be calculated either as project IRRs or as equity IRRs. Project IRRs calculate a return based on project cash outflows and cash inflows only, irrespective the source of financing. Equity IRRs calculate a return to equity investors and therefore also consider amount and costs of available debt financing. The decision to proceed with an investment is based on returns to the investors, so equity IRR will be more appropriate in many cases. However, there will also be cases where a project IRR may be appropriate.

<sup>9</sup> For the benchmark analysis, the IRR shall be calculated as project IRR. If there is only one potential project developer (e.g. when the project activity upgrades an existing process), the IRR shall be calculated as equity IRR.

### ***Sub-step 3c. Calculation and comparison of financial indicators (for options II and III)***

Calculate the suitable financial indicator for the proposed REDD project activity without the financial benefits from carbon finance and, in the case of Option II above, for the other land use scenarios. Include all relevant costs (including, for example, investment cost and operation and maintenance costs) and revenues (excluding carbon market revenues, but including subsidies/fiscal incentives where applicable). Include, 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 GHG Project Plan, 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 verified. 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.

Present in the GHG Project Plan a clear comparison of the financial indicator for the proposed REDD project activity without the financial benefits from carbon finance and:

- If Option II was selected, if one of the other land use scenarios has the better indicator (e.g. higher IRR), then the REDD project activity cannot be considered as financially attractive; or
- If Option III was selected, if the REDD project activity has a less favorable indicator (e.g. lower IRR) than the benchmark, then the REDD project activity cannot be considered as financially attractive.

→ *If it is concluded that the proposed REDD project activity without the financial benefits from carbon finance is not financially most attractive, then proceed to Step 3d (Sensitivity Analysis).*

### ***Sub-step 3d. Sensitivity analysis***

Provide a sensitivity analysis that shows whether the conclusion regarding the financial attractiveness is robust to reasonable variations in the critical assumptions. The investment analysis provides a valid argument only if it consistently supports, for a realistic range of assumptions, the conclusion that the proposed REDD project activity without the financial benefits from carbon finance is unlikely to be financially attractive.

If activities stopping deforestation and/or forest degradation in the project area, or in the geographical area with similar socio-economic and ecological conditions to the proposed REDD project area, occurred in the 10-year period before the Start Date but have ceased, the Proponent shall demonstrate that incentives/reasons/actions that allowed for the past activities have changed to an extent that affects the financial attractiveness of such activities in the project area without being registered as the REDD project.

→ *If after the sensitivity analysis it is concluded that the proposed REDD project activity without the financial benefits from carbon finance is unlikely to be financially most attractive under a realistic range of assumptions, then proceed directly to Step 5 (Common practice analysis).*

→ *If after the sensitivity analysis it is concluded that the proposed REDD project activity is likely to be financially most attractive, then the project activity cannot be considered additional by means of financial analysis. Step 4 (Barrier analysis) may still be used to prove that the proposed project activity faces barriers that do not prevent the baseline land use scenario(s) from occurring. If Step 4 (Barrier analysis) is not employed then the project activity cannot be considered additional.*

#### **STEP 4. Barrier analysis**

Barrier analysis may be performed as a stand-alone analysis or as an extension of Step 3 Investment analysis. Barrier analysis is used to determine whether the proposed project activity faces barriers that prevent the implementation of the proposed project activity, and do not prevent the implementation of at least one of the alternative land use scenarios.

##### ***Sub-step 4a. Identify barriers that would prevent the implementation of the proposed project activity***

Establish that there are barriers that would prevent the proposed project activity from being carried out if the project activity were not registered as a REDD activity. The barriers should not be specific to the Project Proponent. Such barriers may include, among others:

- Investment barriers, other than the economic/financial barriers in Step 3 above, *inter alia*:
  - For REDD APD Project Activities undertaken and operated by private entities: 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 same country;
  - Debt funding is not available for this type of project activity;
  - No access to international capital markets due to real or perceived risks associated with domestic or foreign direct investment in the country where the project activity is to be implemented, as demonstrated by the credit rating of the country or other country investment reports of reputed origin;
  - Lack of access to credit.
- Institutional barriers, *inter alia*:
  - Risk related to changes in government policies or laws;
  - Lack of enforcement of forest or land-use-related legislation.
- Technological barriers, *inter alia*:
  - Lack of access to planting materials (e.g. if plantations are a leakage avoidance strategy);
  - 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, practices;
  - Traditional equipment and technology.
- Barriers due to prevailing practice, *inter alia*:
  - The project activity is the “first of its kind”: no project activity of this type is currently operational in the host country or region.

- Barriers due to social conditions, *inter alia*:
  - Social conflict among interest groups in the region where the project takes place;
  - Lack of skilled and/or properly trained labor force;
  - Lack of organization 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 that limits the incentives to undertake REDD activity;
  - 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 or prevent the solidification of land ownership rights.

The identified barriers are only sufficient grounds for demonstration of additionality if they would prevent potential Project Proponents from carrying out the proposed project activity if it was not expected to be registered as a REDD project activity.

Proponents shall provide transparent and documented evidence of the existence and significance of the identified barriers. Anecdotal evidence can be included, but 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 REDD project activity, such as minutes from Board meetings, correspondence, feasibility studies, financial or budgetary information, etc.;
- Documents prepared by the Project Proponent, contractors or project partners in the context of the proposed project activity or similar previous project implementations;
- Written documentation of independent expert judgments from agriculture, forestry and other land-use related Government/nongovernmental bodies or individual experts, educational institutions (e.g. universities, technical schools, training centers), professional associations and others.

If activities stopping deforestation and/or forest degradation in the project area, or in the geographical area with similar socio-economic and ecological conditions to the proposed REDD project area, occurred in the 10-year period before the Start Date but have ceased, the Proponent shall identify incentives/reasons/actions/that allowed for the past activity and shall demonstrate that the current legal/financial or other applicable regulations, ecological or other local conditions have changed to the extent that they pose a barrier which allows for conclusion that repetition of the activity performed without being registered as the REDD project activity is not possible.

***Sub-step 4b. Show that the identified barriers would not prevent the implementation of at least one of the alternative land use scenarios***

If the identified barriers also affect other land use scenarios, explain how they are affected less strongly than is the proposed REDD project activity. Explain how the identified barriers are not preventing the implementation of at least one of the alternative land use scenarios. Any land use scenario that would be prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration. At least one viable land use scenario shall be identified.

→ *If both Sub-steps 4a and 4b are satisfied, then proceed directly to Step 5 (Common practice analysis).*

→ *If one of the Sub-steps 4a or 4b is not satisfied, then the project activity cannot be considered additional by means of barrier analysis. Step 3 (Investment analysis) may still be used to prove that the proposed REDD project activity without the financial benefits from carbon markets is unlikely to produce economic benefit (Option I) or to be financially attractive (Option II and Option III). If Step 3 is not employed then the project activity cannot be considered additional.*

## **STEP 5. Common practice analysis**

The previous steps shall be complemented with an analysis of the extent to which similar activities stopping deforestation and forest degradation have already diffused in the geographical area of the proposed REDD project activity. This test is a credibility check to demonstrate additionality that complements the investment analysis (Step 3) or the barriers analysis (Step 4). Although only either Step 3 or Step 4 is required, Step 5 is always required.

Provide an analysis of the extent to which activities similar to the proposed REDD project activity have been implemented previously or are currently underway. Similar activities are defined as those which are of similar scale, take place in a comparable environment (with respect to the regulatory framework and other factors) and are undertaken in the relevant geographical area. Other registered REDD APD Project Activities shall not be included in this analysis. Provide documented evidence and, where relevant, quantitative information. Limit considerations to the 10-year period prior to the Start Date.

If activities stopping deforestation and forest degradation similar to the proposed REDD project activity are identified, then compare the proposed project activity to the other similar 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 REDD project activity will be implemented when compared to circumstances under which similar activities were carried out. For example, new barriers may exist or promotional policies may have ended. If certain benefits rendered similar avoided deforestation activities financially attractive (e.g., subsidies or other financial flows), explain why the proposed REDD project activity cannot use the benefits. If applicable, explain why similar activities did not face barriers faced by the proposed REDD activity.

→ *If Step 5 is not satisfied, i.e. similar activities can be observed and essential distinctions between the proposed REDD project activity and similar activities cannot be made, then the proposed REDD project activity cannot be considered additional. Otherwise, the proposed REDD project activity is not the baseline scenario and, hence, it is additional.*

## **2. Summary**

The proposed REDD activity is additional if it:

- Per STEP 0, has a Start Date after 1 November 1997 OR, if the Start Date is earlier, demonstrates in a manner acceptable to ACR and the verifier that GHG mitigation was a project objective from inception; AND
- Has, in STEP 1, identified and demonstrated the validity of the planned deforestation baseline activity; AND
- Has identified in STEP 2 credible alternative land use scenarios that would have occurred on the land within the project boundary of the REDD project activity; AND
- Has demonstrated via STEP 3 Investment Analysis that the proposed REDD project activity is not the most economically or financially attractive of the identified land use scenarios, by:
  - Demonstrating via Simple Cost Analysis (sub-step 3b Option I) that that the proposed REDD project activity produces no financial benefits other than carbon market-related income; OR
  - Demonstrating via Investment Comparison Analysis (sub-step 3b Option II) that one of the other land use scenarios has a better financial indicator, such that the REDD project activity cannot be considered financially attractive relative to other land use scenarios; OR
  - Demonstrating via Benchmark Analysis (sub-step 3b Option III) that the REDD project activity has a less favorable indicator than the benchmark, such that the REDD project activity cannot be considered as financially attractive relative to the benchmark; AND
  - Demonstrating via Sensitivity Analysis (sub-step 3d) that the conclusion of Options II or III is robust to reasonable variations in the critical assumptions.

AND/OR (in lieu of STEP 3):

- Has demonstrated via STEP 4 Barrier Analysis that the proposed REDD project activity faces barriers that do not prevent the baseline land use scenario(s) from occurring, by:
  - Identifying under sub-step 4a barriers that would prevent the implementation of the proposed project activity; AND
  - Demonstrating under sub-step 4b that the identified barriers would not prevent the implementation of at least one of the alternative land use scenarios.

AND (in addition to STEPS 0, 1, 2, and 3 AND/OR 4):

- Has demonstrated via STEP 5 Common Practice Analysis that similar activities stopping deforestation and forest degradation are not common practice in the geographical area of the proposed REDD project activity, either by showing there are no similar activities, or that essential distinctions between the proposed REDD project activity and observed similar activities can be made.