



Approved VCS Tool VT0001

Version 1.0

“Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities”¹

Sectoral Scope 14

1. Scope and Applicability

1.1. Scope

- 1.1.1. This tool provides for a step-wise approach to demonstrate additionality in VCS AFOLU projects.
- 1.1.2. Project proponents proposing new baseline methodologies may incorporate this tool in their proposal. Project proponents may also propose other approaches for the demonstration of additionality as set out in the most recent version of the VCS for consideration under the VCS double approval process.
- 1.1.3. In validating the application of this tool to a proposed project activity, validation/verification bodies should assess credibility of all data, rationales, assumptions, justifications and documentation provided by project proponent(s) to support the selection of the baseline and demonstration of additionality.

1.2. Applicability conditions

The tool is applicable under the following conditions:

- a) AFOLU activities the same or similar to the proposed project activity² on the land within the proposed project boundary performed with or without being registered as the VCS AFOLU project shall not lead to violation of any applicable law even if the law is not enforced;
- b) The use of this tool to determine additionality requires the baseline methodology to provide for a stepwise approach justifying the determination of the most plausible baseline scenario³. Project proponent(s) proposing new baseline methodologies shall ensure consistency

¹ Adapted from the “Tool for the Demonstration and Assessment of Additionality in A/R CDM Project Activities” (Version 02) <http://cdm.unfccc.int/methodologies/ARmethodologies/tools/ar-am-tool-01-v2.pdf>.

² In the context of this tool, ‘activities similar to the proposed project activity’ are used for the identification of possible land use scenarios that are allowable AFOLU activities under the VCS Tool for AFOLU Methodological Issues and Guidance for AFOLU projects.

³ Please refer to the most recent version of the Voluntary Carbon Standard, Tool for AFOLU Methodological Issues, and Guidance for Agriculture, Forestry and Other Land Use Projects, available on the VCS website.

between the determination of a baseline scenario and the determination of additionality of a project activity.

2. Procedure

Project proponent(s) shall apply the following four steps:

- a) STEP 1. Identification of alternative land use scenarios to the AFOLU project activity;
- b) STEP 2. Investment analysis to determine that the proposed project activity is not the most economically or financially attractive of the identified land use scenarios; or
- c) STEP 3. Barriers analysis; and
- d) STEP 4. Common practice analysis.

The procedure is summarized in the indicative flowchart presented in Figure 1. For more specific detail regarding the individual steps, please refer to the text.

2.2. Step 1. Identification of alternative land use scenarios to the proposed VCS AFOLU project activity

This step serves to identify alternative land use scenarios to the proposed VCS AFOLU project activity(s) that could be the baseline scenario, through the following sub-steps:

2.2.1 *Sub-step 1a. Identify credible alternative land use scenarios to the proposed VCS AFOLU project activity*

- a) Identify realistic and credible land-use scenarios that would have occurred on the land within the proposed project boundary in the absence of the AFOLU project activity under the VCS⁴. The scenarios should be feasible for the project area taking into account relevant national and/or sectoral policies⁵ and circumstances, such as historical land uses, practices and economic trends. The identified land use scenarios shall at least include:
 - i) Continuation of the pre-project land use;
 - ii) Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project;

⁴ For example, continuation of the pre-project land-use, including continued degradation, deforestation or switch to land-use typical for region where the VCS AFOLU project is planned to located, establishing agricultural plantation, tourist resort, hunting area/farm, utilizing regionally typical forms of funds investment or other economical attractive activities.

⁵ Laws, statutes, regulatory frameworks or policies implemented since 11 November 2001 that give comparative advantage to less emissions-intensive technologies or activities relative to more emissions-intensive technologies or activities need not be taken into account.

- iii) If applicable, activities similar to the proposed project activity on at least part of the land within the project boundary of the proposed VCS AFOLU project at a rate resulting from⁶:
- Legal requirements; or
 - Extrapolation of observed similar activities in the geographical area with similar socio-economic and ecological conditions to the proposed VCS AFOLU project activity occurring in the period beginning ten years prior to the project start date.
- b) All identified land use scenarios must be credible. All land-uses within the boundary of the proposed VCS AFOLU project that are currently existing or that existed at some time in the period beginning ten years prior to the project start date but no longer exist, may be deemed realistic and credible. For all other land use scenarios, credibility shall be justified⁷. The justification shall include elements of spatial planning information (if applicable) or legal requirements and may include assessment of economical feasibility of the proposed land use scenario.
- c) **Outcome of Sub-step 1a:** List of credible alternative land use scenarios that could have occurred on the land within the project boundary of the VCS AFOLU project.

2.2.2 ***Sub-step 1b. Consistency of credible land use scenarios with enforced mandatory applicable laws and regulations***

This sub-step does not consider laws, statutes, regulatory frameworks or policies implemented since 11 November 2001 that give comparative advantage to less emissions-intensive technologies or activities relative to more emissions-intensive technologies or activities.

- a) Apply the following procedure:
- i) Demonstrate that all land use scenarios identified in the sub-step 1a: are in compliance with all mandatory applicable legal and regulatory requirements;
 - ii) If an alternative does not comply with all mandatory applicable legislation and regulations then show that, based on an examination of current practice in the region in which the mandatory law or regulation applies, those applicable mandatory legal or regulatory requirements are systematically not enforced and that non-compliance with those requirements is widespread, i.e., prevalent on at least 30% of the area of the smallest administrative unit that encompasses the project area;
 - iii) Remove from the land use scenarios identified in the sub-step 1a, any land use scenarios which are not in compliance with applicable mandatory laws and regulations unless it can

⁶ If it can be shown that these activities result from laws, statutes, regulatory frameworks or policies implemented since 11 November 2001 that give comparative advantage to less emissions-intensive technologies or activities relative to more emissions-intensive technologies or activities they need not be taken into account and the baseline scenario could refer to a hypothetical baseline rate of avoided emissions or sequestration without the national and/or sectoral laws, statutes, regulatory frameworks or policies being in place.

⁷ E.g. construction of an airport is usually not a credible land use scenario in a rural region with low population density and weak road infrastructure.

be shown these land use scenarios result from systematic lack of enforcement of applicable laws and regulations.

- b) **Outcome of Sub-step 1b:** List of plausible alternative land use scenarios to the VCS AFOLU project activity that are in compliance with mandatory legislation and regulations taking into account their enforcement in the region or country and EB decisions on national and/or sectoral policies and regulations.

If the list resulting from the Sub-step 1b is empty or contains only one land use scenario, than the proposed VCS AFOLU project activity is not additional.

2.2.3 **Sub-step 1c. Selection of the baseline scenario:**

The baseline methodology that would use this tool shall provide for a stepwise approach justifying the selection and determination of the most plausible baseline scenario.

→ Proceed to Step 2 (Investment analysis) or Step 3 (Barrier analysis), as it is necessary to undertake at least one of them.

2.3. Step 2. Investment analysis

Determine whether the proposed project activity, without the revenue from the sale of GHG credits 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 additionality analysis or in connection to the Barrier analysis (Step 3). To conduct the investment analysis, use the following sub-steps.

2.3.1 **Sub-step 2a. Determine appropriate analysis method**

Determine whether to apply simple cost analysis, investment comparison analysis or benchmark analysis (sub-step 2b). If the VCS AFOLU project generates no financial or economic benefits other than VCS 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.

2.3.2 **Sub-step 2b. – Option I. Apply simple cost analysis**

Document the costs associated with the VCS AFOLU project and demonstrate that the activity produces no financial benefits other than VCS related income.

→ ***If it is concluded that the proposed VCS AFOLU project produces no financial benefits other than VCS related income then proceed to Step 4 (Common practice analysis).***

2.3.3 **Sub-step 2b. – Option II. Apply investment comparison analysis**

Identify the financial indicator, such as IRR⁸ (investment rate of return), NPV (net present value), payback period, cost benefit ratio most suitable for the project type and decision-making context.

2.3.4 **Sub-step 2b – Option III. Apply benchmark analysis**

Identify the financial indicator, such as IRR⁹, 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:

- a) 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;
- b) 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;
- c) 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.

2.3.5 **Sub-step 2c. Calculation and comparison of financial indicators (only applicable to options II and III):**

- a) Calculate the suitable financial indicator for the proposed VCS AFOLU project *without the financial benefits from the VCS* and, in the case of Option II above, for the other land use scenarios. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding GHG credit revenues, but including subsidies/fiscal incentives where applicable), and, as appropriate, non-market cost and benefits in the case of public investors.
- b) Present the investment analysis in a transparent manner and provide all the relevant assumptions in the VCS AFOLU project description, so that a reader can reproduce the

⁸ 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.

⁹ 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.

- 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. 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).
- c) Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.
 - d) Present in the VCS AFOLU project description submitted for validation a clear comparison of the financial indicator for the proposed VCS AFOLU project *without the financial benefits from the VCS* and:
 - i) **Option II** (investment comparison analysis): If one of the other land use scenarios has the better indicator (e.g. higher IRR), then the VCS AFOLU project cannot be considered as the financially attractive; or
 - ii) **Option III** (benchmark analysis): If the VCS AFOLU project has a less favorable indicator (e.g., lower IRR) than the benchmark, then the VCS AFOLU project cannot be considered as financially attractive.

→ ***If it is concluded that the proposed VCS AFOLU project without the financial benefits from the VCS is not financially most attractive then proceed to Step 2d (Sensitivity Analysis).***

2.3.6 Sub-step 2d. Sensitivity analysis (only applicable to options II and III)

Include 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 in favor of additionality only if it consistently supports (for a realistic range of assumptions) the conclusion that the proposed VCS AFOLU project without the financial benefits from the VCS is unlikely to be financially attractive.

- a) If after the sensitivity analysis it is concluded that the proposed VCS AFOLU project without the financial benefits from the VCS is unlikely to be financially most attractive (Option II and Option III), then proceed directly to Step 4 (Common practice analysis).
- b) If after the sensitivity analysis it is concluded that the proposed VCS AFOLU project is likely to be financially most attractive (Option II and Option III), then the project activity cannot be considered additional by means of financial analysis. Optionally proceed to Step 3 (Barrier analysis) to prove that the proposed project activity faces barriers that do not prevent the baseline land use scenario(s) from occurring. If the Step 3 (Barrier analysis) is not employed then the project activity cannot be considered additional.

2.4. Step 3. Barrier analysis

Barrier analysis maybe performed instead of or as an extension of investment analysis

If this step is used, determine whether the proposed project activity faces barriers that:

- a) Prevent the implementation of this type of proposed project activity without the revenue from the sale of GHG credits; and
- b) Do not prevent the implantation of at least one of the alternative land use scenarios.

Use the following sub-steps:

2.4.2 Sub-step 3a. Identify barriers that would prevent the implementation of the type of proposed project activity

- a) Establish that there are barriers that would prevent the implementation of the type of proposed project activity from being carried out if the project activity was not registered as a VCS AFOLU project. The barriers should not be specific to the project or the project proponent(s). Such barriers may include, among others:
 - b) Investment barriers, other than the economic/financial barriers in Step 2 above, *inter alia*:
 - i) For AFOLU 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 relevant geographical area;
 - ii) Debt funding is not available for this type of project activity;
 - iii) 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;
 - iv) Lack of access to credit.
 - c) Institutional barriers, *inter alia*:
 - i) Risk related to changes in government policies or laws;
 - ii) Lack of enforcement of forest or land-use-related legislation.
 - d) Technological barriers, *inter alia*:
 - i) Lack of access to planting materials;
 - ii) Lack of equipment and/or infrastructure for implementation of the technology.
 - e) Barriers related to local tradition, *inter alia*:
 - i) Traditional knowledge or lack thereof, laws and customs, market conditions, practices;

- ii) Traditional equipment and technology.
- f) Barriers due to prevailing practice, *inter alia*:
 - i) The project activity is the “first of its kind”: No project activity of this type is currently operational in the host country or region.
- g) Barriers due to local ecological conditions, *inter alia*:
 - i) Degraded soil (e.g. water/wind erosion, salination, etc.);
 - ii) Catastrophic natural and / or human-induced events (e.g. landslides, fire, etc);
 - iii) Unfavorable meteorological conditions (e.g. early/late frost, drought);
 - iv) Pervasive opportunistic species preventing regeneration of trees (e.g. grasses, weeds);
 - v) Unfavorable course of ecological succession;
 - vi) Biotic pressure in terms of grazing, fodder collection, etc.
- h) Barriers due to social conditions and land-use practices, *inter alia*:
 - i) Demographic pressure on the land (e.g. increased demand on land due to population growth);
 - ii) Social conflict among interest groups in the region where the project takes place;
 - iii) Widespread illegal practices (e.g. illegal grazing, non-timber product extraction and tree felling);
 - iv) Shortage of available labor to undertake the AFOLU activity;
 - v) Lack of skilled and/or properly trained labor force;
- i) Lack of organization of local communities;
- j) Barriers relating to land tenure, ownership, inheritance, and property rights, *inter alia*:
 - i) Communal land ownership with a hierarchy of rights for different stakeholders limits the incentives to undertake the AFOLU activity;
 - ii) Lack of suitable land tenure legislation and regulation to support the security of tenure;
 - iii) Absence of clearly defined and regulated property rights in relation to natural resource products and services;
 - iv) Formal and informal tenure systems that increase the risks of fragmentation of land holdings;

- v) Barriers relating to markets, transport and storage;
 - vi) Unregulated and informal markets for products and services related to the project activity prevent the transmission of effective information to project proponent(s);
 - vii) Remoteness of AFOLU activities and undeveloped road and infrastructure incur large transportation expenditures, thus eroding the competitiveness and profitability of timber and non-timber products from the VCS AFOLU project activity;
 - viii) Possibilities of large price risk due to the fluctuations in the prices of products related to the project activity over the project period in the absence of efficient markets and insurance mechanisms;
 - ix) Absence of facilities to convert, store and add value to production from VCS activities limits the possibilities to capture rents from the land use under the VCS AFOLU project activity.
- k) The identified barriers are only sufficient grounds for demonstration of additionality if they would prevent potential project proponent(s) from carrying out the proposed project activity if it was not expected to be registered as a VCS AFOLU project.
- l) Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates 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:
- i) Relevant legislation, regulatory information or environmental/natural resource management norms, acts or rules;
 - ii) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, NGOs, associations, companies, bilateral/ multilateral institutions, etc;
 - iii) Relevant statistical data from national or international statistics;
 - iv) Documentation of relevant market data (e.g. market prices, tariffs, rules);
 - v) Written documentation from the company or institution developing or implementing the VCS AFOLU project activity or the VCS AFOLU project developer, such as minutes from Board meetings, correspondence, feasibility studies, financial or budgetary information, etc;
 - vi) Documents prepared by the project developer, contractors or project partners in the context of the proposed project activity or similar previous project implementations;
 - vii) Written documentation of independent expert judgments from AFOLU related Government/ Non-Government bodies or individual experts, educational institutions (e.g. universities, technical schools, training centers), professional associations and others.

2.4.3 Sub-step 3b. Show that the identified barriers would not prevent the implementation of at least one of the alternative land use scenarios (except the proposed project activity):

If the identified barriers also affect other land use scenarios, explain how they are affected less strongly than they affect the proposed VCS AFOLU project activity. In other words, 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.

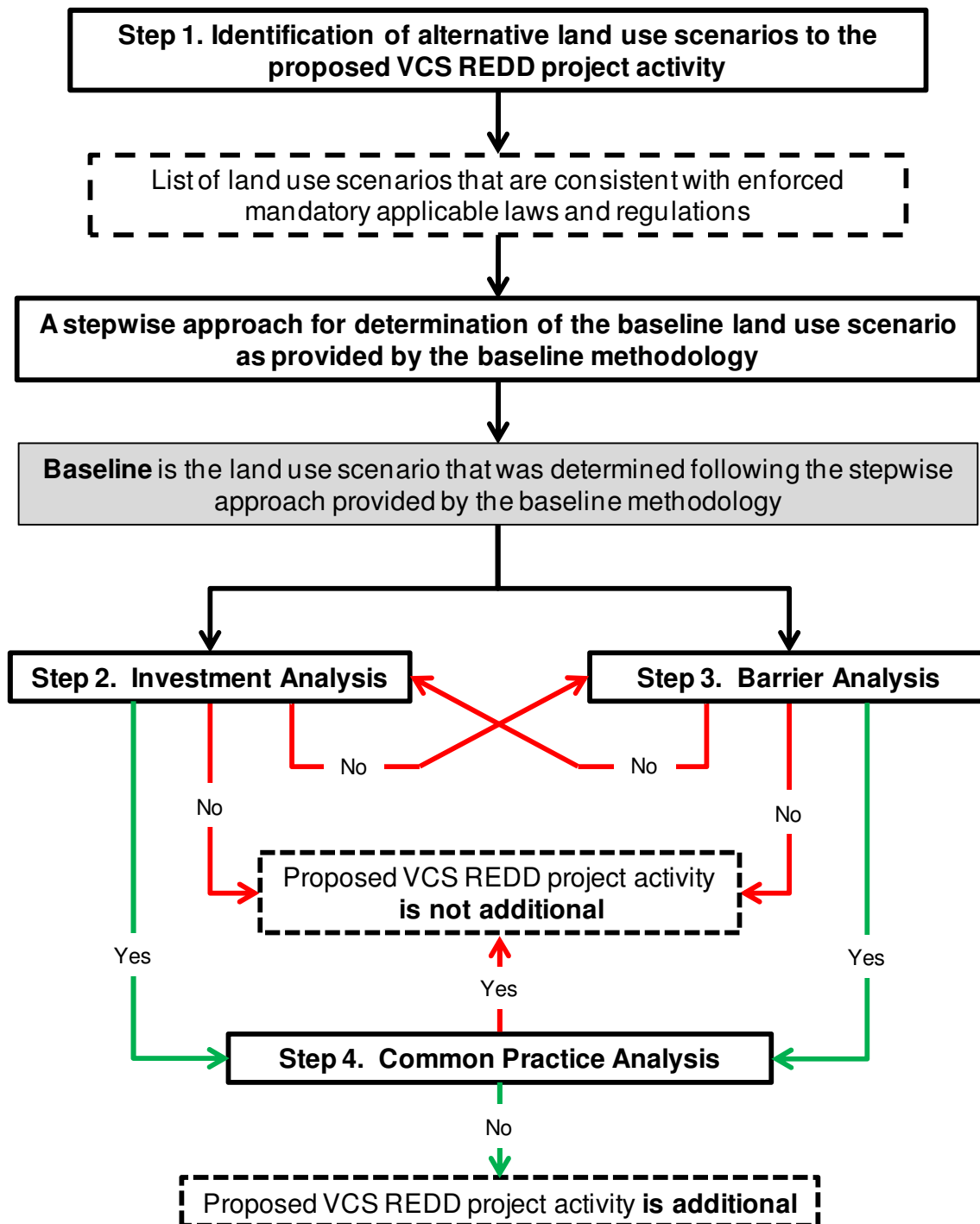
- a) If both Sub-steps 3a – 3b are satisfied, then proceed directly to Step 4 (Common practice analysis).
- b) If one of the Sub-steps 3a – 3b is not satisfied then the project activity cannot be considered additional by means of barrier analysis. Optionally proceed to Step 2 (Investment analysis) to prove that the proposed VCS AFOLU project activity without the financial benefits from the VCS is unlikely to produce economic benefit (Option I) or to be financially attractive (Option II and Option III). If the Step 2 (Investment analysis) is not employed then the project activity cannot be considered additional.

2.5. Step 4. Common practice analysis

- 2.5.1 The previous steps shall be complemented with an analysis of the extent to which similar activities have already diffused in the geographical area of the proposed VCS AFOLU project activity. This test is a credibility check to demonstrate additionality that complements the barrier analysis (Step 3) and the investment analysis (Step 2).
- 2.5.2 Provide an analysis to which extent similar activities to the one proposed as the VCS AFOLU project activity have been implemented previously or are currently underway. Similar 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 VCS AFOLU project activities shall not be included in this analysis. Provide documented evidence and, where relevant, quantitative information. Considerations shall be limited to the period beginning 10 years prior to the project start date.
- 2.5.3 If activities similar to the proposed VCS AFOLU 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 VCS AFOLU project activity will be implemented when compared to circumstances under which similar activities were carried out. For example, barriers may exist, or promotional policies may have ended. If certain benefits rendered the similar activities financially attractive (e.g., subsidies or other financial flows), explain why the proposed VCS AFOLU project activity cannot use the benefits. If applicable, explain why the similar activities did not face barriers to which the proposed VCS AFOLU project activity is subject.

→ If Step 4 is satisfied, i.e. similar activities can be observed and essential distinctions between the proposed VCS AFOLU project activity and similar activities cannot be made, then the proposed VCS AFOLU project activity cannot be considered additional. Otherwise, the proposed VCS AFOLU project activity is not the baseline scenario and, hence, it is additional.

Figure 1: Indicative flowchart of the tool for the demonstration and assessment of additionality in VCS AFOLU project activities.



Document History

Version	Date of Issue	Comment
1.0	14 May 2010	