SUSTAINABLE
PRODUCTION

A guide for Monitoring the Effectiveness of Sustainable Production Projects supported by the Amazon Fund

SUMMARY

INTRODUCTION

The Amazon Fund supports actions to prevent, monitor, combat defor-estation, as well as promote the conservation and sustainable use of natural resources in the BrazilianAmazon. The Fund supports projects that encourage production practices based on the sustainable exploitation of natural resourc-es, income generation for producers and structuring value chains for essential products from the Amazon. It also seeks to expand the reforested areas through the implementation of agroforestry systems that aim at economic, social and ecological gains.

This guide was elaborated as part of the technical cooperation project between the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GMBH and the Amazon Fund/BNDES and aims at: (i) providing guidelines for monitoring and evaluating the impacts of the Amazon Fund supported projects which promote sustainable production; and (ii) improving the annual and final reporting of these projects, in a way that it can act as an additional tool for eval-uating the impacts of the actions of civil society organizations and government institutions responsible for the projects' execution.

The guide presents a set of standardized indicators for sustainable pro-duction projects, which are presented after a brief conceptual introduction to the theme of project and program monitoring and evaluation.

01.

MONITORING OF PROJECT EFFECTIVENESS: BASIC CONCEPTS

1.1. What is project monitoring?

Projects are born from the desire to change a reality. In that sense and considering the capacities of the actors involved, objectives and targets are defined, and financial and human resources are invested.
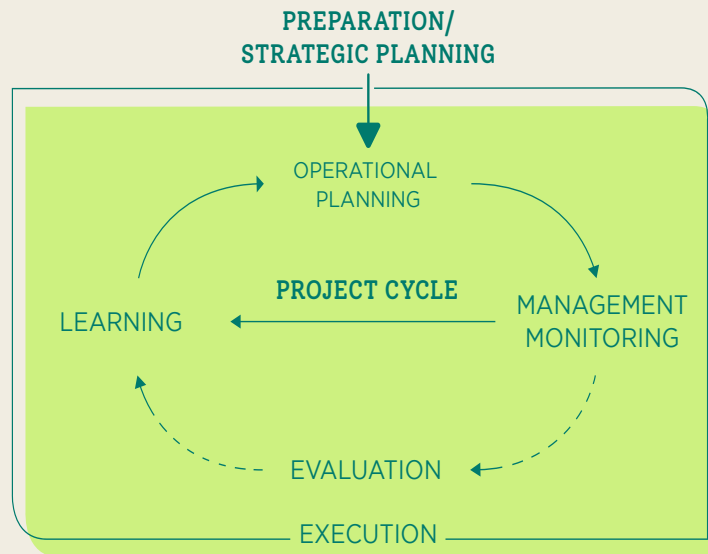
The changes that occur due to such interventions are called impacts. Impacts can be desired or unwanted, direct or indirect, positive or negative. The impacts of a project can be identified from the inference of a causal relationship between the provided inputs, the activities carried out by the project, and the occurrence of a change. Impacts can happen both during the execution and after the end of the project[1].

Monitoring is the observation of changes occurring during the implementation of a project, which involves the verification of the progress in the application of available resources and in the execution of the planned activities, as well as the observation of the direct and indirect impacts of the project. This guide focuses on monitoring the effects produced by a project; that is, its outcome.

Therefore, monitoring is carried out with the purposes of:

○ Following up on how the resources (financial, human, etc.) should be distributed or redistributed throughout the project in order to obtain the desired results;

○ Implementing measures to rectify the progress of the project, as necessary;

○ Obtaining the necessary information to be able to report on the outcome and effects of the project for its annual and final reports;

○ Collecting information to evaluate the individual project and the program in which it is inserted; and

○ Evaluating the achievement of its objectives and targets;

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1 Impacts which arise after the end of a project are assessed in ex- post evaluations. For more information on this topic, see the Conceptual Framework for Impact Evaluations of Projects Supported by the Amazon Fund, published on the Fund's website: http://www.fundoamazonia.gov.br/export/sites/default/en/.galleries/documentos/monitoring-evaluation/Amazon-Fund-impact-evaluations-projects-supported-2016.pdf.

**PREPARATION/
STRATEGIC PLANNING**

OPERATIONAL
PLANNING

PROJECT CYCLE

LEARNING

MANAGEMENT
MONITORING

EVALUATION

EXECUTION

Figure 1. Project cycle. Source: GIZ

The phases of a project cycle are: strategic planning, which conceptualizes the project; operational planning, which occurs periodically; management and monitoring, which verify the achievement of the targets set and the desired impacts.

Data for monitoring should be collected and analyzed continually. The analysis (Figure 1) of these data leads to managerial decisions, such as the need to adapt activities or take strategic decisions. Continuous monitoring leads to learning processes and enable an evidence-based evaluation of the impacts produced by the project.

This guide aims to contribute to the systematic and comparable observation of impacts produced by projects that support sustainable production in order to contribute to:

a) The quality of the project execution; and

b) The quality of annual and final reporting, to the Amazon Fund and general public, on the impacts of the project;

1.2. Results-based Management

Due to its focus on changes achieved by a project, monitoring is a process related to a results-based management, which has been increasingly used to enhance organizational performance. Results-based management comprises strategic planning, agreeing on objectives and targets and converting strategic intentions into tangible results.

The results-based management approach establishes a hierarchy of chan-

ges which may be represented as a "results chain", as shown in the model below (Figure 2).

RESULTS CHAIN

GENERAL OBJECTIVE OF THE AMAZON FUND

SUMMATION OF THE PROJECT SPECIFIC OBJECTIVES

PROJECT SPECIFIC OBJECTIVE

AGGREGATED IMPACT

AGGREGATED OUTCOME

OUTCOME OF THE PROJECT

PRODUCTS AND SERVICES

ACTIVITIES

INPUTS
($$$ resources, human resources etc.)

What is the intended medium / long term change?

What is the desired short term achievement?

What is produced / delivered?

What is accomplished?

What is necessary to achieve the desired results?

Figure 2. Hierarchical Results Chains (Adapted from ¨Results Management in Norwegian Manual Development Cooperation")

In the case of several projects with similar expected effects (objectives), it is vital to consider the aggregated effects indicators (concept explained in section 2.1). These indicators facilitate analysis of the combined effects of various projects (which on their turn can be jointly seen as a program).

With respect to projects that support sustainable production, for instance, the expected long-term effects are "activities that maintain the forest standing are economically attractive" and the "reduction of annual deforestation rates" in that area or in municipalities X and Y through the expansion of the managed forest area and revenue generated from these activities. Thus, measuring these results through aggregated indicators is the best way of demonstrating effectiveness.

The mentioned indicators contribute but are not sufficient to the achievement of the Amazon Fund's general objective: "reduction of deforestation with sustainable development in the Brazilian Amazon", and so the Fund supports other themes besides sustainable production, namely monitoring and control of deforestation, land use planning, and science, innovation and economic in-

truments[2], for the accomplishment of the above objective.

Outcomes are results reached in the short or medium-term and define the desired changes and achievements of the project. In the context of projects that support sustainable production, outcomes are:

- Economic activities for the sustainable use of the forest and biodiversity are identified and developed (e.g. extractivism/storage/logistics);

- Production chains of agroforestry and biodiversity products with increased added value (e.g. processing/industrialization/certification/commercialization);

- Management and technical capabilities expanded; and

- Deforested and degraded areas recovered and used for economic or ecological conservation purposes (e.g. agroforestry systems).

In other words, outcomes are consequences of products and services developed within the scope of the project. These include the **use of products and services** by the target group of a project. In the case of projects supporting sustainable production, expected effects may be:

- Trained individuals using the acquired knowledge effectively.

- Increase in revenue from the processing and commercialization of socio-biodiversity products

Generated **products and services** describe the changes that were directly achieved by the activities of a project. These may be goods, services, the knowledge provided, norms and regulations developed, among others. Regarding projects supporting sustainable production, examples of generated products and services are:

- Renovation and expansion of açaí and cupuaçu processing agribusiness;

- Training courses in agroforestry techniques carried out;

- Nursery of native and fruit species implanted.

Activities are the actions developed for the delivery of a specific product or service. In contrast, **inputs** are the financial, human and other resources necessary for the execution of the project activities.

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2 See the document "Logical Framework of the Amazon Fund - 2017", on the Amazon Fund website: http://www.fundoamazonia.gov.br/export/sites/default/en/.galleries/documentos/monitoring-evaluation/Amazon-Fund-Logical-Framework-2017.pdf

1.3. Indicators

An indicator is a tool to make the objectives of a project clear and tangible. Monitoring through indicators is a process allowing analysis of project (or program) results directly, eliminating any unverifiable conjectures.

Also, using guiding questions that express the concerns and needs of the actors is essential for the analysis and evaluation of effectiveness. Indicators help in answering the guiding questions.

These questions support the definition of objective, observable indicators and the identification of instruments capable of capturing the content and of generating data and information for the indicators. Thus, they synthesize information that allows for understanding some aspects of reality.

Examples of guiding questions:

- When and how do we perceive that the desired change occurred or not?
- What are the key aspects regarding the desired effects? What are secondary elements?
- What is the accurate information needed to verify if there was progress?
- Who has this kind of data and information?
- What methodology is needed to acquire data to verify that the change has materialized as desired?
- What is the cost-benefit ratio of the effort to acquire the necessary data to the quality of the data?

In the formulation of indicators, the SMART method should be observed. It defines that good indicators should be:

S — **Specific** – Clear, concise and tangible

M — **Measurable** – Capable of measurement (Time, money, volume etc.)

A — **Attainable** – Viable in terms of resources, time and technical capacity

R — **Realistic** – Express a functional and desired final condition

T — **Time-bound** – Follow a clear timeframe

Table 1. Assumptions for indicators prepared using the SMART method.

Besides, it is advisable to:

○ Define one or more sources for authenticating the achievement of the indicator.

○ Identify changes that can be demonstrated quantitatively and qualitatively:

> o Quantitative: involves measurable variables (revenue, area, volume, quantity, etc.); measurement of changes happens overtime.

> o Qualitative: information from evaluations, opinions and measurable perceptions, such as satisfaction and trust.

Finally, to merge several quantitative and qualitative indicators aiming at the same desired change is recommended.

1.4. Baseline and targets

Indicators measure the changes made as result of the project. In order to measure these, it is necessary to define a baseline to understand the initial condition in terms of a specific indicator or project, that is, the situation just before the start of the project execution, providing the basis for:

○ Determining and verifying realistic and challenging targets;

○ Understanding the progress made;

○ Measuring changes in relation to the scenario before the project; and

○ Supporting future evaluations.

Once the establishment of the baseline happens, then defining targets is essential. Baselines and targets must align with their respective indicators, using the same units of measurement. The indicators can be measured during the execution of the project and after its end.

1.5. Monitoring of gender equality and social inclusion

The sustainable production projects supported by the Amazon Fund are themselves part of a social inclusion strategy, as indigenous people and other traditional communities, individuals settled by land reforms and family farmers are defined as preferential beneficiaries. However, within these groups, there is still a possibility to advance in actions that induce gender equality and social inclusion in the project management.

This perspective is related to some fundamental questions, such as:

○ How can equal access to project resources and benefits be encouraged?

○ How to contribute to the identification and overcoming of existing barriers hindering the participation of men/women/indigenous people?

In order to implement monitoring activities which are sensitive to gender equality and social inclusion, it is necessary to consider these questions during the project planning phase and to determine specific indicators to monitor them. Below are two ways of addressing gender and social inclusion issues through indicators:

○ Indicators that include social inclusion and gender components; or

○ Indicators that measure directly gender equality or social inclusion as the main objective of the project.

The collection, analysis and presentation of the data must permit disaggregation by gender and social groups, as in the following example:

Data disaggregation in the performance or results reports:

• Out of the trained individuals, 120 effectively use the acquired knowledge, among which 42 are women, and 87 are indigenous.

1.6. Elements of the Amazon Fund Results Framework

Monitoring is a process that involves several steps and actors. For the monitoring for its supported projects, the Amazon Fund uses a tool is a tool developed by BNDES called the Results Framework (RF[3]). Project RFs present; (i) the targets (outcomes) at which the project is aiming; (ii) the amount of financing associated with each objective; and (iii) the outcome (expected effects) and output (products and services) indicators to be monitored[4].

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3 This simplified tool started to be adopted by supported projects from 2018. Previously, the logical framework methodology or monitoring plan was used mainly in operational programs. The adoption of the results framework for individual projects facilitates the digitization of the monitoring process, with gains in output and quality.

4 The results framework as a reference for the preparation of individual results frameworks can be checked on the Amazon Fund website: http://www.fundoamazonia.gov.br/pt/monitoramento-e-avaliacao/ [Portuguese only].

Therefore, creating a monitoring strategy based on the results framework indicators involves defining the frequency of measurement, the data sources and the actors involved. In this topic, the models of the Amazon Fund are used as a reference and indicate these phases:

- **Project preparation stage:** presentation of a more generalized proposal, with a clear focus on the use of indicators (products and services to be delivered) and how to monitor the expected effects, which will be monitored through outcome and outputs indicators.

- **Project analysis stage:** agreement on the project's results framework and monitoring plan by both the project proponents and the Amazon Fund team.

- **Project implementation stage:** sending of the filled-out results framework by those responsible for the project's execution to the Amazon Fund/BNDES, along with the periodic performance reports or the results evaluation reports at the end of the project.

Planning the monitoring process as part of the project analysis stage creates a conducive environment for dialogue and negotiation between the proponents and the Amazon Fund. All projects supported by the Amazon Fund must align with its logical framework[5].

The Amazon Fund general objective is to reduce deforestation with sustainable development in the Brazilian Amazon. In defining this objective, the focus is on the Brazilian Amazon, but it includes the possibility of supporting monitoring and controlling systems for deforestation in other areas of Brazil and in other tropical countries.

In the definition of the impact to be achieved by the Amazon Fund, the seven thematic areas defined in Decree No. 6,527/ 2008 were considered, namely: (i) management of public forests and protected areas; (ii) environmental control, monitoring and inspection; (iii) Sustainable Forest Management; (iv) economic activities with the sustainable use of forests; (v) ecologic-economic zoning (ZEE), land-use planning and land-title regularization; (vi) conservation and sustainable use of biodiversity; and (vii) recovery of deforested areas.

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5 http://www.fundoamazonia.gov.br/export/sites/default/en/.galleries/documentos/monitoring-e-valuation/Amazon-Fund-Logical-Framework-2017.pdf

The above also contribute to the PPCDAm (The Action Plan for the Prevention and Control of Deforestation in the Legal Amazon) thematic axes, which are:

(i) "Promotion of Sustainable Productive Activities",

(ii) "Monitoring and Control",

(iii) "Land and Territorial Planning" and

(iv) "Economic and Normative Instruments".

Given the breadth of the Amazon Fund's operational areas, its logical framework is also structured into four components, as shown in Table 2. It is worth mentioning the emphasis put is the science, technology and innovation component in the elaboration of the logical framework, as it is a strategic component and crosscutting in relation to the other three, and which incorporated economic instruments in line with PPCDAm's 4th phase (2016-2020).

Intervention Logic

General objective	Reduction of deforestation with sustainable development in the Brazilian Amazon			
Impact	**Component 1** Activities that maintain the forest standing are economically attractive	**Component 2** Governmental actions ensure the conformity of human activities to the environmental legislation	**Component 3** The Brazilian Amazon is submitted to land-use planning	**Component 4** Economic instruments, science, technology and innovation contribute to the recovery, conservation and sustainable use of biodiversity

Table 2. Amazon Fund Intervention logic

Table 3 below shows the Amazon Fund logical framework stating the general objective, the four components (impacts), and the outcomes of the supported set of projects. In this guide, only indicators defined for sustainable production projects will be addressed, specifically their immediate results, regarding the outputs indicators (products and services).

AMAZON FUND LOGICAL FRAMEWORK

GENERAL OBJECTIVE
Reduction of deforestation with
sustainable development in the Brazilian Amazon

Component Sustainable production	Component Monitoring and control	Component Land-use planning	Component Science, innovation and economic instruments
IMPACT OF THE PROJECTS (1)	**IMPACT OF THE PROJECTS (2)**	**IMPACT OF THE PROJECTS (3)**	**IMPACT OF THE PROJECTS (4)**
Activities that maintain the forest standing are economically attractive	Governmental actions ensure the conformity of human activities to the environmental legislation	The Brazilian Amazon is submitted to land-use planning	Economic instruments, science, technology and innovation contribute to the recovery, conservation and sustainable use of biodiversity
OUTCOMES OF THE PROJECTS	**OUTCOMES OF THE PROJECTS**	**OUTCOMES OF THE PROJECTS**	**OUTCOMES OF THE PROJECTS**
1.1 - Economic activities that use the forest and biodiversity sustainably have been identified and developed	2.1 Monitoring, control and environmental accountability institutions have been structured and modernized	3.1 Public forests and protected areas have been expanded	4.1 Knowledge and technologies for the conservation and sustainable use of biodiversity, the monitoring and control of deforestation and land planning developed and disseminated
1.2 Production chains of agroforestry and biodiversity products with added value increased	2.2 Access of rural producers to environmental regularization of their properties has been increased	3.2 Protected areas have infrastructure, territorial protection and consolidated management	4.2 Economic instruments for the conservation and sustainable use of biodiversity, the monitoring and control of deforestation and land use planning developed and disseminated
1.3 - Management and technical capabilities expanded for the implementation of economic activities for the sustainable use of forests and biodiversity		3.3 Areas with regularized land titles have been expanded	
1.4 - Deforested and degraded areas recovered and used for economic or ecological conservation purposes		3.4 Land areas with territorial organization defined through ecological-economic zoning (EEZ) have been expanded	

Table 3. The Amazon Fund logical framework.

The following elements must compose a results framework:

○ **Objectives (outcome):** regarding sustainable production projects, selection of targets derives from the four outcome in the component "sustainable production" of the Amazon Fund results framework (see Figure 1). Outcome define the achievement of short and medium-term changes.

○ **Funds allocated to each objective (outcome):** in the case of projects that have an intention to achieve several objectives, information of the estimated values of the non-reimbursable resources for each objective is critical.

○ **Indicator:** an instrument used to measure the achievement of targets or objectives. A set of indicators that facilitates consolidation and aggregation of Amazon Fund[6] projects were developed to monitor efficiency and effectiveness. Selection of the individual projects' indicators must derive from the results framework reference model available on the Amazon Fund website. It should include measurement of products and services delivery (output) and its effectiveness, that is, if the expected effects were achieved.

○ **Baseline:** refers to the initial situation immediately before the project execution. For example, informing the "directly managed forest area (hectares)" before the implementation of a project aiming at the expansion of extractive activities and the "annual revenue from sustainable economic activities – *in natura* products (in thousand R$)" in the year before the start of the execution of project actions.

○ **Target:** defines the scenario to be achieved with the execution of the project. All indicators must have targets, even though quantifying targets for outcomes indicators can be a great challenge, such as predicting future revenues. The failure to attain the predicted targets isn't a breach of contract, provided the execution of planned activities and the application of available funds are appropriately done. For projects executed by agglutinating[7] institutions, which on their turn select subprojects to support, information on the targets must be given as soon as the subprojects have been selected and their own targets defined.

○ **Frequency:** the quantitative progress of the indicators must be informed periodically by those responsible for the project execution, together with their periodic (performance reports) and their final (results evaluation reports) accountability. The data informed in a report must start right at the end of the monitoring period covered by the previous report or the closest available period.

The indicator that measures the progress of the revenue ("annual revenue from sustainable economic activities") must consider the previous fiscal year for which there is information available. Finally, it is worth mentioning that outcomes indicators can be used in "ex-post" effectiveness evaluations, that is, evaluations carried out a few years after the end of the project.
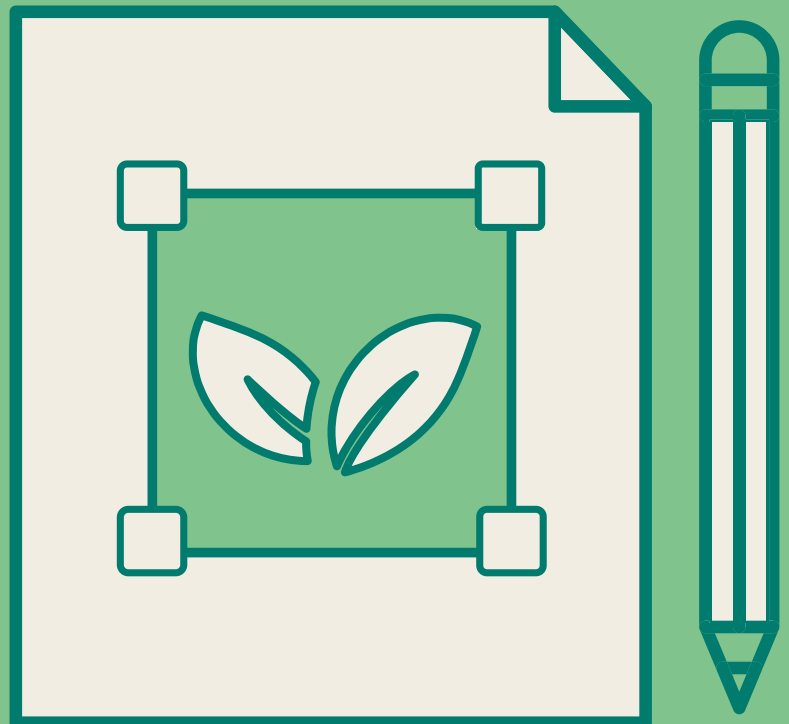
○ **Responsible individuals:** those who are responsible for carrying out the collection and organization of the data. This responsibility is primarily on the project executor that contracted support from the Amazon Fund. Nevertheless, the Amazon Fund team monitors the deforestation rate in regions within the scope of the projects, when publicized by the National Institute for Space Research (INPE), for reflection on the impact of the projects as regards reduction of deforestation[8] rates.

Most importantly, the proponent of a project should always seek clarification from the Amazon Fund team in cases of ambiguities about the significance of any indicator, its focus of observation and objective. Moreover, when necessary, the Amazon Fund team may include new indicators within the scope of those monitored by the projects.

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8 http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/prodes;
http://www.dpi.inpe.br/prodesdigital/prodesmunicipal.php;
http://www.dpi.inpe.br/prodesdigital/prodesuc.php. [Portuguese only]

02.

MONITORING THE EFFECTIVENESS OF SUSTAINABLE PRODUCTION PROJECTS

The Amazon Fund general objective is to reduce deforestation with sustainable development in the Brazilian Amazon, which includes supporting the Sustainable Production component. To simplify, we will call the set of projects which support sustainable production activities a thematic block or program. Programs are characterized by a multi-level intervention architecture, as follows:

- Program: the set of projects financed by the Amazon Fund which support sustainable production activities;
- Agglutinating organization: an organization with high administrative and financial management capacity that coordinates an integrated arrangement of sub-projects from other organizations, called agglutinates, directed towards the development of value chains with sustainable use of natural resources;
- Projects: led by cooperatives, local organizations and communities;
- Final beneficiaries: productive unities, organized as families, individuals or collectives as in some cases of indigenous people.

The following illustration indicates the different levels of governance of sustainable production projects sponsored by the Amazon Fund, their different levels of implementation and related stakeholders.
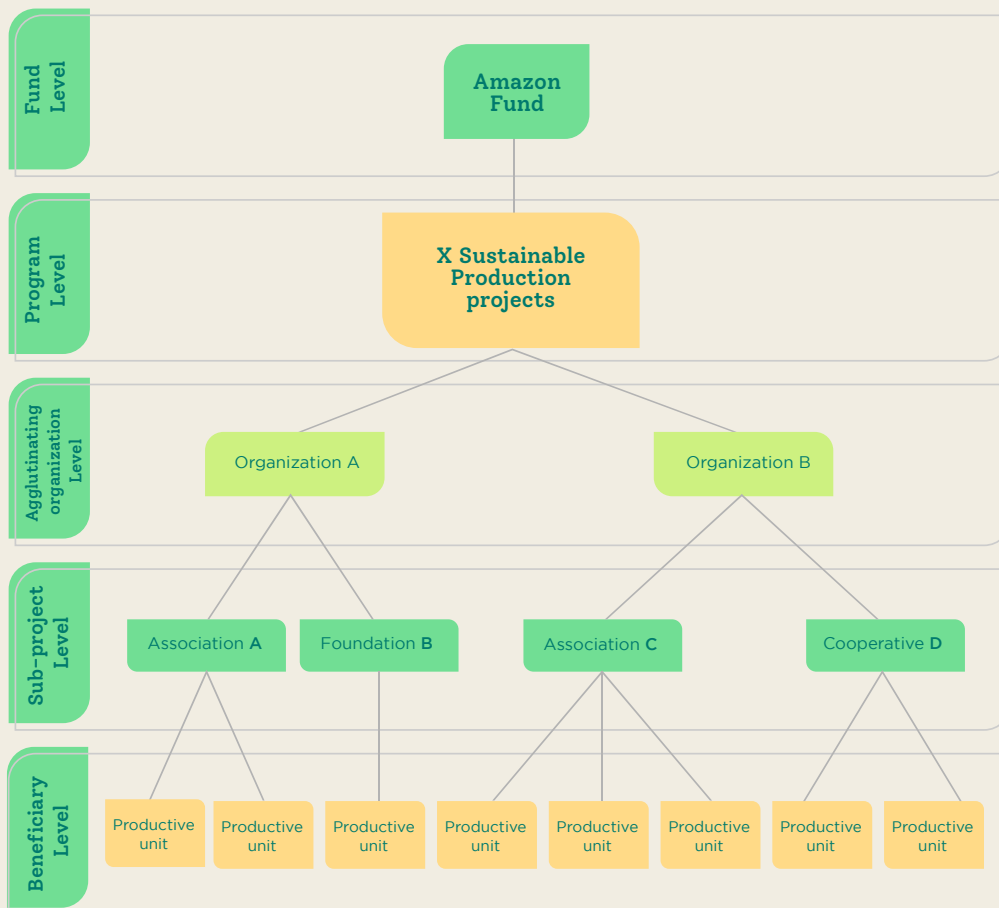
Figure 3. Levels of governance of projects supported by the Amazon Fund. Source: GIZ.

The intervention logic of the Amazon Fund sustainable production projects allows for the monitoring of similar aspects among them. As a result, it is not only possible to measure the impact of the Amazon Fund support to a project A by a civil society organization or governmental institution in region B, but also the impact of the Amazon Fund support to civil society organizations and governmental institutions in different states on the increase of the attractiveness of sustainable production activities. This way, the role of the Fund and its partners in reducing deforestation and promoting sustainable development in the region becomes more evident. However, this analysis at the regional level will only be fully possible when all sustainable production projects adhere to a homogeneous set of indicators.

2.1. Aggregation of indicators

The application and use of a set of common indicators by a group of projects with similar objectives enhances their effective monitoring. The diagram below illustrates the process of "vertical feeding" of an aggregated indicator:
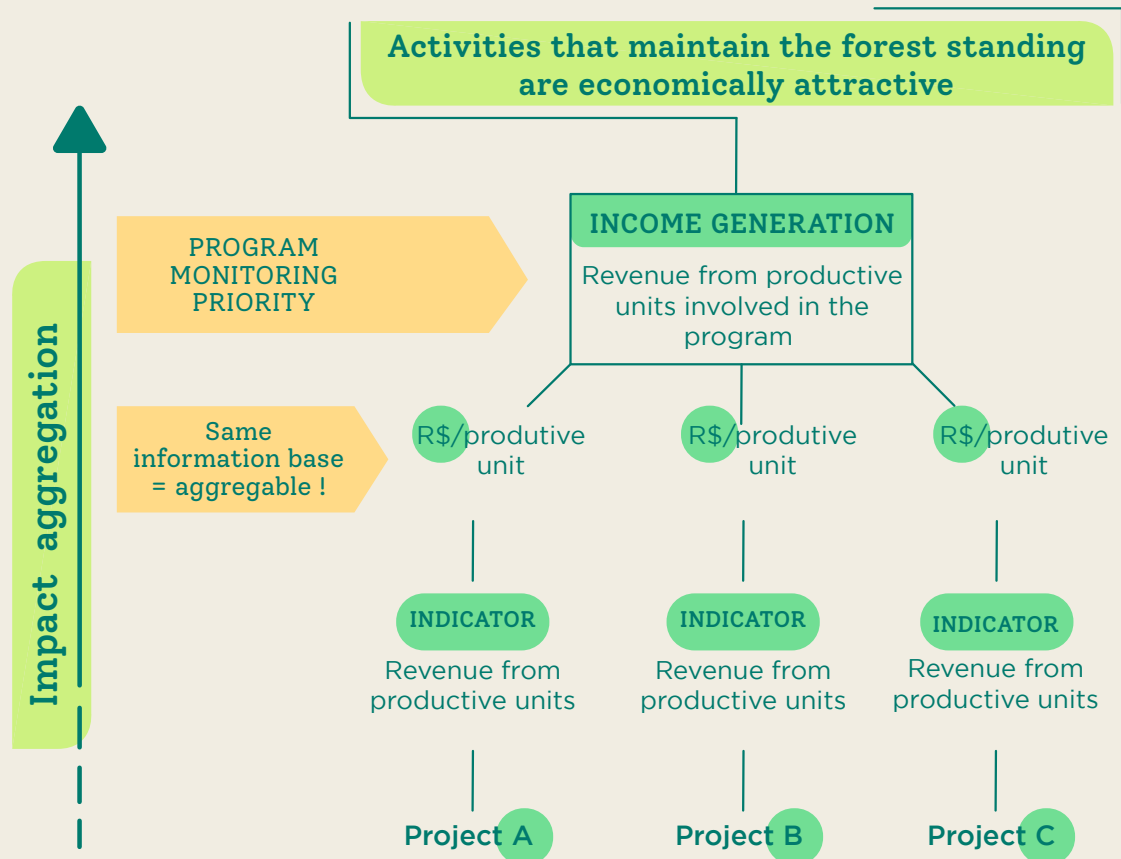
Figure 4. Scheme of impact aggregation. Source: GIZ.

The aggregation of outcomes indicators brings advantages for projects and the Amazon Fund, such as:

- Allowing for the measurement of the projects' contribution to the reduction of deforestation in the Brazilian Amazon with sustainable development;

- Allowing for the identification of positive outcomes of the supported projects, so as to subsidize the formulation of strategies and point out the effects (positive or negative) of their prioritization;

- Assisting to reflect on their achievements in a comparative manner;

- Communicating better the achievements for funders and the general public;

- Providing reference data and facilitating institutional partnerships.

An aggregable indicator is one that:

- Is designed in a way that many projects in a specific area may feed them with data;

- Represents aspects that are easy to measure and often quantitative;

- Allows all projects to adopt the same data collection methodology.

Aggregating information from indicators requires specific precautions to avoid distortions that may lead to an inaccurate analysis. Thus, a set of standardized outcomes indicators for sustainable production projects was developed, presented as follows.

2.2. Outcomes indicators

This section presents the outcomes indicators adopted by the Fund for monitoring sustainable production projects. However, it is worth remembering that the Amazon Fund also monitors outputs indicators, since it measures project deliverables (that is, its products and services) too (see section 2.3).

The set of indicators endorsed by the Fund are used for monitoring the effectiveness of sustainable production projects, that is, the degree to which the expected effects of the supported actions were achieved. The selection of specific indicators for each project depends on its characteristics, its predicted actions and expected achievements.

The outcomes indicators follow the logics behind the four outcome of sustainable production projects supported by the Amazon Fund, according to its Logical Framework (see Table 3 in section 1.6).

Outcome 1.1 - Economic activities for the sustainable use of the forest and biodiversity are identified and developed

Income generation is the main effect anticipated by sustainable production projects. Its basis is on the premises that environmentally sustainable production combined with income generation increase interest and support for the use of land and biodiversity in a manner that is compatible with the conservation of forests.

The outcome "economic activities for the sustainable use of the forest and biodiversity are identified and developed" encompasses sustainable production projects dedicated to extractivism or agroforestry systems, whose production is sold in nature.

The economic impact of sustainable production is verified by an indicator that measures the revenue obtained from the production of the project, in this case in natural, that is, unprocessed products.

In the case of activities there is also an indicator to measure the forest area directly managed, which shows the areas where project activities are implemented and, consequently, areas which are used and overseen by local population. That means that an increase in the forest area directly managed indicates the scale of support for extractivist activities, which generates revenue while promoting forest conservation, as the inhabitants feel motivated to protect and value the forest.

Regarding the frequency of measurement, the indicator that measures the progress of the revenue ("annual revenue from sustainable economic activities") must consider the previous fiscal year for which there is information available. For instance, if a performance report covers the period from 1st December 2018 to 30th April 2019, the last fiscal year which can be reported and for which there is information available is 2018. Only in 2020 will it be possible to report the revenue generated in 2019. Subsequently, annual revenue results are compared to revenues generated immediately before the project execution (baseline).

Worthy of clarifying: if a project implementation started in 2019, its baseline will be the revenue generated in 2018, which is the immediate previous year.

The analysis of this indicator at the end of the project must observe the baseline ("annual revenue immediately before the start of the project"), the previous fiscal year ("annual revenue in the last year of project execution") and the increase in income generation as a result of the project. This increase is calculated by comparing both the annual revenue of a given year and the baseline. This increase (or decrease) is added year after year and, when consolidated,

represents the project's revenue. This way, even projects that have suffered crop damage with a reduction in production in one year can demonstrate their outcome by measuring the increase in revenue verified over the years.

The frequency for measuring the indicator "directly managed forest area (hectares)" should start right at the end of the monitoring period covered by the previous report or the closest available period. The above indicator is cumulative, that is, if the total forest area that is managed increases, the indicator should inform the new total area that is sustainably managed and not only the increase. All the indicators should inform their respective baseline and targets.

Monitoring of other indicators to assess the outcome of sustainable production projects supported by the Amazon Fund (such as per capita revenue, production chain volumes, levels of food security of direct beneficiaries, etc.) are conceivable. Importantly, the inherent difficulty in monitoring projects implemented in remote territories that benefit the socially vulnerable population led to a strategy of prioritizing a few indicators only. This means that project executors can and should adopt complementary indicators to enrich and qualify their outcome analyses if possible.

Outcome indicators 1.1:

Revenue from sustainable economic activities – *in natura* products (in thousand R$)

Directly managed forest area (hectares)

Outcome 1.2 - Production chains of agroforestry and biodiversity products with increased added value

Adding value to socio-biodiversity products can take place through different strategies or their combination, such as local processing or industrialization, the adoption of certification processes and other approaches to their commercialization. The outcome "production chains of agroforestry and biodiversity products with increased added value" has direct relation with the addition of value, including activities such as handicrafts and community tourism, among others.

The economic impact of sustainable production activities that add value to socio-biodiversity products or support the provision of services as an alternative for the preservation of ecosystems is verified by a specific indicator that measures the revenues generated from these actions. In this way, by separately obtaining the revenue indicators for *in natura* and processed products, production in the Brazilian Amazon with the support of the Amazon Fund can be monitored over time.

Another indicator for projects that contribute to outcome 1.2 is the

indicator "directly managed forest area", which can be adopted when it is possible to measure the expansion in the area due to the increased demand generated by the project for extractivist products, that is, due to the value added with the support of the Amazon Fund.

Outcome indicators 1.2:
Revenue from sustainable economic activities – processed products (in thousand R$)
Directly managed forest area (hectares)

Outcome 1.3 - Management and technical capabilities expanded for the implementation of economic activities for the sustainable use of forests and biodiversity

The development of economic activities for the sustainable use of the forest and its biodiversity requires managerial or technical skills in different areas and levels. Producers may need technical skills regarding sustainable production and also other links of the value chain, such as management of processing/industrialization units and such as knowledge of production, health and commercialization standards, etc.

As projects can include training for essential activities of their interventions, the monitoring of project effects seeks to go beyond merely listing the trainings accomplished, by verifying the effective application of the knowledge acquired. In other words, it aims to verify the actual number of trained people using the acquired knowledge among all those who were trained, since some of them may have shifted to other professions and may not be applying the acquired knowledge. This indicator should also be disaggregated by gender and indigenous people trained, so as to identify the number of women and indigenous people using the acquired knowledge.

Support of actions that strengthens community organizations in the scope of the Amazon Fund is also feasible. Thence, the provision of an indicator to monitor the development level of these organizations, calculated from the objective measurement of a set of criteria, namely: (i) planning capacity, (ii) the quality of its accountability and (iii) the solidity of governance. The guidance sheet "organizational development" (section 4) present further explanations.

Outcome indicators 1.3:
Individuals trained to effectively practice sustainable economic activities using the knowledge acquired (total number of individuals)
Individuals trained to effectively practice sustainable economic activities using the knowledge acquired - women (total number of women)

Outcome indicators 1.3:

Individuals trained to effectively practice sustainable economic activities using the knowledge acquired – indigenous people (total number of indigenous people)

Third sector organizations that have advanced in management and governance (number of organizations)

Outcome 1.4 - Deforested and degraded areas recovered and used for economic and ecological conservation purposes

The Amazon Fund also supports reforestation and vegetation recovery in deforested or degraded areas, aiming at conservation and environmental regularization (such as reforestation in Legal Reserve (RL) areas) or at sustainable use for economic purposes (such as vegetation recovery through agroforestry systems implementation).

The predicted indicators seek to differentiate between the areas recovered for conservation and environmental regularization purposes and those recovered for economic purposes. Regardless of the technique used in the reforestation, the indicator will vary according to the primary use of the area.

Strictly speaking, the process of complete recovery of rural areas for ecological purposes or to meet the requirements of environmental legislation exceeds the period of implementation of the supported projects. Therefore, the indicator that measures the effectiveness of the recovery actions includes de expression "regeneration in progress", which means that it should consider areas where revegetation activities were carried out and where the successive stages of forming a recovered forest are in progress. On the other hand, areas recovered for economic purposes are most often used immediately throughout the execution of the projects, showing no need for a similar expression.

Outcome indicators 1.4:

Area with recovered vegetation cover used for economic purposes (hectares)

Area with recovered vegetation cover used for environmental conservation and ecological regularization – regeneration in progress (hectares)

It is worth spelling out that, at the level of outputs indicators (next section), the techniques used to recover the vegetation cover will be differentiated and measured (for example, if recovery was carried out through planting, enrich-

ment, densification, conduction of natural regeneration or through agroforestry systems). These products and services indicators are useful for monitoring the execution of project workplans and further analyses on the cost-benefit of the achievements, that is, if financial resources were invested in the most cost-effective manner and if results were satisfactorily achieved.

2.3. Outputs indicators

The outputs indicators are used to monitor the deliveries of a project, mainly serving to monitor its physical execution, such as accomplished works, trainings, realized research and area of recovered vegetation. The Amazon Fund also standardized these indicators to guarantee its consolidation across projects. Below are examples of outputs indicators included in the Amazon Fund Results Framework[9], which should be monitored by projects[10] when relevant:

- Processing units for family agriculture products implemented, expanded or revamped (number of processing units);

- Demonstrative units (of agroforestry systems, sustainable livestock, crop-livestock-forest integration) implemented (number of demonstrative units);

- Rural properties granted technical assistance (number of properties);

- Infrastructure for sustainable production and vegetation recovery (nurseries, seed houses, warehouses) implemented (number of units);

- Research on sustainable production (diagnostics, business plans, communications plans) elaborated (number of researches);

- Trainings on implementation and management of sustainable economic activities (number of people trained);

- Area recovered through completed actions with native species (planting, enrichment or densification) (hectares); etc.

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9 Results Table of the Amazon Fund: http://www.fundoamazonia.gov.br/pt/monitoramento-e-avaliacao/ [Portuguese only].

10 For other outputs indicators adopted by projects supported by the Amazon Fund see section 7 at the end of this document.

Other performance indicators are monitored, such as indicators which reflect the size and type of target audience benefiting from the projects, as well as the profile of employees working at the organizations responsible for implementing the projects (broken down by gender):

- Individuals directly benefited by the projects – in terms of sustainable production (total number of individuals);

- Women directly benefited by the projects – in terms of sustainable production (total number of women);

- Indigenous people directly benefited by the projects – in terms of sustainable production (total number of indigenous people);

- Employees working at the organization responsible for implementing the project (total number of employees);

- Women working at the organization responsible for implementing the project (total number of women);

- Employees who hold coordinating positions at the organization responsible for implementing the project (total number of coordinators);

- Women who hold coordinating positions at the organization responsible for implementing the project (total number of women coordinators).

03.

HOW TO REPORT EFFICIENCY AND EFFECTIVENESS
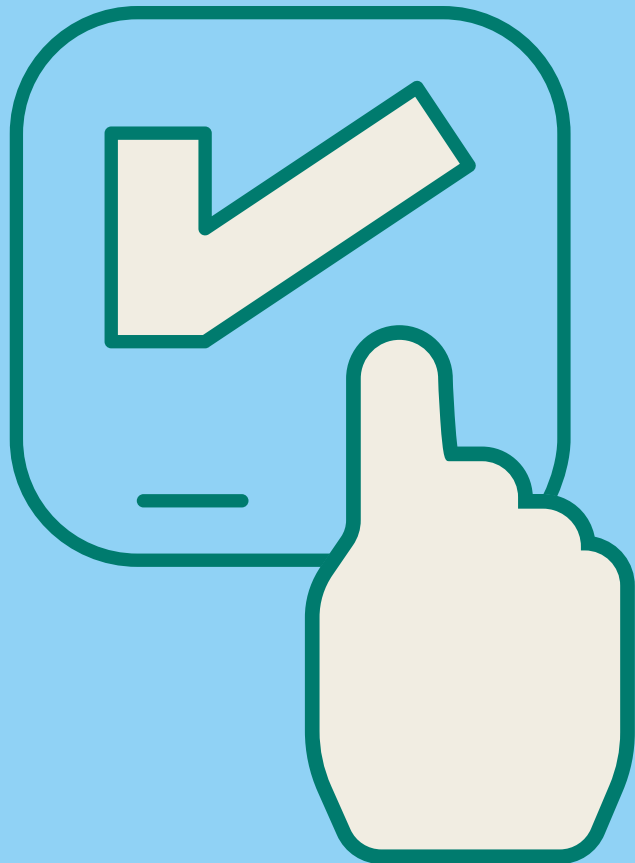
During the implementation of projects supported by the Amazon Fund, sending reports to the BNDES on the performance of the project's progress and reports on the evaluation of results at its end is a must.

Within the scope of these reports, some key elements are:

> •**Performance Reports**[11] address information such as the physical and financial evolution of the project, the relevant occurrences regarding the beneficiary, the fulfilment of the contractual obligations and the monitoring of results framework indicators, among others.
>
> • **Results Evaluation Report**[12] covers the entire period of project implementation, with the fundamental objective of consolidating information on the execution, the progress of efficiency and outcomes indicators (including a comparison between realized and expected values), the sustainability of results, the institutional and administrative aspects relating to its implementation, the knowledge generated and the lessons learned. It is also crucial to point out the factors (manageable or not) which contributed to the achievement of concrete results.

In summary, it is essential to report the changes obtained from the project interventions and how they relate to the expected results. It is also important to report if the changes arer positive or negative, direct or indirect, short or long term. To prepare a performance or results evaluation report, one should answer the following questions:

- What has been accomplished (in terms of products and services)?

- What has changed for the individual, the organization, the community, etc., with project interventions?

- What kind of evidence is available to demonstrate the relationship between project intervention and the changes obtained?

- Is the data collected to document the changes solid and reliable?

Verification of changes is not immediate. Due to the duration of a project (two to three years), it is occasionally impossible to document all its effects.
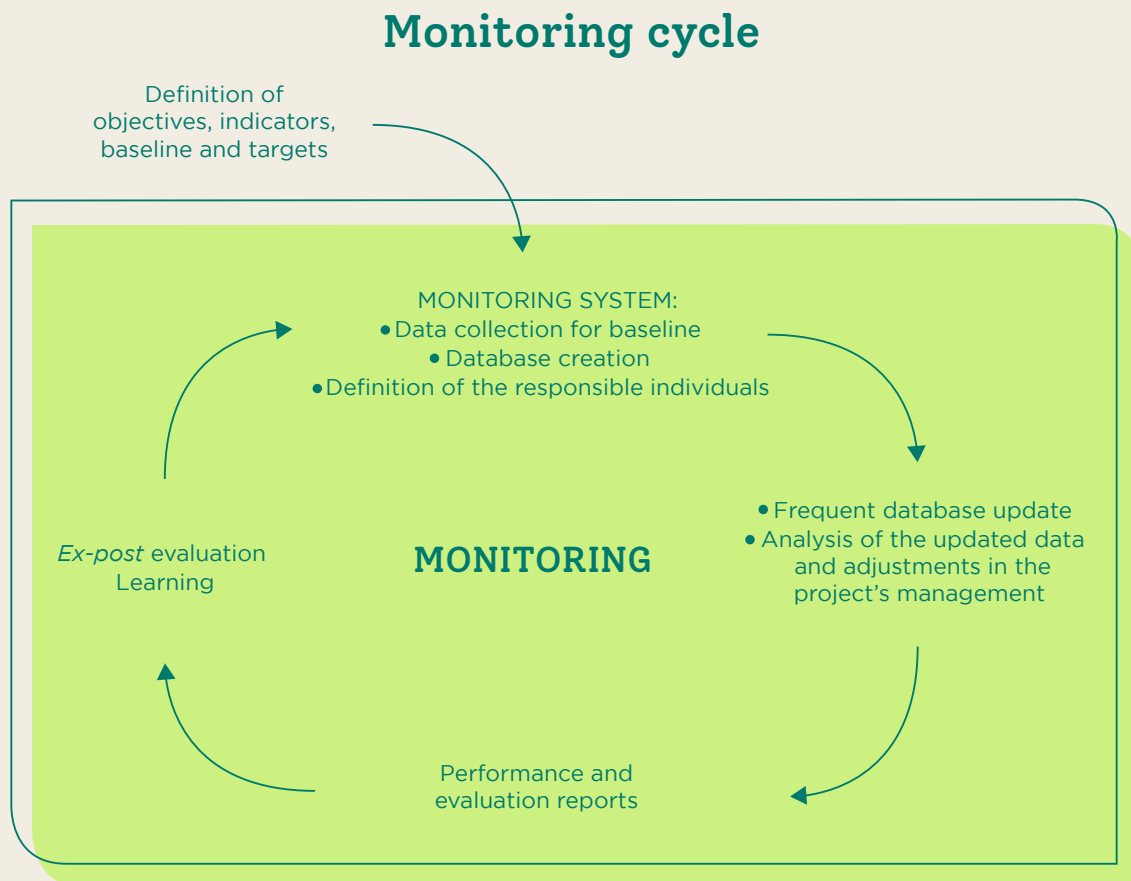
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[11] Available at: http://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/docs-apresentacao-projetos/Relatorio_de_Desempenho.doc [Portuguese ony]

[12] Available at: http://www.fundoamazonia.gov.br/export/sites/default/en/.galleries/documentos/monitoring-evaluation/Results-Assessment-Report.docx

Below is an example of a well-documented impact:

With the purchase of the processing and storage equipment and the trainings carried out, 200 extractivist personnel were trained to develop a higher production of açaí in terms of quality and quantity. A year after the trainings, surveys show that 80% of those trained applied the knowledge acquired and that revenue from the commercialization of açaí pulp increased by 40%, now reaching the state capital.

Having a well-documented impact requires the use of elements previously presented in this document (indicator, baseline and target), as well as a methodology to carry out data collection both at the start and during the execution of a project. The figure below shows a project's monitoring and evaluation cycle.

Monitoring cycle

Definition of objectives, indicators, baseline and targets

MONITORING SYSTEM:
- Data collection for baseline
- Database creation
- Definition of the responsible individuals

MONITORING

Ex-post evaluation Learning

- Frequent database update
- Analysis of the updated data and adjustments in the project's management

Performance and evaluation reports

Figure 5. Monitoring and Evaluation Cycle. Source: GIZ

04.

GUIDANCE SHEETS

The following guidance sheets present guidelines for data collection and measurement of the outcomes indicators as presented in section 2.2 of this document. The sheets are limited to collecting data for the set of indicators, and each project may have additional questions and indicators relevant to its own management and monitoring of outcome.

4.1. Guidance sheet: revenue (*in natura* and processed products or services)

Outcome 1.1 - Economic activities for the sustainable use of the forest and biodiversity are identified and developed

Outcome 1.2 - Production chains of agroforestry and biodiversity products with increased added value

Indicator A: annual revenue from sustainable economic activities – *in natura* products (in thousand R$)

Indicator B: annual revenue from sustainable economic activities – processed products or services (in thousand R$)

Definition and concepts	These indicators analyze the evolution of revenue obtained over the years through sustainable production and reflect the economic importance of the projects in their entirety. Revenue is the money resulting from the sale of goods or services, and it should not be confused with profit, that is, the difference between revenues and expenses.
	As for agglutinates, in the absence of records, the interviewer must support the individual responsible in coming up with controls for useful measurement and guide him/her in estimating the baselines (the revenue for the baseline year).
	In indicator A, all revenues from *in natura* products from sustainable production activities are considered. These are the amounts received from selling products which have not had any additional processing.
	Indicator B takes into account all revenues from **processed products** plus revenues from **services** from sustainable production activities (e.g. soap, oil, packaged nuts, handicrafts, accommodation fees, etc.), that is, natural products that had value added or resulted from the provision of services as an alternative for the preservation of ecosystems.

Unit of measurement	Real (BRL)
Target	The aim is to increase revenue attained from sustainable production by the project (or agglutinate), in relation to the defined baseline. Each project must define in its planning and results framework the baselines of these indicators and the targets that it intends to achieve.
Collection instrument	Data collection surveys applied to the project and to agglutinates, when appropriate. For agglutinates, development of a form is recommended to support of this activity.
Calculation of indicator	• Step 1: Identify the project's baseline (annual revenue immediately before the start of the project); • Step 2: Monitor, during the execution of the project actions, the annual revenue achieved yearly; and • Step 3: Calculate the revenue increase with project implementation. This calculation compares the annual revenue for a given year with the baseline revenue. This yearly increase (or reduction) when consolidated represents the increase (or reduction) in revenue resulting from the project.

In order to support monitoring of these two indicators, a spreadsheet that automatically calculates the annual revenue obtained from *in natura* and processed products or services was developed, as well as the corresponding increase in project revenue over the years of its execution[13].

4.2. Guidance sheet: managed forest area

Outcome 1.1 - Economic activities for the sustainable use of the forest and biodiversity are identified and developed

Outcome 1.2[14] - Production chains of agroforestry and biodiversity products with increased added value

Indicator: directly managed forest area (hectares)

Definition and concepts	This indicator analyzes the expansion of the area directly linked to the project's sustainable forest management activities, including logging and non-logging activities. This makes the monitoring of the progress of the total area managed over time possible and, thus, the measurement of the outcome of project efforts to stimulate and support forest management.
Unit of measurement	Hectare
Target	The aim is to increase the number of hectares of forest sustainably managed. Each project must define in its planning and results framework the baselines of this indicator and the target of the sustainably managed forest area that it intends to achieve. Baseline corresponds to the number of hectares of forest sustainably managed in the year before the start of project implementation.
Collection instrument	Data collection surveys applied to the project and to agglutinates, when appropriate.
Calculation of indicator	• Step 1: Add the forest areas sustainably managed in the year before the implementation of the project (baseline) and, when applicable, by the agglutinates too; and • Step 2: Monitor annually, throughout the implementation of the sustainable production actions by the project, the forest areas sustainably managed.

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14 The indicator "directly managed forest area" can also be used in projects that support processing of socio-biodiversity products when there is an increase in the managed forest area due to the increase in demand for these products caused by the project.

4.3. Guidance sheet: application of acquired knowledge

Outcome 1.3 - Management and technical capabilities expanded for the implementation of economic activities for the sustainable use of forests and biodiversity.

Indicator: Number of individuals trained to effectively practice sustainable economic activities using the knowledge acquired (total number of individuals)

Indicator: Number of individuals trained to effectively practice sustainable economic activities using the knowledge acquired - women (total number of women)

Indicator: Number of individuals trained to effectively practice sustainable economic activities using the knowledge acquired – indigenous people (total number of indigenous people)

Definition and concepts	These indicators analyze the effective use of the knowledge acquired from the trainings offered by the project, based on the identification of individuals who started to perform the functions or technical activities for which they were trained (which include forest management activities, processing of socio-biodiversity products, community tourism, management of productive community organizations, etc.). These indicators consider trainings aimed at: • Training for the exercise of management functions in community production organizations; • Developing skills or functions essential for the production process, that is, planting, collecting, drying, packaging, sales, quality control, marketing, logistics, storage, etc. **This indicator does not differentiate between formats of training (workshop, course, exchange, etc.) or the number of times that the same person participated in these events.** In addition to the indicator that measures the total number of trained individuals using the knowledge acquired, two additional indicators are monitored, which are similar to the first one, but broken down by gender and indigenous people. This disaggregation of data aims to monitor and promote awareness of equality between men and women and to measure support for indigenous people, since equal access and participation of these groups are expected from projects supported by the Amazon Fund.

Unit of measurement	Number of individuals
Target	The aim is to Increase the number of individuals who participated fully in at least one technical or functional training throughout the implementation of the project, and who in the previous year put into practice the techniques or functions for which they were trained.
Collection instrument	Surveys applied to the universe of individuals trained by the project.
Universe	Refers to the total number of individuals trained by the project. In cases where the number of trained individuals is vast, and there is significant difficulty in obtaining the information, a sample survey is an option **(see guidance sheet 4.6 on sample definition techniques).**
Calculation of indicator	• Step 1: Identify the total number of participants in trainings implemented by the project and the number of those who used the knowledge acquired (based on how many answered 'yes' to the questionnaire); • Step 1: Identify the total number of participants in trainings implemented and calculate the size of the sample; • Step 2: Identify the number of participants within the sample who used the knowledge acquired (how many answered 'yes' to the questionnaire) and divide by size of the sample; and • Step 3: Apply the resulting percentage to the total number of participants.

Guidelines

Recommendations for collecting data for these three indicators include:

A. Identifying the trainings carried out;

B. Preparing a list of the name and CPF (Brazilian Individual Taxpayer Registry) of each participant of the trainings;

C. Identifying the total number of participants, the number of women (including indigenous women) and the number of indigenous people (including indigenous women); and

D. Surveying how many trained people reported having used the knowledge acquired in the last year.

4.4. Guidance sheet: organizational development

Outcome - Management and technical capabilities expanded for the implementation of economic activities for the sustainable use of forests and biodiversity.
Indicator: Number of third sector organizations that have advanced in management and governance (total number of organizations)

Definition and concepts	This indicator aims to assess third sector organizations' evolution in governance and management capacity as a result of organizational strengthening actions supported by the project. Therefore, it is necessary to measure the capacity at the start of the project (baseline) using the same tools that will be used in the future. The level of management quality and the strength of governance will be assigned scores using a set of criteria on a predefined three-level scale.
Unit of measurement	Levels (Low, Medium and High)
Target	The aim is to improve the management quality of the community organization(s) by one level in relation to the baseline.
Collection instrument	Data collection surveys and verification of the respective documentation.
Universe	The organization responsible for the execution of the project or agglutinates supported by the project.

Calculation of indicator	Three levels of quality were defined according to a score resulting from the answers to 12 predefined variables:
	    1. Low (0-8, level 1);
	    2. Medium (9-17, level 2);
	    3. High (18-24, level 3).
	The 12 predefined variables are elaborated around questions that cover: planning, accountability and governance.
	Values attributed to each answer to the questions for variables 1 to 12:
	  • Negative response: No - 0 points
	  • Positive response: Yes - 2 points, or More than twice - 2 points
	  • Intermediate response: Partly - 1 point, or Once or twice - 1 point
	Calculation of the indicator:
	  • Sum of values attributed to each variable;
	  • Identification of current level;
	  • Comparison with the initial level of the organization (baseline);
	  • Reporting whether the organization has risen or not on the scale of levels.

Guidelines: Measuring the level of organizational development

A questionnaire was developed to measure the level of organizational development of third sector organizations. It is in the format of a spreadsheet, available on the Amazon Fund[15] website, which automatically calculates the level of organizational development. Alternatively, the following script can be followed. Questions demand Yes or No answers, except for items e, h, j and l, as stated below.

1. PLANNING

a. Is there a budget defined for the current year?

b. Is there an annual work plan with objectives, actions and responsible individuals defined?

c. Is there a plan or strategy defined for three or more years?

d. Are monitoring activities being carried out at least once a year to see if the planned activities are put into practice?

2. ACCOUNTABILITY

e. Are the financial and tax documents of the group or organization ordered and recorded? (Note: answer with Yes; No; or Partly)

f. Were the income and expenses records updated up to 2 months ago?

g. Is the organization currently free of commercial or labor debts that could prevent banking transactions or obtaining credit from banks or suppliers? Or free of debts that could blocked any asset from the organization in court?

h. Has the payment of suppliers and members or associates been made within the scheduled period? (Note: answer with Yes; No; or Partly)

i. Was the latest annual financial report delivered on time?

3. GOVERNANCE

j. Are the coordinating roles and instances clearly defined and written in any statute? (Note: answer with Yes; No; or Partly)

[15] See http://www.fundoamazonia.gov.br/pt/monitoramento-e-avaliacao/resultados-e-impactos/

k. Has there been any accountability actions presented by the organization to the cooperative or members in the last six months?

l. How often, in the last year, have meetings or assemblies involving all stakeholders been held in order to provide information and promote decision-making? (Note: answer with Didn't happen; Once or twice; or More than twice)

4.5. Guidance sheet: reforested or recovered areas

Outcome 1.4 - Recovery of deforested and degraded areas and used for economic and ecological conservation purposes.
Indicator: Area with recovered vegetation cover used for economic purposes (hectares)
Indicator: Area with recovered vegetation cover used for environmental conservation and environmental regularization – regeneration in progress (hectares)

Definition and concepts	These indicators aim to assess the recovery of deforested or degraded areas for environmental conservation or environmental regularization and areas recovered for economic purposes. The indicator "Area with recovered vegetation cover used for economic purposes" measures mainly deforested or degraded areas that have had vegetation recovery through agroforestry systems and which are currently productive.
Unit of measurement	Hectare
Target	The aim is to increase the number of hectares of recovered area for environmental conservation and environmental regularization with ongoing regeneration and recovered area for economic purposes.
Collection instrument	Data collection survey applied to the project.
Calculation of indicator	Sum all the areas recovered by the project and, when applicable, by the agglutinates.

4.6. Defining a sample size

When it is impossible to interview and observe all beneficiaries for data collection, then the use of a sample is a must. As probability sampling is based on statistical laws to facilitate the process of defining a sample size, it is possible to use sample size tables and calculators available on the internet[16]. After defining the sample size, people should be selected randomly for interview.

IMPORTANT: Suggestion for sample definition

With support of sample size calculators, it is possible to enter the total number of the target population (universe) and the program will show the sample size necessary to obtain reliable results, considering the margin of error and the confidence level.

Although scientific research usually uses a margin of error of 5% and a confidence level[17] of 95%, for monitoring purposes and taking into account the available resources, a margin of error of 10% and a confidence level of 90% are appropriate.

For example:

- For a population of 100 people, considering a margin of error of 5% and confidence level of 95%, a sample of 80 people is needed;
- For the same population of 100 people, considering a margin of error of 10% and confidence level of 90%, a sample of only 41 people is enough.

It is worth noting that the greater the population universe is, the smaller the percentage of the population needed for the sample.

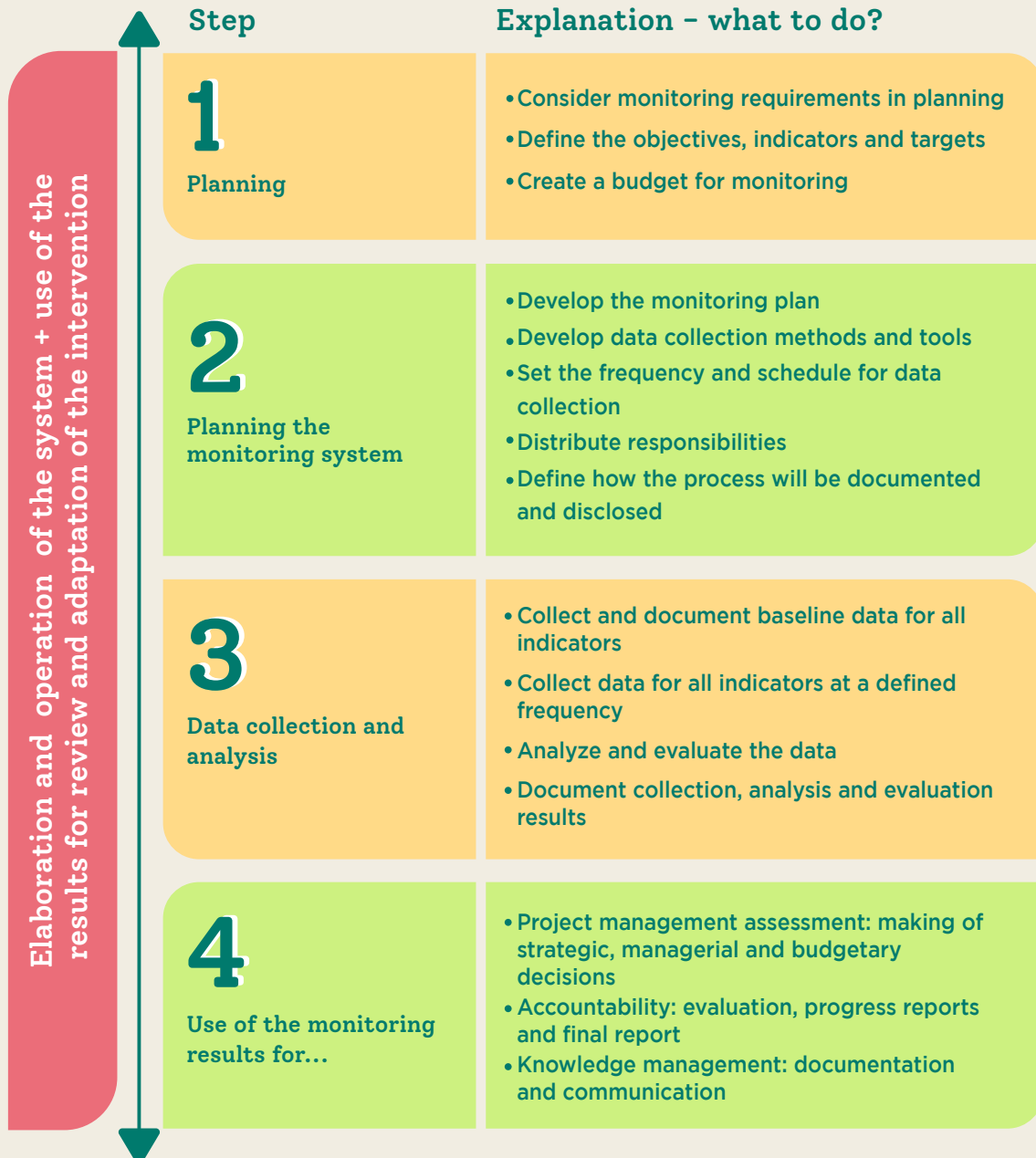**16** Sample calculator: https://en.surveymonkey.com/mp/sample-size-calculator/
17 The margin of error and the confidence level are statistics concepts that provide information about the reliability of the results of an analysis using samples.

05.

CONCLUSION
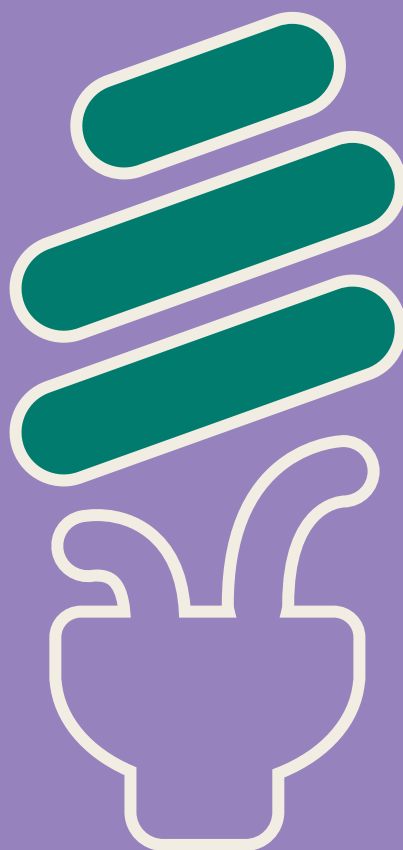
This guide presented steps for the elaboration and implementation of an impact monitoring plan for projects, as shown below:

Step	Explanation – what to do?
1 **Planning**	• Consider monitoring requirements in planning • Define the objectives, indicators and targets • Create a budget for monitoring
2 **Planning the monitoring system**	• Develop the monitoring plan • Develop data collection methods and tools • Set the frequency and schedule for data collection • Distribute responsibilities • Define how the process will be documented and disclosed
3 **Data collection and analysis**	• Collect and document baseline data for all indicators • Collect data for all indicators at a defined frequency • Analyze and evaluate the data • Document collection, analysis and evaluation results
4 **Use of the monitoring results for...**	• Project management assessment: making of strategic, managerial and budgetary decisions • Accountability: evaluation, progress reports and final report • Knowledge management: documentation and communication

Elaboration and operation of the system + use of the results for review and adaptation of the intervention

**Figure 6.** Steps on how to design and use a monitoring system.

This guide aims at qualifying the process of monitoring the results and impacts of sustainable production projects supported by the Amazon Fund, as well as improving accountability throughout its execution and its final report. The objective is also to standardize information, so as to facilitate comparison between data collected from different projects so as to allow for a regional analysis of the initiatives.

Based on this information, the Amazon Fund and its project executing partners will be able to clearly and convincingly communicate the results and impacts achieved by the projects to third parties and the general public.

This information will also serve as a reflection, on a regional scale, about what went well in the projects, so as to measure the extent to which the adopted strategies are contributing to the reduction of deforestation and the promotion of sustainable development.

06.

FURTHER
INFORMATION
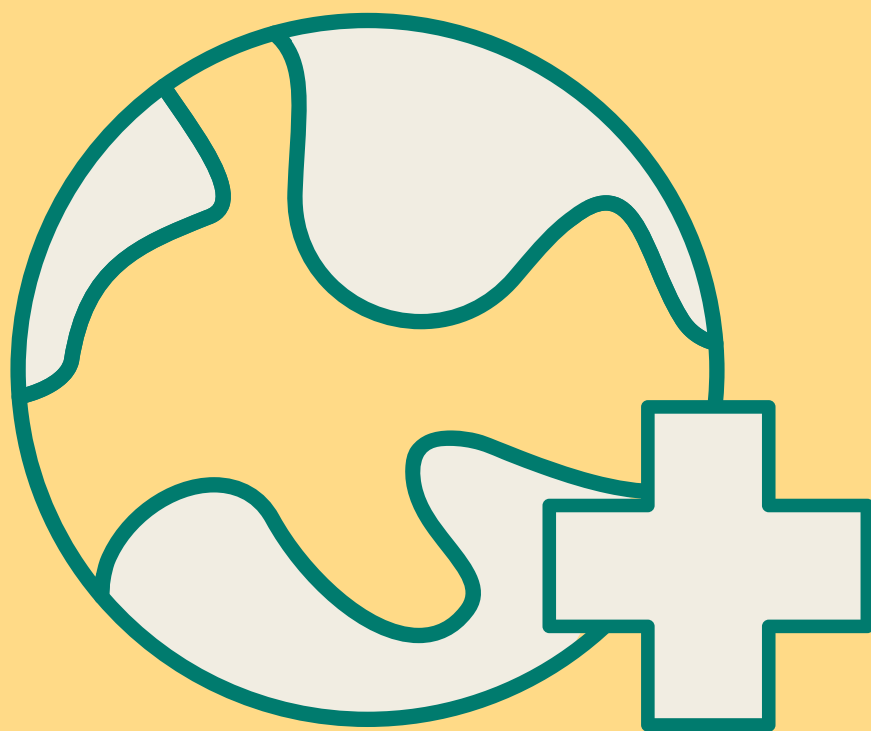
1. Data collection/data collection methods (interviews, focus groups, questionnaire)

The first link refers to brief explanations of various data collection methods (interviews, questionnaires, observation, etc.), while the second link refers to a definition of a focus group.

- Data Collection Methods: http://darleisimioni.blogspot.com/2010/09/metodos-de-coleta-de-dados.html [Portuguese only]

- Focus group: https://en.wikipedia.org/wiki/Focus_group

2. How to calculate sample size

The first link is a sample calculator and the second one refers to a website that explains how to calculate samples.

- Sample Calculator: https://www.surveymonkey.com/mp/sample-size-calculator/ https://comentto.com/calculadora-amostral/ [Portuguese only]

- Questionnaire sample size: https://surveymonkey.com/mp/sample-size

3. Elaboration of indicators

The link provides information on indicators and their elaboration.

- What are the indicators and how are they constructed in the impact assessment? http://guia.oitcinterfor.org/como-evaluar/como-se-construyen-indicadores [Spanish only])

4. Results-based management

The link provides explanations on the most relevant aspects of results-based management.

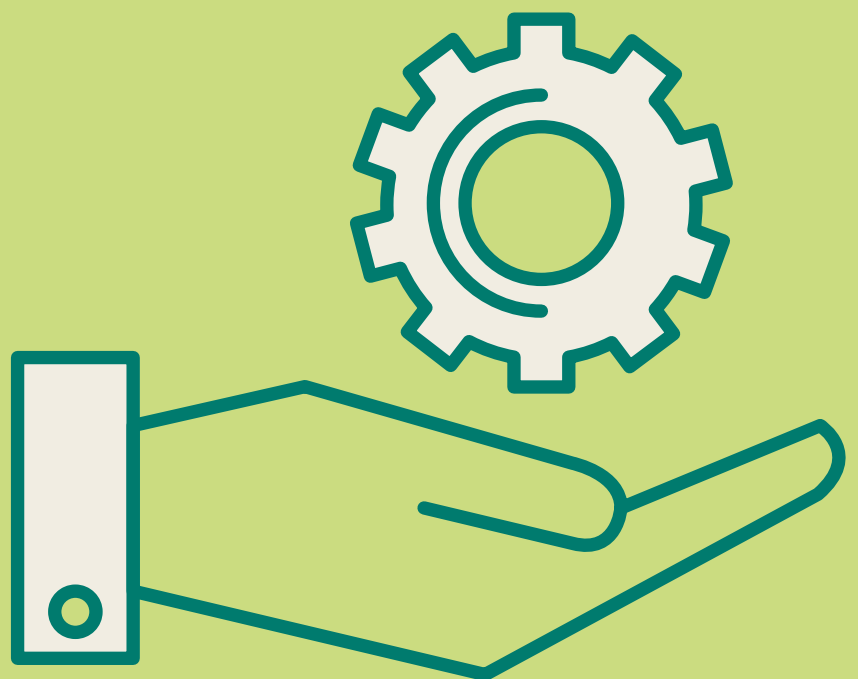- http://www.venki.com.br/blog/gestao-por-resultados/ [Portuguese only]

5. Monitoring and evaluation guides

The book linked below provides an example of a detailed guide prepared by the Ministry of Environment, with support from GIZ.

- Monitoring and evaluation of projects [Portuguese only] (pages 10-12): http://www.mma.gov.br/estruturas/168/_publicacao/168_publicacao30012009115158.pdf

07.

EXAMPLE OF A RESULTS FRAMEWORK FOR SUSTAINABLE PRODUCTION PROJECTS

AMAZON FUND RESULTS FRAMEWORK

Objectives (Outcome)	1.1 - Economic activities for the sustainable use of the forest and biodiversity are identified and developed	1.2 - Production chains of agroforestry and biodiversity products with increased added value	1.3 - Management and technical capabilities expanded for the implementation of economic activities for the sustainable use of forests and biodiversity	1.4 - Deforested and degraded areas recovered and used for economic and ecological conservation purposes
What is the amount of financing allocated to each objective?	thousand R$	thousand R$	thousand R$	thousand R$
How can the deliverables (outputs) of each objective be measured?	Rural properties with sustainable production projects implemented (number of properties)		Trainings on implementation and management of sustainable economic activities (number of people trained)	Area recovered through completed actions with native species (planting, enrichment or densification) (hectares)
	Rural properties granted technical assistance (number of properties)	Processing units for family agriculture products implemented, expanded or revamped (number of processing units)	Trainings on implementation and management of sustainable economic activities (number of women trained)	Area recovered through completed actions with native species (conduction of natural regeneration) (hectares)
	Demonstrative units (of agroforestry systems, sustainable livestock, crop-livestock-forest integration) implemented (number of demonstrative units)			Area recovered through completed actions with native species (agroforestry systems) (hectares)
	Infrastructure for sustainable production and vegetation recovery (nurseries, seed houses, warehouses) implemented (number of units)	Infrastructure for sustainable production and vegetation recovery (nurseries, seed houses, warehouses) implemented (number of units)	Trainings on implementation and management of sustainable economic activities (number of indigenous people trained)	Infrastructure for sustainable production and vegetation recovery (nurseries, seed houses, warehouses) implemented (number of units)
	Transport equipment for sustainable production (vessels, cars, trucks, tractors and motorcycles) purchased (number of equipment)	Transport equipment for sustainable production (vessels, cars, trucks, tractors and motorcycles) purchased (number of equipment)		Transport equipment for sustainable production (vessels, cars, trucks, tractors and motorcycles) purchased (number of equipment)
	Research on sustainable production (diagnostics, business plans, communications plans) elaborated (number of researches)	Research on sustainable production (diagnostics, business plans, communications plans) elaborated (number of researches		
	Small projects (up to R$150 thousand) supported by the agglutinating organization (number of projects)	Small projects (up to R$150 thousand) supported by the agglutinating organization (number of projects)	Small projects (up to R$150 thousand) supported by the agglutinating organization (number of projects)	Small projects (up to R$150 thousand) supported by the agglutinating organization (number of projects)
	Medium and large-sized projects (above R$150 thousand) supported by the agglutinating organization (number of projects)	Medium and large-sized projects (above R$150 thousand) supported by the agglutinating organization (number of projects)	Medium and large-sized projects (above R$150 thousand) supported by the agglutinating organization (number of projects)	Medium and large-sized projects (above R$150 thousand) supported by the agglutinating organization (number of projects)

Objectives (Outcome)	1.1 - Economic activities for the sustainable use of the forest and biodiversity are identified and developed	1.2 - Production chains of agroforestry and biodiversity products with increased added value	1.3 - Management and technical capabilities expanded for the implementation of economic activities for the sustainable use of forests and biodiversity	1.4 - Deforested and degraded areas recovered and used for economic and ecological conservation purposes
	Integrating events on sustainable production (seminars, workshops) held (number of the events)	Integrating events on sustainable production (seminars, workshops) held (number of the events)	Integrating events on sustainable production (seminars, workshops) held (number of the events)	Integrating events on sustainable production (seminars, workshops) held (number of the events)
	Pedagogical publications or media designs on sustainable production (number of publications)	Pedagogical publications or media designs on sustainable production (number of publications)	Pedagogical publications or media designs on sustainable production (number of publications)	Pedagogical publications or media designs on sustainable production (number of publications)
	Individuals directly benefited by the projects – in terms of sustainable production (total number of individuals)	Individuals directly benefited by the projects – in terms of sustainable production (total number of individuals)	Individuals directly benefited by the projects – in terms of sustainable production (total number of individuals)	Individuals directly benefited by the projects – in terms of sustainable production (total number of individuals)
	Women directly benefited by the projects – in terms of sustainable production (total number of women)	Women directly benefited by the projects – in terms of sustainable production (total number of women)	Women directly benefited by the projects – in terms of sustainable production (total number of women)	Women directly benefited by the projects – in terms of sustainable production (total number of women)
	Indigenous people directly benefited by the projects – in terms of sustainable production (total number of indigenous people)	Indigenous people directly benefited by the projects – in terms of sustainable production (total number of indigenous people)	Indigenous people directly benefited by the projects – in terms of sustainable production (total number of indigenous people)	Indigenous people directly benefited by the projects – in terms of sustainable production (total number of indigenous people)
	Institutions indirectly supported (agglutinates, public calls for partners) (number of institutions)	Institutions indirectly supported (agglutinates, public calls for partners) (number of institutions)	Institutions indirectly supported (agglutinates, public calls for partners) (number of institutions)	Institutions indirectly supported (agglutinates, public calls for partners) (number of institutions)
How can the expected effects (outcomes) from project deliverables be measured?	Annual revenue from sustainable economic activities – *in natura* products (in thousand R$)	Annual revenue from sustainable economic activities - processed products and services (in thousand R$)	Individuals trained to effectively practice sustainable economic activities using the knowledge acquired (total number of individuals)	Area with recovered vegetation cover used for economic purposes (hectares)
	Directly managed forest area (hectares)	Directly managed forest area (hectares)	Individuals trained to effectively practice sustainable economic activities using the knowledge acquired - women (total number of women)	Area with recovered vegetation cover used for environmental conservation and ecological regularization – regeneration in progress (hectares)
			Individuals trained to effectively practice sustainable economic activities using the knowledge acquired – indigenous people (total number of indigenous people)	
	Third sector organizations that have advanced in management and governance (number of organizations)	Third sector organizations that have advanced in management and governance (number of organizations)	Third sector organizations that have advanced in management and governance (number of organizations)	Third sector organizations that have advanced in management and governance (number of organizations)

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