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CLIMATE FINANCE MRV - PERU

Baseline Report Series

AP MRV

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MRV of Climate Finance– Baseline Report Series

This report is an output of the Technical Subgroup on MRV and Climate Change (SGT-MRV) of the Pacific Alliance (PA).

It is a component of the Coordinating Framework defined by the SGT-MRV country focal points to deliver on the Action Plan of the PA formal Working Group on Environment and Green Growth (GTMACV) to achieve the presidential mandate No. 16 of the Cali Declaration of the Pacific Alliance *(June 2017)*.

The analysis of the Monitoring, Reporting and Verification (MRV) of Climate Finance allows countries to understand the needs and gaps related with climate finance institutional infrastructure in the countries of the Pacific Alliance; through the evaluation of the state of development of these practices in each country, its governance, definitions, methodologies, protocols, regulatory instruments, technological platforms and initiatives already implemented (or in implementation) related to the register, reporting, monitoring and verification of climate finance information.

Baseline reports on the MRV of Climate Finance in Chile, Colombia, Mexico, and Peru were prepared by technical experts in each country. The reports contribute to the analysis and strengthening of the Climate MRV priorities in the PA countries.

For more information on any of the individual MRV of Climate Finance country reports, please contact the principal investigator or the SGT-MRV coordinator. Other relevant documents and virtual technical exchanges on MRV of Climate Finance can be found here.

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Acronyms

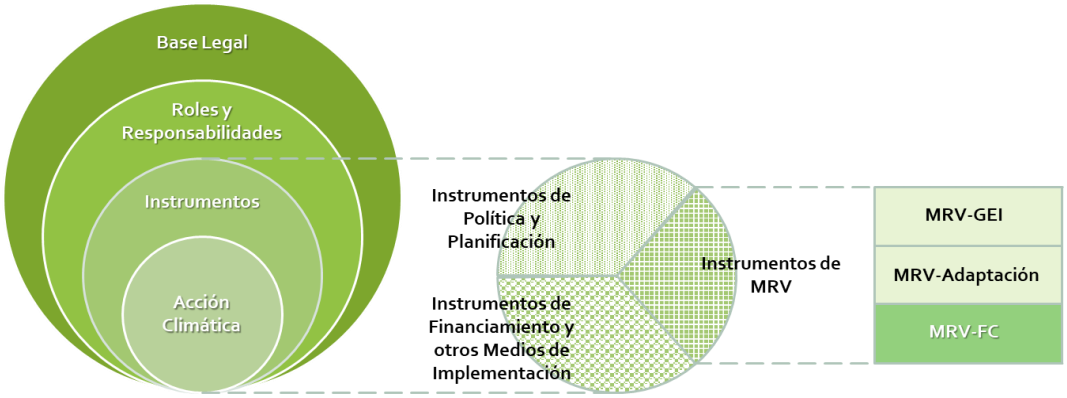
ANA	Peru's National Water Authority
CENEPRED	National Center for Disaster Risk Estimation, Prevention and Reduction
UNFCCC	United Nations Framework Convention on Climate Change
GEF	Global Environmental Facilitynsejo Nacional de Política Económica y Social
GCF	Departamento Nacional de Estadística
INAIGEM	National Research Institute for Glaciers and Mountain Ecosystems (Instituto Nacional de Investigación en Glaciares y Ecosistemas de Montaña)
INDECI	National Institute of Civil Defense (Instituto Nacional de Defensa Civil)
MEF	Ministry of Economy and Finance (Ministerio de Economía y Finanzas)
MIMP	Ministry of Women and Vulnerable Populations (Ministerio de la Mujer y Poblaciones Vulnerables)
MINAGRI	Ministry of Agriculture and Irrigation (Ministerio de Agricultura y Riego)
MINAM	Ministry of the Environment (Ministerio del Ambiente)
MINCUL	Ministry of Culture (Ministerio de Cultura)
MINSA	Ministry of Health (Ministerio de Salud)
MRE	Ministry of Foreign Relations (Ministerio de Relaciones Exteriores)
MRV	Measurement, Reporting and Verification
MRV-CF	MRV of Climate Finance
MVCS	Ministry of Housing, Construction and Sanitation (Ministerio de Vivienda, Construcción y Saneamiento)
NDC	Nationally Determined Contributions
OECD	Organisation for Economic Co-operation and Development (Organización para la Cooperación y el Desarrollo Económicos)
OECD-DAC	OECD Development Assistance Committee
PCM	Presidency of the Council of Ministers (Presidencia del Consejo de Ministros)
PRODUCE	Ministry of Production (Ministerio de la Producción)
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SENAMHI	Peru's National Service of Meteorology and Hydrology (Servicio Nacional de Meteorología e Hidrología del Perú)
SERFOR	National Forest and Wildlife Service (Servicio Nacional Forestal y de Fauna Silvestre
SERNANP	National Service of Natural Areas Protected by the State (Servicio Nacional de Áreas Naturales Protegidas por el Estado)

1. Executive Summary

Vulnerability to climate change and the need to adopt a decisive stance regarding mitigation and adaptation to climate change was evident in 2017 when Peru ranked fifth among the countries most affected by extreme weather events. To invest in climate action, it is necessary to attract growing finance flows, which implies two major challenges: (i) improving conditions to guarantee an efficient use of the existing public climate finance, and (ii) mobilizing additional financing to scale up climate action at the level required for compliance with the NDCs. A Climate Finance MRV system (MRV-CF) is critical to face these challenges successfully and to generate a positive dynamism in attracting increasing flows of financing, using it efficiently to mitigate and adapt to climate change and achieving the goals set by the country in the Paris Agreement.

The MRV-CF must be understood within Peru's institutional framework for climate action. As shown in the figure below, there is a chain within the institutional framework that starts from the legal basis (the rules issued over the years and that guide the actions of public and private actors), roles and responsibilities of the different actors in charge of designing climate action instruments. Among these, it is worth highlighting policy and planning instruments, financing and other implementation means, and MRV instruments.

Policy and planning instruments are key in the process because, based on policies and plans, public actors can access financing instruments and other means of implementation. Likewise, policy and planning instruments include monitoring and compliance indicators, which are included in the MRV instruments. Finally, one of the dimensions of the MRV-CF is monitoring the instruments used to determine its use and effectiveness.



Legal basis	Policy and planning instruments	MRV instruments	MRV-GHG
Roles and responsibilities			MRV-Adaptation
Instruments	Financing and other means of implementation		MRV-CF
Climate action			

There are three types of MRV instruments:

1) Measurement, reporting and verification of emissions, removals, emission reductions and increased GHG removals (MRV-GHG).
2) Monitoring and assessment of adaptation measures (MRV-Adaptation).
3) Monitoring and reporting of financing of adaptation and mitigation measures (MRV-CF).

The monitoring and reporting of climate finance makes it possible to track flows of public and private resources, international climate funds and international cooperation, which help implementing adaptation and mitigation measures.

For the development of the MRV-CF, MINAM has organized the work of gathering information sources in three blocks:

- Financing from public resources
- Financing from international cooperation
- Financing from private resources

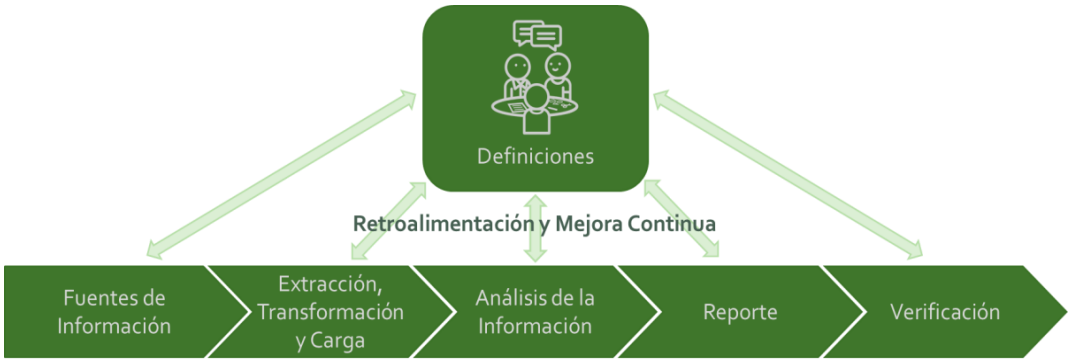
For the first block, **financing from public resources**, the Ministry of Economy and Finance has developed within its transparency website a window to consult expenditure on climate change adaptation and mitigation actions. The essential information comes from the Integrated Financial Administration System (SIAF), so it includes the entire accounting record of public spending and allows for a high refresh date. The main weakness of this consultation is that, when applied to a database that isn't related to a comprehensive management of climate change, it may lead to two types of errors: (i) displaying initiatives that do not correspond to climate finance; or (ii) leaving out projects that indeed correspond to climate finance. Furthermore, the matrix for linking SIAF accounts to climate change categories needs to be constantly updated and the information is organized based on dimensions that are

common to the financial administration of public accounts, but not to categories relevant to a comprehensive management of climate change.

Regarding **finance coming from international cooperation**, the MINAM relies on the Peruvian Agency for International Cooperation (APCI), which receives an Annual Statement regarding each intervention carried out in whole or in part by registered international cooperation entities. Although the information has an adequate level of detail, there are sources of international public financing that do not report to APCI, such as multilateral development banks and international climate funds. In these cases, it would be necessary to build an additional data repository with information that could be obtained by direct consultation or with collaboration between MINAM and MEF. Finally, in terms of **financing from private resources**, progress is very limited.

In Peru, reporting has been limited to the biennial update reports and the third national communication, developed specifically for these purposes and not as products of an information system. Regarding verification, verification procedures are conducted in the application of public funds to defined products, based on general control rules of the public administration. However, these do not include a differentiation for actions related to climate change. Also, sources of international cooperation or multilateral development banks carry out their own evaluations of projects that include verification of financing flows (which may lead to methodological differences between sources and adopting the funder's perspective); also, usually these verifications are confidential and for the exclusive use of the organization conducting them. Finally, reporting limitations previously described and the fact that other MRVs (MRV-GHG and MRV-Adaptation) are also under construction prevents further scrutiny by stakeholders or an evaluation of the effectiveness of the climate finance.

An MRV-CF system can have different objectives depending on the perspective adopted: the perspective of finance providers, that of entities receiving the support or the perspective of climate action stakeholders. Therefore, it will have to combine the different objectives, promoting an analysis of climate finance reality to meet, as far as possible, the different needs. At a conceptual level, a MRV-CF process consisting of six components is proposed, as shown in the next Figure.



Definitions

Definitions				
Feedback and continuous improvement				
Sources of information	Data extraction, transformation and uploading	Information analysis	Report	Verification

For each component, challenges are presented at methodological, institutional, technological and communication levels. These challenges are summarized in the matrix included on the following page. Based on these challenges, it is possible to propose some guidelines for designing the system.

- The MRV is an information management process that goes beyond tracking and reporting, it must be articulated with other MRVs and with a comprehensive management of climate change. It is not an end in itself.
- The complexity of climate finance calls for an MRV-CF that provides transparency and accountability.
- An MRV-CF will be a system in constant evolution that must be built considering the limitations in information availability and the definitions adopted at international level, and taking advantage of existing systems whose original purpose may have been different.
- The development and evolution of the MRV-CF system requires a qualified human team with permanent dedication to the system's own tasks and coordination with other stakeholders.

- The development of the MRV-CF must be seen as a process of continuous and incremental improvement, where all challenges cannot be addressed at the same time.
- The sustainability of the MRV-CF poses methodological, technological, financial and communication challenges.

Based on these guidelines, recommendations are formulated and grouped into general recommendations and specific recommendations by component of the conceptual model outlined above.

General recommendations are as follows:

- Have a dedicated human team to promote the MRV-CF. The team must combine Finance, IT, Communications and Climate Change Economics profiles.
- Set effective institutional arrangements to build the MRV-CF, attracting representatives from different stakeholders.
- Invest in technical capacity to build the system.
- Ensure the availability of financial resources to sustain the implementation of the MRV-CF in various key actors.

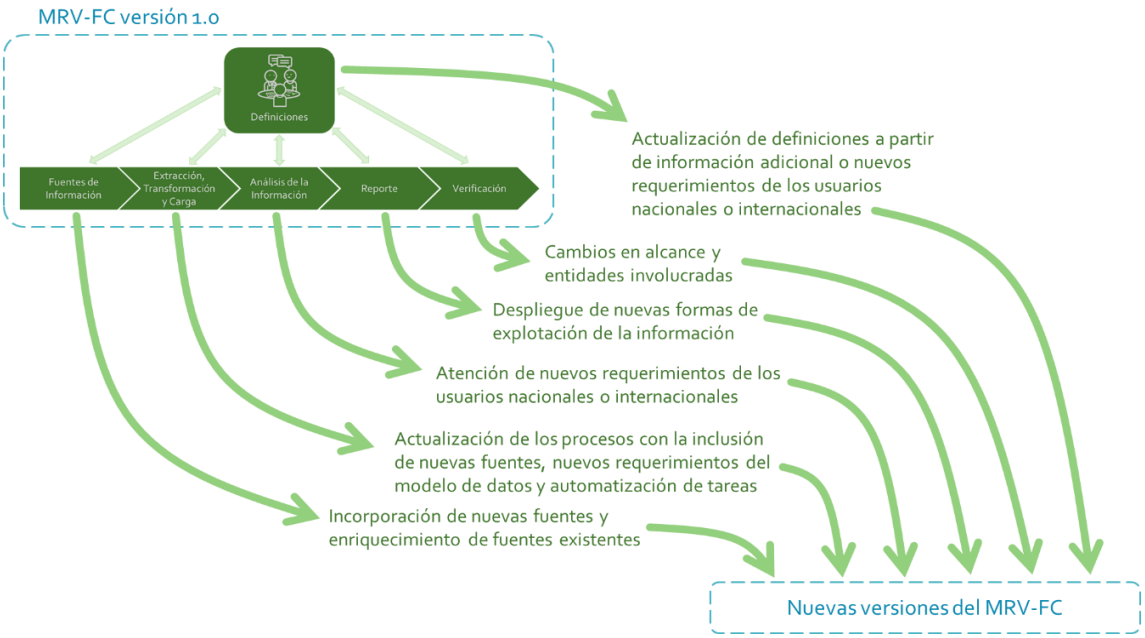
	Definition	Information sources
Methodology	• What financing is defined as "climate finance?" • How the concept of "new and additional" is applied? • How is the definition of climate finance transferred to the private sector? • To facilitate dialogue between the different stakeholders, establishing a taxonomy of the activities that would be considered climate finance is recommended.	• Identification of information sources intended to cover the different sources of funding, administration mechanisms and use of the funds considered within the definition of climate finance. • Detailed data on private flows is dispersed in different information systems, some of which are managed by commercial data providers, while others are confidential.
Institutional structure	• The definitions guiding the MRV-CF should be taken in a collegiate body that brings together representatives from different sectors of the government, the private sector and the civil society. • Definitions must be reflected in standards and methodological guides to facilitate their application.	• Permanent access to the sources of information identified for tracking climate finance will require institutional arrangements, such as: – Agreements between different institutions. – Rules for requesting information from regulated companies. – Eventually, creating incentives to encourage participation should be considered.
Technology	• Technological capabilities must be taken into consideration to keep definitions within the scope of what can	• Systems interoperability. • Definition of a protocol and format of delivery of the information.

	be implemented with the existing resources.	
Communication	• Participation of relevant actors in the definitions should be encouraged to facilitate their subsequent buy-in of the system and the information obtained thereof for their own decision-making.	• A communication strategy with the sources of information that contributes to their involvement and buy-in of the process should be considered. It is critical that data providers are allies to maintain and validate the quality of the information, as well as to propose improvements regarding how information is displayed and used.

	Data extraction, transformation and uploading	Information analysis
Methodology	• Procedures for obtaining information. • Procedures for filtering and transforming information. • Quality control and validation procedures.	• Expressing financing information in comparable units. • Granularity of the data so that it is possible to handle information at the level of different analysis dimensions, such as: – Distinction between disbursed and committed funds.
Institutional structure	• The procedures defined from the methodological point of view must be documented, establishing roles and responsibilities. • The criteria to include and exclude data must be documented and published. • The procedures must be auditable.	• The procedures defined from the methodological point of view must be documented, establishing roles and responsibilities. • The procedures must be auditable.
Technology	• Activities of data extraction, transformation and uploading must be conducted with a previously defined periodicity. • As far as possible, tools and algorithms should be developed to execute the different tasks automatically, in order to avoid human errors in handling the data. • Incorporate elements that favor traceability from the source of the data to the MRV-CF system.	• Selection of the technological platform. • Construction of the data model and its security structure. • The traceability of the data to its original system must be preserved, differentiating the information that has been generated from the analysis of the original data.
Communication	• The buy-in of the system's outcomes depends to a great extent on the transparency in the criteria used and the traceability of the data to the original sources of information.	• Ensure that relevant stakeholders adopt the definitions to facilitate their buy-in. Likewise, in MRV-CF system's evolution, users' requirements are expected to drive the incorporation of new analysis dimensions.

	Reporting	Verification
Methodology	• Criteria for presenting the information: – Who has the obligation to report? – What data should be reported and how should it be broken down? – What channels should be used for reporting? • Design of periodic reports and other viewing options.	• Identification of tangible results of the financed actions • Reports' review levels • Participation of independent evaluators • Calculation of co-benefits beyond climate action • Dissemination of verification reports • Cost benefit analysis
Institutional structure	• The reporting procedures must be documented, establishing roles and responsibilities.	• Verification requires access to detailed information from climate finance providers, which goes beyond normal information gathering procedures and calls for ad hoc agreements.
Technology	• Implementation of reporting tools. • Definition of user profiles and access privileges of the different profiles.	• The data model requires layers of information expressed in units other than those of climate finance.
Communication	• Disseminate the system's reporting capabilities for the different user profiles, so that a significant use of the reports is achieved for decision-making and feedback is received on how useful reports are.	• Design a strategy for disseminating verified results to strengthen the system.

The specific recommendations are based on the fact that the MRV-CF is a process in constant evolution at the level of the different components, as summarized in the figure below.



MRV-CF version 1.0	**Updating definitions based on additional information or new requirements from national or international users**	**New versions of the MRV-CF**
	Changes in scope and entities involved	
	Deployment of new forms of exploiting information	
	Addressing new requirements of national and international users	
	Process update by including new sources, new requirements of the data model and task automation	
	Incorporation of new sources and enrichment of existing sources	

2. Introduction

According to the Global Climate Risk Index, Peru was the fifth country most affected by extreme weather events worldwide in 2017, reporting losses for over USD 6.2 billion (Eckstein, Hutfils, & Winges, 2018). This result corroborates the country's vulnerability to climate change and the need to adopt a decisive stance regarding mitigation and adaptation to climate change.

Peruvian regulations do not establish an exact definition of what is understood by climate finance, referring essentially to resource flows targeted to mitigation and/or adaptation actions (that is, the definition is guided by the use of the financial resources). With a similar logic, a study sponsored by the World Bank estimated climate finance in Peru (from national and international public resources) at close to USD 900 million in 2016, showing a growing trend in recent years. However, these resources are scarce when compared to the required investment to fulfill the NDC commitments of more than USD 4.8 billion per year (Caballero, Ruiz, & Ramos, 2019).

The reality of a country that needs to invest in climate action and that requires attracting increasing flows of financing for this purpose poses two major challenges: (i) improving conditions to ensure efficient use of existing public climate financing, and (ii) mobilizing additional finance to scale climate action to the level required for NDC compliance. A Climate Finance MRV system (MRV-CF) is essential to successfully face both challenges:

- Disseminate information on existing sources of financing for projects that contribute to climate action. This can help to make projects “greener” so that they find a way to access financing sources.
- Identify the use of resources and, therefore, detect gaps and opportunities for improvement.
- Help building a relationship of trust between the providers of financial resources and the recipients, favoring a long-term relationship and a permanent flow of resources.
- Provide civil society with tools to supervise and oversee authorities’ performance and its effectiveness in the use of financing.
- Help funders find ways to leverage additional resources, increasing the scale of interventions.
- Provide feedback to policy makers on the flow of resources towards climate action for strategic decision-making on the allocation of public resources, avoiding duplications in some sectors or omissions in others.

- Contribute to the international discussion on the effectiveness of global climate action and the availability of implementation instruments for the most vulnerable countries.
- Evaluate that resources have been used in accordance with the priorities of social and economic development.

An OECD-commissioned survey to support organizations, providers and recipients of climate finance concluded that preconditions for climate finance effectiveness include the existence of national systems for monitoring flows of climate finance and results (Zou & Ockenden, 2016). This consensus regarding the importance of MRV-CF at global level and the reasons given for the Peruvian case motivate the present study of current conditions and recommendations for the development of said system in Peru.

3. Institutional structure for climate action in Peru

3.1. General Considerations

This section will review the main elements of an institutional framework for climate action in Peru and how the MRV of Climate Finance fits into it. Figure 1 represents this relationship schematically.

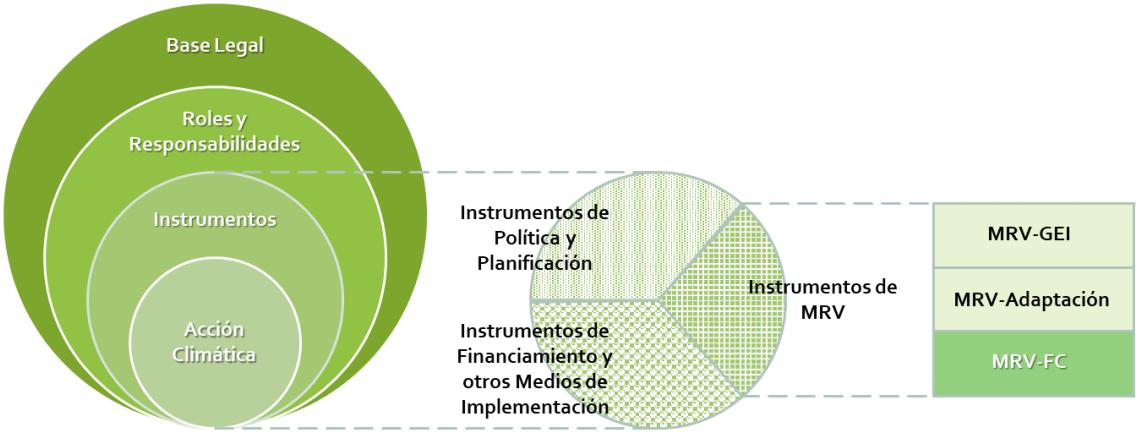


Figure 1. MRV-CF within the Institutional Structure for Climate Action in Peru

Legal basis	Policy and planning instruments	MRV instruments	MRV-GHG
Roles and responsibilities			MRV-Adaptation
Instruments	Financing and other means of implementation		MRV-CF

The legal basis is made up of the standards issued over the years that guide the action of public and private actors. Appendix 1 describes the most important standards. This regulatory structure supports the institutional framework for climate action in Peru, at the level of assignation of roles and responsibilities, policy and planning instruments, financial instruments and MRV instruments.

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The ministries are competent in the sectors and areas prioritized in the NDCs they lead (MINAGRI, PRODUCE, MINSA, MINAM and MVCS) or contribute to with cross-cutting policies to all sectoral actions that enrich climate change management (PCM, MRE, MEF, MINCUL and MIMP).

Regional and local governments promote, coordinate, articulate, implement, monitor and evaluate the comprehensive management of climate change in their jurisdictions.

Additionally, the Framework Law on Climate Change establishes two commissions: the **National Commission on Climate Change (CNCC) and the High Level Commission on Climate Change (CANCC)** as coordination instances between the different actors. Both commissions have not yet been regulated[1], but the Ministry of the Environment has pre-published draft regulations for both. The CNCC is chaired by MINAM and brings together representatives of the government, civil society and the private sector to monitor public policies related to climate change. In turn, the CANCC will be chaired by the PCM and will bring together representatives of the central and sub-national governments to formulate and update the country's NDCs.

Once the roles and responsibilities have been assigned, the multi-sector nature of climate action forces the development of policy and planning instruments that facilitate coordinated action by the different actors, beyond the agreements that may be taken in the aforementioned multi-sector commissions. . The main policy and planning instruments are presented in Appendix 3**¡Error! No se encuentra el origen de la referencia.**. In addition to the National Strategy for Climate Change and the Regional Strategies for Climate Change, a relevant development has been the inclusion of the Climate Finance Strategy and the Platform for monitoring the

[1] Although the National Commission on Climate Change was created in 1993 and underwent a modification in 2013, it would require an adaptation of its Regulations based on the Framework Law on Climate Change.

implementation of NDC for climate change adaptation, mitigation and finance in the 2019-2030 National Plan for Competitiveness and Productivity.

The existence of these instruments is important to facilitate public resources that can finance various activities. To the extent that there is legal basis, actions are proposed within the competences of a government entity and this action is aligned with the plans or policies approved for it, the process of requesting resources from the public budget or formulating public investment projects will be easier.

3.2. Climate finance instruments

Climate finance instruments are the modalities through which financial resources are channeled towards activities and projects aimed at climate change mitigation or adaption. Depending on the origin of the financial resources that are mobilized, they can be instruments of national public financing, international public financing or private financing.

The instruments involving national public financing include:

- **Budget Programs.** These are units for planning the actions of public entities, which are integrated and articulated to provide products (goods and services) to achieve a Specific Result in favor of the population and thus contribute to achieve a Final Result associated with a public policy target. It is an instrument that follows the logic of Budgeting for Results.
- **Public Investment Programs and Projects.** Time-limited interventions that use all or part of public resources, in order to create, expand, improve, modernize or recover the productive capacity of goods or services. Benefits are generated during the life of a project and are independent from those of other initiatives. These can incorporate adaptation and/or mitigation measures in accordance with the current regulations of the National Public Budget System and the National System of Multi-Year Programming and Investment Management, respectively.
- **Public-private partnerships.** Modality of participation of private investment, in which the risks of the project are distributed and resources are allocated, preferably from the private sector, for the implementation of projects in which optimum Service Levels are guaranteed for users. These are implemented through long-term contracts, in which the ownership of the investments developed can be maintained, reversed or transferred to the State, depending on the nature and scope of the project and the provisions of the particular contract. They may

include adaptation and/or mitigation measures, if applicable, according to the nature, scope and duration of the project, in accordance with the sector regulations and the instruments for the comprehensive management of climate change.

- Other instruments linked to the closing of social gaps, productive development or infrastructure financing

National public finance instruments supplement financing from international climate funds, international cooperation and private sources.

The architecture of international public financing is presented schematically in Figure 2 The funds originate from the governments of developed countries that make contributions to different intermediaries (bilateral institutions, multilateral institutions, regional funds or national funds), which finally reach the implementing units of the activities, projects and programs for climate change mitigation and/or adaptation.

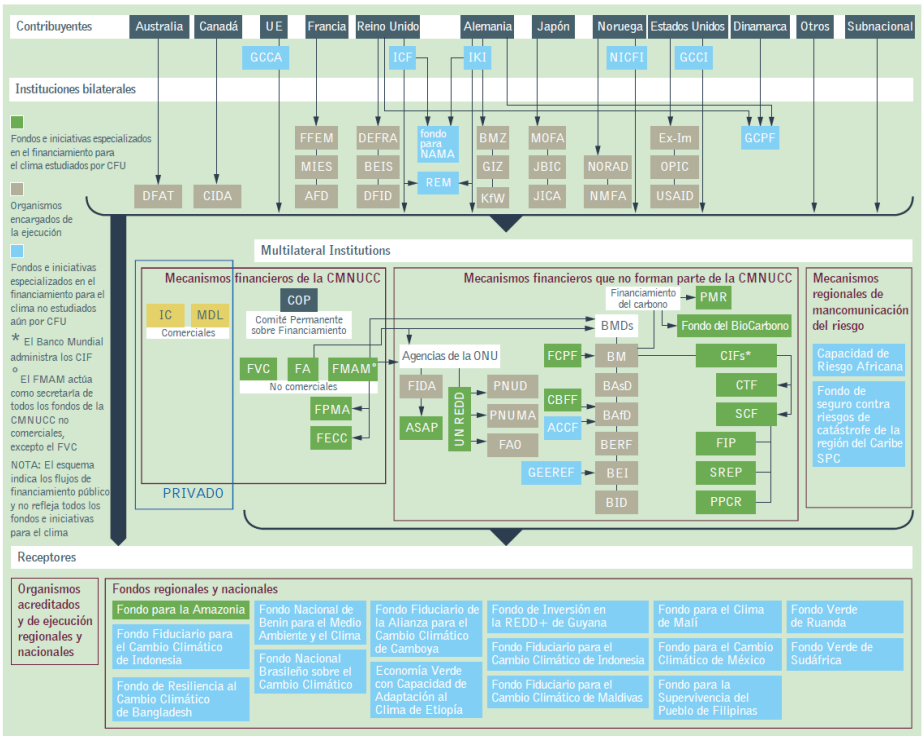
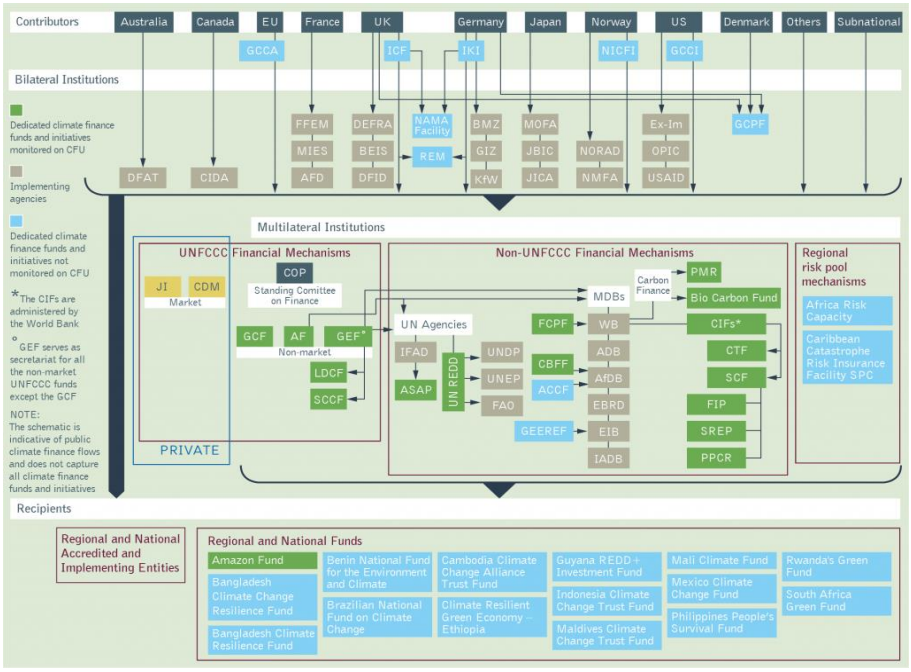


Figure 2. International climate finance architecture (1). Source: Watson & Schalatek (2019)



International climate finance architectura (2). Source: Watson & Schaltek (2019)

Finance from private sources is more difficult to map to the extent that, unlike international public financing, there are no reporting requirements for them within the UNFCCC. In this sense, the information available at the international level focuses on private investment in renewable energy and low-carbon transportation projects (CPI, 2019). Most private investment still comes from direct investment by companies, but commercial financial institutions and institutional investors have increased their participation in project financing as the renewable energy market is perceived to be reaching greater maturity, the perception of risk diminishes and the industry's regulatory and voluntary initiatives to switch finances towards sustainable activities begin to have an impact. Finally, households have increased their climate-related consumption as a consequence of greater awareness and more widespread availability of sustainable energy and transport alternatives. In the case of Latin America and the Caribbean, the share of private finance versus public is still a minority (CPI, 2019).

The instruments used vary between donations, bonds, concessional loans, loans at market rates[2], companies' own resources and guarantees. There is an increasing use of blended finance structures, where different instruments are combined to

[2] Loans (concessional or at market rates) can be destined to the direct financing of mitigation or adaptation projects or through the balance sheet of the companies that invest in the projects.

attract capital providers with different risk and return profiles so that a greater volume of financial resources can be accessed.

3.3. Measurement, Reporting and Verification Instruments

The Regulation of the Framework Law on Climate Change provides for the creation of the System for Monitoring the Adaptation and Mitigation Measures and designates MINAM as responsible for its design, conduction and administration. The purpose of this system is to track and report on the level of progress in the implementation of adaptation and mitigation measures, their financing, and access to payments for results, transfers of GHG emission reduction units and monitoring of NDCs.

The system has the following components:

1) Measurement, reporting and verification of emissions, removals, emission reductions and increase of GHG removals (MRV-GHG).
2) Monitoring and evaluation of adaptation measures (MRV-Adaptation).
3) Monitoring and reporting of financing of adaptation and mitigation measures (MRV-CF).

The principles guiding the MRV are applied progressively within the framework of continuous improvement, in accordance with the guidelines established by the IPCC and the Paris Agreement. In the case of MRV-CF, these principles are expressed as follows:

1) Transparency: The use of information and methodologies are communicated with clarity and relevance for decision-making, seeking a reasonable level of confidence.
2) Accuracy: Reduce bias and uncertainty as far as possible and progressively.
3) Exhaustiveness: Consider all relevant categories of sources of climate finance, fund management mechanisms, financial instruments and application of financing, among other relevant categories for decision-making.
4) Comparability: The information is comparable at national level and contributes to the international collective evaluation.
5) Coherence: The information reported is consistent over time. To the extent possible, the same methodologies and sources of information are used. In case of adoption of new methodologies or incorporation of new sources of information, these should be communicated transparently and, as far as possible, reporting the equivalences between the two scenarios.

6) Avoid double accounting: Financial resources must be accounted only once.
7) Relevance: Select the appropriate data and methodologies to collect the information related to climate finance.

The monitoring and reporting of climate finance allows tracking the flows of public and private resources, international climate funds and international cooperation, which helps implementing adaptation and mitigation measures.

MINAM periodically collects, systematizes and communicates to the UNFCCC and to the relevant national bodies, information on the flows of public and private resources, international climate funds and international cooperation, which contribute to a comprehensive management of climate change and the implementation of adaptation and mitigation measures.

4. Situation of MRV-CF in Peru

This section describes the level of progress of an MRV-CF in Peru. First, a brief review will be made of the initial measurements of climate finance in Peru, considering the information sent to the UNFCCC. The second part of this section will present the progress observed in the collection and exploitation of information related to the financing of climate action in Peru.

4.1. Initial measurements of climate finance in Peru

Despite the importance given to climate finance in all policy instruments developed in Peru in relation to climate change, the first two national communications to the UNFCCC did not include a quantification of the amounts of financing received by Peru for climate change mitigation and/or adaptation. In this sense, quantification of financing was linked to measurements of public environmental spending in general, which showed climate change as an item of little importance.

It was only in the First Biennial Update Report (2014) that a section was included with a detailed list of projects in which financial support had been received from international cooperation and multilateral entities. That basis was largely built within the framework of the project 'Current Status of Climate Finance in Peru' (Estado Actual del Financiamiento Climático en el Perú) carried out by Elsa Galarza and José Luis Ruiz and whose final report was delivered in 2015. In this work, for the first time, a taxonomy of mitigation, adaptation and cross-cutting projects was proposed,

and financing from international cooperation, multilateral entities and the public budget was tracked, covering the 2005-2013 period.

The detail of the aforementioned report allowed feeding the Third National Communication to the UNFCCC (2016), which includes a finance chapter with a detailed breakdown of the nature of financing considering sources, sector destination, types of instruments, etc.

Subsequently, the Second Biennial Update Report (2019) presented a compilation of the projects financed by international cooperation and which were implemented in 2014-2016. The quantification was based on publicly available information provided by the Peruvian Agency for International Cooperation and the Ministry of the Environment.

4.2. MRV-CF Progress

For developing the MRV-CF, MINAM has organized the task of gathering information sources into three blocks:

- Financing from public resources
- Financing from international cooperation
- Financing from private resources

In the first of the blocks, **financing from public resources**, the Ministry of Economy and Finance developed within its Economic Transparency portal a Consultation of Expenses of Climate Change Adaptation and Mitigation (see **¡Error! No se encuentra el origen de la referencia.**). This consultation allows access to daily updated information on expenditures that have been categorized as linked to climate change and access to different dimensions of analysis such as the level of government, the budget category, the source of financing and the geographical area where the expenditure was made. The information can be downloaded in Excel format.

Figure 3 Consultation of expenses of adaptation and mitigation to Climate Change

¿Quién gasta? [Who spends?] / Nivel de gobierno [Government level]
¿En qué se gasta? [What is it spent on?] / Categoría presupuestal [Budget category] / Función [function]
¿Con qué se financian los gastos? [How is the expenditure financed?] / Fuente [Source] / Rubro [Sector]
¿Cómo se estructura el gasto? [How is the expenditure structured?] / Genérica [Generic]
¿Dónde se gasta? [Where is it spent?] / Departamento [Department]
¿Cuándo se hizo el gasto? [When was the expenditure made?] / Trimestre [Quarter] / Mes [Month]
Ejecución años 2014 al 2019 [Implementation 2014-2019]
PIA
PIM
Certificación [Certification]
Compromiso anual [Annual commitment]
Ejecución [Implementation]
Atención de compromiso mensual [Monthly commitment attention]
Devengado [Accrual]
Girado [Drawn]
Avance % [Progress %]
Notas: [Notes]
Los montos están en soles [The amounts are expressed in Peruvian soles]
La columna Avance % representa la razón del Devengado entre el PIM, expresado en porcentajes [The progress % column represents the Accrual-PIM ratio, expressed as a percentage]
La información se actualiza diariamente. Última actualización: 24 de mayo del 2020 [The information is updated on a daily basis. Last update: May 24, 2020]

Source: http://apps5.mineco.gob.pe/cambioclimatico/Navegador/default.aspx

The main strength of this consultation is that the basic information comes from the Integrated System of Financial Administration (SIAF). The SIAF is a Budget Execution System that controls the registry carried out by all the spending and

investment implementing units at national level. In this sense, it includes the entire accounting record of public spending and allows for a high updating frequency.

The consultation draws on a matrix that established an identification of the existing accounts in the SIAF in 2018 and related them to climate change mitigation, climate change adaptation or cross-cutting. A distinction is also made between direct and indirect attribution.[3]

The weakness of this consultation is that, when applied to a database whose purpose is not linked to the comprehensive management of climate change, it may lead to two types of errors: (i) displaying initiatives that do not correspond to climate finance; or (ii) leaving out projects that indeed correspond to climate finance.

In the first case, it is worth mentioning that the consultation links the expenses related to combating metaxenic diseases and zoonoses to climate change adaptation. Although one of the causes of the increase in some metabolic diseases is climate change, the vast majority of them have been endemic in Peru for decades, so it is difficult to attribute all of these costs to climate change adaptation. Another example is seen with wastewater treatment plants.

The second type of error is probably the one that is most noticeably occurring. The description of the accounts is too generic and does not refer to a product or target of the activity. The list of activities included is relatively small: 23 mitigation activities and 36 adaptation activities. This means that projects related to climate change management would not be appearing.

Another weakness of the consultation is that the matrix for linking the SIAF accounts to the climate change categories was built with the financial accounts available in 2018. Therefore, the consultation that can be reviewed today does not include accounts created after that date. This will cause the matrix to lose relevance as time goes by if an update routine is not incorporated.

Finally, the structure of the consultation allows information to be filtered on the basis of dimensions common to the financial administration of public accounts, but not on categories relevant to the integrated management of climate change, such as links to a sector, thematic area or a specific NDC.

[3] Direct attribution means that the activity is explicitly or primarily oriented to climate change mitigation and/or adaptation activities; indirect attribution occurs when the activity is not created exclusively for climate change purposes, but contributes to mitigation and/or adaptation efforts.

Regarding **financing from international cooperation**, the MINAM relies on the Peruvian Agency for International Cooperation (APCI). APCI is a body under the Ministry of Foreign Affairs that manages the Register of Non-Governmental Development Organizations (NGDOs) and the Register of Foreign Entities and Institutions of International Technical Cooperation (ENIEX). All entities listed in these registers must submit an Annual Statement for each intervention implemented in whole or in part, or not implemented during the year, charged against non-reimbursable international cooperation resources, even if they were not managed with State participation. In addition, NGDOs and ENIEX supplement their statement with the presentation of the Annual Plan of Activities.

This information is captured through the APCI website, so it is fully digitized. APCI also makes available to the public a consultation of international cooperation projects classified by geographical scope, implementing agency, project name and Sustainable Development Goal (Figure 4). Each project profile includes detailed information about objectives, including a log frame matrix.

Figure 4. International Cooperation Consultation by SDG

Búsqueda por objetivo de desarrollo sostenible [Search by sustainable development goal] Ingrese los campos de búsqueda [Enter search fields] Período / Objetivo / Meta [Period / Goal / Objective] Buscar [Search] Total de Registros [Total records] Descargar / Visualizar [Download / View] Fortalecimiento de la infraestructura nacional de la calidad para apoyar la gestión de los recursos naturales y el monitoreo de parámetros ambientales y climáticos

[Strengthening the national quality infrastructure to support the management of natural resources and the monitoring of environmental and climate parameters]
Investigación y desarrollo de capacidades para la cuantificación de las reservas de carbono y los flujos de gases de efecto invernadero en las turberas de Amazonía Peruana [Research and capacity building for the quantification of carbon stocks and greenhouse gas flows in the peatlands of the Peruvian Amazon]
Jóvenes por un medio ambiente con justicia [Young people for a fair environment]
Manejo integral binacional de cuencas hidrográficas transfronterizas como medidas de mitigación y adaptación al cambio climático [Integrated binational management of cross-border river basins as climate change mitigation and adaptation measures]
Memorando de entendimiento entre EPA y OEPA [Memorandum of Understanding between EPA and OEPA]
Proyecto clima agro y transferencia de riesgo [Climate, Agro and Risk Transfer Project]
VD KE3 ENERGIE KLIMA LA EM 2018
VD RP ENERGIE KLIMA LA EM 2018

Source: http://portal.apci.gob.pe/index.php/registros-de-proyectos

This database is an important source of information for MRV-CF, as used for Galarza and Ruiz's studies and in BUR 2. Closer collaboration between the MINAM and APCI would allow for better data exploitation to track climate financing provided by international cooperation and not channeled through the public budget.

There is information on international public financing that is not received by APCI because funders are not included in their registry and therefore they are not required to submit the annual statement. Multilateral development banks and international climate funds are the most important players.

According to the 2018 Joint report on multilateral development banks' climate finance (AfDB, ADB, EBRD, EIB, IDBG, IsDB, WBG, 2019), the amount of climate financing channeled by seven multilateral development banks into Peru reached USD 901 million in 2015-2018. Given the commitment of multilateral development banks to target a proportion of their portfolio towards climate change-related projects, information on these projects can be accessed through online consultations, which should supplement APCI's information.

As for information from international climate funds, financing operations are generally channeled through the MEF or the MINAM, so collaboration between both institutions would be required to feed a data repository similar to the one that would be built with information from multilateral development banks.

Finally, regarding **financing from private resources**, progress is very limited. At the time, it was possible to identify resources channeled through the Clean Development Mechanism or resources invested in large projects with a climate component could be detected. In 2015, on the occasion of COP 20, the Green Protocol was signed with the Banking Association, and the Superintendency of Banking and Insurance approved the Regulation for the Management of Social and Environmental Risk. This year, talks have been resumed to find mechanisms to track green financing channeled through the financial system and the capital market. NAMAs built with the participation of private companies are another source of information, where a certain level of investment monitoring can be achieved.

As previously mentioned, the report on climate finance in Peru has been limited to the biennial update reports and the third national communication. These reports have been constructed in a specific way and are not the result of an information system that is updated or that maintains an institutional memory that guarantees the application of homogeneous criteria over time. Neither does it have a repository in which information is stored at project level, nor a tool for data extraction, transformation and uploading that allow maintaining traceability from the original source.

No reports have been prepared for national or sectoral users. With the appearance of the Consultation of Expenditure on Climate Change Adaptation and Mitigation, a more dynamic interaction option opens up with those interested in following climate spending. APCI's information, by allowing a consultation based on SDG 13 allows stakeholders to access details about projects that have been classified as linked to climate action.

Progress in reporting is limited. To date, Peru has sent three national communications and two biennial update reports (BURs) to the UNFCCC. Information on financing has been included in the two BURs and in the third national communication. As previously mentioned, the information reported in BUR 1 and in the third national communication came mainly from a study conducted in an *ad hoc* manner and BUR 2 was based on information from sixty-six projects surveyed by the MINAM and APCI (totaling USD 591.4 million in the 2014-2016 period).

There are no official reports or official databases on the country's climate action aside from the information sent to the UNFCCC. Those interested in tracking climate finance flows would have to resort to the aforementioned sources (MEF, APCI, Multilateral Banks, and International Climate Funds) to build their own database,

without the guarantee that the information has gone through a review that validates the harmonization of methodologies and avoids double accounting.

The aspect of verification at international level has incipient development; it is expected that, in coming years, consensus and definitions will be reached to facilitate the adoption of standards. Given the absence of this methodological orientation, the elements identified in the Peruvian case are:

- Verification procedures are in place for the application of public funds to defined products (e.g., reduction of vulnerability to natural disasters or hectares of ecosystems with recovered functionality). Likewise, the SIAF incorporates information not only from the perspective of the origin of the funds, but also of the amount executed, thus allowing an approach to the funds used by the implementing unit. However, the procedures for recording financial information correspond to general control rules of the public administration that do not include a differentiation for actions related to climate change.
- Sources of international cooperation or multilateral development banks carry out their own project assessments that include verification of financing flows. However, this verification has weaknesses such as methodological differences between sources, the adoption of the fund provider's perspective (which may differ from that of the recipient of the funds) and the fact that these verifications are generally confidential and for the exclusive use of the organization conducting them.
- While development of the reporting function remains limited, there is little chance that the civil society can participate in allowing better scrutiny and verification of climate finance flows.
- The other MRVs (MRV-GHG and MRV-Adaptation) are also under construction, making it difficult to assess the effectiveness of climate finance (e.g., progress towards low-carbon and climate-resilient pathways), except for ad-hoc studies as carbon footprint analyses that are not compulsory in most cases.

5. Challenges and Opportunities for MRV-CF in Peru

The other MRVs (MRV-GHG and MRV-Adaptation) are also under construction, making it difficult to assess the effectiveness of climate finance (e.g., progress towards low-carbon and climate-resilient pathways), except for ad-hoc studies as carbon footprint analyses that are not compulsory in most cases.

5.1. Conceptual framework proposal for MRV-CF in Peru

An MRV-CF system can have different objectives depending on the point of view that is assumed:

From the perspective of finance providers:	From the perspective of who receives the support:	From the perspective of those interested in climate action:
• Track and report the financial support received by the country from the different sources, validating the sources' compliance with their commitments to the UNFCCC in terms of providing climate finance. • Improve trust, transparency and accountability between donor and recipient countries. • Assess progress towards meeting climate finance goals. • Facilitate understanding of distribution and identify gaps in regional and sectoral support. • Monitor and evaluate trends in climate-related support.	• Track and report support by source. • Verify and evaluate the information on the support provided by the sources of climate finance. • Comply with the UNFCCC reporting provisions related to notification of receipt and the need for climate finance. • Draw lessons from the various experiences of the financial instruments used. • Facilitate the development of policies to expand climate finance by providing more complete data.	• Improve trust, transparency and accountability among the different parties involved in the climate finance cycle. • Enhance understanding of how climate support is used. • Demonstrate whether climate support is being effective (e.g., if emissions are being reduced, if climate finance is supporting innovation, the degree to which public funds are leveraging private financing, etc.) • Assess the potential expansion of climate support as its impact is demonstrated.

The MRV-CF system should combine the different objectives, promoting the analysis of the reality of climate finance to address, as far as possible, the different interests. At the conceptual level, an MRV-CF process consisting of six components is proposed as shown in **¡Error! No se encuentra el origen de la referencia.**Figure 5, and whose characteristics and challenges will be explained in subsequent sections in the document.

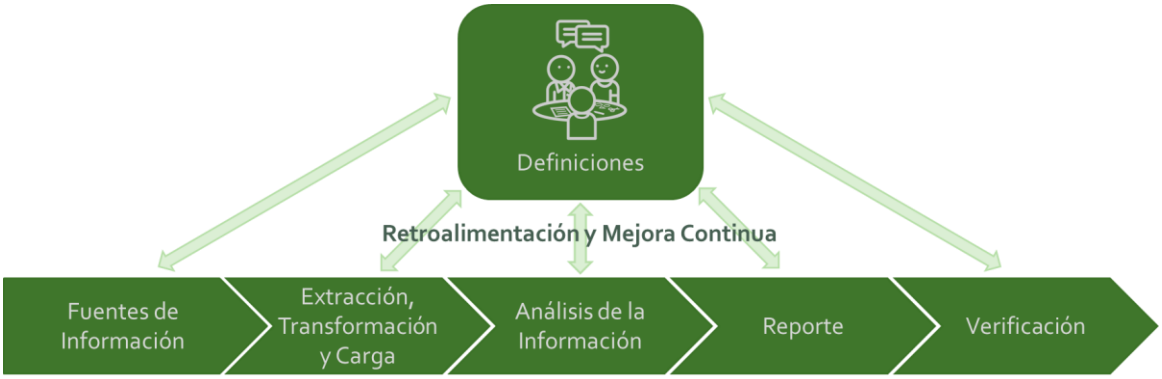


Figure 5. Components of MRV-CF

Definitions				
Feedback and continuous improvement				
Sources of information	Data extraction, transformation and uploading	Information analysis	Report	Verification

5.1.1. Definitions

The establishment of an MRV-CF system requires some definitions or guidelines about what can and is desired to be measured, reported and verified or the level of detail of the information. This implies the following challenges, among others:

Methodology	• What financing is defined as "climate finance"? • How the concept of "new and additional" is applied to guarantee to ensure that climate finance is not deviated from development resources and does not undermine development goals? • How the definition of climate finance is transferred to the private sector? According to Corfee-Morlot, Guay and Larsen (2009), at a conceptual level, climate finance can be classified as follows: – Climate-specific private financing: Defined as capital flows for activities whose results and/or key objectives are aimed at GHG mitigation and adaptation to climate. This includes investment in renewable energy, energy efficiency, sustainable forestry or agriculture; and – Climate-relevant private financing: It encompasses a much broader set of capital flows that will have an impact on emissions and/or vulnerability to climate change. This includes flows that will support development and economic growth in key GHG emitting sectors (i.e., energy production and other energy supplies, industry, agriculture and forestry, transport, water) or

	towards sectors that affect vulnerability to climate change (i.e.: water, health, energy, forestry and agriculture). Drawing the line at a point that includes more or less private financing (considering it is relevant and not only specific financing) will have consequences on the volume of resources considered and, potentially, on the ability to attract private capital for climate action. • To facilitate dialogue between the different stakeholders, establishing taxonomy of the activities that would be considered climate finance is recommended[4].
Institutional structure	• The definitions guiding the MRV-CF should be taken in a collegiate body that brings together representatives from different sectors of the government, the private sector and the civil society. • Definitions must be reflected in standards and methodological guides to facilitate their application.
Technology	• Technological capabilities must be taken into consideration to keep definitions within the scope of what can be implemented with the existing resources..
Communication	• Participation of relevant actors in the definitions should be encouraged to facilitate their subsequent buy-in of the system and the information obtained thereof for their own decision-making.

5.1.2. Sources of information

The MRV-CF process largely follows the characteristics of an information system. Therefore, the process must identify the relevant information sources to obtain the data that have been indicated in the definitions linked to the system. To ensure that the identified sources can be used, it will be necessary to overcome the following challenges:

Methodology	• Identification of information sources intended to cover the different sources of funding, administration mechanisms and use of the funds considered within the definition of climate finance. • Detailed data on private flows is dispersed in different information systems, some of which are managed by commercial data providers, while others are confidential.
Institutional structure	• Permanent access to the sources of information identified for tracking climate finance will require institutional arrangements, such as: – Agreements between different institutions. – Rules for requesting information from regulated companies.

[4] Some examples of these taxonomies are found in the EU Taxonomy for Sustainable Finance (t.ly/iiSs), the "Methodological Guide to classify and measure finance linked to climate change mitigation and adaptation actions in Colombia" (Guía metodológica para clasificar y medir el financiamiento asociado con acciones de mitigación y adaptación al cambio climático en Colombia) (t.ly/QVTv), the Global Landscape of Climate Finance (t.ly/i30o) methodological document or the list of activities considered by the multilateral development banks that drafted the 2018 Joint report on multilateral development banks' climate finance (t .ly / Uef0)

	– Eventually, creating incentives to encourage participation should be considered.
Technology	• Systems interoperability. • Definition of a protocol and format of delivery of the information.
Communication	• A communication strategy with the sources of information that contributes to their involvement and buy-in of the process should be considered. Any information system evolves over time, so it is critical that data providers are allies to maintain and validate the quality of the information, as well as to propose improvements regarding how information is displayed and used.

5.1.3. Data extraction. Transformation and Uploading

The use of existing systems (i.e.:, the Integrated System of Financial Administration, SIAF) implies using as raw material information that is found in other technological environments and that was not collected and processed with the aim of measuring, reporting or verifying climate finance. This situation implies that the system that supports the MRV-CF will be independent of the system in which the data was originally processed and that, therefore, the MRV-CF system must extract, transform and upload the data from the original system into its own data model. These activities are not without challenges:

Methodology	• Procedures for obtaining information. • Procedures for filtering and transforming information. • Quality control and validation procedures.
Institutional structure	• The procedures defined from the methodological point of view must be documented, establishing roles and responsibilities. • The criteria to include and exclude data must be documented and published. • The procedures must be auditable.
Technology	• Activities of data extraction, transformation and uploading must be conducted with a previously defined periodicity. • As far as possible, tools and algorithms should be developed to execute the different tasks automatically, in order to avoid human errors in handling the data. • Incorporate elements that favor traceability from the source of the data to the MRV-CF system.
Communication	• The buy-in of the system's outcomes depends to a great extent on the transparency in the criteria used and the traceability of the data to the original sources of information.

5.1.4. Analysis of the information

To the extent that the MRV-CF system groups information from different sources that may apply different perspectives, it will be necessary to establish certain

procedures for analyzing the information to bring the data as close as possible to the premises set forth in the definition of climate finance. Likewise, information will have to be prepared to present it in accordance with the requirements of the Reporting and Verification components that will be seen later. Challenges identified in this vein include:

Methodology	• Expressing financing information in comparable units. This involves solving some dilemmas in a practical way: – Assigning monetary values to "in kind" assistances, technical advice, experience and other forms of non-monetary assistance. – Translation of the financing embodied in different financial instruments. – Dealing with financing for projects where climate action is a significant objective, but not the primary one. – Distinction between gross and net financing. – Distinction between public finance and private finance leveraged by public financing (avoiding double accounting). • Granularity of the data so that it is possible to handle information at the level of different analysis dimensions, such as: – Project identifiers that track climate finance from the commitment, to the delivery, and throughout the life of the project. – Financing sources. – Mechanisms for channeling funds. – Financial instruments used (grants, subsidies, guarantees, concessional loans, non-concessional loans and capital). – Sectors receiving the funds, categories and activities that are being supported. – Geographical scope of the financed activities. – Link with any of the NDCs and, in general, with Mitigation, Adaptation or Cross-Cutting actions. – Distinction between disbursed and committed funds.
Institutional structure	• The procedures defined from the methodological point of view must be documented, establishing roles and responsibilities. • The procedures must be auditable.
Technology	• Selection of the technological platform. • Construction of the data model and its security structure. • The traceability of the data to its original system must be preserved, differentiating the information that has been generated from the analysis of the original data.
Communication	• Although the definitions considered in this component are more detailed than those of the first component, it is important to ensure that relevant stakeholders adopt the definitions to facilitate their buy-in. Likewise, within the evolution of the MRV-CF system, users' requirements are expected to drive the incorporation of new analysis dimensions.

5.1.5. Reporting

The information gathered in the MRV-CF system must be shared with different actors at international and national level. Although the MRV-CF requirement comes from the interest of the UNFCCC Parties in knowing the financing flows for climate action, at national level an additional objective is proposed, which is to have a tool that facilitates decision-making linked to the comprehensive management of climate change. In this sense, it seeks to develop a means for different decision-makers to have robust information on the availability of funds and the effectiveness of their use in relation to mitigation and adaptation to climate change. Ultimately, the civil society will also be another user of the information reported to evaluate the authorities' management in this area. Making the Reporting component of the system maintain its importance for all these stakeholders implies a series of challenges:

Methodology	• Criteria for presenting the information: – Who has the obligation to report? – What data should be reported and how should it be broken down? – What channels should be used for reporting? • Design of periodic reports and other viewing options.
Institutional structure	• The reporting procedures must be documented, establishing roles and responsibilities.
Technology	• Implementation of reporting tools. • Definition of user profiles and access privileges of the different profiles.
Communication	• Disseminate the system's reporting capabilities for the different user profiles, so that a significant use of the reports is achieved for decision-making and feedback is received on how useful reports are.

5.1.6 Verification

The verification should be aimed at correlating the flow of resources received with the results obtained to ensure both accountability and trust-building among financing providers, recipients and those who monitor climate action.

This function is subject to problems derived from information asymmetries and conflicts of interest that may appear between the various links in the climate finance chain. Some of these problems are:

- A broad definition of verification that includes the effectiveness of funds would be difficult or very expensive with the information that is currently available.

- Measurement at the level of detail regarding activities to be considered within climate finance may be subject to controversy and different perspectives depending on whether it is the provider of the financial resources, an intermediary, the recipient of the support or an observer of climate action.
- The verification function must make explicit the amount of resources mobilized that is not finally executed in climate change adaptation or mitigation projects. Also, double accounting shall be avoided.

Verifying climate finance is an overlooked aspect of most reporting systems today. This occurs, largely, because this component repeats many of the challenges mentioned above, along with others of different complexity such as:

Methodology	• Identification of tangible results of the financed actions • Reports' review levels • Participation of independent evaluators • Calculation of co-benefits beyond climate action • Dissemination of verification reports • Cost benefit analysis
Institutional structures	• Verification requires access to detailed information from climate finance providers, which goes beyond normal information gathering procedures and calls for ad hoc agreements.
Technology	• The data model requires layers of information expressed in units other than those of climate finance.
Communication	• Design a strategy for disseminating verified results to strengthen the system.

5.1.7. Lessons from the conceptual mode

The analysis of the MRV-CF conceptual framework and the associated challenges allows drawing some lessons for the design of the system.

- The MRV is an instrument, not an end in itself. It is an information management process that goes beyond tracking and reporting, it must be articulated with other MRVs and with a comprehensive management of climate change.
- Climate finance is highly complex, flows through multiple channels, and is delivered to developing countries in multiple ways. Therefore, its measurement, reporting and verification is also highly complex. The task of building an MRV-CF that provides transparency and accountability must be approached pragmatically without neglecting consistency.

- An MRV-CF will be a system in constant evolution and must be built considering the limitations in the available information at all times. Realistic decisions are required regarding the information that can be constructed at any time and that can be disclosed without falling prey to the “analysis paralysis”. This is particularly relevant for the approach to private financing, where a high level of detail in the required information can generate a low response rate.
- In the absence of internationally adopted definitions, MRV systems must be built with flexibility to cope with changes in definitions. Definitions such as “climate finance”, “new and additional” or the accounting for different financial instruments have not yet been established homogeneously. Stakeholders must agree on uniform ways of accounting for each of them.
- No existing system will meet MRV needs from the beginning. Ways to link and enhance existing systems will have to be found and they will have to be supplemented with entirely new components to widen the scope.
- The development and evolution of the MRV-CF system requires a qualified human team with permanent dedication to the system's own tasks and coordination with other stakeholders.
- The development of the MRV-CF must be seen as a process of continuous and incremental improvement. MRV challenges do not need to be addressed all at once. While some definitions are fine-tuned, better reporting and verification techniques could increase transparency, build trust among all those involved in climate action, help assess whether climate funds are being used effectively, and provide information on ways to progressively improve the system.
- Both aggregated data and project-level information should be available for scrutiny. The aggregated data can show global and regional trends and identify significant gaps, while project-level data can be evaluated to ensure that the priorities of the beneficiaries are actually met, that financing is driven by needs, and that it is used accordingly.
- The sustainability of the MRV-CF poses methodological, technological, financial and communication challenges. The latter have to do with the relevance of the MRV-CF being linked to the fact that the most relevant sectors and regions for climate action use robust information for their plans and buy-in the system.

5.2. Recommendatios for improving MRV-CF in Peru

This section includes recommendations to make progress in the construction of the MRV-CF in Peru. The recommendations are grouped into general and specific recommendations by component of the conceptual model outlined above.

5.2.1. General Recommendations

- Promoting the MRV-CF requires a dedicated team with well defined characteristics:
  - Typical tasks include: general planning; coordination; management and technical supervision; research, data collection and management; emission calculations; and quality control coordination.
  - The team must combine Finance, IT, Communications and Climate Change Economics professionals.
  - The capacity and abilities of each staff member should be taken into consideration, including managerial and technical skills, as well as periodic training and retention mechanisms for qualified personnel.

- Set effective institutional arrangements to build the MRV-CF
  - Representative bodies of the different stakeholders are needed to promote the adoption of the necessary definitions for the system. The National Commission on Climate Change, given the plurality it exhibits within its representatives, could form a technical sub-group that establishes the initial definitions for the system, with the technical-administrative support of the MRV-CF human team.
  - Implementing the components of the MRV-CF requires institutions that have the necessary mandate, as well as clear and efficient processes.
  - Coordination mechanisms between actors must be accompanied by technical leadership.
  - Evaluate the incorporation of information on climate finance and MRV in the National Environmental Information System (SINIA) to take advantage of synergies in terms of technological platform and dissemination.

- Invest in technical capacity to build the system.
  - Design appropriate methodologies to obtain accurate data and suitable platforms for data collection and management.

- Processes must be documented to maintain institutional memory.
- Establish a basic technological infrastructure that allows data collection and issuance of initial reports.

- Ensure the availability of financial resources to sustain the implementation of the MRV-CF in various key actors. Hire qualified professionals, build capacity among stakeholders to support MRV implementation, establish effective institutional processes and arrangements, and implement new data collection systems and methods.

5.2.2. Specific recommendations by component

Advancing in the different components that are part of the conceptual model is needed to develop the MRV-CF. Although coherence must be maintained between the different components, not all of them will progress at the same speed nor the highest level of detail should be sought in one of the components to tackle another one.

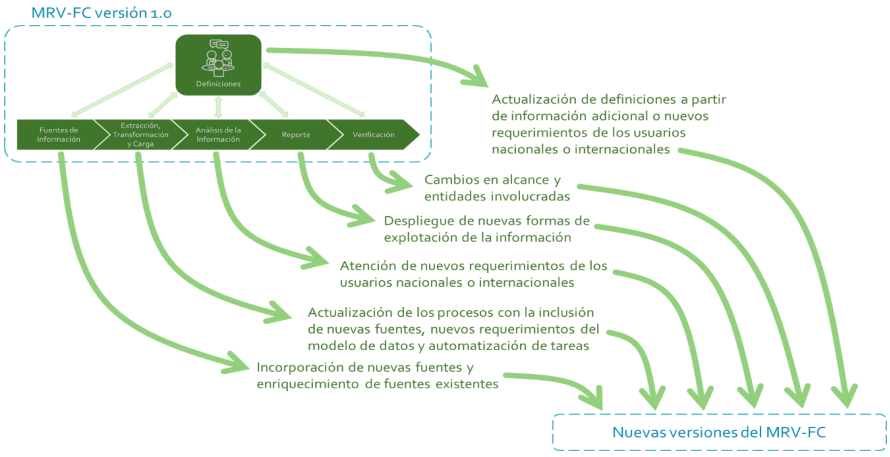


Figure 6. MRV-CF as a process in constant evolution

The evolution of the MRV-CF must follow a logic of continuous improvement throughout the different stages of the process, as shown in Figure 6. The main opportunities for improvement identified in each of the components of the conceptual model are presented below.

Component	Development	Improvement opportunities
Definitions	Update definitions based on additional information or new requirements from national and international users	• Forming a technical subgroup within the National Commission on Climate Change to help with the definitions needed to establish the MRV-CF. • Of particular importance will be defining a taxonomy of mitigation and/or adaptation actions that could be articulated with the NDCs and that would facilitate the approach with the private sector to identify the actions whose financing would be considered. • Also, designing a methodology to identify the budget share that can be attributed to climate change finance, particularly for private financing.
Sources of information	Incorporation of new sources of information and enrichment of existing sources	• The information obtained from the SIAF should not be filtered exclusively based on the activities/accounts. The logic of Budgeting for Results (BFR) has allowed generating specific budget programs and products that can be linked to mitigation and/or adaptation to climate change more directly than specific activities. • Another line that should be explored with financial information is the search through periodic text queries, not settling for static equivalency tables. • Explore the possibility of extracting information from administrative records, such as the State Procurement Electronic System (Sistema Electrónico de Contrataciones del Estado), using text search with keywords linked to climate action. • To attract private financing, it is important to establish a joint work plan with the Banking and Insurance Superintendency and the unions of financial institutions to design reports that allow capturing the volume of financing granted to projects typified in the taxonomy. It is important to be realistic, in terms that the information will be thick and it will be difficult to distinguish “new and additional” data. • Promote mechanisms for voluntary reporting by those who carry out actions related to climate change. • Work with APCI for a categorization of cooperation projects linked to the categories of climate change management such as the NDCs.

Component	Development	Improvement opportunities
Data extraction, Transformation and Uploading	Update of processes by including new sources and new requirements of the data model and task automation	• To the extent that the MRV-CF has a data repository and can establish routines for extracting, transforming and uploading information, it can become independent of the original criteria and enrich the information with relevant categories for a comprehensive management of climate change. . • It will be essential to have technical professionals that can handle the interoperability of the systems and the creation of robust routines to handle an increasing volume of information.
Information analysis	Attention to new requirements of national or international users	• A permanent function dedicated to collecting information on the financed projects and that links the MRV-CF with other MRVs will be needed. • This function will also fulfill the task of enriching the information obtained from the basic sources with additional crossings and relevant dimensions to achieve a comprehensive management of climate change. • Ensure that double accounting or other forms of inconsistency do not occur.
Reporting	Deployment of new forms of information exploitation	• Develop sectoral and geographical reports to contribute to raising awareness among decision-makers on the importance of climate change and the possibility of promoting projects with multiple co-benefits based on the effective use of climate finance. • Build equivalence tables for public, private and cooperation funds that allow linking financing with NDCs in order to identify financing gaps.
Verification	Changes in scope and entities involved	• The MRV-CF must be linked with other MRVs to begin generating impact information at project level. • Take advantage of certification or standard initiatives (i.e. FSC) to build a path of impact information.

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Appendices

Appendix 1: Legal basis overview

The coordination of climate action in Peru has been reflected in a series of legal instruments issued over the years and that guide the actions of public and private actors:

- **Framework Law on Climate Change** (Law No. 30754) of April 18, 2018 and its Regulations, approved by Supreme Decree No. 013-2019-MINAM of December 31, 2019, establishing the principles, approaches and general provisions to coordinate, articulate, design, execute, report, monitor, evaluate and disseminate public policies for the comprehensive, participatory and transparent management of climate change adaptation and mitigation actions, in order to reduce the country's vulnerability to climate change, take advantage of opportunities for low carbon growth and fulfill the international commitments assumed by the State before the UNFCCC. They also establish a ***comprehensive management of climate change***. Under this concept, climate change adaptation and mitigation measures are incorporated into investment policies, strategies, plans, programs and projects of the three levels of government, in order to integrate the management of climate change and the country's development in harmony with nature. Articles 64 to 69 of the Regulations refer to the MRV-CF.
- **Framework Law of the National Environmental Management System** (Law No. 28245) of June 4, 2004 and its Regulations, approved by Supreme Decree No. 008-2005-PCM of January 28, 2005. The National System of Environmental Management (SNGA, by the Spanish acronym) is made up of regional and local systems. The Regional System of Environmental Management (SRGA) and the Local System of Environmental Management (SLGA) are intended to guide environmental policy (including aspects related to climate action) and regulations to address the needs of their jurisdictions.
- **Law of Creation, Organization and Functions of the Ministry of Environment** (Legislative Decree Nº1013) of May 14, 2008. This regulation details the incorporation of climate change within the environmental sector and, later on, the Organization and Functions Regulation (ROF by the Spanish acronym) creates the General Directorate for Climate Change and Desertification within the Vice

Ministry of Strategic Development of Natural Resources[5]. Among other functions, the Ministry of Environment MINAM establishes that of directing the National System of Environmental Information (SINIA), developing and consolidating the information generated and provided by the public and private sectors, facilitating the systematization, access and distribution of environmental information, as well as the use and exchange of this data, being a support for decision-making processes and environmental management.

- **Adherence to international agreements.** Peru approved the United Nations Framework Convention on Climate Change (UNFCCC) through Legislative Resolution No. 26185, of May 12, 1993; ratified the Kyoto Protocol of the UNFCCC by Supreme Decree No. 080-2002-RE, of September 10, 2002; and ratified the Paris Agreement by Supreme Decree No. 058-2016-RE of July 22, 2016.
- **National Environment Policy**, approved by Supreme Decree No. 012-2009-MINAM, published on May 23, 2009. It includes policy guidelines related to mitigation and adaptation to climate change.
- **National Strategy on Climate Change**, approved by Supreme Decree No. 011-2015-MINAM, published on September 23, 2015. It establishes financing as a key means of implementation for climate action, proposing lines of action based on the objectives of mitigation and adaptation to climate change.
- **National Strategy on Forests and Climate Change**, approved by Supreme Decree No. 007-2016-MINAM, published on July 21, 2016. It is a management document that details the roadmap for the implementation of REDD + and the components of MRV linked to the fight against deforestation and forest degradation.
- **National Competitiveness and Productivity Policy and National Competitiveness and Productivity Plan 2019-2030.** The policy was approved by Supreme Decree No. 345-2018-EF (published on December 31, 2018) and established environmental sustainability as the priority objective No. 9. The plan, approved by Supreme Decree No. 237-2019-EF (published on July 28, 2019), establishes as a policy measure 9.1 the formulation of the Financing Strategy for Measures against Climate Change. This seeks to give financial viability to the

[5] The current Organization and Functions Regulation (ROF) was approved by Supreme Decree No. 002-2017-MINAM of April 28, 2017. The previous ROF, approved by Supreme Decree No. 007-2008-MINAM, designated the body as the General Directorate of Climate Change, Desertification and Water Resources.

implementation of the NDC measures, so that national commitments regarding climate change are met. The goal was that by July 2021 there would be a defined financing strategy for the Agriculture and Irrigation, Transport and Communications, Energy and Mines, Production, Environment and Housing, Construction and Sanitation sectors. Likewise, policy measure 9.6 -Platform for monitoring the implementation of adaptation and mitigation NDCs- aims to develop a platform for monitoring the implementation of adaptation and mitigation actions, the participation of the stakeholders, and the state of climate finance.

This regulatory fabric supports the institutional structure for climate action in Peru. For the purposes of this paper, this institutional structure will be described at the level of assignment of roles and responsibilities, policy and planning instruments, financial instruments and MRV instruments.

Appendix 2: Overview of roles and responsibilities

This section presents the main actors in climate action, outlining their roles and responsibilities:

- **Ministry of the Environment (MINAM)** is the national authority on climate change and the technical-regulatory authority in this matter at national level; it monitors and evaluates the implementation of comprehensive climate change management at the three levels of government, promoting the participation of the public sector, economic agents and the civil society, in order to enhance a comprehensive management of climate change and sustainable development in harmony with nature. It also compiles, systematizes and periodically communicates to the UNFCCC and the corresponding national authorities, information on the flows of climate finance.
- **Ministries, regional governments and local governments** are competent authorities on climate change and, as such, they promote, coordinate, articulate, implement, monitor and evaluate the comprehensive management of climate change within their jurisdictions, issuing the corresponding regulations in accordance with its powers and functions.
  - MINAGRI: NDC on adaptation actions in Agriculture, Forests and Water; NDC on mitigation actions in the Agriculture and Land Use, Land-Use Change and Forestry (LULUCF) sectors.
  - PRODUCE: NDC on adaptation actions in the sector of Fishing and Aquaculture; NDC (Mitigation) in Energy-Stationary Combustion and in Industrial Processes and Product Use.
  - MINSA: NDC on adaptation actions within the Health sector.
  - MINAM: NDC (Mitigation and Adaptation) in Forests (Natural Protected Areas) and (Mitigation) Waste- Solid Waste Disposal.
  - MVCS: NDC in Mitigation and Wastewater Treatment.

Likewise, there are ministries that are guiding cross-cutting policies for all sectoral actions and, therefore, enrich climate change management:

- PCM: Acts as an intersectoral coordination body and governing entity of the National System of Disaster Risk Management (SINAGERD).
- MRE: It leads the country's foreign policy, in addition to the International Relations and International Cooperation. It coordinates all State action with

the United Nations System, to which the UNFCCC belongs. In addition, its attached entities include the APCI, the entity in charge of articulating the supply and demand for international technical cooperation at the different levels of government and the civil society.

- MEF: This Ministry leads the country's economic and financial policy and harmonizes the national economic activity to promote efficiency in the allocation of resources and the internalization of negative externalities for sustainable growth and development. It is the Designated National Authority before the Green Climate Fund (GCF).
- MINCUL: It safeguards the proper application of an intercultural approach in a transversal manner within the comprehensive management of climate change.
- MIMP: It ensures applying a cross-cutting equality approach for a comprehensive management of climate change.

In addition to these authorities, the Framework Law on Climate Change establishes two commissions:

- **National Commission on Climate Change.** It is a permanent space for monitoring compliance with public policies and international commitments assumed by the State before the UNFCCC, as well as for formulating proposals on climate action. It is chaired by the Ministry of the Environment and brings together representatives of the public sector, the private sector, NGOs, organizations of indigenous or native peoples, regional and local governments and the academic community.

  Although this commission was created in 1993, to date the approval project is pending at supreme decree level.

- **High Level Commission on Climate Change (CANCC** by the Spanish acronym). This commission was first mentioned in the Framework Law on Climate Change and, to date, it has not yet been implemented. The commission shall propose adaptation and mitigation actions to tackle climate change and NDCs, and shall issue technical reports. According to its draft regulation pre-published by MINAM, it is expected to be made up of representatives from 15 ministries, the National Center for Strategic Planning, regional and local governments. It would be chaired by the Presidency of the Council of Ministers and the Technical Secretariat would fall to the Ministry of the Environment. It would have the support of a Technical Group made up of ANA, SERFOR,

SENAMHI, INDECI, CENEPRED; INAIGEM and SERNANP. The CANCC has among its powers to review tentative schedules for the NDCs, which has consequences in the climate finance required to carry them out.

Regarding climate finance, the Ministry of the Environment and the Ministry of Economy and Finance coordinate the guidelines for using climate finance to ensure a strategic and complementary use of the funds that will be used for these purposes in accordance with the NDCs and other comprehensive management instruments for climate change.

Appendix 3: Overview of policy and planning instruments

Climate management instruments:

- National Strategy for Climate Change. Prepared by the Ministry of the Environment, in coordination with the National Commission on Climate Change; and approved by supreme decree with the approving vote of the Council of Ministers.
- Regional Strategy for Climate Change. Prepared by the regional government, in coordination with the Regional Environmental Commission; and approved by regional ordinance, with the favorable opinion of the Ministry of the Environment.
- Nationally Determined Contributions (NDCs). These include goals in terms of mitigation and adaptation to climate change, seeking the progressive increase of the proposed goals, in accordance with the climate change national and regional strategies. The Ministry of the Environment is responsible for monitoring and evaluating Nationally Determined Contributions, and reports on their implementation to the UNFCCC Secretariat.
- Forests and Climate Change National Strategy. It constitutes the national REDD+ action plan or strategy referred to in Decision 1 / CP.16 paragraph 71 of the UNFCCC.
- Sectoral, regional and local planning instruments that incorporate adaptation and mitigation measures, such as the Local Climate Change Plans, formulated by municipal governments.
- Instruments defined in the UNFCCC that are incorporated into State planning, such as the Climate Change Gender Action Plan and the National Adaptation Plan.