



WWF GUIDE TO BUILDING REDD+ STRATEGIES

Tracking REDD+ REDD+ REGISTRIES



DOWNLOAD THIS CHAPTER



Key Messages

- A national or subnational REDD+ registry is a necessary component of tracking emission reductions and finance for REDD+. Beyond the biannual country reporting to the United Nations Framework Convention on Climate Change (UNFCCC), there are many instances in which registering national and subnational REDD+ activities will be necessary to implement a REDD+ strategy, including: tracking REDD+ programmes and projects, recording carbon emissions reduction achievements, tracking and recording compliance with social and environmental safeguards, facilitating international and national results-based payments, facilitating the operation of carbon markets, and more.
- As in other areas of the climate agenda, it is not yet clear what functions of a REDD+ registry will be performed by the UNFCCC at an international level and what REDD+ registry functions will be the responsibility of national or subnational registries. Yet, currently many REDD+ funders require, and many REDD+ countries find necessary, the implementation of REDD+ national registries to track the multiple on-the-ground REDD+ actions that have launched in recent years.
- For REDD+ countries looking for guidance and best practices, the UNFCCC is a good starting point (e.g. the International Transaction Log and the recently approved voluntary climate registry). Beyond the UNFCCC, there are a good number of international climate-related registries, both public and private, including a few REDD+ registries (e.g. the REDD+ database) that can provide valuable lessons for building national or subnational REDD+ registries.
- Developing and implementing a national or subnational REDD+ registry will require making many choices, including:
 - › Purpose and scope: should it be a nationally appropriate mitigation actions (NAMAs) registry that includes REDD+ actions, or should it be an exclusive REDD+ registry. Should it be national or subnational in scale;
 - › Functions: what to register;
 - › Data management: what to do in-house and what to outsource, and the detail of information to collect;
 - › Governance: how the registry should be managed and where the registry should be institutionally located;
 - › Technology: which technology to use to capture and store the data.

All of these decisions will affect the efficiency, transparency and accuracy of the registry as well as its cost. Again, early examples of registries can inform a country choice.

INTRODUCTION

A registry is, in essence, a platform—in the past a ledger and nowadays an electronic platform—that gathers and makes available information on particular issues or programmes. Two of the most ancient and still enduring examples are civil registries that track births, marriages, divorces, deaths and other vital changes, and property registries that track the ownership and transfer of land and other major assets.

Depending on their purpose, registries may function at a local, national and/or international scale. And depending on their legal status, the information they compile may be information only, or may carry a legal status.

For some time now the UNFCCC and the broader climate change and REDD+ community have been discussing and attempting to put up climate registries to help with one or more of the functions described in Table 1.

The breadth and depth of the few existing climate-related registries and the many being considered vary widely, from registries managed by an international secretariat to national and subnational ones—from global (e.g. a NAMAs registry) to sectoral (e.g. a REDD+ registry) and from multifunctional (e.g. the NAMAs registry endorsed in Cancun) to a specialized registry like an emissions trading registry.

Regarding the development of a national or subnational REDD+ strategy, a registry is a logical and necessary component of tracking REDD+. The chapter on MMRV discusses reporting in terms of the biannual country reporting to the UNFCCC. But there are many other instances where systematically registering REDD+ activities would be necessary to: keep track of REDD+ programmes and projects, record achievements, record ERs and track their trade, track and record compliance with social and environmental safeguards, and more.

As in other areas of the climate agenda, it is not yet clear what functions of a REDD+ registry will be performed by the UNFCCC at an international level and what REDD+ registry functions will be the responsibility of national or subnational registries. Yet, currently many REDD+ funders require, and many REDD+ countries find necessary, the implementation of REDD+ national registries to track the multiple on-the-ground REDD+ actions that have sprang in recent years. In this chapter we will review the international and national experience with climate registries focusing on what is applicable to a country-level REDD+ registry.

TABLE 1: POSSIBLE FUNCTIONS OF A CLIMATE REGISTRY

A CLIMATE REGISTRY COULD PERFORM ONE, SOME OR ALL OF THE FOLLOWING FUNCTIONS:	
Register information on climate change actions	A climate registry may keep track of countries' climate change strategies, policies, specific projects or emissions reductions. These could be unilateral (self-financed) actions, actions seeking international support and/or actions aiming to sell emission reductions in a carbon market.
Register information on climate change funding	A climate registry may keep track of climate change funding commitments from public, bilateral and multilateral funders, as well as climate funding offered by businesses and NGOs.
Facilitate fund matchmaking	If a registry tracks both funding needs and funding opportunities, it could play a role in matching those needs with funding sources. This could be done at a minimum by simply making available to anyone the information it collects on demand and supply of climate funds. But it could entail more proactive actions, including targeting information, facilitating initial contacts and conveying funding roundtables.
Register advances in climate change actions	As climate change actions may take years to produce results, there may be a need to register intermediate steps or advances. A registry could periodically (annually or at longer intervals) track the advances and accomplishments of climate change actions and climate change funding, using a set of standards and methodologies that facilitate comparability of both the actions' advances and the funding provided.
Register greenhouse gas (GHG) emission reductions and other results	With this function a climate registry would acknowledge and certify the GHG emission reductions of mitigation activities (e.g. issuing and/or registering emission reductions (ERs) for countries, programmes or projects) and could do the same regarding other environmental and social results (e.g. safeguards, benefit sharing). This is a critical function to facilitate results-based payments (whether domestic or international), payments for ecosystem services or benefit-sharing schemes.
Register emissions trading	This function is strongly linked to registering GHG emission reductions but would additionally include tracking the transfer and retirement of ERs and also tracking and registering other operations that may be needed to ensure the market integrity (e.g. tracking a buffer account).

INTERNATIONAL POLICY CONTEXT



A UNFCCC registry for NAMAs

At the 16th Conference of the Parties (COP) to the UNFCCC (Cancun, 2010), countries

agreed to set up a registry “to record nationally appropriate mitigation actions (NAMAs) seeking international support and to facilitate matching of finance, technology and capacity-building support for these actions” as detailed in the Focus, right.

The Cancun Agreement opted for a climate registry limited to the first three functions listed in [Table 1](#): registering mitigation initiatives, registering funding opportunities and facilitating fund matchmaking. It also opted for a global registry under the UNFCCC, encompassing all mitigation activities but not adaptation activities.

COP 17 (Durban, 2011) further advanced decisions on the UNFCCC climate registry, indicating, for instance, that (a) the registry should be developed as a dynamic web-based platform managed by a dedicated team in the UNFCCC Secretariat; (b) participation in the registry would be voluntary, and only information submitted expressly for inclusion in the registry should be recorded; and (c) the registry should be structured in a flexible manner that clearly reflects the full range of the diversity of NAMAs and the range of types of support. The COP 17 agreements on the climate registry (Articles 45 to 55 of the Durban Road map) also:

- Listed the type of information that developing and developed countries would be asked to submit to the UNFCCC climate registry;

- Asked the UNFCCC Secretariat to accelerate the collection of information to begin building a registry;
- Asked the UNFCCC Secretariat to solicit the views of the Parties regarding the future registry functions and operation.²

The COP 16 and COP 17 resolutions on the UNFCCC registry talk about “nationally appropriate mitigation actions” without restricting them to any particular type of mitigation activity, so it follows that REDD+ would be included. Still, much remains to be decided regarding specific characteristics of the UNFCCC registry, including its structure, functioning and governance. It is also noteworthy that, per decisions at COP 16 and COP 17, the UNFCCC registry would not pick up the functions of registering emission reductions, tracking payments for results or facilitating the functioning of carbon markets.³

International experiences with climate registries

Voluntary information-sharing registries

The North America Climate Registry is an information- and knowledge-sharing registry with members in 13 Canadian provinces, 40 US states, six Mexican states and four US Native Sovereign Nations. Its purpose is to provide information to reduce GHG emissions by establishing consistent and transparent standards throughout North America for businesses and governments to calculate, verify and publicly report their carbon footprints in a single, unified registry (see www.theclimaterestry.org).

FOCUS

THE CANCUN AGREEMENT (COP 16, CANCUN, MEXICO, 2010) OPTED FOR A GLOBAL, MULTIFUNCTIONAL CLIMATE MITIGATION REGISTRY, UNDER THE AUTHORITY OF THE UNFCCC.

According to Articles 53 to 59 and Article 66 of the Cancun Agreement¹ the Conference of the Parties:

- Also decides to set up a registry to record nationally appropriate mitigation actions seeking international support and to facilitate matching of finance, technology and capacity-building support for these actions;
- Invites developing country Parties to submit to the Secretariat information on nationally appropriate mitigation actions for which they are seeking support, along with estimated costs and emission reductions, and the anticipated time frame for implementation;
- Also invites developed country Parties to submit to the Secretariat information on support available and provided for nationally appropriate mitigation actions;
- Requests the Secretariat to record and regularly update in the registry the information provided by Parties on:
 - Nationally appropriate mitigation actions seeking international support;
 - Support available from developed country Parties for these actions;
 - Support provided for nationally appropriate mitigation actions;

- Agrees to develop modalities for the facilitation of support through the registry referred to in paragraph 53 above, including any functional relationship with the financial mechanism;

- Decides to recognize nationally appropriate mitigation actions of developing countries in a separate section of the registry;

- Requests the Secretariat to record, and regularly update, in a separate section of the registry, information submitted by Parties on the following:

- Mitigation actions contained in document FCCC/ AWGLCA /2011/INF.1;
- Additional mitigation actions submitted in association with paragraph 50 above;
- Once support has been provided, internationally supported mitigation actions and associated support;

- Agrees on a work programme for the development of modalities and guidelines for: facilitation of support to nationally appropriate mitigation actions through a registry; measurement, reporting and verification of supported actions and corresponding support; biennial reports as part of national communications from Parties not included in Annex I to the Convention; domestic verification of mitigation actions undertaken with domestic resources; and international consultations and analysis.

The Carbon Cities Climate Registry is an international initiative that encourages local governments to regularly and publicly report on their greenhouse gas reduction commitments, GHG emissions inventories and climate mitigation/adaptation actions (see www.citiesclimateregistry.org).

The Voluntary REDD+ Database, put up by the REDD+ Partnership (an international forum of REDD+ countries and donors), is an international information-sharing registry fully dedicated to REDD+ that describes its activities as follows:

The Voluntary REDD+ Database (VRD) provides information on REDD+ financing, actions and results that has been reported to the REDD+ Partnership. It aims to improve effectiveness, efficiency, transparency and coordination of REDD+ initiatives; and to support efforts to identify and analyse gaps and overlaps in REDD+ financing (see www.reddplusdatabase.org).

Matchmaking registries

The **CDM Bazaar**, operated by UNEP, facilitates the transaction of Clean Development Mechanism (CDM) certified emissions reductions (CERs) through the exchange of information on CDM project opportunities. The CDM Bazaar has three main market corners highlighting sellers, buyers and service providers.

In the Seller section, you can view seller entries and find projects at various stages, from project ideas to issued CERs for sale. In the Buyer section, you can view entries and purchasing profiles of buyers in the carbon market. The Service Provider section shows profiles of companies that offer carbon

market technologies and services (see www.cdm-bazaar.net).

Emissions trading registries

The purpose of emissions trading registries, whether public, private or NGO-driven, is to track emission reductions and to facilitate the certification and trade of emission reductions (the last two functions listed in Table 1).

To do so, GHG emission reductions registries often establish requirements and standards regarding measurement, accounting and reporting of GHG emissions, including baseline methodologies, all of which may also be entered in the registry's records. In that sense, emissions trading registries may also track other aspects of the design and operation of REDD+ programmes and projects, beyond emission reductions.

An emissions trading registry requires transparent and reliable operation methods to ensure the credibility of the trading system it supports. These methods include, among others, (a) clear standards for the quality of the emission reductions it accepts, (b) a system to serialize each tonne of emission reductions that is registered in order to track its origin and path through the registry system, and (c) user access to information on the registry processes and the data registered.

Public emissions trading registries

The largest emissions trading registry is the International Transaction Log (ITL) operated by the UNFCCC Secretariat for the Kyoto Protocol, which connects to a network of national registries from Kyoto Protocol signatory countries. Country registries linked to the ITL are managed by each government and are designed to carry out the issuance,

transfer, acquisition, cancellation, replacement, retirement and carryover of Kyoto units.⁴

Linked to the ITL, the Clean Development Mechanism (CDM) registry tracks the issuing and facilitates the transfer of CERs issued to CDM projects in developing countries (see unfccc.int/kyoto_protocol/registry_systems/items/2723.php).

The European Union Emissions Trading System (EU ETS) also has a sophisticated registry arrangement in place to support the operation of the EU-wide cap-and-trade system and to track thousands of emissions points distributed in 31 countries. Up to 2012, each EU country member operated its own ETS registry but, as of mid-2012, these national registries have been replaced by a single regional EU registry that contains the accounts, verified emissions and surrendered allowances for each regulated source of emissions in the 31 countries (see Ecofys, 2013).

Business-driven GHG emissions trading registries

The Verified Carbon Standard (VCS) was created in 2005 by a group of environmentally concerned business-related institutions, including the Climate Group, the International Emissions Trading Association (IETA), the World Economic Forum and the World Business Council for Sustainable Development (WBCSD). In 2009, the VCS was incorporated as a US non-profit, focused on providing technical standards to the international voluntary carbon market (see www.v-c-s.org).

The methodologies and standards developed by the VCS are in the public domain. However, the VCS charges a fee to users who want to be accredited and have their emission

reductions verified, certified and registered in the VCS Registry System, described as follows:

The VCS Registry System is a secure platform where [carbon] credits can be assigned unique serial numbers allowing any project and any credit to be searched for and tracked online. In order to maintain quality assurance, VCS registries must adhere to strict conflict of interest policies and maintain sufficient financial resources to ensure ongoing market support and guarantee uninterrupted access to the accounts.

Operation of the VCS Registry System is outsourced to two business service companies: Apex and Markit.⁵

NGO-driven GHG emissions reduction registries

Non-government organizations (NGOs), including WWF, have participated in the creation of several environmental standards and associated verification and registry platforms. The best example is the Gold Standard (www.cdmgoldstandard.org) established in 2003 by WWF and now endorsed by more than 80 NGOs worldwide. The Gold Standard Registry (www.cdmgoldstandard.org/our-activities/project-registry), which is operated by Markit, describes itself as:

... a web-based software application that creates, tracks and enables the trading of Gold Standard Voluntary Emission Reduction (VER) credits around the world. All Gold Standard VER credits are issued and tracked within the Registry via unique serial numbers.

Using the proven and trusted Markit Environmental Registry infrastructure, the registry manages the full lifecycle of a VER carbon credit from creation to retirement. In accordance with the Gold Standard Foundation's premium standards, the registry ensures the transparency, quality, reliability and security of these carbon commodities for the marketplace.

The Registry also serves as The Gold Standard Clean Development Mechanism and Joint Implementation project database, tracking the certification of Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs).

Key functions of the registry:

- To maintain and manage project accounts for Gold Standard VER certification and provide an up-to-date list of GS-CER projects registered with the UNFCCC CDM.
- Project Developers are required to use this registry to upload project documentation and review/implement required revisions during project design and validation stages ... [Auditors] are required to use this system to upload their validation and verification reports.
- Registered users can gain detailed information about Gold Standard carbon credits on offer in the voluntary offset market and the conditions of sale.
- The open-access section of the Registry is used by NGO Supporters during stakeholder review periods following the submission of validation and verification reports.

- Un-registered users can track the progress of an application and read project documentation that has been released to the public.⁶

NATIONAL AND SUBNATIONAL OPTIONS



All countries that plan to undertake significant REDD+ activities will eventually need a REDD+ registry, and, in the absence of an international

REDD+ registry, several countries are already developing their own. Here is a short list of some of the options to be considered when building a national or subnational REDD+ registry:

- **A REDD+ or climate change registry:** Each REDD+ country may need to decide whether it makes sense to establish a stand-alone REDD+ registry or to fold it into a broader NAMAs or climate change registry that includes a section for REDD+. Early REDD+ movers seem to have opted for a REDD+ registry, keeping open the possibility of integrating it into a broader NAMAs or climate change registry in the future.
- **Geographical scope:** Some countries are opting for a single countrywide REDD+ registry (see *Focus*) while others (e.g. Indonesia, Brazil) also include several subnational registries. The choice may be made based on the size of the country and the level of authority and initiative that subnational jurisdictions (e.g. states, provinces) have on forest and REDD+ related issues.
- **Outsourcing the registry:** So far, forest countries are building REDD+ institutional

systems mostly within public agencies, but they outsource some functions to academic, not-for-profit or business providers.

The same may happen with all or some functions of a REDD+ registry. For example, in mid-2012 the state of Acre, Brazil, signed an agreement with Markit (a private international financial information company) for Markit to provide registry services for Acre's REDD+ programme, including: "infrastructure and technical support to jointly develop a customized, secure online registry facility for efficient and transparent issuance of credits and for tracking ownership and retirement of credits. In addition, the Markit Environmental Registry will establish connectivity to link Acre's numerous partners and facilitate transactions in Brazil and internationally." (from Markit 6/20/2012 press release, available on the web).

According to some experts, Acre's decision to move forward with a state-level REDD+ registry and outsource it to an international financial service company reflects its interest in California's emerging GHG regulations, which would include a large market for international forest carbon offsets but are likely to require a credible REDD+ registry.⁷

- **Institutional location:** If the registry is not outsourced, an obvious institutional home would be the leading national REDD+ agency or the MRV agency. It could also be located in the national natural resources statistics or census agency, which would bring it closer to where the technical experience may be available. Some experts suggest that a broader climate registry may be located under the ministry of finance or

economics or development, which would bring it closer to where national economic decisions are made.

- **Governance:** Whatever the registry's institutional location, its effectiveness may depend on its capacity to elicit information and collaboration from a large array of public and private stakeholders and to be viewed by them as transparent, accountable and trustworthy. Putting in place a multi-institutional board and/or building up a network of reference points or correspondents in key public and private entities may help achieve this buy-in.
- **Technology:** There is the option of using open-source or proprietary software. The former is available free of charge but still requires investing in adapting it to local needs and in training local staff. The price of proprietary systems can be high, but may include installation, adaptation, and training and maintenance costs. Most experts favour using open-source technology and readiness financing to pay for the costs of adaptation and training of local operators.
- **Functions:** Which of the six functions listed in *Table 1* should the registry perform and when? There is a strong rationale to begin with a simple approach and expand incrementally. For example, a REDD+ registry could focus initially on tracking REDD+ activities and funding, and slowly add the more demanding functions of tracking emission reductions and emissions trading.
- **Information to be requested from REDD+ Parties:** The type and format of the information to be collected by the registry will depend on the functions that it

FOCUS

EARLY EXPERIENCES WITH A NATIONAL REDD+ REGISTRY IN THE DEMOCRATIC REPUBLIC OF CONGO (DRC)

Since mid-2012 the DRC government has worked to put in place a national REDD+ registry and national forest monitoring system (NFMS)—the first in Africa—to track the effectiveness of the country's REDD+ projects as well as their social and environmental impacts. According to a 2012 news release from DRC's Ministry of the Environment, Nature Conservation and Tourism:

Many REDD+ projects aiming to value emissions reductions through voluntary or emerging compliance markets are currently in development in DRC. These projects are being implemented by consortia usually involving a variety of stakeholders ranging from civil society organization, church groups, international NGOs, private sector and specialized services of the public administration. In order to ensure that i) eligibility criteria and ii) social and environmental standards and safeguards are met, the government is currently developing an approval procedure for these REDD+ projects. This regulatory project approval should help to promote transparency, synergy and learning in the implementation of REDD+. For this purpose a Ministerial decree accompanied by a number of complementary documents including a detailed procedures manual were signed into force on February 15th 2012, [that include the creation of] a National REDD+ Registry that will be publicly available online... The registry will also enable the monitoring of a range of "initiatives" being implemented by government, civil society, donors or private sector which are relevant for REDD+ but not aiming to generate carbon assets (such as investments in agriculture, forestry, energy sectors, etc.). The registry will become a dynamic tool by which the administration will follow up the daily receipts of investments in REDD+ projects and initiatives and their environmental and social impacts. This registry will also ensure transparency

and sharing of data generated by the projects and their monitoring and verification by all stakeholders. In doing so, it should help ensure that local communities in the project area fully take part in these projects and initiatives and reap their benefits in various ways.

Regarding the technical operation of the DRC Registry, according to Ashley et al. (2013):

The DRC REDD Registry is managed by a Technical Commission under the National REDD Committee, at the Ministry of the Environment. The Technical Commission has arrangements with ProCredit Bank DRC (part of the International ProCredit Group) to conduct due diligence checks on all prospective REDD+ project developers. Additionally it requires that any project meets both national and international standards, including VCS validation and verification for projects, and CCBA for social and biodiversity co-benefits.

Forest monitoring to support the DRC REDD+ Registry is carried out by the DRC National Forest Monitoring System, still being developed as of early 2013 by FAO/UN-REDD and partners. This system uses Brazil's open-source TerraAmazon platform (renamed TerraCongo in DRC) to provide GIS, image processing, database management and data access functionalities. TerraAmazon is a remote sensing and GIS based information system that uses Brazil's TerraLIB GIS (www.terralib.org) and SPRING software (www.spring.org.br). Both of these Brazilian systems can be downloaded and used free of charge.

performs and the technical platform it uses. In the reference section at the end of this chapter there are links to several registries that will show the information they collect and the forms they use to collect it.

An important consideration when designing information requests is to minimize costs. Examples include maximizing synergies, avoiding duplications and not requesting irrelevant or redundant information (e.g. be aware of report requirements of other agencies that could complement the information collected by the REDD+ registry). There is the additional issue of "information quality" and, as such, it will need to be determined whether a registry demands certain quality standards or checks to ensure the accuracy of the information that it receives.

- **Staffing the registry:** A small team may be all that is needed to operate the registry, provided that it includes (a) strong information technology capabilities, because all the information will be captured and posted electronically; (b) one or two people on the team familiar with the forest sector and REDD+; and (c) a team leader with access to the REDD+ agency high-level management, because the registry requires that the information arrives at the decision-making table in a timely manner and in a useful format.
- **How to ensure efficiency, transparency and accuracy:** A registry is only worthwhile if people use it and trust it. This will be determined by the registry's (a) efficiency: cost to users versus information and services that it provides; (b) transparency: what and how much information is accessible to the various users; (c)

accuracy: how the registry ensures the quality of its information; and (d) the accountability mechanisms in place, should someone want to challenge some of the registry information. Options to address these issues may need to be considered while designing the registry. For example, transparency and accountability can be factored into the governance options.

- **Paying for the registry:** Securing the long-term funding to maintain a registry is essential to its operation. Initial funding to build up the registry may come from international readiness funds, while medium- and long-term costs may be covered by user fees. As an example, Ponzi, 2012, discusses the operation and cost of Ireland's National Emission Trading Registry.

WWF'S VIEWPOINT



As of mid-2013 WWF has not produced a specific policy position regarding REDD+ registries (see links to WWF REDD+ policy positions and briefs in the WWF REDD+ Resources chapter). Still, at a technical level, WWF REDD+ practitioners recognize that a REDD+ registry is a necessary part of any national REDD+ strategy.

Regarding the options to put a REDD+ registry in place, WWF suggests:

- Moving forward, step-wise and cost-wise, with a national REDD+ registry that can eventually be merged into or cooperate with a future national climate-wide registry, and with the UNFCCC existing or future international registry platforms;

- Developing national-level registries, to ensure that standards and quality are consistent countrywide; however, as in the case of MMRV and RL there may be practical reasons to develop registries subnationally in the regions of the country that are more advanced in their REDD+ programmes, but only as a transition to a countrywide registry system;
- Defining the purpose and scope of a national REDD+ registry to begin modestly around information activities, building up as needed to eventually encompass the more demanding and costly activities of registering emission reductions and supporting emissions trading;
- Taking on board international experiences and best practices to ensure credibility and comparability.

FURTHER RESOURCES



Publications

Ashley, R. et al. 2013. "Ghana's REDD+ Registry Pathways to Development". AFC, NCRC, FT.

O'Sullivan, R. et al. 2011. "National REDD+ Registries. An Overview of Issues and Design Options". KfW, Frankfurt, Germany.

Reed, D. et al. 2010. "A Registry approach for REDD+". Technical Working Group, Washington, DC.

Websites

Carbon Cities Climate Registry:

www.citiesclimateregistry.org

CDM Bazaar: www.cdmabazaar.net

Gold Standard Registry: www.cdmgoldstandard.org/our-activities/project-registry

North America Climate Registry:

www.theclimateregistry.org

REDD+ Partnership REDD+ Database:

www.reddplusdatabase.org

UNFCCC CDM Registry: unfccc.int/kyoto_protocol/registry_systems/items/2723.php

VCS Registry: www.v-c-s.org/how-it-works/vcs-registry-system

BIBLIOGRAPHY



DRC, Ministry of the Environment. 2012. "The National Forest Monitoring System and the National REDD+ Registry: A contribution to managing and monitoring FIP investments in the Democratic Republic of Congo".

Kinshasa, available at www.climateinvestmentfunds.org.

Ecofys. 2013. "Mapping Carbon Pricing Initiatives. Development and Prospects 2013". World Bank, Washington, DC, USA.

Indonesia REDD+ Task Force. 2012. "Strategy and Implementation Plan for REDD+ Measurement, Monitoring, Reporting, and Verification (MRV) in Indonesia". Jakarta, available at www.satgasreddplus.org.

Machfudh. 2011. "Design roadmap of Indonesia REDD+ funding and compliant benefit/incentives distribution system". UN-REDD, Jakarta, Indonesia.

Perez-Cirera, V. and Dabbagh Lina (ed.) 2012.

"Advances in NAMAs and National Climate Registries: Opportunities to Scale Up Renewable Energy and Energy Efficiency in Mexico". Technical Working Group, Washington, DC, USA.

Ponzi, J. 2012. "Ireland's National Emission Trading Registry: experiences and lessons learned". EPA Ireland, presentation at the PMR Technical Workshop on Baselines and Registries, Cologne, Germany, 27 May 2012, available at www.thepmr.org/system/files/documents/12_Ponzi_Ireland_Registry.pdf.

Ronquillo Ballesteros and Y. Zhao. 2011. "State of Play of the Climate Registry. A Mapping of UNFCCC Discussions of a Climate/NAMAs Registry in the Eve of COP17". Technical Working Group, Washington, DC, USA.

Rosker, F. et al. 2011. Annual Status Report on Nationally Appropriate Mitigation Actions (NAMAs) Ecofys, ECN, CCAP, available at www.ecofys.com/en/publication/annual-status-report-on-namas-2012.

UNFCCC. 2011. "Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011 Addendum Part Two: Action taken by the Conference of the Parties at its seventeenth session. FCCC /CP/2011/9/Add.1. UNFCCC, Geneva, Switzerland.

UNFCCC. 2010. "The Cancun Agreement, Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010". FCCC/CP/2010/7/Add.1, available at www.unfccc.int/resource/docs/2010/cop16/eng/07a02.pdf.

END NOTES



1. For the UNFCCC NAMAs registry, see the Cancun Agreement, Articles 53 to 67, in UNFCCC. 2011. "Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010," FCCC/CP/2010/7/Add.1. Available online at www.unfccc.int/resource/docs/2010/cop16/eng/07a02.pdf.
2. See Articles 45 to 55 in the Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011 Addendum Part Two: Action taken by the Conference of the Parties at its seventeenth session. FCCC/CP/2011/9/Add.1. No further advances were made on this subject at COP 18 (Doha 2012).
3. For the ongoing UNFCCC discussion regarding scope and modalities of an international registry, see A. Ronquillo Ballesteros and Y. Zhao. 2011. "State of Play of the Climate Registry. A Mapping of UNFCCC Discussions of a Climate/NAMAs Registry in the Eve of COP 17." Technical Working Group, Washington, DC.
4. A "Kyoto unit" is one unit of the emission allowance under the Kyoto protocol expressed in metric tonnes of CO₂e.
5. All quotes are from the VCS website www.v-c-s.org; for a description of VCS registry, visit www.v-c-s.org/how-it-works/vcs-registry-system; for VCS registry operators, visit www.v-c-s.org/registry-system-contacts.
6. All quotes are from GS websites www.cdmgoldstandard.org and www.cdmgoldstandard.org/about-us/who-we-are.
7. stateredd.org/recommendations