

UN-REDD PROGRAMME TECHNICAL BRIEF v2.0



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REDD+ safeguards information systems: practical design considerations

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Key messages

- 1. Developing a safeguards information system (SIS) may not require an entirely new system or entirely new components to be established.** It is likely to be more cost-effective in the long term to develop a SIS from a combination of existing information systems, sources and institutional arrangements to meet the desired objectives.
- 2. SIS design and operation will be different in each country** due to the different national circumstances, legal and institutional frameworks, safeguards being applied (in addition to those of the United Nations Framework Convention on Climate Change (UNFCCC)), existing information systems and sources, and REDD+ actions. Consequently, generic SIS models cannot be prescribed.
- 3. Four practical design considerations that countries should take into account** when developing a SIS include:
 - objectives
 - information needs and structure
 - technological systems requirements
 - functions and the institutional arrangements to carry out these functions.
- 4. SIS design will be influenced by a country's safeguards approach,** including:
 - how a country has defined the goals, scope and scale of safeguards application
 - whether the environmental and social benefits and risks of REDD+ actions have been assessed
 - how the Cancun safeguards have been interpreted in accordance with national circumstances
 - what existing governance arrangements have been identified, assessed and strengthened to address and respect REDD+ safeguards.
- 5. A SIS provides a strong basis for developing summaries of safeguards information.** Drawing on information from the SIS can strengthen the quality, reliability and credibility of the summaries, particularly when it comes to demonstrating improvements in addressing and respecting safeguards from one summary to the next.

READ THIS BRIEF...

- If you are involved in processes in your country to meet safeguards requirements for REDD+, particularly in terms of SIS design.
- If you are looking for technical assistance, or want to gain a better understanding of possible considerations when designing a SIS in line with UNFCCC guidance.
- If you found the original (v1.0) technical brief useful and would like to access the latest thinking on SIS design, based on other countries' experiences.

Introduction

Developing a “system for providing information on how ... safeguards ... are being addressed and respected throughout the implementation of [REDD+] activities”¹ is a key requirement and a prerequisite for results-based payments from REDD+, under the United Nations Framework Convention on Climate Change (UNFCCC). In addition, demonstrating that safeguards have been addressed and respected through an operational safeguards information system (SIS) can help countries ensure that the environmental and social performance of REDD+ is transparent, consistent, comprehensive and effective. While significant progress has been made in several countries on other pillars of the UNFCCC Warsaw Framework for REDD+ (reference levels, national forest monitoring systems, and national strategies or action plans), designing a SIS has proved to be more challenging. As more and more countries enter advanced stages of the readiness phase and move towards REDD+ implementation, attention is turning towards designing and implementing SIS that are anchored to national strategies or action plans (NS/APs) and integrated into wider country approaches to safeguards.

This technical brief v2.0 updates the original version and accompanies a detailed resource document produced in 2015.² Experience and lessons learned from recent country progress with SIS design inform the updated considerations presented here.

REDD+ safeguards requirements under the UNFCCC

While REDD+ has the potential to deliver environmental and social benefits that go beyond the reduction of greenhouse gas emissions, it may also entail potential risks to people and the environment. These benefits and risks will depend on a number of factors related to specific national circumstances — such as how REDD+ actions are designed, as well as how and where these actions are implemented.

To protect against potential risks, while promoting benefits beyond climate change mitigation, Parties to the UNFCCC adopted a set of seven safeguards,³ known as the Cancun safeguards, to be addressed and respected when implementing REDD+ actions. Developing a SIS is a key requirement for REDD+ under the UNFCCC, as is the provision of summaries of



Photo: Sam Sapin



information on how all of the Cancun safeguards are being addressed and respected throughout REDD+ implementation.⁴

There is broad consensus around a few fundamental SIS design characteristics – transparency, comprehensiveness, flexibility to allow improvements over time, built on existing systems as appropriate – as reflected in UNFCCC guidance.⁵ These guiding characteristics, however, do not directly answer the questions most frequently asked by countries when designing a SIS: What does a SIS look like? How do we go about designing one? How much will it cost to build and to operate? In an attempt to answer these questions, the UN-REDD Programme presents here updated practical SIS design considerations. These build on the latest experiences and lessons learned through direct support provided to a number of countries with their SIS design process, within the broader context of their country approaches to safeguards. It is hoped that the practical design considerations shared here will present an opportunity for those developing a SIS to consolidate their thinking and develop design solutions adapted to meet their country's needs.

Key design considerations for safeguards information systems

Depending on the country context, it can be helpful to base the design of a SIS on existing information systems, and to draw on existing sources of information. As such, a SIS can be a combination of existing systems and sources of information, together with any new elements needed to fill identified gaps.

While SIS design features will be country-specific, the experiences thus far of REDD+ countries indicate four key design considerations (*Figure 1*), summarized as:

1. objectives beyond default UNFCCC requirements
2. information needs and structure to demonstrate that safeguards are being addressed and respected
3. technological systems requirements to manage and disseminate information
4. functions and the institutional arrangements to carry out these functions.

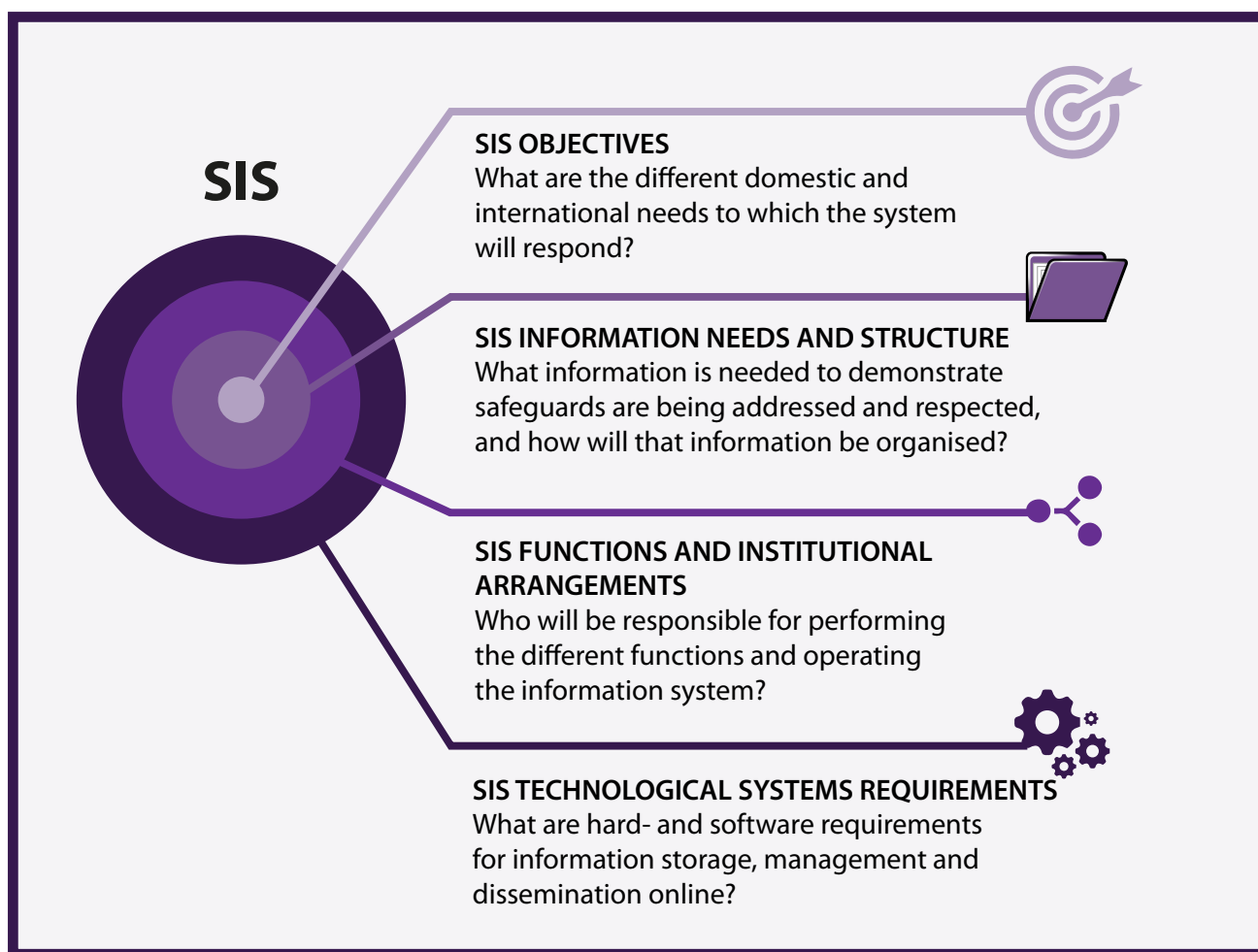


Figure 1: Key design considerations for REDD+ safeguards information systems

These design considerations reflect learning from collective country experiences. It should also be noted that SIS design choices and processes are likely to incorporate iterative improvements over time – with a view to expanding or refining system objectives, structure, functions, institutional arrangements and technological requirements over time – in line with the progress of REDD+ implementation.

SIS objectives: How can a SIS be applied?

The default objective for a SIS, stated under the UNFCCC, is to demonstrate that the Cancun safeguards are being addressed and respected throughout REDD+ implementation. A further objective could relate to using information from the SIS to prepare a summary of information on safeguards.

Initially, the objectives of a SIS may be limited to meeting these UNFCCC requirements, but over time additional SIS objectives can be considered. For example, by providing information on how environmental and social benefits and risks are being managed in forestry and other land-use sectors, a SIS can contribute to a range of objectives, such as accessing funding for REDD+ actions, improving implementation of NS/APs, encouraging greater legitimacy of REDD+ among domestic stakeholders, and informing national policy agendas. In addition, broadening the objectives of a SIS beyond REDD+ alone, such as to include information related to the Sustainable Development Goals (SDGs), biodiversity objectives, or national plans for the conservation of soil, water or other ecosystem services, can help build further domestic support for REDD+. In addition, it can increase the ‘return on investment’ for developing and running the system by contributing to multiple reporting needs.

Country example 1 – objectives. Zambia⁶ has stated that the default objective of its SIS is to meet the UNFCCC requirement of demonstrating that the Cancun safeguards have been addressed and respected throughout the implementation of REDD+ actions. Stakeholder consultations have proposed additional objectives for Zambia's SIS: 1) to improve the design of REDD+ actions and the National REDD+ Strategy/Investment Plan implementation, based on safeguards information; and 2) to use safeguards information to inform evidence-based reform of national policies, laws and regulations (PLRs), strengthen PLR implementation and identify investment priorities. After 2020, and when Zambia has built further capacity and acquired more experience in operating its SIS, two other objectives will be considered for adoption: 1) to improve institutional capacity and the operation of existing information systems; and 2) to contribute to the implementation of, and reporting to, international conventions and obligations.

can be discussed and developed. This may include the possibility of collecting information from local stakeholders, as desired and appropriate.

Once information needs have been identified, a SIS information structure can be developed to meet those needs. Here, 'structure' refers to how the information will be organized within the SIS, which will help determine how information is compiled, managed and disseminated. Different types and scales of information may necessitate different structures.

Given that the SIS is required to cover each of the Cancun safeguards, structuring information into safeguard-by-safeguard narrative summaries can be a convenient option. On the other hand, several countries have opted for a hierarchical information structure comprising principles, criteria and/or indicators. In addition, countries may choose to report on different existing PLRs relevant for addressing and respecting safeguards, including information on their application as well as potential gaps in their implementation. These information structuring options are not mutually exclusive; different approaches may be better suited to different safeguards.

Different scales of REDD+ implementation – national, subnational, and/or project-level – can be reflected in the design of a SIS information structure. Each scale presents an opportunity to provide different types of information, such as:

1. national-level information on how safeguards are being addressed, which could include information on existing PLRs that contribute to meeting the safeguards; and
2. national, subnational and/or project-level (as appropriate) information on how safeguards are being respected, which could include information on how the PLRs are being implemented in practice or on the *outcomes* of PLR implementation, or information from grievance resolution mechanisms.

In addition to including information about what is already in place to address and respect safeguards, some countries are planning to include information on the gaps in their PLR frameworks, and associated institutional arrangements for PLR implementation. Information on progress with gap-filling measures,

SIS information needs and structure: What information demonstrates that safeguards are being addressed and respected, and how will it be organized?

Determining what information is needed to demonstrate that safeguards have been addressed and respected has been an important consideration for countries progressing with their SIS designs. Essential information needs can be determined through an approach that combines: a) national interpretation of REDD+ safeguards; b) assessment of the country's legal and institutional frameworks that are used to address and respect the safeguards; and c) understanding the potential benefits and risks of REDD+ actions in the country's NS/AP (see "SIS design considerations as part of broader country approaches to safeguards" below). These information needs can then be mapped against information collected and reported by existing information sources and systems, to determine which environmental and social information is already available for reporting on safeguards. Information gaps can then be identified, and ways to fill them

to demonstrate improvements in addressing and respecting safeguards over time, is also being considered as part of SIS structure in some countries.

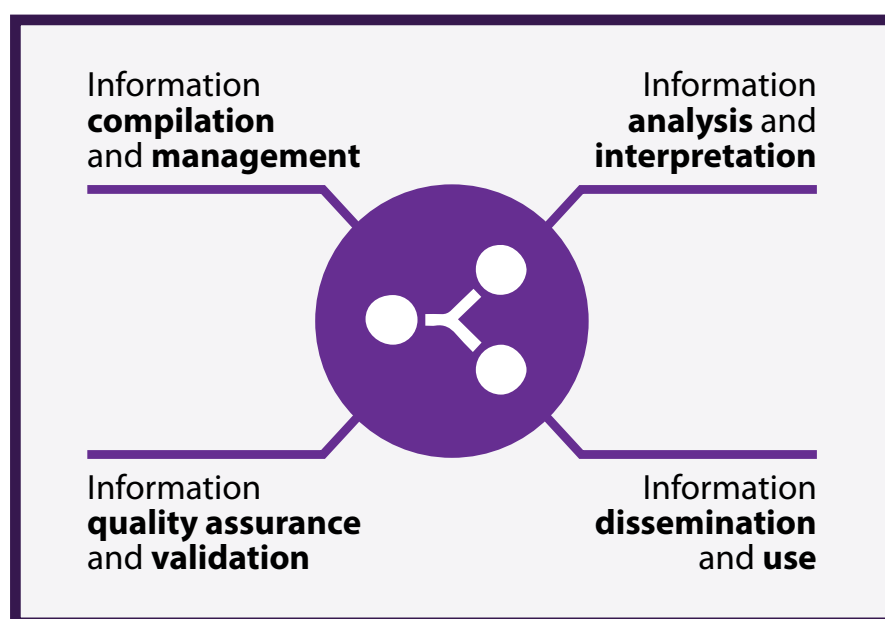
Country example 2 – needs and structure.

Sri Lanka developed national criteria as part of its interpretation of the Cancun safeguards, in accordance with its own specific circumstances.⁷ These national criteria form the basis of a structure to meet safeguards information needs, as identified through assessments of environmental and social benefits and risks, as well as existing PLRs. A SIS database was developed, which captures information on 1) how the national criteria are being addressed, in terms of the existing PLR framework, gaps and proposed gap-filling measures; and 2) how the national criteria are being respected, in terms of how the existing PLR framework is being implemented in practice, as well as gaps and weaknesses in that implementation and corresponding gap-filling measures. The SIS database also contains information on how the national criteria are being respected in terms of enhancing priority environmental and social benefits, and mitigating priority risks, throughout the implementation of REDD+ actions.

SIS functions and institutional arrangements: What will the SIS do and who will be responsible for making the system work?

Through SIS design experiences to date, and drawing on lessons learned from information and monitoring systems beyond REDD+, a number of generic functions have been identified for possible consideration in SIS design (*Figure 2*):

- **Information compilation and management**
How will the necessary information for the SIS be sourced, brought together and managed?
- **Information analysis and interpretation**
What does the information tell us about how safeguards have been addressed and respected, and how outcomes can be attributed to REDD+?
- **Information quality assurance and validation**
Is the information and analysis accurate, and has it been validated?
- **Information dissemination and use**
How will information be communicated to, and used by, different stakeholders to meet their different needs?



An assessment of how existing systems, institutional mandates, procedures and capacities meet the identified information needs, structure and functions of the SIS can inform the assigning of responsibilities to different institutions. Assessing existing information systems can help to realistically evaluate existing capacities to compile, manage and disseminate information. Such assessments can identify priority investment needs (to be met by domestic budget allocation

Figure 2: Possible functions of a REDD+ safeguards information system

and/or international assistance) in order to build the capacities of existing systems that contribute to the SIS, to achieve incremental improvements in SIS functioning. The existing framework of a country's PLRs can help define the mandates and functions of government institutions that might contribute to the SIS.

New institutional arrangements, such as information-sharing agreements, might need to be considered to feed information from multiple institutions and systems into a single national SIS. The role of non-state actors – civil society, indigenous peoples and local communities, as well as the private sector – could complement government institutional mandates and capacities to perform different functions within the SIS, such as grass-roots-level information compilation, validation and dissemination. Where

some information requirements cannot be met, novel information solutions may need to be found to close those gaps.



SIS technological systems requirements: How will information be stored, managed and accessed?

Once information structure(s) and institutional arrangements have been identified, it is likely to be important that countries think about technological solutions for storing, managing and disseminating safeguards information. Technological requirements will need to be considered for a number of aspects, such as who the different SIS end users will be; if the SIS will have an online interface, who will be able to access what information, and how it will function; whether information will be collected through digital/automatic processes; and where information will be stored and any database hosted. Existing online platforms, such as for national forest monitoring systems (NFMS), could serve as useful portals to disseminate safeguards information. Spatially explicit information in an NFMS on forest-cover change, for example, could be relevant to demonstrating that Cancun safeguards (e – conservation of natural forests; f – risk of reversals and; g – displacement of emissions) have been addressed and respected.

Country example 3 – functions and institutions.

The institutional arrangements for setting up and operating the SIS in Viet Nam⁸ are still under discussion, but four basic functions have already been identified: information collection, compilation/aggregation, analysis and dissemination. An analysis of existing relevant information systems, together with stakeholder consultations, informed proposals as to which existing institutions would be responsible for which functions. Within the national Forestry Administration, it is recommended that the Viet Nam REDD+ Office (VRO), in collaboration with the Division of Information and Data, which manages the existing Forest Management Information System (FORMIS), take on the functions of information compilation/aggregation for the SIS, integrating safeguards information into the FORMIS platform accordingly. For information dissemination, VRO, under the supervision of the National REDD+ Steering Committee, will be responsible for preparing reports, both national and international. All information products produced by the SIS will be subject to stakeholder validation processes. VRO will coordinate with the UNFCCC focal point, the Ministry of Natural Resources and Environment, during the formulation and submission of summaries of information.

Country example 4 – technological requirements.

With the aim of designing a SIS that uses existing systems and sources of information where possible, Costa Rica's National Forestry Financing Fund (FONAFIFO) established a partnership with the National Geo-Environmental Information Center (CENIGA), in order to create an online REDD+ safeguards module within the National System for Environmental Information (SINIA) platform and website.⁹ The SINIA is legally recognized as Costa Rica's official platform to manage and distribute national environmental information, coordinating and linking with different institutions and sectors. It is envisaged that some relevant information and indicators will be collected through automated protocols, taking advantage of the SINIA's integrated system of environmental indicators and statistics.

SIS design considerations as part of broader country approaches to safeguards

Collective country experiences are demonstrating the value of considering aspects of overall country approaches to safeguards in the design of SIS. Such country approaches aim to utilize and strengthen existing governance arrangements to meet UNFCCC safeguard requirements, together with any other safeguard goals that a country may choose to adopt. Key elements of country approaches serving as potentially important inputs informing the design of a SIS include:

- **Defining the goals, scope and scale of safeguards application** – Defining the goals of safeguards application refers to the safeguards frameworks and requirements that are applied to REDD+ in a country, and whether the country adopts an approach that can accommodate safeguards requirements that are relevant to UNFCCC and other REDD+ partners, such as those of the Forest Carbon Partnership Facility (FCPF) or the Green Climate Fund (GCF). The scope of safeguards
- **Assessing benefits and risks of potential REDD+ actions** – The REDD+ actions being considered under the NS/AP, and their potential environmental and social benefits and risks, will help determine what information will need to be provided through a SIS. Assessment of the benefits and risks of potential REDD+ actions can inform the national interpretation of safeguards and the design of actions to be included in the NS/AP and the SIS design itself, particularly its information

application refers to the REDD+ actions to which the safeguards will be applied, and will determine what information will be needed in the SIS to demonstrate that safeguards are being addressed and respected. How a country chooses to develop and implement its NS/AP will affect safeguards information needs and sources and therefore SIS design. The UNFCCC calls for a national-level SIS, but strategic decisions on the most appropriate scale(s) of REDD+ implementation — national, subnational, or project-level — will have a direct influence on the information needs, sources and institutional arrangements to be considered during the SIS design process.



Photo: Armando Quichán

structure. SIS development can begin before REDD+ actions are defined, but may run the risk of having a thematic scope broader than necessary.

- **Interpreting the Cancun safeguards in accordance with national circumstances** – The Cancun safeguards serve as a set of principles that need to be interpreted in terms of specific thematic issues of relevance to a country's context, i.e. based on an understanding of the benefits and risks of proposed REDD+ actions. They must identify which aspects of society and the environment need to be safeguarded, under the broad framework agreed in Cancun. National interpretations also present an opportunity to integrate substantive content of other safeguards frameworks into a single country approach.
- **Identifying, assessing and strengthening existing governance arrangements** – A first step

for many country approaches to safeguards is to assess what existing governance arrangements – PLRs, institutional arrangements to implement them, and information systems to demonstrate effective implementation – a country has in place to address and respect safeguards, as well as any potential gaps and how they could be filled. Such assessments can help to identify information sources for a SIS, as well as institutions' roles and responsibilities for performing different SIS functions.

Conclusion

As noted above, SIS design is likely to be a highly iterative process, with the results of one step helping refine previous steps. The design elements presented here can be considered in any sequence. A simplified summary process, based on collective experiences of countries to date, is presented in Figure 3.

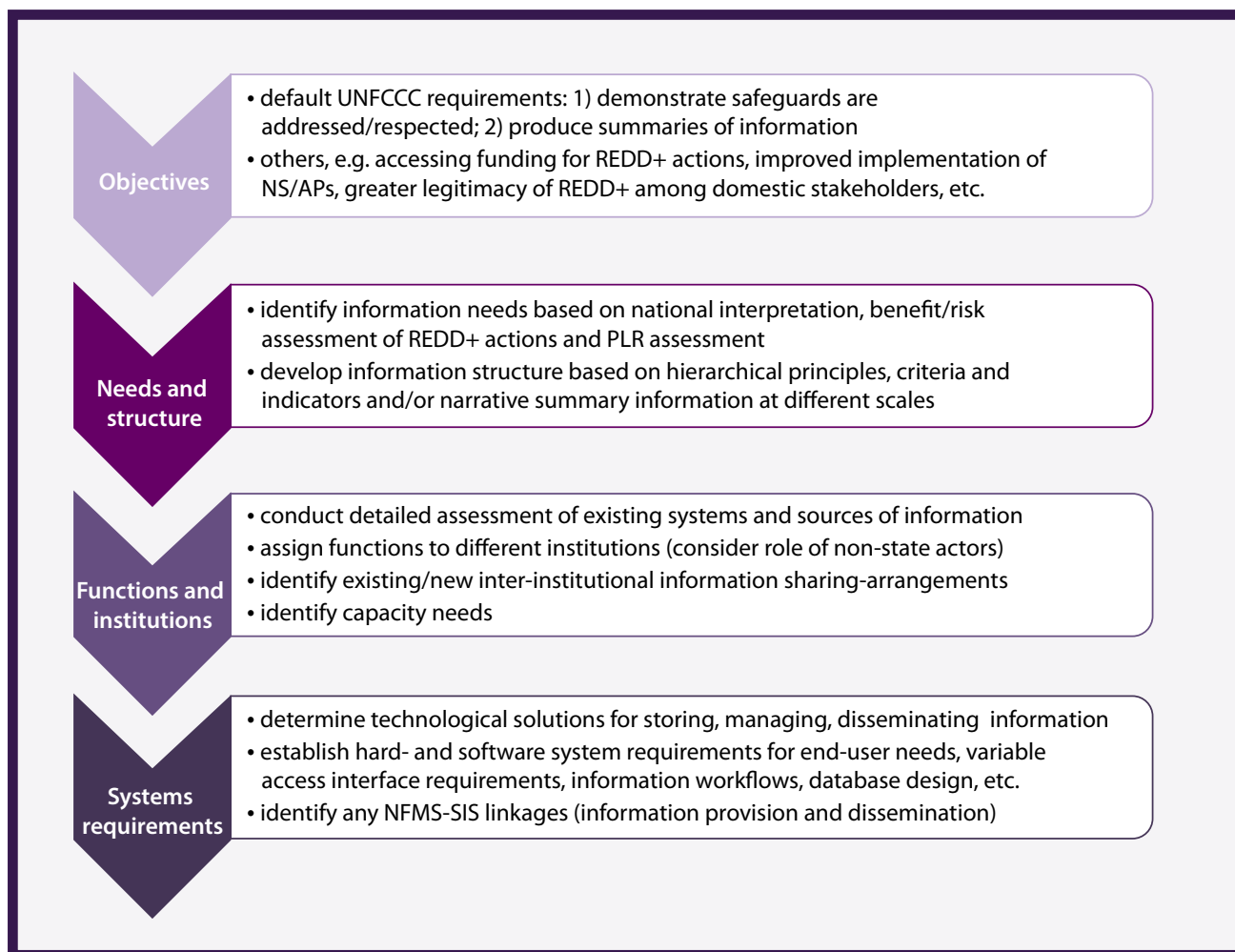
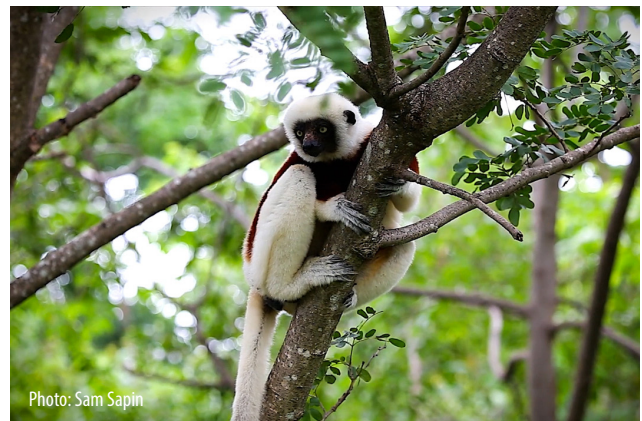


Figure 3: Indicative elements and process for safeguards information system design

Information from a country's SIS will provide a strong basis for developing and updating summaries of safeguards information, and in turn contribute to the quality, reliability and credibility of information. Although there is no UNFCCC decision providing explicit guidance on how a SIS can inform summaries of information, the SIS can be viewed as the national REDD+ safeguards monitoring and evaluation system. Summaries of information are international reports that can summarize SIS contents, over time demonstrating incremental improvements in how safeguards are being addressed and respected throughout REDD+ implementation.

While the UNFCCC does not make any explicit provisions for the review of summaries of information, this can be expected to be carried out by entities mandated to make results-based payments for REDD+ (such as the GCF).¹⁰

In addition to showing how environmental and social issues were safeguarded against risk during the implementation of REDD+,¹¹ reporting on



environmental and social benefits achieved through REDD+, via a SIS, may help countries respond to the UNFCCC guidance¹² that invites countries to submit information on the nature, scale and importance of non-carbon benefits related to REDD+ implementation. Furthermore, capturing these benefits in summaries of information may meet the expectations emerging among those entities making results-based payments for REDD+, as well as contributing to domestic reporting on national and international policy goals.

Endnotes

1. UNFCCC Decision 1/CP.16, paragraph 71d (Cancun, 2010). Available at: <https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf>
2. Technical Resource Series 1 – REDD+ Safeguards Information Systems: Practical Design Considerations (Geneva, 2015) ([English](#) - [Español](#) - [Français](#))
3. UNFCCC Decision 1/CP.16, Annex I, paragraph 2 (Cancun, 2010). Available at: <https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf>
4. UNFCCC Decision 12/CP.17, paragraph 3 (Durban, 2011). Available at: <http://unfccc.int/resource/docs/2011/cop17/eng/09a02.pdf>
5. UNFCCC Decision 12/CP.17, paragraph 2 (Durban, 2011). Available at: <http://unfccc.int/resource/docs/2011/cop17/eng/09a02.pdf>
6. Zambia's Safeguards Information System Framework Design Document v1.0 (Lusaka, 2017)
7. Sri Lanka's National Approach to REDD+ Safeguards (Colombo, 2016). Available at: http://infosl.online/reddlkw/web/images/contents/document_centre/communiation_materials/18_REDD_Safeguards_National_Approach.pdf
8. Technical Proposal for the Development of Safeguard Information System in Viet Nam (Hanoi, 2017)
9. Costa Rica's Summary Proposal for a REDD+ Safeguards Information System (San Jose, 2015). Available at: http://www.fonafifo.go.cr/proyectos/finalizados/SIS-REDD_Summary.pdf
10. GCF/B.17/13 Pilot Programme for REDD+ Results-based Payments (Songdo, 2017). Available at: http://www.greenclimate.fund/documents/20182/751020/GCF_B.17_13_-_Pilot_Programme_for_REDD__Results-based_Payments.pdf/8e3e9bf8-c02a-478b-b26f-f0743da2395e
11. Although it should be noted that Cancun safeguard (e) calls for, *inter alia*, "countries undertaking [REDD+] activities...to enhance other social and environmental benefits...taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries..."
12. UNFCCC Decision 18/CP.21 (Paris, 2015). Available at: <http://unfccc.int/resource/docs/2015/cop21/eng/10a03.pdf#page=15>

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More Information

UN-REDD workspace knowledge page on safeguards:

<http://www.unredd.net/knowledge/redd-plus-technical-issues/safeguards.html>

UN-REDD workspace Safeguards Country Resources Hub:

<http://www.unredd.net/announcements-and-news/2592-safeguards-country-resource-hub.html>



Technical Resource Series 1 - REDD+ Safeguards Information Systems: Practical Design

Considerations – provides a synthesis of stakeholder perspectives on SIS design considerations, complementing and elaborating on the guidance provided by the UNFCCC.

([English](#) - [Español](#) - [Français](#))



Technical Brief - Conceptual framework for country approaches to safeguards

– provides an overview of the conceptual framework for country approaches to meeting REDD+ safeguards requirements of the UNFCCC, and other relevant initiatives.

([English](#) - [Español](#) - [Français](#))



Info Brief 5 - Summaries of information: How to demonstrate REDD+ safeguards are being addressed and respected

– elaborates on UNFCCC guidance, indicating possible content of summaries of information by drawing on key elements of country approaches to safeguards

([English](#) - [Español](#) - [Français](#))

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