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**ADVICE ON THE APPLICATION OF RELEVANT REDD+¹ SAFEGUARDS FOR
BIODIVERSITY, AND ON POSSIBLE INDICATORS AND POTENTIAL MECHANISMS TO
ASSESS IMPACTS OF REDD+ MEASURES ON BIODIVERSITY**

Note by the Executive Secretary

EXECUTIVE SUMMARY

Environmental and social safeguards² and accurate information on environmental and social impacts are essential for the long-term success of activities for *reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries* (REDD+) under the United Nations Framework Convention on Climate Change (UNFCCC). In decision X/33, the Executive Secretary has been requested to (i) provide advice, for approval by the Conference of the Parties at its eleventh meeting, on relevant REDD+ safeguards for biodiversity; and (ii) identify possible indicators and mechanisms to monitor and assess the impacts of REDD+ on biodiversity. These two requests are addressed in separate sections of this note.

Key aspects of the draft advice on REDD+ safeguards refer to: (i) clarifying land tenure issues, and aiming for integrated land-use planning at the landscape level, (ii) building on existing national biodiversity-related guidance and experience with the implementation of relevant decisions of the Convention on Biological Diversity; (iii) developing and applying national level REDD+ safeguards, drawing upon the three main existing safeguard initiatives,³ and (iv) using national safeguard processes to ensure that REDD+ achieves additional social and environmental benefits. The draft advice also contains a proposal for a basic biodiversity risk identification and risk mitigation process for national REDD+ activities.

* UNEP/CBD/SBSTTA/16/1.

¹ With reference to relevant decisions and documents of the United Nations Framework Convention on Climate Change, the term REDD+ refers to 'reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries'.

² The term 'safeguards' in this note refers to the safeguards listed in UNFCCC decision 1/CP.16 appendix I.

³ The UN-REDD Programme Social and Environmental Principles and Criteria (SEPC); the Forest Carbon Partnership Facility (FCPF) Readiness Fund Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners; and the REDD+ Social & Environmental Standards.

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Proposed indicators to monitor the contributions of REDD+ for achieving the objectives of the Convention on Biological Diversity, linked to the draft headline indicators for monitoring the implementation of the Strategic Plan for Biodiversity 2011-2020 (SBSTTA Recommendation XV/1), in particular Aichi Targets 5, 7, 11, 14 and 15, are: trends in extent of primary forests and other forest types, including forests managed by local communities; trends in forest fragmentation; trends in areas of forests in protected areas; trends in abundance of key species; and trends in relevant processes, policies and plans that consider biodiversity and indigenous and local community concerns.

While no single global or regional mechanism exists at present that could comprehensively monitor and assess the contributions of REDD+ to achieving the objectives of the Convention on Biological Diversity, mechanisms that can provide useful information include the Global Forest Resources Assessment (FRA) and its remote sensing survey, as well as national reporting to the Rio conventions. Monitoring REDD+ impacts on biodiversity and indigenous and local communities will depend on available capacity and data quality; however, with a phased approach proposed in this note, cost-effective monitoring of biodiversity impacts of REDD+ could begin immediately in most REDD+ countries. Developing country Parties involved in REDD+ activities will require adequate financial and technical support to address safeguards and monitor and assess the impacts of REDD+, and Parties and other actors would benefit from closer collaboration between the Rio conventions, and between the members of the Collaborative Partnership on Forests (CPF) and other relevant organizations.

The findings presented in this note are based on: (i) views submitted by Parties; (ii) a series of four expert workshops held in 2010 and 2011, and (iii) a report prepared by independent consultants, as well as a review of available peer reviewed literature.

SUGGESTED RECOMMENDATIONS

The Subsidiary Body on Scientific, Technical and Technological Advice, may wish to recommend that the Conference of the Parties adopt a decision along the following lines:

The Conference of the Parties

1. Noting the potential for synergies in implementing efforts for reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (REDD+), and the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets, *urges* Parties, other Governments, and relevant organizations to ensure that they are implemented in a coherent and mutually supportive way;
2. *Invites* Parties, other Governments, and relevant organizations to continue and strengthen their efforts to ensure that REDD+ activities support achieving of the objectives of the Convention on Biological Diversity, and provide direct benefits for forest biodiversity, and to indigenous and local communities;
3. *Approves* the advice on relevant biodiversity safeguards for REDD+ contained in section II of the present document (UNEP/CBD/SBSTTA/16/8);
4. *Invites* Parties, other Governments, and relevant organizations to make use of the information in document UNEP/CBD/SBSTTA/16/8 when planning and implementing REDD+ activities and when preparing National Reports and other submissions on progress towards the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011 – 2020, and, where applicable, for other relevant submissions under other processes;
5. Noting its relevance to addressing REDD+ safeguards and multiple benefits, *reaffirms* guidance on ecosystem based approaches to climate change mitigation and on reducing biodiversity impacts of mitigation measures in decision X/33 paragraph 8, sub-paragraphs (m)-(q), (s), (u), (v), (y) and (z);
6. *Invites* Parties and other Governments, according to national circumstances and priorities, as well as relevant organizations and processes, in order to reduce the risks of the displacement of

deforestation and forest degradation and other risks to biodiversity and to indigenous and local communities, to:

- (a) Undertake comprehensive land-use planning at the appropriate spatial scale, applying the ecosystem approach and its operational guidance, when planning and undertaking REDD+ activities (decisions V/6 and VII/11);
- (b) Promote broad country participation in all phases of REDD+, and ensure the full and effective participation of indigenous and local communities;
- (c) Enhance multiple benefits of REDD+ for biodiversity and indigenous and local communities;
- (d) Ensure the monitoring of changes in biodiversity across all main terrestrial and freshwater ecosystems, in the framework of monitoring achievement of the Strategic Plan for Biodiversity 2011-2020 and its Aichi targets; and promote regional collaboration for monitoring and assessment.

7. With reference to the safeguards adopted in UNFCCC decision 1/CP.16, appendix I, *encourages* Parties that are planning and implementing REDD+ activities to develop and apply national level REDD+ safeguards that ensure that benefits for biodiversity and for indigenous and local communities are achieved, drawing upon, as appropriate, the following relevant safeguards initiatives:

- (a) The UN-REDD Programme Social and Environmental Principles and Criteria;
- (b) The Forest Carbon Partnership Facility (FCPF) Readiness Fund Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners and its underlying operational policies of the World Bank; and
- (c) The REDD+ Social & Environmental Standards (REDD+ SES).

8. Noting that the safeguard initiatives referred to in paragraph 7 above might undergo further development, *invites* the organizations involved in the development of these initiatives to further support developing countries in addressing biodiversity concerns and multiple benefits in REDD+ activities at national level, and to further develop the safeguard frameworks, *inter alia*, by reflecting the guidance referred to in paragraphs 5 and 6 above and by developing verifiable indicators to assess their effectiveness;

9. *Invites* the Food and Agriculture Organization of the United Nations (FAO) to take the indicative indicators for the Strategic Plan for Biodiversity 2011-2020, including indicators related to REDD+, into account when carrying out future Global Forest Resources Assessments, and *requests* the Executive Secretary to collaborate with FAO to ensure that the Global Forest Resources Assessment continues to provide useful data and analysis for the purpose of assessing progress in implementation of the Convention;

10. *Requests* the Working Group on Article 8(j) and Related Provisions, as part of its work on customary sustainable use of biodiversity (Article 10(c)) to consider the potential risk that REDD+ activities could alter and even undermine the traditional way of life and related knowledge and customary practices of indigenous and local communities, with a view to exploring ways of mitigating this risk by promoting and supporting customary sustainable use as well as the active use of traditional knowledge.

11. *Requests* the Executive Secretary to:

- (a) Enhance collaboration with the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and other members of the Collaborative Partnership on Forests to further support Parties' efforts to ensure that REDD+ contributes to the implementation of the Convention, and that relevant activities under the Convention contribute to the implementation of REDD+, including by offering further capacity building activities, subject to availability of funds;
- (b) Compile information relevant to the application of REDD+ safeguards for biodiversity, and make it available through the clearing-house mechanism;

(c) Collaborate with the organizations involved in the development of safeguard initiatives referred to in paragraph 7 above to further integrate biodiversity concerns in the safeguards initiatives, and in relevant capacity-building and implementation activities;

(d) Report on progress of such efforts to the Conference of the Parties at its twelfth meeting;

12. Further *requests* the Executive Secretary, building on the information on possible indicators and assessment mechanisms in document UNEP/CBD/SBSTTA/16/8, and with effective consultation with Parties and based on their views and in collaboration with the Collaborative Partnership on Forests, and without pre-empting any future decisions taken under the UNFCCC, to develop options for monitoring and assessing the contributions of REDD+ to achieving the objectives of the Convention, for consideration of the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting prior to the twelfth meeting of the Conference of the Parties.

I. INTRODUCTION

1. With adequate implementation of safeguards, REDD+ can contribute significantly to the implementation of the Strategic Plan for Biodiversity 2011-2020 and the achievement of its Aichi Biodiversity Targets (decision X/2), in particular targets 5, 7, 11, 14, and 15 (see *Table 1*). In turn, experience gathered with implementation of National Biodiversity Strategies and Action Plans and other provisions under the Convention on Biological Diversity can contribute to the overall success of REDD+. As such, enhanced collaboration between the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change (UNFCCC) related to the implementation of REDD+ and the Strategic Plan for Biodiversity 2011-2020 is important and would be mutually beneficial. A potential for synergies exists throughout all phases of REDD+ (UNFCCC decision 1/CP.16 paragraph 73), however, initiating early and close collaboration during the *development of national strategies or action plans, policies and measures, and capacity-building* is particularly important to fully capture mutual benefits.

Table 1: Link between Strategic Plan for Biodiversity 2011-2020/Aichi Targets and the elements of REDD+

Aichi Biodiversity Targets (CBD decision X/2)	REDD+ elements (UNFCCC decision 1/CP.16)
5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	Reducing emissions from deforestation Reducing emissions from forest degradation Conservation of forest carbon stocks
7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	Sustainable management of forests
11: By 2020, at least 17 per cent of terrestrial and inland water areas, (...) especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes (...).	Conservation of forest carbon stocks
14: By 2020, By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	Conservation of forest carbon stocks Enhancement of forest carbon stocks
15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	Conservation of forest carbon stocks Enhancement of forest carbon stocks

2. The Conference of the Parties to the Convention on Biological Diversity (CBD) has welcomed REDD+ as a potential contribution to achieving the objectives of the Convention, while cautioning also against possible negative impacts on biodiversity (decisions IX/5 and X/33):

(a) At its ninth meeting, held in Bonn in May 2008, the Conference of the Parties requested the Executive Secretary to ‘Collaborate with the other members of the Collaborative Partnership on Forests, in particular the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and the World Bank, in order to support Parties efforts to address reducing emissions from deforestation and forest degradation in developing countries in the framework of the United Nations Framework Convention on Climate Change’ (decision IX/5 para. 3 (b)).

(b) At its tenth meeting, held in Nagoya in October 2010, the Conference of the Parties invited Parties, other Governments, and relevant organizations and processes to “enhance the benefits for, and avoid negative impacts on, biodiversity from reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, and other sustainable land management and biodiversity conservation and sustainable-use activities, taking into account the need to ensure the full and effective participation of indigenous and local communities in relevant policy-making and implementation processes, where appropriate; and to consider land ownership and land tenure, in accordance with national legislation” (decision X/33, para. 8 (q)).

(c) In the same decision, the Conference of the Parties requested the Executive Secretary to “collaborate with the secretariat of the United Nations Forum on Forests, the Facility Management Team of the Forest Carbon Partnership Facility and the Climate Investment Funds Administrative Unit of the World Bank, the secretariat of the United Nations Framework Convention on Climate Change, the secretariat of the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, and the other members of Collaborative Partnership on Forests, as well as the Low Forest Cover Countries secretariat and in collaboration with Parties through their national focal points for the Convention on Biological Diversity to provide advice, for approval by the Conference of the Parties at its eleventh meeting, including on the application of relevant safeguards for biodiversity, without pre-empting any future decisions taken under the United Nations Framework Convention on Climate Change, based on effective consultation with Parties and their views, and with the participation of indigenous and local communities, so that actions are consistent with the objectives of the Convention on Biological Diversity and avoid negative impacts on and enhance benefits for biodiversity” (decision X/33, para. 9 (g)).

(d) The Conference of the Parties also requested the Executive Secretary, ‘... with effective consultation with Parties and based on their views and in collaboration with the Collaborative Partnership on Forests, to identify possible indicators to assess the contribution of reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries to achieving the objectives of the Convention on Biological Diversity, and assess potential mechanisms to monitor impacts on biodiversity from these and other ecosystem-based approaches for climate change mitigation measures, without pre-empting any future decisions taken under the United Nations Framework Convention on Climate Change, and to report on progress to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting prior to the eleventh meeting of the Conference of the Parties’ (decision X/33, para. 9 (h)).⁴

3. Pursuant to these decisions, the Secretariat organized, in collaboration with the UN-REDD Programme and with members of the Collaborative Partnership on Forests, a series of expert workshops: a global expert workshop in Nairobi, from 20 to 23 September 2010 (based on decision IX/5); and three regional capacity-building and consultation workshops, held in Singapore (for Asia-Pacific), from 15 to

⁴ In its decision, COP also requested the Executive Secretary to include in this analysis ‘other ecosystem-based approaches for climate change mitigation measures’. However, at present no other ecosystem-based approaches for climate change mitigation are being discussed under the UNFCCC.

18 March 2011; in Quito, (for Latin America and the Caribbean), from 5 to 8 July 2011; and Cape Town (for Africa), from 20 to 23 September 2011. Representatives from 63 Parties and from 55 international organizations, non-governmental organizations, private sector institutions and indigenous and local community organizations participated in the workshop series. Funding for the workshops was provided by the Governments of Germany, Japan, Norway, the United Kingdom, by the ASEAN Centre for Biodiversity, and the UN-REDD Programme. Workshop reports are available on the website of the Convention on Biological Diversity (UNEP/CBD/WS-REDD/1/3; UNEP/CBD/WS/CB/REDD/APAC/1/2; UNEP/CBD/WS/CB/REDD/LAC/1/2; and UNEP/CBD/WS/CB/REDD/AFR/1/2).

4. A summary of workshop results has been submitted to the Secretariat of the United Nations Framework Convention on Climate Change on 26 September 2011, as well as an information document for the present meeting (UNEP/CBD/SBSTTA/16/INF/20).

5. Further, in notification SCBD/STTM/JM/TC/JSt/74726 (2011-018) issued on 24 January 2011, the Executive Secretary requested Parties and relevant organizations to submit their views in relation to the requests listed in paragraphs 9 (g) and (h) of decision X/33. The views received by the Secretariat are available as an information document (UNEP/CBD/SBSTTA/16/INF/19).

6. The Executive Secretary also commissioned a consultancy study to provide further analysis and information on the request in decision X/33 paragraph 9(h) to identify possible indicators to assess the contribution of REDD+ to the objectives of the Convention. The study is available as an information document (UNEP/CBD/SBSTTA/16/INF/21).

7. Further information on the current status of REDD+ discussions and pilot and demonstration efforts is also available in CBD Technical Series volume 59 '*REDD+ and Biodiversity*' (www.cbd.int/ts), as well as in two information documents posted for the fifteenth meeting of the Subsidiary Body: 'Making Biodiversity Safeguards for REDD+ Work in Practice - Developing Operational Guidelines and Identifying Capacity Requirements', and 'Greening REDD+: Challenges and Opportunities for Forest Biodiversity Conservation' (UNEP/CBD/SBSTTA/15/INF/2 and INF/3).

8. Additional relevant information is provided in the following information notes: UNEP/CBD/SBSTTA/16/INF/22 "A framework for integrating biodiversity concerns into national REDD+ programmes"; UNEP/CBD/SBSTTA/16/INF/23 "The matrix approach - a pragmatic solution for rapid REDD+ implementation" and UNEP/CBD/SBSTTA/16/INF/24 "A review of three REDD+ safeguard initiatives".

9. This note draws upon the above-mentioned information, especially the reports of the workshops and the submissions from Parties. The note has been finalized taking into account comments received on a draft posted for review from 23 January to 6 February 2012 in accordance with notification SCBD/STTM/DC/RH/VA/78672 (2012-012).

10. The Executive Secretary gratefully acknowledges the support from the host Governments for the workshops (Ecuador, Kenya, Singapore, and South Africa) and the financial and technical support for the Secretariat's work on biodiversity aspects of REDD+ provided by the Governments of Germany, Japan, Norway, the United Kingdom, as well as the ASEAN Centre for Biodiversity, the members of the Collaborative Partnership on Forests (CPF), and the UN-REDD Programme.

II. ADVICE ON THE APPLICATION OF RELEVANT REDD+ SAFEGUARDS FOR BIODIVERSITY

A. UNFCCC safeguards and existing advice under the Convention on Biological Diversity

11. The REDD+ safeguards discussed in this note are the ones adopted in UNFCCC decision 1/CP.16, appendix I, paragraph 2, which specifies that when undertaking REDD+ activities, "the following safeguards should be promoted and supported:.

- (a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
- (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- (c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
- (d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision;
- (e) That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits⁵;
- (f) Actions to address the risks of reversals;
- (g) Actions to reduce displacement of emissions.”

12. Paragraph 2 (e) of appendix I of decision 1/CP.16 is also relevant when discussing multiple benefits of REDD+, as it calls explicitly for incentivizing “the protection and conservation of natural forests and their ecosystem services’ and for enhancing ‘social and environmental benefits.”

13. When considering the safeguards above, it is also important to recall appendix I, paragraph 1, of UNFCCC decision 1/CP.16, which, *inter alia*, specifies that REDD+ activities should be consistent with the objective of environmental integrity and take into account the multiple functions of forests and other ecosystems; be consistent with the adaptation needs of the country; and promote sustainable management of forests.

14. Under UNFCCC, countries will supply information on how these safeguards are addressed and respected. At its seventeenth meeting, the Conference of the Parties to UNFCCC, in decision 12/CP.17, agreed that “systems for providing information on how the safeguards referred to in appendix I to decision 1/CP.16 are addressed and respected should, taking into account national circumstances and respective capabilities, and recognizing national sovereignty and legislation, and relevant international obligations and agreements, and respecting gender considerations:

- (a) Be consistent with the guidance identified in decision 1/CP.16, appendix I, paragraph 1;
- (b) Provide transparent and consistent information that is accessible by all relevant stakeholders and updated on a regular basis;
- (c) Be transparent and flexible to allow for improvements over time;
- (d) Provide information on how all of the safeguards referred to in appendix I to decision 1/CP.16 are being addressed and respected;
- (e) Be country-driven and implemented at the national level;
- (f) Build upon existing systems, as appropriate.”

15. Based on the results of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change,⁶ the Conference of Parties to the Convention on Biological Diversity adopted guidance on ways to conserve, sustainably use and restore biodiversity and ecosystem services while contributing to climate change mitigation and adaptation (decision X/33, paragraph 8). The following sub-paragraphs of that

⁵ Taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the United Nations Declaration on the Rights of Indigenous Peoples, as well as the International Mother Earth Day.

⁶ CBD Technical Series 41: *Connecting Biodiversity and Climate Change Mitigation and Adaptation*, available at www.cbd.int/ts

decision are particularly relevant to REDD+ activities, and therefore provide important advice for the application of REDD+ safeguards:

(a) Consider the achievement of multiple benefits, including ecological, social, cultural and economic benefits, between ecosystem-based approaches for climate change mitigation and adaptation activities;

(b) Implement ecosystem-management activities, including the protection of natural forests, natural grasslands and peatlands, the sustainable management of forests considering the use of native communities of forest species in reforestation activities (...);

(c) In forest landscapes subject to harvesting, clearing and/or degradation, implement, as appropriate, improved land management, reforestation and forest restoration prioritizing the use of native communities of species, to improve biodiversity conservation and associated services while sequestering carbon and limiting the degradation and clearing of native primary and secondary forests;

(d) When designing, implementing and monitoring afforestation, reforestation and forest restoration activities for climate-change mitigation consider conservation of biodiversity and ecosystem services through, for example:

- (i) Converting only land of low biodiversity value or ecosystems largely composed of non-native species, and preferably degraded ones;
- (ii) Prioritizing, whenever feasible, local and acclimated native tree species when selecting species for planting;
- (iii) Avoiding invasive alien species;
- (iv) Preventing net reduction of carbon stocks in all organic carbon pools;
- (v) Strategically locating afforestation activities within the landscape to enhance connectivity and increase the provision of ecosystem services within forest areas;

(e) Enhance the benefits for, and avoid negative impacts on, biodiversity from reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, and other sustainable land management and biodiversity conservation and sustainable-use activities, taking into account the need to ensure the full and effective participation of indigenous and local communities in relevant policy-making and implementation processes, where appropriate; and to consider land ownership and land tenure, in accordance with national legislation;

(f) Where appropriate, promote biodiversity conservation, especially with regard to soil biodiversity, while conserving and restoring organic carbon in soil and biomass, including in peatlands and other wetlands as well as in grasslands, savannahs and drylands;

(g) Based on national circumstances, increase positive and reduce negative impacts of climate-change mitigation and adaptation measures on biodiversity inter alia, based on results from strategic environmental assessments (SEAs)⁷ and environmental impact assessments (EIAs) that facilitate the consideration of all available climate-change mitigation and adaptation options;

(h) In planning and implementing effective climate-change mitigation and adaptation activities, including renewable energies, take into account impacts on biodiversity and the provision of ecosystem services and avoid the conversion or degradation of areas important for biodiversity through:

- (i) Considering traditional knowledge, including the full involvement of indigenous and local communities;
- (ii) Building on a scientifically credible knowledge base;

⁷ [Decision VIII/28](#) (Voluntary guidelines on biodiversity-inclusive impact assessment).

- (iii) Considering components of biodiversity important for its conservation and sustainable use;
 - (iv) Applying the ecosystem approach; and
 - (v) Developing ecosystem and species vulnerability assessments.
- (i) Take into account the values of biodiversity and ecosystem services when planning and undertaking climate change related activities by using a range of valuation techniques;
 - (j) Consider, as appropriate, incentives to facilitate climate change related activities that take into consideration biodiversity and related social and cultural aspects, consistent and in harmony with the Convention on Biological Diversity and other relevant international obligations;

B. General observations on REDD+ safeguards

16. The following main risks for biodiversity and indigenous and local communities from REDD+ were identified by the Global Expert Workshop on REDD+ and Biodiversity, Nairobi, September 2010⁸:

- (a) The conversion of natural forests to plantations and other land uses of low biodiversity value and low resilience; and the introduction of growing of biofuel crops;
- (b) Displacement of deforestation and forest degradation to areas of lower carbon value and high biodiversity value;
- (c) Increased pressure on non-forest ecosystems with high biodiversity value;
- (d) Afforestation in areas of high biodiversity value;
- (e) The loss of traditional territories and restriction of land and natural resource rights;
- (f) Lack of tangible livelihood benefits to indigenous and local communities and lack of equitable benefit sharing;
- (g) Exclusion from designing and implementation of policies and measures;
- (h) Loss of traditional ecological knowledge.

17. The permanent storage of forest carbon depends on well-functioning and resilient forest ecosystems, and on indigenous and local community participation and support. Participants in all four expert workshops on REDD+ under the Convention on Biological Diversity held in 2010 and 2011 agreed that safeguards, if designed and implemented appropriately, will reduce the risks and enhance multiple benefits of REDD+, thus supporting the credibility and long-term success of REDD+ activities. Workshop results also include the following recommendations and observations:

- (a) Countries should address safeguards as early as possible when undertaking REDD+ activities including developing their REDD+ National Strategies. Financial support is required to support countries to meet the requirements for implementing safeguards;
- (b) Countries are in different stages of preparations for REDD+, and the approach to safeguards needs to take this into account. There is a need to further enhance capacity across developing countries, at several levels, to address safeguards and to fully integrate biodiversity concerns into the planning and implementation of REDD+;
- (c) Addressing safeguards should go hand in hand with aiming to enhance multiple benefits from REDD+ for biodiversity and for indigenous and local communities. Inter-sectoral coordination and synergies between and within relevant Ministries are of utmost importance to ensure timely and effective application of safeguards, and achieving multiple benefits of REDD+. Existing national forest programme

⁸ From the final report of the Global Expert Workshop on Biodiversity Benefits of Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, Nairobi, Kenya, 20-23 September 2010 (UNEP/CBD/WS-REDD/1/3). Workshop participants also noted that at this stage, the biggest risk to biodiversity and indigenous and local communities from REDD+ is that a well-designed REDD+ mechanism is not agreed upon and successfully implemented.

processes could be used to accelerate progress and create synergies with overall national forest policy frameworks;

(d) Clarifying tenure issues remains an urgent challenge for many aspects of REDD+, including for applying safeguards related to indigenous and local communities. This will require nationally specific solutions. Impacts on indigenous and local communities and benefit-sharing are closely linked to solving land tenure and rights issues, including the rights to the carbon stored in forests;

(e) Fair and effective land zoning and land-use planning at the national level would facilitate and ensure that risks to biodiversity and indigenous and local communities are addressed in a way consistent with development priorities. Particular attention to biodiversity issues may be needed when aiming to increase the forest area in the context of REDD+, aiming for multi-functional forest landscapes;

(f) Lack of tangible livelihood benefits to indigenous and local communities and lack of equitable benefit-sharing between relevant stakeholders is a possible threat to the success of REDD+, and addressing this should be a priority;

(g) Effective safeguards hold the potential to improve forest sector governance at all levels, ensure forest tenure security and promote sustainable forest management and trade in sustainable forest products. Where appropriate, REDD+ activities should build on effective community-based governance systems, and acknowledge the shared responsibility of national governments in strengthening community-based institutions of indigenous and local communities with regards to the conservation, sustainable use and management of forests and of biodiversity and natural resources;

(h) Successful implementation of safeguards is dependent on a transparent safeguards information system. Identifying risks to biodiversity and to indigenous and local communities, and assessing how these risks are addressed through relevant safeguards at national level, could follow a process as outlined in *Figure 1*.

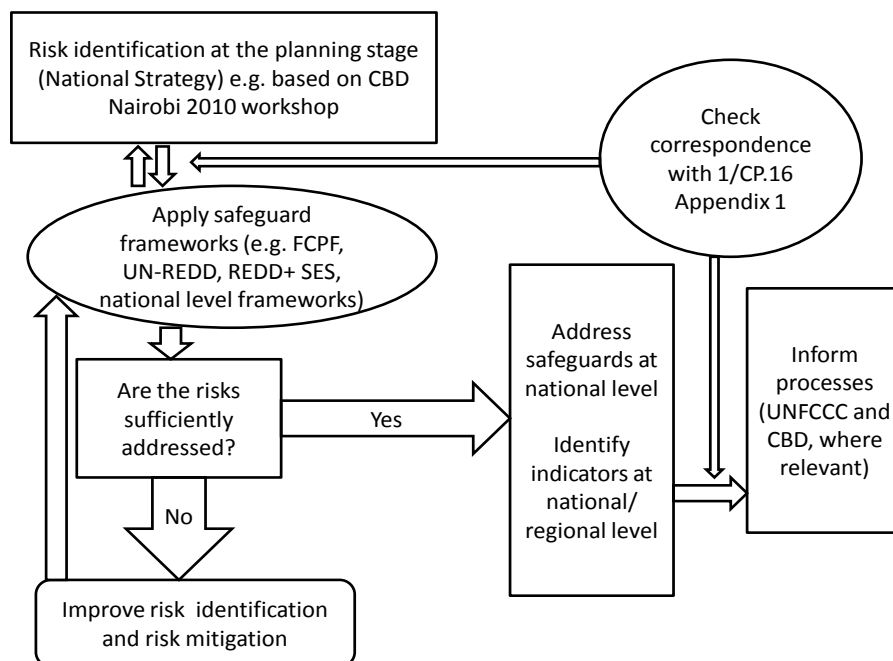


Figure 1: Suggested core elements of a risk identification process (from Cape Town expert workshop, 20-23 September 2011)

18. Existing biodiversity-related national level processes, policies, laws, regulations and experiences could support the further integration of biodiversity concerns into national REDD+ programmes, including the application of safeguards. For example, in many countries, national biodiversity and

strategy and action plans (NBSAPs) or national or regional criteria and indicators for sustainable forest management already contain elements relevant for biodiversity safeguards. Other examples include national forest programmes, forest and protected area legislation, mechanisms for payments for ecosystem services, and Community Based Natural Resource Management (CBNRM).

19. Specifically, national REDD+ safeguard processes could benefit from national experience in implementing the following guidance under the Convention on Biological Diversity:

- (a) The expanded programme of work on forest biodiversity (decisions VI/22 and IX/5);
- (b) Voluntary guidelines on biodiversity-inclusive impact assessment (decision VIII/28);
- (c) The Ecosystem Approach, and relevant operational level guidance (decisions V/6 and VII/11);
- (d) The Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity (decision VII/12);
- (e) The Akwé: Kon voluntary guidelines for the conduct of cultural, environmental and social impact assessments regarding sacred sites and lands and waters traditionally occupied or used by indigenous and local communities (decision VII/16);
- (f) The Tharihwaie:ri code of ethical conduct to ensure respect for the cultural and intellectual heritage of indigenous and local communities (decision X/42); and
- (g) Spatially explicit information on biodiversity priority areas, for example as developed by many countries in their national ecological gap analysis under the programme of work on protected areas.⁹

20. In addition, national experiences with respect to the fair and equitable sharing of benefits arising out of the use of genetic resources, including the granting of prior informed consent (PIC) and the establishment of mutually agreed terms (MAT), in accordance with Access and Benefit-sharing obligations under the Convention and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization adopted at the tenth meeting of the Conference of the Parties could also apply to and benefit national REDD+ safeguard processes.

21. To ensure that experience from the implementation of these CBD decisions and other relevant information can inform and support the implementation of REDD+, Parties and relevant organizations should make use of communication hubs¹⁰ and relevant fora to exchange information on a regular basis.

22. The Convention on Biological Diversity could contribute to the work of UNFCCC and relevant initiatives and programmes to address and apply REDD+ safeguards¹¹ by disseminating information on implementation of relevant CBD guidance listed above; by supporting further capacity building efforts; and by monitoring the contribution of REDD+ to achieving the objectives of the Convention on Biological Diversity, as per decision X/33.

C. Application and improvement of existing REDD+ safeguard initiatives

23. Three widely recognized initiatives to support countries in addressing the REDD+ safeguards of UNFCCC decision 1/CP.16 are:

- (a) The UN-REDD Programme Social and Environmental Principles and Criteria (SEPC);

⁹ CBD Technical Series 24 *Closing the Gap: Creating ecologically representative protected area systems*, www.cbd.int/ts

¹⁰ For example the Rio Conventions Pavilion, www.riopavilion.org, see UNEP/CBD/SBSTTA/16/INF/27.

¹¹ Without prejudging ongoing or future negotiations under the UNFCCC.

(b) The Forest Carbon Partnership Facility (FCPF) Readiness Fund Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners,¹² and

(c) The REDD+ Social & Environmental Standards).¹³

24. Information note UNEP/CBD/SBSTTA/16/INF/24 provides a review of these three REDD+ safeguard initiatives.

25. Workshop participants found that these initiatives provide very useful approaches for addressing and applying safeguards at national level, and that, if fully implemented, they would adequately reduce the main biodiversity risks and address the ‘Cancun safeguards’ (UNFCCC decision 1.CP/16). It is recommended that countries that undertake REDD+ activities apply the safeguards of these initiatives at national level, individually, or in combination. Each of them represent work in progress and further enhancement of the approaches is possible and desirable, in particular regarding further efforts to address the following risks:

(a) *Afforestation in areas of high biodiversity value.* The guidance on afforestation, reforestation and forest restoration provided by the Convention on Biological Diversity in decision X/33 paragraph 8(p)¹⁴ could provide further guidance for improvement of the initiatives;

(b) *Displacement of deforestation and forest degradation to areas of lower carbon value and high biodiversity value.* A stringent application of the ecosystem approach and its operational guidance (decisions V/6 and VII/11), resulting in comprehensive land-use planning at the landscape level and the national level, would reduce this risk at national level. At international level, the risk of displacement of pressure on ecosystems could be reduced by encouraging broad participation in REDD+ activities across all developing countries with forest resources, and by monitoring changes in biodiversity across all main terrestrial and freshwater ecosystems, in the framework of monitoring achievement of the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets (see section III. of this document);

(c) *The potential loss of traditional ecological knowledge.* REDD+ payments could alter and undermine the traditional way of life and related knowledge and customary practices of indigenous and local communities. This could be mitigated by promoting and supporting customary sustainable use as well as the active use of traditional knowledge (including through eco-tourism, and in the implementation of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization). It is recommended that this specific risk is to be further addressed and periodically assessed in the context of the respective activities of the Convention on Article 8(j) and Article 10(c), as well as under the Nagoya Protocol.

26. A number of countries are beginning to apply the safeguard initiatives listed above in the context of REDD+. It is too early to assess the effectiveness of this application, given that the countries are only beginning to engage in REDD+ activities. However, the experiences from the first few countries – including the lessons learned from the implementation of strategic assessments and the application of safeguards to pilot projects – should help to enhance the initiatives’ applicability in other REDD+ countries. For example, the FCPF Common Approach will be piloted in at least nine countries and the lessons from those are expected to be disseminated to other countries.

27. It is recommended that, in due course, indicators to assess the effectiveness of REDD+ safeguard initiatives are developed, if possible in a harmonized approach across the three initiatives, and drawing on the proposed indicators in the annex to this document.

¹²The material elements of the FCPF *Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners* are based on several World Bank safeguard policies, in particular Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Involuntary Resettlement (OP/BP 4.12), and Indigenous Peoples (OP/BP 4.10).

¹³ The REDD+ SES initiative is overseen by a multi-stakeholder International Standards Committee and is facilitated by a secretariat composed of the Climate, Community and Biodiversity Alliance (CCBA) and Care International with technical support from the Proforest Initiative (www.redd-standards.org).

¹⁴ See paragraph 26 of this document.

28. It would be useful to further harmonize the existing safeguard initiatives, to simplify application at country level and allow for compatibility at global level. Some countries have made encouraging progress in this regard (UNEP/CBD/SBSTTA/16/INF/19 and UNEP/CBD/WS/CB/REDD/AFR/1/2). The standards, guidance, and other related tools developed at the international level should be further improved, where needed, drawing upon the guidance adopted in decision X/33 paragraph 8, subparagraphs (m)-(q) and (s), (u), (v), (y) and (z), and additional advice contained in this document. The harmonization and further improvement of safeguard initiatives and relevant tools should be underpinned by enhanced capacity-building efforts (see section IV of this document).

III. POSSIBLE INDICATORS TO MONITOR THE IMPACTS OF REDD+ ON BIODIVERSITY AND INDIGENOUS AND LOCAL COMMUNITIES

A. General observations

29. Accurately assessing its environmental and social benefits would contribute to the long-term success of REDD+. To be able to undertake such assessments, it is necessary to monitor a set of indicators over time. However, it is important to note that in this case, biodiversity impacts and impacts on indigenous and local communities due to REDD+ activities should be compared against the most likely scenario in the absence of the REDD+ activities. Such scenarios (forest reference emission levels and/or forest reference levels, based on UNFCCC decisions 4/CP.15, 1/CP.16, and 12/CP.17) are currently being developed at national level under UNFCCC.

30. The Conference of the Parties to the Convention on Biological Diversity has so far not given any guidance as to which organization or process would carry out such monitoring and assessments, if any. In order not to pre-empt ongoing discussions under UNFCCC, it is proposed to consider the modalities of monitoring and assessment of biodiversity and indigenous and local community impacts of REDD+ when (i) the development of national forest reference emission levels and forest reference level under UNFCCC has progressed further; (ii) work on systems for providing information on how safeguards are addressed and respected under UNFCCC has progressed further. To this end, possible options for monitoring and assessment for biodiversity and indigenous and local community impacts of REDD+ could be prepared by the Secretariat for the consideration of the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting prior to the twelfth meeting of the Conference of the Parties.

31. Pursuant to decision X/33 paragraph 9 (h), proposed indicators for the possible monitoring of the contributions of REDD+ to the objectives of the Convention on Biological Diversity are understood to comprise impacts on biodiversity, and on the traditional knowledge and customary sustainable use of indigenous and local communities (Articles 8(j) and 10(c) of the Convention). The proposed indicators (annex) consist of biodiversity indicators (describing the state of biodiversity and ecosystems), and policy indicators (providing information on the full and effective participation of indigenous and local communities and the involvement of biodiversity experts).

32. REDD+ and biodiversity and community well-being assessment are dynamic fields of research and policy development, while at the same time, levels of data availability, financial resources and technical capacity for monitoring vary, and are often low in developing countries. Assessments of progress towards the 2010 biodiversity target have considerably improved national, regional and global biodiversity monitoring knowledge and capacities (see, *inter alia*, the third edition of the Global Biodiversity Outlook, <http://gbo3.cbd.int/>). However, large gaps in data availability and capacity remain, and it is important to allow for the evolution of assessment frameworks over time. Therefore, the assessments of REDD+ impacts on biodiversity and indigenous and local communities (ILCs) should adopt a phased approach to allow for variations in country capacity and evolution of knowledge. The approach proposed here corresponds to the approach for monitoring progress towards the Strategic Plan for Biodiversity 2011-2020 (see the annex).

33. A main objective of monitoring and assessment is to allow for adequate policy responses, and to facilitate improvements in policy and management decisions. In the case of REDD+, it will be

challenging to link impacts on biodiversity directly or indirectly to REDD+ policies and measures at national or international level, as distinct from other policies and measures. Therefore, the indicator framework proposed here might need to be complemented by in-depth assessments and policy analysis at national and/or local level, to inform and improve policy and management decisions at those levels.

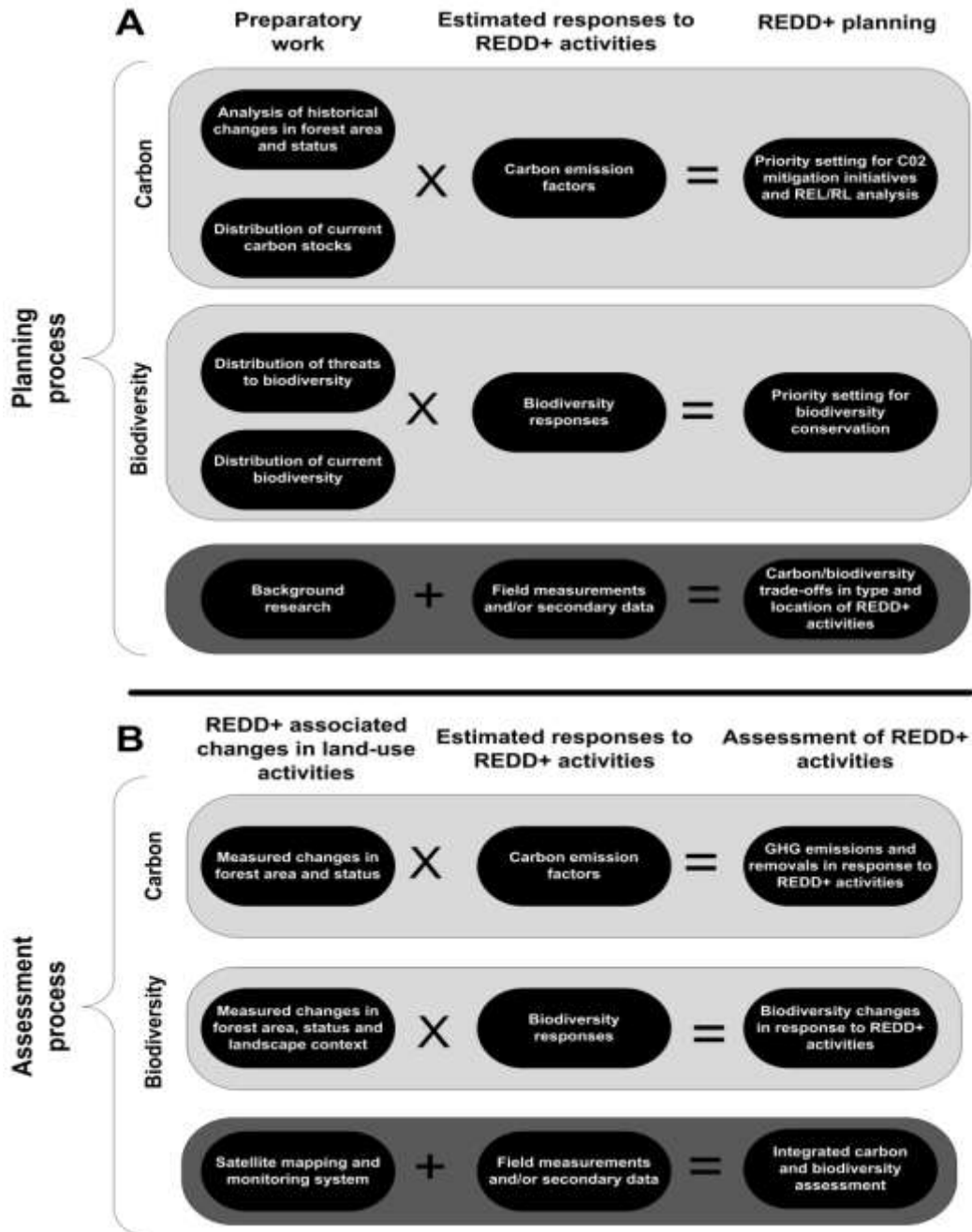
34. For the integration of biodiversity concerns into national REDD+ programmes, both in the planning and assessment process, Gardner et al. (2011)¹⁵ suggest to identify priority areas and activities for yielding both carbon and biodiversity benefits. For the assessment of changes in biodiversity, it is proposed to parallel the existing Intergovernmental Panel on Climate Change (IPCC) architecture for assessing carbon emissions. A three-tiered approach is proposed for biodiversity assessment, where lower tiers can provide a realistic starting point for countries with fewer data and lower technical capacities. This approach would facilitate immediate progress for a large number of developing countries, and a gradual, phased approach to implementation would minimize risks and facilitate the protection of additional biodiversity benefits from REDD+ activities.

35. Following notification SCBD/STTM/JM/TC/JSt/74726 (2011-018), the Secretariat received submissions from five Parties and seven relevant organizations (UNEP/CBD/SBSTTA/16/INF/19). Main points emphasized in the submissions and in the workshop series include that indicators should ensure (i) a continuous assessment of changes in biodiversity caused by the implementation of REDD+ activities, (ii) the financial feasibility of impact monitoring, in particular realistic costs, and (iii) consideration of availability and accessibility of data.

36. To reduce the risks and enhance the potential benefits of REDD+, national or regional standards, operational indicators and independent monitoring mechanisms, reporting and verification should be developed without precluding or overburdening REDD+.

Figure 2 (adapted from Gardner et al., 2011): A unifying framework for addressing concerns about both carbon and biodiversity into the planning (A) and assessment (B) processes of a national REDD+ programme. Biodiversity work maps closely onto the existing IPCC system for carbon, and makes use of many aspects of the same basic system for data collection and analysis. REL/RL refers to Reference Emissions Levels/Reference Levels. The level of specificity for all inputs (e.g. resolution of biodiversity distribution and response data, assessment of changes in landscape context) depends on the level (global, sub-national, national/local) at which data are being collected and analysed.

¹⁵ Gardner et al. (2011), A framework for integrating biodiversity concerns into national REDD+ programs. In: Biological Conservation. <http://dx.doi.org/10.1016/j.biocon.2011.11.018>, see also UNEP/CBD/SBSTTA/16/INF/22



37. There are significant gaps in the availability of data needed for the monitoring of biodiversity and social impacts, in particular in developing countries. It should be noted that accurately monitoring and assessing biodiversity and social impacts of REDD+ on a significant scale will be costly and requires adequate resources and capacity. In the framework of the principles of the conservation commons, there should be free and open access to biodiversity data and information for assessment purposes pursuant to decisions X/7 and X/15 of the Convention on Biological Diversity.

38. Displacement of pressure on biodiversity, especially on ecosystems, remains a key concern for REDD+ and it is of particular importance to further improve indicators and assessment frameworks over time to prevent and monitor this risk to biodiversity.

B. Proposed indicators for use at global and sub-global level

39. It is important that monitoring and assessment efforts remain cost-effective and feasible. In light of these considerations, the annex to this document aims to provide an indicator and monitoring framework that is (i) flexible yet robust, (ii) takes into account current resource and capacity limitations, and (iii) can be adapted over time to improve accuracy and meet the needs of different stakeholders.

40. To ensure that assessments of impacts of REDD+ on biodiversity and on indigenous and local communities are cost-effective and feasible, it is proposed to link such assessments to the proposed monitoring efforts for the Strategic Plan for Biodiversity 2011-2020 (SBSTTA recommendation XV/15), and with national reporting under the Convention.

41. Based on submissions of Parties and relevant organizations, workshop results, and a consultancy report (UNEP/CBD/SBSTTA/16/INF/21), the annex to the present document contains a list of possible indicators to provide information on overall impacts of REDD+ on biodiversity and on indigenous and local communities. In line with the discussion on monitoring achievement of the Strategic Plan for Biodiversity 2011-2020, these indicators are categorized as follows: Indicators that are ready for use at the global level are denoted by the letter (A). Indicators which can be used at the global level but which require further development to be ready for use are denoted by the letter (B). Indicators for consideration for use at the national or other subglobal level are denoted by the letter (C). The set of (A) and (B) indicators are those which should be used to assess progress at the global level while the (C) indicators are illustrative of some of the indicators which Parties are encouraged to develop and use at the national level according to their capacity, national priorities and circumstances.¹⁶

C. Mechanisms to assess biodiversity and indigenous and local community impacts from REDD+

42. While there is currently no single mechanism that could provide enough data or analysis for fully monitor and assess biodiversity and social impacts of REDD+, there are a number of monitoring and assessment processes which could provide useful data and analysis. The following processes are most relevant in terms of gathering and analysing data in relation to the proposed indicators in the annex to the present document at global level (categories A and B):

(a) National Reports¹⁷ and other submissions to the Convention on Biological Diversity (including information on national ecological gap analysis and other activities under the programme of work on protected areas);

(b) The FAO Global Forest Resources Assessment (FRA), including its remote sensing component;

(c) National communications to the United Nations Framework Convention on Climate Change (UNFCCC) and national reports to the United Nations Convention on Combating Desertification (UNCCD);

(d) National programmes and plans, and progress reports, under pilot and demonstration activities, notably in the framework of the UN-REDD Programme and the Forest Carbon Partnership Facility;

(e) The Annual Review and Assessment of the World Timber Situation, and periodic reports of the status of tropical forests, compiled by the International Tropical Timber Organization;

(f) Data collected and compiled by the REDD+ Partnership.

¹⁶ A database for the indicators is maintained by the Secretariat, and will be further developed and updated as new information becomes available <http://www.cbd.int/sp/indicators/>.

¹⁷ Fifth national reports are due by 31 March 2014 and should focus on implementation of the 2011-2020 Strategic Plan for Biodiversity and progress towards the Aichi Biodiversity Targets. Specifically, Parties are requested to report on biodiversity status, trends, and threats and implications for human well-being (Part I); the national biodiversity strategy and action plan, its implementation, and the mainstreaming of biodiversity (Part II); and progress towards the 2020 Aichi Biodiversity Targets and contributions to the relevant 2015 Targets of the Millennium Development Goals (Part III).

43. Other relevant projects and processes for the assessment of REDD+ multiple benefits include:
- (a) The Land Degradation Assessment in Drylands project (LADA), supported by FAO, UNEP and GEF;
 - (b) The PROMEBIO (Programa Estratégico Regional de Monitoreo y Evaluación de la Biodiversidad) regional monitoring in Central America, and the Central African Forest Observatory¹⁸;
 - (c) Information on meeting the indicators under the principles and criteria of the Roundtable on Sustainable Palm Oil;
 - (d) The BioTrade Impact Assessment System (BT IAS) of UNCTAD under its BioTrade Initiative;
 - (e) Key national, regional and global biodiversity datasets, including the IUCN Red Lists;
 - (f) The Google Earth Engine;¹⁹
 - (g) The Group on Earth Observations and its Biodiversity Observation Network; the Global Forest Observation Initiative; and
 - (h) The Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD).

44. There are several technological advances that could improve in particular the remote sensing components of monitoring of REDD+ environmental impacts including, for example, new satellite data of higher resolution that will become available in the near future, and technologies such as ‘Light Detection and Ranging (LIDAR)’, which can generate highly accurate information on canopy heights, biomass measurement and leaf area. However, the extent to which LIDAR will be able to inform REDD+ monitoring remains unclear as the technology is still in the experimental phase.

45. With regard to cost-effective assessment methods, indigenous and local communities can be essential in monitoring trends in biodiversity, as well as indicators on social impacts of REDD+. This could include links to indicators about traditional knowledge, for example the quality and quantity of natural resources and biodiversity that is used for traditional purposes such as cultural ceremonies.

D. Overview of CPF process on improving monitoring of forest degradation

46. While monitoring deforestation has received considerable attention, forest degradation is not yet as well understood or addressed, and many technical challenges to assess and address forest degradation remain. At the same time, there are indications that the opportunities for biodiversity and social benefits from reversing forest degradation are immense: a study by ITTO, in 2002, estimated that up to 850 million hectares of forest and forest lands might be degraded, while the Global Partnership on Forest Landscape Restoration (GPFLR) estimated in 2011 that there is up to two billion hectares (an area equal to half of all forest area) that is suitable and available for restoration,²⁰ and IUCN reports a preliminary analysis that restoring 15 per cent of this area could result in net livelihood benefits of US\$ 85 billion per year through enhanced ecosystems services.²¹

47. Forest degradation guidelines for assessing and monitoring are being developed under the Collaborative Partnership on Forests, led by the FAO. This process began in 2009 and has resulted in a FAO Forest Resources Assessment Working Paper 177: ‘Assessing Forest Degradation’ (FAO, 2011)²².

¹⁸ Listed here as examples of regional forest monitoring efforts, see <http://observatoire-comifac.net/?l=en>

¹⁹ Several forest-related maps are available at <http://earthengine.google.org/>

²⁰ ‘A World of Opportunity’ maps are available at www.ideastransformlandscapes.org

²¹ “Meeting the Bonn Challenge - the economic value of restoring 150 million hectares of degraded forest landscapes: A first estimate”, IUCN (unpublished).

²² Available at: <http://www.fao.org/forestry/cpf/forestdegradation/64442/en/>

The report uses a working definition of forest degradation as “the reduction in the capacity of a forest to provide goods and services.”²³ The Working Paper proposes a range of indicators to measure the biodiversity aspects of forest degradation. These are reflected in the proposed indicators in the annex.

IV. FURTHER DEVELOPMENT, RESEARCH, AND CAPACITY BUILDING NEEDS

48. Knowledge of the underlying causes of deforestation and forest degradation as key drivers of biodiversity loss and understanding of the required responses are rapidly developing. However, in some countries and regions, there is a need for improved analysis of the effectiveness of response measures and the modalities for an effective and equitable benefit distribution mechanism.

49. Integrating biodiversity concerns into national REDD+ programmes can be supported through the use of spatially explicit tools, such as maps and ecological gap analyses, to identify synergies and tradeoffs among climate change, biodiversity, and social issues. Some tools already exist or are under development, such as the *Multiple Benefits Mapping Toolbox* and the *Benefits and Risk Tool*²⁴ of the UN-REDD Programme. Further development of such tools and adapting them to the specific needs of developing countries is important. Spatially explicit tools can also facilitate the assessment of impacts of REDD+ on biodiversity.

50. However, there is a need to further improve quality and availability of the underlying knowledge and analysis methods, in particular:

(a) Spatial data on biodiversity and on spatial congruencies between carbon and biodiversity in different forest types;

(b) Data on flows of ecosystem services, and on how biodiversity and ecosystem services respond to different forest management interventions and different REDD+ activities;

(c) An improved understanding of the relationship between biodiversity, forest resilience, and carbon permanence;

(d) Improved analytical frameworks for carbon-biodiversity-cost trade-offs, and on possible mitigation-adaptation trade-offs, as part of broader analytical frameworks to allow for land-use decisions with minimal adverse impact, or with net positive impacts, on biodiversity;

(e) Feasible yet robust methods for field monitoring of biodiversity or surrogates, and of social impacts of REDD+, with the involvement of indigenous and local communities;

(f) Monitoring of forest degradation and impacts of forest degradation on carbon, biodiversity and ecosystem services; and

(g) Understanding the linkages of ecosystem services and the interaction with indigenous and local communities.

51. Enforcement of legislation and development of good governance remains a priority. In this regard, countries can build on existing institutions, tools and processes, both for the application of safeguards, and for the assessment of biodiversity impacts. At the same time, capacity needs to be increased and sustained at all relevant levels, and national-level tools and processes should be further improved, including through technology transfer. In particular, workshop participants in the four REDD+ and Biodiversity expert workshops under the Convention on Biological Diversity held in 2010 and 2011 expressed the need to:

(a) Further facilitate information exchange and collaboration between CBD and UNFCCC and other forest-related processes at national level;

(b) Integrate safeguards into the planning and implementation of REDD+;

²³ Final drafts of these documents are available at: <http://www.fao.org/forestry/cpf/forestdegradation/en/>

²⁴ The UN-REDD Programme has developed a Draft Social and Environmental Principles and Criteria – Benefits and Risks Tool (SEPC-BeRT), which is currently (January 2012) posted for review on the UN-REDD website www.un-redd.org

(c) Learn from community-based natural resources management and other areas of Sustainable Forest Management (SFM), which includes aspects of conservation and sustainable use of biodiversity.

52. It was also noted that reporting frameworks under UNFCCC and CBD are different but it is important to harmonize them as much as possible, to decrease the reporting burden on countries.²⁵

²⁵ The Collaborative Partnership on Forests (CPF) has a Task Force on Streamlining Forest-related Reporting, which could be instrumental in reducing the reporting burden for countries.

Annex

PROPOSED INDICATORS FOR MONITORING REDD+ CONTRIBUTIONS TO ACHIEVING THE OBJECTIVES OF THE CONVENTION ON BIOLOGICAL DIVERSITY

The table below includes relevant headline and operational indicators currently under discussion for monitoring the Strategic Plan for Biodiversity 2011-2020 (SBSTTA recommendation XV/1). An additional column proposes specific sub-sets or disaggregations of these indicators for the purpose of assessing the contributions of REDD+ to achieving the targets of the Strategic Plan and the objectives of the Convention. It is important to clarify that to accurately assess the contributions of REDD+ activities, the most likely land use and biodiversity scenario in the absence of the REDD+ activities should be taken into account. The land-use scenarios used for the reference levels for REDD+ under UNFCCC (forest reference emission levels and/or forest reference levels) should be used to inform the establishment of relevant reference levels for monitoring and assessing REDD+ impacts on biodiversity and indigenous and local communities.

Based on the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020, SBSTTA-15 identified three categories of operational indicators. Indicators which are ready for use at the global level are denoted by the letter (A). Indicators which can be used at the global level but which require further development to be ready for use are denoted by the letter (B). Indicators for consideration for use at the national or other sub-global level are denoted by the letter (C). The set of (A) and (B) indicators are those which should be used to assess progress at the global level while the (C) indicators are illustrative of some of the indicators available to Parties to use at the national level according to their national priorities and circumstances.

Aichi Target	Headline indicators (in bold) and most relevant operational indicators for the Strategic Plan for Biodiversity 2011-2020 in the context of REDD+ (A: Priority indicators that are ready for use globally, and, where appropriate, sub-globally, B: Priority indicators to be developed at global and sub-global levels, C: Additional indicators for consideration at sub-global level).	<i>Indicators proposed for monitoring of REDD+ biodiversity and indigenous and local community impacts, as sub-sets or disaggregations of indicators for the Strategic Plan for Biodiversity 2011-2020</i>	Possible data sources
Target 2 - By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	<p>Trends in integration of biodiversity, ecosystem services and benefits-sharing into planning, policy formulation and implementation and incentives</p> <ul style="list-style-type: none"> • Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B) • Trends in integration of biodiversity and ecosystem service values into sectoral and development policies (C) • Trends in policies considering biodiversity and ecosystem service in environmental impact assessment and strategic environmental assessment (C) 	<ul style="list-style-type: none"> • <i>Trends in extent to which biodiversity concerns are integrated into national REDD+ programmes (B)</i> • <i>Number of national ecological gap analyses completed and available to REDD+ programme planning (B)</i> • <i>Trends in application of environmental impact assessments and strategic environmental assessments in the context of REDD+ safeguards (B)</i> • <i>Trends in combining REDD+ payments with biodiversity payments or other payments for ecosystem services to maximize biodiversity benefits (C)</i> 	<p>REDD+ country plans and national reports; National reporting to CBD and UNFCCC</p>

Aichi Target	Headline indicators (in bold) and most relevant operational indicators for the Strategic Plan for Biodiversity 2011-2020 in the context of REDD+ (A: Priority indicators that are ready for use globally, and, where appropriate, sub-globally, B: Priority indicators to be developed at global and sub-global levels, C: Additional indicators for consideration at sub-global level).	<i>Indicators proposed for monitoring of REDD+ biodiversity and indigenous and local community impacts, as sub-sets or disaggregations of indicators for the Strategic Plan for Biodiversity 2011-2020</i>	Possible data sources
Target 5 - By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	<p>Trends in extent, condition and vulnerability of ecosystems, biomes and habitats</p> <ul style="list-style-type: none"> • Extinction risk trends of habitat dependent species in each major habitat type (A) • Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15) • Trends in proportion of degraded/threatened habitats (B) • Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15) • Trends in condition and vulnerability of ecosystems (C) • Trends in the proportion of natural habitats converted (C) <p>Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers</p> <ul style="list-style-type: none"> • Trends in number of invasive alien species (B) (decision VII/30 and VIII/15) 	<ul style="list-style-type: none"> • <i>Trends in extent of forest cover (A)</i> • <i>Trends in extent of forests of different characteristics²⁶ (A)</i> • <i>Trends in extent of planted forests using exotic species (A)</i> • <i>Extinction risk trends of key forest dependent species (B)</i> • <i>Extent of forest area under REDD+ activities (B)</i> • <i>Trends in extent of different forest ecosystems (B)</i> • <i>Trends in proportion of degraded forests (B)</i> • <i>Trends in fragmentation of primary and naturally regenerated forests (B)</i> • <i>Trends in populations of invasive alien species in forests (B)</i> • <i>Trends of each forest ecosystem type under REDD+ activities (C)</i> 	FRA (2010 reporting tables T1, T4, T10c); REDD+ country plans and national reports; Satellite or aerial photography; National forest inventories; Key global biodiversity datasets; IUCN Red Lists; National reporting to CBD and UNFCCC
Target 7 - By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	<p>Trends in pressures from unsustainable agriculture and forestry</p> <ul style="list-style-type: none"> • Trends in population of forest and agriculture dependent species in production systems (B) • Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15) <p>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy</p>	<ul style="list-style-type: none"> • <i>Trends in area of certified forests (A)</i> • <i>Trends in area of forests in protected areas (A)</i> • <i>Trends in area of permanent forest estate (A)</i> • <i>Trends in area of forest with a management plan (A)</i> • <i>Trends in trade of products from certified</i> 	FRA (2010 reporting table T3, T3b); REDD+ country plans and national reports; National forest inventories; Forest trade

²⁶ Including Primary forest, Other naturally regenerated forest; Other naturally regenerated forest of exotic species; Planted forest; Planted forest of exotic species (FRA 2010 reporting table 4a)

Aichi Target	Headline indicators (in bold) and most relevant operational indicators for the Strategic Plan for Biodiversity 2011-2020 in the context of REDD+ (A: Priority indicators that are ready for use globally, and, where appropriate, sub-globally, B: Priority indicators to be developed at global and sub-global levels, C: Additional indicators for consideration at sub-global level).	<i>Indicators proposed for monitoring of REDD+ biodiversity and indigenous and local community impacts, as sub-sets or disaggregations of indicators for the Strategic Plan for Biodiversity 2011-2020</i>	Possible data sources
	<p>formulation and implementation and incentives</p> <ul style="list-style-type: none"> Trends in area of forest ecosystems under sustainable management (B) (decision VII/30 and VIII/15) <p>Trends in pressures from unsustainable agriculture and forestry</p> <ul style="list-style-type: none"> Trends in proportion of land affected by desertification (C) (also used by UNCCD) 	<p><i>forests (B)</i></p> <ul style="list-style-type: none"> <i>Trends of forest land affected by desertification (B)</i> <i>Trends in implementation of Forest Law Enforcement, Governance and Trade initiatives and processes (B)</i> <i>Trends in illegal logging (C)</i> <i>Trends in area of forests under sustainable forest management (C)</i> 	<p>statistics and information from certification processes; National reporting to CBD, UNFCCC and UNCCD; LADA</p>
<p>Target 11 - By 2020, at least 17% of terrestrial and inland water, and 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.</p>	<p>Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches</p> <ul style="list-style-type: none"> Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31) Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15) Trends in the connectivity of protected areas and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15) Trends in the delivery of ecosystem services and equitable benefits from protected areas (C) 	<ul style="list-style-type: none"> <i>Trends in extent of forest in protected areas (A)</i> <i>Trends in extent of forests primarily designated for conservation; protection; production; social services; multiple use (A)</i> <i>Trends in available funding for protected areas (B)</i> <i>Trends of each forest ecosystem type under REDD+ activities (C)</i> <i>Trends in illegal logging in protected areas (C)</i> <i>Trends in ecological connectivity (C)</i> 	<p>FRA (2010 reporting table T3, T3b); REDD+ country plans and national reports; Satellite or aerial photography; National reports to the CBD and other processes</p>

Aichi Target	Headline indicators (in bold) and most relevant operational indicators for the Strategic Plan for Biodiversity 2011-2020 in the context of REDD+ (A: Priority indicators that are ready for use globally, and, where appropriate, sub-globally, B: Priority indicators to be developed at global and sub-global levels, C: Additional indicators for consideration at sub-global level).	<i>Indicators proposed for monitoring of REDD+ biodiversity and indigenous and local community impacts, as sub-sets or disaggregations of indicators for the Strategic Plan for Biodiversity 2011-2020</i>	Possible data sources
Target 12 - By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	<p>Trends in abundance, distribution and extinction risk of species</p> <ul style="list-style-type: none"> • Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator) • Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS) • Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD) 	<ul style="list-style-type: none"> • <i>Trends of extinction risk of tree species (A)</i> • <i>Population trends and trends in extinction risk of forest dependent bird species (A)</i> • <i>Population trends and trends in extinction risk of forest dependent mammal species (B)</i> • <i>Population trends and trends in extinction risk of forest dependent amphibian species (B)</i> • <i>Trends in distribution of key forest dependent species (C)</i> 	Key global biodiversity datasets; CITES reports; IUCN Red Lists
Target 14 - By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	<p>Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being</p> <ul style="list-style-type: none"> • Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15) • Trends in the condition of selected ecosystem services (C) 	<ul style="list-style-type: none"> • <i>Trends in health and wellbeing of forest dependent communities (B)</i> • <i>Trends in quality and quantity of freshwater from forest watersheds (C)</i> 	

Aichi Target	Headline indicators (in bold) and most relevant operational indicators for the Strategic Plan for Biodiversity 2011-2020 in the context of REDD+ (A: Priority indicators that are ready for use globally, and, where appropriate, sub-globally, B: Priority indicators to be developed at global and sub-global levels, C: Additional indicators for consideration at sub-global level).	<i>Indicators proposed for monitoring of REDD+ biodiversity and indigenous and local community impacts, as sub-sets or disaggregations of indicators for the Strategic Plan for Biodiversity 2011-2020</i>	Possible data sources
<p>Target 15 - By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.</p>	<p>Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being</p> <ul style="list-style-type: none"> • Status and trends in extent and condition of habitats that provide carbon storage (A) <p>Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches</p> <ul style="list-style-type: none"> • Population trends of forest-dependent species in forests under restoration (C) 	<ul style="list-style-type: none"> • <i>Areas of degraded forests restored (B)</i> • <i>Population trends of forest-dependent species in forests under restoration (C)</i> 	<p>Reports produced by members of the Global Partnership on Forest Landscape Restoration; Society for Ecological Restoration; National reports to the CBD and other processes; Key global biodiversity datasets</p>

Aichi Target	Headline indicators (in bold) and most relevant operational indicators for the Strategic Plan for Biodiversity 2011-2020 in the context of REDD+ (A: Priority indicators that are ready for use globally, and, where appropriate, sub-globally, B: Priority indicators to be developed at global and sub-global levels, C: Additional indicators for consideration at sub-global level).	<i>Indicators proposed for monitoring of REDD+ biodiversity and indigenous and local community impacts, as sub-sets or disaggregations of indicators for the Strategic Plan for Biodiversity 2011-2020</i>	Possible data sources
<p>Target 18 - By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.</p>	<p>Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives</p> <ul style="list-style-type: none"> • Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (decision X/43) • Trends in the practice of traditional occupations (B) (decision X/43) <p>Trends in accessibility of scientific/ technical/ traditional knowledge and its application</p> <ul style="list-style-type: none"> • Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B) 	<ul style="list-style-type: none"> • <i>Extent of forest ownership by indigenous and local communities (A)</i> • <i>Trends in management rights of public forests (A)</i> • <i>Number of national and local REDD+ dialogues with civil society in which ILC representatives participate (C)</i> • <i>Number of conflicts with indigenous and local communities over REDD+ activities (C)</i> • <i>Number of recourse mechanisms available to indigenous and local communities (C)</i> • <i>Number of processes using free, prior and informed consent (FPIC) (C)</i> • <i>Number of processes ongoing or completed that clarify land tenure rights (C)</i> • <i>Number of ILC participants involved in biodiversity and other monitoring activities in the context of REDD+ (C)</i> • <i>Trends in existence and implementation of legislation and policies protecting indigenous and local community cultural heritage (C)</i> 	<p>FRA (2010 reporting table T2a, T2b); REDD+ country plans and national reports; National forest inventories</p>
