External Review of
IUCN's Development Relevancy

Commissioned by the
Swiss Agency for Development and Cooperation SDC

Main Report

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Acronyms

In this Working Paper, the acronym *IUCN* refers to the Union as a whole: its Members, the Council, the Commissions, and the Secretariat (both headquarters and Regional Offices). The Working Paper specifies whenever referring to a component part of IUCN, i.e. IUCN Members, IUCN Council, the Commissions, IUCN Secretariat and IUCN Regional Offices.

CBD	Convention on Biological Diversity
CBO	Community-based organization
CEESP	Commission on Environmental, Economic and Social Policy
CEM	Commission on Ecosystem Management
CO_2	Carbon Dioxide
COP	Conference of Parties
DANIDA	Danish International Development Agency
EBA	Ecosystem-based Approach
EU	European Union
FAO	Food and Agricultural Organization
FLR	Forest Landscape and Restoration Approach
GCF	Green Climate Fund
GDP	Gross Domestic product
GEF	Global Environmental Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GMBH
Ha	Hectare
ICM	Integrated Coastal Management
IFAD	International Fund for Agricultural Development
IUCN	International Union for the Conservation of Nature
JOD	Jordanian dollar
NBSAP	National Biodiversity Strategies and Action Plan
NDC	Nationally Determined Contribution
NGO	Non-governmental Organization
NLD	National League for Democracy
NORAD	Norwegian Agency for Development Cooperation
NBS	Nature-based solutions
OPEC	Organization of Petroleum Exporting Countries
PES	Payment for Ecosystem Services
ROAM	Restoration Opportunities Assessment Methodology
SDC	Swiss Agency of Development and Cooperation
SDGs	Sustainable Development Goals
SIDA	Swedish International Development Cooperation Agency
tCO_2eq	Tons of Carbon Dioxide Equivalent
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	UN Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation
USAID	United States Agency for International Development

Acknowledgement

Note from SDC

This Review evolved into a pure formative evaluation: one that serves the purpose of improving the development relevancy of IUCN and the cooperation between IUCN and SDC. It does not render an overall judgment on the effectiveness of IUCN, nor attempts to generalize the findings beyond IUCN.[1] The Review looked through a different and somewhat new lens at a sample of IUCN's work to assess IUCN's past performance in and future potential for contributing to societal transformation. As such, the Review served as a stepping-stone to redefine and reorganize the collaboration between SDC and IUCN. The Review's and SDC's interest thus lie squarely in the (near) future: how can IUCN – by contributing to societal transformation – even better conserve nature, foster human progress, and be more effective in both.

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[1] Based on the definition of a formative evaluation by Patton, M.Q. (2002) Qualitative Research & Evaluation Methods. 3rd Edition. Thousand Oaks: Sage Publications.

Executive summary

− Sustainable development is not a clearly defined concept and the Sustainable Development Goals (SDGs) are mere signposts. The SDGs do not reveal *how* they are met and whether they are likely to continue to be met. (See Chapter 10)

− SDC views sustainable development as *the transformation of society* – as a profound change in the way a society functions – offering economic opportunities to people and being socially equitable, environmentally sustainable and gender and climate change responsive. (See Chapter 4)

− SDC commissioned this Review to learn to what extent and how IUCN *deliberately* contributes to such societal transformations. The Review serves as a stepping-stone to redefine and reorganize the collaboration between SDC and IUCN. (See Chapter 2)

− The Review rests on IUCN work in Jordan, Myanmar and Senegal, as well as on agrobiodiversity, forestry and transboundary water management. The case studies concentrated on IUCN's work on ecosystem and landscape restoration, nature-based solutions to societal challenges, and the sustainable management and governance of natural resources. (See Chapter 3)

− The Review confirms IUCN's:

  ▪ global intellectual leadership in developing comprehensive approaches to nature conservation – such as nature-based solutions and ecosystem-based conservation – with the potential to also address societal challenges (See Volume II: case studies);

  ▪ long-time recognition that *people matter*: principally and as agents of nature conservation (See Chapter 6);

  ▪ potential, embedded in its current work, globally and in-country, for deliberately contributing to societal transformations (See further below and Chapter 7).

− The case studies reveal a limited developmental impact (confined to modest geographic areas and number of households) and (only) one example of an emerging transformational change (where communities, regions or countries adopt a new perspective and rationale on nature conservation and sustainable development and organize themselves profoundly different). IUCN offers countries novel concepts which can help ameliorate societal dysfunctioning but generally does not address the underlying norms, rules and processes which cause environmental degradation, social inequity, and impoverishment. (See Chapter 7)

− IUCN is successful in demonstrating the validity of its (community-led) nature conservation approaches in small-scale demonstration projects. Its assumptions that its diagnostics work and the successful demonstration and communication of its approaches will lead to the *adoption at scale* of these approaches by other communities, government agencies, NGOs and international development agencies and thus generate *development impact at scale* is *not* confirmed by the case studies. (See Chapter 7 and 8)

− The one example of an emerging transformational change – in Integrated Land Use Planning in Vietnam – shows how IUCN – through scientifically-sound diagnostics, the tactful choice of boundary partners (amongst others the regional communist party and local scientists), the facilitation of a participatory and inclusive dialogue, and sheer grit can affect systemic change (See Chapter 7 and Volume 2: appendix H).

− The Review identified a number of missing links in IUCN's Theory of Change. IUCN does not consistently, explicitly, in a structured, scientifically-sound and evidence-based manner (see Chapter 8):

  ▪ conduct a political-economic contextual analysis to understand the interests, incentives, capacity and tenacity of its boundary partners[2];

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[2] The International Development Research Center defines boundary partners as '*individuals, groups or organizations with whom a program interacts directly and with whom the program anticipates opportunities for influence*'. Earl, S., Carden, F., & Smutylo, T. (2001). Outcome Mapping. Building Learning and Reflection into Development Programs. Ottawa: International Development Research Center.

- tailor its nature conservation and development programs to the interests, incentives, and capacity of its boundary partners and the needs and opportunities for nature conservation *and* transformational change;

- explicitly address the systemic societal (market) forces which are responsible for environmental degradation, inequity and impoverishment and hinder the adoption of IUCN's model approaches to nature conservation and addressing key societal challenges like climate change.

– The Review's analysis of IUCN's development impact and Theory of Change principally suggests that IUCN operates: (i) *too rationally in an inherently irrational world*, and (ii) *within the rules of the game rather than changing the rules of the game.* (Chapter 7, 8 and 9)

– In its country-level programs, IUCN stresses the enhanced ecosystem services that arise from nature conservation, but underplays (i) nature's limited carrying capacity – its inability to serve the full and often growing local populations, (ii) the difficulty to utilize enhanced ecosystem services in a socially equitable way and overcome the inherent free-rider problem, and (iii) the need to adopt new values and economic models to reduce society's pressure on nature and safeguard nature's integrity and ability to continue providing ecosystem services. (See Chapter 8 and 9)

– The Review further found that IUCN lacks:

- a clear concept of and approach to sustainable development thereby effectively foregoing on a lodestar which could guide IUCN's contribution to sustainable development and, more importantly, the requisite societal transformation to achieve the 2030 Agenda for Sustainable Development *in perpetuity*. (See Chapter 10)

- an active management steering on how IUCN can *deliberately* contribute to societal transformation. (See Chapter 10)

- a robust and deep evaluation practice and culture of its programs and projects, in which it rigorously and regularly evaluates the validity of its own (tacit) Theories of Change. (See Chapter 13)

– The Review however also found that IUCN's set-up and work offers *plenty of opportunities* to raise its game and *deliberately contribute* to societal transformation:

- The scientific rigor and normative standard-setting which IUCN applies to environmental assessments and nature conservation approaches can also be mobilized to defining the requisite societal transformations and analyzing and evaluating how IUCN (can) contribute(s) to bringing such societal transformations about, i.e. for formulating IUCN's own conception of, approach to and theory of change on societal transformation. (See Chapter 8, 10 and 11)

- The long-term presence in-country of individual IUCN experts and their concomitant knowledge of these countries allow IUCN to easily conduct (and regularly reassess and update) rigorous and explicit political-economic context-analysis and identify the underlying forces at play leading to environmental degradation, social inequity and impoverishment. (See Chapter 11 and 12)

- Being a union with a large membership base offers it the *power of the network*. The case studies reveal that the IUCN Secretariat works with IUCN Members in projects and programs, but is unable to leverage the network to identify, shape and invoke societal transformation. The potential nonetheless remains. (See Chapter 11)

- The multi-stakeholder, multi-scale governance structures that are set up to sustainable govern natural resources – which are mostly *complementary* to existing political-economy structures – offer a platform for an in-depth reflection by local stakeholders on society's (dys-)functioning and thereby the potential to change perspectives, rationales and behavior and deliberately steer on and invoke societal transformations (See Chapter 4 and 7).

- IUCN's international standing, broad membership and high-level political engagements – both at the country and global level – offer it the opportunity to influence the social narrative – *the power of voice* – and thereby (again) the perspective, rationales and behavior of societal leaders and the people at large. The Review understands that IUCN has, historically, been successful in this regard in the realm of nature conservation

(especially with the Convention on Biodiversity, the Convention to Combat Desertification, and the promotion of nature-based solutions). (See Chapter 11)

– The Review also acknowledges the positive steps that are being taken by the Chief Economist (who is working on national environmental and economic accounts and environmental foot printing[3]) and the Commission on Ecosystem Management (which is addressing the influence of culture on environmental degradation through a new working group on Resilience and Transformational Change) to incorporate systems, behavioral science, and transformation thinking into IUCN's work.

– For IUCN to fulfill its potential in *contributing to societal transformations and affect development impact at scale*, the Review recommends IUCN to (see Chapter 17):

1. develop its own clear concept on sustainable development and societal transformation and spell-out a Theory of Change on how to deliberately contribute to such sustainable development and societal transformation, including defining IUCN's boundary partners and how IUCN can affect their behavior;

2. undertake explicit and regular political-economy analyses in its global and in-country engagements – with the same depth and rigor of its environmental and gender assessments – to uncover IUCN's potential and best strategy to affect societal transformations alongside its conservation work;

3. based on this Theory of Change and political-economy analysis to act more strategic, more political (without engaging in politics) by influencing and working with those partners with the power and interest to affect change;

4. to establish a Societal Transformation Group – on par with the Nature-Based Solutions and Biodiversity Groups – staffed with anthropologists, economists, political scientists, system thinkers, agronomists, foresters, advocacy and communication specialists, etc., to identify, develop and implement approaches to societal transformations which change the current dominant and detrimental social narratives, cultural values, and economic models and – through advocacy and communication campaigns, and targeted (demonstration) projects, and in line with its own mission statement – help instigate the transformation of today's unsustainable social-environmental-economic systems.

5. to develop a rigorous evaluation practice and, in support, establish an Independent Evaluation Group reporting directly to the IUCN Council and the Director-General. Through critical self-reflection IUCN can then learn what works, what doesn't and why in instigating societal transformation and conserving nature in parallel.

– Implementation of the above recommendations requires more than change management on the part of IUCN. For the changes to take hold, IUCN Staff and Members require a *change in perspective*. That it is not enough to focus on nature conservation. That to safe nature, it is necessary to safe society first from its unsustainable way of living. That to be successful, IUCN needs to be a societal transformator as much as a nature conservator.

– IUCN's participatory and inclusive approach to the governance of natural resources offers a unique platform for dialogue and – collectively with a diversity of stakeholders – questioning the current and dominant social narratives, cultural values and economic consumption and production models, jointly envisioning alternative rationales and ways to organize society, and identifying alternative entry points and different pathways to bring those alternatives about. The challenge for IUCN is to approach the governance of natural resources less technically and more visionary, seeing it as an opportunity – a privileged entry point – to address the root causes and societal mechanisms of environmental degradation, inequity and impoverishment processes (and endless renewing dynamics). Through such an orientation, IUCN can innovate in two inseparable fields of action: nature conservation and society's functioning.

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[3] For now, this work concentrates on better economic monitoring and measurement and does not (yet) focus on incorporating economic thinking (based on behavioral and institutional economics) in the IUCN's projects and programs – the latter is another avenue for IUCN to improve the effectiveness of its Theory of Change.

- The Review thus recognizes that IUCN does not have to imagine or bring about the societal transformation on its own – which it would not be able to do anyway, just like no other individual organization could bring about such a change alone - instead, IUCN can offer a gentle push in the direction of societal transformation, that is, raise the interest and help generate a genuine will for transformative change.

- We recommend SDC to support above endeavors by (See Chapter 17):

  1. working with IUCN to raise its core funding from (a broader set of) Framework Partners – at first, to build the capacity within IUCN to work on transformational change processes at the global and country level; and subsequently to ensure a long-term senior-level expert presence within IUCN's countries-of-operation to ensure in-depth knowledge on the political-economy of the countries and enable IUCN to partner in the societal transformation processes;

  2. to continue its funding of long-running (i.e. 12-years, three-phases) global and in-country programs and reshape these programs to include deliberate efforts to invoke transformational change based on local leadership, a proper political-economy context analysis, alignment with the interest, incentives and capacity of IUCN's boundary partners, and addressing the root causes and processes of societal dysfunctioning and environmental degradation.

  3. to be a pro-active development partner to IUCN – a sparring partner and a catalyst for new, innovative, approaches and to purposefully and strategically deploy its diplomatic channels to influence individual boundary partners and help IUCN give a push to societal transformations.

- In 2006, IUCN's leadership sat down with leading academics and societal leaders to discuss *'the future of sustainability'*. The group concluded that the term sustainable development is too vague to be able to effectively guide an organization's strategy and operations. IUCN did not follow up with the elaboration of the concept. (See Chapter 9 and 10). With the benefit of hindsight, this probably was a missed opportunity. Anno 2020, with environmental protection and climate action gaining public support and momentum, there appears no better time for IUCN to rise to the challenge, define the concept of sustainable development, and start contributing to societal transformations which will secure nature's integrity. As the English proverb goes: *if not now, when; if not the IUCN, who?*

Main Report

1. Introduction

This report documents the External Review of IUCN's Development Relevancy. This part (volume 1) evaluates to what extent IUCN contributes to, or can contribute in the future to, societal transformation which conserves nature and serves human progress. This main report briefly lays down the background, purpose, use and data sources of the Review. It then introduces SDC's evolving view on sustainable development and presents an analytical framework to evaluate IUCN's contribution to societal transformation.

The report subsequently reviews IUCN's view on sustainable development, its development impact (as observed in the case studies) and the extent to which IUCN's Theory of Change holds up in practice. It then offers a critical assessment of the findings, IUCN's value-added in the development cooperation landscape, and some of IUCN's institutional strengths and constraints. This is followed by a brief discussion of SDC's mandate, global programs and potential for a strategic partnership with IUCN, as well as some global societal trends which will influence IUCN's future work. The report then draws a conclusion and offers recommendations to both IUCN and SDC for enhancing IUCN's contribution to societal transformations.

A separate (second) volume offers additional background information. It provides an answer to the original four review questions, gives an example of the potential and limits of IUCN's governance of natural resources approach, elaborates on the evaluation methodology, lists the Review's key informants and document sources, shares the findings from the individual case studies, and includes the original Terms of Reference and Inception Report.

2. Purpose and use

− SDC supports IUCN with core contributions since 1997. Over time, these four-yearly contributions were reconfirmed without in-depth evaluation and intra- and inter-institutional dialogue and engagement. This led to an administrative type of partnership in which neither IUCN nor SDC made good use of the other. SDC wants to break out of this mold and make the relationship with IUCN again more substantive and purposeful.

− SDC commissioned this Review to better understand to what extent IUCN – through its nature conservation and governance of natural resources' work – *deliberately* contributes to sustainable development. It serves as a stepping-stone to redefine and reorganize the collaboration between SDC and IUCN. The primary intended use of the Review is therefore *strategic decision-making*; the primary intended users of the Review are *SDC* and *IUCN*.

− In 2020, SDC and IUCN's other Framework Partners[4] will negotiate a new four-year Framework Agreement. IUCN will also organize its 26th (quadrennial) World Conservation Congress between 11 and 19 June 2020 in Marseille, France. IUCN's contribution to the 2030 Agenda for Sustainable Development and the implementation of the Paris Agreement are expected to feature prominently in these proceedings. SDC expects the Review to be relevant for these discussions as well. The secondary intended users of this Review are therefore IUCN's Framework Partners and the participants to the World Conservation Congress.

3. Method and limitations

− This Review is based on multiple datasets, including:

  ▪ an in-country assessment of a selection of IUCN programs in Jordan, Myanmar and Senegal;

  ▪ a desk-study of IUCN's global engagements in agrobiodiversity, forestry, transboundary water management and the UNFCCC.

  ▪ a document review of SDC's and IUCN's strategy documents;

  ▪ a literature review on the nexus nature conservation, sustainable development and transformational change; and,

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[4] For the 2017-2020 Work Programme, these are: Finland, France, South-Korea, Norway, Sweden, Switzerland and the United States.

- key informant interviews with international experts from SDC, IUCN, conservation and development organizations, and academia.

– IUCN has an extensive geographical and thematical reach. This Review cannot possibly do justice to all its work. Through a purposeful selection of country-level work and global thematic engagements (see Volume 2, appendix C), the Review sought to get an indication of IUCN's deliberate contribution to sustainable development. The findings should be treated as such: as an indication and not the whole story, as directional and not the absolute truth.

– The Review focused on IUCN's work on ecosystem and landscape restoration, nature-based solutions to societal challenges, and the sustainable management and governance of natural resources. Textbox 1 introduces the country-level programs and global thematic engagements which informed this Review. Detailed descriptions of these programs and engagements are included in Volume 2: appendices G to M.

Textbox 1. A brief overview of the IUCN programs and engagements which informed this Review

In Jordan, three programs on *sustainable rangeland management* were reviewed, running – intermittently – from 2006 to the present.[5] The objective was (and is) to combat land degradation and biodiversity loss, as well as to restore ecosystem services in support of rural livelihoods. The programs sought to reintroduce an ancient practice of sustainable land management. This so-called Al-Hima System refers to the traditional practice of setting land aside to prevent overgrazing or overcultivation of the land and allow for its regeneration.

In Myanmar, the Review looked into IUCN's institutional support and field work on *ecosystem and landscape restoration*, as well as *climate change adaptation and mitigation*, in coastal areas and forests. Whilst IUCN is only engaged in Myanmar since 2012, it built on extensive experience in these areas elsewhere. The objective of these programs was to protect and restore biodiversity, enhance nature's provision of ecosystem services, and strengthen the resilience of local communities.

In Senegal, four different programs were studied which empowered national stakeholders (parliamentarians, government agencies) and local actors (community leaders and groups, NGOs) to address *land degradation, food shortages, and climate change risks*. These programs ran for different periods within the last decade. Their objective was diagnostics of environmental and climate risks, awareness raising on the communities' vulnerabilities to climate change and land degradation, empowerment of local actors to take (climate) action and enhancing the country's and communities' resilience to climate change.

Transboundary water management: the Bridge program – This is an SDC funded program, running since 2011 and currently in its fourth phase, which promotes stakeholder dialogue and good governance in 14 river basins around the world. The program's objective is to restore river-basin ecosystems, reduce water related conflicts and thus secure access to water for all. The program operates at different scales (from local to international) and promotes the development and implementation of (informal and formal) governance systems for the *sustainable and peaceful management of water ecosystems*.

Forestry – Within IUCN's wide-ranging forestry work, the Review zoomed in on IUCN's work on *Forest Landscape Restoration* under IUCN's co-initiated Bonn Challenge and the GEF-funded The Restoration Initiative. The objective of this work is to contribute to the restoration and maintenance of critical (agro-)forestry landscapes, to support the livelihoods of the local populace, improve local biodiversity and generate global environmental benefits (e.g. carbon sequestration).

Agro-biodiversity – This is a topic recently picked up by IUCN and concerns the biodiversity within agricultural landscapes (both above and below the surface). IUCN is currently developing a strategy and program to address agro-biodiversity which it sees increasingly under threat. The objective is to promote sustainable agriculture and whilst maintaining or enhancing the biodiversity in the agricultural landscapes.

UNFCCC – IUCN operates both at the local, national and international level. It has, and continues to, contribute(d) to – amongst others – the Convention on Biodiversity, the Convention to Combat Desertification and the UN Framework Convention on Climate Change (UNFCCC). The Review looked into IUCN's recent engagements with UNFCCC.

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[5] IUCN was a technical partner in the first IFAD-GEF funded program and lead implementing agency in the subsequent two programs funded by the EU and GEF.

4. The benchmark: SDC's view on sustainable development

− The Review was triggered and guided by one overarching question: *'How does IUCN contribute in a systemic way to sustainable development in its three dimensions: environmental, social and economic development?'*[6] To answer this question, the meaning for SDC of the key words – or combination of key words – in this question need to be known. The discussion with SDC made this clear:

- **Sustainable development** concerns the *'evolution or transformation of a society or societies that offers economic opportunities to people, is socially equitable, environmentally sound and gender and climate change responsive'.*[7] Transformation is thereby understood as a marked change in the way a society functions and performs – see Textbox 2.

- **In a systemic way**. This refers to the ambition that development is not confined to a few people or locality but concerns development *'at scale ... encompassing a whole system at the subnational, national, regional or global level'.* It also refers to the notion that IUCN makes *'a real difference and a lasting contribution'.*

- **Contribute**. SDC expects that development is invoked *'deliberately'*, i.e. the actions of IUCN are designed to contribute to sustainable development.

− SDC's reading of sustainable development is in line with the key message of the 2019 Global Sustainable Development Report, namely that the world is *not* on track to meet the Sustainable Development Goals and an urgent and intentional transformation of socioenvironmental-economic systems is needed:

'The world is not on track for achieving most of the 169 targets that comprise the Goals. ... Much more needs to happen – and quickly – to bring about the transformative changes that are required. ... no country is yet convincingly able to meet a set of basic human needs at a globally sustainable level of resource use. All are distant to varying degrees from the overarching target of balancing human wellbeing with a healthy environment. Each country must respond to its own conditions and priorities, while breaking away from current practices of growing first and cleaning up later. ... Adding to the concern is the fact that recent trends along several dimensions ... are not even moving in the right direction, [in particular for] rising inequalities, climate change, biodiversity loss and increasing amounts of waste from human activity that are overwhelming capacities to process them. Critically, recent analysis suggests that some of those negative trends presage a move towards the crossing of negative tipping points, which would lead to dramatic changes in the conditions of the Earth system in ways that are irreversible on time scales meaningful for society. ... Advancing the 2030 Agenda must involve an urgent and intentional transformation of socioenvironmental-economic systems ... a profound and intentional departure from business as usual'. (emphasis added)[8]

Textbox 2. The meaning of transformation

The meaning of transformation lets itself best be explained by opposing it to mere change. Change means that a system or institution is organized differently. Its functioning and underlining rationale remain the same. Transformation is not a matter of a change in form, but of substance. It concerns the emergence of a new system based on a new rationale. A transformation is disruptive and refers to a fundamental and irreversible change in societal systems. In other words, *'change is situational: the move to a new sight, the reorganization of a team, the revision of a plan. [Transformation] is psychological ... a collective process by which people unplug from an old world and plug into a new world'.*[9]

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[6] SDC (2019) Terms of Reference for the External Review of IUCN's Development Relevancy
[7] As defined by SDC during the kick-off meeting of this Review and confirmed in the Inception Report.
[8] United Nations (2019) Global Sustainable Development Report. The Future is Now. Science for Achieving Sustainable Development.
[9] William Bridges (1991) Managing Transitions. Da Capo Press

5. An analytical framework for judging IUCN's contribution to societal transformation

– Judging transformational change is difficult and not an exact science. Transformations occur with fits and bursts, simmering below the surface before they suddenly pop up and come into full view, letting one wonder why one didn't see it coming. IUCN may thus well be contributing to societal transformations without this being visible to the casual observer.

– The Review made use of the following analytical framework to assess IUCN's deliberate contribution to societal transformation:

1. The Review differentiated between different depths of societal change – as shown in Table 1. The matrix distinguishes between a *first and second order societal change*. The first order change refers to new outcomes within a basically unchanged societal functioning: it resolves problems and negative (harmful) outcomes but leaves the basic system intact. This is what we referred to in Textbox 2 as *'mere change'*: things remain the same albeit in a different way. This Review refers to this as a type A change.

   The second order change refers to the reshaping, redesigning and restructuring of the *grand societal machinery*. It refers to *something fundamentally else* by transforming the very functioning of society. The Review thereby differentiates between two types of transformation: (i) *repairing society's current dysfunction* by addressing the root causes and processes responsible for the dysfunction – a so-called Type B1 change; and (ii) creating a better future – making a positive choice for *'the future we want'*[10] – a so-called B2 change.

   In judging IUCN's development impact, the Review sought to establish whether and to what extent the underlying, dynamic, causes of unsustainable development have been addressed and a new perspective, rationale, and structure of society is emerging.

Table 1. A classification of societal transformation

Depth of transformational change		
First order change: *the same but different*	Second order change: *something fundamentally else*	
Working on outcomes within a basically unchanged societal functioning	Working on reshaping, redesigning and restructuring *the grand machinery of society*	
Help the same system perpetuate but in a less harmful way	Eradicate or substitute mechanisms generating the *'unbearable'*	
Address states of affairs / symptoms / here and now situations	Change the perspective, rationale and structure of the system	
Making the unbearable more bearable		
SOLVE PROBLEMS	TRANSFORM SOCIETY	
= Type A Change	Type B1 Transformation	Type B2 Transformation
	Action targeting the root mechanisms causing societal dysfunctioning – impairing or injuring the 'living together'	Action aiming at building alternatives or innovations leading to a desired society
	FIGHT AGAINST 'THAT'	FIGHT FOR 'THAT'

Source: De Leener, P. & Totte, M. (2018). Transitions Economiques. En finir avec les alternatives dérisoires. Vulaines-Sur-Seine: Editions Le Croquant.

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[10] The name of the outcome document of the 2012 United Nations Conference on Sustainable Development.

2. This Review sought to assess how and to what extent IUCN *most probably contributes* to transformational change by judging the potential and progress of change created. Here, the Review differentiates between three levels – as shown in Table 2.

Table 2. The potential and progress of change

Level 1 – potential of change created	IUCN's boundary partners[11] are aware of the challenges, and capacitated and organized to act.
Level 2 – observable change in behavior and actions of IUCN's boundary partners	IUCN's boundary partners change their behavior and actions to address the challenges at hand.
Level 3 – observable, evidence-based, changes realized	The actions of IUCN's boundary partners result in better outcomes (Type A change) or functioning of society (Type B transformation).

Source: adapted from De Leener, P. & Totte, M. (2018). Transitions Economiques. En finir avec les alternatives dérisoires. Vulaines-Sur-Seine: Editions Le Croquant.

Textbox 3. An example of a potential B1-type of societal transformation and its challenges

Based on an initial working paper, SDC asked the Review team to offer some examples of societal transformation and how such societal transformations can be triggered. On the one hand, such examples can give hand and feet to an otherwise rather abstract concept. As such, they can illuminate. On the other hand, examples carry the risk of (unintentionally) constraining the readers' imagination, restricting their view on the full pallet of possibilities. The Review team members are no prophets either. The following example should thus be treated with care and is merely illustrative. The subsequent sections discuss the transformational impact and/or potential of some of IUCN's current work and offering further examples of possible entry points for IUCN's contribution to societal transformation. IUCN's staff and boundary partners can however open many more and different avenues to societal transformation than offered through these examples.

The most current example to work with, one IUCN is deeply engaged with, and is so well-known that it requires few words is the need to reduce society's carbon footprint. This challenge permeates all levels of society, concerning the individual and the local community, small business and large multinationals, national politics and international governance. Reducing our carbon footprint, first of all, requires a deep realization that (i) our well-being is intricately linked with the earth's climate (something IUCN does not fail to reiterate in its major publications on the topic); and (ii) because we pretty much created our carbon footprint within a single lifetime, it also falls within our responsibility and ability to reduce it again.[12] For large swath of people, this constitutes a radical change of perspective – one in which one can no longer decouple human well-being from nature and climate.

This change in perspective should then inform or lead to a change in life and business rationale: one less based on ever increasing material well-being and mass consumption. This change in rationale should subsequently lead to a change in institutions and behavior: from carbon pricing (to capture the negative externalities of carbon consumption) to sourcing food from the region (requiring less transport), from changing food patterns (less meat-based which has a high carbon footprint) to a massive transition to renewable energy use, amongst many others.

This example of a required societal transformation also carries the ingredients of why it is so challenging to bring about societal transformations. First, whilst we can all contribute, not one of us, nor any organization or country, can resolve the challenge on its own (presenting an almost unfathomable collective action problem). As succinctly stated by Michael Quinn Patton – an eminent evaluation specialist – *'no one, not one organization, no entity, and no network is in charge of, controls, or manages transformation, but synergistic interactions can propel and accelerate transformation'*[13]. Second, the societal transformation requires and rests on a change in individual behavior. To paraphrase the transition management specialist William Bridges: *'as people have a deep personal connection to how they work and their daily habits, there is just no way to make transformations impersonal ... whereas the first task of change management is to understand the desired outcome and*

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[11] The International Development Research Center defines boundary partners as *'individuals, groups or organizations with whom a program interacts directly and with whom the program anticipates opportunities for influence'*. Earl, S., Carden, F., & Smutylo, T. (2001). Outcome Mapping. Building Learning and Reflection into Development Programs. Ottawa: International Development Research Center.

[12] According to the Oak Ridge National Laboratory, we have emitted 1578 gigatons of CO_2 from fossil fuels since 1751; since 1989 the total is 820 gigatons (or 52% or the total emissions since 1751); and since 1946 the total is 1376 gigatons (or 87%). Source: Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, 'Global, Regional, and National Fossil-Fuel CO_2 Emissions', in David Wallace-Wells. The Uninhabitable Earth. A Story of the Future. Penguin Random House: UK.

[13] Patton, M.Q. (2020) Blue Marble Evaluation. Premises and Principles. New York: The Guilford Press.

how to get there, the first task of transformation management is to convince people to leave home, i.e. to let go of the old ways and habits'.[14]

These challenges also show one way that societal transformations can be invoked, namely through niche initiatives by what the Dutch professor Jan Rotmans[15] and the popular author Malcolm Gladwell[16] call frontrunners, out-of-the-box thinkers, innovators which jointly create new ways to live and work, which are subsequently picked up by early adopters and – through mavens, connectors and salespersons – are (slowly) brought to wide-scale application and use, and can eventually alter the dominant economic and political models. This pathway of emerging transformation is shown graphically below. (As we will see later in this report, IUCN seeks in part to play the role of innovator and disrupter, but that it is not so easy and self-evident to have its innovations adopted at scale).

The graph also acknowledges that transformations take time – for ideas and innovations to be picked up by early adopters, overcome inevitable resistance from vested interests, take hold and change the general perspective, rational and structure of society.

Figure 1. One pathway to societal transformation

Source: based on Jan Rotmans (2012) In het oog van de orkaan. Nederland in transitie (In the eye of the storm. The Netherlands in transition). Aeneas: Boxtel, Netherlands

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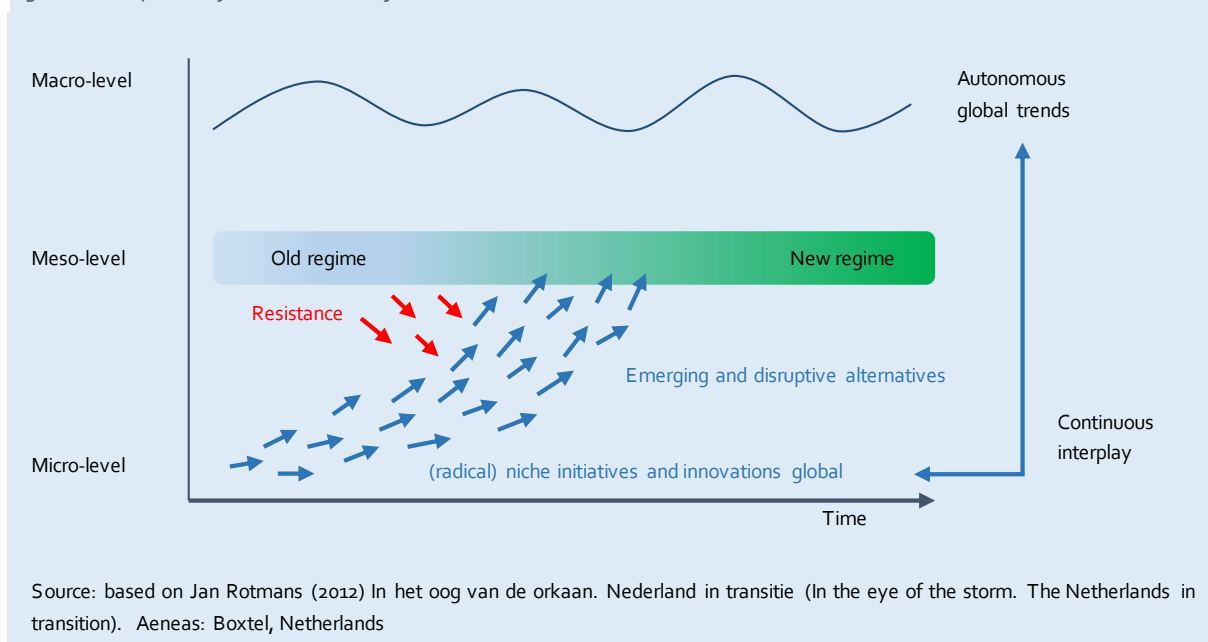
[14] William Bridges (1991) Managing Transitions. Da Capo Press
[15] Jan Rotmans (2012) In het oog van de orkaan. Nederland in transitie (In the eye of the storm. The Netherlands in transition). Aeneas: Boxtel, Netherlands
[16] Malcolm Gladwell (2000). The Tipping Point. Little Brown and Company: New York

6. IUCN's view on and approach to sustainable development

– Conceptually, IUCN presents its development relevancy in two distinct, albeit related ways:

1. Nature conservation is a prerequisite, foundational, to human well-being, so IUCN's contribution to nature conservation serves sustainable development. Textbox 4 captures some typical IUCN statements in that regard. This view arguably has its origins in the World Conservation Strategy, published in 1980, which *'emphasized the need to maintain essential ecological processes and life support systems, to preserve genetic diversity, and to ensure the sustainable utilization of species and ecosystems'*[17].

2. IUCN's contributes – directly or indirectly – to attaining the SDGs, namely the following twelve: 1 (no poverty), 2 (zero hunger), 3 (good health and well-being), 5 (gender equality), 6 (clean water and sanitation), 10 (reduced inequalities), 11 (sustainable cities); 13 (climate action), 14 (life below water), 15 (life on land), 16 (peace, justice and strong institutions) and 17 (partnerships). [18]

Textbox 4. IUCN statements on the value of nature to society

'Conserving nature is a non-negotiable prerequisite for achieving a more prosperous, healthy and equitable world. If the world does not reverse the loss of nature, it will undermine any prospect of achieving the SDGs by 2030.'[19]

'Water security ... is needed to ensure sustainable access to adequate quantities of water for sustainable livelihoods, human well-being and socio-economic development'.[20]

'A long-term and holistic view on maintaining a healthy coastal environment for the health, security, economy and general well-being of coastal dwellers ... [and] recognized that ecosystem conservation and livelihood security are essential to securing sustainable economic growth in coastal areas'.[21]

'Healthy and productive landscapes, from forests and wetlands to pastures and farms, are the building blocks of livelihoods and economies'.[22]

– The case studies reveal how IUCN seeks to contribute to development in practical terms, namely through:

1. A direct contribution to the SDGs 6, 15 and 16 – see Textbox 5.

2. By safeguarding, restoring and enhancing nature's ecosystem services, i.e. *'the benefits people derive from ecosystems.'*[23] *'Ecosystem services include provisioning services such as wood, fisheries, and raw material; regulating services such as climate regulation, regulation of water flow and water purification, and cultural services such as recreation, scenic values and spiritual or cultural values.'*[24]

3. By complementing nature conservation work with alternative livelihood programs to enable and entice local communities to sustainable manage the community's natural environment.

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[17] Adams, W.M. (2006) The Future of Sustainability Re-thinking Environment and Development in the 21st Century. UK: University of Cambridge.

[18] IUCN (2017). IUCN and the Sustainable Development Goals

[19] IUCN (2019). The IUCN Programme 2021-2024. One Nature, one future. Draft for consultation.

[20] IUCN (2018) Bridge: Building River Dialogue and Governance. Phase 4: 2019-2021

[21] IUCN (2014). MFF Regional Programme Support for Phase 3. Proposal.

[22] https://www.iucn.org/theme/forests/projects/restoration-initiative-tri

[23] https://www.iucn.org/commissions/commission-ecosystem-management/our-work/cems-thematic-groups/ecosystem-services

[24] IUCN (2018) Tools for measuring, modelling, and valuing ecosystem services. Guidance for Key Biodiversity Areas, Natural World Heritage sites, and Protected Areas.

Through the SDC-funded Bridge-program on transboundary water management, IUCN seeks to contribute to:
- *SDG 6.5*: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
- *SDG 6.6*: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rovers, aquifers and lakes.
- *SDG 16*: ... build effective, accountable and inclusive institutions at all levels.

Through its global rangeland and forestry programs, IUCN helps attain:
- *SDG 15.3*: by 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

- IUCN's practical approach rests on the long-time recognition that *people matter*, principally and as agents of nature conservation. The 3rd IUCN World Conservation Congress, in 1952, already *'sought to link the human and environmental agendas more effectively'*[25] and IUCN's current mission statement also puts society center stage: *'Influence, encourage and assist* societies *to conserve the integrity and diversity of nature and ensure that any use of natural resources is equitable and ecologically sustainable'* (emphasis added).[26]

- Consistent with this recognition that *people matter*, IUCN's entry point in nature conservation and sustainable development is the *governance* of the planet's natural resources. IUCN basically views the conservation of nature as a collective action problem. By raising the awareness and knowledge of individuals, communities and societies about the intrinsic, cultural and economic value of nature, IUCN seeks to induce collective action to protect and sustainable manage nature's ecosystems and resources.

- Figure 2 depicts the Review team's interpretation of IUCN's view on and approach to nature conservation and sustainable development graphically: by motivating, capacitating and incentivizing communities to sustainable manage the planet's natural resources, IUCN simultaneously seeks to protect the integrity of the natural ecosystems and contribute to sustainable development and the achievement of the SDGs.

- The Review found a consensus within IUCN on this view on and approach to nature conservation and sustainable development. The impression was given that this view and approach to nature conservation and sustainable development is self-evident and neither requires elaboration nor active management steering – a topic, the Review returns to later in this Report.

Figure 2. IUCN's approach to nature conservation and sustainable development
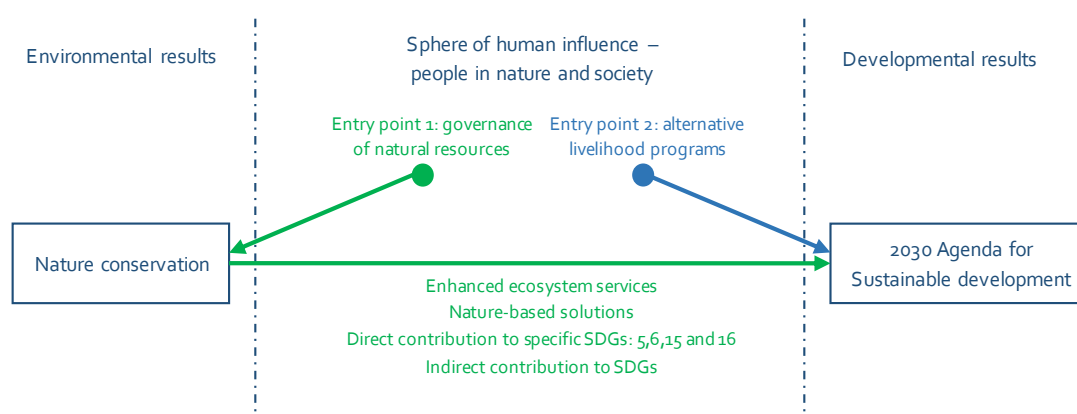
Source: authors

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[25] Adams, W.M. (2006) The Future of Sustainability Re-thinking Environment and Development in the 21st Century. UK: University of Cambridge.
[26] https://www.iucn.org/about

7. IUCN's developmental outcomes in the case studies

− Table 3 lists and classifies the development outcomes of IUCN's work in the case studies. As shown in the table and further discussed in this Chapter, IUCN invokes mostly type A changes. The table also offers entry points for IUCN to contribute to type B changes, i.e. for moving from mere change whilst leaving the *grand machinery of society* intact towards societal transformations based on a new perspective, rationale and societal structure. These entry points *point* towards some of the underlying (root) causes of the environmental degradation, inequity and impoverishment experienced in the countries. As will be argued later in this Report, these root causes can not necessarily be addressed head-on. They require a deep understanding of the political economy of the country, as well as tact to identify and work with the right boundary partners to affect change. Moreover, these are not necessarily the only entry points and should by no means be construed as such, i.e. limit IUCN's views on other avenues and pathways of change. Finally, the entry-point column recognizes elements within IUCN's current work which are complementary and/or supportive to any transformation process and which IUCN should continue to work on.

− IUCN's participatory and inclusive approach to the governance of natural resources offers a unique platform for dialogue and – collectively with a diversity of stakeholders – questioning the current and dominant social narratives, cultural values and economic consumption and production models, jointly envisioning alternative rationales and ways to organize society, and identifying alternative entry points and different pathways to bring those alternatives about. The challenge for IUCN is to approach the governance of natural resources less technically and more visionary, seeing it as an opportunity – a privileged entry point – to address the root causes and societal mechanisms of environmental degradation, inequity and impoverishment processes (and endless renewing dynamics). Through such an orientation, IUCN can innovate in two inseparable fields of action: nature conservation and society's functioning. (Note: The Review thus recognizes that IUCN does not have to imagine or bring about the societal transformation on its own – which it would not be able to do anyway, just like no other individual organization could bring about such a change alone - instead, IUCN can offer a gentle push in the direction of societal transformation, that is, raise the interest and help generate a genuine will for transformative change.)

Table 3. Summary of results of IUCN's work in the case studies

Program(s)	Main development outcomes	Type and level of change*		Reason for the classification	Entry points for a type B transformation
Jordan					
Sustainable rangeland management programs (See vol II, annex G)	− A total of 137 ha of rangeland (in three villages) managed sustainably by local communities with biodiversity restored − A few dozen women and men with improved incomes through improved grazing and ecosystem services	A	3	− The 137 ha of rangeland are better managed and some households with improved incomes (= Level 3 change) − The development impact is small-scale, and no changes made to the processes causing the land degradation and impoverishment (= type A Change)	− Promote a change in and bringing clarity to the country's land tenure regime: e.g. devolve land ownership to the governates and assign land use rights to municipalities or tribes, thus allowing and incentivizing sustainable land management at scale. − Promote the inclusion of the rural population and migrants into Jordan's main economic activities, reducing their reliance on natural resources and bringing the use of natural resources in line with nature's carrying capacity. − Continue IUCN's efforts to monetize the improved ecosystem services stemming from sustainable land management and include the associated agricultural

Program(s)	Main development outcomes	Type and level of change*		Reason for the classification	Entry points for a type B transformation
					− products into domestic and international value chains. − Continue to document and communicate the extent of land degradation and biodiversity loss and the societal risks this bears.
Myanmar					
Mangroves for the Future / Gulf of Mottama (See vol II, annex H)	− Coastal Resource Management Committees (with participation of a broad range of government agencies) established at the national, regional and district level. Committees nominally function but still in the process of establishing their position, role and influence in the political system.	A	1	− The Coastal Resource Management Committees complement the existing structures – they have not yet fundamentally changed the perspective, rationale and structure of the dominant political economic system for coastal management (= Type A change). Even though its capacity is limited and sustainability unclear, it carries the potential to influence the domestic narrative and invoke changes in perspective and actions (= level 1 change)	− To work with for example UNDP in promoting National Commodity Platforms, mobilizing the government and the (international) private sector, to pursue economic development with a sustainable use of natural resources, i.e. to counteract current vested (national and international) economic interests which rests on the unsustainable harvesting of the country's natural resources.
	− In a few communities, community and locally managed marine areas established and households supported in building alternative livelihoods.	A	3	− Local communities have established new protected and sustainable managed areas within the current norms and societal functioning (= level 3 and Type A change)	− Promote the inclusion of the coastal and rural population into Myanmar's main economic activities, reducing their reliance on natural resources and bringing the use of natural resources in line with nature's carrying capacity.
	− From the regional twelve-year program: a proven analytical tool, 7 proven approaches to mangrove conservation, and many case studies of successful mangrove restoration.	-	1	− IUCN's tools, methods and case studies offers its boundary partners the material to enact / jumpstart nature conservation projects. (= a steppingstone to a level 1 change)	− To continue deepening the capacity of and dialogue within the established Coastal Resource Management Committees to bring about a change of perspective on the value of, and implications of the current degradation of, the country's coastal resources and making these Committees effective boundary partners and agents of change. − To continue offering IUCN's analytical tools, case studies and proven approaches to mangrove and landscape restoration as means to promote nature conservation and support (to the extent possible) economic development.
Senegal					
(See vol II, annex I)	− IUCN's support to the creation of women groups to undertake various income generating activities led to new women groups in next-door villages and a regional federation of women groups	A	3	− Women, within and without the project area, have been empowered (a level 3 change). − Contributes to SDG 5. − The mechanisms at the root of women poverty and exclusion have not been addressed (a type A change).	− As women continue to work towards the best sustainable use of mangrove resources, help them decipher and act on the basic impoverishment mechanisms that structure the local economy and markets.

Program(s)	Main development outcomes	Type and level of change*		Reason for the classification	Entry points for a type B transformation
	(encompassing 43 women groups in total)				− Help women to better manage household income and address gender-related intra-household economic challenges (all the more necessary as economic imbalance within households is at the root of local environmental and economic imbalance
	− IUCN helped establish two community-led forests in Sine Saloum and helped inspire the collective management of an irrigation scheme and agriculture infrastructure, as well as joint marketing activities. The protected forests and collective management structures face considerable outside pressure now.	A	3	− IUCN helped establish complementary governance structures and protected areas (a level 3 change). − The projects did not address the dysfunctional leadership selection for the management of the forests, nor address the root causes of forest degradation.	− Have all social categories and actors involved in the governance of natural resources analysis and take stock of the decision-making and resource management systems in order to identify the basic mechanisms in society that are responsible for the environmental degradation and dysfunctional leadership selection. − Contribute to research and experimentation on the best ways to neutralize the weaknesses and root causes of the environmental degradation and dysfunctional leadership selection, help set up and experiment new regulatory systems, new practices, new frameworks, new organizations that can effectively combat these fundamental and harmful mechanisms (in a spirit of action research).
	− With support from IUCN, national parliamentarians learned to adopt a pro-active stance and represent their constituencies (rather than the national government).	-	2	− National parliamentarians adopted a new perspective which could be a prelude to a Type B change. − The new perspective led to a change in behavior and the pro-active development of new laws and initiatives (a level 2 change).	− Seize the opportunity of this change of behavior to take stock of the parliamentarians' work, role, and challenges in playing the role of change drivers. How could they better assume such a role, in particular in all what concerns nature conservation at national and international level?
Vietnam[27]					
Integrated Land Use Planning (See vol II, annex G)	− The cultivation of flood-resistant and high-value crops in the Mekong Delta instead of a third rice crop.	B1	3	− The Vietnam Communist Party and local farmers recognized the value of the Mekong Delta flood plains for absorbing seasonal floods (a change in perspective) and, consequently, changed government policy (through a new national rice policy) and land use (through the cultivation of flood-	− This example shows how the experiences in one workstream (getting rid of the third rice crops in the Mekong floodplains) triggered a change in perspective and rationale and thereby a more systemic change, namely a new approach to land use planning. The challenge now is to solidify this new land use planning process and, through practice,

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[27] This example rests on discussions with IUCN Asia Regional Office staff. The Review team did not verify this example in the field.

Program(s)	Main development outcomes	Type and level of change*		Reason for the classification	Entry points for a type B transformation
				resistant crops in the flood plains to conserve the function of the flood plains). − Importantly, according to IUCN, the decentralized and inter-sectoral considerations and decision-making that undergirded the above decisions and actions (and offer a new rationale) informed a new (transformed) Vietnamese land use planning process that moved away from sectoral planning to integrated land use planning (a structural change).	extend the transformational impact beyond the introduction of flood-resistant crops in the Mekong floodplains to other agricultural and land use areas. − The example also shows how IUCN – through scientifically-sound diagnostics, the tactful choice of boundary partners (amongst others the regional communist party and local scientists), the facilitation of a participatory and inclusive dialogue, and sheer grit can affect transformational change.
Transboundary water management					
Bridge (See vol II, annex J)	− Formal and informal governing institutions – at the basin, national and transboundary level – created, capacitated and functioning in many basins where the program is active.	A	1	− The institutions are complementary to existing structures. Whilst they carry the potential for invoking transformational change based on changing perspectives and collaborations (level 1 change), no evidence yet of on-the-ground development impact in terms of improved access to water, reduced conflicts, and restored basin-level ecosystems (= type A change	− To deliberately use the created institutions and platforms for an in-depth dialogue and reflection on the root causes of the unsustainable and inequitable use of the river basin ecosystems, collectively devise pathways to address these root causes, and thus mobilize the participants in these dialogues and institutions as boundary partners, as agents of change, and empower these players to take concrete on-the-ground action to address these root causes. −
Forestry					
The Bonn Challenge and The Restoration Initiative (See vol II, annex K) −	− Globally 43.7 million ha of land under restoration in 2018 under the Bonn Challenge (=29% of the 2020 target).	A	3	− Degraded land has been under restoration (= level 3 change). − The actual global rate of gross cover loss increased by 43% on average to 26.1 million ha per year since the Bonn Challenge signaling that the root causes and processes leading to deforestation and degradation have not been addressed. This makes for a Type A change for the restored lands.	− To expand and deepen IUCN's engagements with the root causes of deforestation and land degradation (e.g. expansion of agricultural land for meeting the basic nutritional needs of local populations or serving international agricultural commodity value chains) and thus seek to change the tide (i.e. limit deforestation and land degradation) rather than continue to swim against the tide (through reforestation and restoration). See also above suggestions under the country case studies.
Rwanda – Forest restoration (See vol II, annex K)	− 18088 ha of (agro-)forestry land restored under IUCN implemented program. Upwards from 700,000 ha restored in total between 2011 and 2019.	A - B1	3	− IUCN contributed to actual landscape restoration (= a level 3 change). − The Rwanda government *'saw a healthy future for its people and the environment'* impaired and took a people-focused approach to land restoration (emphasizing agroforestry). Falls between a Type A	− To continue its Forest Landscape Restoration work and use this as a vehicle to raise awareness of the negative impact of land degradation and the efforts involved in restoration to help change the perspective of potential boundary partners, invoke a change in rationale and behavior among them, and

Program(s)	Main development outcomes	Type and level of change*		Reason for the classification	Entry points for a type B transformation
				change (change in land management and agriculture policy, addressing the negative outcomes of the current system) and a Type B change (a change in perspective, focusing on combining nature and livelihoods). [28]	mobilize these players as agents of change so that over time no restoration is necessary anymore.
Agrobiodiversity					
(See vol II, annex L)	− IUCN is advocating a more agriculture-focused Convention on Biodiversity	-	1	− IUCN's proposals offer Parties to the Convention the potential to effectively mitigate biodiversity depletion in agriculture (= a steppingstone to a level 1 change).	− Help agrobiodiversity become a springboard for transforming productive agriculture, reconstructing landscapes and natural balances, and promote equity.
UNFCCC					
(See vol II, annex M)	− Mainstreaming the inclusion of Nature-based solutions into the Nationally determined Contributions	-	1	− Offers countries the potential to effectively adapt to and mitigate the effects from climate change (= level 1 change) without addressing the root causes and processes of climate change.	− To continue its promotion of nature-based solutions to climate change, but at the same time expand IUCN's diagnostics to come to understand the impediments to the wide-scale adoption (and actual implementation) of nature-based solutions to climate change, and to subsequently devise ways with partners to address these impediments.

* See Chapter 4 for explanation of the classification.

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[28] The Rwanda information is based on a limited set of secondary data. A proper assessment of the type of change requires field work.

- Table 3 indicates that IUCN generally invokes:

  - Type A change – addressing the harm done to nature and local communities whilst leaving the system and processes producing these harmful outcomes intact.

  - The potential of a Type B1 change by contributing to a chance in perspective amongst its boundary partners. For a Type B1 change to materialize, this would need to be deliberately activated, creatively boosted and rigorously sustained over time.

  - Level 1 change at a district, national or regional level – creating the potential (through awareness raising, capacity building and institutional development) for changes in behavior and development outcomes based on new perspectives, rationales and structures.

  - Level 3 change at a local level – where communities successfully manage small areas of forests and rangelands in a sustainable manner and where parts of these communities generate additional income through improved ecosystem services.

- In the case studies, IUCN is able to bring about change within the current parameters of the political economy. IUCN operates within the system – it does not transform the system.

- The positive exception is IUCN's work in Vietnam on Integrated Land Use Planning where it could translate the positive experiences in one specific workstream (namely getting rid of the third rice crop in the Mekong floodplains) into a more general change in perspective and rationale (namely to take a more integrated, cross-sectoral approach to land use) and thereby led to an (emerging) structural and systemic change (namely the introduction and application of a new land use planning process). The example shows how IUCN – through scientifically-sound diagnostics, the tactful choice of boundary partners (a.o. the regional communist party and local scientists), the facilitation of a participatory and inclusive dialogue, and sheer grit can affect a B1 type transformational change.

- The Vietnam example thus shows that – through its diagnostics work, awareness raising, capacity building, and institutional development, through the creation of new (complementary) governance structures, and by offering new perspectives on the state and value of nature – IUCN can create the potential for and contribute to transformational change based on its boundary partners changing perspectives on nature and society and capacity to act. The Vietnam example appears nonetheless the exception rather than the rule.

- The case studies proper neither indicated nor offered evidence that this potential for societal transformation is deliberately seized and societal transformations are emerging. Why not? The Review offers two potential and probably related answers:

  1. IUCN's boundary partners are not picking up the ball; and,

  2. The economic model undergirding modern society remains dominant and unquestioned.

- The next two sections reflect on both potential answers.

Textbox 6. Further reflections on IUCN's livelihood support work.

- IUCN does not analyze to what extent its community- and regionally-focused livelihood support – whether through improved ecosystem services or the promotion of alternative (non-nature-based) livelihoods – leads to the exclusion or impoverishment of other communities and regions. The success of some communities may easily come at the detriment of communities and regions elsewhere.

- IUCN's livelihood support programs focus on individual(s) (households). The individual / household standard of living is improved and not necessarily the standard of living of the whole local community concerned. Improving the condition of individual members of a given community, even if they are organized in groups or federations, never spontaneously leads to significant progress at the society they live in. The collective level, that is, the local society level, which is the most relevant as far as societal transformation is concerned, is not prioritized and left untouched by IUCN.

8. Why does the last part in IUCN's Theory of Change not work?

− IUCN operates with a clear intervention logic in mind – see the blue boxes in Figure 3. IUCN's intervention logic runs as follows:

1. IUCN conducts in-depth diagnostics – as exemplified by the Restoration Opportunity Assessment Methodology (ROAM) or the Benefit Opportunity Assessment Tool (BOAT) – in which IUCN reveals the dismal state of nature, the potential value of nature through nature-base solutions or ecosystem services, and how the degraded nature can be restored and its value seized.

2. IUCN subsequently shares this information with its boundary partners at community, district, national and/or international level to raise awareness on the dismal state of nature, engages in a participatory, multi-stakeholder and multi-scale dialogue on how to revert nature degradation and seize the environmental, economic and social opportunities it offers, and build the capacity of its boundary partners to organize themselves, govern nature in a sustainable manner and make use of enhanced ecosystem services.

3. IUCN then implements a pilot program to demonstrate (show the proof of concept of) local community or multi-stakeholder governance of natural resources.

4. Based on the successful demonstration of its approach to the governance of natural resources, IUCN produces knowledge products and disseminates the success story among a wider set of potential boundary partners, including local and national government agencies, NGOs and international development organizations.

5. The information dissemination serves both to influence policy setting (for example on sustainable rangeland or coastal management) which would improve the framework conditions for the sustainable and local stakeholder based governance of natural resources, as well as to raise further funds to replicate the pilot projects and build a body of evidence showcasing the applicability and effectiveness of IUCN's approach to nature conservation and the sustainable governance of natural resources.

6. IUCN expects that either the demonstration projects or the wider body of evidence will induce local and national government, NGOs and international development partners (many of them member of the IUCN) to bring IUCN's approach to scale and achieve development impact at scale.

Figure 3. IUCN's Intervention Logic and Theory of Change

IUCN's INTERVENTION LOGIC

| Diagnostics | Awareness-raising Capacity building Dialogue facilitation | Demonstration | Dissemination (Policy) influencing | Development impact at scale |

Boundary partners open-up to new (alternative) approaches — Boundary partners willing to pilot the new (alternative) approaches — Boundary partners undertaking advocacy — Boundary partners adopting new (alternative) approaches at scale

IUCN's boundary partners have the interest, incentive, capacity, power and tenacity to act.

IUCN'S THEORY OF CHANGE

Source: authors

− IUCN's intervention logic is based on several (implicit) assumptions, including that:

1. IUCN's boundary partners respond to IUCN's diagnostics work, i.e. that revealing in an objective, scientifically-sound manner the dismal state of nature and the missed value of nature based solutions and ecosystem services will open-up the boundary partners and make them receptive to (i) alternative approaches to conserve, govern and manage nature; (ii) multi-stakeholder, multi-scale dialogue; and (iii) capacity development.

2. information, dialogue and capacity building can nudge IUCN's boundary partners into collective action and pilot-test new approaches.

3. the successful demonstration of alternative approaches to conserve, govern, manage and sustainable use nature will induce a wider set of boundary partners to replicate the approach successfully.

− The assumption that IUCN's boundary partners will respond to IUCN's clarion call, capacity building and demonstration projects rests on the further (implicit) assumption that:

▪ IUCN's boundary partners have the interest, incentive, authority and tenacity to pick up the ball and run with it.

− It is the above intervention logic, together with the underlying assumptions, which make up IUCN's Theory of Change – see the green boxes and arrows in Figure 3. With some variations in wording and presentation, it is this Theory of Change that appears to undergird IUCN's work in the case studies. See Volume 2: Appendices G to M for project specific examples and reviews of IUCN's Theory of Change.

− The previous section evidenced that IUCN is able to induce and capacitate its project-level boundary partners (whether local communities or national governments) to set-up new governance structures (complementary to existing institutions) and introduce the sustainable management of natural resources in geographically small areas of nature. This first part of IUCN's Theory of Change appears to hold.

− The previous section also makes clear that the subsequent step in IUCN's Theory of Change is more problematic. IUCN's approaches to mangrove / forest / rangeland restoration are picked up by international organizations like UNEP, UNDP, and FAO and funded by the Global Environment Fund (GEF). At present, several global programs are underway (in forestry and on rangeland) which need to evidence IUCN's Theory of Change and the ability of its propagated approaches to deliver development impact at scale.

− The Review found however a limited uptake of IUCN's approaches and work in-country. The case studies point out numerous potential reasons (see volume 2: appendix G to M for further details):

▪ the advocated approaches (integrated coastal resource management, forest landscape restoration, payment for ecosystem services) are novel concepts for IUCN's in-country boundary partners;

▪ despite IUCN's participatory approaches, there is a limited and truly joint diagnostics and effort to build on the boundary partners' interests, incentives, capacity, views and ideas and develop a local will to do something – IUCN is possible constrained by its own clear views on how best to proceed and insufficiently engages local boundary partners in the context and problem analysis and identification of solutions;

▪ the national governments in Jordan, Myanmar and Senegal lacked the resources – in staff and money – to replicate IUCN's approaches in any serious form;

▪ unclear or insecure land tenure prevents the replication of the IUCN's models at scale;

▪ the economic benefits of nature-based solutions and ecosystem services are to a large extent indirect and cannot be monetized by IUCN's boundary partners (leaving little or no direct income benefits) – the concept of Payment for ecosystem services still needs to proof itself in practice and at scale (and overcome political opposition);

- the nature conservation projects are not or insufficiently connected to development projects [29] which offer direct benefits (local) boundary partners;[30]

- there is no evident pathway how small-scale, community-led solutions can be replicated and scaled up and convincingly address the environmental challenges at the level of a country or region;

- political conflict and distrust between boundary partners (unrelated to IUCN's work) prevent collective action;

- the perseverance of vested interests hinders political buy-in;

- government agencies partake in initiatives out of their functional obligation, not their genuine interests;

- regional political instability, forced migration and economic crises diverge attention from environmental challenges;

- economic growth and international value-chains require access to natural resources;

- development partners and donors shift their strategic focus due to new political priorities (e.g. migration in Jordan) or end their support after multiple-phases of support.

– The above reasons may explain why none of the case studies evidence the replication of IUCN's models and development impact *at scale.* The argument may be made that it is too early to tell. For individual cases this may be true. On the other hand, IUCN's Theory of Change appears deeply embedded in the organization's DNA and one would expect, being 70 years of age, that it could evidence its Theory of Change at any point in time with concrete and multiple examples. Moreover, the case studies focused on programs and thematic areas which ran for a considerable amount of time[31] (with or without the IUCN). One would thus expect that one could at least see the beginning of a widespread adoption of IUCN's approached and models even if large scale development impact remains outstanding.

– The Review observes that IUCN does not appear to analyze explicitly and rigorously *why* for example nature-based solutions are not already applied even when their potential is widely acknowledged (see also Chapter 13). IUCN's limited development outcomes in the case studies evidence that it is not enough to show, evidence, and disseminate the *good answers*. If IUCN's would evaluate and come to understand the reasons for IUCN Members (and others) not to pick up IUCN's approaches and models at scale, then it can devise a strategy to rectify this.

9. To save nature, is it necessary to save society first?

– Another reason for IUCN's Theory of Change not holding up in practice is that boundary partners are guided – wittingly and unwittingly – by forces larger than themselves.

– The 2019 Global Sustainability Report concludes that:

'Recent assessments show that, under current trends, the world's social and natural biophysical systems cannot support the aspirations for universal human well-being embedded in the Sustainable Development Goals. … Perpetuating current modes of production and consumption …threaten the achievement of the entire 2030 Agenda. Urgent transitioning away from patterns of economic growth, production and consumption that … deplete the global environmental commons and threaten irreversible damage is needed. Transitioning towards long-term decarbonized and sustainable development that maximizes positive human impacts, equalizes opportunities among social groups and women and men, and minimizes environmental degradation is essential' (emphasis added).[32]

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[29] For example: in water supply, irrigation, hydropower, storm water drainage etc.

[30] IUCN does advocate in the Mekong a nexus approach to the transboundary water management in the Seking, Seran and Sripok basin, advocating for multi-purpose dams, large scale groundwater recharge infrastructure and nature-based solutions that offer environmental protection and development opportunities.

[31] Jordan's sustainable rangeland management program started in 2006, IUCN's Mangrove for the Future program as well, IUCN's forest restoration work dates back from the early 2000s, the Bonn Challenge was initiated in 2011, the SDC-funded Bridge program started in 2011.

[32] United Nations (2019) Global Sustainable Development Report. The Future is Now. Science for Achieving Sustainable Development.

- The UNDP commissioned progress report (2019) on the New York Declaration on Forests found that: *'deforestation will not be eliminated from the production of agricultural commodities by 2020 ... the company commitments are too weak to be effective.'*[33]

- These are not new insights. In 2006, the IUCN leadership convened a meeting with 20 senior IUCN staff and societal leaders to discuss the *'The Future of Sustainability'*. Professor Adams of Cambridge University captured the main findings and further developed key arguments in a paper with the same title as the workshop. It concludes, amongst others, that:

  > *'the twenty-first century is widely heralded as the era of sustainability, with a rainbow alliance of government, civil society and business devising novel strategies for increasing human welfare within planetary limits. ... the evidence is that the global human enterprise [is] rapidly becoming less sustainable and not more. ... Humanity is burning through natural assets and their capacity to support life and quality of human life without thought to the future and the rights and needs of today's people. ... The dominant development model based on the unlimited meeting of consumer wants leads inexorably to over-consumption. Yet continued physical expansion in the global reach of commodity supply systems means that consumers in developed countries continue to perceive resource flows as bountiful and develop no sense of limits to consumption. Whether as consumers or citizens, people in industrialized economies show no awareness that production systems are ecologically flawed or constrained. Yet this model is itself disseminated internationally by global media and advertising as unproblematic, uniformly good and desirable. Belief in the opportunity to consume without limits in an ecologically limited world is a powerful driving force increasing global risk. ... The need at the start of the twenty first century is clearly for systemic change. The experience of the last 30 years shows that this cannot be brought about using the metaphors, slogans and ideas that are currently available. The scale of transformation needed demands new concepts, new ideas, new ways of engaging citizens and opinion leaders in the search for solutions. ... Failure to understand and live within limits is the main reason why current patterns of development are not sustainable* (emphasis added).[34]

- The above passages illustrate that one of the major causes of the destruction of nature is the prevalence of the mass consumption society: increasing the bulk of products, goods and services marketed, increases the exploitation of natural resources. Moreover, a mass consumption society – the progressive and unstoppable commoditization of all the components of the life in society – means that the economic system needs the participation of the multitude in order to thrive and flourish. To sustain economic growth, the development of the current global economic system demands the inclusion of all the poor in the process of mass consumption This is one of the (unsaid) reasons why the challenge of eradication poverty is so crucial.

- The 2006 discussion at IUCN illustrates that IUCN was and is well-aware of the fact that to save nature, society needs to save itself from its collective appetite for unsustainable consumption. Based on this realization, one would expect IUCN to analyze how exactly the current economy depletes nature and contributes to natural (climatic, biodiversity, water) disasters.

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[33] https://forestdeclaration.org/goals
[34] Adams, W.M. (2006) The Future of Sustainability Re-thinking Environment and Development in the 21st Century. UK: University of Cambridge.

10. Why is it so difficult to follow-up the 2006 discussion?

− The 2006 discussion at IUCN reached another revealing conclusion, namely that the concept and conventional interpretation of *sustainable development* is inherently vague and flawed.[35]

> *'Sustainable development covers a complex range of ideas and meanings … [and] can be used to cover very divergent ideas. … [the concept] is holistic, attractive, elastic but imprecise. … The conventional understanding … based on the three pillar model is flawed because it implies that trade-offs can always be made between environmental, social and economic dimensions of sustainability … [even though] the resources available on earth and the solar system effectively present a finite limit on human activity.'*[36]

− The 2030 Agenda for Sustainable Development fills in the gaps only to a limited extent. The strength of the Agenda and the Sustainable Development Goals (SDGs) lies in their *'universal, indivisible and integrated nature'*: only if all goals are achieved in all geographies has the 2030 Agenda for Sustainable Development been achieved.[37] The implicit assumption is that if the SDGs are reached, a sustainable future is secured. That is not necessarily the case. The SDGs offer mere *signposts* – showing whether a country or the world is on the right track. Only if the SDGs continue to be met or improved upon can one truly speak of sustainable development. This means that *how* the SDGs are met – i.e. the quality of the underlying change or transformation processes – is equally, if not more, important: they will determine whether a country or the world can continue to meet the SDGs. In other words, are the societal processes causing impoverishment, inequity or environmental degradation addressed in a structural and lasting way. Only if this is achieved, will a sustainable future be secured. (This is why the idea of transformation is also relevant).

− In Section 6 and Figure 2 (page 8), the Review showed IUCN's entry point to conserve nature and contribute to sustainable development, namely the governance of natural resources. The above reflections – on the limits of IUCN's current Theory of Change, on the systemic forces at play and on the vagueness of the term sustainable development – suggest another, additional, entry point for IUCN – at the other side of the spectrum, namely sustainable development: What is it? What are the dominant forces undermining its achievement? How can IUCN contribute to addressing impoverishment and environmental degradation processes? This additional entry point is shown graphically in Figure 4. It purveys the idea that the nexus nature conservation and sustainable development is a two-way (rather than a one-way) street: nature conservation contributes to sustainable development, but societal transformation can secure nature conservation.

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[35] The vagueness lies in the noun *development*. The Merriam-Webster's Collegiate Dictionary (11th edition) defines it as *'the act, process or result of developing'* which the 2008 OECD publication on sustainable development interpreting the term 'developing' as meaning growth or progress'. The OECD there upon concluded that the concept of sustainable development simultaneously constitutes an end-goal, an analytical framework and a process. Source: Tracey Strange and Anne Bayley. 2008. Sustainable Development: Linking economy, society, environment. Paris: Organization for Economic Cooperation and Development

[36] Adams, W.M. (2006) The Future of Sustainability Re-thinking Environment and Development in the 21st Century. UK: University of Cambridge.

[37] United Nations (2019) Global Sustainable Development Report. The Future is Now. Science for Achieving Sustainable Development.

Figure 4. An enlarged view on IUCN's role in fostering sustainable development
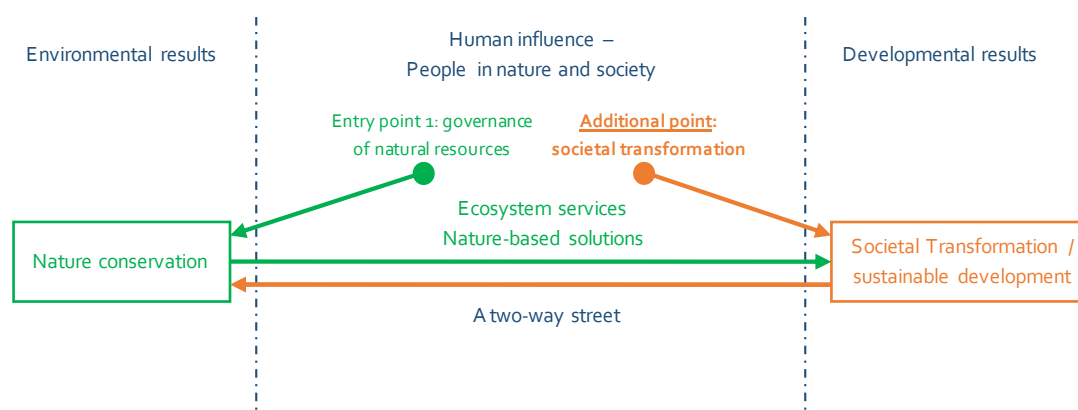
Source: authors

- The Review found a consensus within IUCN that *development matters,* embodied in the slogan *'people in nature'* IUCN's (implicit) view of nature conservation as principally a governance or collective action problem, and the recognition that livelihoods must be secured before people can be expected to conserve their natural environment. The case studies revealed however a narrow interpretation of what economic development means, namely livelihood improvements through the increase in household incomes – there appear no reflection on the two other main dimensions of any economy, i.e. capital accumulation and redistribution. At the corporate level, IUCN's contribution to sustainable development is put in terms of the relevancy of its work for achieving twelve SDGs.

- Neither the term sustainable development nor the 2030 Agenda for Sustainable Development provide however an adequate and sufficient lodestar. For IUCN to effectively address environmental conservation, it needs its own interpretation, its own conception, of what sustainable development means and how IUCN can best contribute to sustainable development and nature conservation. The Review did not identify active management guidance and steering on what sustainable development means to IUCN, how the dominant economic systems are affecting the environment, how development interventions can contribute to nature conservations, how to affect systemic change, how to decouple economic growth from resource depletion, or how to measure IUCN's contribution to the SDGs.

- It appears that the 2006 discussion and conclusions have not been followed up with reflection, conceptualization, strategy formulation and active management steering on the nexus nature conservation and development. Why not?

- IUCN has a track-record in scientific research, rigorous methodology development and evidence-based nature conservation approaches. The same appears missing on what sustainable development is, on what the processes are leading to impoverishment and environmental degradation, and on how IUCN can contribute to systemic change that addresses sustainable development and secure environmental integrity. The orange lines, boxes and text in Figure 4 do not receive the same analytical rigor from IUCN as the green lines, boxes and text.

- One possible reason lies in the staff composition of the IUCN Secretariat and Commissions which historically consists mostly of environmental scientists and professionals. Tellingly, the current Community of Practice of economists within the Secretariat entails 14 staff. The Review was told that the number of active economists in the Commissions is probably not more than 20. (Of course, it is not only the number of economists but also the target of their investigations that matter.)

- The Commission on Ecosystem Management (CEM) is well-aware of these missing links and recently instituted a working group on Ecosystem Resilience and Transformational Change. This working group is to work out what transformational change means, how to bring it about, and insert ideas on how IUCN can effectively contribute to transformational change which conserves nature into the development of the next quadrennial work programme.

- The Commission recognizes that society's culture – the norms and values that guide us – is not well-captured in the 2030 Agenda for Sustainable Development whilst critical to achieve the SDGs. They reckon it important to understand how cultural norms and values contribute to policies, structures and our dominant economic models and that it is necessary to transform these values to stand a change of effectively addressing climate change and safeguarding the integrity of nature. This perspective was brought into the Commission by anthropologists.

11. The value-added of IUCN

- Table 4 lists – structured, but unfiltered – IUCN's value-added to and strength within the international development community as perceived by the Review's key informants. The table includes the Review team's own judgment, based on a combination of field observations and our professional experience, whether individual features are unique to IUCN or shared with other conservation or development organizations.

- For IUCN to contribute to societal transformations, the Review team considers three features of IUCN especially important and which, as argued in the previous sections, are not yet fully utilized by IUCN. In the jargon of the Review questions and in the view of the Review team, IUCN's *unique selling points* are:

  1. being a *union* of governmental, non-governmental and civil society organizations, as well individual academics and experts. This offers IUCN the opportunity to engage a multiplicity of stakeholders into a dialogue, co-create new ideas and approaches, influence boundary partners through engagement and with ideas, and disseminate information what works, what doesn't and why in nature conservation and sustainable development. Whilst the IUCN Secretariat implements programs and projects with IUCN members, the case studies reveal that *the power of IUCN's network and voice* are not (yet) deliberately used to identify, shape and invoke societal transformation and that the automatism with which IUCN's members are expected to pick up and run with IUCN's conservation and development models is not so automatic at all and, in the case studies, is not happening to the degree needed.

  2. having a *global network of scientists*. This offers IUCN the opportunity to develop state-of-the-art assessments of and approaches to nature conservation and development. This Review confirms that this power of collective thinking is used for environmental assessments and nature-/ecosystem-based approaches, but not to think through rigorously how society's dysfunction causes environmental degradation and how to revert or transform these underlying societal processes, as well as what the success factors and processes are for IUCN's nature-/ecosystem-based approaches to be taken up at scale. In other words, the *power of IUCN's brains* is not fully utilized

  3. its *grit and staying power*, both on topic and in-country. IUCN sticks longer to thematic areas – like forest landscape restoration, transboundary water management, and nature-based solutions to societal challenges – than many donors and other development organizations. Moreover, its ability to keep high-quality staff in position – whether in global programs or in regional / country offices and enable these staff to gain deep knowledge of the inner-working of programs / societies and build up a network / rapport with government and civil society leaders sets IUCN apart from other international organizations and offers IUCN entry points for instigating change that is aligned with the interest, incentives, and capacity of its boundary partners. IUCN staff are of course – like any other organizations – financially constrained (see next section). The challenge within these constraints is how to make best use of this asset – the *power of staff* – to contribute to societal transformations.

- The 2019 Sustainable Development Report identifies four levers for societal transformations: (i) governance; (ii) economy and finance; (iii) individual and collective action; and (iv) science and technology.[38] Through its unique selling points, IUCN can foster and disseminate knowledge (lever 4) and instigate individual and collective action (lever 3) leading to better governance (lever 1) based on new economic and investment models (lever 2).

Table 4. IUCN's value added in the international development architecture according to key informants

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[38] United Nations (2019) Global Sustainable Development Report. The Future is Now. Science for Achieving Sustainable Development.

IUCN's value-added	Unique to IUCN: Yes/No?*	Comment
Being a union of governments, NGOs, academia, the international conservation and development community, indigenous groups, business, etc.	Yes	The union of such a diverse range of stakeholders within a single institution is unique to IUCN.
Having convening power	No	Most (if not all) UN agencies and multilateral institutions have convening power.
Neutrality	No	Most (if not all) UN agencies and multilateral institutions play the role of honest broker and stay out of politics.
Being able to forge and work in strategic partnerships	No	IUCN works with governments, UN agencies, development organizations, (international) NGOs and individual experts to implement its agenda.
Being responsive & flexible	No	Although IUCN has its methods and approaches, it is flexible in process and timelines and willing to adapt programs and plans in light of partners' capacity, needs, and interests.
Being a consequent advocate for nature	No	IUCN's international standing and rapport with governments allows it to influence its boundary partners and have them *'keep the eye on the ball'*.
Practicing participation	No	IUCN is considered inclusive, consequent and professional in its participatory approach and willing and able to reach across scales.
Nature conservation	No	International NGOs – like the Nature Conservancy or Conservation International – also have a conservation mandate. The international environmental conventions address specific aspects of nature.
Regional operations	No	IUCN is able to implement transboundary programs.
Setting standards & operationalizing global commitments	No	Within its core field of nature conservation, IUCN sets normative standards for behavior and approaches, and helps operationalize global commitments such as for achieving land degradation neutrality in 2030 (SDG 15.3).
Being a knowledge (generation) and innovation hub	No	IUCN undertakes / commissions high quality and influential environmental assessments; identifies, adopts, conceptualizes, develops, and disseminates new ideas / innovations and practical tools & methodologies (bridging the science-policy divide); and promotes peer learning by bringing stakeholders together and sharing experiences.
Broad technical expertise	No	IUCN is able to provide policy support, institutional capacity development, dialogue facilitation, program support/implementation
Huge network of scientists organized in 6 global commissions	No	The Nature Conservancy equally has a network of scientists. The UN (Conventions) also mobilize academics for specific workstreams and publications.
Long-term on-the-ground presence of individual expert staff	Yes	Most (if not all) other international organizations regularly rotate staff between headquarters and field or between field offices.

* Yes implies that the feature at hand is unique to IUCN. No means that other organizations – UN agencies, multilateral organizations or (international) NGOs – have (more or less) a similar ability and record.

12. IUCN's constraints, weaknesses and grit

12.1 IUCN's reliance on project funding

- The Review did not evaluate IUCN's funding structure. According to IUCN, it is funded from membership fees (circa 10%), Framework Partners' contributions (circa 10%) and project-tied Official Development Assistance (circa 80%).

- The case studies confirmed IUCN's dependency on project-funding. All projects in the case studies were funded from either bilateral donors or multilateral finance institutions.

- The case studies offer two important insights in this regard:

  1. IUCN remains engaged with a topic (in-country and/or globally) even if project funding ends. IUCN continues to inform, advise and to the extent possible work with its boundary partners. Moreover, IUCN pro-actively seeks to mobilize follow-up funding. At present, IUCN especially targets the Global Environmental Fund and the Green Climate Fund to mobilize funds at scale (for example for its Global Dryland Program or The Restoration Initiative), but also seizes smaller bilateral donor funds (for example from DANIDA to assist Myanmar in developing an Integrated Coastal Management Program that offers a follow-up to the IUCN implemented, SIDA-funded Mangroves for the Future Program).

  2. Reliance on project-funding creates discontinuity in program implementation. For example, there is a four-year gap between the EU-funded, IUCN implemented support to Jordan on sustainable rangeland management (which ended in 2015) and the GEF-funded program (which started operations in 2019).

12.2   IUCN's governance

- In 2019, an External Review of IUCN's Governance rated IUCN's governance risk as *'business critical … the organization's governance weaknesses significantly raise the possibility of a critical failure occurring with dire consequences to the organization's mission'*.[39] Most weaknesses pertain to the functioning of IUCN's Council and do not have a direct bearing on this Review. Two weaknesses do however appear relevant for this Review's findings:

  1. Lack of ownership of strategic thinking, which according to the Review *'leads to a lack of strategic clarity, with no clear vision for the future, little focus on strategy thinking and design at council level and management and little collaboration between council and management in this regard'.*[39]

  2. *'A relationship between IUCN's council and its management both at the individual and group level characterized by a high degree of tension and mistrust … a major risk is … that management does not feel safe to alert the council to potential areas of concern it sees for the organization'.*[39]

- This lack of ownership and trust may offer another explanation why IUCN leaderships' 2006 discussion on *'The Future of Sustainability'* was not followed up conceptually and operationally.

13.   Where is IUCN's evaluation practice?

- Based on the case studies, IUCN lacks a robust and deep evaluation practice.[40] The Review received / found three external evaluations of the programs under review. [41] The relevant IUCN staff did not have the findings, conclusions, lessons learned and recommendations of these evaluations present. Although all three were indeed older evaluations, they did not appear to have left a mark. IUCN's database for evaluations contains 3 to 10 evaluations per year for the last 5 years (including corporate level evaluations like on IUCN's governance), which is a limited amount relative to the size of IUCN's operations.[42]

- IUCN does produce project briefs, case studies, and thematic reports of its work. These generally are descriptive reports without in-dept and objective analysis of what works, what doesn't and why. In the case study and thematic reports, it is often difficult to entangle beliefs from evidence-based (proven) approaches. IUCN does not initiate and conduct regular and rigorous evaluations of its own programs. This is a surprising finding for an organization which credits itself on its scientifically sound and evidence-based work practice.

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[39] SGA (2019). Governance Review for IUCN Report. 23 March 2019.
[40] IUCN does submit its quadrennial Work Programme to an external evaluation.
[41] A 2012 external evaluation of Phase 1 of the the Mangroves for the Future Program, a, EU-commissioned 2015 final evaluation of the Securing Rights and Restoring Lands for Improved Livelihoods program (Jordan) and an SDC commissioned 2015 external review of SDC's Water Diplomacy and Governance in Key Transboundary Hot Spots Program (which included the IUCN implemented Bridge program).
[42] https://www.iucn.org/resources/monitoring-and-evaluation/evaluations-database

- The reason for this lack of evaluation practice may be IUCN's funding structure – most (if not all) of IUCN's programs and projects are funded by donors – and the belief that it is the responsibility of the donor to initiate and fund program and project evaluations.[43] This view would be short-sighted for two related reasons:

  1. IUCN displays a longer staying power – it stays longer on topic and in-country – than many of its donors;

  2. IUCN misses the opportunity to learn from its own experience and improving its advocacy, advisory and implementation practice over time.

- The value of regular external evaluations is that it offers IUCN the opportunity to step back from its day-to-day work and reflect on whether its assumptions on how to affect (transformational) change are working out as anticipated or need to be revisited (either because they do not work or external circumstances have changed). It simply offers an opportunity for reflection and deep learning.

- IUCN stands out (negatively) in its evaluation practice from UN organizations like FAO, UNEP or UNESCO (with which it regularly works together) and large implementation agencies like GIZ. The latter for example subjects 40% of all its projects and programs to an independent mid-term or ex-post evaluation.

14. SDC's mandate, global programs and the potential for a strategic partnership with IUCN

- SDC is one of the arms of the Swiss Government responsible for its international development cooperation. SDC's mandate stems from article 54 of the Swiss Constitution which states that Switzerland *'shall in particular assist in the alleviation of need and poverty in the world and promote respect for human rights and democracy, the peaceful coexistence of peoples as well as the conservation of natural resources'*. Article 73 on *'sustainable development'* adds: Switzerland *'shall endeavor to achieve a balanced and sustainable relationship between nature and its capacity to renew itself and the demands placed on it by the population'* (emphasis added).[44] The need to combine and balance human well-being and nature conservation is thus enshrined in the Swiss Constitution and enables SDC to promote both simultaneously.[45]

- In the explanatory note on Switzerland's upcoming quadrennial Message on International Cooperation, it is explicitly recognized that political change and new coalitions of governmental and private actors needs to drive change forward: *'In recent decades, a fundamental shift took place within international development cooperation. Whereas direct technical assistance used to be at the forefront, current programmes aim to bring about political changes at national and international level, strengthen institutions and involve coalitions of public and private actors'* (emphasis added).[46]

- Switzerland's upcoming quadrennial Message on International Cooperation identifies four overarching goals (emphasis added)[46]:

  1. to contribute to sustainable economic growth, the opening up of markets and job creation (economic development)

  2. combating climate change and its effects and the sustainable management of natural resources (Environment)

  3. saving lives, ensuring high-quality basic services and reducing the causes of forced and irregular migration (human development)

  4. promoting peace, the rule of law and gender equality (peace and governance).

- The three Global Programs of SDC (involved in this Review) recognize that the sustainable management of natural resources is vital for human's food security, health and well-being. And whilst they acknowledge the

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[43] IUCN's 2015 Monitoring and Evaluation Policy merely states that *'project evaluations are undertaken as agreed with the project donor(s)'*. Moreover, the Policy only requires a mid-term review *'to be added to the [the project's] monitoring and evaluation plan'* for projects over USD 2 million.
[44] Federal Constitution of the Swiss Confederation, 18 April 1999 (Status as of 23 September 2018)
[45] This dual mandate is reconfirmed in Article 5 of the Federal Law on International Development Cooperation and Humanitarian Aid.
[46] EDA (2019) Erläuternder Bericht zur internationalen Zusammenarbeit 2021–2024

systemic forces at play – *'the forces influencing economic development and growth are multiplying pressures on the environment and exacerbating climate change'* (emphasis added) – the Programs advocate for action strikingly similar to IUCN, including: concerted effort at different scales, meaningful multi-stakeholder participation and dialogue, capacity building and institutional development, good governance, international and national policy improvements and standard-setting, forging strategic partnerships, advancing ecosystem-based approaches, and promoting innovative technological and financial solutions. The Strategic Frameworks of the Global Programs do not explicate and offer pathways to address the underlying values and processes driving impoverishment, inequality and environmental degradation.[47]

– SDC is a modestly sized player in international development cooperation. Like IUCN, SDC however has strengths that it can leverage. These are its *willingness* and *ability* to:

  ▪ commit to specific development programs for three consecutive four-year framework credits (circa 12 years in total);

  ▪ serve as a catalyst and development partner for new approaches (and the dissemination of their results);

  ▪ use its diplomatic channels to influence individual boundary partners and invoke a change in perspective and behavior.

15. The world will not make it easy for IUCN

– IUCN is in many ways a large organization (in membership, turnover, staff numbers, thematic work areas and geographic spread). On a global scale, it is nonetheless but one player. IUCN cannot be expected to change society and safe nature in and by itself. It can contribute, but not invoke such changes and results alone.

– Moreover, there are a number of major global trends that will make it all the harder for IUCN to instigate and invoke transformational change. These are, amongst others:

  ▪ the process of *society fragmentation*, i.e. the transition from organic societies (historically structured by collective and common social, economic, and political arrangements) to societies made up of individuals. This global process of fragmentation paves the way for a culture of competition at three levels: inter-individual, inter-group, and inter-society.

  ▪ the progressive and pervading *decomposition of the State* – the pervasive questioning of the State and State institutions as legitimate organizing principle.

  ▪ the *process of disconnection*: people being more and more disconnected from nature, the economy and politics, the economy more and more disconnected from finance, consumers more and more disconnected from producers, the riches more and more disconnected from the poor, young people more and more disconnected from elders, workers more and more disconnected from their own activity.

16. Conclusions

– This Review concludes that IUCN has limited on-the-ground development impact and operates within the current political, economic and environmental systems rather than changing it. Whilst it acknowledges the role of humans as agents of nature conservations and the need for humans to meet their basic livelihood requirements to fulfil this role, IUCN – in its projects and programs – focuses too much on *what people want*, not on *why they do not have what they want*.

– The Review recognizes the potential of IUCN's work on diagnostics, nature-based solutions, ecosystem-based approaches, and the governance of natural resources to affect individuals', communities', political leaders', and societies' perspectives and rationale and invoke behavioral changes. The Review observes however that the last part in IUCN's Theory of Change does not hold true: the successful demonstration of IUCN's (multiple-benefit)

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[47] SDC (2016) Global Programme Climate Change and Environment Strategic Framework 2017–2020; SDC (2016) Global Programme Water Strategic Framework 2017 – 2020; SDC (2016) Global Programme Food Security Strategic Framework 2017 – 2020.

nature conservation approaches do not lead IUCN Members (and others) to adopt these approaches at scale and generate development impact at scale.

– IUCN – as an organization – is insufficiently attuned to (i) the political-economic context in which it operates; (ii) the interests, incentives, capacity and tenacity of its boundary partners; and (iii) and the systemic societal (market) forces responsible for the environmental degradation, social inequity and impoverishment. Individual IUCN staff are well aware of these critical elements but, at present, are not empowered to work with and on them.

– In the end, this Review's findings can be summarized in two bullet-points and one common, in terms of nature conservation somewhat impertinent, English expression – IUCN can:

▪ use nature conservation and biodiversity challenges to *better decipher* how contemporary societies manufacture, so promptly and so sustainably, natural disasters – environmental degradations of all types are societal symptoms under which economic, social, and political mechanisms are at work; and,

▪ use nature conservation and biodiversity projects and programs *as steppingstones* and testbeds to work on and help transform these basic societal mechanisms; thereby:

▪ *'killing two birds with one stone'*: saving nature and society.

17. Recommendations

17.1   For IUCN

– For IUCN to fulfill its potential in contributing to societal transformations and affect impact at scale, the Review recommends IUCN to:

1. develop its own clear concept on sustainable development and spell-out a Theory of Change on how to *deliberately* contribute to such sustainable development, including defining IUCN's boundary partners[48] and how IUCN can affect their perspective, rationale and behavior.

   Reason.
   ▪ This Review followed *SDC's interpretation* of what sustainable development entails (elaborated by the Review team).
   ▪ IUCN itself follows a *conventional interpretation* of sustainable development (embedded in the 2030 Agenda for Sustainable Development) and takes a narrow view on what the economy entails.
   ▪ The SDGs however offer mere signposts, signaling whether a country the global community is on the right track; they do not reveal *how* the changes are brought about and whether the processes leading to (sustainable) impoverishment and environmental degradation have been structurally addressed.
   ▪ The intellectual and scientific rigor of IUCN's nature conservation work is not applied to IUCN's potential for *deliberately* invoking development impact and transformational change *alongside* its nature conservation work.
   ▪ Any conservation action offers the opportunity to reflect on how society does things, how it negatively impacts on nature (bringing about the need for conservation action), and what can be done to change these dynamics and processes, as well as the potential to affect these underlying processes and dynamics. For now, IUCN appears to shy away from addressing these fundamental questions.
   ▪ To improve IUCN's development relevancy, the starting point should be a clear, common and, above all, its own view on what sustainable development entails and *how* IUCN can deliberately and consciously contribute to such development.

   Target audience:
   ▪ IUCN Secretariat (lead), together with the IUCN Commissions

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[48] The International Development Research Center in Ottawa, Canada, defines boundary partners as *'individuals, groups or organizations with whom a program interacts directly and with whom the program anticipates opportunities for influence'*. Source: Earl, Sarah, Fred Carden, and Terry Smutylo. 2001. Outcome Mapping. Building Learning and Reflection into Development Programs. Ottowa: International Development Research Center.

2. undertake explicit political-economy analysis in its global and in-country engagements – with the same depth and rigor of its environmental and gender assessments – to uncover IUCN's potential and best strategy to affect societal transformations alongside its conservation work.

   Reason.

   ▪ This explicit political-economy analysis cannot be delegated to external consultants or other development organizations. IUCN itself needs to be acutely aware of the political-economic context in which it operates, to be able to identify its boundary partners and devise a strategy to deliberately affect transformational change.

   ▪ With IUCN's in-country Members and the Secretariat's staff often long-term presence in a country, there is also no need to delegate (nor does this require a significant additional effort). IUCN Members and staff are sensitive to the political economy in which they operate and respond to the opportunities and limitations that this political economy provides. The concomitant context analysis is however only done tacitly by individuals and within small teams. It is therefore more a matter of *consciously assessing and working with* its in-depth knowledge of the political-economic context.

   ▪ Whilst it is good to capture the political-economic analysis in writing (as this helps to consciously and regularly evaluate, reassess and update the analysis), it should in many ways be a continuous assessment (and thus a living document) to take into account current and emerging developments.

   Target audience:
   ▪ IUCN Secretariat and Regional Offices (lead), together with the IUCN Members

3. based on this Theory of Change and political-economy analysis to act more strategic, more political (without engaging in politics) by influencing and working with those partners with the power and interests to affect change.

   Reason.
   ▪ IUCN is a small radar in a very large system. It cannot invoke change in and by itself. It needs to work with boundary partners with the incentive, interest, capacity, power and tenacity to invoke change. The power of change sometimes lies in the multitude, but sometimes also in the few. In the latter case, IUCN should not shy away from working with the few to instigate transformation processes which will be to the benefit of the many.
   ▪ The IUCN Secretariat implements projects and programs with IUCN Members. The latter (and others) are not adopting at scale the approaches and models emerging from these projects. What strategic partnerships can IUCN enter to change this and invoke adoption at scale?
   ▪ IUCN Asia for example does not shy away from practicing real politics and is able to do so without losing its neutrality. The same real politics can and should be applied when targeting transformation change.
   ▪ From this perspective, it probably makes more sense to improve the quality of IUCN's work, then to increase quantity of projects (through an increase in the volume of earmarked funding).

   Target audience:
   ▪ IUCN Secretariat and Regional Offices (lead), together with the IUCN Members

4. to establish a Societal Transformation Group[49] – on par with the Nature-Based Solutions and Biodiversity Groups – staffed with anthropologists, economists, political scientists, system thinkers, agronomists, foresters, advocacy and communication specialists, etc., to identify, develop and implement approaches to societal transformations which change the current dominant values and economic models and – through

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[49] This is just one name that can be given to such a new group. Others are: Sustainable Development and Innovation Group, Behavioral Change Group, Nudging Group, etc.

advocacy and communication campaigns, and targeted (demonstration) projects, and in line with its own mission statement – help instigate the transformation of today's unsustainable social-environmental-economic systems.

Reason.

- To mobilize alternative perspectives (behavioral sciences, systems thinking, etc.) within IUCN on how to approach nature conservations (through societal transformation).
- To reinvigorate / restore the power of IUCN's voice, position it as an advocate for sustainable development, and influence the dominant social narratives.
- To address in-depth (i) how and why our societies are building natural catastrophes in such a sustainable way, (ii) how to neutralize society's dysfunction, (iii) what alternatives can be proposed, tested and generalized to achieve development impact at scale and in perpetuity; and (iv) how to overcome / deal with societal trends of fragmentation, state disintegration, disconnection and youth disillusionment in the process.
- To target various groups of boundary partners with targeted advocacy campaigns or transformation programs, including business and investors (which can build on and expand IUCN's current with the private sector).

Target audience:

- IUCN Secretariat (lead)

5. to develop a rigorous evaluation practice and, in support, establish an independent evaluation group reporting directly to the IUCN Council. This can be small group of evaluation managers which commission and manage external evaluations or a larger group of evaluation experts which undertake the evaluations themselves[50].

Reason.

- To increase IUCN's development effectiveness, it needs to analyze and come to understand why the last part of its Theory of Change does not work: why are IUCN Members (and others) not picking up IUCN's approaches and models at scale.
- Given the systemic (market) forces at play, evaluations should go beyond evaluating the conservation-oriented outcomes and (especially) rigorously assess how IUCN can contribute to societal transformation which offers economic opportunity *and* secures nature's integrity.

Target audience:

- IUCN Secretariat (lead)

17.2   For SDC

– We recommend SDC's Global Programs to support above endeavors by:

1. working with IUCN to raise its core funding from a broader set of Framework Partners – at first, to build the capacity within IUCN to work on transformation change processes at the global and country level; and subsequently to ensure a long-term senior-level expert presence within IUCN's countries-of-operation to ensure in-depth knowledge on the political-economy of the countries and enable IUCN to partner in the societal transformation processes. In parallel, SDC can assist IUCN to raise funds for establishing an independent and capacitated evaluation group. For all three purposes, SDC can (i) lead by example by earmarking part of its contribution under the next Framework Contract for these purposes; and (ii) engage with other (potential) framework partners to mobilize further support;

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[50] To prevent a potential conflict of interest, these evaluation experts must be term-limited without the possibility to transfer to other parts of the IUCN Secretariat. The staff of the Evaluation Office of the Dutch Ministry of Foreign Affairs are limited to a 7-year term.

2. to continue its funding of long-running (i.e. 12-years, three-phases) global and in-country programs and reshape these programs to include deliberate efforts to invoke transformational change based on local leadership, a proper political-economy context analysis, alignment with the interest, incentives and capacity of IUCN's boundary partners, and addressing the root causes and processes of societal dysfunctioning and environmental degradation.

3. to be a pro-active development partner to IUCN – a sparring partner and a catalyst for new, innovative, approaches and to purposefully and strategically deploy its diplomatic channels to influence individual boundary partners and help IUCN give a push to societal transformations.

Geert Engelsman & Philippe de Leener

External Review of
IUCN's Development Relevancy

Commissioned by the
Swiss Agency for Development and Cooperation SDC

Appendices

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Introduction

This second volume of the Review of IUCN's Development Relevancy answers the four original Review questions, contains relevant (methodological) background and includes detailed descriptions of the reviewed country-level programs and global thematic engagements. It also contains the original Terms of Reference and the Inception Report.

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Appendices

A. Answers to the original 4 Review questions

During the Inception Phase, the discussions between the Review team and SDC revealed that SDC's interest lay in assessing to what extent IUCN (can) contribute(s) to societal transformation that offers economic opportunities to people, is socially equitable, environmentally sound and gender and climate change responsive. Such an assessment would serve as a steppingstone for redefining and reorganizing the collaboration between SDC and IUCN. In line with the Principles of Utilization-focused Evaluation[1], the main report addressed this interest and consequently abstained from answering the original four main evaluation questions (as stated in the Terms of Reference). This appendix answers these four questions. The answer to questions 1, 2 and 4 can be deduced from the main report and are consequently stated succinctly. The answer to question 3 requires a bit more elaboration.

A.1 How does IUCN contribute in a systemic way to sustainable development in its three dimensions: environmental, social and economic development?

This question lies at the core of the Review and is addressed in-depth in the main report. For this Review, SDC defined sustainable development as the evolution or transformation of a society that offers economic opportunities to people, is socially equitable, environmentally sound and gender and climate change responsive. In colloquial terms SDC wanted to know to what extent *'the rubber meets the road'* and IUCN *deliberately* (i.e. not by chance) contributes to such societal transformations and achieves *tangible* development impacts *at scale*.

The case studies reveal that IUCN effectively supports local communities and national governments to conserve nature, enhance the ecosystem services, and increase the income of households, including for women-led households and vulnerable groups. As such, it covers the three dimensions of sustainable development. The tangible impacts are nonetheless limited to relatively small tracts of nature, ecosystem services and number of households. IUCN assumes that its successful piloting or demonstration of nature conservation models which have social and economic co-benefits will be adopted at scale by local communities, NGOs, national governments and international development agencies thus generating development impact at scale. This assumption does not appear to hold up in practice, at least not on a scale for the Review to observe transformational impact at scale. The political-economic context and the dominant social narratives and economic models appear to restrict or constrain IUCN's development impact.

A.2 How does IUCN approach and operationalize the equitable and just governance of natural resources as a development prerequisite?

Figure 1 shows the Review team's interpretation of IUCN's approach to nature conservation and sustainable development (see also Chapter 6 of the main report).

Figure 1. IUCN's approach to nature conservation and sustainable development
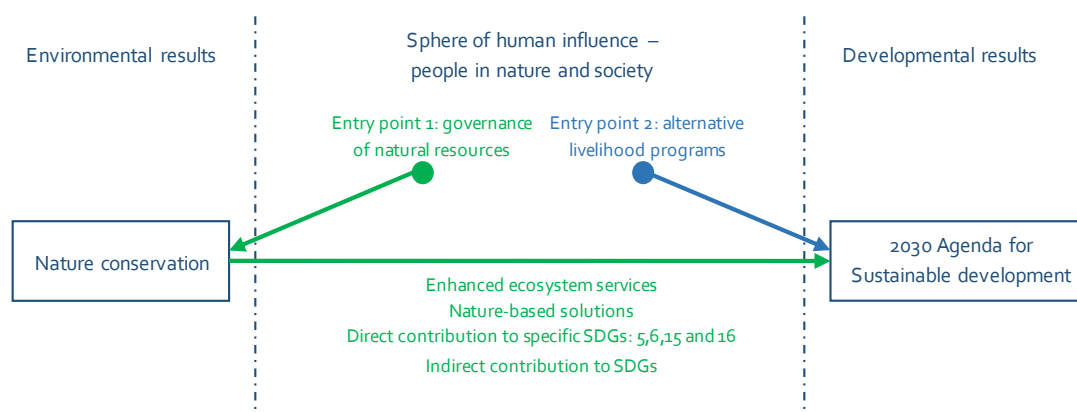
Source: authors

[1] Patton, M.Q. (2012) Essentials of Utilization-focused Evaluation. SAGE Publications: Thousand Oaks

IUCN's core entry point are people, which for IUCN are the agents of conservation. Through diagnostics work and facilitated stakeholder dialogue, IUCN seeks to raise awareness among local stakeholders about the degraded state and potential value of a locality's or a country's nature and natural resources. It thus seeks to sensitize and mobilize a core group of local stakeholders (leaders), and work with them to set up local governance frameworks to collectively govern the natural resources and introduce sustainable management practices. In time, this restores nature and enhances the associated ecosystem services. IUCN distinguishes between regulating services (such as carbon sequestration, water purification, storm barrages, etc.), provisioning services (such as wood, fisheries, medicinal and herbal plants, agricultural commodities, etc.), and cultural services (such as recreation and scenery). It is especially the regulating and provisioning services which are critical to and support sustainable (economic) development. It is so that IUCN seeks to contribute to sustainable development. In other words, for IUCN, it is the sustainable governance of natural resources that lie at the heart of its development relevant work.

Importantly for answering this Review question, IUCN takes a participatory and inclusive approach to the governance of natural resources. In its diagnostics works, IUCN consistently includes the perspective of the local community, women and vulnerable groups. Moreover, it proactively includes these groups in its stakeholder dialogues and institution building. Local community leaders and women were included in most (if not all) examples of local conservation efforts and women and vulnerable groups were targeted by associated (alternative) livelihoods programs. In this regard, IUCN contributes to the equitable and just governance of natural resources. As shown in the main report, IUCN does not target the underlying reasons for environmental degradation, inequity and impoverishment. This appears to prevent IUCN from achieving the equitable and just governance of natural resources at scale.

A.3 What is IUCN's contribution to international and national policy coherence for sustainable development?

This question is not addressed in the main report. In the case studies, we nonetheless reviewed to what extent IUCN both *responds to* and *helps shape* national, regional and international sustainable development policies.

− In Jordan, IUCN's support to sustainable rangeland management helped implement parts of the National Strategy and Action Plan to Combat Desertification and the National Biodiversity Strategy and Action Plan. Moreover, IUCN contributed to (i) a new Rangeland Strategy; and (ii) a Strategy for the Implementation of Payment for Ecosystem Services. The Rangeland Strategy was formally adopted by the government in 2015 and placed communal management and control of rangelands at the center of rangeland development. The Strategy received the Future Policy Award for the World's Best Land Restoration Policy from the World Futures Council and the UNCCD. A lack of resources and Jordan's complex and opaque land tenure regime (which was not addressed by the Strategy) prevented however the Strategy's implementation. Since 2015, no new communal (Hima-style) rangeland management systems have been implemented. The Review has also not identified real-world examples of Payment for Ecosystem Services in the reviewed projects. The small-scale success in community-based sustainable rangeland management has influenced IUCN's Global Dryland Initiative and informs IUCN's activities in other countries.

− In Myanmar, IUCN's work on mangrove and forest restoration is aligned to the country's National Biodiversity Strategy and Action Plan, the Myanmar Reforestation and Rehabilitation Program 2016-2026, the Environmental Conservation Law (2012) and the Environmental Conservation Rules (2014). Moreover, with Danida-funding, the Forest Department commissioned IUCN in 2019 to support it in developing an Integrated Coastal Management Program.

− IUCN's Global Water Programme participates, amongst others, in the non-state working group for water under the Marrakech Partnership under UNFCCC and co-organizes the water day in UNFCCC's annual Conference of Parties. The Global Water Programme – partly through the SDC-funded Bridge program – provides technical advice to countries on both the UNECE and UN Water Conventions.

− IUCN's Forestry Program co-initiated (i) the Global Partnership on Forest Landscape Restoration in 2003; and (ii) the Bonn Challenge in 2011. Both initiatives seek to mobilize and support (political) momentum to restore forests around the globe. IUCN also supported El Salvador's idea and initiative to create a UN Decade on Ecosystem Restoration (which was proclaimed by the UN General Assembly on 1 March 2019). IUCN further notes that in, for

example, Rwanda its forest landscape restoration work influenced: (i) Forest Research Strategy and Guidelines for Rwanda 2018-2024; (ii) Forest Sector Strategic Plans 2018-2022; (iii) Rwanda National Forestry Policy 2018; and (iv) the National Tree Reproductive Materials Strategy 2018-2027.

− IUCN actively contributes to UNFCCC processes. At the annual UNFCCC Conference of Parties, IUCN advocates the enhanced inclusion of nature-based solutions in countries' Intended Nationally Determined Contributions (based on previous diagnostics work on the extent to which countries have included funded nature-based solutions in their INDCs). A further example of IUCN engagement is that it leads a working group on land use under the Marrakesh Partnership on Global Climate Action.

The above examples show that IUCN:

1. engages in global processes, both linked to the three Rio Conventions as well as own initiatives;

2. helps implement (i) the three Rio Conventions at the country level, and (ii) national policies and strategies;

3. supports the development of new national policies and strategies.

The examples evidence that IUCN works and acts both globally and locally. Given that IUCN has well-developed views on and approaches to for example ecosystem and landscape restoration, or nature-based solutions, and advocates these locally and globally, it almost by default contributes to policy coherence between the global and local level, as well as between countries (as long as IUCN's positions are adopted of course).

Based on the Review, IUCN's challenge is to build a body of evidence on *how* IUCN's approaches to nature conservation (and societal transformations) are adopted at scale and achieve development impact at scale. In other words, to (i) inform its global and local policy engagements much more with the practical intricacies of how local boundary partners become interested and are incentivized and empowered to act and contribute to nature conservation (and societal transformations); and (ii) move beyond promoting theoretically sound concepts to much more strongly support the exchange of evidence-based and well-explained success and fail stories and thus to contribute much more strongly to the adoption at scale of IUCN's propagated approaches and achieve development impact at scale.

A.4 What is IUCN's value added in the international cooperation architecture for sustainable development?

Most (if not all) key informants valued IUCN and considered it a valuable player within the international cooperation architecture. Table 4 in Chapter 11 of the main report lists IUCN's value-added to and strength within the international development community as perceived by the Review's key informants. For IUCN to contribute to societal transformations, and based on the full Review and our own long-standing professional experience in international development, the Review team considers the following three features of IUCN to be especially important – IUCN's *unique selling points* so to say:

1. being a *union* of governmental, non-governmental and civil society organizations, as well individual academics and experts. This offers IUCN the opportunity to engage a multiplicity of stakeholders into a dialogue, co-create new ideas and approaches, influence boundary partners through engagement and with ideas, and disseminate information what works, what doesn't and why in nature conservation and sustainable development. Whilst the IUCN Secretariat implements programs and projects with IUCN members, the case studies reveal that *the power of IUCN's network and voice* are not (yet) deliberately used to identify, shape and invoke societal transformation and that the automatism with which IUCN's members are expected to pick up and run with IUCN's conservation and development models is not so automatic at all and, in the case studies, is not happening to the degree needed.

2. having a *global network of scientists*. This offers IUCN the opportunity to develop state-of-the-art assessments of and approaches to nature conservation and development. This Review confirms that this power of collective thinking is used for environmental assessments and nature-/ecosystem-based approaches, but not to think through rigorously how society's dysfunction causes environmental degradation and how to revert or transform these underlying societal processes, as well as what the success factors and processes are for IUCN's nature-/ecosystem-based approaches to be taken up at scale. In other words, the *power of IUCN's brains* is not fully utilized

3. its *grit and staying power*, both on topic and in-country. IUCN sticks longer to thematic areas – like forest landscape restoration, transboundary water management, and nature-based solutions to societal challenges – than many donors and other development organizations. Moreover, its ability to keep high-quality staff in position – whether in global programs or in regional / country offices and enable these staff to gain deep knowledge of the inner-working of programs / societies and build up a network / rapport with government and civil society leaders sets IUCN apart from other international organizations and offers IUCN entry points for instigating change that is aligned with the interest, incentives, and capacity of its boundary partners. IUCN staff are of course – like any other organizations – financially constrained (see next section). The challenge within these constraints is how to make best use of this asset – the *power of staff* – to contribute to societal transformations.

B. Potential and limits of IUCN's governance of natural resources approach

IUCN helps regularly communities set norms and rules to protect natural resources. This was typically the case in two areas in the Sine Saloum, Nibam and Giffa where for nearly 2 decades two forests are protected by the riverside communities with the direct or indirect help of IUCN. These two forests and the mangroves they adjoin represent an important source of natural resources and incomes for a lot of families. At the beginning, the forests were effectively protected and even partially restored (plantation of mangroves along the riverbank). This shows that regulation – the production of norms and rules to properly manage common resources in a sustainable way – works and can generate a Type A change: the problem (land degradation) was stopped thanks to a committed and well-organized local population (the solution).

The norms and rules established by the local communities with the support of the regional forestry department were appropriated. The local communities have learned how to manage collectively common natural resources. According to some local elders responsible for the management of the association created specifically to enforce standards and rules, the kind of organization and skills needed to manage these forests have inspired other initiatives in other areas of interest (collective management of an irrigation scheme, collaborative conduct of some marketing initiatives, adequate maintenance of agricultural infrastructures). This illustrates how an innovative social process generated thanks to an IUCN action can migrate in other areas of the local social life.

But this story does not end there. In practice, in the areas concerned, these rules have gradually come to be violated. The local authorities were not able anymore to enforce the rules. Again, years later the protected forests and mangroves are endangered. What has happened? The pressure on the natural resources and on the lands has intensified. At the same time, the old usual norms and rules have not been adapted and have not kept pace with the evolutions: new situations have not led to the adjustment of rules. One major skill, the ability to make the regulation properly fits to the evolutions, has been lost. It appears that the learning process has not been completed.

This could be part of the explanation but, in discussing with the actors concerned, it appeared that another explanation can be put forward: when the communities concerned formulated the management norms and rules and the corresponding local organization they did not analyze the mechanisms by which the forests were endangered. They did not try to understand how and why their own forests were so exposed to threats. In particular, before implementing new rules they did not review their previous regulation experiences. They did not have a rigorous look at the already existing difficulties disturbing the functioning of the regulatory framework in the realm of the management of natural resources. They just produce a new set of rules supposedly appropriate, but with no further deeper reflection. At the beginning, perhaps because the active presence of external stakeholders (IUCN, local forestry department), everything looked all right. But, later, the same causes gradually entailed the same effects.

Moreover, norms and rules are quite often set by local elites, even if the regulatory process was participatory (in the sense of involving all the different social categories in the decision-making process). As this has appeared progressively, standards and rules decided were mostly calibrated to serve the interests of these elites. In addition, these elites are increasingly absent of the village. They are present at some key moments but not every day. Because they live in Dakar or elsewhere far from the villages concerned, far from the natural resources to be protected. In practice, the elites are not controlled by the communities whose resources need to be protected. In short, the main beneficiaries don't control who should take the lead. These are two mechanisms of the local societal dysfunctioning, the low involvement of the leaders due to their absence and the process that leads to the selection of leaders chosen on the basis of prestige, not skills.

With this example, it appears that the same nature conservation process can be carried out in two different ways. The first approach focuses on the development of an regulatory process, that is, norms and rules that can help local population control their natural resources. The main concern is encapsulated in a single, specific and clear-cut objective: protecting the forest and mangroves threatened with extinction. This gives rise typically to a type A change process: nature is endangered, people find solutions.

The second approach is two-pronged: not only producing the necessary set of norms and rules (building solutions), but also carrying out a process of (local) reflection aimed at understanding and influencing the (local) mechanisms that (i) generate ineffective norms and rules, and (ii) lead to forest degradation. Doing so would pave the way for a

Type B change: an action is directed against the societal factory of (regulatory) disorders triggering a transformative change.

C. Review methodology

C.1 A theory-based evaluation

IUCN's work rests on a set of explicit and implicit assumptions on how to effectively and sustainably conserve nature and contribute to sustainable development. This set of assumptions concern changes in behavior and actions of IUCN's boundary partners[2] – i.e. those stakeholders with and through which IUCN seeks to affect change – which prelude the achievement of nature conservation and sustainable development. IUCN's interventions, the assumed boundary partners' behavioral changes and actions, together with the envisaged outcomes and impacts, form IUCN's Theory of Change.

The Review explicated IUCN's Theory of Change during the inception phase. Figure 2 shows IUCN's Intervention Logic as included in IUCN's quadrennial work program 2017 -2020. IUCN's Theory of Change was reconstructed by completing the '*if-then statements'* inherent in the main threat of the Intervention Logic by answering the '*because'-*part of the argument, resulting in '*if-then-because'-*statements.[3] This was done based on a review of IUCN's work programme, SDC's credit proposal for its IUCN contribution and in-depth discussions with the management and staff of IUCN's Nature Based Solutions Group. The resultant Theory of Change is included in Appendix O Inception Report. A more concise version of IUCN's Theory of Change is included in Figure 2, Chapter 8, of the Main Report.

Figure 2. IUCN's Intervention Logic.
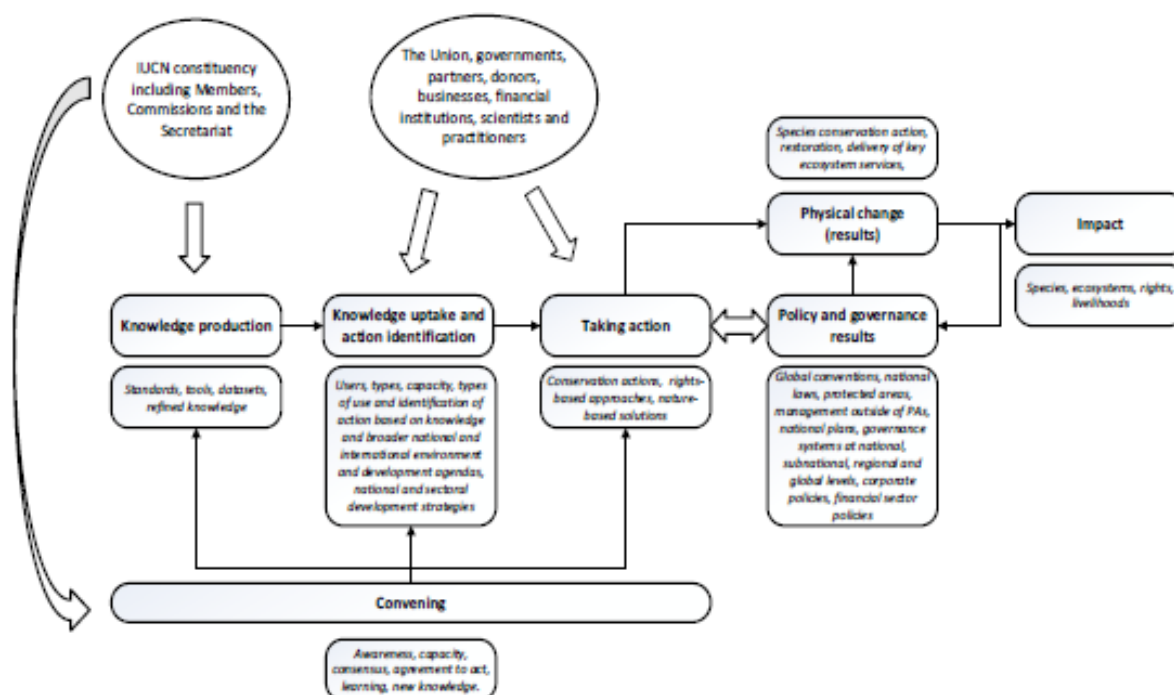
Source: IUCN (2016) Work Programme 2017-2020

In all the case studies (see next section), we sought evidence to verify whether this was indeed IUCN's Theory of Change and whether the Theory held up in practice. The resultant observations were captured in the case study

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[2] The International Development Research Center defines boundary partners as '*individuals, groups or organizations with whom a program interacts directly and with whom the program anticipates opportunities for influence'*. Earl, S., Carden, F., & Smutylo, T. (2001). Outcome Mapping. Building Learning and Reflection into Development Programs. Ottawa: International Development Research Center.

[3] The methodological approach rests on: Leeuw, F. L. (2003). Reconstructing Program Theories; Methods Available and Problems to be Solved. *American Journal of Evaluation, Volume 24* (Nr. 1), pg. 5-20; Morra Imas, L. G., & Rist, R. C. (2009). *The Road to Results. Designing and Conducting Effective Development Evaluations.* Washington DC: The World Bank; and Patton, Michael Quin. 2002. Qualitative Research & Evaluation Methods. Third edition . Thousand Oaks: Sage Publications.

findings reports, included in this second volume of the Final Review Report. These case study findings informed the analysis in the Main Report, in particular Chapter 8, on what worked and what doesn't in IUCN's Theory of Change.

C.2 A case-study based review

IUCN covers a vast work terrain. The resources available for this Review could not possibly cover IUCN's full scope of work. The Review therefore selected 7 case studies, which subsequently formed the backbone of this evaluation. This consisted of three country case studies (Jordan, Myanmar and Senegal) and four thematic case studies (agrobiodiversity, forestry, transboundary water management, and IUCN's engagement with the UNFCCC).

The three country case studies were selected by SDC and IUCN *prior* to the start of the Review. All three were relevant for SDC, covered three distinct geographic (and environmental) areas, and contained ongoing programs in SDC's areas of interest: nature-based solutions and the governance of natural resources. In each of these countries, IUCN ran multiple relevant programs and projects[4]: for example, 6 in Myanmar and 14 (project components) in Jordan. The Review team purposefully selected[5] three to four country-level programs and projects per country to zoom in on. The applied selection criteria were:

— concerns IUCN's work on nature based solutions and/or the governance of natural resources;
— includes an explicit sustainable development component, for example (alternative) livelihoods support;
— IUCN is the lead agency (to ensure that the Review did not inadvertently evaluate another agency);
— the programs and projects are completed or significantly advanced to be able to render a judgement on IUCN's development relevancy and effectiveness;
— the program or project is part of a longer running workstream to enhance the Review's ability to judge IUCN's development relevancy and effectiveness;
— the program or project is thematically relevant for SDC, i.e. covered SDC's Global Programs (Climate Change and Environment, Water, and Food Security) or transversal themes (social inclusion and gender equity).

The four thematic case studies were equally purposefully selected by the Review team, based on a dialogue with the management and staff of IUCN's Nature Based Solutions Group and approved by SDC. The applied selection criteria were:

— Are IUCN's engagement likely to have a reasonably direct sustainable development impact on the ground?
— Does it cover workstreams that are of key interest to SDC: nature-based solutions, the governance of natural resources, and policy advocacy;
— Is the topic relevant for SDC in general and the Global Programs (Climate Change and Environment, Water, and Food Security) in particular?
— Are there likely linkages with the country case studies?

The case study findings are included in this Report: Appendices G to M.

C.3 Data collection methods

The Review applied a mixed-method approach to data collection which included:

— a document and literature review;
— telephonic and field-based semi-structured key informant interviews;
— field observations.

The purpose of the *document and literature review* was to:

— properly frame the evaluation in (i) IUCN's current and upcoming work programme, corporate strategies and past reviews, (ii) SDC's development cooperation mandate and the strategic frameworks of its Global Programs, and (iii) existing literature on sustainable development and societal transformation;

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[4] i.e. concerning SDC's interests in the development relevancy of IUCN's work in nature-based solutions and the governance of natural resources.

[5] This means selecting *'information-rich cases for in-depth study ... along pre-defined selection criteria'*. Patton, Michael Quin. 2002. Qualitative Research & Evaluation Methods. Third edition . Thousand Oaks: Sage Publications.

- collect data, stories, previous analysis and context on the outputs, outcomes and impacts of the individual IUCN projects and programs and the underlying reasons for the (under/non) achievement.

The document review encompassed the following types of documents:

- IUCN's corporate documents: resolutions, institutional reviews, work programs, annual reports, policies, brochures, knowledge products
- SDC corporate documents: the Swiss Constitution, development cooperation law, quadrennial international message on development cooperation, IUCN credit proposal, Global Programs Strategic Frameworks
- External literature on sustainable development and societal transformation
- Country and sector reports
- Project documentation: credit proposals, logical frameworks, progress reports, mid-term reviews, ex post evaluations, case studies, project briefs, completion reports, knowledge products, project outputs
- Thematic studies / websites: briefs, position papers, story maps, case studies, project outputs, knowledge products

A full list of reviewed documents is included in Appendix E.

The purpose of the *key informant interviews*, both in the field and telephonically, was to gain a qualitative perspective on the design, functioning, achievements, and unforeseen effects of IUCN's work in the case studies. The interviews were held telephonically, as well as in the three country case studies: Jordan, Myanmar and Senegal.

The key groups of informants were:

- SDC management and staff in headquarters, embassies and swiss cooperation offices;
- IUCN Secretariat management and (project) staff in headquarters and regional offices;
- IUCN Members and Councilors
- IUCN Commission Chairs
- Government agencies
- (Inter)national NGO's and civil society representatives
- Project and program beneficiaries
- UN, nature conservation and development agencies' staff
- Independent (academic) experts

A full list of key informants is included in Appendix F.

The Review conducted semi-structured interviews. Based on the evaluation questions, the Review prepared a interview guide for the interviews (see Appendix D). We started each interviews in an open, non-judgmental fashion and invited each interview partner to express their involvement, experiences and views freely. This approach provides unbiased answers, tends to cover (roughly) 30% of the interview questions and provides insight into which other questions are likely to receive informative answers (often another 20 – 30% of the questions). Gradually, we then focused the interviews on the remaining relevant questions from the underlying questionnaire as well as on emerging themes from the interviews, document review and field observations.

The purpose of the *field observations* (in combination with the key informant interviews with program beneficiaries) was to see firsthand the scope, impact and context of IUCN's work, and to verify, understand and appreciate IUCN's interventions, the boundary partners' reactions and actions, the developmental context, and the projects' and programs' developmental impact.

C.4 Data analysis

The Review applied a variety of data analysis techniques to assess the extent to which IUCN contributes to societal transformation and to verify IUCN's Theory of Change. First, the Review team interacted with the collected data with an open mind: identifying emerging themes and patterns. Such an analysis – called inductive analysis – takes place almost automatically during the data collection when the evaluators make sense of what they find. Second, the collected data was scrutinized on its potential answers to the Review questions. This entails a deductive analysis.

Third, through a so-called contribution analysis[6], the Review ascertained the extent IUCN's Theory of Change works in practice. Contribution analysis tests whether (i) the assumptions underlying the Theory of Change are plausible and uncontested; (ii) there is evidence that the assumed changes in behavior, decisions and actions actually occurred in practice; (iii) the envisaged activities took place; (iv) envisaged results were achieved; and (v) other contextual factors could have reasonably and significantly contributed to the results.

Fourth, the resultant findings were triangulated across different data sources, theoretical perspectives, methods and evaluators. The Review checked the consistency of the findings between data collection methods and sources: for example, are key findings supported by both quantitative data (from the document review) and qualitative data (from the key informant interviews and field observations). The data was also analyzed from the perspective of IUCN's own Theory of Change and Philippe de Leener and Marc Totté's adapted theory of societal transformations. Finally, the individual team members needed (as analysts) to distill the same findings from the data.

C.5 Data verification

The case study reports were reviewed by the relevant IUCN staff and, for the country case studies, by the local consultants who supported the field work. A working paper on the main findings, conclusions and recommendations of the Review was reviewed by IUCN headquarters, the relevant IUCN staff for the case studies, and SDC. The Final Draft Report was equally reviewed by IUCN headquarters and SDC.

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[6] Based on John Mayne (2008). Contribution analysis: An approach to exploring cause and effect. *ILAC Brief 16*.

D. Interview guide

Introduction	− Brief mutual introduction and interviewee's position vis-à-vis IUCN (since when)

Pathway of change	− What projects are underway or have recently been concluded? | What are past highlights?
	Per project:
	− What was the project's original context? | What gave rise to the project? | What was the objective?
	− What were the key activities/interventions?
	    ▪ Awareness raising, advocacy, capacity development, policy formulation, implementation, …
	− What level and scale did these activities seek to influence?
	    ▪ (Sub-)national, regional, global?
	− How were these activities supposed to contribute to sustainable development?
	− How did the project make use of the existing context / political economy?
	− Who were the boundary partners?
	− Did the activities/interventions take place as planned?
	− How did the boundary partners respond to the activities/interventions?
	− What were the reasons for their (lack of) response?
	− What follow-up actions did the boundary partners take?
	− What were the outcomes and impacts of these actions? | How are they evidenced?
	    ▪ Economic opportunity?
	    ▪ Socially equitable and just? | What does this mean in practice? What kinds/types?
	    ▪ Gender equality?
	    ▪ Environmental prudence?
	    ▪ Climate change responsiveness?
	− How to explain these outcomes and impacts?
	− To what extent are these outcomes and impacts transformative in nature?
	    ▪ the underlying, dynamic, causes of underdevelopment have been addressed?
	    ▪ there are observable and lasting changes in the behavior of key system actors?
	    ▪ there are observable and lasting changes in the rationale and structure of the system at hand?
	    ▪ What change processes have been brought about? | Are these replicable?
	− Are there other factors, circumstances, dynamics, that could explain the outcomes and impacts?
	− What can be learned from the experiences? | Success and fail factors of transformation?
	− How plausible were IUCN's assumption in the end regarding the transformation of society?
	− Has IUCN learned from the experience regarding the transformation of society?

Value-added	− What other organizations work on the nexus between nature conservation and development? − What is each organization's role and comparative advantage? − To what extent do these organizations cooperate, compete, cross-fertilize? − How does IUCN perform when compared / benchmarked to these organizations? − What is IUCN's overall role, niche, value-added? | Does IUCN make best use of it? − Does IUCN add new approaches, concepts, perspectives on sustainable development? − Other (development) agencies: have you benefited from IUCN's knowledge and experiences?
IUCN internal	− What alternative concepts of sustainable development exists within IUCN? − To what extent is IUCN's support to sustainable development internally supported? − What are the main topics of debate? − What are the conflicts of interests? − How does IUCN engender a corporate consensus in the Union (and manage the trade-offs)? − How can / does IUCN benefit from promoting sustainable development?
Looking forward	− What are main lessons learned? − What are IUCN's unique selling points / niches? − What is IUCN's (future) potential to contribute to sustainable development? | At what level / scale? − How can IUCN better contribute to sustainable development? | Reach its full potential? − How can IUCN benefit from SDC support?

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F.   List of key informants

Name	Position	Organization
General		
SDC Headquarters		
Tatjana von Steiger Weber	Deputy Director Global Programs	
Janine Kuriger	Head GPCCE	
Konrad Specker	Deputy Head GPCCE	
Patrick Sieber	Focal point Climate Change and Environment	
Johan Gély	Head GPW	
Daniel Maselli	Senior Policy Advisor GPW	
Manuel Flury	Co-Head GPFS	
BAFU		
Norbert Bärlocher	IUCN Council Member	
Swiss Secretariat IUCN		
Friedrich Wulf		
IUCN Secretariat		
Grethel Aguilar	Acting Director General	
Cyrie Sendashonga	Global Director, Policy and Program Group	
Stewart Maginnis	Global Director, Nature Based Solutions	
Lucy Deram	Director, Global Strategic Partnership Unit	
Chris Buss	Director, Global Forest Conservation Programme	
Sandeep Sengupta	Global Coordinator, Climate Change Portfolio	
Jenny Springer	Director, Global Programme Governance and Rights	
Cate Owen	Senior Gender Programme Manager	
Charles Lor	Head, Planning, Monitoring and Evaluation and Risk	
Enrique J. Lahmann	Global Director, Union Development Group	
Juha Siikamäki	Chief Economist	
IUCN Commissions		
Kristen Walker Painemilla	Chair Commission for Environmental, Economic and Social Policy	Conservation International
Angela Andrade	Chair Ecosystem Management Commission	Conservation International
Independent experts		
Andreas Heinimann	Center for Development and Environment	University Bern
Agro-biodiversity		
Jonathan Davies	Global Coordinator, Drylands	IUCN
Forestry and the Restoration Initiative		
Adriana Vidal	Senior Forest Policy Officer	IUCN
Carole Saint-Laurent	Deputy Director Forest Conservation Programme	IUCN

Name	Position	Organization
Jürgen Blaser	Professor for International Forestry and Climate Change	Bern University of Applied Sciences
Ulrich Apel	Senior environmental specialist	Global Environment Facility
Gary Dunning	Executive Director	Forest Dialogue
Jenny Wong		UNFCCC Secretariat
Jamison Ervin	Secretariat of the New York Declaration on Forests	UNDP
Transboundary Water Management		
James Dalton	Director, Global Water Programme	IUCN
Nadia Benani	Program officer	SDC
Stéphanie Piers de Ravenschoot	Program officer	SDC
Markus Bürli	Deputy Head of Cooperation Swiss Cooperation Office in Myanmar	Embassy of Switzerland in Myanmar
Sonja Köppel	Secretary UNECE Water Convention	UNECE
Christian Bréthaut	Professor, Geneva Water Hub / UNESCO Chair on hydro-politics	University of Geneva
Ilmas Futehally	Executive Director	Strategic Foresight Partners
Jordan		
SDC		
Mufleh Al Alaween Abbadi	Advisor on Water Cooperation and Governance	Embassy of Switzerland, Swiss Cooperation Office
IUCN		
Dr. Hany El Shaer	Regional Director	IUCN Regional Office West-Asia
Rania Al Zoubi	Acting program manager for drylands and gender	IUCN Regional Office West-Asia
Amer Maadatt	Senior field coordinatior	IUCN Regional Office West-Asia
Prof. Said Damhoureyeh	IUCN Councilor, West Asia	University of Jordan
Government		
Dr. Wael Rashdan	Director of Forestry	Ministry of Agriculture
Dr. Ali Abo Hamour	Senior Forestry Expert	Ministry of Agriculture
Eng. Thaer Al Rawajfeh	Director of Agriculture (Shoubak)	Ministry of Agriculture – Shoubak
Eng. Basem AlTourah	Project Director	Ministry of Agriculture - Shoubak
Eng. Mamoun Adialeh	Director of Agriculture Al Mazar Al Janaobi /Karak	Ministry of Agriculture – Al Mazar Al Janaobi /Karak
Jihad Shquratt	Head of Forestry and Rangelands	Ministry of Agriculture - Shoubak
Ahmad Dehyat	Engineer	Ministry of Agriculture - Shoubak
Dr. Hassan Al Ossofi	Director of NCARE-Shoubak	National Center for Agricultural Research in Shoubak
Civil Society / NGOs		
Jamal Alfayz	Director	Hashemite Fund for Development of Jordan Badia
Kahled Al-Marafai	Director of International Cooperation	Hashemite Fund for Development of Jordan Badia
Mohamad Al Omoush	Director of Local Communities' Development	Hashemite Fund for Development of Jordan Badia
Laila Hamarneh	Director of Programs	Arab Women Organization
Souhaib Kahmasneh	Livelihood Coordinator	Arab Women Organization
Belal Al Amoush	Local Communities' Empowerment Manager	Municipality of Hashmieh
Ahmad Olimat	Head	Hima Bani Hashem Society

Name	Position	Organization
Tamam Amoush, Khadra Amoush, Ibrahim Amoush, Emad Olimat, Ahmad Olimat	Board members	Hima Bani Hashem Society
Mariam khawaldeh, Thani Amoush, Mamoun Amoush, Hassam Amoush, Basem Amoush, Khatmeh Amoush, Tofahaa Qanawi	Members	Hima Bani Hashem society
Jamileh Al-Jazi	Head	Al-Jouhara Society – Jarbah municipality
Salam Al-Mrahieh	Head	Al-Heisheh Society
Qadar Al-Mrahieh	Head	Al-Shabab Almenshieh Society
Salam AL-Othman	Mayor and Head of Al-Halabat Society	Al-Halabat Municipality
Fahad Al-Othman	Member	Al-Halabat Society
Mohamad Khalaf Guthian	Member	Al-Halabat Society
Nasser Shettaiw	Head of Local Development Unit	Al-Halabat Municipality
Group of women	Members of the Society - Handmade and Crafts	Al-Halabat Society
Donors		
Dr. Nidal Al Oran	Program Manager	United Nations Development Program (UNDP) Jordan
Dr. Wafa Alramadeh	Coordinator of Rangelands and Forestry Rehabilitation	United Nations Food and Agricultural Organization (UN-FAO) Jordan
International NGOs		
Dr. Maher Tadrous	Project Manager	Botanical Garden
Eng. Khaled Al-Khaldey	Project Coordinator	Botanical Garden
Dr. Mustafa Shdefaat	Program Manager	Botanical Garden
Myanmar		
SDC		
Markus Bürli	Deputy Head of Cooperation Swiss Cooperation Office in Myanmar	Embassy of Switzerland in Myanmar
IUCN		
Ms. Aban Marker Kabraji	Regional Director	
Mr. Jake Brunner	Head, Indo-Burma Group	
Mr. Andrew Benedict Wyatt	Deputy Head, Indo-Burma Group	
Ms. Zin Myo Thu	Head of Office, Myanmar	
Mr. Bo Lager	Chief Technical Advisor, TRI Myanmar Project	
Ms. Maeve Nightingale	Senior Programme Officer Coastal and Marine Natural Resources Group	
Ms. Tara Sayuri Whitty	Gulf of Mottama International Advisor	
Government		
Dr. Nyi Nyi Kyaw	Director General	Forest Department
Mr. Soe Myint Oo	Director	Forest Department
Dr. Toe Aung	Assistant Director	Forest Department
Mr. Sein Tun	Deputy Director General	Environment Conservation Department
Dr. San Win	Deputy Director General, Climate Change and Mangroves Ecosystem	Environment Conservation Department
Mr. Soe Naing	Deputy Director General, Environmental Impact Assessment (EIA)	Environment Conservation Department

Name	Position	Organization
Ms. Thaw Thaw Han	Deputy Director	Environmental Conservation Department
Mr. Zaw Lwin Win	Deputy Director General, Deputy Regional Director General (Vice Secretary - Sittaung Basin & Gulf of Mottama, Natural Resource Management Committee)	Fishery Department
Mr. Than Myint	Deputy Director General Representative of Sittaung Basin & Gulf of Mottama, Natural Resource Management Committee)	Directorate of Water Resources and Improvement of River Systems
Mr. Hou Cing Mung	Deputy Director General (Member of Sittaung Basin & Gulf of Mottama, Natural Resource Management Committee)	Hotel and Tourism Department
Mr. Aung Min Thu	Head of Department Secretary - (Sittaung Basin & Gulf of Mottama, Natural Resource Management Committee)	Forest Department
Ms. Hnin Wutt Yee	Range Officer Secretary – (Sittaung Basin & Gulf of Mottama, Natural Resource Management Committee)	Forest Department
Mr. Tun Lin Soe	Assistant Director Vice- Secretary (Sittaung Basin & Gulf of Mottama, Natural Resource Management Committee)	Environmental Conservation Department
Mr. Aung Myo Oo	Assistant Director Vice- Secretary (Sittaung Basin & Gulf of Mottama, Natural Resource Management Committee)	Environmental Conservation Department
Civil Society / NGOs		
Mr. Aung Thant Zin	Chief Executive Officer Assistant Chief Technical Advisor (Policy)	Myanmar Environment Rehabilitation, Conservation Network (MERN)
Mr. Win Sein Naing	MFF Grantee	Mangrove Service Network
Donors		
Ei Ei Khin	Development Advisor	Embassy of Denmark
International NGOs		
Dr.Tint Lwing Thaung	Myanmar Program Director	The Nature Conservancy
Peter Schimidt	Country Director	HELVETAS
Tim Boyle	Chief Technical Advisor	UN-REDD/Myanmar
Mr. Than Htike Aung	Project Manager	HELEVETAS Myanmar
Independent experts		
Dr. San Tha Tun (Mr.)	Professor (Marine Science Department)	Mawlamyine University
Mr. Tint Tun	Regional Co-Chair of Indian Ocean Region, Sirenia Specialist Group, IUCN – Species Survival Commission	Independent Marine Biologist & Consultant
Focus group discussion with professors and students from Bago University		

Name	Position	Organization
Dr. Aye Aye Tun (Ms.)	Rector	Bago University
Dr. Khin Swe Win	Professor and Head, Zoology Department	Bago University
Dr. Ohnmar Ohn	Professor	Bago University
Dr. Khin Ma Ma	Associate Professor	Bago University
Dr. Soe Moe Tun	Lecturer	Bago University
Daw Aye Aye Kyu	Lecturer	Bago University
Daw Nyein Nyein Moe	Lecturer	Bago University
Dr. Tar Tar	Assistant Lecturer	Bago University
Dr. Phyu Phyu Thin	Assistant Lecturer	Bago University
Dr. Su Su Hlaing	Assistant Lecturer	Bago University
Mg Tin Moe Lwin	Master Student	Bago University
Ma Shwe Wut Hmone	Master Student	Bago University
Ma Pwint Phyu Kyaw	Master Student	Bago University
Mg Moe Kyaw Kyaw Hein	Master Student	Bago University
Dr. Mar Mar Khin	Professor and Head, Geography Department	Bago University
Dr. Min Min Aye Than	Associate Professor	Bago University
Daw Ohnmar Tun	Lecturer	Bago University
Daw Myo Ma Ma Wai	Lecturer	Bago University
Dr. Khin Thuzar Tin	Lecturer	Bago University
Daw Ohnmar Htwe	Lecturer	Bago University
U Zaw Zaw	Assistant Lecturer	Bago University
Daw Ohnmar Soe	Assistant Lecturer	Bago University
Daw May Hsu Lwin	Assistant Lecturer	Bago University
Naw Thidagu Myintzu Tun	Tutor	Bago University
Ma Ei Ei Tun	Master Student	Bago University
Ma Kay Khaing Kyaw	Master Student	Bago University
Dr. Moe Moe Shwe	Professor and Head, Botany Department	Bago University
Dr. Moe Sandar Shein	Associate Professor	Bago University
Dr. Khin Swe Swe Htun	Lecturer	Bago University
Dr. Ko Ko Oo	Lecturer	Bago University
Daw Hsu Myat Lwin	Lecturer	Bago University
Dr. Thandar Soe	Lecturer	Bago University
Dr. Thant Zaw Win	Assistant Lecturer	Bago University
Mg Pyae Sone Aung	Master Student	Bago University
Mg Sithu Tun	Master Student	Bago University
Ma Phyo Pa Pa	Master Student	Bago University
Senegal		
IUCN		
Racine Kane	Head of the IUCN office in Dakar	
El Hadji Balé Seye	Project manager responsible for several IUCN projects	
Thomas Price	Coordinator of the regional implementation Support Unit for the West Africa Coastal Areas Resilience Investment Project, WAKA-BAR	
Renaud Bailleux	WACA Program, UICN regional responsible based in Dakar	
Government		

Name	Position	Organization
Madeleine Diouf	Head of the Climate Change Division, Climate Change focal Point of Senegal	Ministry of Environment and Sustainable Development
Diatta Lamine	Adviser, Ministry of Environment and Sustainable Development, Climate Change Division	Ministry of Environment and Sustainable Development
Colonel Baidy Ba	Head of the Department "Eaux et Forêts, Chasses et Conservation des Sols", Ministry of Environment and Sustainable Development	Ministry of Environment and Sustainable Development
Abba Sonko	Ministry of Environment and Sustainable Development , Head of the division "Wild fauna management"	Ministry of Environment and Sustainable Development
Colonel Ibrahima Gueye	Deputy Director of the "Direction des Parcs Nationaux",	Ministry of Environment and Sustainable Development
Lamine Ndiaye	Director of the Environment and Sustainable Development department	OMVS (Organization for the Development and Best Management of the Senegal River)
Alpha Oumar Balde	Technical Adviser	OMVS
Sandrine Lemare	Technical adviser	Ville de Dakar
Moustapha Diouf	Inspector of Education and Training	Ministry of National Education
Civil Society / NGOs		
Ibrahima Fall	Head	Green Senegal
Assize Touré	General Director	CSE
Marième Soda Diallo	Hydrogeologist	CSE
Liliane Assogba	IUCN expert in charge of a regional sub-programme within the CSE team	CSE
Moussa Sall	Head of the monitoring department	
Souleye Kitane	Senior Expert, Rural and Environment Department	African Bank of Development
Mamadou Lamine Thiam	Member of the National Assembly, head of the REPES	REPES (Network of parliamentarians for the Protection of the Environment in Senegal)
Dominique Linossier	Head of the Senegalese programme of territorial coaching in The Sine Saloum Region	Echo Communication
Emmanuel Ndione,	Head of Enda GRAF Sahel	ENDA GRAF Sahel
Diegane Diouf	head of ASPOVRECE	ASPOVRECE (Popular Association of Volunteers for the Rehabilitation and Conservation of the Environment), local NGO
Ousman Bakhoum	Responsible of the local forest management committee	Mbam (village)
Diegane Diouf	Responsible of the local management committee (protected forest of Ngaregou)	Ngaregou (village)
Modou Ndiaye	Head of village	Sadioga (one of the four villages concerned by the conservation of the forest of Giffa rehabilitated with the help of IUCN since 2009)
Cheickh Wali, Mr Mamadou Ndong, Mr Sande Babacar Diouf and Mr Modou Ndiaye	Village members of the conservation committee	Ngaregou (village)

Name	Position	Organization
Cheickh Ndiaye	Local adviser	Boolo Setal Association (a local association collecting plastic wastes in Foundiougne and replanting mangrove)
Salimata Sene	President	Bougayiff (a local network of women association supported by IUCN for more than 20 years in Toubacouta)
Moussa Mbaye	Executive Secretary	Enda Tiers Monde
Donors		
El Kabir Mohamed	Second Representative of UNDP in Senegal	UNDP Senegal
Guene Ndeye Fatou Diaw, ,	Team leader Environment and Climate change	UNDP Senegal
International NGOs		
Mamadou Fall	Former responsible counterpart of IIED in the GWI project	IIED London
Independent experts		
Claude Sene	Environment and Natural resource governance, PhD, consultant for IUCN	

G. Jordan

G.1 Introduction

Between 3 and 7 November 2019, the Review team conducted a field mission to Jordan. This annex captures the Review's relevant observations which, together with the other case studies, informed the team's answers to the main Review questions. The observations stem from a review of project documentation and external literature, as well as telephonic and face-to-face interviews and focus group discussions with key informants. The following topics are covered:

1. the political economy and geography of Jordan;
2. the country's progress towards the SDGs;
3. Mainstreaming Sustainable Land Management Practices in Jordan;
4. EU-funded Securing Rights and Restoring Lands for Improved Livelihoods Project;
5. GEF-funded Healthy Ecosystems for Rangeland Development Project;
6. Mainstreaming gender equality in climate change initiatives
7. Policy linkages
8. Gender perspective
9. IUCN's value-added in the international development architecture in Jordan;
10. The institutional benefit for IUCN's in promoting sustainable development.

G.2 The geography and political economy of Jordan

− **A small arid country**. Jordan covers 89,800 km². This is just over twice the size of Switzerland. 90% of Jordan consists of arid or semi-arid land which is called the *Badia*.

− **One of the ten most water scarce countries in the world**. In 2017, the renewable water availability was 97 m³ per capita. (In Switzerland, for the same year, it comprised 6,312 m³ per inhabitant).[7]

− **Limited agriculture**. Circa 5% of the land is cultivated. In the Highlands, cereals (wheat & barley), fallow, pulses, olives, grapes and almonds are grown. In the Jordan Valley and the south Ghores, capital intensive, irrigated agriculture is practiced.

− **Land**. Unequal land ownership, land fragmentation, and unregulated use of land are real and present challenges in Jordan. Land use policy is unclear and not enforced.

− **Rapid rise in population**. Between 1961 and 2019, the Jordan population surged from 1 million inhabitants to 9,7 million inhabitants. 90% of the population live on 10% of the land.

− **Migration**. Jordan harbors a large Palestinian population which came to the country in 1948 (after the creation of the State of Israel), in 1967 (after the Six-day War) and in 1973 (after the Yom Kippur War). The recent Syrian civil war caused the influx of an estimated 1,8 million Syrians.

− **Political stability**. The Economist Intelligence Unit expects King Abdullah II to retain power and maintain tight control of Jordan's political direction. He will continue his modernizing agenda and the strengthening of state institutions and laws. Parliament *'remains dominated by nominally independent representatives who are loyal to the king'.*[8]

− **Cautious reforms and vested interests**. A general public wary of radical change, public resistance against austerity measures, and a powerful elite of conservatives and religious leaders *'mean that the pace of reform will be slow … [and] vested interests in the public sector will slow the implementation of anticorruption measures'.*[8]

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[7] http://www.fao.org/nr/water/aquastat/data/query/index.html?lang=en
[8] Economist Intelligence Unit. Country Report. Jordan. Generated on 9 October 2019.

- **Modest economic growth**. Annual GDP growth currently hovers around 2% per year. The Economist Intelligence Unit expects a slight uptick at the end of its forecast period (2022-2023) due to stronger expert growth and domestic demand.

- **High unemployment**. Jordan has a high unemployment rate. The World Bank estimates this at 15% of the labor force, whilst the Economist Intelligence Unit records 19%.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
GDP growth (annual %)	3,1	2,4	2,0	2,1	1,9	2,1	1,8	2,8	3,3	3,5
Unemployment (%)	11,9	13,1	15,3	14,9	15,0	19,0	19,0	18,8	18,7	18,5

Source: World Development Indicators (2014-2018)[9]; Economist Intelligence Forecasts (2019-2023)[8]

- **Fiscal debt**. The Jordan government records an annual fiscal deficit of around 5% of GDP and by 2018 had a public debt of 90% of GDP. Jordan receives IMF assistance through a three-year, US723 million extended fund facility which runs until March 2020. The fiscal situation deteriorated sharply after the Syrian refugee crisis and led the government to freeze all capital investments.

G.3 The country's progress towards the SDGs

- In 2015, Jordan was among the countries that adopted the 2030 Agenda on Sustainable Development. In 2017, the Government of Jordan prepared its first Voluntary National Review and presented it at the High-Level Political Forum.

- Jordan is on track in achieving some of the SDGs:
  - the poverty headcount ratio of $1.90/day (SDG1)
  - gender equality in terms of demand for family planning and female to male mean years of schooling population (SDG5)
  - satisfaction with public transport (SDG11)
  - energy-related CO_2 emissions per capita (tCO_2/capita) (SDG13)
  - Corruption Perception (SDG16)

- In other areas, Jordan is moving in the wrong direction:
  - the poverty headcount ratio at $3.20/day (SDG1)
  - female to male labor force participation rate (SDG5);
  - population using at least basic sanitation services (SDG6);
  - access to improved water source (SDG11)
  - percentage of population feeling safe walking at night and property rights (SDG16).

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[9] https://databank.worldbank.org/source/world-development-indicators#

Table 1. Jordan's performance on selected SDGs.

SDG n°	Description of the goal	Score in 2017	Score in 2019
1	**End poverty in all its forms everywhere:**		
	· Poverty headcount ratio at $1.90/day (% population)	0	0,7 ⬆
	· Poverty headcount ratio at $3.20/day (% population)	0	13,1 ⬇
5	**Achieve gender equality and empower all women and girls:**		
	· Demand for family planning satisfied by modern methods (% women married or in unions aged 15-49)	42	58 ⬆
	· Female to male mean years of schooling, population age 25 + (%)	91,4	95,3 ⬆
	· Female to male labour force participation rate (%)	23,6	22.1. ⬇
	· Seats held by women in national parliaments (%)	15,4	15,4 ➡
6	**Ensure availability and sustainable management of water and sanitation for all:**		
	· Population using at least basic drinking water services (%)	96,9	98,6 ⬆
	· Population using at least basic sanitation services (%)	98,6	96,7 ⬇
	· Freshwater withdrawal as % total renewable water resources	92,4	151 ··
	· Imported groundwater depletion (m3/year/capita)	16,6	16.6 ··
	· Anthropogenic wastewater that receives treatment (%)	16,6	18.6 ··
10	**Reduce inequality within and among countries:**		
	· Gini Coefficient adjusted for top income (1-100)	37,6	43.2 ··
11	**Make cities and human settlements inclusive, safe, resilient and sustainable:**		
	· Annual mean concentration of particulate matter of less than 2.5 microns of diameter (PM2.5) in urban areas (µg/m3)	38	33 ➡
	· Improved water source, piped (% urban population with access)	93,2	87,4 ⬇
	· Satisfaction with public transport (%)	N/A	65,4 ⬆
13	**Take urgent action to combat climate change and its impacts:**		
	· Energy-related CO_2 emissions per capita (tCO_2/capita)	3,4	1,9 ⬆
	· Imported CO_2 emissions, technology-adjusted (tCO_2/capita)	0,4	0.4 ··
	· People affected by climate-related disasters (per 100,000 population)	N/A	1.0 ··
	· CO_2 emissions embodied in fossil fuel exports (kg/capita)	N/A	1.4 ··
16	**Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels:**		
	· Homicides (per 100,000 population)	2,3	1,5 ⬇
	· Unsentenced detainees (%)	N/A	0,4 ➡
	· Population who feel safe walking alone at night in the city or area where they live (%)	82	81,4 ⬇
	· Property Rights (1-7)	5	4,8 ⬇
	· Birth registrations with civil authority, children under 5 years of age (%)	99,1	99.1 ··
	· Corruption Perception Index (0-100)	48	49 ⬆
	· Children 5-14 years old involved in child labour (%)	N/A	1.7 ··
	· Transfers of major conventional weapons (exports) (constant 1990 US$ million per 100,000 population)	27,1	N/A
	· Freedom of Press Index (best 0-100 worst)	N/A	41,7 🔼

⬇ Decreasing ➡ Stagnating 🔼 Moderately improving ⬆ On track or maintaining SDG achievement ·· Information unavailable

Source: Sustainable Development Report 2019

- **Introduction**. Between 2006 and 2015, the Ministry of Agriculture and the International Fund for Agricultural Development (IFAD) implemented a sustainable land management program in Jordan. The Program consisted of two overlapping phases with each phase focused on a different geographic region. The Program was implemented in parallel with the IFAD-funded and Ministry of Agriculture implemented Agricultural Resource Management Project which sought to increase agricultural production, improve access to markets, enhance water use and irrigation efficiency, reduce poverty and empower women. The latter did however *'not ensure effective prevention and control of land degradation [nor] achieve global environmental benefits associated with combating land degradation'*[10]. The sustainable land management program complemented the agricultural development program.

- **IUCN's role**. The Jordan Ministry of Agriculture and the Hashemite Fund for the Development of the Badia (an implementer and IUCN member) *commissioned IUCN with implementing specific tasks*, including: a pilot program on Payment for Ecosystem Services, a women empowerment program in food processing (especially the processing of lower grade and overripe apples into jams and cider), an awareness raising and training needs assessment program, conducting a participatory rural appraisal, the development of community level strategic plans on integrated natural resource management, and technical support to project implementation and knowledge management. *Even though IUCN was not the lead implementing agency, this program was a precursor (and covered similar ground) as the later IUCN implemented sustainable rangeland management programs. The Review thus considered the IUCN implemented programs as part of a larger and longer running workstream of the Government of Jordan to introduce sustainable rangeland management. We therefore included this program both to understand IUCN's contribution and to evaluate the program's contribution to nature conservation, sustainable development and societal transformation.*

- **Period & Budget**.

	Phase 1[10]	Phase 2[11]
Period	2006-2012	2011-2015
Budget		
GEF	US$ 6.79 million	US$ 1
IFAD	US$ 5.77 million	
OPEC	US$ 4.00 million	
Government of Jordan	US$ 3.20 million	US$ 3 million
Beneficiaries	US$ 0.79 million (in-kind)	
FAO	US$ 0.03 million (in-kind)	
Royal Society for the Conservation of Nature		US$ 0.3 million
Total	US$20.03 million	US$ 4.3 million

- **Objective**. The goal of the Program was to integrate an ecosystem-based approach into the public-supported productive and poverty reduction activities (i.e. the Agricultural Resource Management Project the of the Ministry of Agriculture). The Program specific objectives were:

  - Phase 1: *'To minimize the causes and negative impacts of land degradation on the integrity of the country's southern highland's ecosystems'*.[10]

  - Phase 2: *'To increase biodiversity conservation in productive landscapes in pockets of poverty in southern Jordan … by improving governance and community understanding of the value of biodiversity, it intended to demonstrate that there are economic benefits and alternative livelihoods available if conservation is improved'*.[11]

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[10] IFAD (2006). Mainstreaming Sustainable Land Management Practices in Jordan. Project Brief Report.
[11] IFAD (2010) Mainstreaming Biodiversity in the Sylvo-pastoral and Rangeland Landscapes in the Al-Sharah Agricultural Development Region of Southern Jordan. Proposal.

- **Strategy**. *'to integrate an ecosystem-based approach into the public-supported productive and poverty reduction activities'*.[10] The program endeavored to utilize past traditional community-based conservation methods known as al-Hima – see Textbox 1.[11]

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Textbox 1. The Al-Hima System

The Al-Hima System comprised an ancient practice of sustainable land management or the sustainable use of natural resources. The Arabic word *Hima* means *a protected place*. The Al-Hima system refers to the traditional practice of setting a piece of land aside to allow for the regeneration of nature or for restricting access to a piece of land for a community, clan or tribe to prevent the overgrazing or cultivation of the land.

Source: IFAD (2010) Mainstreaming Biodiversity in the Sylvo-pastoral and Rangeland Landscapes in the Al-Sharah Agricultural Development Region of Southern Jordan. Proposal.

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- **Sustainable development**. The Program recognized the need '*to ensure household food security while preserving and restoring the natural resource base'*.[10] The Agricultural Development Program and the Sustainable Land Management Program jointly addressed *'the quality of life of rural communities'* and the ongoing land degradation.

- **Geography**.
  - Phase 1: Al Karak, At Tafileh, Ma'an
  - Phase 2: Rangeland and forest reserves – Fujaij (1000 ha), Al-Hisheh (300 ha) and Manshiyya (100 ha).

- **Causes of land-degradation**. In 2006, it was estimated that 41% of land was degraded in Jordan. This land degradation (soil erosion, habitat degradation and decline in soil fertility) stems from overgrazing and unsustainable agricultural and water management practices[12], driven by poverty and population growth.[10,11]

- **Constraints to sustainable land management**. IFAD and the Ministry of Agriculture identified ex-ante the following constraints to sustainable land management practices[10]:
  - Farmers lack information on feasible sustainable land management practices;
  - Land fragmentation and unclear land tenures
  - Lack of compensation mechanisms or access to capital to cover the costs of switching to sustainable land management practices;
  - Lack of incentives to exit agriculture and livestock breeding and pursue alternative livelihoods.

- **Benefits**[10,11]. The Program sought the following local and global environmental and developmental benefits:
  - Local: improved livelihoods through enhanced land productivity and alternative livelihoods from non-land-resource based activities (including for women and youth), and improved governance capacity of local communities.
  - Global: restored highland agro-ecosystem, improved habitats and biological diversity, carbon sequestration.

- **Activities**[10,11]. The Program comprised the following activities:
  - **Analysis and planning**. Conduct ecological assessments; integrate sustainable land management into community development plans;
  - **Capacity development and awareness raising**. Train local stakeholders (farmers, forest users, rural community members, government officials) on the value of biodiversity and in sustainable land management; include sustainable land management into formal education curricula; prepare a toolkit for mainstreaming biodiversity in rangeland management; develop a mechanism to mobilize community groups;

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[12] E.g. improper ploughing, cultivation of field crops on rangeland, inadequate management of plant residues, overgrazing, forest cutting, land fragmentation and over pumping of ground water.

- **Institution building**. Create an institutional and regulatory framework for the governance of rangelands that is fully participatory and builds on the traditional Hima mechanism or co-management committees and includes conflict-resolution systems;
- **Implementation**. Adopt productive sustainable land management practices in Project Demonstration Agro-Ecosystems;
- **Alternative livelihood support**. Invest in new and alternative on- and off-farm livelihoods, including collection (medicinal plants, herbs, mushrooms, etc.) and non-natural-resource-based (e.g. handicraft, restaurants; food processing, beekeeping, weaving, ecotourism, etc.).
- **Pilot test the introduction of Payment for Ecosystem Services**. The Ministry of Agriculture commissioned IUCN to develop a workable concept / implementation model for the introduction of Payment for Ecosystem Services – see section 0.
- **Conservation**. Invest in off-farm conservation measures;
- **Regulation**. Create an institutional and regulatory framework for sustainable rangeland management that is innovative and participatory.
- **Knowledge management**. Development of a national sustainable land management and environment information system.

- **Results**. The Review has no document with the results of the Program. The project supposedly strengthened the capacities of the local communities of thirteen Jordanian villages to conserve nature and improve their livelihoods.

IUCN's contribution: pilot-testing of Payment for Ecosystem services

- **Background**: As part of the Mainstreaming Sustainable Land Management Practices Program, the Ministry of Agriculture commissioned IUCN to develop a workable concept / implementation model for the introduction of Payment for Ecosystem Services.

- **Ecosystem Services**: The Millennium Ecosystem Assessment defined Ecosystem Services as *'the benefits people derive from ecosystems'*.[13] *Ecosystem services include provisioning services such as wood, fisheries, and raw material; regulating services such as climate regulation, regulation of water flow and water purification, and cultural services such as recreation, scenic values and spiritual or cultural values.'*[14]

- **Payment for Ecosystem Services**. *'Payment for Ecosystem Services is a mechanism for rewarding good management of water, land and ecosystems through payments. Payments can be in cash or they may be in-kind like bartering some goods & services. The key is that the payments to providers of water, land and ecosystem management are made by beneficiaries – i.e. people, companies or groups that benefit from the ecosystem services provided.'*[15]

- **Period**. 2015-2016

- **Budget**. US$ 218,000

- **Rationale**. Rangeland biodiversity conservation provides important benefits to society. Monetizing the benefits of these services, generates new financing, and allows for better conservation. In its project proposal, IUCN states that *'Payment for Ecosystem Services are not designed to reduce poverty [but] rather … offer economic incentives to foster more efficient and sustainable use of ecosystems'*.[16] The improved ecosystem services that this generates can nonetheless have a positive impact on local population's livelihoods.

- **Objective**. To protect the local ecosystems by introducing the concept of Payment for Ecosystem Services into the rangeland management in Sylvo-Pastoral areas in Ma'an.

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[13] https://www.iucn.org/commissions/commission-ecosystem-management/our-work/cems-thematic-groups/ecosystem-services
[14] IUCN (2018) Tools for measuring, modelling, and valuing ecosystem services. Guidance for Key Biodiversity Areas, Natural World Heritage sites, and Protected Areas.
[15] IUCN (n.d.) A Practitioners' Manual: Payment for Ecosystem Services in Jordan.
[16] IUCN (2015). Payment for Ecosystem Services. Project Technical and Financial Proposal.

- **IUCN's view on Payment for Ecosystem Services**.

    - *'Direct investment in local activities in the rangeland, such as in Hima grazing management, medicinal and aromatic plants production and ecological livestock production need to be and probably are economically feasible, even for local community organizations'*[16].
    - *'Investment in soil and water conservation, locally needed to sustain forage and biomass production ... may not so easily provide economic returns in a short- or medium-term time-span.'*[16]
    - IUCN recognizes that Payment for Ecosystem Services depends on the mutual interests of user and provider.

- **Activities**. IUCN undertook the following activities:

    - Conduct a pre-feasibility study
    - Two stakeholder and community consultation workshops to identify a workable implementation model;
    - Design and implementation of two Payment for Ecosystem Services pilot systems;
    - Training on and financial support to local communities on income generating activities;
    - Assessment of replication potential;
    - Comprehensive analysis of the institutional and policy framework.

- **Organization**. IUCN's Regional Office led the conceptual development of the Payment for Ecosystem Services scheme and facilitated the stakeholder and community consultation workshops. The implementation of the two pilot schemes was done by the following IUCN members: the Hashemite Fund for the Development of the Badia, The Hashemite Fund for Human Development, the Jordanian Society for Organic Farming and the Arab Women Association.

- **Outputs**. IUCN produced two output documents:

    - A two-year strategy for the implementation of Payment for Ecosystem Services in Jordan;
    - A Practitioners' Manual: Payment for Ecosystem Services in Jordan.

- **No pilot PES schemes**. The field mission was unable to uncover the pilot PES schemes. According to the in-country key informants, solar water heating systems, plastic tents, and water harvesting systems were supplied to individual households / farmers for their own productive use against a fee.

- **The value of rangelands**. IUCN's work is partly based on previous assessments of the value of rangeland in Jordan. These assessments concluded amongst others:

    - The economic value of rangeland forage production for grazing animals is 16 million Jordanian dollars per year (circa USD 23 million).
    - Enhanced groundwater recharge from large-scale Hima-style rangeland restoration has an economic value of 7,8 million Jordanian dollars per year (circa USD 11 million).

G.5 EU-funded Securing Rights and Restoring Lands for Improved Livelihoods Project[17]

- **Introduction**. Between 2012 and 2014, IUCN implemented this EU-funded, multi-country Securing Rights and Restoring Lands for Improved Livelihoods Project.

- **Geographical scope**. The Project was implemented in Botswana, Jordan, Mali and Sudan.

- **Geographical scope in Jordan**. The project was implemented in the Zarqa River Basin, an ecological hotspot in the north-east of Jordan. Within this basin, four pilot sites were selected: Bani Hashem, Duleil, Halabat and Hashmiah.

- **Budget**. US$ 524,539 (for four countries).

- **Objective**. *'Poverty reduced and key dryland ecosystem services restored and sustainably managed*[17]*'*.

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[17] The project outline is based on IUCN (2012). Securing Rights and Restoring Lands for Improved Livelihoods. Proposal. Annex 1. Project Description.

- **Specific objective**. *'The conservation, restoration and sustainable management of ecosystem services, as the basis for improved livelihoods, achieved through more secure rights, better management and enhanced income generating opportunities'*[17].

- **Organization**. IUCN was the lead implementer. The Ministry of Agriculture was IUCN's Jordan national implementation partner. The National Centre for Agricultural Research and Extension and the Arab Women Association (an IUCN member) offered technical support.

- **Underlying causes**. Land degradation and increased vulnerability of rural communities to water scarcity, floods and drought stem from:

  - Population growth
  - Urbanization
  - Insecure land tenure rights
  - Unsustainable irrigation practices (over extraction of groundwater)
  - Unsustainable herding practices (overgrazing)

- **Envisaged outcomes:**

  - Dryland landscapes sustainably and equitably managed, including the restoration of degraded areas, through strengthened institutional arrangements
  - Security of access rights to private and common pool ecosystem services with special attention to those important for women and vulnerable groups;
  - Economic and income generating options for rural communities explored and supported based on natural resource commodities and ecosystem services (including the successful market entry by at least one business in each country);
  - Policies informed and influenced at local, national, regional and global levels.

- **Strategy**. IUCN's *'prioritizes stakeholders' knowledge, participation, and institutional empowerment focusing on local scale and community-based initiatives.'*[17]

- **Theory of Change**. *'If rural people enjoy secure rights and tenure to both private and common property resources (such as forests and woodlands, grazing areas, river and water catchment areas), [then] they have an incentive to invest in sustainable management and in restoring degraded resources, [because they] will reap the livelihood benefits. … [For this to work], rural people need to engage with markets and benefit for processing, value-adding and selling products based on natural resources'*[17]

- **Political economy consideration**. IUCN recognizes:

  - Land is formally owned by the government and open for everyone to use.
  - Tribes and clans claim land rights based on customary use.
  - Inequalities in power and financial capacity between a few rich and influential families and the majority of poor rural households.
  - Unclear tenure rights.
  - the risk of elite capture: *'To avoid elite capture, marginalized groups (e.g. women, landless, and pastoralists) need to build their capacity to negotiate for their rights on land and access to resources to enter the market and to make their case with government'*.[17]
  - Distrust in government: *'many land users anticipate that after a number of years, the government will cede ownership under pressure of influential families'.* [17]

- **Activities**.

  - **Planning**: support local institutions with the development of Community Environmental Management Plans; preparation of business plans.
  - **Capacity building**: built awareness amongst communities on local customary and statutory land tenure and resource rights; built knowledge and skills of community-based organizations (CBOs) to implement the

Community Environmental Management Plans; capacity development of pilot enterprises; built capacity of local communities to engage in policy dialogue at the local, district and national level.

- **Analysis**: study on market opportunities and value chains; economic assessment of the value of ecosystem services to livelihoods.
- **Dialogue**: facilitate stakeholder dialogue to secure tenure and resource access rights.
- **Direct support**: in all 4 Hima sites, the project set up a veterinary clinic that was operated by the Ministry of Agriculture.
- **Monitoring**: Field assessment of impact of improved land management.

- **Novel concept**. *'Through multi-stakeholder meetings and various communal activities, local community members developed a sense of ownership of the process of developing a community environmental monitoring plan … and becoming open to … participatory rural appraisal, … problem tree analysis … land resource assessment …[and] strategy building … local community members acquired faith in their abilities for problem solving and visioning the future … [and] became able to think-out-of-the-box and adopted collective methodologies … [and] developed a recognition of gender issues '.*[18] IUCN recognizes that inspiration comes from them, but that the implementation lies with the local implementation partners and that the ambition is closely aligned with the SDGs (notably SDG 15.3).

- **Valuation**. A study from the Economics of the Land Degradation Initiative found that the large-scale adoption of the Hima system in the Zarqa River Basin may deliver between JOD 143 and JOD 289 million (between US$200 and US$400 million) worth of net-benefits to Jordan.[19]

- **Results in 2015**:
  - **Institutional – local: a new social agreement**: *'Revival of the Hima system [which] enabled communities to establish and enforce rules … promoting natural revegetation and recovery of soil and water cycles. … Each community has its committee, the Local Dryland Resources Management Committee, with 7-9 members where women represent 40%'*[19]. In Bani Hashem, the *Bani Hashem Society* comprised a management committee (11 members, including 6 female representatives) and a public body (40 members, more than 50% women). At first, the chief and tribal leaders wanted to control the proceedings. A participatory process facilitated by IUCN led to the adoption of a Social Charter which states that the Management Committee of the Bani Hashem Society decides as a whole.
  - **Institutional – national and district level**: The Project established both national and governate level, multi-stakeholder committee and information exchange platforms with a single representative from each of the following organizations at the central and district level (Ministry of Agriculture, Ministry of Water and Irrigation, and Ministry of Social Development), governate office (Zarga Governate) and from the local Hima societies, i.e. the Local Dryland Resources Management Committees.[18]
  - **Tenure rights**: *'local communities secured rights to manage land and resources.'*[19]
  - **Capacity building**: The project *'built the capacity of small-scale community enterprises based on natural products derived from the Hima sites in Bani Hashem and Halabat … the resultant benefits of improved livelihoods … are to be sustained through accessing markets'.*[19]
  - **Policy**: Based on the experience with the GEF/IFAD and EU-funded programs in sustainable land management, IUCN helped shape a new rangeland strategy. In 2015, Jordan adopted *'a new Rangeland Strategy which places communal management and control at the center of rangeland development.'*[20] The Strategy received the Future Policy Award for the World's Best Land Restoration Policy from the World Futures Council and the UNCCD. Despite the price, the Rangeland Strategy does not appear to have a palpable effect on the rangeland management in Jordan. Since 2015 no new Hima-like systems have been established. The reasons provided for this lack of replication is that the Rangeland Strategy lacks funding

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[18] IUCN (n.d.) Bani Hashem Hima Case Study
[19] IUCN (2015). Securing Rights and Restoring Lands for Improved Livelihoods. Final Narrative Report
[20] UNEP (n.d.) Healthy Ecosystems for Rangeland Development Project: sustainable rangeland management for biodiversity and climate change mitigation. GEF-6 Project Identification Form

and does not address the issue of land tenure, especially for tribal land with customary land rights (which, according to some, covers 80% of Jordan.

- **The current state and development relevancy of the Hima sites in 2019**:

  ▪ Bani Hashem:
    o *'The community identified 1500 ha [which equals for example 3km x 5 km] of official forest land that they described as the last green area in the rapidly industrializing Zarqa River Basin'.*[18] The Ministry of Agriculture approved an initial 100 ha for management by the community-based organization Bani Hashem, which could be extended to 1500 ha if implemented successfully.
    o The original 100 ha remains managed and governed by the Bani Hashem Society.
    o The vegetation has recovered. In springtime, the Hima-land stands out from the surroundings with half a meter of shrub bushes. This offers medicinal plants, grazing land, better biodiversity, esthetic value and carbon sequestration.
    o The goats/sheep of 20 families (ca. 2000 heads) can graze the land for two weeks in September. (The project estimates that Bani Hashem has 2500 households in total; the Hima Society thinks it more likely are about 5000 households). The project estimated that these families saved JOD 6000 in fodder expenditures. This is unlikely. For two reasons. First, the herders only use fodder in the winter. During the summer the herds graze freely (even when vegetation is sparse). Second, according to the Hima Society, fodder costs 0.2 JOD/kg and one head consumes ½ kg/day. If the 2000 heads of goat/sheep would eat fodder instead of graze the Hima plot for two weeks in September, this would save the 20 families JOD 2800.
    o 7 women of the Hima Society sow, harvest, process and market medicinal plants on/from the land which earns them about US$54 each per year which equals about 1 week of household expenditures. The medicinal plants are harvested in April. The women sell their produce locally and informally. The price for a stand at the local bazaar (JOD 50 per week) is too high vis-à-vis their production volume.
    o The Fair-Trade Initiative provided a US$ 30,000 grant, amongst others for a herb grinding and packaging machine. This grinding machine broke in 2015. The community cannot afford / is unwilling to buy a new one (which suggests that the business case is not viable). This limits the production (and income generating) capacity of the women.
    o The envisaged extension of the Hima system to 1500 ha has not been realized (yet). As to the extension of the Hima system, the Hima society observes a lack of responsiveness of the Ministry of Agriculture to their requests. The Ministry stated to the review team that the Hima society never formally applied for the extension. This suggests at best miscommunication and at worst a malfunctioning cooperation between the Hima Society and the Ministry of Agriculture. The Hima Society members held varying views on the quality of communication with the Ministry of Agriculture. In 2015, IUCN hailed the close cooperation and trusting relationships between the local community and the Ministry of Agriculture.[19]
    o The Hima Society members expressed varying views on how to continue. Some remained in favor of expanding the Hima-plot. Others *'were broken'* and that external support is needed (to buy tools, processing machines and a truck for transportation of tools and the harvest) to continue let alone expand the Hima-system. The Society does not have the resources to invest.
    o The Hima-system offers limited seasonal employment and income opportunities. All men from the Management Committee were retired military officers. Most were currently farmers. One was a trader, and one ran a school. The women in the Management Committee and Public Body managed the household and did voluntary work (including for the local women association which is not part of the Hima Society).
    o The Project established a revolving fund for JOD 4000. This money has been used up. Partly for office rent and partly due to non-payment of loans.
    o The members of the Hima Society noted that through the experience they learned to cooperate with each other and led to other associations being set up (for the youth and the poor).

  ▪ Hashmiah:
    o In Hashmiah, the Hima Society managed two plots of privately owned land of 50 ha and 25 ha respectively. The 50 ha have in the meantime been converted to a cemetery. The 25 ha remain a Hima-plot.

- ▪ Duleil:
  - o The Hima-system was piloted between 2012-2015 on 50 ha. The system was discontinued somewhere after 2015 after two large refugee camps were set-up on its fringes and the military restricted access to the land.

- ▪ Halalabat:
  - o The Hima-system covered two plots of 12 ha and 50 ha respectively. The 50 ha was privately owned land and the owner ceded the use of the land. The 12 ha (circa 200mx600m) is owned by the State and leased for 5 years to the Hima Society – the lease ends at the end of 2019. The expectation was that it would be renewed.
  - o The local Management Committee has 7 male members. The Public Body has about 70 members (20% female).
  - o The municipality recognizes the smallness of the land, argues that it's the only land they can get access to (as the Municipality does not own much land), and that the Hima system supports the poorest families in the community.
  - o The 12 ha supports circa 15 families: their roughly 1500 goats/sheep can graze the land for 3 days per week for three months.
  - o The local women association (set up under previous ODA-funded projects) was supported with looms. At the time of the field visit, a group of women were weaving tapestries. The women association also offers catering services, manages a small micro-finance fund and offers free teaching to children.
  - o According to the local stakeholders, the veterinary clinic was still in operation. What supposedly was the actual clinic did not look operational during the field mission.
  - o A revolving fund of JOD 23000 offers seed money for small agriculture and irrigation projects by the local community.

- – **Women empowerment**. The Arab Women Association assisted women in the four Hima sites to set up social enterprises to process and market medicinal / herbal plants and wool. This allowed the participating women to earn income which improved their status within the household and community. The cooperation with the women worked well in Bani Hashem and Duleil, but not in Halalabat where the hold of the men was too strong, and the Arab Women Association could not make a social change.

- – **No EU-funded follow-on project**. In response to the Syrian refugee and climate crisis, the EU shifted its strategic focus to the nexus energy, water and food and did not follow-up its own project with additional financing to scale up the Hima-model for sustainable rangeland management.

  Evaluator and stakeholder observations

- – **The example of Bani Hashem**. Positive is that the Hima Bani Hashem is still operational 7 years after its inception and that the Ministry of Agriculture allocated the management rights to the local community. Still, the Hima-plot is a post stamp (roughly 1 x 1 km) and supports a limited number of households (especially vis-à-vis the total population of Bani Hashem, ca. 2500 households and 15,000 people).

- – **From proof-of-concept, to body-of-evidence to transformation**. IUCN notes that transformation towards sustainable rangeland management takes time. It encompasses something like a 20-year vision. IUCN argues that this can only be achieved over the 5-6 project cycles. Jordan is effectively only in its third cycle: (i) the GEF/IFAD-funded Mainstreaming Sustainable Land Management Practices in Jordan; (ii) the EU-funded Securing Rights and Restoring Landscapes Project; and now (iii) the GEF-funded Healthy Ecosystems for Rangeland Management Program (see next section). With the latest GEF-funded program – the Healthy Ecosystems for Rangeland Management Program – IUCN wants to move from *'a proof of concept'* to building a *'body of evidence'* and thus catalyze sustainable rangeland management action by many stakeholders in Jordan. IUCN considers the allocation of management rights by the Ministry of Agriculture to the local community in e.g. Bani Hashem a major step and departure from Ministry-led rangeland conservation models. The ambition to have 50% of the Badia under sustainable land management in 20 years. This is to be achieved by mobilizing a

broad set of stakeholders who can replicate and generate scale. The Healthy Ecosystems for Rangeland Management Program is to give another big push on this.

– **Has the concept proven itself?** The Review team agrees that transformation takes time and a 20-year horizon is fair. After 14 years of sustainable land management programs in Jordan (with IUCN active for about 8 years), one would nevertheless expect to see the concept gaining traction in the country, i.e. a political economy and civil society which embraces and pushes for sustainable land management. Even though nationally and internationally presented as a success story by IUCN and the Ministry of Agriculture, it has proven impossible as of today to extend the Hima Bani Hashem (as originally envisaged) or replicate it in other parts of Jordan. The 2015 Rangeland Strategy has not led to a replication of the Hima system in other parts of Jordan. This raises the question whether IUCN indeed has a *'proof of concept'*. At face value, it appears that the Hima system is not attractive enough to warrant wide-spread adoption. Some stakeholders also point to the sheer size of the rangeland in Jordan which is difficult to control and often claimed by tribes based on customary use. Some informants also argue that establishing a Hima system requires funds (to facilitate the process, train the local community, supply processing tools and machines, provide seeds, conduct market studies, etc.) and the Ministry of Agriculture lacks a capital budget to make such investments.

– **Continued challenges**. IUCN recognizes the following continuous challenges:
  ▪ lack of capacity (human and financial) of the Ministry of Agriculture;
  ▪ the complexity of the (customary) land tenure rights;
  ▪ absence of markets for ecosystem services, including semi-public goods as water; and,
  ▪ the economic pressure and political instability stemming from the civil war in neighboring Syria.

– **Lack of enforcement**. Illegal grazing still prevails in many of the sites. During our visit to the Hima in Bani Hashem multiple fresh excrements were found in the field that was supposedly closed for grazing. Moreover, the stakeholders know exactly the time when the rangers usually come, implying a weak capacity of enforcement. In Manshyah, community members told us that people were dumping their waste on the Hima.

– **Leadership**. In the Hima approach, the question of the community buy-in is a central one. In Bani Hashem, much of the success and the engagement of the community was attributed to the strong involvement of the last chief. He died some years ago, and the Society now reported internal dispute amongst the members of the community on how best to continue.

– **SDGs**. The three programs, when successful, contribute to achieving SDG 15.3: namely: *by 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.*

– **Global engagement**. IUCN has helped 81 countries set targets for SDG 15.3. These targets, when formally adopted, offer an additional trigger and an opportunity for countries to embrace community-based sustainable land management practices. The SDGs thus offer one lever for change.

G.6 GEF-funded Healthy Ecosystems for Rangeland Development Project[21]

– **Introduction**. Based amongst others on the Bani Hashem Hima pilot case, IUCN developed a two-country GEF-funded follow-up program for Egypt and Jordan. IUCN is also setting up a global program under the same name covering 10 different countries.

– **Period**: 2019-2021

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[21] Project description based on UNEP (2017) Healthy Ecosystems for Rangeland Development Project: sustainable rangeland management strategies and practices. Project Document

- **Budget**:

	Cash	In-kind
GEF	US$ 3.5 million	
Ministry of Environment, Jordan	US$ 2.0 million	
Hashemite Fund for the Development of Jordan's Badia	US$ 1.9 million	US$ 1.1 million
Desert Research Center, Egypt	US$ 6.5 million	
CEDARE, Egypt	US$ 0.3 million	
GIZ	US$ 0.1 million	
IUCN		US$ 0.3 million
Total	US$ 14.3 million	US$ 1.4 million

- **Background**. *'Land degradation hotspots cover about 29% of the global land area … Anthropogenic declines in biomass productivity [occur] on 33% of grasslands. … These are social-ecological landscapes [that] fall under the responsibility of many state institutions, including the Ministry of Agriculture, Environment and Forestry'*.[22]

- **Limited results so far**. *'Good practices [of sustainable land management] remain limited and policies remain poorly implemented in the rangelands. … rangeland development suffers from a lack of agreement over the objectives for rangeland management … [and] overall knowledge of the rangeland ecology is weak and there is no consensus over validating good practices in sustainable rangeland management … emerging good practices revolve around building community rangeland institutions (e.g. Hima communities) for improved governance and management … the skills to replicate these institutions are often in short supply".*[22]

- **Objective**. *'To strengthen restoration and sustainable management of pastoral rangelands for the provision of ecosystem services and protection of biodiversity in Egypt and Jordan and catalyzing scale up regionally and globally'*[21]

- **Program goal**. *'Sustainable Rangeland Management measures are applied in at least 525,563 ha of targeted landscapes (192,621 ha in Jordan and 332,942 ha in Egypt)'.*[23] Bani Hashem Hima is the starting point and used to expand this experience. This implies a 1400-fold increase vis-à-vis the results of the EU-funded Securing Rights and Restoring Landscapes Project and it entails twice the area of the 41 Range Reserves which the Ministry of Agriculture established between 1946 and 2008.

- **Strategy**. *'The most sustainable practices … pursue multiple objectives – environmental, as well as economic – and it is important to secure a balance of regulations and incentives'.*[22]

- **Geography**. Egypt and Jordan. In Jordan: the Zaeqa, Ma'an, Mafraq Governates and, in particular, the following sites: Bani Hashem, Suca, Hazeem, Al Manshyah.

- **Organization**. The Project is managed by UNEP and implemented by IUCN in cooperation with two IUCN members: the Hashemite Fund for the Development of the Badia and the Royal Botanical Garden (a Jordanian NGO). IUCN develops the approaches, methodologies and toolkits (including the Participatory Assessment of Land Degradation and Sustainable Land Management in Grassland and Pastoral Systems, PRAGA) and trains the local implementing partners on their implementation. The actual on-the-ground (field) work is done by the Hashemite Fund for the Development of the Badia and the Royal Botanical Garden.

- **Envisaged outcomes and activities**.

  - **Adaptive management and learning**
    Outcome 1.1: Rangeland monitoring systems institutionalized nationally and regionally based on commonly agreed scale-dependent indicators appropriate for different end-user groups:
    - **Rangeland landscape assessments** (using IUCN's Participatory Rangeland and Grassland Assessment) conducted at the local and national level.

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[22] UNEP (n.d.) Healthy Ecosystems for Rangeland Development Project: sustainable rangeland management for biodiversity and climate change mitigation. GEF-6 Project Identification Form
[23] Based on e-ail communication with the IUCN Regional Office West-Asia (dated 4 November 2019).

- o Development of a prototype national-level, web-based **platforms for information sharing** and exchange.

Outcome 1.2) Good practices and effective policies in sustainable rangeland management and rangeland rehabilitation identified and prioritized for implementation:
- o **Review of policies and laws**
- o **Cost-benefit analysis** of sustainable rangeland management policies and practices

- ▪ **Stronger institutions for rangeland management**
  Outcome 2.1) Local organizations for rangeland management (community and government) engage in more inclusive dialogue for improved rangeland governance covering approximately 500,000 hectares (using the IUCN Technical Guide for Implementing the Voluntary Guidelines on Responsible Governance of Tenure and Pastoral Lands):
  - o **Capacity/ needs assessment** of local institutions, including local service providers
  - o **Training** on Participatory Rangeland Management Planning in all participating communities
  - o **Local agreements** between communities and between communities and state institutions (Hima agreements, local conventions, bylaws etc.) developed.

  Outcome 2.2) Participating communities use Participatory Rangeland Management Planning to guide the establishment of rules and regulations for improved rangelands management:
  - o Applying recommendations of Technical Guide for Implementing the Voluntary Guidelines on Responsible Governance of Tenure and Pastoral Lands
  - o **Mapping and documentation** of tenure rights, customary and statutory systems
  - o **Participatory Rangeland Management Plans** are implemented

- ▪ **Upgrading good practices and strengthening markets**
  Outcome 3.1) Local farmers / pastoralists adopt good practices in rangeland restoration and management and supporting services with support from local government agencies:
  - o Training and awareness raising
  - o Participatory Rangeland Management Plan-based **sustainable land management is piloted**
  - o **Strengthen markets** for rangeland products and services (including livestock, non-timber forest products, ecotourism, carbon payments, and access to basic (veterinary) services, etc.)

- ▪ **Strengthen enabling environment – an effective policy framework and increased level of investments**
  Outcome 4.1) Increased support for sustainable pastoralism in investments and public decision/policy-making, nationally, regionally and globally:
  - o 2 pilot Payment for Ecosystem Services schemes
  - o Design of 'bankable' investment options and innovative financing strategies for sustainable rangeland management with private sector partners
  - o Establishment of a Communal Rangelands Leadership Hub for South-South learning and cooperation
  - o Facilitate regional dialogue and review of reginal policies
  - o League of Arab States regional rangeland situation analysis
  - o Convening a regional investment forum for sustainable rangeland management
  - o New sustainable rangeland management initiatives submitted for funding

- – **An additional Hima?** In Al Manshyah, the women association is in discussion with the Ministry of Agriculture and a local tribe (customary landowner) to establish a new Hima system on a 500 ha plot in the eastern part of the municipality. This would be additional to the envisaged Hima system under the Healthy Ecosystems for Rangeland Management Program, which is located on an already protected piece of land (300 ha) in the western part of the municipality.

G.7 Gender

- – **In the Hima societies**. The women involved in the Hima societies in Bani Hashem and Manshyah appeared confident and empowered. Some of them could be perceived as leaders, willing to create more projects for

women. One woman underlined that women were not invited to participate in the study tour organized by IUCN to visit other Hima sites.

— **Policy-development**. In 2010, IUCN contributed to the Jordan Climate Change Gender Action Plan (CCGAP) Report. This report was timely, used in a number of high-level events, contributed to raise awareness of the role of women in climate action and informed the National Climate Change Policy in 2014 and, according to IUCN, ultimately also Jordan's nationally Determined Contributions under the UNFCCC. IUCN notes that the CCGAP is underpinned by a multi-stakeholder, cross-sector capacity building process. Jordan was one of the first countries to develop a CCGAP and inspired other countries to follow suit.

— **Program**. IUCN implemented the following program: Mainstreaming gender equality in climate change initiatives and decision-making at the national, regional and international level.

  ▪ **Geography**. MENA Region with focus on Jordan and Egypt

  ▪ **Period**. 2010-2014

  ▪ **Objective.** Government agencies and women's organizations are systematically engaged in dialogue on adaptation and mitigation strategies for climate change. These adaptation policies and programmes are developed to reflect women's concerns and interests and are monitored for their impact on women's lives so that equality of outcome is achieved.

  ▪ **Strategy**. Integrate a gender perspective into policy and decision making in order to ensure that UN mandates on gender equality are fully implemented. Ensure that finance mechanisms on mitigation and adaptation address the needs of poor women and men equally. Build capacity at all levels to design and implement gender-responsive climate change policies, strategies and programmes. Develop, compile, and share practical tools, information, and methodologies to facilitate the integration of gender into policy and programming.

  ▪ **Organization**. In Jordan, the Ministry of Environment and the Arab Women Organization

  ▪ **Budget**: 250,000 Euro

G.8 Policy linkages

— **Party to international conventions**. Jordan is party to the Paris Agreement, UNFCCC, CBD, UNCCD and the (Ramsar) Convention on Wetlands. The above programs are aligned to:

  ▪ Strategic objective 1 and 2 of the Ten-year Strategic Plan and Framework of the UNCCD
  ▪ CBD's Program of Work on Drylands
  ▪ Jordan's revised National Action Plan (2014)

— **Implementation of national policies**. The above programs sought to implement parts of the National Strategy and Action Plan to Combat Desertification, and the National Biodiversity Strategy and Action Plan.

— **Rangeland Strategy**. As noted above, based on the experience with the GEF/IFAD and EU-funded programs in sustainable land management, IUCN helped shape a new rangeland strategy. In 2015, Jordan adopted *'a new Rangeland Strategy which places communal management and control at the center of rangeland development.'* [24] The Rangeland Strategy had no palpable effect on the rangeland management in Jordan. Since 2015 no new Hima-like systems have been established. One reason provide for this lack of replication is that the Rangeland Strategy does not address the issue of land tenure, especially for tribal land with customary land rights.

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[24] UNEP (n.d.) Healthy Ecosystems for Rangeland Development Project: sustainable rangeland management for biodiversity and climate change mitigation. GEF-6 Project Identification Form

G.9 IUCN's value-added in the international development architecture in Jordan

- IUCN's value-added according to the key informants in Jordan lies in its ability to:

  - Adopt and conceptualize new/innovative ideas, develop practical tools and methodologies, and standardize approaches for their implementation, and disseminate the best practices, tools and methodologies to country-level stakeholders – i.e. IUCN as a **knowledge hub**;

  - Mobilize and work through its members which provides a **powerful network** for driving change. Jordan counts 25 IUCN members, ranging from government agencies, to nature conservation organizations to development institutions.[25] The IUCN Secretariat cooperate(d)(s) on all sustainable rangeland management projects with its members. (Several key informants noted that IUCN does at times compete with its members for funds, that members see IUCN as a gate to obtain funding, and that a clear mechanism fails on how IUCN can mobilize members in its work / projects);

  - **Convene** government, NGOs, international organizations, private sector, academia and indigenous people on specific societal challenges;

  - **Engage local communities** and promote participatory governance of natural resources;

  - Commission/undertake **socio-economic and environmental studies** and assessments;

  - **Promote peer learning** by bringing experiences from other countries to Jordan or from other regions within Jordan.

  - Keep the **Ministry of Agriculture's (a state member of IUCN) eye-on-the-ball** vis-à-vis the need to maintain the health of the rangelands.

- In addition, the key informants note that IUCN is accepted by most (if not all) for its:

  - **Neutrality** (no political agenda)

  - **Technical expertise**

  - **Responsiveness** to country-specific circumstances and accordingly **flexibility** in program implementation

  - **Continuous presence**

- **Mandates and entry points**. Several key informants observe overlapping mandates of IUCN, IFAD, FAO and UNEP – that they compete and work together. IUCN's distinguishing factor is that its entry point is the sustainable management of national resources.

- **Parallel projects**. Several organizations are engaged in sustainable land management:

  - FAO: a GEF-funded program on land degradation is under development focusing on both agriculture and biodiversity.

  - World Bank – two relevant projects: Rangeland management in the South Project and Badia Ecosystems and Alternative Livelihoods Project

G.10   The institutional benefit for IUCN's in promoting sustainable development.

- **Recognition**. There is broad consensus among the different parts of IUCN in Jordan (secretariat, council members, union members) that nature conservation and sustainable development are inexorably interlinked. One cannot ensure the health of rangeland without considering the people which depend on it – it is critical to start from the local community's perspective on the rangeland. At the same time, healthy ecosystems are critical in supporting life and for the various ecosystem services that they provide to society.

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[25] https://www.iucn.org/regions/west-asia/members-and-commissions/iucn-rowa-members

H. Myanmar

H.1 Introduction

Between 18 and 22 November 2019, the Review team conducted a field mission to Myanmar. This annex captures the Review's relevant observations which, together with the other case studies, informed the team's answers to the main Review questions. The observations stem from a review of project documentation and external literature, as well as telephonic and face-to-face interviews and focus group discussions with key informants. The following 8 topics are covered:

1. the political economy of Myanmar;
2. the country's progress towards the SDGs;
3. the Mangroves for the Future Program;
4. the Restoration Initiative;
5. Mainstreaming Gender in the National Biodiversity Strategies and Action Plan;
6. the Gulf of Mottama Project;
7. IUCN's value-added in the international development architecture in Myanmar;
8. The institutional benefit for IUCN's in promoting sustainable development.

H.2 Political economy of Myanmar

- **Democratic rule, military control**. Myanmar has a multiparty democratic governance system, but substantial political power rests with the military. The latter holds 25% of the seats in the lower and upper house and can block any reforms requiring a three-fourth supermajority in Parliament (including amendments to the constitution).[26] Moreover, the military controls key public institutions including, amongst others, the General Administration Department and the Myanmar Timber Enterprise.[27]

- **Lagging reforms**. The ruling party, the National League for Democracy (NLD), *'struggles to deliver on its pledge [to address] civil conflict, land reform and social welfare ... due to the strong influence of the military'*.[26] Corruption remains endemic. There is also a political dispute between the Military and the NLD on the federalization of the country. The envisaged federalization would include the devolvement of the conservation policy and the tax revenue administration of the non-timber forests products.[27]

- **Conflict-ridden**. Myanmar is characterized by *'deep ethnic and religious fissures'* and numerous conflicts with armed ethnic groups.[26]

- **Strong economic growth**. Over the last five years, economic growth has been close to 7% per year – a rate that the Economist Intelligence Unit forecasts to continue over the next five years.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
GDP growth (annual %)	8,0	7,0	5,9	6,8	6,2	7,1	7,0	7,4	7,4	7,3

Source: World Development Indicators (2014-2018); Economist Intelligence Forecasts (2019-2023)[26]

- **Opening up of the economy**. *'As Myanmar's economy continues to open following decades of political and economic isolation, significant investments are being made in offshore oil and gas, tourism, shipping, and industrial fisheries, which have the potential to further endanger biodiversity and coastal livelihoods'*.[28]

- **China-Myanmar economic corridor**. Economic growth is partly underpinned by strong ties with China. A relationship expected to be strengthened as Myanmar *'will deepen its relations with regional powers that are less*

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[26] Economist Intelligence Unit. Country Report. Myanmar. Generated on 9 October 2019
[27] IUCN (2017). The Restoration Initiative Myanmar. Project Document. Reversing Forest Degradation and Deforestation and Restoring Forested Landscapes through Local Multi-Stakeholder Management.
[28] IUCN (2019). PowerPoint Presentation to the 5th Advisory Committee for the National Coastal Resources Management Committee. 18 November 2019

inclined to criticize it over the Rohingya's refugee crises'[26]. There exists significant illegal export of timber to China.[27]

H.3 Progress on the SDGs

– **Limited data availability**. The United Nations Global SDG Indicators Database[29] contains few data on Myanmar and even fewer time series from which to deduct the country's progress towards achieving the SDGs. We searched the database for selected indicators across the following SDGs: 1 (poverty), 2 (food security), 5 (gender equality), 6 (water), 10 (inequality), 11 (cities), 12 (sustainable consumption and production), 13 (climate change), 14 (life below water), 15 (life on land), and 16 (peace, justice and institutions). For the majority of selected indicators, there was no data available.

– **The most positive developments** that could be deduced from the available data were:

   ▪ **SDG 5.5.1 and 5.5.2 Greater participation of women in politics and business**. The number of female parliamentarians increased from 24 (5,6%) in 2014 to 49 (11,3%) in 2019. The percentage of women in management positions improved from 28,4% in 2015 to 35,6% in 2017.

   ▪ **SDG 14.5.1 Better protection of key marine biodiversity areas**. The average proportion of Marine Key Biodiversity Areas covered by protected areas increased from 11,5% in 2014 to 21,4% in 2018. The protected marine area covered 11,964 km^2 in 2018.

– Other relevant data points are:

   ▪ **SDG 1.1.1 and 1.2.1**. Proportion of the population living below the international poverty line was 6.2% in 2015, whilst the proportion of the population living below the national poverty line was 32.1% in 2015.

   ▪ **SDG 1.4.1**. Between 2014 and 2017, there was a marginal improvement (decline) in the proportion of the population using basic drinking water (sanitation) services.

   ▪ **SDG 6.5.1**. The degree of integrated water resource management implementation stood at 27% in 2018.

   ▪ **SDG 6.b.1**. Whilst (as of 2019) there are clearly defined procedures in law or policy for the participation by service users / communities in planning programs in rural drinking water supply and water resource planning and management (score 10 on a ten-point scale), the actual participation of service users and communities is judged to be low (score 1 on a three-point scale).

   ▪ **SDG 14.b.1**. The recognition and protection of access rights for small scale fishermen- and women was judged positively (4 on a five-point scale) in 2018.

H.4 Mangroves for the Future

Project description

– **Closed program**. Mangroves for the Future (MFF) constituted a regional program, originated in 2006 as a direct response to the 2005 Tsunami, covering three subsequent phases. The third phase ran from 2014 to 2019. Myanmar participated in this third and last phase only.

– **Objective**. To *'promote a healthier, more prosperous and secure future for coastal inhabitants of the Indian Ocean and South China Sea regions who are challenged by declining coastal resources and threatened by recurring natural disasters and … rapidly changing climate'.*[30]

– **Sustainable development link**. The program took *'a long-term and holistic view on maintaining a healthy coastal environment for the health, security, economy and general well-being of coastal dwellers … [and] recognized that ecosystem conservation and livelihood security are essential to securing sustainable economic growth in coastal areas'.*[30]

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[29] https://unstats.un.org/sdgs/indicators/database/   (Last accessed on 3 January 2020)
[30] IUCN (2014). MFF Regional Programme Support for Phase 3. Proposal.

- **Strategy**. The program sought to mainstream climate change adaptation through an ecosystem-based approach / nature-based solutions. The latter is seen as *'a triple-win solution to the sustainable development of ecosystem-dependent coastal communities as it (i) supports biodiversity conservation; (ii) enables improvements in economic livelihoods; and (iii) forms a cost-effective response to coastal erosion and storm surges'*.[30]

- **The value of mangroves**. They offer shoreline stabilization, protection again tropical storms, breeding grounds for fish, timber and non-timber forest products and carbon sequestration, with mangroves *'being the most carbon rich ecosystems in the world'*[31].

- **Mangrove loss**. Myanmar possesses around 500,000 hectares of mangroves. Between 2000 and 2014, mangroves loss was up to 191,122 hectares – a loss of 28% since 2000.[31]

- **Direct causes of mangrove loss**. These are: the practice of aquaculture (shrimp farming), agriculture (land-extension) and logging for timber and charcoal production.[31]

- **Program relevancy**. The MFF program is aligned to national policies and programs. The National Biodiversity Strategy and Action Plan (NBSAP) aims to have at least 10% of mangrove forest under protection by 2020. The Myanmar Reforestation and Rehabilitation Program aims for the establishment of 12,000 hectares of mangroves plantations by 2027.[31]

- **Activities**. The Program sought to establish national and subnational integrated coastal resource management governance systems. To that end, it offered both facilitation and capacity building support to countries. In parallel, it implemented 151 small, 8 medium-sized and 5 regional grant projects to demonstrate community-based governance and protection of coastal zones.

- **Organization**. The program is jointly implemented by IUCN and UNDP and operates from IUCN's Asia Regional Office. In Myanmar, one local IUCN staff served as technical coordinator, who supported the National Coordinating Body: a multi-stakeholder platform steering and monitoring the country program (and deciding on the allocation of the grant funding).

- **Program budget**. The Program Proposal foresaw a budget of US$25 million for the third phase with contributions from SIDA (US$11.8 million), DANIDA (US$8 million) and other donors (US$ 5 million). The Program ultimately received: US$14 million: US$7,75 from SIDA, US$5,16 from DANIDA and just over US$1 million from other donors. The Program was thus funded for 56% of the original proposal.

- **Budget Myanmar component**. With Myanmar joining the Program last and with severe budget constraints at the Program level, there were only limited funds available for Myanmar, effectively: US$ 85,000 for program management and US$75,000 for three small grant projects (see below). The Myanmar program has been implemented on a shoestring.

- **Reported results**.

  - **No hard numbers**. The Program's Final Report does not state the hectares of restored coast or the number of communities with improved resilience against natural disasters that the Program contributed to. It does report a 15% increase (below the 20% target) of restored coastal habitats and that this indicator did not change since 2016. Moreover, 60% of the small grant projects sought to improve livelihoods of coastal dwellers: *'for those in which changes in income levels was measured, the average increase was 31%'*[32] (in line with the program target of 30%). In addition, the Final Report includes numerous examples of on-the-ground results, for example: (i) integrated Coastal Management included in university curricula in 5 countries, incl. Myanmar; (ii) the rehabilitation of 126 hectares of mangroves through a shared governance approach in Bangladesh; (iii) contribution to the establishment of Marine Protected Areas in amongst others Cambodia, Sri Lanka, Pakistan, and Vietnam.

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[31] UNDP (2019) UN Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries. Amendment to the National Program Document. Integrating Mangroves into REDD+ Implementation in Myanmar.
[32] IUCN (2019) Mangroves for the Future. Phase 3. Final Report.

- **Qualitative results.** IUCN views the Program's main results to be: (i) a proven Resilience Analysis Platform, a tool enabling a structured analysis of a community's ecological and socio-economic system (and fragility); (ii) seven proven approaches to conserving mangroves; and (iii) many case studies about the successful regeneration of mangroves and the resolution of thorny issues such as land tenure.

- **In Myanmar – institutionally.** The Program helped develop and operationalize Coastal Resources Management Committees at the national, state and district level. These Committees were active at the time of the field mission. To what extent these committees are effective was an issue of debate. According to IUCN, the Committees *'put in place a cross-sectoral coordination mechanism'*, constitutes *'a fundamental institutional* arrangement' and offers a platform to *'put problems and issues on the table and identify solutions'*. IUCN also notes that information flows between the national, state and district level.

  The Forest Department noted that the National Coastal Resource Management Committee instigated, amongst others: (i) the establishment of a Coast Guard; (ii) the implementation of a Vessel Monitoring System (against illegal and unregulated fishing); (iii) new guidelines for the cleaning of beaches; and (iv) expansion of marine protected areas. At present, there is one Marine Protected Area in Myanmar and 4 new areas under development (totaling over 1 million hectares).

  Moreover, the Forest Department informed its Advisory Committee of the following decisions by the National Coastal Resource Management Committee[33]:

  - To reassess the permissibility of mining in coastal zones near village dwellings;
  - To raise awareness of the early warning system, the Disaster Risk Notification application;
  - To provision certain marine areas as 'No Take Zones' before establishing formally protected areas;
  - To test T-shaped dams (T-fencing) to protect coastal areas against storms;
  - The recognition of Nipa Palm as offering both a nature-based solution to storms and an ecosystem service as a medicinal plant;
  - To take steps to reduce the manufacturing of plastics;
  - To coordinate the implementation of Integrated Coastal Management for the sustainability of coastal resources;
  - To protect and expand mangrove forests as a nature-based protection against storms;
  - To expand the development of ecotourism.

  For now, it is unclear what is delivered as a result of these decisions. The Review team held a focus group discussion with 7 members of the Coastal Resource Management Committee of the Bago region (responsible for the Sittaung Basin and the Gulf of Mottama). All 7 members represented government agencies. The Committee meets bi-monthly with varying attendance of its members. The focus group discussion participants were unable to articulate the objective, tasks, activities and functioning of the Committee. In terms of activities, they either referred to their participation in program activities (e.g. workshops organized by IUCN) or tasks falling under their agency's responsibilities (e.g. mangrove planting by the Forest Department). No evidence was presented on cross-agency collaborations.

  Moreover, several key informants deemed the committees to be more perfunctory, without real decision-making power, lacking budgets, unclear mandates, lack of participation, line-ministries and government agencies continuing to narrowly focus on their departmental objectives and tasks, haphazard information flows between district, region/state and national levels, and constant tension between the General Administration Department, the Ministry of Agriculture and the Forest Department.

- **In Myanmar – project-wise.** Due to budget constraints at the program-level, Myanmar could only implement three small-scale projects of US$25,000 each. These three projects were concentrated in the Pyinbugyi village tract, in the Palaw Township, Tanninthayi Region. This village tract is home to 1235 households and about 6145 people. The three projects supported the creation of a community-based

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[33] Forest Department (2019). PowerPoint Presentation. Fifth meeting of the National Coastal Resources Management Advisory Committee. 18 November 2019.

mangrove conservation area of nearly 2000 hectare (including a mangrove nursery), a mangrove plantation for coastal bank erosion, and a locally managed marine area for sustainable fishery. In addition, the project offered input supplies for establishing alternative livelihoods (including home garden farming, chicken and piglets raising, and setting up small grocery shops) and promoted the adoption of fuel-efficient stoves. The idea for the locally managed marine area emanated from IUCN and the international NGO Flora and Fauna International. The alternative livelihood program built on the expressed needs of the local community. The stove component sought to reduce the use of mangrove wood for cooking.

- **Institutional sustainability**. The Mangroves for the Future program sought to *'move from a grant-giving program towards a locally carried initiative'* based on a self-financing plan.[30] The Final Report notes that in some countries, the National Coordinating Bodies will become formal government agencies, whereas in others they will continue as informal bodies. In Myanmar, the Forest Department expressed its intention to continue the National Coastal Resource Management Committee, as well as its multi-stakeholder advisory body. Several stakeholders noted that the latter is difficult without further external support to funds to cover the meeting venue and transportation / accommodation costs of the participants. The Final Report recognizes that *'a regional backbone would be conditional for maintaining the relevance of the national governance platforms [i.e. the National Coordinating Bodies]'*. In Myanmar, the Forest Department has not made funds available for continuing the National Coordinating Body. The 2019 meeting of the National Coordinating Body, held after the Mangrove for the Future Program closed down, was funded by SDC and Danida.

- **Follow-up**. IUCN (and we gather the participating countries) wanted to continue the program. To that end, IUCN submitted proposals to NORAD and the Green Climate Fund (GCF). Both proposals were rejected. According to IUCN, the NORAD proposal because the Indonesia and Vietnam parts did not fit NORAD's objectives and portfolio, and the GCF proposal because – according to IUCN – GCF flip-flopped on whether to support regional programs. NORAD nonetheless embraced the Myanmar part of the proposal which was subsequently integrated into the NORAD-funded UN-REDD+ program in Myanmar (implemented by UNDP, UNEP and FAO with a technical supporting role for IUCN). Available program-funding is US$2,285,500.

- **Parallel initiatives in Myanmar**. The donor community is active in coastal and mangrove protection and improving the resilience of coastal communities in Myanmar. The review uncovered at least four further initiatives:

  - DANIDA: Management Mangrove Forests (2018-2022)
  - FAO: Sustainable cropland and forest management in priority agro-ecosystems, including mangroves (2017-2021) and MyCoast (2020-2023)
  - UNDP: Reducing Climate Vulnerability of Coastal Communities through an Ecosystem-based Approach (2020-2023)
  - World Bank: Myanmar Coastal and Delta Resilience Program (2018-2022)

- **IUCN implements part of the DANIDA program**. DANIDA financially supports the Forest Department in developing a national Integrated Coastal Management (ICM) Program (which to provide an overarching framework to the national and subnational Coastal Resource Management Committees for developing and delivering Integrated Coastal Management)[34]. The Forest Department recruited IUCN through a competitive tender (in which in the end IUCN was the only bidder) to facilitate and technically undergird the program development. This assignment started in Autumn 2019. IUCN wants the National Coastal Resource Committee to lead the program-design with it playing only a facilitative role: IUCN will work *'with government, not for government'*[34]. The development of the ICM program thus gives an opportunity to embolden, empower and institutionalize the National Coastal Resource Committee. During the field mission, the Review team attended the multi-stakeholder, Forest Department chaired Advisory Committee Meeting of the National Coastal

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[34] IUCN (2019). Development of the National Integrated Coastal Management program in Myanmar. Proposal.

Resource Committee. During this meeting, there was no true dialogue or interaction between IUCN and the members of the Advisory Committee (including the Forest Department).

Theory of Change (reflections)

— **Causes**. The Program Proposal identified the interlinked causes of vulnerability of coastal communities: poverty, degraded coastal resources, low state of knowledge and empowerment, and weak governance.

— **Boundary partners**. The Program implicitly identified the following stakeholders as its boundary partners: line-ministries, coastguard, navy, coastal businesses (tourism, aquaculture, fisheries), coastal farmers, and academia.

— **The principle of soft governance**. The 2012 External Review saw as the four hallmarks of the Mangrove for the Future Program that it: (i) builds living social and institutional infrastructures; (ii) builds knowledge from the ground up; (iii) involves stakeholders beyond government; and (iv) forms national and regional knowledge sharing platforms. The External Review concludes that these are *'the building blocks of soft governance: a non-hierarchical approach in which institutional development and policy influence evolve from the grounded experience and involvement of all relevant stakeholders and is entrenched through shared knowledge and norms'*.[30]

— **Inter-ministerial cooperation** is critical. The Forest Department leads the development of a national ICM program, as well as running the Coastal Resource Management Committee. Most mangroves however fall under the jurisdiction of the Ministry of Agriculture, Livestock and Irrigation under the 2012 Vacant, Fallow and Virgin Lands Management Act. Whilst the Ministry of Agriculture participates in the National Coastal Resource Management Committee, it has a conflicting mandate (promoting agriculture and protection of mangroves) and the two ministries have limited experience and means for effective cooperation.[31] Whilst there is awareness about the need for inter-agency collaboration, key informants miss an enabling environment (joint mandates and targets and dedicated resources for cooperation).

— **Land use**. Land rights are not secured in Myanmar, due to both a lack of titles and weak law enforcement. At present, the Land-use Planning Committees are not linked to the Coastal Resource Management Committees.[31]

— **Balancing-act**. IUCN recognizes the need to balance the long-term need to conserve nature with the short-term imperative to maximize today's economic benefits.

Figure 3 Nature conservation versus economic benefits
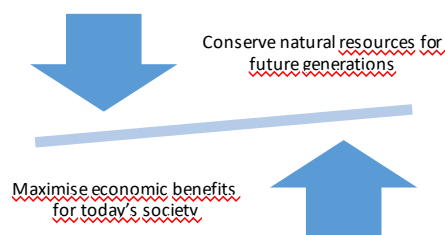
Source: IUCN (2019) PowerPoint Presentation for the 5th Advisory Committee for the National Coastal Resources Management Committee. 18 November 2019

— **Limited carrying capacity**. IUCN recognizes that the coastal (ecosystem) resources cannot support all people all the time. These resources have a limited carrying capacity. This is also recognized in the SDC-funded, Helvetas-IUCN implemented Gulf of Mottama Project which complements nature conservation efforts with a skill development program to prepare locals for alternative livelihoods and even migration to Yangon or Thailand.

Additional observations

— **Novel concept**. Integrated Coastal Resource Management is not a well-known concept at the state and district level in Myanmar.

— **Challenges**. Based on one year of consultations in preparation of its Myanmar Coastal and Delta Resilience Program, the World Bank observes: (i) limited information on the state of coastal zones (due to limited monitoring of coastal ecosystems); (ii) lack of institutions or institutional capacity (no coastal management law,

limited capacity and unclear mandates of Regional Coastal Resource Management Committees, lack of coordination between different line ministries)[35]; (iii) limited natural defenses against cyclones; and (iv) many small-scale efforts to manage coasts in an integrated way, but need for coordination and scaling up.

Gender perspective

−   The Program developed a Gender Analysis Toolkit and implemented 118 gender responsive projects in 10 countries.

Policy alignment

−   **Few references to national policy influencing**. The Program's Final Report mentions: (i) implementing the Marine Protected Area Framework in Bangladesh; (ii) facilitating in Bangladesh the Vision and Citizen Action Plan for a resilient future with shared responsibility between local communities and local and central government; and (iii) undertaking a Marine Protected Area Management effectiveness evaluation in Vietnam. Other references in the Final Report refer more to how the Program itself helped implement national policies or agendas or helped develop restoration plans for specific coastal regions.

H.5 The Restoration Initiative

Project description

−   **Period**. 2018 - 2021

−   **Objective**. To reverse forest degradation and deforestation and restore forested landscapes in Myanmar through local multi-stakeholder management.

−   **Intended outcome**.[36]

    1.   89,000 ha of deforested and degraded land in restoration transition
    2.   600,000 men and women benefit through increased supply of ecosystem services and provision of improved livelihoods[37]
    3.   3,032,336 tCO_2eq. sequestered or avoided

−   **Ambition**. This project seeks to introduce the Forest Landscape Restoration (FLR) approach[38] into Myanmar's National Forest Restoration and Rehabilitation Program. The latter is a 10-year, US$500 million, government-funded program to restore and rehabilitate Myanmar's forests.

    ▪   Myanmar's forest covers 44% of its land area (declined from 57% in the year 2000). Forest and wooded area cover 67%.

    ▪   Myanmar has 39 Protected Areas covering 38,900 km^2 (or 5,75% of land). The 89,000 ha (which roughly equals an areas of 20 x 45 km) entails 2% of this.

    ▪   The Forest Department noted that Myanmar has the world's third fastest deforestation rates.

−   **Deforestation**. In Myanmar, this is driven by:

    ▪   Timber logging (including by central government to create foreign exchange reserves – a practice which has been curtailed by imposing an annual allowable cut).

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[35] Several members of the Advisory Committee of the National Coastal Resource Management Committee also stressed the conflicting sectoral policies and roles and responsibilities of line ministries.

[36] IUCN (2017). The Restoration Initiative Myanmar. Project Document. Reversing Forest Degradation and Deforestation and Restoring Forested Landscapes through Local Multi-Stakeholder Management.

[37] This number was *'the best judgment of the consultants who prepared the Proposal'*. According to GEF regulations, full proposals for GEF funding need to be prepared by independent external experts. This is meant to avoid a conflict of interest. (Interestingly, the proposal for the Myanmar component of the Restoration Initiative was co-prepared by a former deputy Director General of IUCN.)

[38] Forest Landscape and Restoration is *'an integrated approach that seeks to ensure that forests, trees, and the functions that they provide are effectively conserved, restored and employed on a landscape-scale to help secure ecological integrity and sustainable livelihoods'*. The concept originated from IUCN and the World Resources Institute. Source: IUCN (2019) Restoration Opportunities Assessment Methodology (ROAM) in Myanmar

- Industrial plantations (rubber, cassava, palm oil, sugar cane, banana), and the commercial trade in wildlife and plants (the latter leading to declining forests health). Overall, this *'threatens biodiversity and risks the livelihood of about one-third of Myanmar's population which depend on forests'.*[36]
- Over- and illegal harvesting of timber and non-timber forests products by rural population to meet their (basic) livelihood needs.

- **Causes**.

  - Opening up of the economy and linking to high-value international value chains.
  - Economic growth leading to an increase in the demand for products, including timber and non-timber forests products.
  - High proportion of people living in rural areas (~67%) who depend on natural resources to meet their basic needs.
  - The right to receive a land title based on the clearing of land (Form 7 of the Land Titling Act).

- **Unclear and insecure land use rights**. This is issue was raised by many key informants. Only 18-20% of the agricultural land is registered and titled. Moreover, few communities have legal tenure documents. *'The twin Farmland Law 2012 and Virgin Fallow and Vacant Land law 2012 have enabled formal trade in land titles and large-scale acquisition of land. Although not intrinsically problematic, these laws cannot be safely implemented in the context of a lack of pre-existing land records in which disputes have not been resolved.'*[36]

- **Activities**. IUCN provides facilitation services and technical assistance at the local (township) and central government level to (i) implement the Restoration Opportunities Assessment Methodology (ROAM): a multi-sectoral and multi-stakeholder (i.e. participatory) exercise to establish the status-quo and opportunities for forest restoration (ii) change policy and regulatory frameworks; (iii) formulate and implement ROAM / FLR strategies and plans; (iii) build human capital and institutional capacity on FLR and community-led governance of forests; (iv) facilitate the establishment and operationalization of community governance structures; (v) put deforested and degraded forest landscapes in the process of restoration; (vi) support the establishment of (2) SMEs to harvest and market ecosystem services (see Textbox 2); and (vii) promote knowledge dissemination.

Textbox 2. The value of the forest sector to Myanmar's economy and how to monetize it

One way in which nature conservation contributes to sustainable development is through the provision of ecosystem services. Nature conservation safeguards or even enhances the provision of such services, whether they are marketable (such as non-timber forests products) or public goods (such as carbon sequestration or water availability). As part of the Restoration Initiative, but also beyond that, IUCN wants to make inroads in monetizing this value and using the proceeds of ecosystem services for further nature conservation or developmental efforts. For Myanmar, this is in part based on a 2013 study on the economic value of forests and options for monetizing this value. Below, we capture the essence of this study.

'The study focuses on nine categories of forest ecosystem services that are of high importance in economic and human wellbeing terms, and for which sufficient data are available to enable monetary valuation: wood-based biomass and energy, wild foods, animal-based energy, watershed protection, coastal protection, carbon sequestration, maintenance of nursery populations and habitats, pollination and seed dispersal, and nature-based recreation and tourism.

The current annual value of forest ecosystem services is estimated to be MMK 7 trillion or US$ 7.3 billion. This is far higher than the figures recorded in most development and economic statistics, which only take account of commercial wood and non-wood product removals. Income earned from forest utilization accounts for less than 15% of the value estimated in this study. By far the largest share – 85%, or around MMK 6 trillion (US$ 6 billion) – comes from forest ecosystem services that maintain the productivity of other sectors, add value to their output, and help them to avoid costs, losses and damages.

Ecosystem values will decrease over time, as the ability of forests to provide key goods and services is progressively eroded. It is estimated that the "Forest Degradation" scenario could incur losses to 2031 of more than MMK 16 trillion (US$ 17 billion) to Myanmar's economy over the current situation. In contrast, forest conservation is projected to result in a steady increase in economic values, as the quality of forest ecosystem services continues to improve. Although values will be sustained, the rate of growth will slow over time as ecosystem and biodiversity status is restored and forest conservation effectiveness targets are reached. It is estimated that the "Forest Conservation" scenario will add values to 2031 of more than MMK 21 trillion (US$ 22 billion) to Myanmar's economy over the current situation.

Water, tourism, energy, industry, agriculture, fisheries and infrastructure sectors all stand to gain from the continued provision of forest ecosystem services and run the risk of incurring substantial costs if they are degraded and lost. Forest ecosystem services also underpin key cross-cutting national development goals such as diversifying rural livelihoods, reducing poverty, enhancing food security, improving access to basic services, strengthening resilience and disaster risk reduction and adapting to climate change.

While a large number of groups and sectors in Myanmar gain in economic terms from forest ecosystem services, they receive these benefits at low or zero cost. MOECAF is essentially subsidizing the supply of valuable inputs and services to the broader economy through its budgetary spending. The sectors and industries that benefit from forests should (where they are economically able to do so) contribute towards the costs of ecosystem services provision, and pay for their use – just as they do for the other inputs, facilities and services that they consume or use to generate production. In turn, any revenues generated should be reinvested in forest conservation, so as to ensure the continued supply of the valuable ecosystem services that the forest sector supplies to the economy.

Five conservation financing mechanisms that are already widely used in other parts of the world are recommended as having potential for development in Myanmar: introducing payments for forest ecosystem services; accessing forest carbon finance, including REDD+; developing forest biodiversity offset funding; mainstreaming forest conservation into the budgets of other sectors; and establishing a forest conservation fund to attract, earmark, retain and reinvest income and funding.'

Source: Emerton, L. and Yan Ming Aung. 2013. The Economic Value of Forest Ecosystem Services in Myanmar and

Options for Sustainable Financing. International Management Group, Yangon.

- **Organization**. IUCN implements the project jointly with the Nature Conservancy (an US-based NGO with a field office in Yangon) and in close cooperation with the Forest Department. The IUCN team consists of 1 international forestry expert (new to Myanmar) and 1 junior local technical expert. They receive backstopping support from IUCN's Head of the Indo-Burma Region (based in Hanoi, Vietnam) and build on the IUCN relations established under the Mangrove for the Future Program and the existing network of the Nature Conservancy.

- **Budget**. The project is funded by GEF (US$2,652,293) and through an in-kind contribution of US$500,000 by Nature Conservancy (an international NGO).

- **Joint implementation**. To underline the joint responsibility for the project implementation, IUCN went through the budget with the Forest Department line-by-line and agreed on a division of labor. According to IUCN, this resulted in a roughly 50-50 split of the budget between IUCN and the Forest Department. The bulk of IUCN's part goes to the project team (one international expert; one national officer), the work of the Nature Conservancy, and the implementation of the ROAM exercise.

- **Forest Department**. Whilst the Forest Department has a bad track record (in terms of corruption) and continues to be plagued by limited resources (only 50% of the local staff positions are filled), several key informants noted that they were impressed with the quality of the current leadership and staff of the department – they found the Forest Department management and staff to be well-educated, professional and motivated..

Theory of change (reflections).

- **Barriers**. IUCN identified the following barriers to forest restoration:

  - **Information and knowledge**. *'a poor level of understanding of governance processes, policies and roles exists'.*[36]

  - **Capacity and capability**. There is a *'lack of incentives for citizens to conserve forests and regulate over extraction; a variable motivation & limited capacity of Forest Department staff [who are guided by] conventional forest thinking and technical solutions'.*[36]

  - **Social license barriers**. *'Forest department and village relationships are poor ... with unbalanced power relationships'*[36]. Similarly, there is lack of trust and cooperation between line-ministries.

  - **Governance and rule of law**. There is*: 'limited social inclusion and participation in forest governance; a weak rule of law, corruption; ... and widespread grievances about past government actions'.*[36]

- **IUCN's response on paper**. The project document directly targets these above barriers and thus projects the following Theory of Change: ***if*** better information is gathered; the capacity of local communities and

government officials is built; working relations between central government (esp. Forest Department) and local communities is improved; the restoration of ecosystem functionality at selected sites in the Sagaing Region through local, multi-stakeholder, co-management arrangements is demonstrated; and, as a consequence, new and better, locally-grounded, and participatory governance systems are adopted, *then* local communities will implement the Forest Landscape and Restoration Approach, and forests will be restored and local communities will reap the benefits of increased ecosystem services (through the development of sustainable livelihood models and value chains). (This intervention logic is deduced and summarized from the project document. The latter states it in different words in different places.)

– **IUCN's practices real politics in practice**. IUCN recognizes that *'there is a political economy'*. IUCN works closely with governments and farmers, addressing their immediate concerns (whether agricultural productivity or energy generation), and exposing the direct benefits that governments and farmers can receive from an alternative course of action (i.e. expose *'what is in it for them'*). Two examples.

  ▪ **Vietnam - working with the Communist Party on Integrated Land Use Planning**. In short: to enhance the country's food security, the Vietnam government promoted the cultivation of a third rice crop. This led to the cultivation of rice in the flood plains of the Mekong Delta, which led to biodiversity loss and the ability of the Mekong delta to absorb seasonal floods (thus risking floods higher up in the Mekong river in more densely populated areas). IUCN worked with other development partners (including Germany and the Netherlands) to reverse this policy. At first, working through the line ministries, to no avail.

  IUCN then approached the regional representation of the Communist Party, the so-called South-West Steering Committee. This Committee wanted to see evidence of IUCN's assertions and proposed alternatives. IUCN subsequently worked with local scientists and farmers to evidence the detrimental effect of the third rice crop on the biodiversity and the floodplains, as well as on identifying flood-resistant and higher-value crops (such as the Lotus plant). The South-West Steering Committee bought into IUCN's story line and over a period of three years worked with IUCN and the donor community to change the national rice policy and abolish the third rice crop. The aim is now to restore the natural hydrology of the Mekong delta by adopting alternative, flood-resistant crops.

  IUCN contributed to this process with legal and regulatory analysis, assistance with sub-regional planning, high level dialogues at the Prime Minister level, training journalists to understand the reasons for change, and recommendations and training materials for integrated land use planning.

  According to IUCN Asia Regional Office: *'IUCN played a role in facilitating a process that demonstrated how decentralized inter-sectoral decision making could take place across large agro-ecological zones rather than be bounded by sectors and administrative boundaries … [and] supported a transformed Vietnamese land use planning process that has moved away from sectoral planning to integrated planning.'*

  ▪ **Lao PDR - Hydropower**. In Laos, IUCN does not shy away from discussions with the government on hydropower. In fact, IUCN uses the government's interest in using the country's hydropower potential to raise conservation issues such as deforestation and soil erosion which – through increased sedimentation – can also reduce the generation capacity of an impoundment hydropower plant facility during the dry season.

  ▪ **Real politics from Myanmar's Forest Department**. A key instrument through which IUCN and the Forest Department seek to restore and rehabilitate forests is through the promotion of Community Forests, i.e. forests which are managed by forest community groups. The concept was formally introduced in Myanmar in 1995, but for a long time gained little traction. The Forest Department changed the incentives in 2016 - it

    o abolished the value-added taxation on non-timber forests products and rent on public land;
    o allowed agroforestry, aquaculture and ecotourism;
    o provided livelihood support by offering seedlings, livestock and bees;
    o allowed harvesting of firewood.

  This led to an explosive growth in the number of Community Forests. In 2010, there were 572 Community Forests covering 42,148 Hectares. In 2019, there were 4707 Community Forests User Groups managing 248,711 hectares of forests.

- **Myanmar**. IUCN is struggling to identify the key ally in Myanmar, i.e. the equivalent to abovementioned South-West Steering Committee. The Forest Department is key, but so are others, such as the Ministry of Agriculture, the General Administration Department and the Myanmar Timber Enterprise.

- **Project recognizes local needs**.

  - **Poverty**. IUCN recognizes that *'poverty is a driving force of illegal harvesting and that there is a need to build livelihood opportunities for the local population'*.

  - **Timber for housing**. IUCN observes that the lack of a local timber market for housing construction forces illegal logging by local communities. It is thus considering how it can work with the Myanmar Timber Enterprise to develop a sustainable local timber market.

  - **Agricultural land for income**. IUCN recognizes *'the need to combine agricultural land with forest land'* to ensure income generation opportunities for the local communities.

  Additional observations

- **Novel and practically challenging concept**. Forest Landscape Restoration is a new concept for most stakeholders in Myanmar, including the Forest Department. Whilst desirable, it is a Western-concept, that will be difficult to implement on-the-ground in Myanmar, as it requires close cooperation across scales, sectors and stakeholders, with which there is still limited experience in Myanmar. The ROAM[39] exercise requires good data which is lacking in Myanmar.

  Policy alignment

- **Aligned to national policies**.

  - The Restoration Initiative is in line with Myanmar's Forest Policy (1995), Forestry Master Plan 2001-2030, District Forest Management Plan and the National Forest Restoration and Rehabilitation Program Myanmar 2016-2026.

  - *'The Environmental Conservation Law (2012) and the Environmental Conservation Rules of 2014 … includes articles relevant to FLR. It aims "to reclaim ecosystems as may be possible which are starting to degenerate and disappear" and to ensure that "the relevant Government departments and Government organizations shall, in accord with the guidance of the Union Government and the Committee, carry out the conservation, management, beneficial use, sustainable use and enhancement of regional cooperation of…forest resources."… the Forest Law supports conservation initiatives, sustainable forestry practices, and socio-economic benefits, and encourages private sector and community participation in forest management … [including] sustainability of forest resources to ensure perpetual supply of both tangible and intangible forest benefits for all generations.'[36]*

H.6 Mainstreaming Gender in the National Biodiversity Strategies and Action Plan (NBSAP)

- **Background**. The German government recognized that *'NBSAPs are key instruments for prioritizing equitable biodiversity management at the national level and across sectors … [but] to this point there has been insufficient national level capacity and coordination to ensure the development of gender responsive NBSAPs'*.[40]

- **Objective**. The German government funded a project in Lao PDR and Myanmar to create gender responsive NBSAPs. The immediate objective was to develop: *'an action plan for incorporating gender into the NBSAPs …and to promote gender responsive NBSAP implementation and monitoring'*.

- **Budget**. US$84,504.

- **Period**. May 2018 – February 2019.

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[39] Restoration Opportunities Assessment Methodology (ROAM).
[40] IUCN (2019). Mainstreaming Gender in the National Biodiversity Strategies and Action Plans Implementation and Monitoring. Final Report.

- **Activities**. IUCN: (i) conducted a national gender analysis; (ii) build awareness & understanding of gender and environmental concepts; (iii) identified key interventions; (iv) organized and facilitated 2 workshops; and (v) provided support on the implementation and monitoring of the action plan.

- **Action plan**. The project did not result in a formally approved action plan for incorporating gender into the NBSAP. IUCN did share the output-document of the Myanmar workshop with us. This included a detailed review of the 20 Aichi targets underlying the NBSAP and – based on a participatory process – added targets, actions and indicators which would allow a more gender-responsive achievement of these targets. It also identified lead government agencies for implementing and monitoring these actions and the achievement of the targets. In an e-mail to the Review team, IUCN noted that this output document constituted the envisaged 'action plan'.

- **No interviews**. During the field mission, the relevant stakeholders from the Ministry of Natural Resources and Environmental Conservation were unavailable for an interview, nor have we been able to reflect on the program with the project funder, GIZ.

H.7 The Gulf of Mottama Project

IUCN also participates as consortium-partner in the SDC-funded Gulf of Mottama Project which operates right on the nexus nature conservation and sustainable development. As the Swiss NGO Helvetas is the lead implementing agencies and responsible for the livelihood component of the Project, the Review decided to focus the field mission work on the Mangroves for the Future Program and not subject the Gulf of Mottama Project to close inspection – the Review did not want to end up evaluating Helvetas (instead of IUCN). The Team nonetheless spoke with Helvetas and IUCN about the Gulf of Mottama Project and reviewed a couple of documents. This provided useful insights into how Helvetas and IUCN view the nexus between nature conservation and sustainable development. This section captures these insights.

Project description

- **Impact goal**. '*The unique biodiversity of the Gulf of Mottama is conserved and sustainably developed to benefit human communities that depend on it.*'[41]

- **Project objective**. '*The implementation of the Gulf of Mottama Coastal Resources Management Plan is supported and results in improved livelihood security for vulnerable women and men in targeted coastal areas of the Gulf of Mottama.*'[41]

- **Envisaged outcomes**.[41]

  - Livelihoods are secured and diversified to build resilience in communities.

  - Coastal natural resources use is sustainable and well-managed, and biodiversity is conserved.

  - Coastal natural resources governance is coordinated and effective, and awareness on the Gulf of Mottama values is raised.

- **Scope**. The Project works in 60 villages with about 90,000 inhabitants in total.

- **Intermediate results**. The Project has (i) developed Coastal Resource Management Plans with the communities; (ii) established co-management zones in which coastal areas are jointly managed by the communities and Forestry and Fisheries Departments; and (ii) established a Ramsar-Site.

Conservation and development linkages

- **Conservation foundational for sustainable development**. The Project notes that '*only the sustainable use of natural resources provides in the long-term the basis for peoples' livelihoods.*'[42]

- **Livelihood security is needed to conserve nature**. The Project recognizes however that, at least in the short-term, nature conservation is a luxury: '*Only once their basic needs are met, have the chance to move out of poverty,*

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[41] Helvetas (2019) Gulf of Mottama Project. Annual Progress Report 2018.
[42] Helvetas (2017) Community-led Coastal Management in the Gulf of Mottama Project. Conservation and development linkages.

and live life in dignity can they participate meaningfully in project activities aimed at reducing pressure on fish stocks and other coastal resources'.[42]

– **Limited carrying capacity of nature**. The Project however also explicitly recognizes that the carrying capacity of the Gulf of Mottama is insufficient to support its human population and that there is a need to provide for alternative livelihoods. The Project therefore seeks to provide households with opportunities (in agriculture, livestock, aquaculture, and off-farm skills such as tailor, engineering and construction), as well as access to (basic) services (like water) and affordable credit. The Project even goes so far as, if not to promote, at least to prepare young people for migration to Yangon or Thailand.

– **Sustainable management of the Gulf**. To put the fisheries sector on a sustainable footing, the Project promotes locally managed marine areas, where the local fishermen- and women have a stake in addressing illegal overfishing. The Project also seeks to strengthen the fisheries value chains.

– **Conservation and development as a two-way street**. The Project concludes that *'conservation and livelihoods … are … inextricably linked and mutually reinforcing. Only by fundamentally improving management of the gulf's natural resources will families be able to benefit from its extraordinary fisheries productivity, and only by meeting the immediate and longer-term development needs families will abstain from unsustainable use of a globally unique ecosystem.'*[42]

H.8 IUCN's value added in the international cooperation architecture for sustainable development

– **Valuable partner with limited on-the-ground presence**. IUCN is well-regarded in the development community for their expertise. Several key informants thought that the IUCN team in Myanmar needs to be strengthened as it relies too much on backstopping from the Regional Office and the Head of the Indo-Burma Group (who is based in Hanoi). The Regional Office recognizes this and considers a higher-level representation as critical to accelerate the work in Myanmar. A lack of resources prevents IUCN however from creating such a higher-level representation in Myanmar.

  ▪ **Less core funds**. The Regional Office Asia used to receive ca. US$ 1 million in core, net, untied, funds for a 4 year-period from the framework partners contributions. The recent drop in framework contributions has reduced these core, net, untied funds to ca. US$ 500,000 – US$ 600,000.

– **Unique selling points**. According to the key informants, IUCN brings to the table:

  ▪ Neutrality and the associated benefit of being able to offer new / alternative ideas in a discrete, non-threatening and trusted way.

  ▪ Access to senior levels of government to discuss policy and institutional developments

  ▪ Long-term presence and commitment by senior staff which induces trust and ensures institutional memory.

  ▪ The flexibility of the Regional Offices to develop programs tailored to the region/country's needs.

  ▪ The ability to bridge the science-policy divide

  ▪ Technical expertise – the ability to:

    o undertake sector / environmental impact / biodiversity / gender analysis;

    o to provide institutional capacity building;

    o support policy reviews and revisions, e.g. the Biodiversity Law, Forestry regulations, the National Biodiversity Strategy and Action Plan;

    o develop and implement community-based governance and management models of natural resources;

    o conceptualize and operationalize such concepts Payment for Ecosystem services (PES), pollution-pay principle, and environmental management trust funds.

– **Parallel projects**. IUCN recognizes that there are many parallel projects in Myanmar and that there is overlap in the activities of, example given, the World Bank, FAO, or bilateral agencies such as the Netherlands and GIZ.

IUCN nonetheless do not perceive them as competitors and shares information with these organizations freely. Example given, IUCN shared with UNDP its NORAD proposal for a follow-up program on the Mangroves for the Future Program. UNDP subsequently integrated the Myanmar component into the Myanmar program of UN-REDD+.

- **Similar institutions**. Some organizations – such as the Nature Conservancy (an IUCN member) – work quite similarly to IUCN: science-based action, development of tools and promotion of partnerships.

- **In competition**. IUCN is sometimes in competition with its member organizations for funding.

H.9 What is IUCN's institutional benefit in promoting sustainable development?

- **Conservation and development**. IUCN's objective is nature conservation and the sustainable use of natural resources and that addressing 'peoples' issues' is meant to facilitate such conservation and sustainable use. IUCN sees it as its task to 'overlay country-level development agendas with the larger (transboundary) ecosystem perspective' and thus to ensure that development remains in sync with the regeneration capacity of nature.

- **Smart versus bad development**. IUCN Asia is weary of the term sustainable development and rather speaks of smart versus bad development. For example, organic rice cultivation may be positive (as no pesticides are used) but has negative effects on biodiversity and disaster risk preparedness if done in flood plains. It stresses, like IUCN more broadly, the need to take a (eco)system approach to development.

- **Unease**. IUCN Asia experiences that some in IUCN feel uneasy with its engagement in energy issues in for example Lao PDR. On that, they refer to the former Director-General of IUCN, who stated that 'if IUCN does not engage in agriculture, then IUCN will soon not be relevant anymore'. I.e. they deem it important to use the interest of change makers as an entry point to conserve nature.

I. Senegal findings

I.1 Introduction

This report is a *contribution* to the external review of IUCN's Development relevancy requested by SDC (Bern). It concerns the field work conducted in Senegal from Saturday 28/10 up to Sunday 03/11. The purpose of this review is three-fold, namely to: (i) verify or challenge – and in the process refine – the hypothesis that nature conservation contributes to sustainable development at the national and global level; (ii) indicate IUCN's unique selling points (niches) and how it can (even) better contribute to sustainable development, and (iii) assess the relevancy of IUCN against SDC's global priorities in the field of or against the nexus between climate change, water and food security.

This evaluation is guided by *four main evaluation questions*: (i) does IUCN contribute to sustainable development? ; (ii) what is IUCN's value-added in promoting sustainable development? ; (iii) what is IUCN's institutional benefit from promoting the nexus between nature conservation and sustainable development? ; (iv) what is IUCN's future potential for contributing to sustainable development?

To answer these basic questions, it has been envisaged to scrutinize *three policies* closely involving IUCN and to carry out *field missions* in three countries in order to observe and analyze the action of IUCN at ground level. Senegal is one of the three countries selected in this perspective.

In Senegal, *different activities* have been carried out (see the details in appendix 1). First, an in-depth internal session with the IUCN team in Dakar in order to ascertain the array of activities carried out by IUCN in Senegal but also to understand the approaches, practices, strategies, arrangements, instruments specific to this team. Second, various meetings or encounters with a selection of key informants, collaborating with IUCN or involved in the same workstreams (see appendix 2). Third, an in-depth visit of a project run by IUCN has been made in the Sine Saloun (EPIC Project: Ecosystems Protecting Infrastructure and Communities, a project whose purpose is to catalyze the sustainable management of ecosystems in the framework of the adaptation strategies of local communities against climate change). 4). Fourth, a reflexive debriefing session with the UCN Senegalese team in order to share, verify, validate and consolidate the findings but also to strengthen the resulting analyses.

From a pure methodological point of view, as far as *transformative* development and change at society level stands at the horizon of this review, we will proceed through a *progressive four-pronged approach*, level by level. As far as possible in considering real-life situations.

− First: we will examine the *5 "windows" privileged by SDC* (first level): economic opportunity, social equity and justice, gender equality, environmental prudence, climate change responsiveness. What changes can be observed at these 5 levels? This first line will also allow us to examine a possible link with some SDGs [43].

− Then, second level, the progress made at the level of *skills*: what social, economic, political, institutional competences have been improved? How and to what extent actors involved in IUCN projects, programs or activities have turned lived-through situations brought about by IUCN projects into transformative social, political or economic lessons or learning? How do their breakthroughs (personal level) open into new trends within institutions and structures at large (societal level)? In other words, how has this learning enlarged their "agency", i.e. their power to act, react, and counter-react so that they can influence the society around them?

− This leads straight-down to the third level of our inquiry: what functional transformations, or transformational process at *societal level*, can be observed as (in)direct effects or outcomes of IUCN nature conservation-based initiatives, projects, programs, strategies, approaches?

− In the footsteps of this third level we can eventually envisage to track down how these *occurring, collateral or side* effects are turned into *deliberate* transformative initiatives and processes at society level? Deliberate for whom? How such a deliberate stance ends up feeding a lasting desire to drive change, which generates, sustains, and

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43- SDGs are discussed separately. For many reasons, SDGs can hardly be conceived as transformative per se. We will elaborate a bit on this potential controversy later on.

reflects a *genuine culture of change*? This is the fourth and deepest line of our inquiry targeting transformation at societal level.

I.2   Social, economic, political and environmental context in Senegal

We sketch the major current trends in a few words. More details available in Section I.17.

- Senegal (currently ranked among the 25 poorest countries in the world) aspires to become an emergent country by 2035 through a national plan of development called PSE ("Programme Sénégal Emergent"). Three major inclusive orientations: (i) structural transformation of the economy and growth, (ii) development of the human capital and (iii) governance, institutions, peace and security. Among the assets, its political stability deserves to be underlined (spared terrorist threats, no inter-ethnic conflicts, liable institutions,...).

- Despite some improvements, a lot of indicators show a negative evolution: (i) the growing poverty and inequalities (even with an annual national growth ranging from 6% to 7% between 2014 and 2018), (ii) the exorbitant number of young people without any employment perspectives, among them a lot of well educated women and men (university degree does not lead to a job anymore and becomes a source of deep frustrations).

- The poverty progresses in all the regions of the country, in rural as well in urban areas. Recent consolidated data (2015) indicate that only 54% of the working population (labour force from 15 to 64-year-old) is employed or self-employed.

- In rural areas, 34% of the cultivated lands would be degraded, due to the climate change but also to the overexploitation of natural forests in addition to an uncontrolled land occupation and to a growing number of cases of land grabbing (national and international elites buy or grab the most fertile lands at the expenses of the rural poor).

- Finding the right balance between a satisfactory level of biodiversity and the growing needs of the population appears as one of the most urgent current challenge. The fair redistribution of national riches is another pressing challenge: there is growing resentment against an ever narrower elite and their possession of national assets national riches is more and more shared among ever narrower elites.

- The recent discovery of gas and oil sometimes offers a unique opportunity to modernize the country thanks to substantial new resources. However, many fear that this potential wealth would not contribute to significantly improving livelihoods.

- Extractive industries and infrastructure are sources of increasing pollution and destruction of natural resources. Wide expanses of natural territories are dramatically affected or disturbed by the construction of new highways and infrastructures. This particularly impacts the most vulnerable part of the population living in rural and urban areas.

The President has recently advocate perspectives for a national ecologic transition, notably in launching a revised national plan of development called "Green Emergent Senegal". This plan mentions agro-ecology as a promising path for development in rural areas. Is it the sign of favorable change? Is it an opportunity for organizations working on improving the link between nature conservation and development?

I.3   The SDGs in Senegal: what trends?

General overview

A ranking according to Sustainable Development Goals among the 54 African countries suggests that Senegal is number 14 on the list, with an achievement rate of 56,9%. Two SDGs are highly scored with gain a green or a yellow score, meaning that the achievements are to be considered 'good to excellent': *SDG # 12* relates to sustainable production and consumption and *SDG #13,* where significant progress is designated in terms of climate change mitigation (highly relevant for an IUCN point of view). On the other hand, the range of SDGs principally related to the well-being and livelihood (#1 to #7) and the #11(make cities and human settlements inclusive, safe, resilient and sustainable) are less well considered.

- *SDG #1* (No poverty): the analysis shows that extreme poverty has not significantly reduced since 2011. Children under 5 appear to be still heavily exposed to risks and deprivation, while 5 children out of 6 are highly vulnerable.

- *SDG #5* (gender equality): some progress is achieved (the legal framework has been improved toward a better gender balance) but in some other sensitive domains, much still needs doing (for example, and typically, in the field of land control or ownership).

- *SDG #6* (access to foods and clean water): access to water has improved in some urban and even significantly in rural areas. Wetlands and natural resources closely linked to water management are stabilized in Casamance (South of the country) but have significantly regressed in the Sine Saloum area (precisely where IUCN is in action for more than 20 years[44]).

- *SDG #10* (reducing inequalities): globally, no critical evolution can be cited. Globally, there is still a lot to do to reduce inequalities (between rural and urban areas, between regions and communities, between high- and low-income categories,... A closer look at the national emerging trends indicates no demonstrable significant redistribution in the country.

- *SDG #13* (climatic change): as a general rule, outstanding advancement is reported here, principally on the basis of positive legislative reforms and commitments by the State.

- *SDG # 14* (water life in oceans, coastal and marine areas): this highly relevant area for IUCN (especially in Senegal). This remains a source of concern but at the same time several important measures are taken by the State, notably regarding wetlands.

- *SDG # 15* (biodiversity, land ecosystems, forests): the deforestation ratio is unfortunately deteriorating, suggesting that strong measures should be taken in the domain of forest and wood management. Senegal participates in the Green Wall Initiative in the Sahel and efforts are made to plant trees in threatened or deforested areas.

- *SDGs #16* (peaceful and inclusive societies for sustainable development, strong institutions): no significant progress. Senegal is still questioned about touchy issues: lack of transparency, growing corruption, money laundering, drug trade,...

About the implementation

There is no surprise: *funding* initiatives, plans and programmes to meet the challenges raised by the SDGs prove to be the more limiting factor. But some *other constraints* are regularly stressed:

- Inter-ministry rivalry to have access to insufficient means;

- Poor leadership at all levels of the action (local, regional and national) leading to some incoherence;

- Rigid national planning strategy (implying narrow margins of manoeuvre);

- High level of poverty and unmitigated pauperizing processes;

- Inadequate data gathering systems, leading to weak management and decision processes;

- Poor involvement of private actors (business, NGO, civil society at large);

- Poor means at the disposal of local authorities (underequipped and understaffed communes).

44- Of course, that does not mean that IUCN would be responsible for such a harmful evolution. This just suggests the depth of the environmental challenge IUCN has to meet in this area (particularly in the mangroves). Take also in consideration investments made in the water sector the last 3 years (http://www.forages-ruraux.sn/inauguration-du-reseau-dadduction-deau-potable-des-iles-du-saloum)

An important fundamental flaw results from *dominant strict sectorial approach* applied to the SDGs. In partitioning the set goals, in underestimating the leverage of structural synergies existing between the SDGs, the resources are underutilized, and in some cases squandered. A more *systemic and integrated approach* should be articulated and prioritized.

To what extent can IUCN contribute to significantly reverse these globally currently unsatisfactory trends in Senegal? This is one of the main questions we will raise in this short report.

I.4 The IUCN's operational landscape in Senegal: activities, approaches, strategies[45]

IUCN is present in Senegal since 1986. This office is part of the IUCN regional program called PACO (Central and West Africa Program)[46]. Knowledge, acknowledgement and governance are the three pillars of this program. The perspective targeted can be summed up in a few words: help actors master their natural capital, help them make this capital the most sustainable and the most useful in order to reinforce the social and human capital, promote strong and sound management practices and structures so that restoring, conservation and development efforts benefit to societies.

In Senegal, *5 (five) major orientations* structure all the initiatives, activities ad endeavors: (i) restoring and properly managing protected areas, (ii) sustainable management of water resources, wetlands and humid areas, (iii) sustainable management of coastal and marine resources, (iv) adapting to climate change and (v) improving environmental policy and governance.

Within this general framework, the Senegalese office carried out several *concrete projects*. The most current important projects or programs can be put at the front:

- Canary current large marine ecosystem demonstration project 5 "ratification of a regional mangrove conservation action plan and implement pilot mangrove restoration actions". This project is in action in Gambia, Bissau, and Guinea (several financial partners: UNDP, GEF, FAO,...);

- Ecosystems Protecting Infrastructure and Communities (EPIC: the purpose is to catalyze the sustainable management of ecosystems in the framework of the combat led by local communities against climate change (Main donor: BMU, German Ministry of Environment and Nuclear Security);

- GWI West Africa, Water for Agriculture: this project aims at improving the management of water collected by barrages or dams order to strengthen farming and rural activities in a context of climate change (Funded by The Howard Gilbert Buffett Foundation);

- Support fund for NGO carrying out environmental actions, projects or programs especially in view of better managing natural resources (Embassy of the Netherlands);

- Strengthening the management of natural resources by local and elected authorities in five countries: Gambia, Bissau, Guinea, Capo Verde and Senegal (Several funders ad supporters among them the national assemblies). Two different projects (PREPARE 1 and 2) pursue the same ambition: (i) sensitize the local parliamentarians and improve the decision making, planning and management skills of the local elected;

- Supporting the integrated management of water resources at small scale watershed level (funded by the African Bank of Development (BAD);

- Improving the management of water of the Guiers Lake: restoring natural and economic functions around the Nature Reserve of Ndael (donors: BAD, Office du Lac de Guiers (OLAG) and the Senegalese Government).

- PREMI: this project integrates climate change mitigation actions and the fight against of poverty, through involving vulnerable populations.

The IUCN office in Senegal lists the following *achievements* for the last five years:

45- Main sources: interview of the head of IUCN office in Dakar, Mr Racine Kane, and the following synthesis report: *"Revue des initiatives majeures mises en oeuvre par l'UICN-Sénégal"* (8 pages).
46- Programme de l'Afrique Centrale et de l'Ouest.

- Elaboration of several projects of law aiming at better taking into consideration the coastal and marine environmental challenges;

- Elected local officials are better informed and sensitized so that debates and decisions related to environmental and nature conservation issues are of a better quality;

- Several platforms and other structures assembling elected local officials and leaders to diagnose and plan environmental actions have been implemented (in the areas of Matam, Louga, Fatick,...). In Tambacounda, a platform brings together all the actors (private and public) involved in the management of water (GIRE) at a sub-regional scale;

- Reinforcement of civil society organizations so that they are better proactive and more competent, notably in their lobbying and mobilizing activities;

- The public procurement code has been revised and significantly improved in order to include the environmental challenges;

- A national Environmental Information System (SIENA) is now operational through involving 15 organizations regularly feeding the system with information on local or national situations relevant to nature conservation;

- Development of new participatory approaches, arrangements and dynamics for better managing local forests or nature reserves, especially in the area of the Saloum Delta;

- Development of a new methodology to better integrate the climate change challenges in the public planning processes and approaches at local level;

- Development of participatory planning tools, devices and arrangements in order to improve the joint-governance of natural resources in the area of the Niokoloba Koba park (close collaboration between official authorities and local communities);

- Restoring of the natural reserve of Ndiael which is an area of crucial importance for migratory birds;

- Inclusive dynamic in order to improve the fishery activities (lobbying and development of a green economy platform).

IUCN also notes that they contributed to:

- Regional conventions and treaties related to natural resource management have been signed and ratified (Mauritania, Bissau and Guinea);

- Assisted natural regeneration (ANR) techniques have been recognized and disseminated as one of the most efficient approach to foster devastated forests or to increase the presence of trees in agricultural landscapes and farming systems;

- A charter involving six neighboring countries has been signed in order to attune the initiatives carried out to restore and develop mangroves;

- The extension of the charter on mangrove to a convention involving 22 countries on the west facade of Africa;

- A convention to regulate the fishery activities in the coastal area has been signed by the 7 countries members of the sub-regional fishery convention (CMA47).

All these achievements are outstanding from a nature conservation or restoration point of view. They are perfectly aligned with the missions pursued by IUCN, both at national and local, but also at global level. However, our review focuses on a slightly different angle of view: development and more precisely development construed as a contribution to *society transformation processes*. Not any transformation, but transformation at the level of the "functioning", that is, how contemporary societies actually run, notably so that they allow vast and deep degradation processes to take place so sustainably and so effectively in their environment. Therefore, the very challenge of a

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47- Convention sur les Conditions Minimales d'Accès

societal transformation is located at both levels: (i) how development IUCN-led initiatives contribute to mitigate these destructive processes or detrimental mechanisms? and (ii) how development initiatives promoted by IUCN contribute to inspire, generate, sustain, disseminate innovative transformative societal processes?

From now on, through analyzing more substantially several projects run by IUCN, we will keep in mind the following guiding question: to what extent UCN teams, projects, programs, dynamics, and efforts, help make a difference at that level, and what difference?

In practice, this means that we will consider all these outstanding actions led by IUCN under the light of a *transformative potential*. How IUCN does actually make best value of this potential? This is the key question.

I.5   Four projects under scrutiny

Introductory remarks: we invite the reader to keep in mind that we will not stress the nature conservation activities as such, interesting as these may be, rather we will focus on development outcomes or effects in the direct wake of such activities (with a special attention to transformations at society level as far as possible).

I.6   EPIC - "Ecosystèmes pour la Protection des Infrastructures et des Communautés"

A four-year project run from 2014 to 2017. This project was selected to be visited in order to assess what has come up two year after the closure. It was a good opportunity to see how the dust settles in the run of the IUCN caravan, so to say.

Objectives

Global objective: Reinforcing the capacities of actors involved in climate change adaptation and prevention action (local leaders, technical bodies, NGO, and village communities).

Specific Objectives:

(i) document and assess risks and effects of climate change on the most vulnerable populations and on the efforts directed to poverty alleviation;

(ii) demonstrate the economic advantages of vulnerability mitigation-oriented strategies.

Strategy

A three-pronged strategy of research, political influence, and capacity building is implemented:

(i) research: change climate impact assessment, identification of the best risk reduction indigenous strategies, rigorous evaluation of them, dissemination of the most promising;

(ii) political influence: sensitizing and concretely collaborating with competent public bodies and authorities;

(iii) capacity building through elaborating and disseminating tools and dialogue-driven approaches.

Activities

A wide range of activities at village and grassroots level:

(i) concrete and direct actions directed to improve soil, plant and landscape management: anti-salt barriers, assisted natural regeneration of trees (ANR), tree nurseries in 6 villages, village or community poultry farming;

(ii) research activities: soil characterization and mapping, risk area mapping, assessment of natural regeneration potentialities, soil acidity and salinity analysis (current situations and trends);

(iii) initiatives to improve and deepen the stakeholder participation: better sharing roles and responsibilities, better collaboration at field level, better decision-making processes and settings:

(iv) communication and influence, both at regional and national levels through various initiatives (national meetings but also the creation of a multi-actor platform[48]).

48- The CDRCAF ("Commission Départementale de prévention et de gestion des Risques de Catastrophes naturelles et des Affaires

Organization, human resources

− One IUCN staff playing the role of coordinator,

− Various local contact persons or structures assuming the role of trainers, facilitators, organizers, advisers, and so on.

Tools, methods, approaches

− "Promoting local innovations" (PLI), notably a specific traditional way to build micro-dams (combining wooden/branchy harpoons and nets to collect sandy and pebbly alluvium);

− "Community-Based Climate Change Adaptation" (CBCCA);

− Nature-based solutions adapted to soil restoration and protection.

Budget, donors

− Bundesministerium für Umwelt, Naturschutz und Nuklear (Germany)

− Budget: 5 005 571,42 USD (in Senegal: 254 310 USD)

− Duration: 01/01/2013 —> 31/08/2017

Partnerships, alliances

− Several research institutes and universities (ISE49, ISTOM50 et CNRF-ISRA51) closely involved.

− Decentralized public technical bodies regrouped within a structure specially devoted to improving the inter-sectorial collaboration (COMRECC). Among them: the local forestry department

− Partnership with the CADL (Support Centre to Local Development)52.

− The regional development agency (ARD53) hosted the liaison committee (COPIL54).

− IIED55: field studies on vulnerability.

Mains outcomes

− Contribution to the National Policy to manage Humid Areas (PNZH),

− Creation of a national platform for the promotion of assisted natural regeneration of indigenous trees. This platform involves all the key stakeholders,

− Creation of a regional platform for natural risk prevention,

− Launching of local planning processes closely related to natural resource management (evidenced by the formulation of action plans in several territories.

Links with the SDGs

SDG #2 (zero hunger) is explicitly targeted, especially then target 2.4[56]. Poor and vulnerable populations are directly concerned by this SDG #2. In implementing EPIC, IUCN aimed at integrating climate change adaptation strategies

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Humanitaires"), a commission especially devoted to prevent and manage natural risks and related humanitarian aid endeavors.

49- Three students were responsible respectively for the soil inventory, the assisted natural regeneration and local convention follow-up in the framework of internship programme.

50- ISE: Institut des Sciences de l'Environnement, ISTOM: École supérieure d'agro-développement international ;

51- CNRF : Centre National de la Recherche Forestière, ISRA : Institut Supérieur de Recherche Agricole.

52- CADL: Centre d'Appui au Développement Local

53- ARD: Agence Régional de Développement, a regional decentralized public body proposing specialized services to communes and local authorities.

54- COPIL: Comité de Pilotage et de Liaison (steering and liaison committee).

55- IIED: Institut International d'Etudes du Développement

56- *"By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and*

within the local formal planning systems. Also aimed at contributing to expand the resilience dynamics to all the compartments of the livelihood. SDG #13, 15 and 16 are indirectly concerned.

Lessons learned

− Multi-sectorial and multi-level partnerships pave the way to significant and sustainable successes;

− A participatory and iterative approach helps farmers and local leaders better understand what is really at stake, and consequently makes them involve lastingly;

− Approaches and tools such as "Promoting local innovations » (PLI) or « Community-Based Climate Change Adaptation (CBCCA) prove to be as relevant as useful. They proved to be relevant at the two levels, nature conservation and development;

− As far as physical investments and infrastructures are at stake, sustainability depends dramatically on the set of maintenance and regulation measures collectively agreed upon.

I.7 PREVIAS – "Projet de Renforcement de la Résilience des populations Vulnérables à l'Insécurité Alimentaire au Sénégal"[57]

PREVIAS is a four-year project run from mid-2016 to mid-2019. It has been implemented as the direct extension of EPIC in the same area, but with categories of actors principally involved in the field of education.

Objectives

Global goal: Reinforcing resilience capacities of vulnerable populations, especially those exposed to food shortage risks, in view of extending outputs, outcomes and positive effects of EPIC to village communities.

Specific objectives

(i) improving knowledge on salinity and land degradation through information, sensitization, education and training (including a sub-component devoted to the education related to environment and sustainable development).

(ii) restoring degraded areas through mobilizing local performing agro-sylvo-pastoral know-how, approaches and practices.

Strategy

Training teachers through the so-called APC (in French, *"approche par les compétences"*, skill-centred approaches), that is, improving skills or ability to do on one's own. The better the teacher capacities are, the better they will be able to disseminate key environmental messages and make them turn into action and lived-through realities.

Closely working with local authorities of two communes. The purpose was to reinforce or to build capacities at communal level to properly take into consideration and manage natural resources (in close collaboration with the communities).

Working with the daaras (coranic schools) quite often neglected by educational projects

Developing, experimenting, and disseminating information or education tools and methods.

Activities

− Collective and interactive process of mapping salted/salinized areas (Commune of Djillor);

− Collective and interactive process of mapping soil erosion and degraded areas (Commune of Nioro du Rip)

− Development of an information system on soil, water and climatic risks in both communes (local database on environmental issues);

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other disasters and that progressively improve land and soil quality"

57- Main formal sources: UICN, PREVIAS, Etude socio-économique de référence dans la zone d'intervention du PREVIAS, Rapport final juin 2018 ; UICN, PREVIAS Constitution d'une base de données sur les risques climatiques dans les communes de Djilor et de Nioro du Rip, juillet 2018 ; UICN, PREVIAS : Rapport annuel 2017 ; UICN, PREVIAS : Rapport annuel 2018 ; UICN, PREVIAS : Rapport annuel 2019.

- Restored or protected areas: about 150 ha in either communes (terraces, stone dams or embankments, anti-salt dykes);

- Sustainable development-oriented education schemes in the schools: 581 boys and 297 girls have been taught;

- Training of teachers: 73 teachers and pedagogic mediators (57 men and 16 women) have been trained; training of 40 potential female leaders or influential members of local women associations;

- Production of educational tools and resources such as manuals or books [58];

- Formulation of two environmental action plans (in each commune targeted by the project);

- Tree plantations and several assisted natural regeneration (ANR) initiatives (both, in fields and in endangered forest).

Organization, human resources

- One IUCN staff playing the role of coordinator

- Various local contact persons or structures assuming the role of trainers, facilitators, organizers, and so on.

Tools, methods, approaches

- Participatory approach: working with, thinking with, elaborating with by involving all the categories of actors called to frame and promote the new perspectives.

Budget, donors, duration

- Canton of Geneva, Service de la Solidarité Internationale

- Budget: 291 865,87 USD

- 01/09/2016 —> 30/09/2019

Partnership, alliances

- Canton of Geneva

- Communes of Djilor and Nioro du Rip

- Regional development agency (ARD[59])

- Regional public services[60]

- The project P2RS[61]

- A local NGO, VIMASA/APIL[62]

Main outcomes

The key change assumption (and the main outcome) can be formulated as following: if pupils and the youth at large are well informed and understand clearly what is at stake and how to proceed in practice, then they will be more inclined to take concrete actions and to creatively participate to the efforts to mitigate climate change early in their active life (as soon as they leave the school).

58- For example, a training manual designed for teachers: *"Eduquer à la réduction des risques climatiques. Guide du Maître"*, IUCN, 2018.

59- ARD: Agence regional de développement

60- Service départemental des eaux et forêts, Service départemental du développement rural, l'Inspection de l'Education et de la Formation

61- P2RS: Programme multinational de renforcement de la résilience à l'insécurité alimentaire au Sahel

62- VIMASA: Vivre Mieux de la les Mangroves dans le Sine Saloum, project carried out by the local NGO, APIL "Association pour la Promotion des Initiatives Locales".

Lessons learned

- Building strong knowledge and understanding of the local environmental situations, sharing analyses and reflections with the local population is a prerequisite for sustainable, enlightened and effective plan of action;

- The deeper is the appropriation process, the more effective is the action. Local participation is a sine qua non successful condition, all the more promising that participation is regularly backed-up and bottom-up shaped;

- Assisted natural regeneration (ANR) and other measures must be maintained in the long run. This means that appropriate local long-term management measures and settings are to be carefully built.

- The youth, in particular young women, should be better involved in order to increase and enlarge the impacts;

- Environmental actions provide actors with excellent opportunities to meet gender equality challenge (quite often women play a central role in everyday activities based on the usage of natural resources).

Links with SDGs

SDG #5 (gender equality), SDG #10 (reduced inequalities). Indirectly SDG #12 (Ensure sustainable consumption and production patterns), SDG #13 (climate action) and SDG #16 (peace, justice and strong institutions)

I.8 Mixed findings and conclusions EPIC + PREVIAS

Possible transformative effects (EPIC + PREVIAS)

- Turning protected natural resources into sustainable resources supporting various economic activities (EPIC). With a central question: how individual or micro-collective initiatives can have a larger impact on the structure of local economy?

- Local self-organizational dynamics around forests and mangroves (EPIC). With a challenge: how to last? That means: how to make local organization evolve at the same pace as the situations unpredictably evolve? How to stay in harmony with ever changing contexts?

- The regional experience is an influential reference for improvements at higher and national levels (Ministry of Education). This is especially true for the manuals and local educational approaches developed in the framework of PREVIAS. Still, a question remains, highly relevant as far as societal transformation matters: how such a rich experience can also be translated into innovations at national level?

- Improving the local mastery of external interventions. To what extents local initiatives are instrumentalized by challenges, perspectives, and goals defined and shaped by exogenous interests? How to improve the local ability to orient the choices, strategies, means, goals in order to keep under control the processes brought about? This was part of the challenge through running these two projects.

Tacit theory of change (EPIC)

If stakeholders at all levels are better informed (they clearly understand the stakes), better interconnected at key levels (decision making, planning, action), better self-organized (within their own frame and rationale),

Then they will be more capable to conceive and carry out sustainable actions on their own in a mutually beneficial development-oriented perspective.

Because well informed actors understand what is basically at stake and conceive more relevant strategies, activities, arrangements,

Because well informed actors are in a better position to take advantage of their strengths and mitigate their weaknesses,

Because interconnected actors: (i) will do the most by combining scarce resources, (ii) will build effective and innovative partnerships, (iii) will make best value of the specific and strategic advantages of each partner (synergetic interdependency),

Because self-organized structures: (i) can develop broader and more lasting anchorage, (ii) are more capable to identify and convene all the local human resources to put forward innovative processes.

Tacit theory of change (PREVIAS)

If the youth is soon well informed about the climatic change challenges, if they understand properly the impacts of human practices on natural resources, and how to mitigate them,

Then they will become actors and advocates of alternative promising approaches.

Because they are sensitive to future consequences,

Because they will turn resilient actions or initiatives into new opportunities,

Because they will take up positive and protective nature conservation initiatives, …

I.9 PREPARE II

We have chosen to deepen this project because it addresses right up front the institutional facet. From a development-driven point of view, the institutional challenge is of prime importance.

General objective:

Contributing to improve the environmental governance and the social, economic, ecologic relevancy of climate change mitigating measures in the countries all along the West African coast through competent and well-organized parliamentarians and elected authorities

Specific objectives:

1. Elaborating, adopting, and implementing political, institutional, and legislative measures in order to alleviate natural risks in maritime and coastal areas.

2. Accelerating legislative and governance processes related to the management of maritime and coastal resources in the West-African countries.

3. Reinforcing and harmonizing governance and legislative mechanisms related to fishery in the West-African countries (AME[63]).

4. Improving the implementation of sustainable and resilient maritime and coastal environment-oriented policies and strategies in the West-African countries through building technical capacities of the regional network of parliamentarians and local authorities (APPEL[64]).

Strategy

− Action at both levels, local authorities and states. Four major strategic achievements were targeted:

− Four West-African states adopt and implement political, institutional and legislative measures to protect costal and marine ecosystems against abusive fishery, pollution, erosion and harmful climate change effects.

− Five local territories and authorities adopt and implement coastal and maritime protective measures in order to make best value of the sea and coastal natural resources.

− Three West-African states ratify international treaties aiming at better using maritime and coastal resources (especially targeting biodiversity).

− Five West-African states members of the sub-regional CSRP65 adopt legal and regulatory measures to make attuned the fishery practices and arrangements within the framework of the national policy.

63- AME: Accords multilatéraux en environnement (Multilateral Environmental Agreementt)
64- APPEL: Alliance des Parlementaires pour la Protection de l'Environnement et du Littoral ouest-africain. (It is a network of parliamentarians committed to protect and improve West-African coastal biodiversity, natural resources, and environment at large).
65- CSRP: Sub-regional Commission for Fishery, a multilateral structure dealing with trans-boundary fishery challenges (http://spcsrp.org/fr).

Activities

Various activities have been carried out at several levels. The following are regularly considered as the most important and impactful:

− Elaboration of legal texts or laws aiming at improving the management of maritime and coastal resources and ecosystems, notably the mangroves.

− Lobbying and transparency-oriented actions in favor of a better-managed fishery all along the West African coasts[66]. In Senegal, a committee of parliamentarians, local authorities, representatives of fisher organizations has been created and is still operational.

− various initiatives (field trips, local meetings or workshops) to help parliamentarians be in touch with local realities and challenges.

− Production / dissemination among the local authorities and parliamentarians of manuals, technical sheets or other information tools[67].

− Various training workshops (for example, how to formally endow an area of a high natural potential with the status of a World Heritage Site?).

− Activities to improve the coherence between the different sectorial policies (national fishery policy versus international conventions).

− Fundraising initiatives in view of improving the self-funding processes.

− Recruitment of parliamentarian advisers (an innovative and highly appreciated initiative by the parliamentarians in Senegal).

Organization, human resources

− One IUCN staff playing the role of project coordinator.

− Representatives of national networks (seven West-African countries: Capo Verde, Gambia, Mauritania, Bissau, Guinea, Senegal, Sierra Leone. Networks have been implemented in all the seven countries).

Tools, methods, approaches

− Training and sensitizing approaches

− Political lobbying: the basic perspective was built about how to develop the capacities of parliamentarians to weigh on the legal and regulatory processes related to marine and coastal environmental and biodiversity challenges.

Budget, donors, duration

− MAVA (Fondation pour la Protection de la Nature)[68]

− Budget: 1 096 691,48 USD

− Duration: 01/03/2014 —> 30/06/2019[69]

66- In connection with the FiTI (Fisheries Transparency Initiative, https://www.governance-platform.org/en/msi/fiti/) closely linked to SDG#14.

67- For example, in 2016, diffusion of the "*Guide pour la gestion intégrée des ressources naturelles du littoral à l'usage des élus des pays côtiers d'Afrique de l'Ouest*" especially designed for local decision makers and leaders. Processes of production and validation of various roadmaps related to better manage maritime and coastal resources are worth to be mentioned here.

68- Foundation working for a future where biodiversity flourishes, especially in the Mediterranean, coastal West Africa and Switzerland (http://mava-foundation.org/)

69- Three phases can be identified regarding this project, fully steered and coordinated by IUCN by the UICN secretariat in Senegal: (i) from 2014 to 2016, (ii) from 2017 to mid-2018, and (iii) from July 2018 to June 2019.

- MAVA Foundation

- PRCM (Partenariat Régional pour la Conservation de la zone côtière et Marine en Afrique de l'Ouest)[70]

- CSRP (Sub-regional Commission for Fishery)[71]

- RAMPAO (Réseau Régional d'Aires Marines Protégées en Afrique de l'Ouest)[72]

- PNUE (United Nation Programme Environment Programme)

- Wetlands International[73]

Main outcomes, possible development and transformative effects

- Departitioning and harmonizing law-producing processes in seven neighbor countries: a dynamic process involving and interconnecting directly parliamentarians from seven countries united around a coherent perspective on coastal and maritime environment and challenges.

- Developing the regulatory skills and the engagement of parliamentarians willing to make a difference in the field of environmental protection: "We have learned what working in a National Parliament exactly should mean and imply, how that can help to make significant progresses. We have learned how to transform a formal structure into a tool at the service of citizen dynamics and values we embody"[74] (improved competence of representativeness, strengthened debates through clarifying national and local stakes and challenges[75],…).

- Connecting parliamentarians to sensitive lived-through /everyday life realities and grassroots people and organizations.

- Developing and disseminating new habits and practices among the parliamentarians, especially the following highly relevant ones:

- Joint production of laws, norms, legal texts and rules. Usually the Government proposes and the parliamentarians approve (one-way top-down process). Now, thanks to the parliamentarian training and capacity building processes launched in the framework of the project, parliamentarians may propose texts to be discussed at the Government level (iterative and two-way bottom-up process). It is extremely significant to underline that this new parliamentarian behavior has migrated within the Parliament so that other social, economic, political preoccupations may be embarked in a similar two-way process[76]. This impact is particularly relevant as far as development is concerned.

- The development of a new role (some parliamentarians): whistleblower in the wake of civil society initiatives(as the relationships between parliamentarians and CSO[77] have improved and intensified: this is another highly development-relevant side-effects).

- Intensifying collaborative relationships between local authorities (meaning better outputs and more lasting constructive outcomes).

- Last but not least: usually parliamentarians are above all at the service of a political party. Through this project, parliamentarians have learned another way to take up position in a debate: first the stakes and consequences

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70- PRCM is an alliance of 78 actors working in the maritime and coastal areas of the following countries: Capo Verde, Gambia, Guinea Conakry, Bissau, Mauritania, Senegal and Sierra Leone (http://www.prcmarine.org/fr/le-partenariat).
71- A multilateral structure dealing with trans-boundary fishery (http://spcsrp.org/fr)
72- The RAMPAO aimed at supporting the regeneration of maritime resources and protecting the biodiversity in the maritime and coastal areas of West Africa (http://www.rampao.org/)
73- The Wetlands approach to wetland conservation and wise use reflects the dynamic nature of wetlands and their connection to the wider landscape and communities (https://www.wetlands.org/).
74- As stated by a Parliamentarian, Honourable Mamadou Lamine Thiam, former president of REPES and APPEL (our interview in Dakar on the 30th of October 2019). The REPES is the national network of parliamentarians committed for the protection of the environment.
75- Parliamentarians found out a new way to work as parliamentarian representing villagers and citizens at marge.
76- For example, the law limiting the usage of plastics (a major source of pollution).
77- CSO: Civil Society Organization

from a societal point of view, then afterwards other more political or clientele-based criteria or issues can be considered and weighed up.

− For the time being, APPEL78 is a relevant and potentially influential network. However, without any own financial means, this network may progressively become highly subjected to external interests (dependency, instrumentalization). This situation leads to a first challenge: how to make this sort of initiatives as autonomous as possible from the very beginning of the process? Building an institutional dynamic is just one preliminary step, making this dynamic last and evolve on its own is the necessary subsequent step.

− It is crucial to articulate rigorously operational capacity building with political action. As far as development is considered, political impact must be considered as a prerequisite for sustainability. From this finding another challenge can be derived: how to consolidate the synergy between concrete action at local or national levels and policy in the institutional sphere? How to match them?

− The interconnectedness of similar dynamics in several next-door countries is a key success driver. Mutual reinforcement and support at international level make national commitment stronger and more impactful. Keep on evolving and diversifying the interconnected action, which is a condition to last as a relevant, legitimate and skillful actor on the development stage, are two inescapable challenges at that level: how to transform a cyclical situated impetus (an action, a campaign, a move) into a functioning lasting and evolving structure?

− APPEL and REPES have renewed the conduct and the meaning of the parliamentarian activity. To stay on an innovative trajectory the challenge is to make best use of lessons drawn from activities: how to turn actions and experiences into learning opportunities? How to translate these opportunities into impactful activities and programs?

Links with SDGs

SDG #14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development), #16 (peace, justice and strong institutions), #17 (partnerships)

Tacit theory of change

If parliamentarians and local authorities are better interconnected among themselves, better informed, better equipped for debating in the domain of nature conservation, if they will play an influential activity in and out of the Parliament,

Then they will take up a highly relevant role in the domain of nature conservation, they will articulate nature conservation to sustainable development.

Because they will weigh collectively to make a difference in favor of nature conservation and to better articulate environment and development,

Because they will provide authorities, leaders, NGO, CSO and citizens with legal means to effectively prevent, combat, and repress bad practices but also to anticipate, innovate, plan and take initiative at local, national and international level,

Because they will play a major facilitation role,

Because they will contribute to build more coherent national and international policy.

According to Honourable Mamadou Lamine Thiam, the project and the IUCN's efforts at large has played a considerable role to inject new legislative dynamics into the Parliament of the seven countries. He contends the idea that the efforts made at grassroots or private level must be consolidated and extended by efforts made within the

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78- APPEL: Alliance des Parlementaires pour la Protection de l'Environnement et du Litoral ouest-africain. (It is a network of parliamentarians committed to protect and improve West-African coastal biodiversity, natural resources, and environment at large).

institutions at all the levels (local, regional, national, sub-regional). Both development processes, operational (at the filed level) and regulatory (in the institutional spheres), must move forward together and reciprocally consolidate each other.

I.10 GWI – Global Water Initiative[79]

The Global Water Initiative (GWI) in West Africa is an action-research and advocacy project. GWI worked with family farmers and governments to shape policies and practices that support livelihoods and food security in the context of large multi-purpose dams. This program illustrates how a natural resource management-oriented structure (IUCN) can put its know-how and expertise at the service of a complex development programme, that way how it becomes a development booster.

Global objective:

Strengthening the governance of large water management infrastructures (dams and irrigation schemes)[80]

Expected outcomes (end of 2017):

— Increased awareness and debate of the livelihood impacts and economic viability of public policies and investment approaches to agriculture technology solutions directed at food security in a context of climate variability[81];

— Increased understanding of and support to promoting an environment that enables technological and institutional innovation for sustainable agricultural intensification by smallholder farmers in large scale irrigation schemes[82].

— Better governance policies for and around dam-fed irrigation systems that improve equitable and efficient use of water and reduce conflicts[83].

— Capacity and support for change is built through learning and effective communication (cross cutting)[84].

Activities

— State of the art study on irrigation schemes and barrages (an in-depth investigation staking stock from local experiences in four West-African next-door countries)

— Specific investigations: land tenure conflicts, inappropriate management of water resources, poor technical advising and back up

— Market research and cost benefit studies

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[79] Main sources and references: (i) GWI West Africa: Irrigated agriculture and resilience of family farms – a clash of perspectives, Briefing paper April 2015 ; (ii) GWI West Africa: , Briefing paper, November 2015 ; (iii) Madiolo Niasse (2016). External independent review of Global Water Initiative (West Africa) results and approaches ; Madiolo Niasse (2017). Capitalizing on the lessons of 10 years of interventions in the governance of large water schemes: A review of experience.

[80] The programme gives special attention to the local people who feel the impact of these projects most directly: the communities affected by the building of the infrastructure, and the existing family smallholders in the irrigation schemes (Niasse, 2017, p.6)

[81] More precisely (Niasse, 2016, table 1, annex 1, p.74): Evidence supporting investment choices is widely known in the region; (ii) Government demonstrates increased political will to make investment choices that promote livelihood and food security based on GWI findings (iii) Government and private sector dialogue around identification of investments in smarter solutions and (iv) National adaptation policies take account of GWI findings

[82] More precisely (Niasse, 2016, p.74): Farmer led innovation supported more effectively by government policies, (ii) Smallholder farmers invest in advice and support services

[83] More precisely (Niasse, 2016, p.74): (i) Regional and national bodies are aware of better models for benefit sharing and have modified them to national circumstances, (ii) Land tenure systems on new irrigation systems support farmers' autonomy, production systems and rights, (iii) Regional and national bodies have adopted policies and operational models developed by GWI for better governance ; (iv) People affected by dams are empowered and are better off.

[84] More precisely (Niasse, 2016, p.75) : (i) An effective communication platform (FR/ENG) is used by key stakeholders ; (ii) National and regional stakeholders refer to GWI results in their programmes ;(iii) Most Significant Change methodologies provide evidence of GWI contribution towards policy change

- Identification and mapping of influential actors

- Participatory lobbying

- Participatory elaboration of a charter related to water management (« Charte de l'eau de Anambé »)

- Elaboration of tools to improve the management of water

Organization, human resources

- Project Director (IIED)

- IUCN regional coordinator based in Ouagadougou (PACO Office)

- Liaison officers responsible for projects (national focal points)

- Responsible for communication (IIED-Afrique)

- Agricultural and rural extension officer (IIED-Afrique)

- IIED was responsible for the execution of the whole program. IUCN coordinated field activities in Mali, Burkina Faso, Senegal and Niger.

Tools, methods, approaches

- Involvement of vulnerable and socially marginalized groups, enabling actors who do not know each other;

- Awareness-raising, public education, empowerment through exchange visits;

- Leading GWI as a diversified learning "school";

- Involving and helping exchange families of actors who are not accustomed to collaborate.

Budget, donors, duration

- IEED: International Institute for Environment and Development

- Budget: 1 089 919,51USD

- Duration: from 05/02/2010 to 30/09/2017

Partnership, alliances

- IIED-Afrique (global animation, support and back up, reflection on extension approaches),

- IPAR[85] (research and lobbying) contracted on an annual base.

Main outcomes

According to Madiolo Niasse's capitalization (2017, p.6), some major successes and issues can be highlighted: (i) adoption by the ECOWAS Council of Ministers of the Directive on Hydraulic Infrastructure Development in West Africa – a process which has benefitted from crucial, long term support by GWI (West-Africa) ; (ii) provision of high quality information on the soundness of the economic and financial viability of existing large water infrastructures, and on the production systems of small-scale families involved in irrigated cultivation; (iii) general acceptance by stakeholders of the principle of sharing the benefits yielded by dams and providing practical tools to put this principle into practice; (iv) proposal of leases in perpetuity as a trade-off formula for compensating customary landowners, and securing land rights, on a land-for-land basis in Niger; (v) wide consensus on an agreed occupancy contract for irrigation schemes in Niger which offers greater legal security of tenure to non-land-owning farmers; (vi) adoption of an agreed action plan dealing with agricultural advisory services in three GWI's countries (Burkina Faso, Mali and Senegal); (vii) re-invigorating civil society water users' organizations in the Niger basin; (viii) development and

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85- IPAR (Dakar): Initiative Prospective Agricole et Rurale (a think-tank based in Dakar: http://base.afrique-gouvernance.net/fr/corpus_organismes/fiche-organismes-609.html)

capacity building of national experts in various emerging areas linked to the analysis of financial viability and general management of water power and irrigation infrastructure.

Lessons learned

In his executive summary, Madiolo Niasse (2017, p.7) push to the front several lessons to be drawn from the GWI experience:

- the time span of the programme (in operation for around ten years) which has given time to adapt to the pattern of political change, which is normally a long drawn out process (e.g. adoption of the ECOWAS directive which took ten years from the time the Dams Dialogue was set up);

- the flexibility that the donor (Howard G. Buffet Foundation) has given the programme, making it possible to adjust to changes in the field and, above all, seize opportunities as they arose;

- the opportunistic strategy (closely linked to the flexibility of the programme) which allows GWI to shift from one subject to another, or even to change subject, place and scale of intervention as well as key partners, and thereby pick the low hanging fruit wherever they appear;

- the challenge of harnessing expertise available at the national and regional levels – and by combining everything at the same time, boosting political dialogue (as these experts can open doors and facilitate contacts) and providing a way of ensuring achievements are sustained.

Some other lessons must be elicited as they can inspire other projects or programmes to be planned, all the more relevant that the nature conservation perspective is closely linked to strong development concerns:

- Consolidating normative processes at both, local and national level, and beyond if relevant. Norms and rules, and in their footsteps any legal or normative processes are of a crucial importance. They may be considered as the grounding of any development effort;

- Providing tools and resources for building strong, lasting and evolving governance framework. Leadership, decision, and management must be supported by tools easy to be utilized and adjusted to the ever-specific situations;

- Fostering participatory processes, especially all along basic action building processes: decision making, regulation, definition of norms, rules, and procedures, and so forth;

- Closely interconnecting all the social (potential) components, forces and interests setting the ever complex and changing landscape of actors to consider;

- Contributing to enhance the expertise at three relevant levels, local, national, and international;

- Participatory action research spirit and practice: always start from the question, never from a supposedly anticipated right answer. Experience from others may motivate or inspire, but never says the last word in advance;

- Navigating the complexity: the multifaceted decision-making processes (always more or less processed in a social black box),

- Mixing up the different categories of actors (local and national public, private and market-oriented, community or kinship-based, academics, religious, political, NGO, and so on … provided they have something to do in the process);

- Finally: patience. Change and transformation at society, and at natural resource management levels demand to go step by step. Temporary blockages or obstacles can prove helpful as they are taken as normal constituents of any change projects. Limitations may force to look where we are not spontaneously inclined to look and consequently to use new routes.

Directly: SDG #12 (Ensure sustainable consumption and production patterns) and SDG #16 (peace, justice and strong institutions). Indirectly: SDG #1 (no poverty), SDG #2 (zero hunger), SDG #5 (gender inequality), SDG #10 (reduced inequalities)

Possible transformative effects

- A lot of behavioral and attitudinal changes at field level (mainly related to better sharing water resources), but also at political level (new political orientations in the framework of ECOWAS);

- Improved normative capacity of all the stakeholders (joint elaboration of rules and norms);

- More peaceful and collaborative relationships between the various potentially interest-conflicting families;

- A significant decrease of conflicts related to water access and management.

Tacit theory of change (ToC)

The project has formulated a partial ToC mainly dealing with action research activities.

If the policy formulation process is closely linked to critical questions raised by field actors about land and water management,

Then change opportunities are improved as well as the relevancy of policies;

Then public policies support effectively grassroots organization-based initiatives and small scale farmer-led innovations;

Then States and Governments are more inclined to invest in management systems oriented to improving livelihood and food security;

Because all the stakeholders are more directly involved,

Because all the stakeholders better learn and effectively exchange among themselves on touchy or worrisome issues;

Because the flows of information improve decision making processes at all levels (leaders are better informed on local conditions, contexts, stakes, and situations prevailing);

Because consensual and sustainable solutions are more readily elaborated and agreed to solve problems of access, sharing and management (lands and water).

Most significant "side-reflections" and forward-looking ideas shared with key informants

GWI illustrates how IUCN could carry out long-term action research-led approaches at all relevant levels (grassroots organizations, local authorities, national extension services, Ministries,…).

I.11 Theories of change (ToC)

The projects we have visited or scrutinized did not necessarily draw on a full-fledged theory of change (with the exception of GWI). Therefore, we take time to elaborate them a posteriori through exchanges and observations. All the ToC mentioned in the preceding sections have been validated by the IUCN team in Dakar and verified / cross-checked by our direct field investigations or exchanges with key informants. They may be considered strong enough though our investigations were drastically limited (short time, narrow range of key informants, poor triangulation possibilities).

Well-elaborated ToC may prove being quite useful to pilot complex development processes. In deepening the ToC related to the projects under scrutiny, it appears that they are clearly development oriented but not specifically shaped by deliberate transformation perspectives targeted at society level. This finding indicates a promising potential for future improvement indeed.

However, to fully benefit from such an improvement, another dimension needs to be taken into consideration: a ToC destined to support a strategic approach at the service of the action must evolve permanently during the project. This evolutional principle has some immediate implications:

- The ToC at the beginning of the project operates as the starting point of a dynamic and creative process. This is the very first page of a strategic story. In practice, that means that the ToC will progressively evolve to fit to the events or situations occurring in the context surrounding the project or program.

- The monitoring system closely linked to the ToC must also be adjusted accordingly.

- The project needs to be carried out in a supposedly changing context that demands to be observed and analyzed on a regular and rigorous base.

All in all, this means something decisive: the function of the ToC slightly changes. As a matter of fact, the ToC does not verify anymore if the project rolls as previously foreseen. Instead it plays the role of a strategic compass: what occurs in the footsteps of the project is translated into new transformative orientations. Thereby the ToC becomes truly an instrument at the service of a running action-research process. Under such a light, a ToC becomes an instrument likely to enlarge the reflexivity within the project teams.

I.12 IUCN on the development stage in Senegal: what added value?

From all our meetings and visits, some tendencies can be highlighted. The followings traits can be seen more or less as the signature of IUCN on the development stage in Senegal:

- The on-going and all-level convening activity: IUCN makes institutions and organizations meet, exchange, debate but also take up initiative or action, plan, implement joint, concerted integrated strategies, projects, programs, activities, together in the framework of attuned settings. A wide range of actors and stakeholders are linked and regularly involved in the field of joint operations: village and grassroots organizations, local and national technical bodies, NGOs, private firms or investors, international and multilateral agencies,... (example: the recent international meeting organized in Dakar to implement concrete measures to restore forest landscapes identified in the wake of the Bonn Initiative).

- Lots of projects, programs and activities are formulated, conceived, planned and implemented at inter-country level. The conservation strategy involved neighboring countries to align cross border measures and initiatives, but also for mutual learning and efficiencies in exploiting synergies (Example: several integrated projects targeting the protection of mangroves along the West-African coasts, the APPEL Parliamentary Initiative, Senegal-Mauritania Transboundary Reserve).

- IUCN projects are systematically implemented through involving decentralized public bodies, both at communal or regional levels. Local field or grassroots initiatives are articulated with local authorities' programs or strategy. Strong partnerships favor the implementation of sustainable measures (Example: EPIC, PREVIAS, GWI).

- At project level, IUCN operates through local, national or international NGOs, proficient in the delivery of quality actions, notably in participatory attitudes. Thanks to effective operational partnership, IUCN manages to properly articulate both dimensions of nature conservation (IUCN's expertise) and development (NGO expertise). (Examples: EPIC, PREVIAS, GWI). Several key interlocutors insisted on the purposeful connection between income generating activities and conservation measures.

- Nature-based solutions particularly promoted by IUCN have the advantage of closely linking local micro socioeconomic activities with conservation on a long-term basis. This is particularly clear in the case of mangroves all along the threatened coastal areas (Saloum Delta Management Plan): trees effectively protect coasts and at the same time provide local populations with crucial income generating resources (fishes, oysters, shrimps, prawns, ...). The Ndiael program provides another example of a combination of nature-based solutions and large infrastructures. This has been implemented to restore the natural regulatory functions of the Guiers Lake, especially to protect the exceptionally diversified avifauna. This program was conceived to meet the interests of a wide range of actors (small scale farmers, men and women, involved in market gardening activities, investors in large scale irrigation systems, so combining village level irrigation micro-projects with more specialized agro-industrial projects). The improved guardianship and management of water in the area of the Guiers Lake strongly contributes to the increase and diversification agricultural activities and value-chains. Pastoral activities benefit also from these development actions.

- Projects or programs are elaborated and implemented in the framework of a long-term perspective. This outlook is a major asset for UICN in comparison with other actors dealing with the same objectives (this is typically the case of EPIC and PREVIAS. These projects have been extended by other programs preceding them and working in the same areas, with the same local actors, aiming at the same goals). But this continuity is threatened, due to the pressure of donors, since building strategies and programs on a long-term basis is increasingly difficult. Short-term perspectives are more and more combined with institutional survival preoccupations.

- Contributing to knowledge and developing expertise, not only on biodiversity and natural resources, but also on promising strategies, practices or arrangements, is another trait of IUCN's action in Senegal. In addition, IUCN works at diverse levels: social, political and economic, often within the same project or program. This multifaceted action is seen as an IUNC's feature by several key interviewees met during our investigation.

A basic characteristic of the IUCN activities in Senegal appears to be in concerted efforts to pursue nature conservation in parallel with local development. But in the wake of this general and rather positive conclusion, a question must be addressed immediately: to what extent are such efforts really contributing to alleviate the root causes of nature conservation or development contradictions? Indeed, they seek to restore or protect nature and, at the same time, develop small- or large-scale socio-economic activities and better inter-relations between actors operating in various spheres. But to what extent are the conditions prevailing at the origin of the problems of degradation, overexploitation, loss of biodiversity, and so on properly and deliberately targeted and therefore effectively treated? This is at the heart of the development challenge: how to restore human societies by restoring natural resources and systems? This correlation is s all the more necessary if you consider that natural disorders are the projection - in the physical and biological environment (ecosystems) - of the disorders that afflict human societies. Human systems structure natural ecosystems, and vice versa. This is why human disorders structure natural disorders. Lastingly.

This last comment opens a new field of development relevancy for IUCN by creating a new area where IUCN can add value. With a crucial question in the line of fire: how to practically achieve this perspective of restoring human societies through restoring natural resources and ecology? Here is the ultimate challenge of IUCN's development relevancy. In Senegal and elsewhere.

Behavioral changes are crucial but raise a tough question: how to prompt them in the context of poverty and natural resources dependency that prevails in Senegalese rural areas? This question has been raised several times by the IUCN's team in Dakar. It helps realize the depth of the challenge to meet.

I.13 IUCN as a change driver in Senegal

To what extent does IUCN contribute to changes and transformative dynamics in Senegalese society and various communities? [SEP] To answer this question, we will refer to our four-level change approach (introduction, page 5). We will add a complementary basic level zero: IUCN's actions in Senegal and the SDGs.

Level 0: A selection of *sustainable development goals* (SDGs) is particularly targeted in our review. As a matter of facts, all of them are considered in an explicit or implied manner. Even if they don't guide or shape all the actions implemented, they are taken into consideration. At the minimum they are mentioned as an a posteriori argument. SDG #16 deserves a special mention in the case of several major UICN's projects and programs. This SDG #16 is all the more relevant to be pointed out that Senegal dramatically shows poor achievements in the touchy domains covered by this SDG.

For the remainder, our investigations raise an intriguing question: Are there any actions which are not covered by the SDGs? If so, then the perspective is not considering SDGs in project formulation but rather in supporting the impact of SDGs. If projects, programs or activities are to contribute towards and help meet the SDGs, an appropriate measurement system is required. For the time being, at IUCN level (at least in Dakar), there is no such system broad enough to monitor or follow up this kind of achievement, suitable for the monitoring of SDGs in the wider sense. In other words, SDGs are not sufficient criteria to properly assess the IUCN's development relevancy. This is why other

more fine-tuned levels of development relevancy must absolutely be addressed. The following ones appear especially relevant within the framework of this review requested by SDC (Bern) [86].

Level 1: Five *development windows* are particularly stressed by SDC: economic opportunity, social equity and justice, gender equality, environmental prudence, climate change responsiveness.

Economic opportunity: all the IUCN's projects visited or investigated in Senegal, all the key informants met have underscored practices, initiatives, arrangements, facilities relevant from an economic development point of view. They indicate modest but nevertheless substantial results, at both levels, local and regional. All projects analyzed always combine economic and environmental actions or initiatives. Notably through income generating activities [87]. Income improvement of local actors, men and women, farmers or traders, small scale and larger firms, is more or less targeted. However, some questions need to be raised in the direct wake of our Senegalese investigations:

− What sort of economic development is referred and consequently backed up? Based on what forward-looking economic analysis? Drawing on what economic conception?

− To what extent are they focused towards or do they benefit certain (limited) categories of actors (still possibly at the expenses of other weakest or poorest categories)?

− To what extent are the three basic economic functions, i.e. production, accumulation and redistribution of riches, considered in their interrelations? If efforts to support, enrich and increase local initiatives can be traced up, similar endeavors in the field of accumulation and redistribution appear to be missing (Have these two crucial dimensions been overlooked?).

Social equity and justice: IUCN initiatives in Senegal take this dimension implicitly into account. But socioeconomic baselines [88] are poorly developed and there is no a clear-cut frame of analytical reference indicating clearly what categories of actors, what type of situations, what sort of institutions should be particularly targeted (and why). In particular, there is no political systematic analysis of stakeholders (what category of actors dominate whom, what categories are dominated, or excluded, or exploited, in which circumstances or frames, why, where, how? Based on such this knowledge, how to configure, shape, orient, carry out, and manage projects, programs, and activities accordingly?).

Gender equality: challenges are taken into consideration. Visited projects help empower women grassroots organizations, contribute to improve the access of women to protected or managed natural resources. However, there is ample room to improve some crucial dimensions. For example, the following ones: gender intersectionality, the weight of women in decision making processes at local or higher levels, the specific everyday life challenges Senegalese women face [89]. As far as gender is concerned, approaches are inter-category-driven (female versus male). Intra-category conceptions, practices, initiatives fall out of the scope [90].

Environmental prudence and climate change responsiveness: these two dimensions constitute the core business of IUCN. All the projects, programmes, initiatives are designed to make direct impacts in these two areas. At several

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86- The four levels roughly analyzed here are not exclusive. They may be combined. In other words, if you consider the five SDC's windows, this does not mean that you are not to take into consideration the three other ones. You may consider each level as a direct contribution to build the others.

87- Also at a higher level, for example the large scale private investments in industrial agriculture in the area of the Guiers Lake (in the wake of infrastructures and facilities financed by the ABD and the WB).

88- Projects are not elaborated on a systematic actor landscape analysis. When such studies exist after all, there are descriptive. They don't help really build a deep and fine-tuned understanding of the many links articulating the different categories of actors, their practices, their interests and motivations, their respective power relationships, and so on. Tools like sociograms are unknown despite their high level of relevancy as soon as you want to chart and visualize the relationships within a group or a community.

89- To what extent general (universal) gender-led approaches or strategies are adapted to the Senegalese context?

90- Here we refer to the need to take into account the different categories of women (age groups, relationships between young and old women, between mothers and daughters, and son forth). All the categories of women do not have similar access to the same opportunities due to social or economic characteristics. As a matter of facts, as a general rule, development projects are used to favor some categories of women (typically women ranging from 30 to 45 years old) at the expenses of other with the disturbing consequence of intensifying domination or exploitation processes among the women themselves. In other words, contradictions and tensions existing between different categories of women living in the same area may be more worrisome than between men and women. This concern is particularly relevant in West-African rural areas. Many gender-sensitive approaches neglect these touchy issues. To some extent, this is the case for the IUCN's projects and programs run by IUCN in Senegal.

levels: regulations and laws, institutional arrangements, knowledge production (both operational and scientific), concrete tangible initiatives local, regional, national or international,...

Level 2: To what extent can actors learn from what they implement under the umbrella of IUCN? What kind of learning? How do they turn lessons learned into new practices, habits, structures, settings or arrangements? In what domains particularly? In other words, to what extent learning is transformative in the footsteps of programs run by IUCN? No stakeholders met in Dakar (institutions) or in the Sine Saloum (villages or communes) fail to underline significant lessons learned in the wake of IUCN's interventions, projects or activities. In several fields of skills: coordinating complex programs at several levels and at different scales, included at international levels such next-door countries (implement long-term sub-regional conservation programs or measures), organizing and self-organizing (make operational frameworks of collaboration and action), regulation at local, national, or international levels (identify, debate, formulate, decide, experiment, assess, make evolve, adjust norms and rules to manage natural resources on a sustainable basis), developing economic opportunities,...

Activities were recognized for rich learning but a question remains open: to what extent projects, programs and activities of all kinds were specifically, deliberately and accordingly designed, conducted and managed to generate lessons at diverse levels (social, economic, political, environmental), but also to make best pragmatic and strategic value of these lessons? To what extent were they driven to enhance strategic skills of the whole range of actors and to turn these skills into an enlarged context (for example empowerment, new margins of maneuver, better distributed expertise,...)?

Here there is a subtle delineation leading to another question: to what extent restoration or conservation activities are led *specifically* to make stakeholders draw lessons in addition to restore and conserve endangered ecosystems (from successes as well as from failures)? That means that activities should be *deliberately* two-faceted: on the one side, they should be conceived to generate significant transforming impacts on lived-through touchy or strategic realities (for example, people conditions of existence, livelihood as well as natural resources are tangibly improved), on the other side they should be carried out also to serve as structured learning opportunities (capacities to have future, impactful and lasting transformative effects in other close or remote domains are improved). This second question helps circumscribe a possibly new area of improvement (as far as development is targeted). From this point of view, PREVIAS is an inspiring example: this project effectively produced tangible and highly appreciated educational outputs and outcomes, but at the same time actors involved learned how to carry out an educational project at regional level in such a way they are lastingly impactful.

Level 3. How far *potential of transformative development* domains are generated? As a matter of facts, the projects we have visited or reviewed offered opportunities to develop potentialities of change. This was specifically the case for the projects aiming at restoring or protecting forests and mangroves in the Sine Saloum (EPIC, PREVIAS). These projects hold a broad transformative potential in two highly relevant development areas: (i) local regulatory processes and (ii) local self-organizations. These two dimensions are closely linked. Following the narratives and explanations at the local level, PREVIAS paves the way for institutional transformation processes at both regional and national levels. All the materials, settings and methods worked out and validated at regional level are ready to be extended at national level. In this case the transformative potential principally lies in the approach likely to inspire and enrich the array of institutional practices at national level. A new approach to collectively and interactively produce educational tools is available.

Level 4. Two transformative cases can be easily highlighted from our field investigations. The first one concerns the multifaceted empowerment of rural women. For example, the women we have met in Toubacouta (South of Sine Saloum). In working on a long-term basis with the IUCN's projects (more than 20 years in this area), they found out that they can play a significant role on the local stage: they become actors able to take up strong individual or collective initiative. They also discovered that they can influence household economic decisions and significantly contribute to the family life through the income generating activities they control themselves. A second case of significant transformation observed in the footsteps of the IUCN project PREPARE II is the radically new stance

adopted by the parliamentarians involved in the REPES[91]. In working with this IUCN-run project, they found out that they can propose new laws on their own. Usually they adopted a rather passive stance. Their party or the Government proposes projects of law they are invited to legally validated. With the IUCN project, the process was inverted: the parliamentarians have proposed laws and the Government were asked to adopt them. This new stance helps parliamentarians realize that there is another way to play their role of parliamentarian. They discover a new sort of loyalty, not to the political party they are members of, but the loyalty to the citizens and populations they represent. They also found out that they could build new alliances with parliamentarians of other rival political parties to defend ideas or positions of high importance from their own point of view. This is a major shift firmly underscored by Honorable Mamadou Lamine Thiam (the former head of the REPES) when we met him in Dakar. He has insisted on this major behavioral shift. The activity of the parliamentarians involved in the REPESS dynamics have changed: "*We play a new political game, not party-driven but policy and people-oriented*".

These two examples illustrate two cases of highly relevant, even crucial transformations at society level that IUCN-run projects can bring about. Unfortunately, in these two promising cases, the team carrying out the projects did not particularly make use of these transformative potentialities. Yet this is precisely what is at stake as far as transformation at society level is at hand: how to transform such situations into a genuine learning and actually transformative process? How to deepen what is changing basically in such situations? For example, the change observed in the work of the parliamentarians suggests that the culture of loyalty might become a target for a deeper reflection to be triggered off with the actors concerned. The progressive discovery made by the women of Toubacouta could initiate another investigation potentially more transformative, for example understanding how the local societies construct and support the dependency or exploitation of some categories of people (here, the women) at the benefit of a few other social categories. How the multitude works her sweat out to eventually serve a narrow elite? Such an investigation inevitably will give rise to new change processes and will help actors take up transformative measures or initiatives on their own in the footsteps of nature conservation activities initially launched by IUCN.

This is exactly where a level 4 of change can be initiated and eventually reached. A nature conservation or biodiversity-oriented activity is run. New social situations take place and bring about unexpected structural change processes. This is how things happened in the two cases mentioned here above. However, the key question still remains: how to turn these unexpected and self-managed occurring dynamics into strong society-transformative opportunities?

This is not the only way to proceed. Another one simply starts from problems or requests expressed by the actors targeted, in the beginning or in the running of a program. In that case, the development challenge is not just a matter of identifying and finding ways to solve problems. The challenge is first and foremost to decipher the message behind the problems. Problems are both messages and messengers. Then the right question is: what message does such a problem actually convey? What does it demand to discover and understand about the society that generates the problem? What does this problem reveal out about people involved in or afflicted by the problem? What habits, what beliefs, what rationale, what behavior, what wishes, what social organization, what contradictions, and so forth?

It appears that problems, for example environmental disorders, are just entry-points. Solving problems is a necessary step to be accomplished but not the only. Development becomes transformative when you work on the societal grand machinery manufacturing such problems, whatever they are social, economic, political, or environmental. Transformative development really begins as soon as you take as ultimate targets societal mechanisms working in the shadow of problems. The same bundle of mechanisms, probably a few basic, produces the unlimited range of human problems, included environmental disorders. As the Chinese proverb states so bluntly, the finger shows the moon, the idiot looks at the finger. Problems are just fingers. What do they show? What do we look at? What do we see? What use do we make of what we see through the lenses of problems we strive to solve? This is what level 4 of change implies. This is where IUCN could help do *something* relevant through leading nature conservation initiatives.

91- An association of parliamentarians coming from several West-African countries and dealing with the sustainable management of natural resources along the maritime and coastal areas.

I.14 Perspectives likely to improve IUCN's development relevancy

In the footsteps of our visits and meetings in Senegal, we point out some promising tracks that could help IUCN improve its development relevancy. In Senegal but also elsewhere. These indications could help IUCN play a more pervading role of actor of change at society level. These proposed tracks are all the more relevant that nature conservation and societal challenges have to be finely articulated.

Opportunities at hand

What is ready to be continued and improved? The answer to this question readily highlights *six promising opportunities* likely to consolidate the IUCN's development relevancy. These opportunities are easily available in the wake of the activities, projects and programs and therefore ready to be deepened.

1) *Participatory approaches* to manage natural resources, to implement operations, to make decision, to share responsibilities, to promulgate norms and rules that must be applied to protect or restore resources, especially when common resources and challenges are at stake. This participation is crucial but may be just instrumental (just a means to do what one has to be done). Genuine participation is an indispensable dimension, but participation must go further than the mere involvement to build and carry out the action properly. Participation must be conceived, and supported accordingly, as a deliberate contribution to help village people build a collective dimension, a new "Us". Our visits and meetings clearly indicate that this is probably one of the major challenges in village societies in transition. For several decades, these village societies have become progressively profoundly individualistic. Everyone strives to pull through as far as possible on his or her own. But quite often at the expenses of others (the weakest, the poorest) and by overexploiting natural resources. Therefore the key development question has slightly changed: how to build in the mind of village people and local authorities the perspective of natural resources (i) as common goods that demands to be managed on a strongly fair and collective base and (ii) the necessity to rebuild the feeling to be an accountable member of a community sharing the same future, depending on same resources requiring to be sustainably managed. Contributing to (re)build a coherent social fabric – let's say a new rural society – is the emerging inescapable operational challenge. This is why improving, deepening, enlarging, boosting, legitimizing, politicizing[92] participatory processes appear as a first strong opportunity to improve the development relevancy of IUCN. At the same time, participatory practices, dynamics and settings seem to be the best means to build something crucial: the shared and strong willingness to do what needs to be done simply because it is good for each one and everybody. Nowadays feeling to be part of a process aiming at building a common willingness is probably one of the most important challenges in rural areas. This is why local participation is so crucial and should be conceived, and *deliberately* managed, as a developmental challenge.

2) The regulatory groundings, in particular the processes through which are elaborated and implemented the *norms and rules* designed to collectively manage natural resources. Rebuilding new, more balanced, more attractive and richer rural societies, better capable to manage natural resources on a sustainable basis demands new normative approaches and frames, new relationships to norms and rules, new regulatory capacities better embedded in the local social dynamics. Human societies rely on natural resources to develop and flourish. At the same time they rely also on strongly shared normative and regulatory processes and frameworks. This is what is at stake nowadays in rural areas, especially where natural resources have to be protected and restored at the benefit of local societies and all their social components. Improving regulatory processes at local levels offers a second highly relevant improvement opportunity to IUCN's teams.

3) The *regulatory processes at higher levels and larger scales* – national and international – are targets as important as local ones. They will be all the more relevant and useful that they will be properly articulated to local normative and regulatory challenges. National (and international) regulations must be thought so that local normative and regulatory challenges find themselves consolidated at national level (increased local legitimacy) as well as national legal challenges are strengthened at local level where they prove to be similarly relevant from the local population point of view (increased national legitimacy). This is a third opportunity to improve development IUCN's development relevancy in Senegal (and probably everywhere IUCN is in action). But here do not miss the right train! The true challenge is not so much elaborating right and fair norms, rules and laws but to make them apply – and be applied – in the everyday life so that they orient and control behavior towards positive issues. This is why in the shadow of the normative challenge there is a second deeper cultural challenge: help norms, rules and laws structure behavioral organizers of the everyday life. This is probably one of the major conditions to manage natural resources on a strong sustainable base.

92- In the sense of taking into account the power relationships existing between the many families of actors on the local, regional or national stage.

4) The economic dimension is taken into account in IUCN projects. Notably through *income generating activities* (IGAs) usually understood as small businesses to better and diversify household incomes. The improved cock "Bleu de Hollande" is a good example derived from EPIC. This race of cock has been introduced to improve the local races (weight, health, fertility,...). Economic activities must go hand in hand with conservation or restoration activities so that these two challenges can be articulated effectively. This is proved by the Senegalese experience in the Sine Saloum area. Improving the economic component in the restoration, protection or conservation is now considered as a key success factor. This finding leads to a fourth opportunity to improve the IUCN's development relevancy. The challenge at that level is to find out how to go beyond the conventional IGAs, typically targeting women and the poorest but without any deeper impact on the local rules of the economic game. In particular IGAs have no impact on the pauperizing processes and mechanisms at work. Building immediate economic solutions to income shortages is a necessary step but only an introductory one. These first-hand solutions must be developed so that they fuel a local in-depth reflection to reveal why and how stakeholders collectively build and lastingly support what makes them so effectively and so lastingly poor. Both poverty and impoverishment are not a fate, just the outcomes of a societal functioning.

5) *Context analyses* are never absent. All the IUCN's projects or programs are written down and justified on such an analytical basis. For the time being, these analyses a conventional and sometimes purely formal and descriptive. However, if one wants to exert a genuine transformative action on the society, such context analyses are clearly advantageous, provided they are carried out in another spirit (as GWI amply have suggested, see 5.5). At first glance, four measures can be envisaged to improve context analyses: (i) carrying out joint investigation to enlarge the current understanding of local societies, stakes and situations (context analyses that really help decipher mechanisms at work and locate the "manufactory of problems" but also to find out potentialities and unexploited riches), (ii) favoring participatory analytical approaches that make local stakeholders envision themselves actively engaged in the building of problems, deadlocks, conflicts or contradictions they suffer from, (iii) considering concrete activities as dynamic and ongoing tools of diagnosis (action is probably the best window to observe what really matters in the contexts: when you do, you see what is really at stake), (iv) identifying, developing and making best value of local initiatives, innovations and resources.

6) GWI demonstrated how far *participatory action research* helps involve and empower all the stakeholders, how far and how sustainable transformative processes can be launched. Why not extend this kind of boosting approaches to all projects and programs implemented under the flagship of IUCN?

Side-issues to be considered

To make a step forwards in the field of development relevancy, some institutional preconditions are necessary to be considered. Our investigations in Senegal did not allowed to go further on that road but they help to infer some cautious considerations. At first sight, three obstacles should be taken into consideration seriously, at least as working assumptions and resources to think on:

- All in all, there are no institutional clear-cut basic development-driven orientations, nothing like a development compass likely to inspire, shape and backbone the nature conservation programs. The formal reference to SDGs is conventional and does not guarantee that development challenges are properly embarked by nature conservation initiatives. As already mentioned, SDGs do not fit very well to orient development endeavors and initiatives. They may be useful to stake stock at national or international levels, to draw lessons and to inspire strategies at large scale but not to lead projects or programs in real life circumstances. Yet, our investigations in Senegal undisputedly indicate at least two highly relevant domains: (i) regulatory systems (in the sense of producing norms, laws and rules) both at local and (inter)national levels, (ii) governance and decision-making processes at large. These two domains are all the more relevant that they constitute the very foundations of any human society. Transformation at society level inevitably means bringing about change processes at these two crucial levels. Senegal helps also take into consideration a third development domain: the economy, all the more relevant that natural disasters, biodiversity depletion, pollutions, degradation of natural resources are directly linked to dysfunctional economic systems. Of course, nobody expects IUCN will save the world economy. But any nature conservation project or program can be operated as a deliberate (modest) contribution to mitigate and to innovate in the economic field. Somehow or other. The immense disconnection between nature and economy is part of the current world equation. Sustainable natural environment, resources and riches depend on a sustainably caring economy. UICN needs some economic landmarks.

- Do current administrative and management procedures, arrangements, and rules in force at sub-regional and international levels fit for carrying out flexible, innovative, decisive development operations? Aren't the

procedures too bureaucratic? Isn't the management too hierarchical? Some hints, comments, and situations observed during our stay in Senegal allow us to envisage that project or program management could be improved. This remark suggests that deepening development dimension in the wake of nature conservation efforts imply change in the management systems, routines, and habits[93].

- Projects and programs are more and more elaborated within a short-term time frame. The stowing of successive projects in the same area in the long run is more and more difficult to be properly operated. One of the most sensitive area is the recruitment: for several years, staff cannot be employed on a regular and predictable basis any longer despite the fact that stable project teams are considered as a key success factor[94]. Human resource management is a determining success factor. Simply because the quality of nature conservation activities, projects and programs eventually depends on the quality of human resource. Producing impacts is a matter of involvement.

I.15 A tentative wrapped up development-driven conclusion

Nature conservation activities, projects, and programs always meet or create complex human situations. Transforming these situations that inevitably happen into situations that contribute to transform the society concerned, even slightly, is the golden way to improve UICN's development relevancy. Nature-based solutions must *also* become society transformation-oriented solutions. At the same time. Therefore, any solution promoted by IUCN should become structurally two-pronged: nature-conservative and society-transformative. This is how to get sustainable and effective.

I.16 Les ODD au Sénégal: quelles tendances ?

By Moussa Mbaye (Enda Tiers Monde)

Globalement

Le Sénégal est classé au 118ème rang sur 156 dans le SDG Index de 2018, avec un score global de 57,2 (le dernier étant noté 37,7 et le premier 85,0). Comparer avec 2017 où le pays était 119/157 avec un score global de 56,2.

Sur l'index 2019 pour l'Afrique, le score du Sénégal indique que le pays est à 56,96% sur la voie d'atteindre les ODD dans le délai imparti, tout en le classant au 14ème rang africain sur 52 pays.
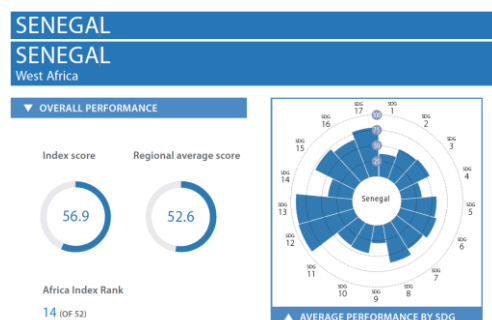
Le Plan Sénégal Émergent, qui constitue le principal référentiel national en matière de politique économique et sociale ayant été élaboré avant l'adoption de l'agenda 2030, le pays a procédé à une évaluation de l'alignement de ce plan avec les ODD. L'exercice a montré que « le Sénégal couvre près de 77% des cibles ODD de façon concrète dans la mise en oeuvre du PSE (Cf. VNR Sénégal, 2018.- page 11)

Une simulation à partir de l'outil T21-iSDG a donné pour le Sénégal deux scénarios en rapport avec le PSE[95].

93- We did not have any mandate to address such issues in this review. Still the question remains: how to "calibrate" the institutional frame to meet the demanding development challenges?

94- For example, it is difficult to train and motivate a team recruited only for two or three years (how to hand over responsibility, spirit and expertise learned on the field from one team to another? Especially when several months and sometimes one year separate two successive phases).

95- Scénario 1) même dans le cas où les politiques publiques demeurent inchangées (ou scénario BAU- *Business as usual*), les ODD 3, 6, 12 et 14 connaitraient une amélioration positive : tendances à la baisse de la plupart de causes de mortalité, continuation de la croissance rapide amorcée du taux d'accès à des sources d'eaux modernes et aux services d'assainissement, augmentation de la surface dédiée aux zones maritimes protégées...Mais la faiblesse du niveau de croissance économique (4,2% en 2030) conjuguée à une hausse des inégalités se traduiraient par de faibles performances pour les ODD 1 (pauvreté) et 10 (inégalités). Au même moment, l'évolution des stocks de ressources naturelles, tels que l'eau, la forêt, le sol et les stocks de poissons montre une forme de gestion non-soutenable. (Cf. VNR - SENEGAL : MEFP_2018_ODD RAPPORT FINAL.- page 15)

Scénario 2) Pour le « scénario PSE » on compte sur un fort taux de croissance économique pour une réduction plus rapide du taux de chômage et de la pauvreté, avec des impacts importants sur la sécurité alimentaire et la santé. Ces améliorations auraient lieu dans un contexte marqué par une meilleure prise en charge des questions relatives aux ressources naturelles, particulièrement la forêt et les sols. Toutefois, en termes absolus le taux de réalisation reste assez modeste pour les ODD 9 et 15.

Le tableau de bord pour le Sénégal indique que la performance est relativement bonne en termes de production et de consommation durables ainsi qu'en terme de changement climatique (ODD 12 et 13), mais est décevante pour les objectifs liés au bien-être social (ODD 1 à 7 et 11).

Figure 11 Africa Dashboard
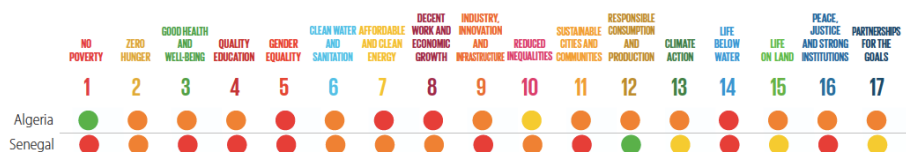
En lien avec certains ODD spécifiques

ODD n°1 : Éliminer la pauvreté sous toutes ses formes et partout dans le monde

- Concernant l'élimination complète de l'extrême pauvreté (cible 1.1)[96] : Le taux de l'extrême pauvreté, en pourcentage de la population ne disposant pas 1,90 dollar US par jour, a été estimé à 38,0% en 2011,(ESPS-II). La pauvreté reste surtout concentrée en milieu rural mais avec des disparités régionales très fortes. L'Etat a mis en place une Stratégie Nationale de Protection Sociale (2015-2035) et lancé plusieurs programmes/initiatives pour résorber les gaps[97] :

- « En termes de pauvreté multidimensionnelle, seuls 15,7% des enfants de moins de 5 ans ne souffrent d'aucune privation (logement, eau et assainissement, santé, nutrition, enregistrement des naissances). En d'autres termes, plus de quatre enfants sur cinq âgés de 0 à 5 ans (84,3%) souffrent au moins d'une privation. Par conséquent la pauvreté multidimensionnelle demeure un défi pour le Sénégal pour atteindre la cible des ODD d'ici à 2030. »

ODD n°5 : Parvenir à l'égalité des sexes et autonomiser toutes les femmes et les filles
Cible 5.1[98]. (ind 5.1.1.)

- L'indicateur visant la « présence ou absence d'un cadre juridique visant à promouvoir, faire respecter et suivre l'application des principes d'égalité des sexes et de non-discrimination fondée sur le sexe » est largement atteinte, notamment avec :

- la Constitution qui, en tant que loi fondamentale, consacre et favorise l'accès égal des femmes et des hommes aux fonctions et mandats publics relevant de la gestion publique ;

- la Loi n° 2010-11 du 28 mai 2010 qui institue « la parité absolue hommes-femme dans les institutions totalement ou partiellement électives de la République »

- Les statistiques existantes ne montrent pas de tendance à la baisse de la pratique de l'excision (selon l'âge, c'est 15 à 20% des femmes qui ont été excisées). De même, les mariages précoces restent une réalité bien attestée par les données disponibles (Selon le rapport de l'UNICEF de 2016 (State of the world's children), 32% des femmes sont mariées avant l'âge de 18 ans et 9% avant l'âge de 15 ans, en 2015.)

- En ce qui concerne la cible visant à donner aux femmes et hommes les mêmes *droits aux ressources économiques, ainsi que l'accès à la propriété et au contrôle des terres et d'autres formes de propriété, aux services financiers, à l'héritage et aux ressources naturelles (Cible 5a)*, on retiendra que « dans le secteur de l'agriculture, les hommes contrôlent 93,6% des superficies cultivées contre 6,4% pour les femmes. Dans le secteur de l'élevage, les femmes ne représentent que 10,70% des demandes de financement de projets enregistrés par le FONSTAB en 2015. En

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96- «1.1 : D'ici à 2030, éliminer complètement l'extrême pauvreté dans le monde entier (s'entend actuellement du fait de vivre avec moins de 1,90 dollar par jour).»
97- (1) le Programme National de Bourses de Sécurité Familiale (PNBSF), (2) le Programme de Renforcement des Dynamiques locales de Développement Economique et Social (PRODES), (3) la Couverture Maladie Universelle (CMU), (4) la Carte d'Egalité des Chances (CEC), etc.
98- «5.1 : Mettre fin, dans le monde entier, à toutes les formes de discrimination à l'égard des femmes et des filles.»

2016, 81,5% des chefs de ménage agricoles sont des hommes et seulement 18,5% sont des femmes.» (Cf. VNR SENEGAL : MEFP_2018_ODD RAPPORT FINAL.- page 46).

— Même si la Constitution et les lois affirment l'égal accès des hommes et des femmes à la terre et garantissent également l'autonomie de gestion des biens en stipulant qu'une femme mariée a droit à sa propriété et à la gérer personnellement, dans les faits les inégalités demeurent larges et profondes car dans les faits ce sont les pratiques coutumières qui prévalent. Dans certaines zones cependant, en fonction des mêmes pratiques coutumières et des réalités locales en termes de division du travail, les femmes ont en majorité accès aux terres (par exemple, en Casamance dans les zones rizicoles).

ODD n°6 : Garantir l'accès de tous à des services d'alimentation en eau et d'assainissement gérés de façon durable

— Pour le suivi de l'ODD 6, le Sénégal a été choisi comme pays pilote dans l'Initiative GEMI (suivi intégré des cibles de l'ODD 6 relatives à l'eau et à l'assainissement). Le taux d'accès global à l'eau potable. Il se situe à 94,79% en 2017 contre 93,64% en 2016 et 92,17% en 2015. Pour l'hydraulique rurale en particulier, ce taux qui était de 87,2% en 2015 est passé de 89,5% en 2016 et 91,3% en 2017. Ces avancées apparaissent liées à la reprise des projets de mise en place de branchements sociaux mais aussi à la construction de forages, de châteaux d'eau et réseaux d'adduction d'eau multi-villages et les réalisations du Programme d'Urgence de Développement communautaire (PUDC).

— Concernant la gestion intégrée des ressources en eau à tous les niveaux, y compris au moyen de la coopération transfrontalière selon qu'il convient (cible 6.5.), le Sénégal participe au Programme-GIRE (PGIRE) transfrontalier dans le cadre de l'OMVS qui en est à son second volet de mise en oeuvre. Le degré de mise en oeuvre de la gestion intégrée des ressources en eau (0-100) passe de 53,3 en 2016 à 53,9 en 2017.

— Pour la cible qui vise, *d'ici à 2020, protéger et restaurer les écosystèmes liés à l'eau, notamment les montagnes, les forêts, les zones humides, les rivières, les aquifères et les lacs*, le VNR Sénégal 2018 fait noter qu'une «politique nationale des zones humides a été élaborée en 2015 en plus d'une stratégie et d'un plan national d'actions pour la conservation de la biodiversité ». La superficie couverte par les mangroves (122 000 ha en 2015) a régressé dans a région du Sine Saloum, mais est restée stable en Casamance.

ODD n°10 : Réduire les inégalités dans les pays et d'un pays à l'autre

— On notera utilement que, dans le cadre de la seconde phase de la réforme de la Décentralisation dite Acte 3, la nouvelle configuration spatiale prévoit la mise en place de huit (08) pôles territoires. Et « dans cette nouvelle dynamique, le premier pôle identifié, à travers une approche participative et inclusive, est celui du Sine Saloum qui regroupe les régions administratives de Fatick, Kaolack et Kaffrine. »

— Les cibles 10.1[99] et 10.3[100] de cet ODD ne sont pas renseignés en termes de situation de référence et d'évolution, la VNR 2018 du Sénégal se contentant de renvoyer aux stratégies mises en place telles que la SNPS (Stratégie Nationale de Protection Sociale), la SNEEG (Stratégie Nationale d'Egalité et d'Equité de Genre), etc.

ODD n°13 : Prendre d'urgence des mesures pour lutter contre les changements climatiques et leurs répercussions*

S'agissant de « Renforcer, dans tous les pays, la résilience et les capacités d'adaptation face aux aléas climatiques et aux catastrophes naturelles liées au climat » (Cible 13.1 de cet ODD), Le Sénégal s'est doté d'un dispositif important à travers la mise en place d'instruments d'atténuation et d'adaptation aux changements climatiques :

— le Plan d'Action National d'Adaptation (PANA)

99- D'ici à 2030, assurer progressivement et durablement une croissance des revenus des 40 pour cent de la population les plus pauvres à un rythme plus rapide que celle du revenu moyen national

100- Assurer l'égalité des chances et réduire l'inégalité des résultats, notamment en éliminant les lois, politiques et pratiques discriminatoires et en encourageant l'adoption de lois, politiques et mesures adéquates en la matière.

- la Contribution Déterminée au niveau National (CDN), dans le cadre de l'Accord de Paris

- la Politique Nationale de Développement Durable (PNDD)

- la Stratégie Nationale et d'un Plan National d'Actions pour la Conservation de la Biodiversité pour prendre en compte la nécessaire intégration de l'adaptation aux changements climatiques (considérés comme l'une des principales causes de perte de biodiversité au Sénégal) dans le domaine de la conservation de la biodiversité. Sa mise en oeuvre permet ainsi de renforcer la résilience des écosystèmes naturels du pays. D'autres stratégies et programmes sont mis en oeuvre pour lutter contre la désertification et renforcer la résilience de l'économie du pays. Des programmes de réductions nationales des émissions de GES via le Mécanisme de Développement Propre (marché carbone) sont en cours d'exécution.

Objectif 14 : Conserver et exploiter de manière durable les océans, les mers et les ressources marines aux fins du développement durable

- Selon la Banque mondiale (BM), 25% du littoral est classé à haut risque d'érosion côtière, alors que l'urbanisation non maîtrisé et l'extraction de sable pourraient faire passer ce taux à 75% dès 2080.

- un plan national d'immersion des récifs artificiels ainsi qu'un plan national d'adaptation du secteur de la pêche et de l'aquaculture face au changement climatique horizon 2035 est-il mis en oeuvre

- l'Etat du Sénégal poursuit le programme de Gestion Intégrée des Zones Côtières (GIZC) et son élargissement au niveau des îles du Saloum

- Vu l'importance des zones humides dans le maintien des écosystèmes, le Sénégal a inscrit entre 1977 et 2017 huit (8) sites sur la liste des zones humides d'importance internationale d'une superficie de 141 137 ha dont 3 sites inscrits en septembre 2017.

- en ce qui concerne la régulation de la pêche, *l'objectif étant de rétablir les stocks de poissons le plus rapidement possible, au moins à des niveaux permettant d'obtenir un rendement constant maximal compte tenu des caractéristiques biologiques*, l'indicateur n'est pas actuellement renseigné mais on relève des actions pertinentes telles que (1) instauration de périodes de repos biologiques pour plusieurs espèces menacées, (2) codification et augmentation de la surveillance participative, avec le réseau des Conseils locaux de Pêche artisanale (CLPA), (3) définition de quotas pour la pêcherie de crevettes profondes tenant compte des avis scientifique du CRODT, sanctions alourdies dans le domaine de la lutte contre la pêche illicite, non déclarée, non règlementée (INN)[101], etc.

Objectif 15 : Préserver et restaurer les écosystèmes terrestres, en veillant à les exploiter de façon durable, gérer durablement les forêts, lutter contre la désertification, enrayer et inverser le processus de dégradation des terres et mettre fin à l'appauvrissement de la biodiversité

- Le Sénégal a adopté un Cadre National d'Investissement Stratégique en matière de Gestion Durable des Terres (2012 -2026). Les superficies forestières couvrent 24,46 % (PRAIS – UNCCD/ 2000-2015) du territoire national, inférieures à la moyenne mondiale de 52.6 % de superficie forestière.

- Pour l'atteinte de cet ODD, on compte sur de grandes initiatives engagées telles que l'Initiative de la Grande Muraille Verte et l'Initiative « Eco villages » de même que d'autres programmes sous régionaux tels que le Programme de Renforcement de La Résilience à l'insécurité alimentaire Et nutritionnelle récurrente Au Sahel (P2RS) avec les pays membres du CILSS. S'agissant de *promouvoir la gestion durable de tous les types de forêt, mettre un terme à la déforestation, restaurer les forêts dégradées et accroitre nettement le boisement et le reboisement au niveau mondial* (cible 15.2), l'indicateur proposé est approché par les superficies forestières sous gestion durable : L'engagement national étant établi à 5% de progression par an, aujourd'hui le rythme est entre 8,15 % et 10, 7 % entre 2016 et 2017. Le ratio reforestation /déforestation est passé de 1,48 en 2015 à 0,68 en 2016 et 0, 53% en 2017, ce qui est une contreperformance, corollaire à un recul de la régénération naturelle assistée (RNA) qui est passé de 782 ha en 2015 à 7 033 ha en 2016 pour se situer à 1 593 ha en 2017.

101- Cf. nouveau code de la pêche maritime promulgué en 2015 (loi n°2015-18 du 13 juillet 2015) et son décret d'application

Objectif 16 : paix , justice et institutions efficaces

- Au Sénégal comme en Afrique, l'ODD 16 (paix, justice et institutions efficaces) fait partie des objectifs faisant face aux plus grands défis. Cet objectif est en rouge sur la mesure de progrès établie par l'African SDG Index comme pour le SDG Global Index. La proportion des flux financiers illicites, la gestion non transparente des deniers publics et la corruption gangrenant l'administration, la maltraitance des enfants, la faible indépendance de la justice (qui a des répercussions sur le jeu politique autant que sur la confiance des investisseurs et opérateurs économiques), la corruption et le conflit encore rémanent en Casamance sont certainement parmi les obstacles à une appréciation positive du Sénégal sur ce plan. Quelques références sur les indicateurs de cet ODD:

- En 2016, la « proportion de personnes ayant eu, au moins une fois, affaire à un agent public auquel elles ont versé un pot-de-vin ou qui leur a demandé un pot-de vin au cours des 12 mois précédents » est respectivement de 63,53% et 61,14%, selon l'étude sur la perception et le coût de la corruption au Sénégal réalisée par le cabinet Synchronix (CF. Rapport Final VNR 2018 du Senegal soumis au Forum Politique de Haut Niveau (FPHN) des Nations Unies.

- En 2019, le Rapport AfroBarometer[102], reprenant plusieurs indicateurs-clés de l'ODD 16 , établit que « le pourcentage des citoyen enquêtés qui estimant que la corruption a augmenté au cours des 12 derniers mois est de 43% » tandis que « le pourcentage des enquêtés qui pensent que leur gouvernement ne lutte pas efficacement contre la corruption est égale à 53% »

Observation concernant la mise en œuvre et les opportunités de transformation

Pour le Sénégal comme pour la plupart des pays d'Afrique subsaharienne, les principaux obstacles restent :

- des lacunes généralisées concernant la compréhension des distances qui les séparent de l'atteinte des cibles des ODD.

- manque de compréhension de ce qui est nécessaire pour atteindre les ODD, très peu de considération pour les ressources financières à mobiliser et pour la provenance des financements nécessaires.

- Et bien sûr, « le manque de financement et de ressources (qui) a été signalé comme étant le défi le plus significatif pour la mise en œuvre et aussi pour le suivi des ODD. »

Les contraintes et défis pour la mise en œuvre des ODD au Sénégal sont principalement[103] :

- La lutte d'influence entre les Ministères en charges de l'environnement et de l'Economie

- le faible niveau d'encrage du leadership des ODD

- la rigidité du cadre de planification nationale

- le niveau élevé de pauvreté et d'inégalité

- le manque ou la mauvaise qualité des données[104]

- l'implication effective des acteurs, de la société civile et du secteur privé dans tout le processus

- la faible capacités des collectivités territoriales dans l'appropriation des ODD

102- afrobarometer.org/sites/default/files/publications/Publications%20conjointes/partenaires/ab_r7_global_corruption_barometer_report_fr.pdf

103- Selon Isiyaka SABO, Economiste Principal PNUD, Présentation de l'Agenda 2030 au « Deb'ataya 29 » sur le thème ODD et ONG , organisée par la PFONGUE le mardi 08 octobre 2019:

104- Africa SDG Index and Dashboards Report 2019, page 8. Ce que confirme le VNR Sénégal 2018 qui établit que « seuls 35,1% des indicateurs ODD sont conformes au dispositif de suivi des politiques publiques, les ODD 11 et 14 ne pouvant pas pour l'instant être suivis de façon exacte, contrairement aux ODD 7 et 16 pour lesquels plus de la moitié des indicateurs peut être suivie de façon rigoureuse. »; noter également que les «

Les indicateurs qui étaient pris en compte dans les OMD, mettant davantage l'accent sur les aspects sociaux et économiques, sont les mieux renseignés » alors que les « objectifs qui renvoient aux concepts de durabilité et d'inégalités ne sont pas encore bien pris en compte dans le dispositif actuel de collecte/mesure des données » (idem, pages 13 & 14)

Pour certaines analyses (cf. Enda tiers-monde) la véritable faiblesse dans la mise en oeuvre est le cloisonnement sectoriel qui ignore des principes de l'Agenda 2030 essentiels pour les transformations tels que le caractère indivisible des ODD, le principe du « *leave no one behind* », etc. En cloisonnant les ODD dans des approches sectorielles, on en diminue largement le caractère transformateur. En effet, « l'Agenda pour le développement durable de 2030 exige des approches intégrées qui envisagent le développement sous un angle holistique, en utilisant une approche systémique qui tient compte de la relation de cause à effet et des synergies et compromis produits entre les dimensions sociale, économique et environnementale d'une manière globale »[105].

I.17 An overview of the current social, economic, political and environmental context in Senegal

By Moussa Mbaye (Enda Tiers Monde)

- <u>Classé en 2015 parmi les 25 pays les plus pauvres de la planète</u>, le Sénégal aspire néanmoins au statut de « pays émergent » à l'horizon 2035 avec le PSE (Programme Sénégal Emergent) qui décline trois grandes orientations pour un développement inclusif : « Transformation structurelle de l'économie et croissance », « Capital humain, Protection sociale et Développement durable » et « Gouvernance, Institutions, Paix et Sécurité »[106]. Le Sénégal compte également sur sa remarquable stabilité politique, surtout comparé au voisinage où prédominent les crises électorales, la menace terroriste, les conflits inter-communautaires, etc..

- « L'économie sénégalaise (…) peine à générer, depuis l'indépendance (1960), des revenus par habitants susceptibles de réduire significativement la pauvreté » selon le Rapport de la Commission « transformation structurelle de l'économie face au défi du développement humain (DPGPE, Octobre 2019)[107].

- Après une longue période de croissance économique faible et erratique[108] (6,8% de variation annuelle), le Sénégal a enregistré un taux de croissance moyen de 6,6% entre 2014-2018. Toutefois, cette embellie de la croissance s'accompagne d'une détérioration de l'encours de la dette publique, l'accentuation des inégalités et la persistance du taux de chômage principalement des jeunes. Il persiste une défaillance du système étatique de couverture des besoins nationaux qui se traduit par une faible prise en charge des conditions et du cadre de vie des populations.

- L'incidence de la pauvreté monétaire reste élevée, en dépit des politiques qui ont été entreprises durant la dernière décennie. Elle est passée de 55,2% entre 2001-2002 à 48,7% en 2005-2006 et à 46,7% en 2011. La pauvreté est plus accentuée en milieu rural avec une incidence de 57,1% contre 26,1% à Dakar et 41,2% dans les autres villes. Entre 2005 et 2011, la pauvreté a légèrement reculé, à Dakar et en milieu rural, et s'est stabilisée dans les autres centres urbains.

- La création d'emploi est insuffisante pour absorber la demande. L'essentiel de l'emploi reste informel (89%); les création d'emploi relèvent essentiellement de ce volet.

- « La population potentiellement active (15-64 ans) en 2015 est de 54%, tandis que celle inactive (0-14 ans et 65 ans ou plus) représente 46%. Le taux de dépendance exprimant le rapport en pourcentage des personnes inactives aux personnes actives est de 84%[109]. Autrement dit, cent personnes potentiellement actives ont en leur charge 84 personnes inactives ». Cette situation laisse entrevoir un taux élevé de dépendance qui se traduit, entre autres conséquences, par une pression constante sur les individus qui travaillent et qui courent ainsi, le risque de

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105- Cf. Guide pratique : renforcement de capacités pour la mise en oeuvre de l'agenda 2030 et des ODD au sein du réseau ENDA et de ses partenaires.

106- <u>(1) L'axe #1</u> : « Transformation structurelle de l'économie et croissance », qui cadre parfaitement avec 5 ODD (ODD 1 ; ODD 2 ; ODD 7; ODD 8; OMD 9), vise la création durable de riches et l'éradication de la pauvreté sous toutes ses formes ; <u>(2) l'axe #2</u> : « Capital humain, Protection sociale et Développement durable », qui regroupe 9 ODD (ODD 3; ODD 4; ODD 5; ODD 6; OMD 11; ODD 12; ODD 13; ODD 14; ODD 15), doit permettre d'améliorer considérablement l'offre et la demande de services sociaux et la couverture sociale ; <u>(3) et l'Axe#3</u> : « Gouvernance, Institutions, Paix et Sécurité », qui est régi par 3 ODD (ODD 10; ODD 16; ODD 17), répond aux exigences de bonne gouvernance, de développement local, de promotion de la paix, de sécurité et d'intégration africaine.

107- Direction Générale de la Planification et des Politiques Economiques / Ministère de l'Economie, du Plan et de la coopération.

108- « …en dehors de quelques circonstances exceptionnelles (soutien du prix de l'arachide par la France, flambée des prix des matières premières entre les deux chocs pétroliers) et de la période consécutive à la dévaluation de 1994), la croissance du PIB a été insuffisante, ce qui s'est traduit par une tendance à la baisse du revenu moyen par tête d'habitant durant la période 1960-1994. » in Sénégal, an 50. Bilan et perspectives de refondation. -Rapport Final page 58

109 Situation Economique et Sociale du Sénégal Ed. 2015 | ANSD. - page 33

basculer dans la pauvreté monétaire. Elle constitue également une menace sérieuse pour l'équilibre social du pays et peut hypothéquer la réalisation du dividende démographique.

– 34 % des terres du Pays sont dégradées (LADA 2010). Le Sénégal connait une dégradation des terres due aux changements climatiques, à l'exploitation irrationnelle des ressources forestières dont sont tributaires la majeure partie des populations en zones rurales (VNR – Sénégal - MEDD 2015 page 95).

– La diminution de la diversité biologique affecte et continuera d'affecter négativement les secteurs de développement, si le processus de dégradation se maintient (baisse notoire de la fertilité des sols, augmentation du déboisement, accentuation de l'érosion hydrique et éolienne, baisse de la production du fait de l'état de dégradation des terres, inondations, exode rural lié à l'affaiblissement des moyens de subsistance, etc.). « Aujourd'hui dans le pays, l'un des défis majeurs qui se pose est comment concilier la conservation de la biodiversité avec la satisfaction des besoins d'une population dont la demande en ressources est sans cesse croissante » (NBSAP/SPNAB – Sénégal - MEDD 2015 page 33).

– L'exploitation des ressources naturelles a un faible impact sur une meilleure qualité de vie des sénégalais et pose l'enjeu d'une redistribution plus équitable des revenus issus de la valorisation de ces ressources.

– Le pays est secoué de controverses et débats publics, à la suite de scandales liés aux montage financiers autour du Pétrole/Gaz et du foncier (accaparement des terres). Cf. https://www.pressafrik.com/Video-Enquete-BBC-revele-un-gros-scandale-sur-le-petrole-et-le-gaz-au-Senegal_a200746.html

– Avec la découverte récente d'importantes réserves de gaz et de pétrole, une forte demande s'exprime pour traduire dans la réalité le « contenu local » des accords relatifs à l'exploitation des ressources naturelles favorisant un développement de toutes les opportunités d'affaires en ciblant notamment les intérêts des PMI / PME locales.

– Malheureusement, l'industrie extractive et les grands chantiers d'infrastructures continuent d'impacter sur la protection de l'environnement ainsi que la préservation du cadre et des conditions de vie des populations les plus défavorisées.

– La deuxième phase du PSE prépare le Sénégal à la transition écologique avec l'annonce par le Président de la République du lancement du PSE-VERT et l'option de promotion de l'agroécologie.

J. Bridge – Building river dialogue and governance

J.1 Introduction

This Review evaluated – besides country-level IUCN operations in Jordan, Myanmar and Senegal – some of IUCN's global thematic engagements, namely on agrobiodiversity, climate change, forestry, and transboundary water management. This Annex captures the observations on the SDC-initiated and cofunded, IUCN-implemented, global Bridge Program: Building River Dialogue and Governance. These observations should, by no means, be considered comprehensive of IUCN's engagement in transboundary water management in general or Bridge specifically. They merely capture observations relevant to this Review. IUCN offered the Bridge Program as one example where nature conservation and sustainable development are closely interlinked, and where IUCN seeks transformative impact.

J.2 The Bridge Program – an overview

– **Background**. *'By 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity … [and] two-third of global population could be under water stress conditions … Climate change and water stress is projected to cause the displacement of at least 700 million people from arid or semi-arid regions … Aggravated by population growth … and regional and global supply chains water needs, tensions and potential for conflict are likely to be execerbated'.*[110]

– **Objective**. *'Secure and safe access to water is improved for all, water-related conflicts are reduced, and water related ecosystems protected or restored in target transboundary basins through sustainable management and governance of water resources'.*[110]

– **Performance indicators**[110].
  - Number of women and men with improved access to secure and safe water reservoirs in shared basins;
  - Number of legal disputes over water rights at local, basin and national level;
  - Improved water quality, water quantity and ecosystem health in shared water bodies

– **Strategy**. *'To develop mechanisms and tools to … negotiate peaceful agreements on shared water basins … [and] ensure peaceful development at multiple levels of governance'.*[110] Bridge works at multi-scales: from local development groups to bi- and multilateral (regional) institutions.

– **Multi-phase program**. Bridge started in 2011 and was from the start envisaged as a long-term, multi-phase endeavor. It is currently in its fourth phase which runs from 2019 to 2021.

– **Budget Phase 4: 2019-2021**. SDC-funding: CHF 5.4 million; Co-financing: CHF 1.3 million.

– **Activities**. Bridge offers capacity development, dialogue facilitation and technical advisory on:
  - multi-stakeholder, multi-scale cooperation;
  - inter-governmental capacity for the negotiation of water agreements;
  - creating spaces for dialogue and the development of agreements;
  - leadership capacity at all levels;
  - information gathering and exchange, including transboundary water environmental assessments;
  - conflict-resolution mechanisms;
  - the development of water agreements;
  - supporting the establishment of water institutions. .

– **Key tools & documents**.
  - Benefit Opportunity Assessment Tool (BOAT)
  - Legal Assessment on Water Governance (LAGO)
  - Transboundary Instruments Development Tool (TIDE)
  - Hydro-diplomacy handbook
  - Champions of water governance

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[110] IUCN (2018) Bridge: Building River Dialogue and Governance. Phase 4: 2019-2021

- ▪ Women as changemakers in transboundary water governance
- ▪ Water law and governance support platform

- **SDGs**. *'The SDGs provide a needed window of opportunity for enhanced cooperation on shared water'*[110]:
  - ▪ **SDG 6.5**: *'By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.'*[111]
  - ▪ **SDG 6.6**: *'by 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rovers, aquifers and lakes'*.[111]
  - ▪ **SDG 16**: *' Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels'*.[111]

- **Sustainable development**. *'Water security … is needed to ensure sustainable access to adequate quantities of water for sustainable livelihoods, human well-being and socio-economic development'*.[110]

- **Peace**. A recent study from Strategic Foresight Partners found a strong link between peace and water governance: if countries are active in water cooperation then they do not go to war for any reason. The key success factors for water cooperation appear to be: high-level political cooperation on water, joint infrastructure and development processes/projects, and the presence of a conflict resolution mechanism (to resolve conflicts as soon as they arise).

- **Results**.
  - ▪ *'Tailored and adaptive activities have achieved incremental steps forward in cooperation for improved water management'*.[110] The Phase 4 program proposal stresses that:
    - o a range of formal and informal institutions have been created which work towards better cooperation and water management;
    - o critical transboundary environmental water assessments have been undertaken;
    - o leadership and dialogue capacity have been built.
  - ▪ *'In its third phase, Bridge has confirmed its ability to develop a meaningful portfolio of cooperation agreements at multiple governance levels.'*[112]
  - ▪ *'Steady progress in operational mechanisms and management instruments in the bi-national institutions in Sixaola (Costa Rica / Panama) and Goascoran (Honduras / El Salvador)'*[112][114]
  - ▪ *'Across the [meso-America] region, Bridge has acted as a catalyst project that carries out strategic actions that enable planning processes, stakeholder engagement and creation of key capacities'*.[112]
  - ▪ *'Supported the creation and operation of the Binational Commission for the IWRM of transboundary river basin between Ecuador and Peru'*[112]
  - ▪ *'In the TPPS Basin (Bolivia/Peru), Bridge strengthened the Lake Titicaca Authority, as well as the capacity of staff from government institutions and local communities.'*[112]
  - ▪ *'Established new partnership with the Stimson Institute to work on energy dialogue in relation to shared waters'*.[112]
  - ▪ *'Facilitated the determination and management of environmental flows … and strengthened the legal framework of the Bilateral Agreement on the Pungwe, Save, Buzi Basin (Mozambique/Zimbabwe)'*.[112]
  - ▪ *'Lake Chad Basin Water Charter entered into force'*.[112]
  - ▪ *'Transboundary platform for the Chari-Logone sub-basin is operational'*. IUCN also enabled *'an increased flow of information'* through reviews of maps and technical assessments.[112]
  - ▪ *'strengthened institutional and legal frameworks for cooperation at the regional Intergovernmental Authority on Development (IGAD) and in the Sio-Malaba-Makakisi Basin (Kenya/Uganda)'*[112]

- **Political realities**.
  - ▪ **Change takes time**. Transboundary work takes time and progresses with ups and downs. Only works with a long view.

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[111] Final list of proposed Sustainable Development Goal indicators. Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2016/2/Rev.1)
[112] IUCN (2019) Bridge Phase 3. Final Operational Report. Jan 2016-March 2019.

- **Political buy-in**. *'IUCN's multi-level, multi-stakeholder approach is dependent on political buy-in. Where this fails or is retracted (as in the case of Coatán Basin by the Guatemala Ministry of Foreign Affairs) the process stalls ... [The External Review] recommends strengthening efforts on capacity development for hydro-diplomacy at higher political levels'.*[114]
- *'Political disagreements between Malawi and Tanzania about their countries border precluded progress [in the Lake Malawi/Nyasa/Niassa Basin]'.* IUCN refocused activities on each country separately to regain commitment as part of a longer term and staged approach.[112]
- IUCN *'facilitated the renegotiation of the Intergovernmental Authority on Development's Shared Water Resources Protocol ... which has slowed down due to Ethiopia's disengagement'*.[112]
- **Political diplomacy**. When it becomes political, IUCN benefits from close engagement from bilateral donors which have additional diplomatic avenues to influence policies. Where this is present, it increases IUCN's voice. Where it is not present, it can limit IUCN's influence.
- **Capacity**. Success is impeded *'by lacking time resources, reduced human resources and capacities at the Ministry of Foreign Affairs [which] limit the ability to engage on the topic of transboundary water management'*.[114]
- **Neutrality**. *'IUCN understands politics but does not make it political. Countries need to decide what they want to do'.*[113]

- **External Review 2015**[114]:
  - **Adaptative management**. *'IUCN's flexible approach [bottom-up and top-down] has allowed it to adapt to (changing) circumstances. Nevertheless, its effectiveness has been varying'.*
  - *Multi-scale*. *'In Central America, IUCN successfully promoted transboundary cooperation at various levels through stakeholder engagement and capacity development, e.g. the high-level agreement for Transboundary Cooperation in Sixaola Basin'.*

- **Internal Review 2015**[115]:
  - **Lack of time and resources**. *'The implementation ... [in the Pungwe-Busa-Save Basin, Lake Malawi-Nyasa/Niassa Basin and the Intergovernmental Authority on Development's Region] ... suffered from insufficient stakeholder consultations as well as insufficient and / or inefficient allocation of human resources'.*

- **Strategic priorities for Phase 4 – 2019-2021**: *'To consolidate the governance results and focus on demonstrating economic, social, environmental and peace benefits from cooperation on the ground ... In the next phase, Bridge will seek to build on the achievements from past phases around agreements and strengthened stakeholder-inclusive governance mechanisms, by moving more forcefully to the next stage of supporting the planning and implementation of concrete joint water management actions, aiming to demonstrate tangible benefits of cooperation at the basin scale ... this should also trigger more rapid uptake of new cooperation initiatives across regions'.*[110]

- **Specific objectives Phase 4 – 2019-2021**[110]:
  - Designing and financing green/gray **transboundary investments**;
  - Working towards **financial sustainability** of transboundary institutions;
  - Promoting **water quality**;
  - Cooperating on SDG 6.6 on the protection and **restoration of water related ecosystems**;
  - Cross-sectoral dialogue incorporating **benefit-sharing** & nexus dialogue approaches;
  - Development of a Bridge **water governance index**.

- **Intervention logic**.

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[113] Quote from a key informant and seconded by other key informants
[114] Adelphi (2015) SDC's Transboundary Water programme. External Review of SDC's Water Diplomacy and Governance in Key Transboundary Hot Spots Program.
[115] Kaufmann, M. and O. Cogels (2015) Internal Review of the Bridge Africa Program

- **'Demonstration** – *using demonstration and testing of how to make cooperation operational in a basin as the basis for confidence and trust building, shared learning and joint action on concrete steps in building national and transboundary water governance capacity;*
- **Learning** – *using training and capacity building, for multiple stakeholders, including municipal and civil society actors as well as high-level national officials, in water governance, international water law and benefit sharing to improve understanding;*
- **Dialogue for consensus building** – *using demonstration actions and learning events to catalyze new dialogues on technical, economic and social development, and political matters where needed and appropriate;*
- **Leadership Development** – *supporting the empowering of champions for transboundary water cooperation and better water governance who can effectively advocate for mobilization of water diplomacy;*
- **Support facilities** – *providing advice on demand and technical assistance to governments and stakeholders on water governance, including on effective institutional and legal frameworks.*
- **Support for national policy, legal and institutional reform**'[110]

Figure 4. Bridge's intervention logic
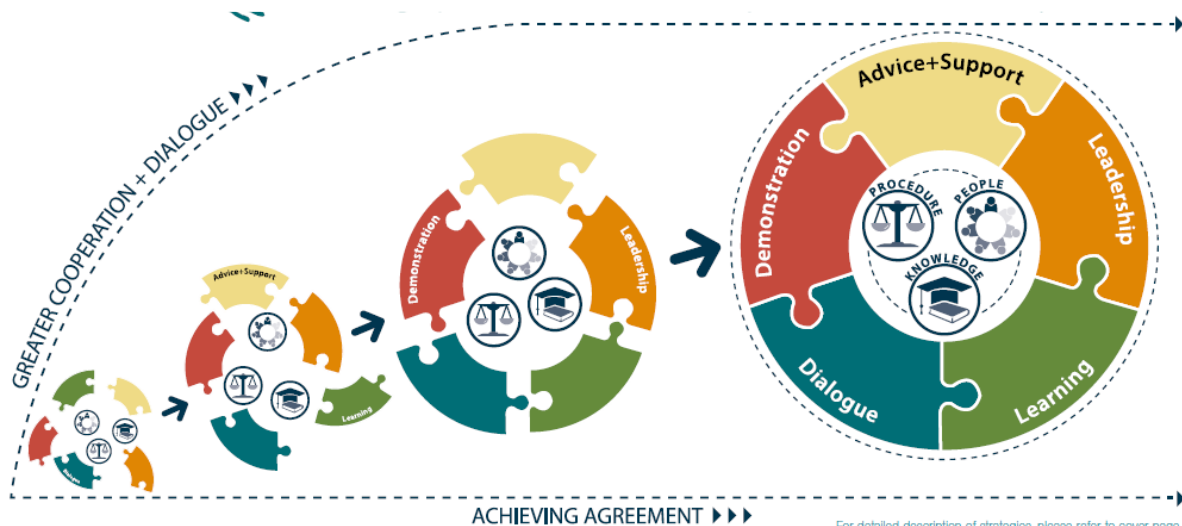
Source: IUCN (2015) Bridge: Building River Dialogue and Governance. Brochure

Figure 5. Bridge is active in 14 transboundary water basins

BRIDGE PROJECTS

Coatan River
(Mexico, Guatemala)

Mano River
(Sierra Leone, Liberia, Ivory Coast, Guinea)

Sekong River
(Viet Nam, Lao PDR, Cambodia)

Sesan River
(Viet Nam, Cambodia)

Goascorán River
(Honduras, El Salvador)

Sixaola River
(Costa Rica, Panama)

Sre Pok River
(Viet Nam, Cambodia)

Zarumilla River
(Ecuador, Peru)

Catamayo-Chira River
(Ecuador, Peru)

Lake Chad
(Niger, Nigeria, Chad and Cameroon)

IGAD Region
(Sudan, Eritrea, Kenya, Ethiopia, Djibouti, South Sudan, Uganda and Somalia)

Lake Titicaca
(Peru, Bolivia)

Lake Malawi/Niassa/Nyasa
(Mozambique, Malawi and Tanzania)

Pungwe, Save and Buzi Rivers
(Mozambique and Zimbabwe)

Source: IUCN (2015) Bridge: Building River Dialogue and Governance. Brochure

- **Organization**. Bridge is managed by IUCN's Global Water Program and IUCN's Environmental Law Centre. Basin-specific work is implemented by IUCN's regional offices with implementing partners in the basins.

- **Gender**. IUCN conducted several studies on the role of women in water management, the active role that women can and should play, formulating actions and policy reforms to address gender gaps and strengthen women leadership and engagement, and showcase case studies on women as changemakers, including:
    - IUCN and Oxfam (2018) Gender and Water Governance in the Mekong Region. Assessment and Opportunities
    - IUCN (2018) Women as change-makers in the governance of shared waters

J.3 Examples

- **The 3S River Basin (Cambodia, Lao PDR and Vietnam)**.
    - **Creating collective action**. *'Experiences in the 3S have illustrated that water diplomacy is a stepwise process that must include a multiplicity of agreements at all levels. In order for cooperation to take shape, space must be created for dialogue and shared learning which can create an environment where joint action across sectors can happen'.*[116] An almost identical paragraph is included in IUCN (2013). Bridge Case Study: Lake Titicaca (Peru and Bolivia). Enhancing transboundary cooperation through technical coordination and institutional reform.
    - **Development relevance**. *'The 3S Basin has great potential for agriculture, forestry, hydropower, fisheries, and ecotourism.'*[116]
    - **Bridge contributed to** amongst others:
        o The formation of the river-basin secretariat in Lao PDR;
        o National-level challenges roadmap;

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[116] IUCN Water Program – Bridge Case Study: The 3S River Basin (Cambodia, Lao PDR and Vietnam). Creating spaces for cooperation through multi-level dialogue and capacity building.

- A Sekon Basin profile study;
- 3S Basin website;
- Situation analysis report;
- Training and capacity development at local, national and regional level
- Development and support of a leadership network;
- Nexus assessment of (the solutions to) environmental threats (see section J.5).

- **Sio-Malaba-Malakisi Basin**:
  - **Investment framework**. IUCN, together with UNECE, and funded by the US State Department, helped the Intergovernmental Authority on Development's Water Technical Advisory Committee with the development of a framework for promoting and guiding investments of transboundary significance in the Basin.[117]
  - **Prioritized investments**. The investment plan foresees investments in amongst others river bank protection, water supply, irrigation, storm water drainage, pollution control, solid waste management, soil conservation, catchment protection, and multi-purpose dams (energy and irrigation).[118]

- **Lake Titicaca**[119].
  - **A history of cooperation**. On Lake Titicaca, there is a long history of technical expertise and Integrated Water Resource Management. A transboundary institution was established in 1993: the Titicaca Basin Authority. This developed an Integrated Water Resource Management Strategy in 2010 (before Bridge).
  - **Institutional development**. Bridge is helping by strengthening the governance capacity and reforming the Titicaca Basin Authority to rebuild trust and support from local stakeholders.
  - **Bridge**:
    - Completed river basin maps;
    - Developed a strategy for a regional water information system;
    - Conducted regional workshops and an exchange with the Rhine Commission;
    - Developed a network of women empowered for water quality monitoring and protection;
    - Developed a workplan for outlining a regional Integrated Water Resource Management;
    - Conducted hydro-diplomacy.

- **Myanmar – Salween Basin**. *'Huge political sensitivity is needed in the Salween basin, still an active conflict zone. BRIDGE has to find the right balance between respecting sensitivities but at the same time going beyond just identifying and describing the problem and find a way to advance significantly the discussion on several fronts. IUCN added value on the Salween seems clearer now with key entry points being looking at legal framework for the Salween governance and identifying options within the cease fire treaty'.*[120] The relations between government and civil society and within the civil society are extremely fragile. The Salween river is one of the last non-dammed rivers.

- **The Sava-basin in Western Balkans**. *'The establishment of the Stability Pact for South-Eastern Europe provided a solid basis for active cooperation of all stakeholders in the region and paved a way toward creation of new approach to water resources management in the basin. Following the support of the Stability Pact, the four riparian countries of the Sava River Basin - Bosnia and Herzegovina, Federal Republic of Yugoslavia, Republic of Croatia and Republic of Slovenia entered into a process of cooperation known as the Sava River Basin Initiative … the basin countries … concluded the Framework Agreement on the Sava River Basin (FASRB) … which integrated all aspects of the water resources management and established the (joint) International Sava River Basin Commission (ISRBC) for the implementation of the FASRB, with legal status of an international organization.'*[121] The Framework Agreement

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[117] IUCN et al. Sio-Malaba-Malakisi Basin Investment Framework 2018; Bridge Transboundary water governance and cooperation: the Benefit Opportunities Assessment Dialogue in the Sio-Malaba-Malakisi Basin of the Nile. Bridge Advertisement in the EastAfrican
[118] IUCN et al. The Sio-Malaba-Malakisi 4 clusters of prioritized investment projects.
[119] IUCN (2013). Bridge Case Study: Lake Titicaca (Peru and Bolivia). Enhancing transboundary cooperation through technical coordination and institutional reform.
[120] IUCN (2019) Bridge: Building River Dialogue and Governance. Phase 4. Progress Report. Q1-2 2019.
[121] https://www.savacommission.org/history

facilitated the transportation of goods, as well as access to water and energy and contributed to regional (re-)integration.

- **The Senegal Basin Development Organization**. This organization was set-up in the 1970s at the highest political level as direct response to droughts and food scarcity. From the start, it had a double mandate: ecosystem restoration and development. With external funding (including from the World Bank), it undertook large scale investments in hydropower and irrigation projects – the latter may also have had negative environmental impacts.

J.4   Bridge and the water conventions

- **UNECE Water Convention** – Convention on the Protection and the Use of Transboundary Water Courses and International Lakes[122]:
  - Date: 1992
  - Entered into force: 1996
  - Amendment to open the convention to countries outside UNECE: 2003
  - Amendment entered into force: 2013
  - **Overall objective**. To promote peace and security, reduce negative impact, and restore ecosystems.
  - **Specific aims**:
    o   Ensure the sustainable use of transboundary water resources by facilitating cooperation.
    o   Strengthen transboundary water cooperation and measures for the ecological sound management and protection of transboundary surface water and groundwater.
    o   Foster the implementation of Integrated Water Resource Management, in particular the basin-approach.
  - **SDG 6.5.2**: UNECE is co-custodian agency of SDG 6.5.2.: *'Proportion of transboundary basin area with an operational arrangement for water cooperation.'*[123]
  - **Program of work:**
    o   **Budget**: US$9,7 million (from SDC and 21 other donors)
    o   **Aim**: to support the implementation of the Convention and its principles.
    o   **Activities**: including, amongst others, assessment and monitoring of basins; training workshops; institutional capacity development, support Integrated Water Resource Management at all levels in Basins; facilitate the sustainable financing of transboundary cooperation; implement restoration activities.
    o   **IUCN** is mentioned by UNECE as a formal partner for implementing the Program of Work (even though IUCN finds that such mentioning by UNECE is done without adequate consultation and agreement on the roles and responsibilities of formal partners).
  - **Cooperation**. IUCN and UNECE work closely together and regularly exchange information. UNECE sees IUCN as a valuable partner on the ground. UNECE itself can contribute global policy engagements, insert tools and methodologies and provide UN legitimacy.
  - **Tension**. UNECE would like IUCN to advocate stronger for and build more on the UNECE Water Convention. IUCN wants to maintain its neutrality and notes that some countries want to work on transboundary water management without joining either of the two water conventions. IUCN therefore offers technical advice (including on the conventions) and does not push countries to sign. A motion is being prepared for the World Conservation Conference in Marseille, 2020, which (in draft form) calls, amongst others, on the Director-General of IUCN *'to ensure that the IUCN secretariat contributes to strengthening the governance of transboundary waters, in particular by disseminating information on the role of the Watercourses and the Water Convention, and by building capacity for acceding and implementing them'.*[124]

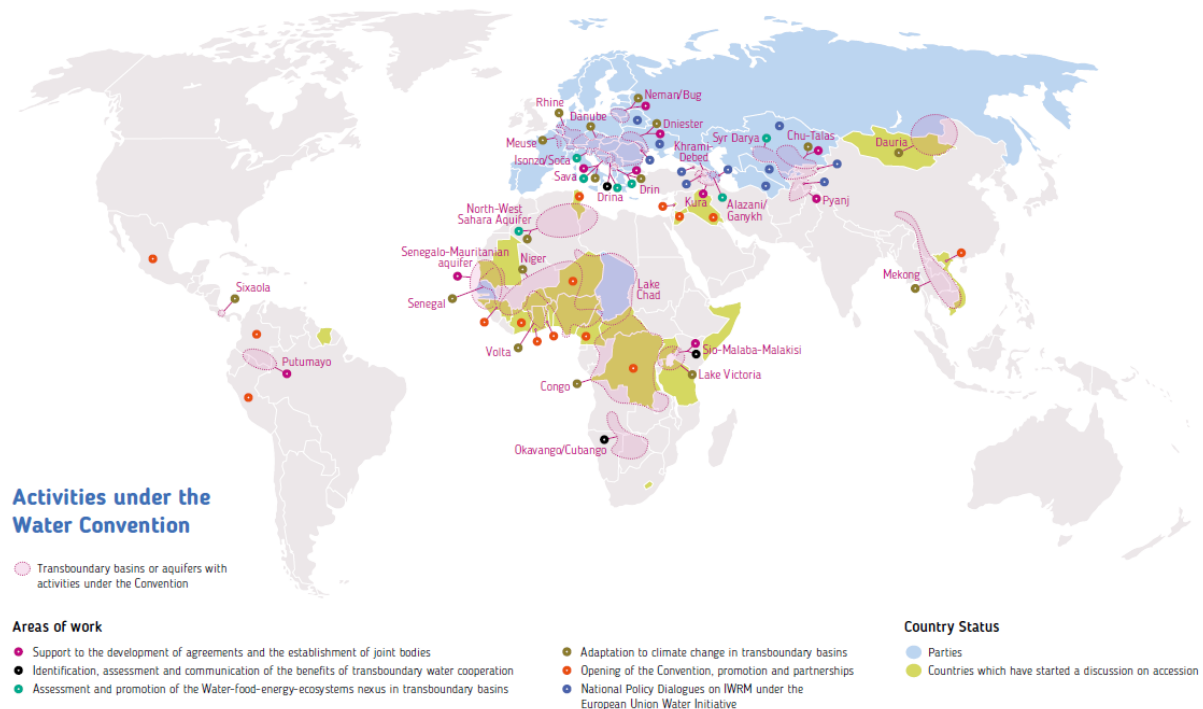[122] https://www.unece.org/env/water.html;   UNECE (2018) Water Convention. Program of Work 2019-2021
[123] Final list of proposed Sustainable Development Goal indicators. Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2016/2/Rev.1)
[124] Draft Motion for the 2020 WCC: 017 Cooperation on Transboundary fresh waters to ensure ecosystem conservation, climate resilience and sustainable development.

- **UNECE is active globally**.

Figure 6. Geographic scope of UNECE Program of Work

Activities under the Water Convention

Transboundary basins or aquifers with activities under the Convention

Areas of work
- Support to the development of agreements and the establishment of joint bodies
- Identification, assessment and communication of the benefits of transboundary water cooperation
- Assessment and promotion of the Water-food-energy-ecosystems nexus in transboundary basins
- Adaptation to climate change in transboundary basins
- Opening of the Convention, promotion and partnerships
- National Policy Dialogues on IWRM under the European Union Water Initiative

Country Status
- Parties
- Countries which have started a discussion on accession

– **UN Water Convention**[125] – Convention on the Law of the non-navigational uses of international watercourses
  - Date: 1997
  - Entered into force: 2014
  - **Aim**: *'applies to uses of international water courses and their waters for purposes other than navigation and to measures of protection, preservation and management related to the uses of their waters'*. The Convention promotes: equitable and reasonable utilization, not to cause harm, and the obligation to cooperate and exchange data.
  - **Compatibility**. A UNECE report concludes that the UNECE and UN water conventions are complementary (each details articles of others) with some differences in scope and requirements (on e.g. the establishment of bodies and the need to adapt existing agreements).[126]

– **IUCN's advisory role**. *'Cambodia stakeholders were skeptical whether the Mekong River Agreement and the United Nations Water Convention were compatible. IUCN organized a national seminar and convinced the stakeholders that they were and in fact strengthen and complement the Mekong Agreement.'*[127]

J.5 Global (policy) engagements

– IUCN's Global Water Programme participates, amongst others, in the non-state working group for water under the Marrakech Partnership under UNFCCC and co-organizes the water day in UNFCCC's annual Conference of Parties.

J.6 Nexus solutions

– **A holistic approach**. *'Global experience shows that the existing siloed approaches to water, food and energy will result in a continued degradation of the national environment'*.[128] IUCN seeks cross-sectoral and integrated

[125] https://www.unwatercoursesconvention.org/
[126] UNECE (2016). The Global Opening of the 1992 Water Convention
[127] Adelphi (2015) SDC's Transboundary Water programme. External Review of SDC's Water Diplomacy and Governance in Key Transboundary Hot Spots Program.
[128] IUCN (2019) Measuring, understanding, and adapting to nexus trade-offs in the Sekon, Sesan and Srepok Transboundary River Basin.

solutions, i.e. promotes a nexus approach. The table below shows an example how different nexus solutions can resolve threats to livelihoods and the environment.

Table 2. Nexus solutions for livelihood and environmental threats

NEXUS SOLUTIONS									
1. Multi-purpose dams or new operating rules									
2. Large-scale groundwater recharge infrastructure									
3. Natural infrastructure 1: Seepage troughs									
4. Natural infrastructure 2: Wetlands									
5. Natural infrastructure 3: Use of paddy fields									
6. Natural infrastructure 4: Use of floodplains									
7. Natural infrastructure 5: Other									

THREAT	NEXUS SOLUTIONS							AVAILABLE SOLUTIONS
	1	4	7	3	6	5	2	
1. Over-pumping groundwater for irrigation	1	1	1	1	1	1	1	7
2. Location-specific flood management infrastructure	1	1	1			1	1	5
3. Increased irrigation diversions	1	1	1	1			1	5
4. Over-exploitation of fishery and other aquatic organisms	1	1	1		1			4
5. Intensified smallholder agriculture and agrochemicals	1	1		1				3
6. Mineral processing impacts on water quality	1	1		1				3
7. Increased industrialization in upper Sesan and Srepok	1	1						2
8. Maximizing hydropower, increased dams and reservoir area	1							1
9. Deforestation			1					1
Potential number of threats that could be addressed	8	7	5	4	3	2	2	

Source: IUCN (2019) Measuring, understanding, and adapting to nexus trade-offs in the Sekon, Sesan and Srepok Transboundary River Basin

J.7 IUCN Value-added

− **Participatory approach**. *'Stakeholder involvement is one of the biggest strengths … IUCN has a strong modality of work based on promoting dialogue, building capacities and partnerships and raising awareness at multiple levels, aiming to join them up into a coherent whole'.*[129]

− **Partnership approach**. IUCN is able to forge strategic partnerships, whether with development organizations, local NGOs or individual experts which can *'push activities, foster dialogues and carry out regular advocacy'* and apply/use IUCN's knowledge products and methods.[129]

− **Long-term engagement**. IUCN is recognized for its long-term presence on the ground.

− **Strong empirical knowledge and linkages with scientific community** allows IUCN to build theoretical knowledge.

− **Niche**. *'IUCN's niche is to support the environmental dimension of cooperative or joint investment programs at the basin scale'.*[130]

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[129] Adelphi (2015) SDC's Transboundary Water programme. External Review of SDC's Water Diplomacy and Governance in Key Transboundary Hot Spots Program.
[130] Kaufmann, M. and Olivier Cogels (2015) Internal Review of the Bridge Africa Program

K. Forestry and the Restoration Initiative

K.1 Introduction

This Review evaluated – besides country-level IUCN operations in Jordan, Myanmar and Senegal – some of IUCN's global thematic engagements, namely on agrobiodiversity, climate change, forestry, and transboundary water management. This Annex captures the, for this Review relevant, observations on IUCN's engagement in the forestry sector, in particular concerning IUCN's The Restoration Initiative. These observations should, by no means, be considered comprehensive of IUCN's engagement in the forestry sector. IUCN offered the GEF-funded The Restoration Initiative as one example where nature conservation and development are closely interlinked, and where IUCN seeks transformative impact.

K.2 The Restoration Initiative

− **Introduction**. The Restoration Initiative is an IUCN-initiated, GEF-funded, global program on landscape restoration. It builds on the Bonn Challenge and IUCN's work on forest landscape restoration around the world including in Rwanda. (IUCN's work on the Bonn Challenge and in Rwanda are elaborated below).

− **Geography**. The Initiative is active in 10 countries: Cameroon, Central African Republic, China, Democratic Republic of Congo, Guinea-Bissau, Kenya, Myanmar, Pakistan, Sao Tome and Principe and Tanzania

− **Period**. 2018-2023

− **Funding**. GEF: US$ 54 million

− **Organization**. The Initiative is implemented by IUCN, FAO and UNEP. The execution of national projects is done with different levels of government and NGOs.

− **Objective**. *'To contribute to the restoration and maintenance of critical landscapes to provide global environmental benefits and enhanced resilient economic development and livelihoods, in support of the Bonn Challenge'*.[131]

− **Rationale**. *'Healthy and productive landscapes, from forests and wetlands to pastures and farms, are the building blocks of livelihoods and economies, providing the bulk of essential ecosystem services on which human societies depend'*.[131]

− **SDGs**. The Initiative is to contribute directly to SDG 15.3 on land degradation neutrality: *'By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world'*.[132]

− **Threats**. Drivers behind land degradation are: *'poor land use practices, rising populations and incomes, and climate change'*.[131] Insecure land tenure adds to the challenge.

− **Strategy**. To promote the adoption of the Forest Landscape Restoration approach which *'aims to restore ecological integrity at the same time as improving human well-being through multifunctional landscapes'*.[133] IUCN acknowledges that increasing productivity of land (i.e. ecosystem services) is an important motivator for conservation action in countries. IUCN's seeks to provide an alternative way to deal with nature which serves communities and livelihoods. IUCN takes thereby a landscape vision, not a global perspective.

− **Intervention logic**. The Initiative promotes forest landscape restoration through (i) enhancing countries' policy enabling environment for forest landscape restoration; (ii) capacity building of local stakeholders to implement the forest landscape restoration approach; (iii) provide direct support to implementation of demonstration / pilot projects, providing scalable models for replication; and (iv) support efforts to mobilize funding for forest landscape restoration; and (v) promote knowledge sharing and dissemination.

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[131] https://www.iucn.org/theme/forests/projects/restoration-initiative-tri
[132] Final list of proposed Sustainable Development Goal indicators. Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2016/2/Rev.1)
[133] https://www.bonnchallenge.org

K.3 The Bonn Challenge

– **Framing**. The Bonn Challenge is a country-led voluntary initiative launched by the German Government and IUCN in 2011. At the 2014 UN Climate Summit, the Bonn Challenge was included as part of the New York Declaration on Forests (the latter is elaborated upon below).

– **Objective**. It is *'a global effort to bring 150 million hectares of deforested and degraded land into restoration by 2020, and 350 million hectares by 2030'.*[133]

– **Benefits**. 150 million ha of restored forests is estimated to have a net benefit to society through enhanced ecosystem services of US 84 billion per year. 350 million ha of restored forest landscapes the equivalent of US$ 170 billion per year. 90% of these benefits are *potentially tradable* on markets. 350 million ha can also sequester 1,7 gigatons of carbon annually.[133]

– **Organization**. IUCN holds the Bonn Challenge Secretariat and as such manages, confirms and tracks the Bonn Challenge pledges by liaising with pledging countries and with contributing regional initiatives.

– **Results**.

  ▪ *'To date, 57 governments and private sector entities have pledged 170 million hectares towards the Bonn Challenge target.'*[131]

  ▪ The Bonn Challenge Barometer – a progress tracking tool developed by IUCN – reports[134]:

     o that 43,7 million hectares are under restoration in 2018. This is 29% of the 2020 target. IUCN notes that this figure stems from just 13 countries. In 2020, IUCN aims to provide a comprehensive picture of the landscape restoration in all countries which pledged to the Bonn Challenge.

     o In the five countries with in-depth information, 354,000 jobs were created. This mostly concerned people directly involved in the implementation of restoration efforts, maintenance of restored areas and (for some countries) the people working in the timber and non-timber value chains of restored areas. These therefore constitute both short-term and permanent jobs.

     o What is the quality and consistency of the data? The report states: *'the pilot countries adopted a wide range of approaches to respond to the indicators [i.e. field data, estimates and extrapolation] … as such no attempt is made to draw comparisons between countries'.*

K.4 New York Declaration on Forest

– **Framing**. *'The New York Declaration on Forests is a voluntary and non-binding international declaration to take action to halt global deforestation. It was first endorsed at the United Nations Climate Summit in September 2014. In September 2019, it had 200 endorsers: national governments, sub-national governments, multi-national companies, groups representing indigenous communities, and non-government organizations.'*[135]

– **Secretariat**. UNDP

– **Progress assessment**. In 2019, UNDP commissioned a five-year assessment of progress on protecting and restoring forests. Some key findings[136]:

  ▪ The Declaration aims to at least halve the rate of loss of natural forests globally by 2020 and end national forest loss by 2030. The assessment found that the *'global rate of gross cover loss has increased by 43% from an average loss of 18.3 million ha per year before the declaration to 26.1 million ha per year after the declaration'.* Practically, this implies that by 2020 the Bonn Challenge can at best hope to have compensated the gross cover loss since 2011. (IUCN notes that forest landscape restoration was never meant to compensate directly for deforestation and should be evaluated on its own merits. Still, putting

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[134] IUCN (2019) Second Bonn Challenge Progress Report. Application of the Barometer in 2018.
[135] https://forestdeclaration.org/about
[136] https://forestdeclaration.org/goals

the figures of deforestation and forest landscape restoration side-by-side gives a sense of the challenge at hand)

▪ The Declaration is to support and help meet the private sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper and beef by no later than 2020. The assessment found that *'deforestation will not be eliminated from the production of agricultural commodities by 2020 … the company commitments are too weak to be effective … the most effective measures are sector wide moratoriums and class-action'*. The Report further notes that *'demand side measures play an important role in achieving sustainable supply chains'*.

▪ Several key informants acknowledged that it is key to get environment protection concerns into important production sectors (i.e. in agriculture, forestry, energy, tourism, and transport in in the education curricula – so-called mainstreaming of biodiversity.

▪ The assessment also concludes that *'economic development models that rely on infrastructure development and resource extraction are difficult to reconcile with the need to protect and restore forest areas due to differing priorities among key actors'*.

▪ *'To be effective, forest conservation measures have to address poverty as well. … a lack of livelihood alternatives and increased population pressures (from migration and population growth) trigger unsustainable forest use and lead to the expansion of agricultural land which is the most significant cause of deforestation'*.

▪ Investments in stopping deforestation in tropical countries comprise less than 1,5% of the support multilateral institutions and developed country donors have spent on climate change mitigation in these countries since 2010: US$ 3.2 million versus US$ 256 million.

▪ *'Poor forest governance correlates with high deforestation and enables illegal activity. … Communities … lack secure tenure and rights… when local communities have full land rights, then forests are better protected over time'*.

▪ *'Existing structures of poverty and inequality tend to exacerbate basic needs driven deforestation & forest degradation'* (through wood harvesting and small-scale crop production).

K.5 The Global Partnership on Forest Landscape Restoration

– In 2003, IUCN initiated the Global Partnership on Forest Landscape Restoration (GPFLR). This partnership seeks *'to catalyze dynamic, voluntary action through sharing diverse experiences on restoration efforts which deliver tangible benefits to local communities and nature through a landscape approach.'*[137]

– After the launch of the Bonn Challenge, the GPFLR updated its mission to *'unite governments, organizations, communities and individuals around the restoration of degraded and deforested lands (…) supporting Bonn Challenge commitments'.*[138]

– IUCN has been the Coordinator of the GPFLR since its creation and holds the e-secretariat of the Partnership.

K.6 The case of Rwanda

– **Bonn Challenge pledge and provisional results**. In 2011, the government of Rwanda pledged to bring 2 million ha of land into restoration by 2020 as one of the first Bonn Challenge countries. By 2019, Rwanda restored upwards of 700,000 ha of degraded land. It is estimated that total forest cover increased by 11% over the last decade.[139]

– **Background**. The Rwanda government acted because it saw *'a healthy future for the people and environment in jeopardy … a rapidly growing population where livelihoods are based on subsistence agriculture and energy*

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[137] http://www.forestlandscaperestoration.org/
[138] https://www.bonnchallenge.org/content/global-partnership-forest-landscape-restoration
[139] Story mapping of the Rwanda experience:
https://iucn.maps.arcgis.com/apps/MapJournal/index.html?appid=0c40be7f83c64bb9b7c8f3372358c6f9#

extraction put tremendous pressure on the limited natural resources ... the intense pressure to cultivate new lands led the people to move up the hill sides [which caused] ... soil erosion, depleted soil fertility and heavy sediments dogging waterways and reservoirs'. In addition, the country experienced, unchecked mining and timber extraction.[139]

- **Government response**. The government revised key policies and strategies, including the Green Growth Strategy, the National Forest Policy, Organic Law on Environmental Protection and the Strategic Plan for the Transformation of Agriculture.[139]

- **Government objectives**. The government's objectives were people-based and included: increase in agricultural productivity, improved food security and rural incomes, increased resilience to climate change, improved water supply, and reduced vulnerability to landslides and other disasters.[139]

- **Action**. Between 2011 and 2019, Rwanda implemented 80 restoration projects with a combined funding of US$ 6.7 million, i.e. from international and domestic sources.[139]

- **Government strategy**. The government aimed to (i) improve coordination between agencies; (ii) improve delivery of high-quality planting stock; (iii) match farmer preferences with Forest Landscape Restoration options; and (iv) initiate early action.[139]

- **Moving forward**. The government wants to maintain momentum through (i) continued capacity building and integrated planning and implementation of existing policies; (ii) create incentives for farmers and communities to apply Forest Landscape Restoration initiatives, including direct compensation and investment funding; (iii) support private companies to take action through an ecological compensation mechanism for companies with negative impacts on forest ecosystems to boost restoration in the landscape; and (iv) share and amplify successful business models.[139]

K.7 IUCN's involvement in Rwanda

The early years

- **Government request**. In 2011, the Rwanda Government asked IUCN to help it define and announce a restoration pledge, and to open an office to support implementation and act as a regional hub for forest landscape restoration.

- **IUCN flexibility**. IUCN reoriented some projects to get a staff member (a forestry expert) in Kigali. The challenge was subsequently to build up a portfolio to support a country office. This project funding support came first from the German government to help Rwanda implement its commitment under the Bonn Challenge.

- **IUCN's role**. IUCN coached and facilitated the Rwanda government on policies and strategies for Forest Landscape Restoration, but also stepped in with expertise and implementation capacity. Between 2012 and 2014, IUCN undertook the Restoration Opportunities Assessment Methodology assessment in Rwanda. It identified that the greatest opportunity for restoration lay in agro-forestry, i.e. the incorporation of trees in agricultural landscapes. IUCN also brought in the World Resources Institute for its Global Information System expertise.

The last five years

Between 2015 and 2020, IUCN implemented the German-funded program: Piloting Multiple-Benefit Investment Packages through Forest Landscape Restoration and REDD+ in Rwanda for scaling up in Africa.[140]

- **Budget**. €4.2 million

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[140] IUCN (2019) Piloting Multiple-Benefit Investment Packages through Forest Landscape Restoration and REDD+ in Rwanda for scaling up in Africa. Annual Report 2018

- **Objective**. *'Demonstrated and verified enhancement of carbon sinks and other ecosystem services delivered through landscape scale restoration in two Rwandan districts with the institutional and investment means to upscale nationally and promote regionally.'*[140]

- **Provisional results**.

  - 18088 ha restored – 15550 ha agro-forestry, 1003 ha forests on bare land and 1547 ha in existing forests. This is in line with the program target of 18000 ha.

  - €57 million additional funding for Forest Landscape Restoration in Rwanda from the Netherlands (€22 million), GCF (€32 million) and Rwanda government (€3.8 million). This is near the target of €60 million.

  - Cross-sectoral task forces at the national, district and village level are operational (conform target).

- **Policy influence**. IUCN notes that the project influenced the (i) Forest Research Strategy and Guidelines for Rwanda 2018-2024; (ii) Forest Sector Strategic Plans 2018-2022; (iii) Rwanda National Forestry Policy 2018; and (iv) the National Tree Reproductive Materials Strategy 2018-2027.

- **Ecosystem services**. IUCN carried out a range of valuation assessments, value chain and market analyses, feasibility studies, a study on Payment for Ecosystem Services, and helped develop business plans and set up a Public Private Partnership platform. The Annual Report does not indicate that this had already led to an increased trade in and payment for ecosystem services. The most concrete and immediate example given is:

  'Based on the produced bamboo value chain and business investment plan, negotiations are being finalized for a Private Public Partnership with EcoPlanet Bamboo to manage existing 554ha, plant new 1000 hectares and establishing a bamboo based bio-economy factories is being discussed and expect to start late 2019. EcoPlanet Bamboo is also being supported to access co-finance from FONERWA [Rwanda's Environment and Climate Change Fund] to start their bamboo venture in Rwanda'.

Textbox 3 IUCN's intrinsic commitment to partners

For IUCN, the Rwanda case is quintessential IUCN. It shows IUCN's ability to convene and understand local stakeholders, build trust, find a common purpose and language, and facilitate the formulation of a shared objective with *'a disparate groups of people and organizations'*, an objective which IUCN subsequently *'co-owns'* and IUCN commits itself towards for the long-term and to *'work with the local stakeholders'* in an iterative, non-linear process to implement incremental change. For IUCN, the Rwanda and Forest Landscape Restoration work illustrates IUCN's *'purposefulness'* and *'persistency'*.

K.8 Other observations

- **Advocacy**. IUCN can and does conduct advocacy at the country-level (e.g. promote a Forest Landscape Restoration Approach) and has different ways of generating policy impact at the international level. IUCN maintains a neutral stance with regards to core text-negotiation matters at the UNFCCC (e.g. on Art 6 of the Paris Agreement concerning internationally transferable mitigation outcomes), advocating instead for the consideration of nature-based solutions. IUCN's stances are reflected in its position papers.[141,142]

- **Local development benefits**. Over the last 10 years there is the increased recognition that nature conservation projects need to have local social-economic benefits for them to be sustainable. In restoring degraded land, this is relatively easy to achieve.

- **UN Decade on Ecosystem Restoration**. El Salvador, with support from IUCN, initiated and promoted the idea. On 1 March 2019, the United Nations General Assembly proclaimed the UN Decade on the Ecosystem Restoration from 2021-2030 (supported by 70 countries):

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[141] https://www.iucn.org/theme/climate-change/resources/position-papers
[142] https://www.iucn.org/sites/dev/files/iucns_key_messages_for_unfccc_cop25_-_en.pdf

'We cannot realistically achieve the SDGs without addressing the threats to the very fabric of life on the planet. Climate change mitigation and adaptation, water and food security, poverty reduction, economic growth and biodiversity conservations all depend on thriving, well-functioning ecosystems'.[143]

- **Coordination**. A study on Forest Landscape Restoration practices in Latin-America by IUCN concludes that inter-institutional and inter-sectoral coordination mechanisms *'can and are addressing the coordination challenge'*. Their success relies on (i) the diversity and quality of engagement of its members; (ii) technical knowledge and capacity; (iii) the power to influence the political system; and (iv) the ability to forge strategic partnerships. It also recognizes that *'for every participant there is a particular cost-benefit equation concerning their involvement that must make sense in order for them to stay'.*[144]

- **Valuation**. A value-for-money assessment of the implementation of Forest Landscape Restoration in Guatemala concluded that the net present value of timber and non-timber forest, agro-forestry, and silvo-pastoral products (amongst others timber, plantain, cacao, cattle, maize and beans) amounts to US$700.000 over a 35 year period with a 12% discount rate.[145]

- **A crowded field**. Many actors are active (and, at times, competing) in forest restoration. IUCN always took a leadership role.

- **Value-added**. Key informants identified the following value-added of IUCN:

  - Its ability to **operationalize global commitments** like the SDG on land degradation

  - Its **tailored, country-level, analytical work** which feeds into the development and environment program of other organizations, such as the World Bank.

  - Its ability and willingness to **think-out-of-the-box and pursue innovative ideas**[146];

  - Its ability to **develop methodologies** like Restoration Opportunities Assessment Methodology assessment or How to Invest in Locally Controlled Forests.

  - Its **flexibility** – whilst it takes position, it is not dogmatic and can support local leadership.

  - Its **convening power**;

  - Its **access** – its ability to get the ear of government officials;

  - Its **long-term engagement** in Forest Landscape Restoration

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[143] https://www.decadeonrestoration.org/what-decade
[144] IUCN (2019) How inter-institutional networks transform landscapes. Lessons from Latin America in advancing forest landscape restoration
[145] IUCN (2018) Value-for-money assessment of Guatemala's Forest Landscape Restoration.
[146] The example was given on how to use block-chain technology for nature conservation

L. Agrobiodiversity

L.1 Introduction

This Review evaluated – besides country-level IUCN operations in Jordan, Myanmar and Senegal – some of IUCN's global thematic engagements, namely on agrobiodiversity, climate change, forestry, and transboundary water management. This Annex captures observations on the, for IUCN, emerging field for agrobiodiversity.

L.2 The Biodiversity Plan in two words

The last Plan of Action (2011-2020 consists of five strategic goals (including the twenty Aichi Biodiversity targets more or less related to the SDGs, Including SDG 2[147]):

– Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

– Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use

– Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

– Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

– Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building[148]

It appears that biodiversity is at the crossroads of several issues: gender[149], tropical timber production[150],

L.3 Agro-biodiversity

Biodiversity is the IUCN's *raison d'être*, its very core-business. From development relevancy, we will insist on a more but still highly relevant limited facet of biodiversity, the *agro-biodiversity*, that is, the biodiversity directly related to agriculture in the wider sense (vegetal and animal production, included pastoralism, wood and forest production). It is important to underline that, in our view, agro-biodiversity *also* includes soil biodiversity[151]. As wisely recognized by the secretariat of the CBD, '*Agriculture has to face two main challenges in relation with biodiversity: (i) to sustain agricultural biodiversity and ecosystem services provided by, and necessary for, agriculture, and (ii) to mitigate the negative impacts of agricultural systems and practices on biodiversity which is not used directly whether in the same or other ecosystems*'[152].

The *special nature of agricultural biodiversity*, its distinctive features, and problems needing distinctive solutions is widely recognized as clearly stated in a document recently published by CBD. '*Indeed, several features set agricultural biodiversity apart from other components of biodiversity[153]*':

– Agricultural biodiversity is essential to satisfy basic human needs for food and livelihood security.

– Agricultural biodiversity has been - and is still - shaped and developed through human activities and practices over generations. Farmers' communities play a key role as custodians and managers of agricultural biodiversity.

147- https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf ; see also CBD, FAO, WB, UNEP, UNDP (2017). B*iodiversity and the 2030 agenda for sustainable development.* Technical Note.

148- https://www.cbd.int/sp/elements/

149- Clabots, B. & Gilligan, M. (2017). *Gender and biodiversity: Analysis of women and gender equality considerations in National Biodiversity Strategies and Action Plans (NBSAPs).* IUCN, p.49.

150- Claudia Azevedo Ramos, Musa Abu-Juam, Petrus Gunarso, Emmanuel Ze Meka, Jeff Sayer, Sandeep Sengupta and Stewart Maginnis (IUCN), and William Hawthorne (2009). *Guidelines for the conservation and sustainable use of biodiversity in tropical timber production forests* ITTO Policy Development Series, N°17

151- Soil biodiversity therefore includes 99% of all terrestrial biodiversity in a given landscape. This part of the bio-reality is regularly neglected despite the major regulating function of soil biodiversity.

152- https://www.cbd.int/agro/whatstheproblem.shtml

153- https://www.cbd.int/agro/whatstheproblem.shtml

This is why local and traditional knowledge and culture are considered as integral parts of agricultural biodiversity management.

— Because of the degree of human management, conservation of agricultural biodiversity in production systems is inherently linked to sustainable use.

— Nonetheless, much agricultural biodiversity is now conserved ex situ in gene banks or breeders' materials[154].

— For crops and domestic animals, diversity within species is at least as important as diversity between species and has been greatly expanded through agriculture.

— Many farming systems are based on alien crop species introduced from elsewhere; this creates a high degree of interdependence between countries for the genetic resources for food and agriculture.

— The interaction between the environment, genetic resources and management practices that occurs in situ within agro-ecosystems often contributes to maintaining a dynamic portfolio of agricultural biodiversity[155].

Starting from such a broad standpoint, the focus can be put on slightly *different but complementary targets*:

— First and foremost, soil biodiversity (micro fauna as well as microflora) in agricultural areas and landscapes, and all practices aiming at better manage, preserve, or develop this soil biodiversity and its services[156];

— Traditional varieties and species, included the so-called orphan vegetables, tubers, cereals, or fruits;

— Traditional practices, know-how and knowledge but also traditions related to these local indigenous varieties or species, linked to the countless initiatives to make best value of them, at all the levels of the value chain (from the field to the plate of the final consumer);

— The agricultural environment as far as agriculture is not restricted to the only cultivated plots but also integrates the agricultural forests or other natural spaces surrounding the fields. Here bio-diversified agricultural landscapes and territories are directly concerned;

— The economy of agro-biodiversity (how to create, accumulate and redistribute value and riches through valorizing traditional or local bio-diversified resources?). This is in relation with the many ecosystem services[157];

— The contribution of agriculture to the conservation of biodiversity at large (how does agro-diversity become a condition if not a modality to promote biodiversity?).

These are just some exemplary areas where IUCN could be expected to collaborate and help make a step forward. Our (modest) contribution in this area will be developed in two directions: (i) eliciting the IUCN's current conception and contribution to agro-biodiversity, (ii) staking stock of IUCN's contributions in this area.

L.4 IUCN and the crucial challenges of biodiversity in and by agriculture[158]

Agro-biodiversity is the concept usually accepted to designate biodiversity in agriculture but it must be understood in the wider sense of life in all strata of the agro-systems, that is above and below the soil surface meaning that the soil in agricultural landscapes have to be seen as a milieu as such, that is, as an integral and crucial part of any agro-system. In this sense, agrobiodiversity is an emerging issue in the IUCN's planet. If the strategy is currently clearly *under development*, the major orientations in discussion clearly target crucial challenges. A process to build a more

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[154]- This is matter of debate. As a matter of facts, most agricultural biodiversity in conserved in situ, it is only the smallest fraction of agro-biodiversity that is conserved ex-situ.

[155]- https://www.cbd.int/agro/whatstheproblem.shtml

[156]- This point has been particularly stressed by the IUCN team; they see this target as one of the most important relevant challenges.

[157]- The ecosystem services are manifold: biodiversity provides resources to improve soil fertility, to control pests and diseases, to enhance weed management, to protect agricultural areas against invasive species, to diversify pollinators, and so forth. For a recent review, see for example, FAO, CBD secretariat, Pacific Community (PC), and Secretariat of the Pacific Regional Environment Programme (SPREP) (2016). *Mainstreaming ecosystem services into agricultural production and management in the Pacific Islands.* ROME, 161p.

[158] Here under we summarize the current position of the group that leads on agriculture in IUCN. This position is inspired by various consultations carried out over the past year with global thematic programmes and regional programmes as referred in one of our investigation questionnaire circulated within IUCN and finalized by Jonathan Davies (IUCN Secretariat, Switzerland).

programmatic approach to engaging in sustainable agriculture based on the promotion of biodiversity in agricultural landscapes, products and activities is under way. Some components of these strategic trends and endeavors particularly deserve to be underlined, all the more that their potential of change is very high:

− Priority put on land health, a definitively high relevant strategic track, especially if you take into consideration both, that soil biodiversity ultimately is the very foundation of the three major cycles that determine life on land: water, nitrogen and carbon, and that soil biodiversity is really endangered everywhere in agricultural environments;

− Landscapes and agriculture-shaped environments at large considered as the major entry-point for any action oriented to preserve, restore, enrich and improve biodiversity in the wider sense (therefore not only agro-biodiversity sensu stricto)[159];

− Emphasis on widening and diversifying the array of agricultural ecosystem-based services. This indisputably means that any agricultural investment is intrinsically two-pronged: first it produces resources to sustain food systems and industrial activities (nutrition resources and raw material), second it also produces direct services, effects, processes that protect, sustain, enhance, embellish but also help construe human life and societies on earth. This is why IUCN considers producing and conserving agro-biodiversity should come at a profit, and not at a cost[160];

− Action envisaged at three structurally articulated and interdependent levels: (i) political dialogue and national policy (country level), (ii) food and agricultural supply chains (regional level), (iii) agricultural landscapes, agro-systems and farms (territorial and local level).

This clarified strategic horizon is an asset indeed. This must be seen as a recent, relevant and promising achievement, likely to properly embark on a purposeful development perspective.

Even as if the process is just starting out, IUCN has already taken *several initiatives* to support, test, develop and make best value of this emerging strategic line:

− An intense influencing activity targeting the European Union as part of the on-going reform of the EU CAP[161] (influencing policy through policy-relevant research). IUCN's value in this debate is that they are recognized by all sides of the debate as a science-based and relatively neutral and non-partisan voice;

− IUCN financed Land Degradation Neutrality voluntary target setting in 81 countries covering over 17 million km^2;

− IUCN has secured over 180 million hectares of pledges in 57 countries for Forest Landscape Restoration under the Bonn Challenge (which includes sustainable agricultural land use within forest landscapes);

− IUCN has spearheaded a global push for investment in rangeland restoration, which has the twin goals of environmental protection and poverty reduction for some of the world's poorest and most disadvantaged communities[162].

− IUCN has been implementing projects with an agriculture component for many years – and this provides a body of evidence that they are now building on.

According to the IUCN team, it is worth underlining that a lot of nature conservation projects already endowed with an agricultural components have *a proved impact* on local or regional economy (in terms of local improved production and yields, of youth economic insertion and employment opportunities, of enriched value chains and enlarged markets, of new resources and income generating activities for local communities or companies, of

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[159] In other words, agro-biodiversity simply means biodiversity in an agriculture-shaped environment.
[160] From a societal point of view, producing, and clearly not only conserving biodiversity, is a direct common benefit as well as the many products marketed and commoditized. The economy of agriculture is necessarily deeply embedded in the process of producing earnings and added value at two levels, financial and environmental. The environmental pillar of the agricultural economy definitively conditions the economic and financial pillar, thereby wealth in the broader sense.
[161] Common Agriculture Policy
[162] This work is implemented under a multi-country framework called HERD (Healthy Ecosystems for Rangelands Development), which is under implementation in Jordan, Egypt and Kenya, with projects in the pipeline in South Africa, Burkina Faso, Chad, Mauritania and Nepal).

sustained governance measures, dynamics and settings, of successful ecosystem based adaptation impacting local economy,...)[163].

All in all, still according to the IUCN team, the current *added value of IUCN* in the field of agro-biodiversity can be located at three complementary levels: (i) convene stakeholders with opposite stances and help them debate constructively and innovatively, (ii) enlarge and enrich the agro-biodiversity perspective (for example, the four strategic components already highlighted, in particular soil biodiversity and land health) and (iii) provide actors with strong science-based data and resources[164].

On the road to push forward this four-pronged strategy, IUCN will have to bypass *some obstacles*, both internal and external: (i) misguided notions of what conservation means actually[165], (ii) credibility as IUCN is not seen as a relevant stakeholder in agriculture-oriented debates, (iii) the relative novelty of these four strategic lines pushed forward by IUCN[166]. This directly impacts on the funding.

The IUCN staff points out *several powerful recommendations*, notably:

− Developing, making widely known, better understood and acknowledged the four basic privileged strategic priorities (land health, soil biodiversity, landscape and agricultural ecosystem-based services, and interdependence of levels of action);

− Convening constructive dialogue around transitioning food-agriculture system to greater sustainability (focus on convening actors across sectors at country and regional level, emphasis on creative and innovative consensus-building);

− Advocating for the environmental benefits of agriculture seen as a nature-based solution through creating new partnerships with farmer's organizations within and out of IUCN;

− Working more energetically with agribusinesses so that they may resonate and amplify promising experiences and opportunities[167];

− Engaging with financial institutions, including insurance companies, to help them see the value of investing in sustainable agriculture.

In the direct footsteps of these tracks, we would particularly insist on some already alluded *additional strategic opportunities* likely to really consolidate the current perspectives, that is, areas where IUCN provides added value:

− Collecting and making best value of local or indigenous agricultural knowledge and know-how linked to land health and biodiversity;

− Working with farmer's organizations, cooperatives or unions, to create and support new sustainable and agro-ecology-driven solutions and approaches, particularly the measures that improve land health and soil biodiversity at landscape and agro-ecosystems scale;

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[163] A wide range of projects contribute to elaborate a significant body of evidence to firmly establish these impacts (in Eastern (Uganda) and Southern Africa (Tanzania, Mozambique) as well as in Central (Cameroon, Rwanda) and West Africa (Benin, Ivory Coast, Ghana, Nigeria, Niger, Senegal, Gambia,...), but also in Latin America (Guatemala, Honduras).

[164] When one restores soil health one restores ecosystem functions, and then agricultural land contributes to more than just food supply: water regulation, risk mitigation, climate change mitigation etc. – UICN wants to play a leading role in developing solutions to this complexity.

[165] How to convince conservation specialists and proponents that agriculture is a major component of the equation indeed? This is a matter of debate, even among the IUCN's members, as some specialists consider that the conservation of wild areas and resources are to be prioritized.

[166] Usually actors do not spontaneously establish a direct link between soil biodiversity, land health, landscape management on the one hand and, on the other, biodiversity and nature conservation. According to Jonathan Davies and his team, "*Many of these actors are not interested in soil biodiversity, they do not understand how important is its role in terrestrial ecosystem function (and indeed survival of life on earth), and they may resent conservation funds being directed towards this issue*" (questionnaire, p.4).

[167] Many of private actors are fully aware that their activities, manufacture processes and products are undermining the sustainability of their own industry. They are willing to work towards industry standards for increased sustainability. Therefore, provided they are properly informed and inspired they could become accomplices in promoting promising agro-biodiversity-based measures.

- Mobilizing stakeholders along supply chains to incentivize for sustainable land management in order to creatively embed biodiversity in agriculture-shaped environments;

- Developing collective land use planning processes in order to reach optimal management of land for the welfare of society but also in view of developing the local self-management capabilities.

- Developing land and natural resources governance at the landscape level: landscape planning institutions, community institutions, and farmer's resource rights. That clearly means that land tenure has to be targeted as a major consideration or strategic priority;

- Catalyzing private investment in supply chains that incentivize concerted sustainable land management[168].

This stimulating set of recommendations is definitely likely to consolidate the UICN's development relevancy. They also pave the way for *another strong opportunity* waiting to be rigorously deepened. Both, biodiversity at large but particularly agro-biodiversity offer highly relevant possibilities to play a major role in two basic domains where society functioning is at stake and where crucial transformations can be targeted purposefully: *decision making and regulation*. As a matter of facts, to be carefully and sustainably managed, natural resources such soil, plants, forests, rangelands, and landscapes need to be governed and equipped with a solid basis of norms and rules. They need to be governed on a sustainable way. Sustainable, equitable, wise and inspired development needs sustainable, just, wise and inspired government whatever the scale considered (from local to national and international)[169]. This is possible only if one relies on a strong normative basis, that is, strong norms and rules that are actually applied, that actually support welfare as it is desired and agreed by the vast majority of people concerned. Both processes, of governing but also of identifying, formulating, debating, agreeing, prescribing and enacting, implementing, following up, assessing, making evolve on a collective and participatory way open the field of many transformations at local, regional, and national levels. Regulation has a powerful intrinsic transformative potential. Provided it is managed in this spirit *deliberately*.

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[168] A lot can be can learned from the CPIC work of IUCN (Coalition of Private Investments in Conservation)
[169] Not only *governance* (in the restricted sense of managing already decided measures and processes) but *government* in the deepest political sense of making basic decision engaging the future and destiny of the common good and the collectivity.

M. UNFCCC

M.1 Introduction

This Review evaluated – besides country-level IUCN operations in Jordan, Myanmar and Senegal – some of IUCN's global engagements, namely on agrobiodiversity, climate change, forestry, and transboundary water management. This Annex captures the, for this Review relevant, observations on IUCN's engagement with the UNFCCC. These observations should, by no means, be considered comprehensive of IUCN's engagement with UNFCCC or on climate change more general.

M.2 IUCN's positioning at the UNFCCC

– **Active participant in UNFCCC processes**. IUCN is one of 130 organizations with observer status at the UNFCCC. This allows IUCN to attend the plenary sessions of the Conference of Parties (COP, including its thematic group meetings and subsidiary bodies), make statements therein (whenever observers are allowed to do so), submit in writing their views to the COP's intersessional meetings, and organize side-events to the COP. IUCN publishes its key messages and/or position papers to all COPs on its website.

– **Calling for ecosystem integrity and nature-based solutions**. At the UNFCCC COP, IUCN has consistently called over the last four years for the adoption of nature-based solutions for climate change mitigation and adaptation.[170] IUCN specifically called on countries to include nature-based solutions into their Intended Nationally Determined Contributions (NDCs), including international efforts to combat forest loss and degradation (such as the New York Declaration on Forests and the Bonn Challenge), expand the terrestrial, coastal and marine protected areas, and expanding other natural ecosystems such as wetlands, grasslands, drylands and mangroves[170] – these offer '*practical and cost effective sinks and reservoirs for greenhouse gases … and help meet other sustainability goals such as water quality, biodiversity conservation and improved food security*'[171].

– **Nature-based solutions** are '*actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits*'.[172]

– **Approach**. IUCN's approach is to build a body of evidence (e.g. on the extent to which nature-based solutions are included in the NDCs), and then take a position on it: what should the ambition be and how best to get there.

– **Co-benefits – well-being and resilience**. IUCN stresses that '*ecosystem-based mitigation … maximizes benefits for biodiversity, ecosystem integrity and human well-being … [and] contributes to the resilience of vulnerable species, ecosystems, and indigenous, local and other communities at risk*'.[173] Land, marine and coastal ecosystems offer natural sinks and reservoirs for greenhouse gases. Coastal ecosystems, such as mangroves, offer protection against storms.

– **Rights-based approach**. Over the last few years, IUCN consistently advocated the need for a rights-based and gender-sensitive approach to climate change adaptation and mitigation, including respect for human rights, indigenous people, and vulnerable groups, as well as gender and intergenerational equity.[170] At the most recent COP (2019), IUCN reaffirmed '*its commitment to the Lima Work Programme on Gender (LWPG) and its Gender Action Plan (GAP) as being critical enablers of gender-responsive climate policy and action*'[174].

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[170] IUCN (2015) IUCN position on UNFCCC negotiations in 2015, IUCN (2018) IUCN's Key Messages for UNFCCC COP 24, 2-14 December 2018, Katowice, Poland; IUCN (2019) IUCN's Key Messages for UNFCCC COP 25, 2-13 December 2019, Madrid, Spain

[171] IUCN (2018) IUCN's Key Messages for UNFCCC COP 24, 2-14 December 2018, Katowice, Poland

[172] IUCN (2019) Nature-based solutions in Nationally Determined Contributions. Synthesis and recommendations for enhancing climate ambition and action by 2020.

[173] WCC-2016-Res-056-EN. IUCN response to the Paris Climate Change Agreement

[174] IUCN (2019) IUCN's Key Messages for UNFCCC COP 25, 2-13 December 2019, Madrid, Spain

- **Leadership**. IUCN actively contributes to the Marrakesh Partnership on Global Climate Action. It leads, amongst others, and together with FAO, the thematic working group on land use and contributed a land-use chapter to the Annual Yearbook of the Partnership.

M.3 Other relevant observations

- **Resolutions**. The World Conservation Congress called for Climate Action in 2012 (on advancing nature-based solutions, ecosystem-based adaptation, promoting peace and justice, and integrating protected areas) and in 2016 (on how countries can best respond to the Paris Agreement on Climate Change).[173]

- **Environment, society and economy intrinsically interlinked**. In an overview of IUCN's work on climate change[175], IUCN's starting point is that climate change affects:
  - economic wellbeing: putting 100 million more people in poverty by 2030;
  - social cohesion: by causing the migration of an estimated 140 million people by 2050;
  - the environment: with over 80% of ecological processes being negatively affected.

- **Corporate strategy**. IUCN's strategy is to demonstrate how healthy ecosystems provide effective solutions for climate mitigation and adaptation with benefits to the environment and society.[175]

- **Highlighted achievements**. IUCN notes as some of its key achievements[175]:
  - The inclusion of forest-based solutions in over 70% of the NDCs.
  - The dedicated thematic action track on nature-based solutions and ecosystem-based adaptation in the 2019 Climate Summit
  - The CBD guidelines on the design and implementation of ecosystem-based adaptation.
  - The Bonn Challenge with over 170 ha of restoration pledges offering sequestration potential of over 15 gigatons of CO_2 emissions.
  - IUCN leads the Friends of Ecosystem-based Adaptation Network to develop and disseminate best practices on Ecosystem-based Adaptation at scale.

- **Getting the message out**. IUCN goes the extra mile to generate and disseminate state-of-the-art knowledge[175]. In 2019, IUCN conducted together with Oxford university an in-depth assessment of the extent to which nature-based solutions feature in the NDCs and followed this study up with a call to countries to more substantially incorporate (a broader range of) nature-based solutions in the NDCs, including more specific, measurable and robust targets.[172]

Figure 7. Examples of IUCN climate relevant publications

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[175] IUCN (2019). Overview of IUCN's work on Climate Change. PowerPoint presentation

- **Conditional buy-in**. The above study concludes that 66% of the NDCs include nature-based solutions, but also that *'the majority of NDCs … made their action and implementation [of nature-based solutions] conditional on external financing and support'.*[172]

M.4 IUCN internally

- **Steering**. IUCN's Council has a special task force on climate change to oversee and steer IUCN's work.

- **Science**. There is a specialist group on climate change under the World Commission on Environmental Law. For the World Conservation Congress in Marseille, in July 2020, a motion is in preparation to establish a full-fledged Commission on Climate Change.

N. Terms of Reference

Included in the PDF version

O. Inception report

Included in the PDF version

Geert Engelsman & Philippe de Leener