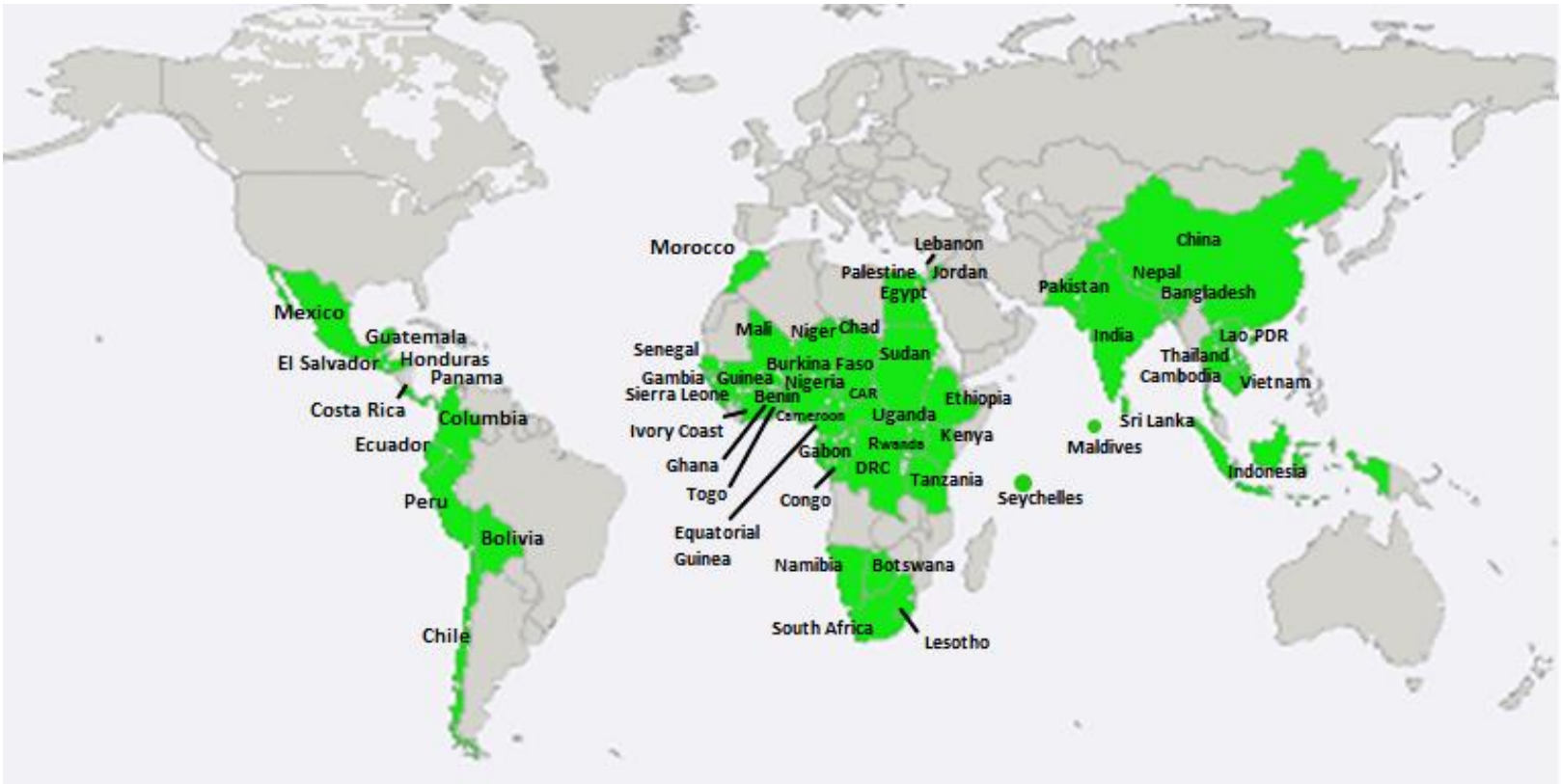
Nature Based Solutions for Human Resilience

A Mapping Analysis of IUCN's Ecosystem Based Adaptation Projects



World map of the countries where IUCN is implementing EbA related projects

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Ali Raza Rizvi

March, 2014

Acknowledgement

This report, termed as the first IUCN-wide learning attempt, is a result of collaboration and input by all of you; IUCN Regions, Country Offices, and Thematic Programmes. The initial idea was discussed together with Stewart Maginnis, Alex Moiseev and Edmund Barrow who shared their insights on the way forward. Regional Coordinators gave important input on the draft questionnaires. Diana Paredes provided preliminary data. Daniela Göhler from ICI-BMU and Robert Munroe from UNEP-WCMC gave valuable feedback on the questionnaire and methodology. Kirstin van Riel, intern at EMP, offered much needed help in compiling the data. Edmund Barrow continues to provide input since the EbA Learning Framework is his baby, before my becoming an adoptive parent!

Ali Raza Rizvi
March 6, 2014

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Abbreviations and Acronyms

ADB	Asian Development Bank
ARO	IUCN Asia Regional Office
ASAL's	Arid and semi-arid lands
ASDI	Agence Suédoise de coopération pour le Développement International
AU	African Union
BMU-ICI	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety's International Climate Initiative, Germany
BPSD	Balochistan Partnerships for Sustainable Development
CAR	Central African Republic
CBFF	Congo Basin Forest Fund
CC	Climate change
CCAFS	Climate change, Agriculture and Food Security Programme
CIDA	Canadian International Development Agency
CORDIO	Coastal Ocean Research and Development in the Indian Ocean
CREATE	Climate Resilience Evaluation for Adaptation Through Empowerment
CRiSTAL	Community-based Risk Screening Tool – Adaptation & Livelihoods
CVCA	Climate Vulnerability and Capacity Analyses
DANIDA	Danish International Development Agency
DGIS	Director-General of International Cooperation, The Netherlands
DRC	Democratic Republic of Congo
DRR	Disaster Risk Reduction
EA	Ecosystem Approach
EbA	Ecosystem-based Adaptation
EC	European Commission
EKN	Embassy of the Kingdom of the Netherlands
EMP	IUCN – Ecosystem Management Programme
EPIC	Ecosystems Protecting Infrastructure and Communities
ESARO	IUCN Eastern and Southern Africa Regional Office
EU	European Union
FAO	Food and Agriculture Organization
FINNIDA	Finnish Ministry of Foreign Affairs – Development Cooperation
FLR	Forest and Landscape Restoration
GEF	Global Environmental Facility
GOC	Government of Cameroon
HGBF	Howard G. Buffett Foundation
ICRISAT	International Crops Research Institute for the semi-arid tropics
IUCN	International Union for Conservation of Nature

IWRM	Integrated Water Resources Management
Lao PDR	Lao People's Democratic Republic
M&E	Monitoring and Evaluation
MENA	Middle East and North Africa Region
METT	Management Effectiveness Tracking Tool
MFF	Mangroves for the Future
NAPA	National Adaptation Plan of Action
NORAD	Norwegian Agency for Development Cooperation
PA	Protected Areas
PACO	IUCN West and Central Africa Programme - *Programme Afrique Centrale et Occidentale*
PLI	Promoting Local Innovations
PoA	Participatory Plans of Action
PRA	Participatory Rural Appraisal
RAP	Resilience Analysis Protocols
REDD+	Reducing Emissions from Degradation and Deforestation
ROWA	Regional Office for West Asia
SDC	Swiss Development Corporation
SDM	Species Distribution Modeling
SEARCH	Social, Ecological and Agricultural Resilience in the face of Climate change project
SIDA	Swedish International Development Cooperation Agency
SWOT Analysis	Strengths, Weaknesses, Opportunities and Threats
UNDP- PAK	United Nations Development Programme site for Pakistan
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
URL	Uniform Resource Locator
USAID	United States Agency for International Development
USD	United States Dollar
WASH	Water, Sanitation and Hygiene services
WCMC	World Conservation Monitoring Centre

Ecosystem Based Adaptation
IUCN Mapping Analysis

1. Introduction

IUCN is extensively involved in supporting climate change adaptation, with a specific focus on Ecosystem based Adaptation (EbA). This is directly aligned with IUCN's commitment to Nature based Solutions as a part of its overall vision and mission.

In order to fully define IUCN's approach to adaptation an EbA Learning Framework has been developed. The objective is to systematically document and glean learning from the rich knowledge being generated through the world wide implementation of EbA related projects. The goal is to initiate a process of providing evidence based knowledge on EbA and its effectiveness.

This initial rapid assessment of IUCN's project portfolio, undertaken with the support of the Planning, Monitoring and Evaluation Unit, indicated that IUCN had 64 projects which directly or indirectly contribute towards adaptation. Later, through the present initiative, a concentrated effort has been undertaken to map the projects in order to learn from the various EbA related initiatives being implemented or completed in the previous three years. This document contains an analysis of the mapping exercise with the aim that it will contribute to future learning and experience and provide guidance to IUCN's Nature Based Solutions for Adaptation. This would, moreover, contribute towards an overall approach to integration of climate sensitive planning for the conservation of biodiversity and sustaining ecosystem services for human wellbeing.

All of IUCN's Regional Offices and Global Thematic Programmes were provided with a questionnaire and requested to respond by providing details on the region, themes, ecosystems, objectives and interventions they are working on. This simple questionnaire was initially shared with the Regional Coordinators and Thematic Programmes at the Programme Week in September 2013 and was subsequently finalized with their input (Annex-I). Certain adaptation related parameters were defined and projects were asked to share information that related to them, even if they were not specifically EbA related projects, but had at least one major result area relating to EbA. The working definition of EbA used for this exercise was, *"any initiative that reduces human vulnerabilities and enhances adaptive capacity in the context of existing or projected climate variability and changes, through sustainable management, conservation and restoration of ecosystems could be defined as Ecosystem based Adaptation"*.

IUCN is implementing 45 Ecosystem based Adaptation related projects in 58 countries throughout the world

2. Results and Analysis

It is important to note here that the following analysis is based on the information and data received on the survey questionnaire sent to all IUCN Regions and Thematic Programmes.

2.1 Geographical Regions and Ecosystems

The projects cover diverse regions and a total of 58 countries (refer to figure 1) which include:

- **Asia** (Bangladesh, Cambodia, China, India, Indonesia, Lao PDR, Maldives, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam)
- **West Asia** (Egypt, Jordan, Lebanon, Morocco and Palestine[1])
- **Central America** (Mexico, Honduras, Guatemala, Panama, El Salvador and Costa Rica)
- **South America** (Peru, Chile, Colombia, Ecuador, Bolivia)
- **Eastern and Southern Africa (ESARO)** (Botswana, Ethiopia, Kenya, Lesotho, Namibia, Seychelles, South Africa, Sudan, Tanzania and Uganda)
- **West and Central Africa (PACO)** (Benin, Burkina Faso, Cameroon, Central African Republic (CAR), Chad, Congo, Ivory Coast, Democratic Republic of Congo(DRC), Gabon, Gambia, Ghana, Guinea, Equatorial Guinea, Mali, Niger, Nigeria, Rwanda, Senegal, Sierra Leone and Togo).

Many of these projects are implemented across different regions and as such countries can be grouped together in terms of ecosystems even if they belong to different geographical areas. The **ecosystems** cover the whole range of IUCNs work and include:

- **Coastal and Marine Areas** (Bangladesh, Cambodia, India, Indonesia, Maldives, Pakistan, Sri Lanka, Thailand, Vietnam, Egypt, Panama, Costa Rica, El Salvador, Mexico, Honduras, Guatemala, Senegal, Cameroon, Nigeria and Gabon).

- **River Basins** (Pakistan, Thailand, Lao PDR, Botswana, Namibia, South Africa, Lesotho, Benin, Burkina Faso, Niger, Mali, Senegal, Ghana, Guinea, Ivory Coast, Cameroon, DRC, Togo, Rwanda, Panama, Costa Rica, El Salvador, Mexico, Honduras and Guatemala).

- **Mountain Regions** (Pakistan, Thailand, Lao PDR, Nepal, Peru, Colombia, Ecuador, Bolivia, Egypt, Morocco, Lebanon, Jordan, Palestine, Kenya and Uganda).

- **Forests** (Pakistan, Chile, Colombia, Ecuador, Peru, Bolivia, Egypt, Morocco, Lebanon, Jordan, Palestine, Burkina Faso, Cameroon, Republic of Congo, Democratic Republic of Congo, Gabon, Guinea, CAR, Senegal, Mali, Chad and Nigeria).

- **Agricultural Landscapes** (Thailand, Lao PDR, Burkina Faso, Ghana, Mali, Niger and Senegal).

- **Drylands** (Pakistan, Jordan, Egypt, Lebanon, Morocco, Palestine, Mali, Sudan, Kenya, Tanzania, Ethiopia, Botswana, Namibia, South Africa, Uganda, Burkina Faso, Senegal, Guinea, Cameroon, CAR, Chad, Nigeria, Republic of Congo and Gabon).

[1] EbA related projects in Egypt and Morocco are implemented by IUCN's Regional Office of West Asia (ROWA)

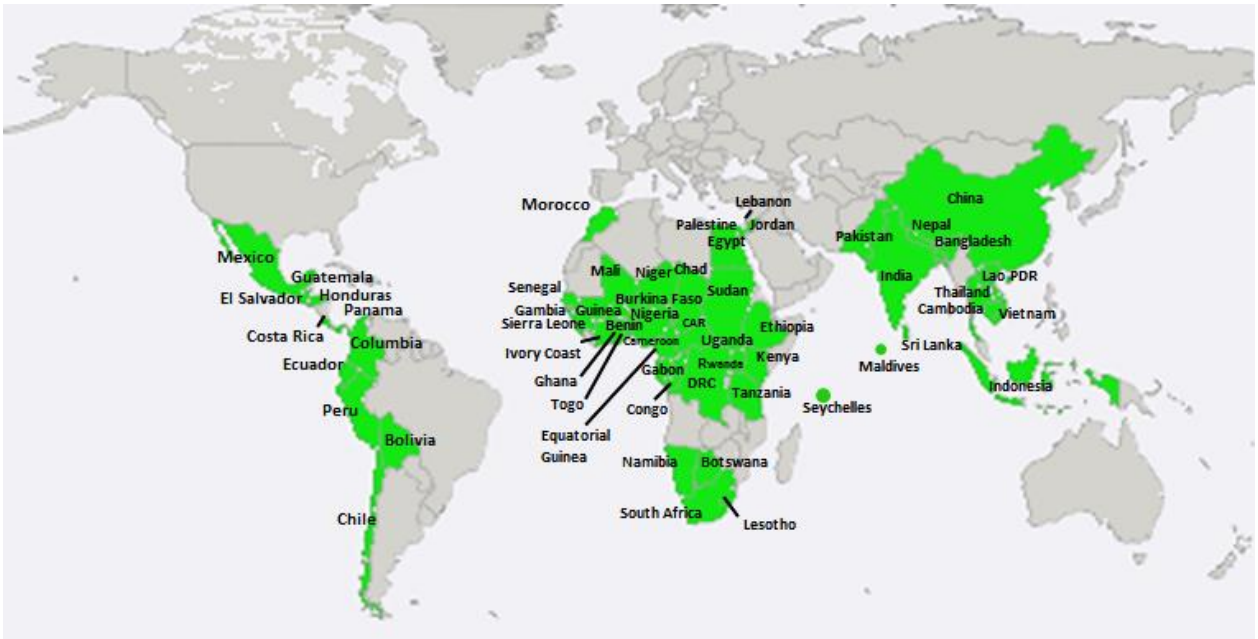

Figure 1 World map of the countries where IUCN EbA related projects are implemented.

While covering the above regions and ecosystems, the projects specifically work in, for example coral reefs, mangrove forests, juniper forests, Andean highlands, and Amazon River basin. Out of the 45 projects mapped, Figure 2 shows the number of projects that have been or are being implemented in specific ecosystems and geographical regions. Many projects are trans-boundary and are implemented across different ecosystems; therefore overlaps are present in the figure. The idea is to give a broad indication of IUCN's EbA related projects.

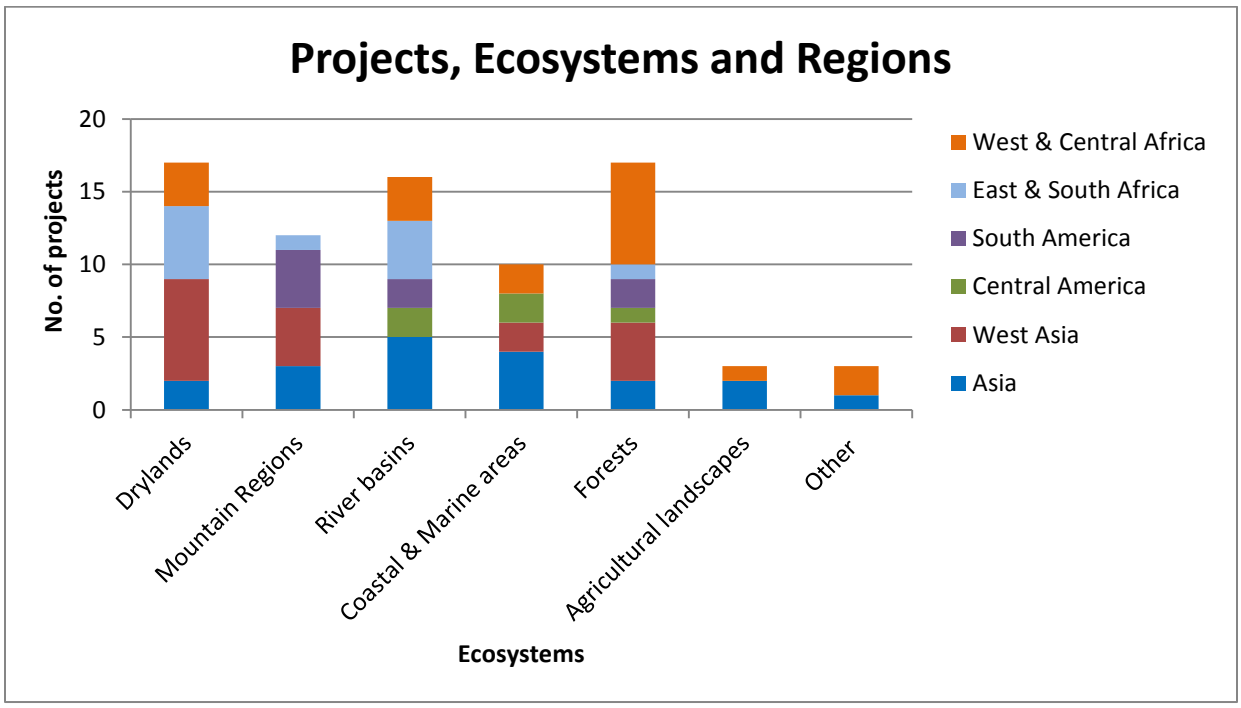

Figure 2 Projects, Ecosystems and Regions

2.2 Projects by Geographical Region and Current Status

Of a total of 45 projects[2] analyzed, the majority of EbA related projects (29%) have been or are being carried out across 20 countries within West and Central Africa (PACO) (refer to Figure 3a). 27% of the projects are implemented in Asia across 12 countries, followed by 18% across 10 countries within the Eastern and Southern African (ESARO) region, 12% in West Asia (in 5 countries), 8% in South America (across 5 countries) and 6% in Central America across six countries.

While 40% of these projects have been completed, 56% are ongoing with the majority planned to finalize in 2014 and 2015, as is represented in Figure 3b.

The following projects, "*Transforming Evidence into Change: a Holistic Approach to Governance for EbA-Go4EbA"* in Central America and "*13_III+_006 Global Forest Ecosystem Rehabilitation: Utilising landscape scale forest ecosystem rehabilitation as a cost effective bridge for the integrated deployment of national land-based mitigation and adaptation strategies*" in India, Vietnam, El Salvador, Mexico, Kenya and Uganda, are proposed to be implemented.

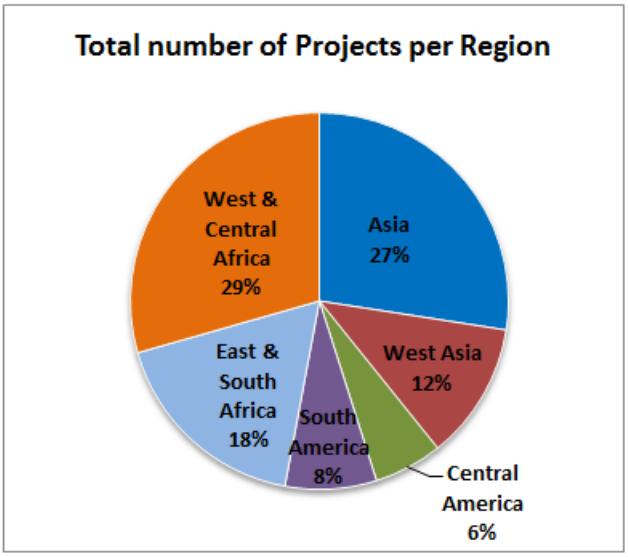

Figure 3a Distribution of the number of projects implemented per Region.
*The total number of projects (*n*) is 45.

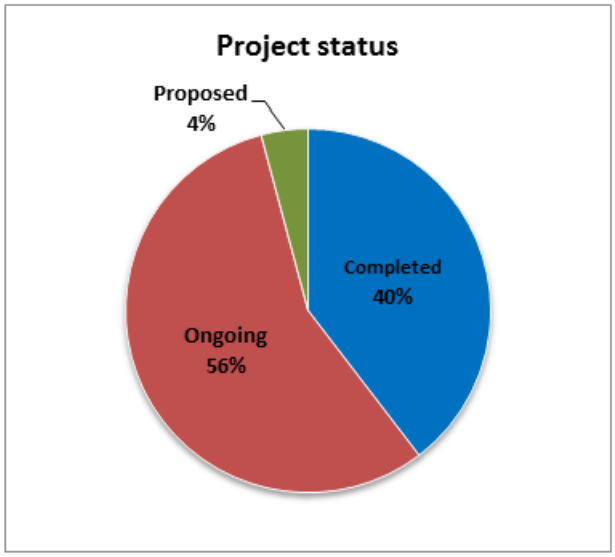

Figure 3b Current project status.

An Indication of the number of projects completed, ongoing or proposed within each of the geographical regions is provided in Figure 4.

[2] A number of the projects mapped are implemented across multiple geographical regions such as the following projects: EPIC (*Asia, South America and PACO*), EbA in Mountain Ecosystems (*Asia, South America and ESARO*) and WISE-UP to Climate (*ESARO and PACO*), to name a few.

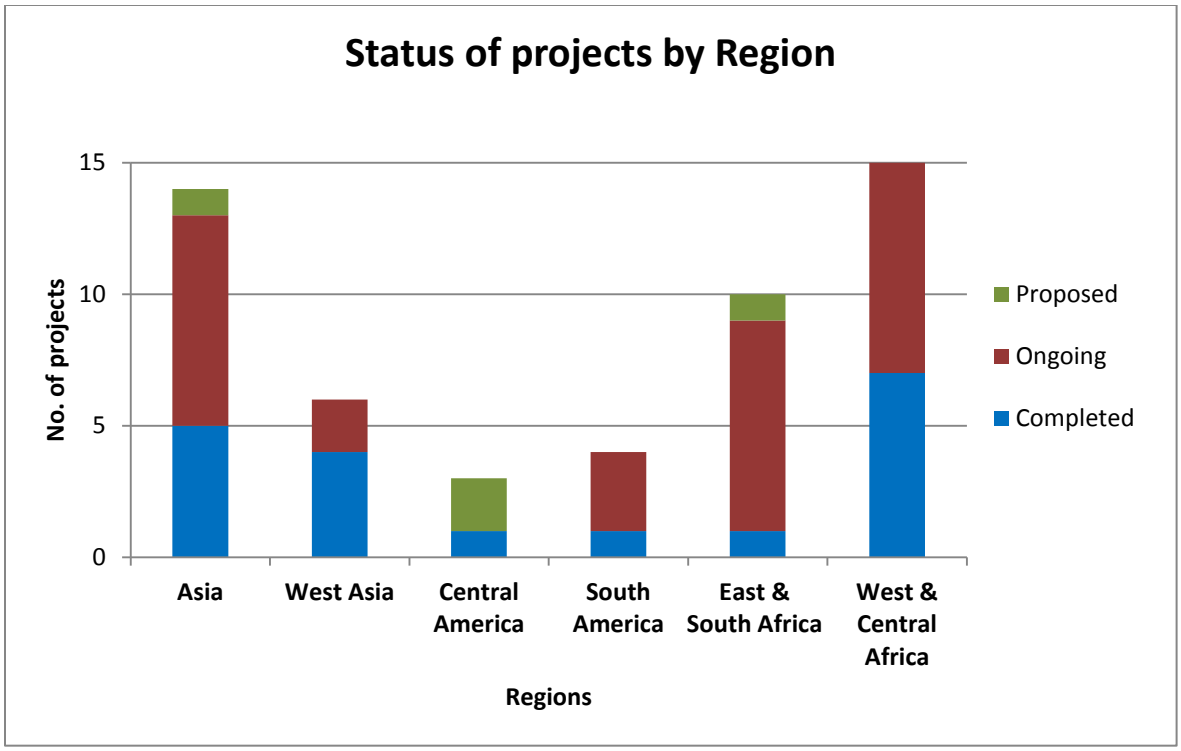

Figure 4 Project Status by Geographical Region

2.3 Assessing EbA Projects

To assess whether a particular project relates to EbA, the respondents were given a set of criteria (refer to Box 1, for an overview). Based on their input and as **Figure 5** and Figure 6 depict, the following EbA criteria applied the most:

- Improve governance over land/water/natural resources and biodiversity with respect to climate change adaptation(*criteria 4*);
- Integrate local knowledge and institutions with respect to risk management & adaptation as long as they relate to using biodiversity and ecosystem services(*criteria 3*);
- Build the Adaptive Capacities for EbA of local peoples and institutions (*criteria 2*);

The least applied criteria across all projects as well as for the majority of the ecosystems which a specific project covers is: "Enhance the management of seasonal movements of people and livestock between winter and summer (or wet and dry season) to better conserve ecosystem's services and biodiversity from climate impacts" (*criteria 10*).

In addition to the 11 set criteria, a few respondents added additional criteria from their particular project, namely:

- Support local participation on the assessment of vulnerability, planning, implementation and evaluation and monitoring of EbA measures/strategies (***criteria 12***) ;

- Establish a Monitoring and Evaluation plan (*or a set of criteria*) to analyze the success of the EbA strategy - to enhance Adaptive Capacity and reduce human vulnerability (***criteria 13***);
- Share information related to Climate change impacts, adaptation, mitigation and baseline data (i.e. water, sustainable technologies) (***criteria 14***).

Criteria 12 and 13 applied to two particular projects in Central America covering coastal areas and River Basins, whereas criteria 14 applied to a particular project implemented in the MENA Region which focusses on dry lands, forests and mountain Regions.

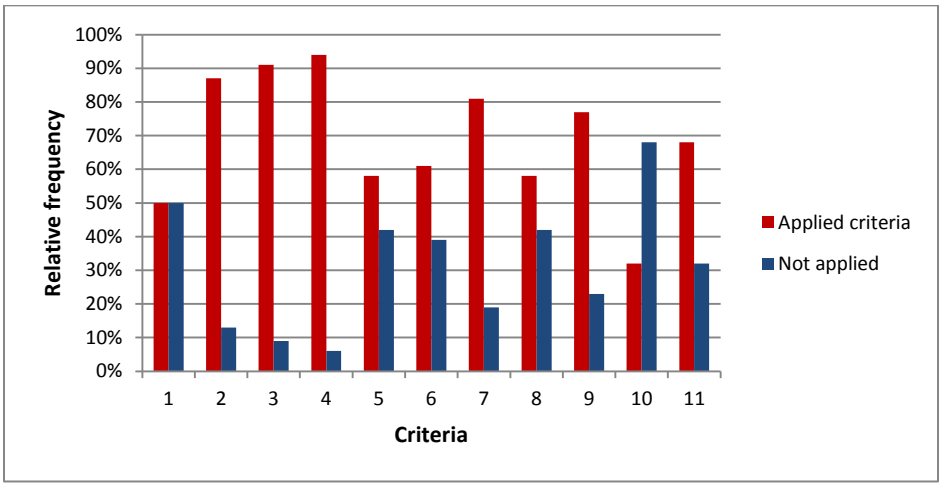

Figure 5 Frequency of whether a criteria applies to a particular project or not [*n* = 28*].
* Total number of projects for which the criteria questions were completed

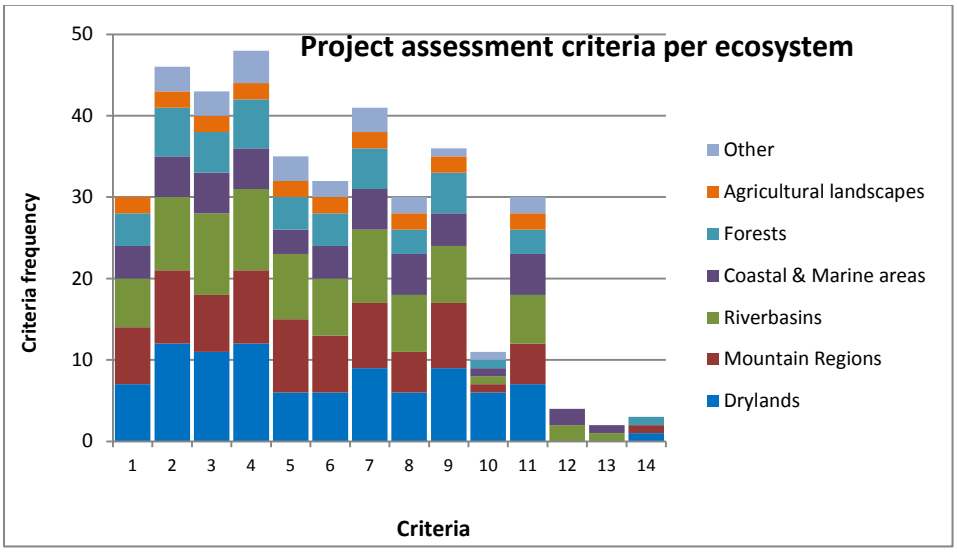

Figure 6 Assessment criteria as it applied to a project in a specific ecosystem.

Box 1: EbA Mapping Exercise Project Assessment Criteria

1. Assessment of climatic vulnerability, impact, hazard or risk has been (or will be) undertaken;
2. Build the Adaptive Capacities for EbA of local peoples & institutions;
3. Integrate local knowledge & institutions with respect to risk management & adaptation as long as they relate to using biodiversity & ecosystem services;
4. Improve governance over land/water/natural resources & biodiversity with respect to Climate change adaptation;
5. Work with practices that use appropriate species & technologies better adapted for Climate change (e.g. conservation agriculture, agroforestry, soil conservation);
6. Support ecosystem restoration with species that are better adapted to climate change & so better enhance connectivity in the landscape as well as the resilience of ecosystems & sustaining its services;
7. Support the maintenance of ecosystem services e.g. catchment (watershed, basin) management in a manner that actively takes into account increased climate risk;
8. Conserve biodiversity &the management of associated threats to it in the context of climate change; e.g. managing spread of Invasive Alien Species with the rise in temperatures so as to reduce risks to ecosystems & livelihoods;
9. Diversify land use & livelihood options (including crop diversification) to reduce risk & enhance climate resilience & so take into account climate change e.g. agriculture or forestry that can cope with changing temperatures or rainfall patterns;
10. Enhance the management of seasonal movements of people & livestock between winter & summer (or wet & dry season) to better conserve ecosystem's services & biodiversity from climate impacts;
11. Actively protect & restore natural infrastructure e.g. dunes, mangroves, forests, slope stabilization etc. to reduce risk to climate impacts.

A number of projects are directly related to Ecosystem based Adaptation as their primary objective is to deal with climate associated vulnerabilities. These projects contribute to addressing climate change impacts by increasing community and ecosystem adaptive capacity; decreasing vulnerabilities by promoting sustainable livelihoods; enhancing state, civil society and community capacity and knowledge on climate change adaptation; as well as developing and implementing EbA tools and methodologies at national and local levels. Projects also implement No-Regret EbA[3] measures with the participation of local communities and governments. Such measures include restoration of watercourses, conservation agriculture, slope stabilization, agro-biodiversity, forestry, livestock management and so forth.

Bearing in mind IUCN's interest and work on Loss and Damage and DRR, some projects also work to assist communities by analyzing the effectiveness and economic value of sustainable management of ecosystems. In such instances, case studies are undertaken to increase the knowledge base (i.e. Ecosystem and community-based climate adaptation and resilience building initiatives in the Chiang Rai and Sakon Nakhon provinces, Thailand); these again can be consolidated and studied together to make the case for EbA effectiveness. Some projects are working to generate adaptation learning based on indigenous knowledge and institutions, which can feed into larger public policies and regulatory frameworks.

[3] No regret adaptation options are those actions that could potentially deliver net socio-economic benefits to local communities and ecosystems whatever the extent of future climate change.

Pilot projects contribute to increasing resilience to climate change by introducing improved governance systems that can contribute to increasing human and ecosystem resilience. These include legal, policy and regulatory frameworks as well as awareness raising, capacity enhancement and public participation. These pilot projects (their implementation plans and end results) should also be analyzed in a consolidated manner to garner overall guidance for IUCN's Learning Framework. Projects assessing vulnerabilities and identifying risk reduction strategies should also be included in this. All projects ensure gender integration with some specifically working to integrate gender considerations into national and local climate change processes.

An indication of the reported projects main EbA-activities are provided in Figure 7. While there is considerable overlap as the majority of the projects are implemented across multiple levels, diverse eco-regions and integrates environment and development, the figure highlights the predominant focus areas. This includes capacity development, sustainable management of ecosystems, policy influence and a participatory component, respectively.

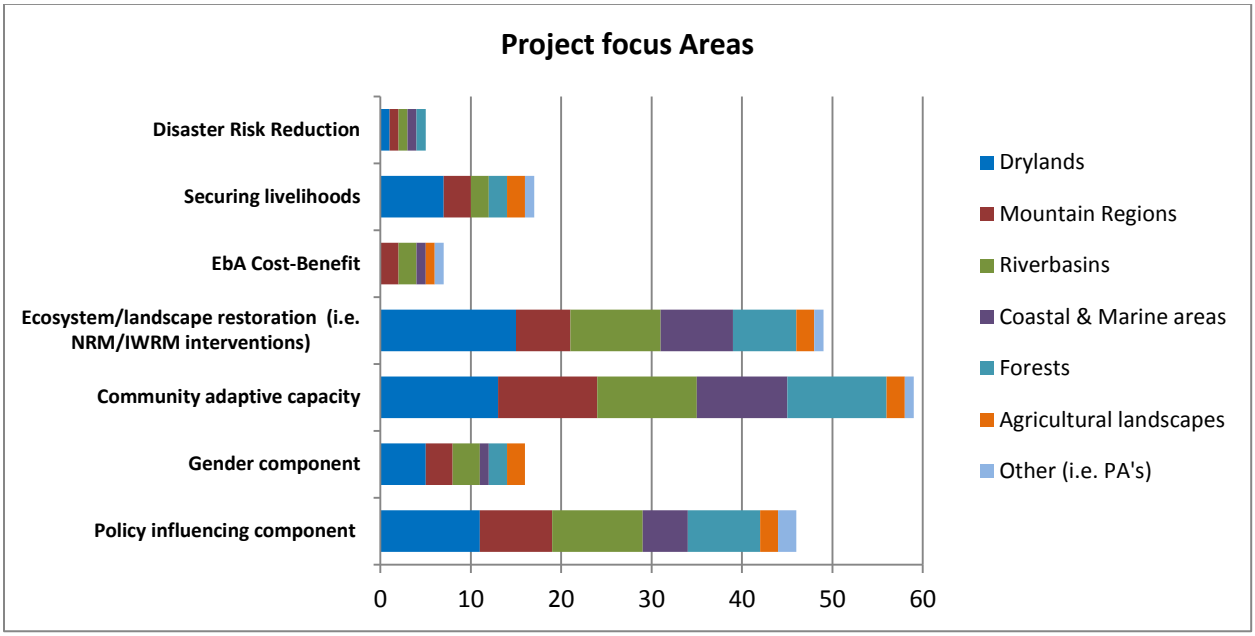

Figure 7 Frequency of the projects' focus points for EbA-activities within a specific Eco-region

Many of the respondent projects do not aim at addressing climate change per se but they fulfill the criteria of EbA projects (Box 1). These contribute towards EbA by improving and sustaining ecosystem services and biodiversity conservation thus enhancing human resilience for climate change. These are projects being implemented in diverse landscapes and ecosystems and work towards increasing livelihoods and food security including provision of alternate livelihoods measures as well as strengthening, conserving and protecting ecosystems. These include projects working to conserve forest ecosystems; improving environmental governance; promoting and implementing integrated water resources and coastal management; promoting sustainable coastal zone planning and strengthening and managing fisheries; restoring and sustainably managing drylands; capacity building and awareness

raising; all of which contribute to sustainable livelihoods and ecosystems which in turn lead to climate change adaptation capacities of communities – the additionality[4] factor.

Some climate change related projects also do not directly contribute to EbA but are related to environmental conservation and restoration, such as those working on coral bleaching as a result of sea level rise. However, the resultant improved ecosystems and their services contribute towards increasing human climate resilience.

In particular, projects that are being implemented on a landscape level have enormous potential to contribute to EbA. Specifically, Forest Landscape Restoration (FLR) and other forest conservation and management projects contribute by increasing adaptive capacities and resilience and decreasing vulnerabilities.

2.3 Tools and Methodologies Employed

Projects employ various tools and methodologies to evaluate impacts of climate vulnerability and adaptation as well as the specific impacts of project activities. Broadly, depending on the project activities and expected outcomes, the reported tools include the following:

- Climate Resilience Evaluation for Adaptation Through Empowerment (CREATE)
- Community-based Risk Screening Tool – Adaptation & Livelihoods (CRiSTAL)
- Resilience Analysis Protocols (RAP)
- Economic Valuation Studies and Cost Benefit Analyses
- Monitoring and Evaluation Systems
- Community Assessments Tools
- Vulnerability Assessment Tools
- Socio-economic Assessment Tools
- National Assessment Tools
- Participatory Rapid/Rural Appraisals (PRRA, PAR and PRA)
- Climate Vulnerability and Capacity Analyses (CVCA)
- SWOT Analysis
- Species Distribution Modeling (SDM)
- Management Effectiveness Tracking Tool (METT)
- Satellite Imagery

[4] Additionality can be defined as the extent to which a new input adds to the existing inputs (instead of replacing any of them) and results in a greater aggregate.

Table 1 Quick Links to sites of a few of the employed tools and methodologies

Tools and Methodologies	Link to sites
Climate Resilience Evaluation for Adaptation Through Empowerment (CREATE)	• https://cmsdata.iucn.org/downloads/create_factsheet_final.pdf
Vulnerability Assessment	• http://www.iucn.org/dbtw-wpd/edocs/2011-068.pdf
Promoting Local Innovations (PLI)	• http://cmsdata.iucn.org/downloads/iucn_pli_for_community_website_print.pdf
Community-based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL)	• http://www.iisd.org/cristaltool/
Management Effectiveness Tracking Tool (METT)	• http://www.wdpa.org/me/PDF/METT.pdf
Toolkit for Planning, Monitoring and Evaluation of the capacity to adapt to climate change (TOP-SECAC)	• http://cmsdata.iucn.org/downloads/top_secac_agrhymet_edition_francaise_combine.pdf
Participatory Rural Appraisal (PRA)	• http://cmsdata.iucn.org/downloads/azraq_pra_english.pdf • The Participatory Planning Cycle Framework
Analysis of Vulnerability and Resilience to Climate Change (AVCA)	• www.careclimatechange.org
Climate Vulnerability and Capacity Analysis (CVCA)	• http://cmsdata.iucn.org/downloads/top_secac_agrhymet_edition_francaise_combine_1.pdf • http://www.careclimatechange.org/files/adaptation/CARE_CVCAHandbook.pdf
Disaster Risk Reduction (DRR)	• Ecosystems, Livelihoods and Disasters-An integrated approach to disaster risk management. Ecosystem management Series No. 4.

A number of the projects have developed or intend to develop new methodologies and/or assessment tools. A summary thereof is provided in Table 2.

Table 2 Tool and Methodologies

New tool / Method	Project information
Design of an action plan to develop additional Model Forests/FLR learning sites in the Congo Basin	Sustainable management of forests. **Cameroon, DRC & Rwanda** (*completed in 2012*)
Participatory Plans of Action (PoA).	Gender Responsive Climate change, Drylands. League of Arab States (**Jordan & Egypt: 2012**)
National assessments to examine the status of women & gender equality, the nature of Climate change impacts & where the two issues correlate	Gender Responsive Climate change, Drylands. League of Arab States (**Jordan & Egypt: 2012**)
Resilience Analysis Protocol for Pakistan	MFF, Coastal/Marine area **Pakistan** (*in process*)
Design of No regrets measures through a PRA	EbA in mountain ecosystems, **Peru** (*project end date: 2014*).
A Methodology for identifying & measuring EbA benefits	Holistic Approach to Governance for EbA, Coastal/River Basins **Central America** (*proposed*)
An M&E tool for Improved livelihood and resilience against drought	Water for Livestock, Drylands, **Kenya** (*end date: 2014*)

2.4 Knowledge Products

One of the most important aspects of Union wide projects is the knowledge products developed. The aim is to promote the sustainable development and conservation agenda globally. A complete compendium of knowledge products from each project is highlighted in Annex-II. These include documentaries, websites, lessons-learned documents, publications, case studies, brochures, fact sheets, baseline studies, policy briefs and papers, newsletters, action plans, satellite imagery analyses, environmental action plans, site information and landscape information.

3. IUCN's Donors' Contributions[5]

A total of 29 donors (co-finance or single) ranging from governments, intergovernmental and non-governmental organizations, multilateral agencies and foundations at the international and local level, provided IUCN with financial support for EbA projects.

As highlighted in Figure 8, the International Climate Initiative of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Germany (BMU-ICI) is the largest donor, accounting for 31% ($26,741,883.19 USD) of the total financial contributions and financed six projects across different regions (Central and South America, Asia, ESARO as well as West and Central Africa). The European Union (EU) (*including the European Commission*) accounted for 17% ($14,858,777.67 USD) and provided funding to eight projects across Asia (i.e. Thailand and Lao PDR), Eastern and Southern Africa (i.e. Botswana and Kenya), West and Central Africa (i.e. Senegal) and in the MENA Region (Egypt, Morocco, Lebanon, Jordan and Palestine). Other major donors include USAID contributing 9% ($7,507,118.00 USD) of the total contributions, supporting five projects across Asia, East and South Africa as well as within Western and Central African region; the Ministry for Development and Cooperation, the Netherlands contributed 8% ($6,817,134.00 USD) to support the "*Dialogue for Sustainable Management of Trans-Boundary Water Regimes in South Asia: A Bangladesh-India Initiative*" project, and the Embassy of the Kingdom of the Netherlands (EKN) accounting for 7% ($6,000,000.00 USD) of the funding which supported the '*Balochistan Partnership for Sustainable Development'* project in Pakistan.

Table 3 provides a list of all of the donors that supported the EbA projects.

[5] All figures are based on the reported amounts sent by the respondent country/region/programme and might vary from the exact project funding received from the donor to IUCN/main implementing agency

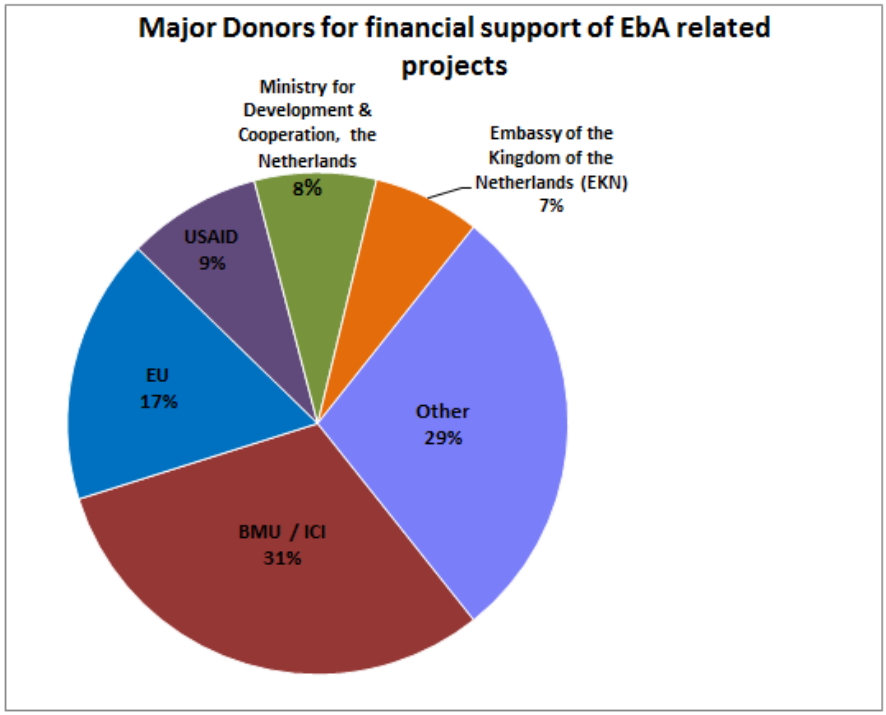

Figure 8 Division of major donors that provided financial support to EbA related projects.
[Total no. (*n) of donors* = 29].
*Category 'Others' include Donor organizations with a percentage value less than 5%.
**All foreign currencies were converted to US Dollars using the exchange rate of March 2014.

Table 3 An overview of all of the Donors by Geo-Region

Region	Donors
Asia	ADB; BMU-ICI Germany; Canadian International Development Agency (CIDA); European Union (EU); Embassy of the Netherlands (EKN); Finish Ministry of Foreign Affairs; Ministry for Development and Cooperation, the Netherlands; NORAD & SIDA; UNDP- PAK, Global Environmental Facility (GEF) and USAID.
West Asia	EU; Finnish Ministry of Foreign Affairs; Kuoni and the Total Foundation.
Central America	BMU-ICI Germany
South America	BMU Germany; Finnish Ministry of Foreign Affairs (FINNIDA) and the Spanish Agency for International Development Cooperation (AECID).
East and South Africa	Austrian Development Cooperation; BMU-ICI; GEF/UNEP; European Commission (EC); European Union (EU); Swiss Development Corporation (SDC) and USAID.
West and Central Africa	African Union (AU); Agence Suédoise de coopération pour le Développement International (ASDI); BMU-Germany; EU; Congo Basin Forest Fund (CBFF); Danish International Development Agency (DANIDA); DGIS; Government of Cameroon (GOC); GEF/FAO & IUCN NL; Howard G. Buffett Foundation (HGBF); the Climate change, Agriculture and Food Security program (CCAFS-ICRISAT) ; RN Canada; USAID and WCMC (via the GEF).

BMU ICI Germany is the largest donor of IUCN's Ecosystem Based Adaptation Projects

4. Recommendations

IUCN works in a wide range of geographical regions implementing projects in diverse thematic areas. The information provided through this mapping exercise highlights just how diverse the regions, themes and budgets are. This analysis is a crucial first step, and is a sound platform for IUCN's future EbA related policy and learning framework. Based on the findings of this analysis the following initial recommendations are provided. The idea is to showcase IUCN's work on Nature-based Solution and promote intra-IUCN learning

1) The major characteristic of EbA approaches, employed by the various IUCN projects, is that they are flexible. This flexibility allows them to undertake no-regret activities effectively for the benefit of the target communities. However, going beyond no-regret options and striving towards sustainable adaptation and resilience enhancement, this flexibility seems to cause problems as it can make it *ad hoc*, reactionary and donor driven. Therefore, there is a need to define a set of adaptation criteria, under which all objectives of EbA related outcomes, outputs and activities can fall. However being able to implement, early in a project, a set of no-regrets measures is a really important means of building trust.

2) This analysis calls for defining and developing a standard operational framework for EbA. Such a framework should not be a strait jacket but rather a guiding tool so that that each activity planned and undertaken is conducted and managed in the context of a set of defined principals. This framework could be adapted according to local specific conditions to address adaptation deficits and vulnerabilities of communities and ecosystems.

3) Along with developing the operational framework, it is crucial to have appropriate tools for implementing the different EbA approaches. It is important to have an integrated tool (or set of tools that contribute to one integrated whole) that addresses not only communities' vulnerabilities but also those faced by local biodiversity and ecosystems. In this way, IUCN's value addition to climate adaptation can be ensured through employing a holistic approach; one addressing all components of overall human wellbeing and sustainable development. In this regard, tools being developed and those used currently should be further examined for their utility and efficiency. Cross-regional linkages will be crucial to effectively build upon existing strengths and consolidate mostly stand-alone good practices into organizational learning. It is clear that there is a vast array of tools being used for various reasons in different projects. IUCN needs to evolve some means to assess the real use and value of these tools and approaches for EbA, with a view to have a more appropriate and strategically (in the context of EbA) defined set of tools and approaches.

4) To ensure the integration of biodiversity aspects in the development of a more integrated vulnerability assessment tool and methodology, the active involvement IUCN's Biodiversity Programme will be essential; this could include use of IUCN's knowledge products (especially

the risk assessment tools – such as the Red List of Threatened Species and the Red List of Ecosystems.

5) There is a need to develop indicators that measure effective adaptation. These should be general adaptation indicators as well as those more specific to EbA. At the moment these are either missing or too broad, and as such unable to provide hard data regarding EbA effectiveness. This project mapping exercise can provide some valuable learning on the role of appropriate indicators.

6) The above mentioned adaptation criteria and indicators should be developed a) based on learning to date from this analysis, and b) with stakeholder participation. Most importantly, these should not only include perceptions regarding EbA effectiveness but provide for hard evidence and cost benefit analyses, that also demonstrate the importance of additionality. The adaptation criteria and indicators should be used to assess and consolidate the knowledge of projects that are not directly related to EbA. This can also feed into the large evidence base.

7) The economic valuation, cost benefit analyses, and assessments of long-term (usually beyond the confines of the project cycle) durability of outcomes need to become an integral part of the implementation plan to support the importance of EbA as compared to other adaptation options (especially hard engineering possibilities). This analysis would help in developing an economic argument for infusion of EbA approaches into overall conservation and development planning.

8) Pilot projects in collaboration with Regions and Thematic Programmes need to be analyzed from the perspective of successes and the knowledge generated from them. This experience should be consolidated and analyzed to provide policy guidance on how EbA can be integrated at all levels and sectors.

9) All of the above will help generate data and enhance knowledge, which in turn can be used to develop a toolkit to implement, monitor and assess EbA outcomes from all IUCN projects.

10) Climate change and its impacts are now a reality. No conservation and development project can achieve desired impacts without taking this into account. Hence, IUCN needs to undertake "**climate smart conservation**" for both biodiversity and ecosystem management. This modus operandi would ensure that the explicit appreciation of multiple outcomes, including climate-related, is sought. Thus, the main objectives of biodiversity & ecosystem conservation and well managed protected areas must be aimed at along with integrating the sustainable use of biodiversity and ecosystem services for enhancing human resilience against climate change into these efforts.

11) It is therefore recommended that once adaptation criteria and indicators are developed, and agreed to within IUCN, EbA is made a cross-cutting theme across all IUCN projects in a manner that reflects the importance of additionality and not "business as usual". This will mean that adaptation criteria are met within projects, and thus ensure the incorporation of climate change associated risks into biodiversity and conservation focused initiatives. This will also enable IUCN to more strategically tap into donor funds, where climate change related projects are an increasingly high priority. EbA is one area where strong synergies can be developed between adaptation, mitigation, and loss & damage – the fast emerging issue at UNFCCC.

12) An organization's biggest assets are its staff. In the case of IUCN, staff have vast and diverse experiences, both at the field and policy levels, that is essential for the implementation of effective project activities. However, there is no systematic mechanism to capture this knowledge and promote mutual learning in a way that could give IUCN a comparative advantage. Many times, innovative tools are produced and pilot tested but still others start from scratch and reinvent 'square wheels'. There is a need to improve inter Regional and inter Thematic communications to document all learning. In this age of information overload, the challenge is to come up with an efficient mechanism to promote learning and cross fertilization, thus making IUCN a truly learning organization.

Box 2: The following noteworthy remarks were proposed by Project Mangers/Staff:

- Tools for evaluating the impact of EbA strategies need to be developed;
- Look into which tool is applied for the assessment of climatic vulnerability and definition of the EbA measures (e.g. CRiSTAL tool);
- Define the approach(es) followed for improving governance with respect to climate change adaptation (e.g. improving local water governance structures, improving legal frameworks, improving participation);
- Differentiate whether or not the initiative establishes demonstrative actions (that are then meant to scale up results) in the context of a long-term or complete plan.

5. Conclusion and Next Steps

The availability of hard data and evidence based knowledge is crucial to take forward IUCN's EbA agenda. This mapping exercise has provided broad indications of available data. Some select projects should be studied in more depth to assess the long term on ground impacts. Therefore, case studies generating adaptation knowledge (including indigenous knowledge) and evidence across the Union would be consolidated through action learning, using a common and comparable methodology based on the EbA Learning Framework. It is anticipated that this would positively contribute towards attaining the knowledge and means for both policy influence and effective field implementation of adaptation and conservation initiatives. This would strengthen IUCN's case for presenting Nature Based Solutions for climate adaptation as a business case through effective, efficient and cost effective measures.

This assessment of IUCN's EbA portfolio has demonstrated the scale, extent and diversity of IUCN's work in EbA. It demonstrates the need for consolidating this experience in a coherent and strategic manner so as to make the EbA case strong across all biomes, regions, and scales. The next steps at this stage will include:

- Sharing the document with all those who contributed to the project mapping exercise and publishing it as an IUCN paper.
- Work with select projects (at least two from each region and representing all major ecosystems, preferably those which have a longer life span than 1-2 years) to use the EbA learning framework and Action Learning as the method. This will provide more detailed and in-depth knowledge.
- To complement this, EMP will work towards garnering additional resources to fund this value added work at the project and site levels.
- IUCN will strive to work with other partners to encourage the use of a similar approach within these institutions – thereby making the case stronger and more empirically robust.
- A PPT presentation, summarizing IUCN's work in the climate adaptation area, will be developed and shared with all the Regions and Thematic Programmes to be used strategically while showcasing IUCN's Nature Based Solutions to Members, partners, and donors.

Climate change and its impacts are now a reality. No conservation and development project can successfully achieve desired impacts without taking this into account. It is therefore critical that Ecosystem based Adaptation is made a cross-cutting theme across all projects in a manner that reflects the importance of additionality and not "business as usual".

Annex-I

Implementing the EbA Learning Framework at Project Level
Part 1: Mapping IUCN's Projects and Activities Related to EbA

The purpose of this document is to map and learn from various Ecosystems based Adaptation (EbA) related initiatives being implemented or completed in the last three years. Part 1 entails mapping the IUCN portfolio as it relates to EbA, and this will be done to embrace regional and global thematic programmes. Part 2, which relates to lessons learned, will be conducted later.

IMPORTANT: Please share information about all those projects which relates to the following, even if not labelled as EbA.

EbA data base of projects and Activities

The attached simple table will help in compiling information about all IUCN EbA related projects (national, regional, global, thematic) which will enable the development of a standardized database. This will be posted on the EbA Flagship website (along with projects from UNEP and others) – http://ebaflagship.org/index.php . In this way the database can be used and built upon.

What is and is not EbA for this Project Mapping Exercise

It is suggested that any initiative that reduces human vulnerabilities and enhances adaptive capacity[6] in the context of existing or projected climate variability and changes through sustainable management, conservation and restoration of ecosystems could be defined as Ecosystem based Adaptation. This is a working definition for this project mapping exercise.

More specifically, as it is sometimes difficult to separate EbA from "business as usual" (development or conservation), the following (Table 1) is a series of simple criteria for use in assessing whether a particular project should be included in this database or not. So, does (or will, or did) your project address one or (preferably) more of the following?

[6] Adaptive Capacity builds the capacity of people to adapt to climate change impacts through maintaining and enhancing their asset/capital sets, addressing entitlements, encouraging innovation, giving greater access to information, establishing flexible governance/decision-making, related to biodiversity and ecosystem services.

Table 1: Series of Simple Questions for Assessing Your Project and EbA

Criteria	Yes/No
1. Assessment of climatic vulnerability, impact, hazard or risk has been (or will be) undertaken.	
2. Build the Adaptive Capacities for EbA of local peoples & institutions.	
3. Integrate local knowledge & institutions with respect to risk management & adaptation as long as they relate to using biodiversity & ecosystem services.	
4. Improve governance over land/water/natural resources & biodiversity with respect to climate change adaptation.	
5. Work with practices that use appropriate species & technologies better adapted for Climate Change e.g. conservation agriculture, agroforestry, soil conservation, etc.	
6. Support ecosystem restoration with species that are better adapted to climate change & so better enhance connectivity in the landscape as well as the resilience of ecosystems & sustaining its services.	
7. Support the maintenance of ecosystem services e.g. catchment (watershed, basin) management in a manner that actively takes into account increased climate risk.	
8. Conserve biodiversity & the management of associated threats to it in the context of climate change; e.g. managing spread of Invasive Alien Species with the rise in temperatures so as to reduce risks to ecosystems & livelihoods	
9. Diversify land use & livelihood options (including crop diversification) to reduce risk & enhance climate resilience & so take into account climate change e.g. agriculture or forestry that can cope with changing temperatures or rainfall patterns.	
10. Enhance the management of seasonal movements of people & livestock between winter & summer (or wet & dry season) to better conserve ecosystem's services & biodiversity from climate impacts.	
11. Actively protect & restore natural infrastructure e.g. dunes, mangroves, forests, slope stabilisation etc. to reduce risk to climate impacts.	
Please add relevant criteria from your project if it fulfils the EbA working definition cited above.	

Table 2: Data sheet for IUCN EbA Projects and Activities

(Please provide information about all projects/major project components that are either ongoing, have been completed in the last three years or approved by donor but yet to be initiated.)

Project Title (please also attach a copy of the technical part of the proposal)	
IUCN Project Number	
Donor	
IUCN Region, Theme	
Duration (from - to)	
Budget for the project (state currency)	
Project Geographical Coverage (which countries, regions, or global)	
If national – where (district, province, national) & provide geographical location (coordinates if available)	
Main ecological regions (where the project works)	Circle: Mountains, Coastal, Marine, Forest, River Basins, Dry land, Others
Key Partners (please mention if they are IUCN Members)	
Main objectives (or results)	
What are the broad activities	
What are the main tools, & methodologies used or to be used to evaluate impacts of vulnerability and adaptation[7]	
What knowledge products e.g. reports, case studies, tools, documentaries etc. are planned, or been produced (if produced please attach & provide URL, as well as project website & links to dedicated knowledge products)	
Additional Comments	
Contact Person (name & email)	

[7] This will assist us develop a detailed inventory on the tools and approaches being used, and then learn from how they are used, as to their real effectiveness. EbA will depend a lot on the assessment of methodologies especially in connection with vulnerability assessments.

Annex-II

Compendium of Knowledge Products from each Project

Region: Asia

Project title & Region/Country	Project Outcomes / Highlights [where available]	Knowledge Products generated
Mangroves for the Future **- Pakistan** **[**Part of a Regional initiative that also covers: **Bangladesh, Cambodia, India, Indonesia, Maldives, Seychelles, Sri Lanka, Thailand & Vietnam]**		• **Documentary**: Sentries of the Coast • **Resilience Analysis Protocol** (*in development*): the Road to Resilience MFF Exchange page • **MFF Pakistan small grants projects** • **Sharing Lessons on Mangrove Restoration**
Mainstreaming Biodiversity Conservation into the Juniper Forest Ecosystem Production Landscape. **- Pakistan**	• **Mobilised and motivated communities;** • **Awareness of conservation values raised**; • **Strengthened human and institutional capacity to support conservation efforts** - 527 community members & officials of Government departments were provided training & exposure in related aspects including: Organizational management, Participatory approaches & proposal development; Water resources management, Sustainable use of natural resources & Disaster risks management, to name a few. • **Reduced pressure on Juniper forest natural resources use** (mainly fuelwood and grazing), especially **through introduction of alternate energies and fuel efficient technologies**; • **Initiated mobile free of cost livestock vaccination programme to minimize economic losses for the herdsmen from drought and lack of fodder** - over 35,000 livestock heads	• **Documentary:** Living Fossils • **Publication:** Life around the Juniper Forests

	vaccinated and training of community livestock extension workers; • **Opportunities for biodiversity benefits from sustainable tourism, controlled hunting** and **watershed and ecosystem services were explored;** • **Supported local communities in construction of stone-pitched flood protection walls over the length of 5478 RFts or 1670 meters -** The flood protection walls have helped the farmers in protection of their orchards from flash floods during heavy rainfall. • **Broadened local economy base for poverty alleviation.**	
Balochistan Partnerships for Sustainable Development (BPSD). **- Pakistan**	• **Development of 5 Integrated District Development Visions** (and 2 under BPO) and **integration of planning tools into administrative processes**, as well as **operationalised through technical assistance with a focus on livelihood issues**; • **Fully functional, community-managed, medium-sized projects on IWRM established in identified river basins**, including: watershed improvement, Kareze rehabilitation, artificial recharge, water conservation and efficiency; • **Livelihood and income generating initiatives for assuring the sustainable use of natural resources to combat poverty**: i.e. nurseries	• **Documentaries:** **-** Of Pearls in the Sand **- Shells or Pearls** • **Project documents:** **- Completion report:** http://cmsdata.iucn.org/downloads/pk_bpsd_crep_qis_khan.pdf **- Gender Action Plan:** http://cmsdata.iucn.org/downloads/pk_bpsd_gap.pdf **- Capacity Mapping & Capacity Building Plan:** http://cmsdata.iucn.org/downloads/pk_bpsd_cbp200_2013.pdf **- Integrating Environmental Concerns into Disaster Risk Management -Training Report Quetta:**

	establishment, demos of multi-cut fodder, fish forming & kitchen gardening; • **Integration of biodiversity values** into policy, planning and practice in coastal areas, planting of mangroves and of saline resistant fodder crops as well as **other support to livelihoods** (i.e. apiaries and aquaculture); • **Enhanced capacity of a large range of stakeholders to support sustainable development in Balochistan** through: trainings, awareness raising campaigns, inclusion in implementation and monitoring.	http://cmsdata.iucn.org/downloads/pk_bpsd_drm_tr_rep.pdf **- Climate Change & Coastal Districts of Balochistan- Situation Analysis, Implications & Recommendations:** https://cmsdata.iucn.org/downloads/cc_and_coastal_districts_analysis_study.pdf
IWRM for Livelihoods – Livelihood enhancement through integrated management of water and land resources in Iskan Khan and Nida Karezes in Pishin District of Balochistan. **- Pakistan**	**Under the first grant, the following benefits were realised by the community in Qila Iskan Khan area**: • **Improvements of**: 1,050 meters of the main Karez channel; 2,400 meters of tertiary irrigation system; 40 x 31 x 1.6 meters earthen water storage tank lined; • **Construction of** 40 small check dams for water conservation in the watershed; • Water losses in tertiary irrigation system reduced by 60%; • Plant nursery of 25,000 plants established & 10,000 saplings planted; • **The total income of the Karez command increased** from 14 million to 23 million - an average increase in household income of 47%; • An **unanticipated result of the project interventions** is discharge of the Karez increased	• **Livelihood security through integrated water resource management**

	manifold. The farmers were able to cultivate additional acres (total cultivated area after project completion was 412 acres) with food and fodder crops and constructed a stock water pond for livestock. Investing more in livestock procurement, the number of livestock owned by the community increased from few hundred heads to 1900 heads; • **17 households were provided direct water supply line from the main Karez for domestic use**, with a **marked decrease in the number of water-related ailments and diseases;** • **75 Person-days training** imparted **to the local farmers & community members on land and water resource management**; • **2 washing areas for women** were constructed & **3 kitchen gardens established** • **25 women & girls were imparted training on kitchen gardening** and **68 women & girls were given training on WASH.**	
Sindh Coastal Communities Development Project **- Pakistan**	• **Establishment of 350 ha of community mangrove plantations** on private/community land **in Thatta District;** • **Value added by fish habitat services of local mangrove ranges** between $ 651– 1,291USD per hectare/year at Miani Hor, similar & higher values achieved in the Indus Delta. • **Monitoring & evaluation of 10000ha of**	• **SCCDP - Project Completion Report** • **Annual Progress Reports &** • **Mangrove Plantation Monitoring Reports:** http://iucn.org/about/union/secretariat/offices/asia/asia_where_work/pakistan/projects/proj_sindh/ • **IUCN Component – Targets & Achievements**

	plantations by the **Sindh Forest Department;** • **Environmental Assessment** of 3 Aquaculture sites undertaken for establishing 30 crabs/shrimp ponds and one set of 10 ponds – male crabs have a high commercial value and after the fattening process, a male crab of 300-400 gm has a market price of Rs. 400/- **For Information, Education & Communication Programme of the project, IUCN carried out:** • **Formal & informal training on silviculture** for 15 communities including over 500 persons; • **Outreach material** (i.e. fact sheets, brochures, stickers, caps, T-shirts); • **Community Radio Programme** broadcasted by Pakistan Broadcasting Corporation, Hyderabad station, covering 9 districts of Southern Sindh, including 350 environmental Slogans, 15 environmental features & 104 interviews/ katcheries; • **7 environment events celebrated;** • **3 exposure visits for planners, policy makers and media.**	
Implementation of Ecosystem and Community-based Climate Adaptation and Resilience Building Initiatives in Chiang Rai and Sakon Nakhon provinces, Thailand. *Project is ongoing: 2013 – 2015*	**Component 1 Outcomes:** • Improved community ability to track extreme weather events, climate patterns & seasonal shifts; • A common understanding of risks associated with climate change is gained & incorporated	• **Quarterly reports and final report** • **Case studies** • **Website:** http://www.iucn.org/about/union/secretariat/offices/asia/asia_where_work/thailand/our_projects/building_resilience_to_climate_change_impacts__coastal_southeast_asia/

(expected)	into livelihood planning & decision-making. **Component 2 Outcomes:** • Communities realize benefits tied to livelihood thematic areas; • Communities have increased adaptive capacity due to implementation of priority actions & monitoring system. **Component 3 outcomes:** • Baseline data and cost-benefit analyses help monitor and assess adaptation options.	
Building Resilience to Climate Change, Coastal Southeast Asia. **- Thailand, Cambodia and Vietnam** *Project is ongoing: 2011 – 2014*	**Communities and local governments**: • Use tested assessment frameworks and downscaled data to assess vulnerabilities; • Have enhanced capacities to understand climate change issues & to plan & integrate climate change adaptation & DRR measures in provincial development strategies, in sectoral activities and plans at the local/decentralized levels (*particularly in the fisheries, aquaculture, agriculture and tourism sectors*); • Use the toolkit developed by the Action to develop locally appropriate measures for climate change adaptation & DRR; • Have capacity to work with local authorities in contiguous provinces on climate change adaptation & DRR along a 1,500-km stretch of the South China Sea coastline and islands	• **Climate Resilience Evaluation for Adaptation Through Empowerment (CREATE);** • **Promoting Local Innovations (PLI) for Community-Based Climate Change Adaptation in Coastal Areas: A Facilitator's Guide to the PLI Workshop;** • **Cambodia Coastal Situation Analysis** **More Knowledge products are available at:** **www.iucn.org/building-coastal-resilience**

	between Bangkok and HCMC.	
Capacity enhancement to integrate ecosystem-based adaptation into sub-national development planning in Lao PDR	*Project is ongoing (2013-2017)*	• **Project Website:** http://www.iucn.org/about/union/secretariat/offices/asia/asia_where_work/lao/ • **Brochures and posters** • **Project Newsletters** (once a year) • **Various media activities** • **Guidelines and standards on climate resilience in the four NAPA sectors for subsequent up-scaling** • **A guide on climate financing in Laos**
Ecosystem-based Adaptation in Mountainous Areas of Khammouane Province of Lao PDR	*Project is ongoing (2013-2015)*	• **Quarterly reports and final report;** • **Case studies** • **Website:** http://www.iucn.org/about/union/secretariat/offices/asia/asia_where_work/lao/iucn_lao_iucn_laopdr/
Markets & Mangroves (M&M) **- Thailand & Vietnam**	*Project is ongoing (2012-2016)*	• **Satellite-based Land cover Analysis technical report, 2013** (*draft*). • **Mangrove carbon report, 2013** (*draft*). • **Project update, August 2013**
CORDIO Andaman Sea project: A Framework for Social Adaptation to Climate Change *(report).* **- South Asia, the Andaman Sea & the Indian Ocean islands.**		**Publication available at:** http://data.iucn.org/dbtw-wpd/edocs/2010-022.pdf

Dialogue for Sustainable Management of Trans-Boundary Water Regimes in South Asia: A Bangladesh-India Initiative **- Bangladesh and India**	*Project is ongoing (2010-2014)*	• **Annual Progress Report 2012** • **Situation Analysis on Climate Change** • **Website:** http://www.iucn.org/about/union/secretariat/offices/asia/regional_activities/ecosystems_for_life/
Region: West Asia		
Securing Rights and Restoring Lands for Improved Livelihoods **- Jordan** [Geographical coverage includes: **Mali, Botswana and Sudan**]		• **Project brochure (Arabic and English)** • **Quarterly newsletters (Arabic and English)** • **Four participatory videos (one for each location) and one combined film** • **A website:** http://www.iucn.org/about/work/programmes/ecosystem_management/about_work_global_prog_ecos_dry/gdi_projects/project/ • **Baseline project study** • **A project case study : '***Reviving Hima Sites***'** (Arabic and English) • **Documentary on national TV featuring two episodes.**
Gender Responsive Climate change initiatives and Decision-Making. **- Jordan, Egypt and League of Arab states**	• **Development of National assessments to examine**: the status of women and gender equality, the nature of climate change impacts, and where these two issues correlated in each country. • The **assessments also identified specific projects and policy options and outlined potential advocacy strategies.**	• **Translation of Gender and Climate Change Manual into Arabic Language with adding cases from Arab region** • **Jordan Action Plan for Gender and Climate change activities:** https://cmsdata.iucn.org/downloads/programme_for_mainstreaming_gender_in_climate_change_efforts_in_jordan_1.pdf • **Egypt Gender and Climate change strategies:** National Strategy for Mainstreaming Gender in Climate Change in Egypt • **The Arab Framework Action Plan on Climate change 201** • **Gender-responsive national strategies and roadmaps on climate change:**

	• **Jordan Action Plan integrated into Jordan Climate change policy** which was **launched June 2013** and **integrated into Women strategy 2012-2015.**	http://www.genderandenvironment.org/generoyambiente.org/index.php/en/knowledge-center/doc_download/1111866-the-art-of-implementation ; • **Websites:** https://www.iucn.org/about/work/programmes/gender/ • www.genderandenvironment.org
Regional Knowledge Network on Systemic Approaches to Water Resources Management **- MENA Region [Egypt, Morocco, Lebanon, Jordan, Palestine]**	*Project is ongoing (2013-2016)*	**To be established:** • **Creation of the Regional Water Knowledge Network (RWKN);** • **A website that will serve as a knowledge sharing tool and include a huge database related to the thematic areas chosen.** **More information available at:** http://iucn.org/about/union/secretariat/offices/rowa/iucnwame_ourwork/iucnrowa_cc/iucnrowa_rwkn/
The Social, Ecological, Agricultural resilience in the face of climate change project (SEARCH) **- MENA region**	*Project is ongoing (2011-2014)*	• **Fact sheets (1 for each country);** • **An introductory (a photo video was produced);** • **Methodology:** The Participatory Planning Cycle Framework **&** https://cmsdata.iucn.org/downloads/search_resilience_briefing_june_2011_v2.pdf **&** • Adaptation to Environmental Change: Contribution of a Resilience Framework • **A documentary is currently being filmed in the region in all 5 countries;** • **A website:** http://iucn.org/about/union/secretariat/offices/rowa/iucnwame_ourwork/iucnrowa_cc/search_2/ • **2 brochures and one manual for the demonstration projects in Jordan;** • **A toolkit for the whole project** (*to be implemented this year*); • **A policy brief** (*will be produced by next year*)

Total Foundation Red Sea Corals and Climate Change **- Egypt**	• **Global Methodology for Coral Reef Monitoring protocol in the context of Climate Change** produced; • **Developed a UNEP Working Group** to integrate the results of this project into marine spatial planning & ecosystem based management to enhance management of Egyptian and Red Sea Reefs; • **Scientific and ecological surveys** of 42 coastal & open sea reef sites. • **3 training workshops** held for coral reef monitoring and management for Egyptian managers and Tour operators.	• **Resilience Assessment of Coral Reefs** • **Preparing for Climate Change in the Red-Sea** **More knowledge products are available at:** http://www.iucn.org/about/work/programmes/marine/marine_our_work/gmpp_coral_reefs/gmpp_coral_reefs__projects/gmpp_coral_reef_conservation_egypt/
Kuoni Coral Reef project **- Egypt** [Geographical coverage includes the **Maldives**]		• **A framework for practical and rigorous impact monitoring by field managers of marine protected areas** • **More information at:** http://www.iucn.org/es/noticias/noticias_por_tema/negocios_news/?3940/Red-Sea-White-Coral

Region: South America

Ecosystem based Adaptation in mountain ecosystems **- Peru**	*Project is ongoing (2011-2015)*	**In 2013:** • **Project information (*Spanish*):** http://iucn.org/es/sobre/union/secretaria/oficinas/sudamerica/sur_proyectos/?11615/AbEPeru

[Geographical coverage also includes: **Nepal and Uganda]**		• **Web stories (*Spanish and English*):** http://iucn.org/es/sobre/union/secretaria/oficinas/sudamerica/sur_noticias/?13308/adaptacion-Andes-Peruano • **One web story on process** • **Brochure (Spanish):** https://cmsdata.iucn.org/downloads/abe_montana_peru.pdf • **Factsheets (Spanish and English): 1) Non regrets measures; 2) What`s EbA and the Mt. EbA project; 3) Natural based Solutions; 4) others** (*in process*) • **A Video about Mt. EbA for local stakeholders** **In 2014:** • **Publications: 1) EbA non regrets measures; 2) Lessons learn/action learning; 3) EbA non regrets measures economic assessment.**
Ecosystems Protecting Infrastructure and Communities (EPIC) **- Chile** [Geographical coverage also includes: **Burkina Faso, China, Nepal, Senegal & Thailand]**	*Project is ongoing (2013-2017)*	• **Project information (Spanish) available at:** http://iucn.org/es/sobre/union/secretaria/oficinas/sudamerica/sur_proyectos/ • **CVCA Report** (*in process*) • **Baseline study** (*in process*) • **Inception workshop report** (December 2013) • **Research report** (SLF) • **Policy papers** • **Project flyer:** https://cmsdata.iucn.org/downloads/epic_a4_2013_rvscolor.pdf • **Website:** http://www.epicproject.net

Climate is changing and you can too **- Colombia, Ecuador, Peru and Bolivia**		• **Knowledge products are available at:** www.adaptacion.portalces.org
Communities of the Páramo: Strengthening capacities and coordination to adapt to the effects of climate change **- Colombia, Ecuador and Peru** ***Project is ongoing:* 2013-2015**	• **Local stakeholders & decision-makers have increased their knowledge** (*based on scientific and social research*) & **capacity to lead**, **plan** and **promote climate change adaptation measures** in the páramos (***ensuring gender-balanced participation***).	**Knowledge products are available at:** http://iucn.org/es/sobre/union/secretaria/oficinas/sudamerica/sur_proyectos/?11618/Proyectoparamos

Region: Central America

Climate Change Governance Capacity: Building regionally- and nationally-tailored ecosystem-based adaptation in Mesoamerica **- Panama, Costa Rica, El Salvador, Chiapas (México).**		• **Website:** www.iucn.org/aguayadaptacion • **Video:** - **Adapting to climate change: people and ecosystems** : About the EbA approach and IWRM/governance; **- Integrating borders :** About the binational natural resources governance frameworks in the Sixaola River Basin**;** **- Comunidades con Inteligencia natural:** About the climate threats in the Sixaola River Basin [*to be uploaded to the IUCN YouTube channel*]. • **Report/documentary:** EbA Highlights in Mesoamerica • **Guidelines:** **-** Contribution to the policy brief on Principles to integrate EbA approach into project planning - Water and Climate Change Adaptation in the Americas:

		http://www.waterclimatechange.org/fotos/evento_elemento/0WCC_RPD.pdf • **Training materials:** - ToT modules on: water governance, risk and water management, livelihoods, ecosystem-based adaptation (*Spanish*) - Field notebook with 16 images explaining the link between climate change and ecosystems. • **Book: Water Governance and Climate Change (*in progress*)** • **Exhibition on EbA in the National Museum of Costa Rica:** https://www.facebook.com/InteligenciaNaturalExhibicion/photos_stream http://www.inteligencianaturalexhibicion.org
Transforming Evidence into Change: a Holistic Approach to Governance for EbA-Go4EbA **- Panama, Costa Rica, El Salvador, Honduras, Guatemala, México.**	*Project yet to be approved*	**Proposed Knowledge products:** • **Methodology for identifying and measuring EbA benefits** • **Case studies**

Region: Eastern and Southern Africa

Participation for change: Strengthening local participation in policy processes to improve food security in dryland areas of East Africa. **- Kenya, Tanzania and Ethiopia**	*Project is ongoing (2013-2015)*	• **Policy briefs from dialogues and the studies** • Improving governance to support better livelihood security and ecosystem management in drylands

Securing rights and restoring lands for improved livelihoods in Eastern Sudan [Geographical coverage includes: **Mali, Jordan and Botswana].**	*Project is ongoing (2010-2014)*	• **Community Issue Papers such as:** **- Community success stories in reversing desertification;** **- CEAP process/Implementation;** **- Technical brief for valuation study and market chain analysis;** **- Land tenure study.** • http://www.iucn.org/about/union/secretariat/offices/rowa/iucnwame_ourwork/iucnwame_reward/drylands_restoration/
Water for livestock: Water and rangeland management and construction of sub-surface dams through cash for work in Merti and Garbatula district. **- Kenya, Isiolo County.**	*Project is ongoing (2012-2014)*	• **Proposed production of 2 types of knowledge materials:** **- 1 targeted on local audience** **- 2nd targeted at regional audience and learning groups i.e. REGLAP: Aim is to document the approaches of sub-surface dam development, water governance & lessons from different steps adopted in water point development and governance.**
Kalahari-Namib Project: **Enhancing decision-making through Interactive Environmental Learning and Action in the Molopo-Nossob River Basin in Botswana, Namibia and South Africa**	*Project is ongoing (2011-2015)*	• **Series of technical briefs are planned. The 1st one was produced in September 2013 → Kalahari-Namib Technical Brief 1: '***Challenges and Solutions to managing and controlling the spread of invasive prosopis in dryland ecosystems'***;** • **Participatory video on challenges and solutions to managing and controlling the spread of invasive prosopis in dryland ecosystems;** • **Review on strengthening communal rangeland management in Botswana:** legal and policy constraints and opportunities**;** • **National Baseline Studies:** Kalahari-Namib Project Namibia Baseline Study - Situational Analysis; • Kalahari Namib Communication strategy • **Community Environmental Action Planning reports:** http://www.iucn.org/about/union/secretariat/offices/esaro/what_

		we_do/drylands/kalahari_namib_ecosystem/securing_rights_project/
A Water Secure Future for Southern Africa: Applying the Ecosystem Approach (EA) in the Orange-Senqu basin. **- Botswana, Lesotho, Namibia and South Africa**	*Project is ongoing (2012-2015)*	• **Reports** - **Review and recommendations for incorporation of the EA in water resources management plans and planning –** summary for decision-makers, policy briefs and factsheets. - **Determination and documentation of water-related environmental issues having adverse impacts on biodiversity in the Orange Senqu river basin;** - **Stakeholder Analysis to identify key stakeholders for that should be engaged in mainstreaming the ecosystem approach and main stakeholders to be engaged in demonstration projects;** - **Fact sheet:** http://www.usaid.gov/sites/default/files/documents/1860/IUCN.pdf - **Toolkit;** - **Success stories from demonstration projects:** http://www.iucn.org/about/union/secretariat/offices/esaro/what_we_do/water_and_wetlands/ecosystem_approach_in__orange_senqu_river_basin/
Securing Rights and Restoring Land for Improved Livelihoods. **- Botswana** [Geographical coverage includes: **Mali, Jordan and Sudan**]	• **Poverty reduced and key dryland ecosystem services restored and sustainably managed in Botswana.** • **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 generation opportunities in four diverse dryland areas in**	• **Kalahari-Namib Technical Brief 1: Challenges and Solutions to managing and controlling the spread of invasive prosopis in dryland ecosystems;** • **Participatory video on challenges and solutions to managing and controlling the spread of invasive prosopis in dryland ecosystems;** • **Review on strengthening communal rangeland management in Botswana: legal and policy constraints and opportunities** • **A land tenure and policy study on Botswana** • **A project webpage:**

Botswana.		http://www.iucn.org/about/union/secretariat/offices/esaro/what_we_do/drylands/kalahari_namib_ecosystem/securing_rights_project
Building Drought Resilience through water and land management (BDR) in Upper Aswa-Agago and Lower Tana catchments. **- Northern Uganda and Northern Kenya**	*Project is ongoing (2011 - 2014)*	• **Briefing notes;** • **Participatory video available at:** http://youtu.be/Gdwb-WTlpUA; http://youtu.be/mMnBQWOukoo & http://youtu.be/JSIsksG57SE • **Web stories:** http://www.iucn.org/about/union/secretariat/offices/esaro/?10008/IUCN-to-build-drought-resilience-in-Kenya-and-Uganda-through-sound-land-and-water-management and http://www.iucn.org/about/union/secretariat/offices/esaro/_news/?10150/Government-staff-and-community-groups-hone-skills-in-participatory-video
Implementing Resilience Framework to support Climate Change Adaptation in Mt. Elgon, Kenya and Uganda.	*Project is ongoing (2012 – 2015)*	• **Mapping of Climate change risks in hotspot sites through GIS and remote sensing** (*this will be packaged and produced for dissemination and use once peer reviewed);* • **Communication strategy produced;** • **Strategy paper and guidelines for integrating climate change adaptation approaches in trans-boundary ecosystem management**
WISE-UP to Climate: Water Infrastructure Solutions from Ecosystem Services Underpinning Climate Resilient Policies and Programmes **- Kenya (*Tana river basin*)**	*Project is ongoing (2013 – 2017)*	• **Website:** http://www.iucn.org/about/work/programmes/water/wp_our_work/wise_up_to_climate/ **&** WISE-UP to Climate: New project on water and climate adaptation • **Brochure:**

[Geographical coverage includes: **Ghana, Burkina Faso, Mali, Ivory Coast, Togo and Benin]**		https://cmsdata.iucn.org/downloads/wise_up_4_pages__super_light_11022014__1.pdf

Region: West and Central Africa

Sustainable management of forests through the facilitation of the establishment, development and operation of Model Forests in African sites **- Cameroon, DRC and Rwanda**	**The following major impacts can be noticed**: • **At the institutional level**: The mobilization of actors around the issue of the landscape of Gishwati. The ICRAF project to plant trees in priority sites around Lake Karago. A governance structure involving almost all of the representatives' institutions at the local level. • **At the local level**: the participation and involvement of the actors in the future strategy of landscape restoration with an effective understanding of the concepts of "landscape restoration" and "model forests" - local actors agreed themselves to conduct the future initiatives on the restoration by the choice of preferred species and priority sites for reforestation. • **Financial resources mobilization**: the leverage through participatory reforestation project along the banks of Lake Karago. This project will benefit from funding from RN Canada with the contribution in kind of Natural Resource Rwanda Authority (NRRA), ICRAF, IUCN and SRAFM.	• **Initiation of the establishment of a Model Forest/FLR learning site in Rwanda, complementing the DRC and Cameroon sites;** • www.imfn.net/system/files/IMFN_Eng_Africa.pdf • **Government recognition of Model Forest/FLR learning sites;** • **Locally relevant governance structures designed with enhanced stakeholder participation;** • **The members of Comite Provisoire de Pilotage;** • **Clearer understanding of opportunities and challenges;** • **Enhancing country and Congo Basin support for and capacity to implement FLR;** • **Increased understanding of the potential for improving economic and community sustainability through the scaling up of FLR in their countries and regions (Principles and guidelines of FLR in Africa, Fundamental principles of Model Forest);** • **Local communities integrated into project;** • **The holding of a roundtable on governance and land management;** • **Design of an action plan to develop additional Model Forest/FLR learning sites in the Congo Basin;** • **The agreement on specific steps for moving forward with additional Model Forest sites in the Congo Basin;** • **Delimitation of the Model Forest of North Kivu;**

	ICRAF is added as well as a great actor in the dynamic construction of the Model Forest of the western North of Rwanda.	• **Design a future capacity building and learning process;** • **Application of Theory of Change;** • **Participatory Karago watershed restoration through innovative agro-forestry technologies;** • **Engage the Model Forest/FLR learning sites in cross-country, regional and global learning and networking;** • **Design cross-country, regional and global learning and networking;** • **Communications achievements;** • **Two albums and two briefing notes presented to the Minister of Natural Resources;** • **Three notes of communication for IUCN PACO News and PGBC info;** • **Production of a CD Rom of the main results;** • **Presentation of the FLR and Model Forest project in Rwanda as a best practice for land use strategy during the Congo Basin Forest Partnership (CBFP) meeting, February 2012:** http://ccr-rac.pfbc-cbfp.org/documentation-de-la-journee-gouvernance-et-utilisation-des-terres-du-bassin-du-congo-douala-29-fevrier-2012.html • **"Radio Environment": a broadcast on the principles and guidelines for landscape restoration in Africa. This is broadcasting by "Radio Environment", Radio Okapi, and Rural Communities Radio.**
Evolution of protected areas systems with regard to climate change in the West Africa region ***Short title: Protected Areas Resilient to Climate Change (PARCC)***	*Project is ongoing: 2010-2015*	• **Reports on:** **- Identifying current data gaps and status of data acquisition for Climate** **Change and Protected Areas in West Africa.**

- <u>West Africa:</u> Togo, Mali Chad, Sierra Leone, Gambia.	**- Screening of Vulnerability Assessment Tools and Framework.** **- High resolution climate data and future climate scenarios.** **- Existing species data for the West Africa region.** **- A Preliminary Study of Climate Change Resilience Areas CCRAs.** **- A Framework Methodology for Integrating Climate change Vulnerability Assessments:** Species Distribution Models and Traits-Based Assessments. **- National reports on the link between climate change, protected areas and communities** [*Regional synthesis on this topic to be produced soon*] • **Project's newsletter** • **Web site and data portal:** www.parcc-web.org
Appui à la mise en œuvre du programme « Changement Climatique » au Burkina Faso: Renforcement de l'efficacité de la contribution de la société civile (CC_DANIDA) - Burkina Faso	• **Catalogue of good practices for adaptation to climate risks in Burkina Faso:** http://cmsdata.iucn.org/downloads/catalogue.pdf - **Documentary film on Climate change:** http://vimeo.com/26859077 - **Summary of the main achievements and lessons learned**
Intégration de l'adaptation au changement climatique dans les stratégies de réduction de la pauvreté en Afrique de l'Ouest (CC_PREMI) **- <u>West Africa</u>: Burkina Faso, Mali and Senegal**	• **Specification for taking account of sustainable management of land, wetlands, climate change, biological diversity, of the reduction of the risks of natural disasters in the local development plans of Burkina Faso;** • **Concept note for the development of a regional Joint Programme on climate change in West Africa;** • **Study reports:** - Inventory and diagnosis of frameworks and tools for analysis of the interactions between climate change and development in Burkina Faso, Mali and Senegal**;** **-** Capitalization of the practical knowledge, strategies and local

		technologies for adaptation to climate change in Burkina Faso, Mali and Senegal.
Ecosystems Protecting Infrastructures and Communities (EPIC Burkina). **- Burkina Faso** [Geographical coverage includes: **China, Chile, Nepal, Senegal & Thailand**]	*Project is ongoing (2013-2017)*	• **Report of the assessment of vulnerability and promotion of local innovation workshop** • **Reference status report** • **Project Brochure:** http://www.epicproject.net/wp-content/uploads/EPIC_A4-2013_rvs.pdf • **Website:**http://www.epicproject.net
Collecte des incidences d'adaptation du programme CCAFS (PHAO-CCAFS). **- Burkina Faso, Mali, Ghana, Niger, Senegal.**	*Project is ongoing (2012-2014)*	• **A working document: "How the use of planning tools and simple monitoring and evaluation by the rural communities of Yatenga (Burkina Faso) allows for an understanding of their capacity to adapt to climate change". (*current editing process*)** • **Toolkit for Planning, Monitoring and Evaluation of the capacity to adapt to climate change (TOP-SECAC) =** http://cmsdata.iucn.org/downloads/top_secac_agrhymet_edition_francaise_combine.pdf **or** cmsdata.iucn.org/downloads/top_secac_agrhymet_english.pdf
Accroissement de la capacité adaptative des communautés locales au changement climatique **- Regions of Central East and Central West of Burkina Faso** *Project is ongoing (2009-2015)*	• **Riparian forests communities apply modes of sustainable exploitation of natural resources reducing the effects climate change;** • **Improvement of the productive capacity of the soils;** • **Parties involved in the management of**	• **Articles by press: -** Launch of the draft; - Palmyra Palm; - The fair's promotion of the NWFP; - Training (REDD, Cristal). • **Various reports:** - Mid course review ; - Training on Participatory monitoring, planning and management for the benefit of holders and beneficiaries; - micro-projects and PDE; Report of the trip to Parakou; Scoring grid; Canvas project development;

	natural resources at the decentralized level implement the achievements of the project.	• **Audio support for Exchange radio during the mission of Parakou in Benin;** - Audio of the phase plot of mid-review course directed by Savane FM, and for awareness produced by Dakupa. • **Documentaries:** - Documentary Film on climate change & catalog on good practices for adaptation to climate change • **Study reports on:** - good adaptation practices; - Situation reference; - Communication strategy, and scaling strategy**.**
Global Water Initiative – Afrique de l'Ouest **- Niger, Burkina, Mali, Senegal and Guinea**	2nd phase is ongoing (2012-2017)	• **Dams & sharing benefits in West Africa** • **Guidelines for the development of water infrastructure in West Africa** • **Website:** http://www.iucn.org/fr/propos/union/secretariat/bureaux/paco/programmes/prezoh/gwi_dams/
Civil Society Strengthening for Biodiversity Conservation in the Congo Basin (CARPE) **- Cameroon, Republic of Congo, Democratic Republic of Congo, Gabon, Equatorial Guinea and CAR.**		• **Documentaries on REDD+** • **Reports (small grants reports and AR plus SAR)** • **Lessons learned publication:** http://www.iucn.org/fr/propos/union/secretariat/bureaux/paco/programmes/paco_forest/thematiques_et_projets/central_african_regional_program_for_the_environment__carpe__/lessons_learned_from_the_carpe/ ; - Lessons Learned - Book • **Technical Briefs**
Livestock for Livelihoods: Strengthening Climate Change Adaptation Strategies	• **Sustainable natural resource management**	• **Website:** www.au-ibar.org

through Improved Management at the Livestock-Wildlife-Environment Interface **- Senegal, Guinea, Mali** [This project is also implemented in the **Congo Basin**]	**systems established** at the livestock-wildlife-agriculture interface; • **Degraded lands restored** and **rehabilitated through participatory community based actions**; • **Climate-proof' livestock production systems** and **alternative means of livelihood provided to pastoral and agro-pastoral production systems in ASALS**; • **Enhanced awareness & information sharing of best practices on sustainable natural resources management practices in response to increasing risks and vulnerability from climate change** at the **livestock-wildlife interface.**	• **Consultancy report:** http://www.auibar.org/component/jdownloads/finish/27/781 • **Articles:** **-** Parc national de NIOKOLO KOBA : La pression sur les ressources réduite grâce à un projet de 400 millions de FCfa - Réduction de la pression sur le parc Niokolo Koba : Plusieurs projets et réalisations pour les jeunes et les femmes
Projects in the Congo Basin: **1] Engaging multi stakeholders dialogue on REDD+ processes;** **2] Mangroves restoration and wetlands management;** **3] Supporting community livelihood initiatives for sustainable management of natural resources within Waza NP and peripheral zones;** **4] Landscape Livelihood Strategy, LLS project;**	*Projects 1 and 3 still ongoing*	**All implemented projects have:** • **Technical reports** • **Brochures (*in some cases*)** • **Lessons learnt documentation** • **Methodological tools (for M&E work especially).** • Building effective pro-poor REDD-plus interventions: - IUCN

5] Livestock for Livelihoods: Strengthening Climate Change Adaptation Strategies through Improved Management at the Livestock-Wildlife-Environment Interface.		
WISE-UP to Climate: Water Infrastructure Solutions from Ecosystem Services Underpinning Climate Resilient Policies and Programmes **- Ghana, Burkina Faso, Mali, Ivory Coast, Togo and Benin (*Volta river basin*).** [The project covers **Kenya** as well].	*Project is ongoing (2013 – 2017)*	• **Website:** http://www.iucn.org/about/work/programmes/water/wp_our_work/wise_up_to_climate/ **&** WISE-UP to Climate: New project on water and climate adaptation • **Brochure:** https://cmsdata.iucn.org/downloads/wise_up_4_pages__super_light_11022014__1.pdf

Climate change and its impacts are now a reality. No conservation and development project can successfully achieve desired impacts without taking this into account. It is therefore critical that Ecosystem based Adaptation is made a cross-cutting theme across all projects in a manner that reflects the importance of additionality and not "business as usual".

For more information

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