



**Eastern Africa Capacity Building Workshop on Information Use and Indicators
in Updating NBSAPs**

Workshop Report

27th - 29th September 2011

Imperial Botanical Beach Hotel, Entebbe, Uganda



**Hosted by the Uganda National Environment Management Authority and
Uganda Wildlife Authority**

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Contents

- 1. Report Summary** 3
- 2. Background**..... 4
- 3. Workshop Objectives** 4
- 4. Day 1** 5
 - 4.1 Welcome 5
 - 4.2 Introductions and expectations 5
 - 4.3 Presentations 7
 - 4.4 Exercises..... 12
- 5. Day 2**..... 17
 - 5.1 Exercises..... 17
 - 5.2 Field Trip..... 21
- 6. Day 3**..... 23
 - 6.1 Presentation..... 23
 - 6.2 Exercises..... 24
 - 6.3 Workshop conclusions 27
 - 6.4 Evaluation and thanks..... 27
- 7. Annexes**..... 28
 - 7.1 Annex 1: Workshop participants 28
 - 7.2 Annex 2: Presentation - Workshop Introduction, the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets 30
 - 7.3 Annex 3: Presentation - NBSAP Updating: Framework & indicators..... 31
 - 7.4 Annex 4: Presentation - Supporting national and regional biodiversity monitoring through dashboard presentation of downscaled global indicators 37
 - 7.5 Annex 5: Exercise Results - The Aichi Targets: Information needs, possible indicators and national level constraints..... 42

1. Report Summary

The Eastern Africa Capacity Building Workshop on Information Use and Indicators in Updating NBSAPs was held on 27th-29th September 2011 at the Imperial Botanical Beach Hotel, Entebbe, Uganda. The overarching objective of the workshop was to strengthen capacity in the production of targets and indicators as part of the NBSAP¹ updating process.

The workshop brought together a total of 20 participants from six eastern African countries: Burundi, Ethiopia, Kenya, Sudan, Tanzania, and Uganda (three Rwandan participants were due to attend but were prevented from attending due to travel problems). The participants included representatives from wildlife authorities, national environmental agencies and conservation NGOs. There were also six participants representing UNEP Regional Offices for Africa, Asia and the Pacific, and West Asia, and NatureServe and UNDP. A full participant list is provided in Annex 1.

The workshop was funded by UNEP and implemented as an activity of the Biodiversity Indicators Partnership (BIP²), in conjunction with the UNEP Regional Office for Africa. The logistics were organised by the Uganda Wildlife Authority (UWA) and the Ugandan National Environment Management Authority (NEMA). The workshop was facilitated by Philip Bubb and Anna Chenery from UNEP World Conservation Monitoring Centre (UNEP-WCMC³) and the Biodiversity Indicators Partnership (BIP) Secretariat.

The programme for each day consisted of a mix of presentations and exercises which were designed to promote the development of national targets and indicators as part of the NBSAP updating process.

On the first day an introduction was given to the Strategic Plan for Biodiversity 2011-2020, followed by presentations and group discussions on updating and implementing NBSAPs, national target setting and indicators. The afternoon session was dedicated to an exercise titled a “Day in the life of a target and indicator developer”. The exercise included seven workbooks with role play exercises for indicator developers from a fictitious country, aimed at taking participants in mixed groups through the both a NBSAP updating framework and the purpose and production steps of the biodiversity indicator development framework.

Day two continued the role play exercise, then in the afternoon a field trip was organised to Mabira forest with the aim of evaluating local issues concerning the pressures, state, responses and benefits derived from the forest.

Day three saw the continuation of the indicator development exercise, focussing on communication and interpretation of the indicators identified during day two. This was followed by an exercise to review the essential information needed, possible indicators and important considerations for indicator development for each of the twenty Targets at the national level. Day three concluded with evaluation of the workshop by participants, thanks from Philip Bubb and the official closing of the workshop.

Copies of the presentations and workbooks used during the workshop can be found in the Annex to this report.

¹ NBSAP – National Biodiversity Strategy and Action Plan

² www.bipindicators.net

³ www.unep-wcmc.org

2. Background

As part of its activities in support of updating National Biodiversity Strategies and Action Plans (NBSAPs) for the Strategic Plan for Biodiversity 2011-2020, and in support of the Biodiversity Indicators Partnership, UNEP-WCMC had funding from UNEP during 2011 for biodiversity indicators capacity building. One of the identified activities was a workshop for eastern Africa on information use and indicators in updating NBSAPs, organised with the Uganda Wildlife Authority, the National Environmental Management Authority of Uganda, and the UNEP Regional Office for Africa.

The workshop was designed to complement the eastern Africa regional workshop on updating NBSAPs organised by the Secretariat of the CBD Secretariat in June 2011⁴, by focusing on the information needs and use of indicators in setting and monitoring national targets. The workshop was also designed to build on the capacity building work on national biodiversity indicators conducted in the region by the Biodiversity Indicators Partnership in 2009-2010 and UNEP-WCMC (see www.bipnational.net).

3. Workshop Objectives

The specific objectives of the Eastern Africa Capacity Building Workshop on Information Use and Indicators in Updating NBSAPs were:

- Government agencies, NGOs and academic institutes involved in updating NBSAPs have a basic understanding of the information and analytical needs to develop national targets in support of the global Aichi Targets, including possible indicators.
- Participants are supported in the use of analyses and indicators in developing national targets and the design and monitoring of implementation strategies.
- Increased learning and collaboration between government agencies, NGOs and academic institutes involved in updating NBSAPs within and between countries in eastern Africa.
- Increased awareness of participants of international organisations providing relevant information for NBSAP updating.

⁴ <https://www.cbd.int/nbsap/workshops2/east-africa/>

4. Day 1

4.1 Welcome

Philip Bubb (UNEP-WCMC) welcomed and thanked all delegates for attending the Eastern Africa Capacity Building Workshop on Information Use and Indicators in Updating NBSAPs. Francis Ogwal as a representative of the host organization, the National Environment Management Authority, also addressed the participants and welcomed them to Uganda. He concluded by wishing everyone success over the upcoming days and that he looked forward to a productive workshop. Kamar Yousuf, UNEP MEA⁵ focal point for Africa also addressed participants and expressed that the workshop would be a useful follow-on from the CBD workshop on Updating NBSAPs held in Kigali, Rwanda earlier in the year. She acknowledged that some of the workshop participants had participated in the earlier CBD workshop and that this provided a good basis for further consideration of national target setting and the indicators that could be used to measure progress towards them.



Philip Bubb (UNEP-WCMC) and Francis Ogwal (NEMA) welcoming participants to the Eastern Africa Capacity Building Workshop on Information Use and Indicators in Updating NBSAPs

4.2 Introductions and expectations

To help lay the foundations for the workshop the participants were asked to participate in three initial activities. First they were asked to introduce themselves and secondly to share with the rest of the group their expectations and requests in regard to the content that would be covered over the duration of the workshop. A full participant list is provided in Annex 1.

Summary of participant's expectations and requests:



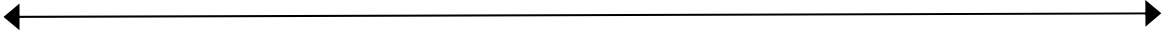
⁵ MEA – Multilateral Environmental Agreement

Lastly participants were asked four self assessment questions regarding their understanding of the Aichi targets and confidence in updating NBSAPs. However instead of a solely verbal response, participants were asked to express their understanding and confidence by 'voting with their body' – i.e. participants were asked to place themselves on a line representing the extremes of the responses. The questions and results are depicted below.

Q1: I understand the Aichi Targets

No understanding at all

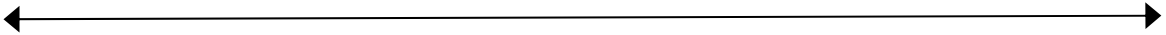
Completely understand all targets



Q2: How much relevant information is available in your country for NBSAP updating?

No information

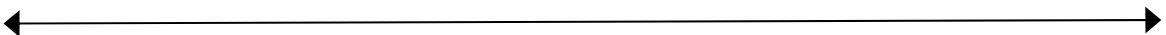
All the information needed



Q3: How ready is my institution for updating our country's NBSAP?

Not ready at all

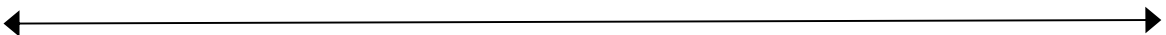
Completely ready



Q4: How confident am I in developing indicators for NBSAPs?

Not confident at all

Completely confident



4.3 Day 1 Presentation

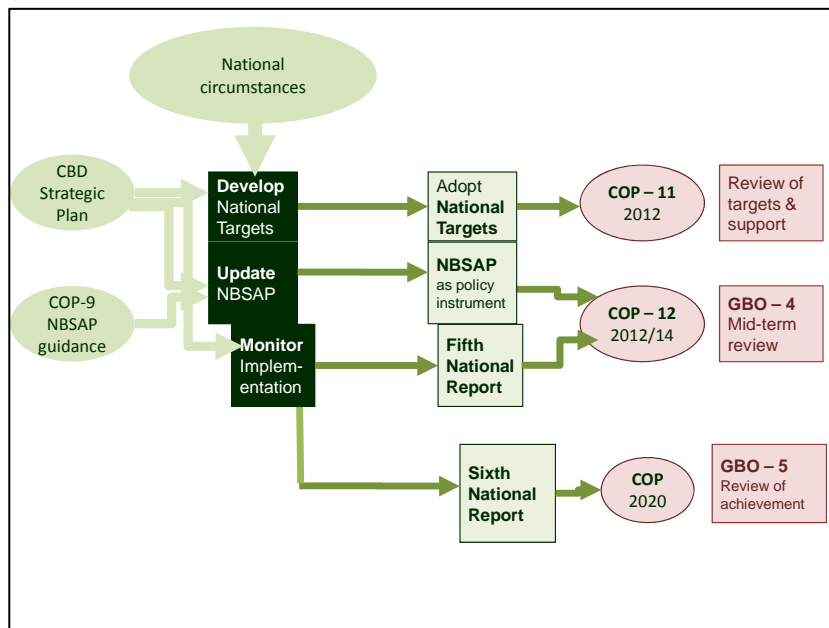
4.3.1 Workshop Introduction, the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

Presented by Philip Bubb (UNEP-WCMC), this first provided background information on the Biodiversity Indicators Partnership (BIP), the work of which includes capacity strengthening for national indicator development.

It then outlined the objectives of the workshop (see section 3) and gave a brief overview of the Strategic Plan for Biodiversity 2011 – 2020, including the Strategic Goals and the Aichi targets.

An outline of the next steps for countries in revising NBSAPs was given:

Full presentation available in Annex 2



After an overview of important considerations for NBSAP updating a short discussion was held on what makes a successful national target.

4.3.1 Group discussions during presentation

4.3.1.1 Group discussion: Workshop style and agreements

A short discussion was held on the style of the workshop that the participants would like to see it take. Here is a summary of the participant's comments:



4.3.1.2 Group discussion: The Strategic Plan for Biodiversity 2011-2020

A short informal discussion was held on the new Strategic Plan for Biodiversity. The participants as a group came up with the following key considerations concerning the Strategic Plan:

- There is a need for most stakeholders to be aware of the Aichi Biodiversity Targets
- The Strategic Plan provides a new focus when compared with the previous Strategic Plan – The links between biodiversity conservation for livelihoods is better represented in the new Strategic Plan.
- The new Aichi Targets can contribute to other strategies and vice versa
- The group felt that the vision, mission and strategic goals could be achieved if adequate data is available.

4.3.1.3 Group discussion: NBSAPs - what has worked and what could be improved

The group discussed what had not worked in previous NBSAPs and agreed on the following points:

- NBSAPs were not integrated
- Simple political document

The group discussed how to improve the updated NBSAPs and suggested:

- Integrate the NBSAP into other sectors
- Include a section/component on resource mobilization
- Incorporate all stakeholders
- Do not necessarily need to rework the NBSAP, could build on and integrate plans, targets and indicators from existing sector plans.

4.3.1.4 Group discussion: What makes a successful national target?

The group had a brief discussion and brainstorming session on what makes a successful target. The group came up with the following criteria:

- Targets have to respond to national priorities/address key biodiversity issues
- Well researched information is needed to develop targets – this is a key challenge as information is not always readily available
- A target needs to meet its purpose
- There needs to be political will for achieving the target
- The target has to be time-bound
- Targets need to be 'owned', they are often more successful if someone or an organization is responsible for their achievement.

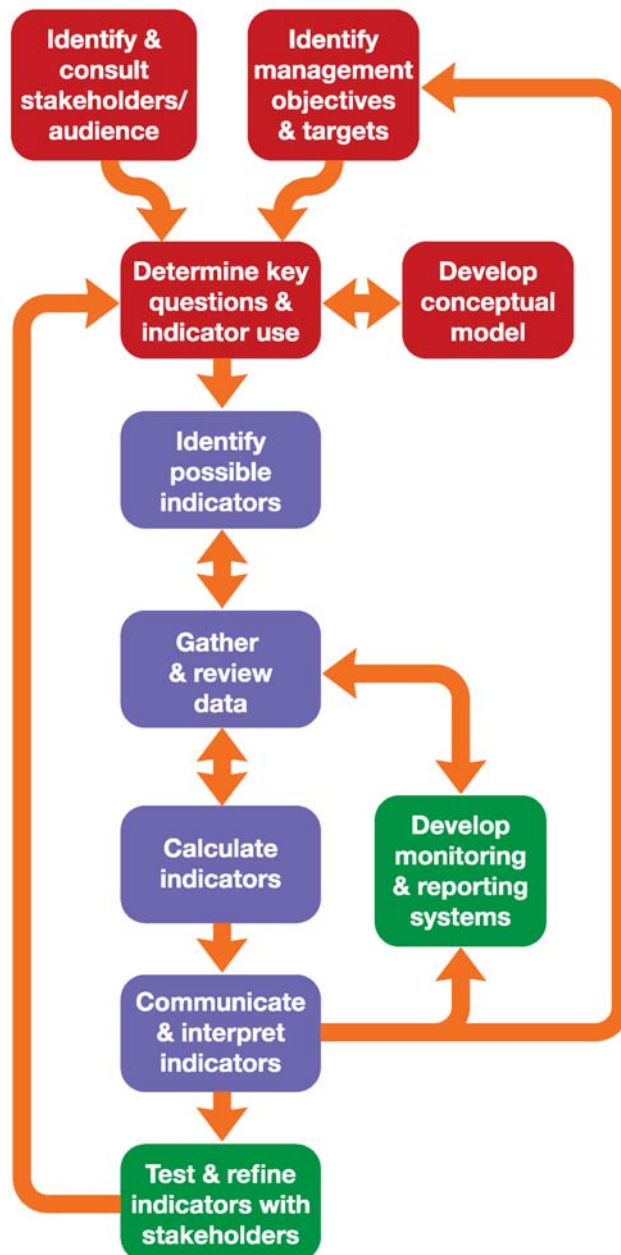
4.3.1 NBSAP Updating: Framework & indicators

The Biodiversity Indicator Development Framework (below) was shared with participants. Further information on the framework and each of its steps is available in the document, 'Guidance for national indicator development and use'⁶.

**Full presentation
available in
Annex 3**

⁶ <http://www.bipnational.net/indicatorguidance>

Biodiversity Indicator Development Framework



The framework has been developed from the capacity building experience of UNEP-WCMC and partners including the BIP. The framework can be separated into three areas:

- **Purpose** – actions needed for selecting successful indicators
- **Production** – essential stages for indicator development
- **Permanence** – mechanisms for ensuring indicator continuity and sustainability

Many indicator developers often start at the **production** stages by first looking at the available data. However this approach has been found to be less effective and can be unsustainable. The BIP encourages indicator developers to start at the **purpose** stages, as from experience this has been found to be successful in helping developers select and produce indicator that respond to national priorities.

The results and recommendations on the CBD Ad Hoc Technical Expert Group (AHTEG) on Indicators for the Strategic Plan 2011-2020⁷ were presented.

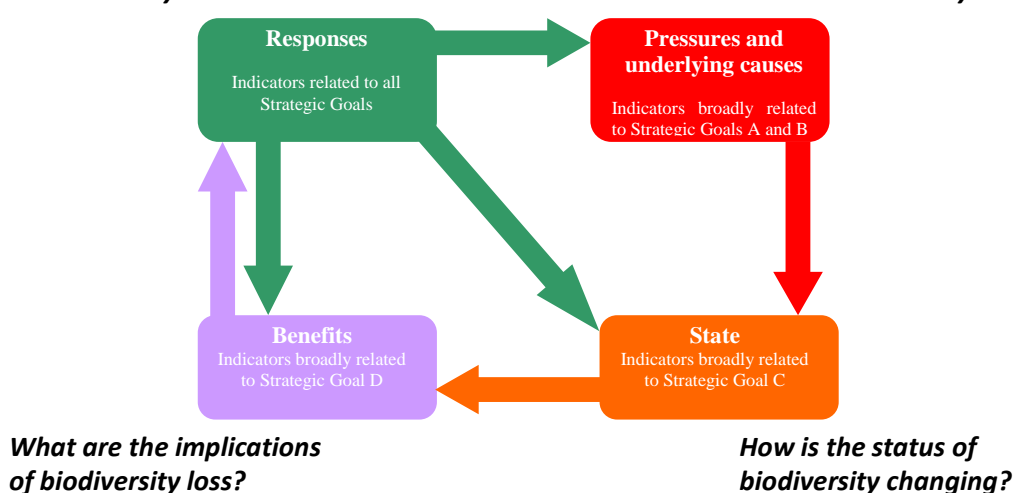
The conceptual model that will be used to select, develop and communicate indicators is focussed on the links between State, Pressures, Benefits, and Responses.



AHTEG results (June 2011)

What do we do about biodiversity loss?

Why are we losing biodiversity?



www.bipindicators.net

The AHTEG selected 12 headline indicators under which the global indicators will fit. Parties should use the indicator framework as a flexible framework and produce indicators that respond to national priorities and align to targets in their updated NBSAPs. These national level indicators can then be placed under the 12 headline indicators.

A successful indicator meets the following criteria:

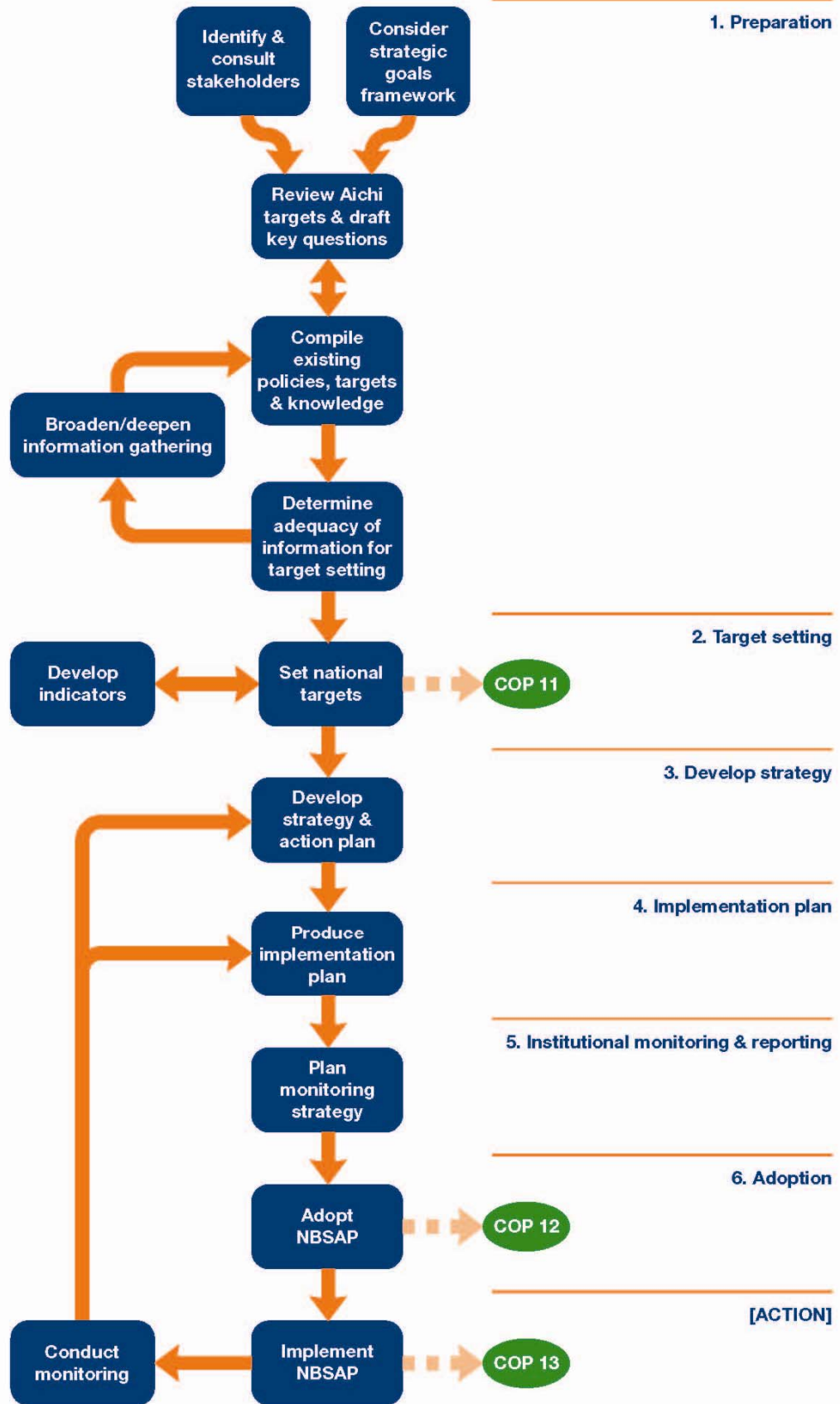
- Scientifically valid
- Based on available data
- Responsible to change in the area of interest
- Easily understandable
- Relevant to user's needs
- Used!

An NBSAP Updating framework (below) was presented to participants.

⁷ <http://www.cbd.int/doc/?meeting=AHTEG-SP-IND-01>

NBSAP Updating Framework

CBD NBSAP Updating Clusters



4.4 Exercises

Two exercises were devised for the workshop.

4.4.1 A day in the life of a national target setter and indicator developer

The first exercise entitled ‘A day in the life of a national target setter and indicator developer’ used role play to take participants through the both the NBSAP Updating framework and the **purpose** and **production** steps of the biodiversity indicator development framework. Participants were split into four mixed groups that represented four fictional countries, namely the Republic of Kambezi, the Republic of Nambabwe, the Republic of Zamunda and the Republic of Botola.

The exercise involved using seven work books:

- **Workbook 1:** Reviewing the Aichi Targets & key questions
- **Workbook 2:** Target setting
- **Workbook 3:** Developing a conceptual model
- **Workbook 4:** Identifying indicators
- **Workbook 5:** Gather and review data
- **Workbook 6:** Calculate indicators
- **Workbook 7:** Communicate and interpret indicators





The exercise started on day one and continued on day two and three.



Workbook 1: Reviewing the Aichi Targets & Key Questions

During this exercise sub-section participants in each fictional Republic were tasked with identifying three priority key questions relating to protected area (PA) status which will help shape target setting. In order to determine the key questions participants needed to consult stakeholder comments, consider strategic goals and review Aichi targets.

Exercise Results





Key Questions	
Kambezi 	<ol style="list-style-type: none"> 1. What is the protected area coverage and what percentage represents fragile ecosystems? 2. What is the status of biodiversity within protected areas? 3. What are the management initiatives in place and how effective are they?
Nambabwe 	<ol style="list-style-type: none"> 1. What is the importance of PAs to biodiversity conservation and ecosystem services? 2. How effective are PAs in the conservation of threatened species? 3. What is the contribution of all ecosystems towards biodiversity conservation?
Zamunda 	<ol style="list-style-type: none"> 1. Is biodiversity increasing or decreasing in our protected areas? 2. What percentage of our land is protected? 3. What are the major pressures to our ecosystems?
Botola 	<ol style="list-style-type: none"> 1. What is the proportion of our country is protected? 2. What proportion of ecosystems and species are represented by the PAs? 3. What are the threats to PAs? 4. What proportion of PA generated revenue goes to management of PAs? 5. How many PAs have effective management plans?

Workbook 2: Target Setting



Participants were asked to select one of their key questions and work to propose three potential targets that respond to this question. In order to propose targets participants needed to consult existing policies, targets and knowledge.

Exercise Results

Targets	
Kambezi 	<p>Selected key question: What is the coverage of PAs?</p> <p>Targets:</p> <ol style="list-style-type: none"> 1. Increase terrestrial PA coverage from 5% to 15% by 2020 2. Increase marine PA coverage from 2% to 10% by 2020 3. Increase human resources from 27 to 100 by 2020
Nambabwe 	<p>Selected key question: What is the contribution of all ecosystems towards biodiversity conservation?</p> <p>Targets:</p> <ol style="list-style-type: none"> 1. Increase PA coverage to 5% by 2020 2. Increase number of IBAs under PAs to 7 by 2020 3. Increase number of rangers to 54 by 2020
Zamunda 	<p>Selected key question: What percentage of the country is protected?</p> <p>Targets:</p> <ol style="list-style-type: none"> 1. By 2020 increase protected area coverage of marine ecosystems to 5%, savannah ecosystems to 3% and forest ecosystems to 12% 2. By 2020 incorporate 10 out of 20 IBAs in PAs 3. By 2020 increase number of trained rangers in force to 100
Botola 	<p>Selected key question: The percentage of ecosystems and species represented by PAs?</p> <p>Targets:</p> <ol style="list-style-type: none"> 1. 20% of land area in PAs by 2020 2. 15 of 20 IBAs in PAs by 2020 3. 10% of savannah habitat in PAs by 2020

Workbook 3: Developing the indicator – conceptual model



For this sub-exercise each biodiversity indicator development team was asked to develop a simple conceptual model, which will aid the selection and communication of their indicator. The starting point for this exercise is the selected key question and target. Each team was requested to pick one of the targets identified in the previous sub-exercise and then draw a conceptual model on the flip chart provided.

Exercise Results

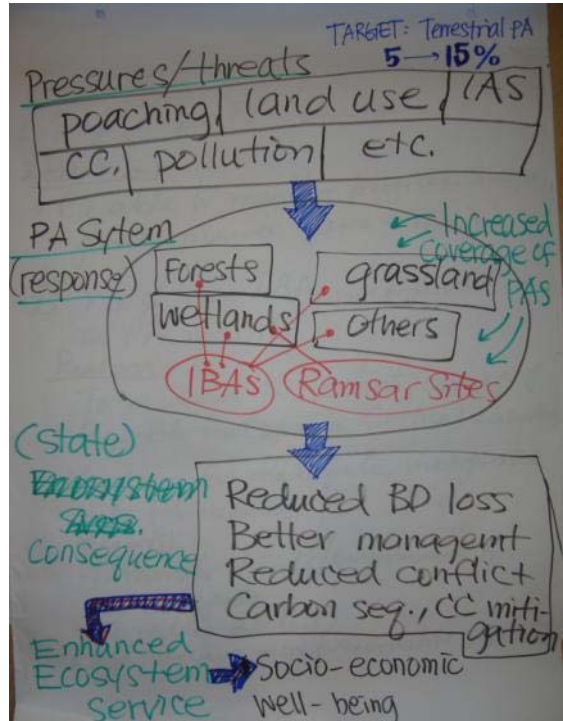
Conceptual Model


Kambezi 

Selected Target:

Increase terrestrial PA coverage from 5% to 15% by 2020

Conceptual Model:

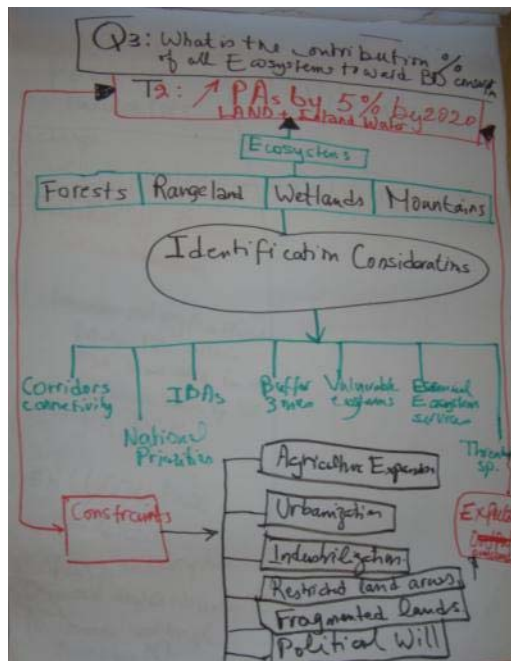


Nambabwe 

Selected Target:

Increase PA coverage to 5% by 2020

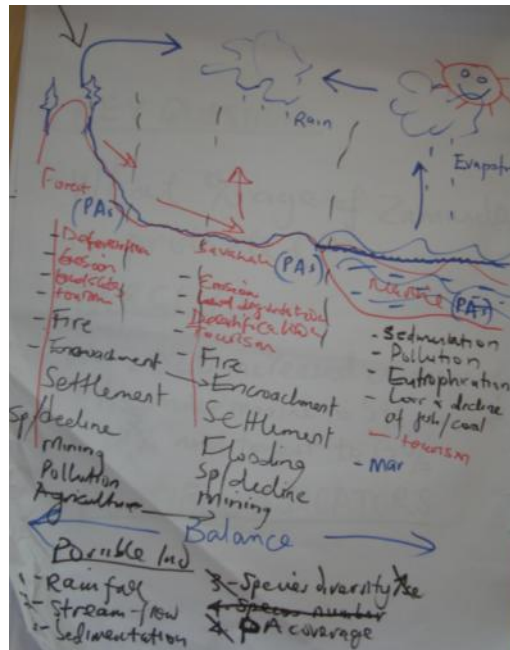
Conceptual Model:



Selected Target:

By 2020 increase protected area coverage of marine ecosystems to 5%, savannah ecosystems to 3% and forest ecosystems to 12%

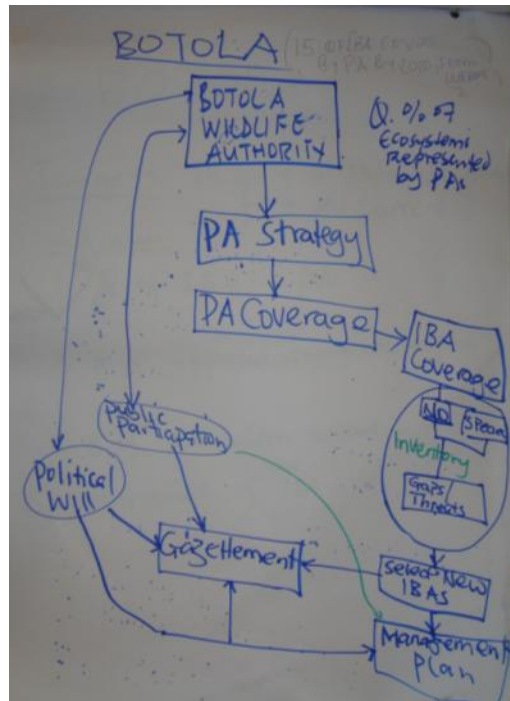
Conceptual Model:



Selected Target:

15 of 20 IBAs in PAs by 2020

Conceptual Model:









Workbook 4: Identifying Indicators

During this exercise, each country team was asked to consider their conceptual model to help them propose three potential indicators that could be used to monitor progress towards their chosen target.

Exercise Results

Proposed Indicators	
Kambezi 	<p>Selected Target: Increase terrestrial PA coverage from 5% to 15% by 2020</p> <p>Indicators:</p> <ol style="list-style-type: none"> 1. Percentage increase of terrestrial PA coverage 2. Number of new IBAs incorporated in the PA network 3. Number of new biodiversity hotspots incorporated in the PA network
Nambabwe 	<p>Selected Target: Increase PA coverage to 5% by 2020</p> <p>Indicators:</p> <ol style="list-style-type: none"> 1. Area of different ecosystems within PAs 2. Population of threatened species 3. Area of agricultural production within PAs 4. Change in ecosystem services and contribution to human well-being
Zamunda 	<p>Selected Target: By 2020 increase protected area coverage of marine ecosystems to 5%, savannah ecosystems to 3% and forest ecosystems to 12%</p> <p>Indicators:</p> <ol style="list-style-type: none"> 1. Percentage PA coverage of marine, Savannah and forest ecosystems 2. Species numbers with PAs 3. Stream/river flow regime
Botola 	<p>Selected Target: 15 of 20 IBAs in PAs by 2020</p> <p>Indicators:</p> <ol style="list-style-type: none"> 1. Number of IBAs in PAs 2. Number of approved management plans 3. Percentage of stakeholders supporting the establishment of IBAs in PAs

5. Day 2

5.1 Exercises





5.1.1 A day in the life of a national target setter and indicator developer (continued)



Workbook 5: Gather and review data

For this sub-exercise each country team was presented with invented data sheets containing protected area site, species population, protected area management and ecosystem services data. Participants were tasked with reviewing the data to see if it would be possible to calculate their proposed indicators.

Exercise Results

Proposed Indicators	
Kambezi 	<p>Can any of the identified indicators be calculated with available data: Yes</p> <p>Selected Indicator: Percentage increase of terrestrial PA coverage</p> <p>Data fields used:</p> <ul style="list-style-type: none"> • PA Site Data <ul style="list-style-type: none"> ○ Total area of terrestrial ecosystems ○ PA coverage of terrestrial ecosystems
Nambabwe 	<p>Can any of the identified indicators be calculated with available data: Yes</p> <p>Selected Indicator: Area of different ecosystems within PAs</p> <p>Data fields used:</p> <ul style="list-style-type: none"> • PA Site Data <ul style="list-style-type: none"> ○ Forests ○ Savannah ○ Scrubland ○ Grassland
Zamunda 	<p>Can any of the identified indicators be calculated with available data: Yes</p> <p>Selected Indicator: Percentage PA coverage of marine, Savannah and forest ecosystems</p> <p>Data fields used:</p> <ul style="list-style-type: none"> • Country statistics • Designation • Area (km²) • Forest/woodland area • Savannah • Coral Reef • PA coverage
Botola 	<p>Can any of the identified indicators be calculated with available data: Yes</p>

Selected Indicator:

Number of IBAs in PAs

Data fields used:

- PA Site Data
- IBA Designation



Workbook 6: Calculate Indicators

Due to time constraints each country group was not asked to calculate the indicator. Instead each fictional country indicator development team was asked to identify potential options for presentation that can help to guide the calculation process.

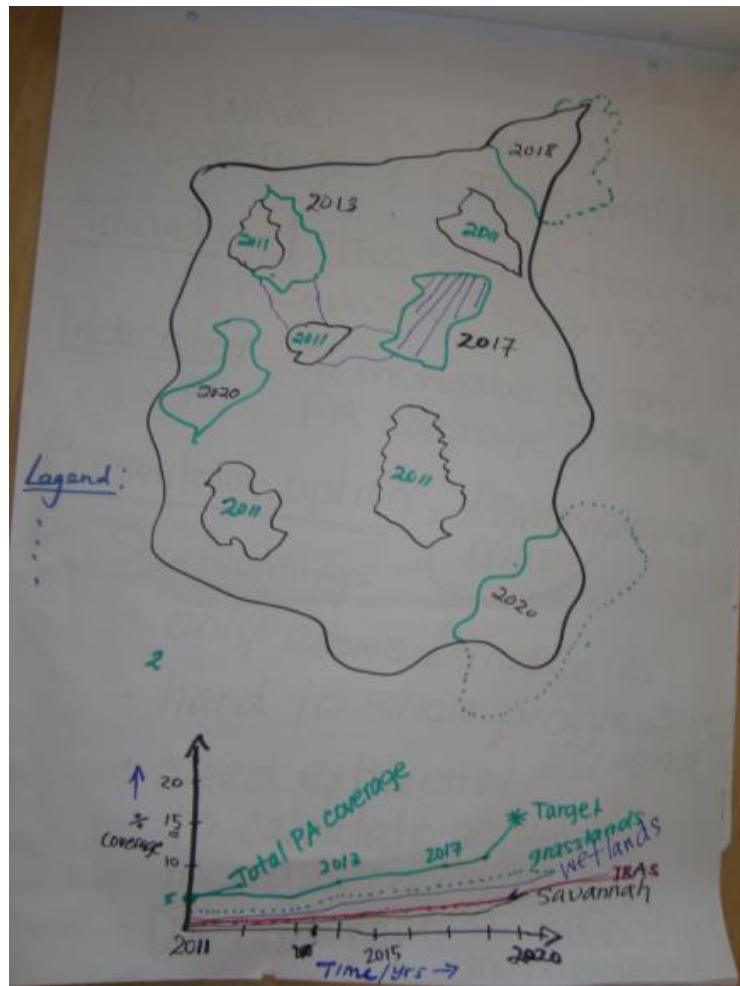
Indicator Presentation

Kambezi 

Selected Indicator:

Percentage increase of terrestrial PA coverage

Presentation Options:



Selected Indicator:

Area of different ecosystems within PAs

Presentation Options:



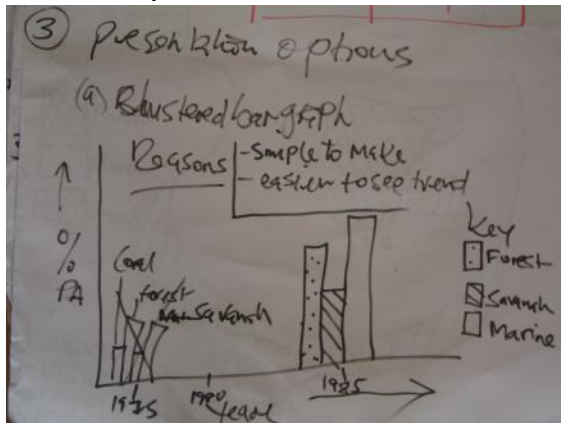
A table

Ecosystems	Savanna	scrubland	Grassland	Desert/Other
values	-	-	-	-

Selected Indicator:

Percentage PA coverage of marine, Savannah and forest ecosystems

Presentation Options:

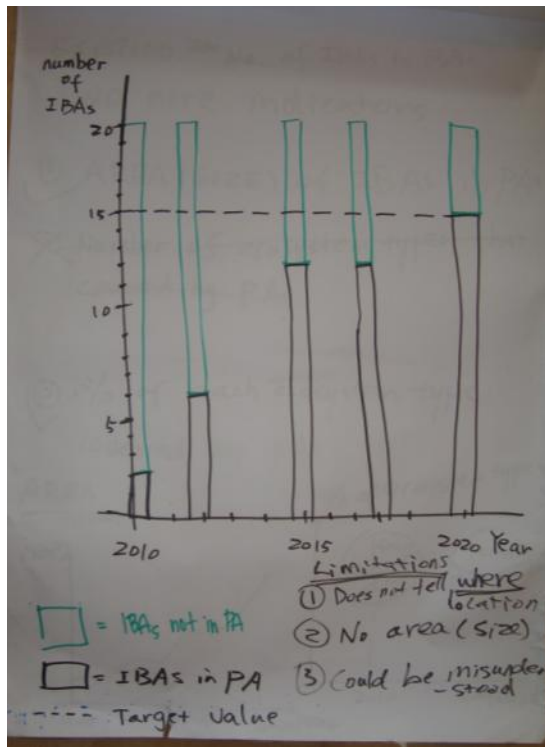
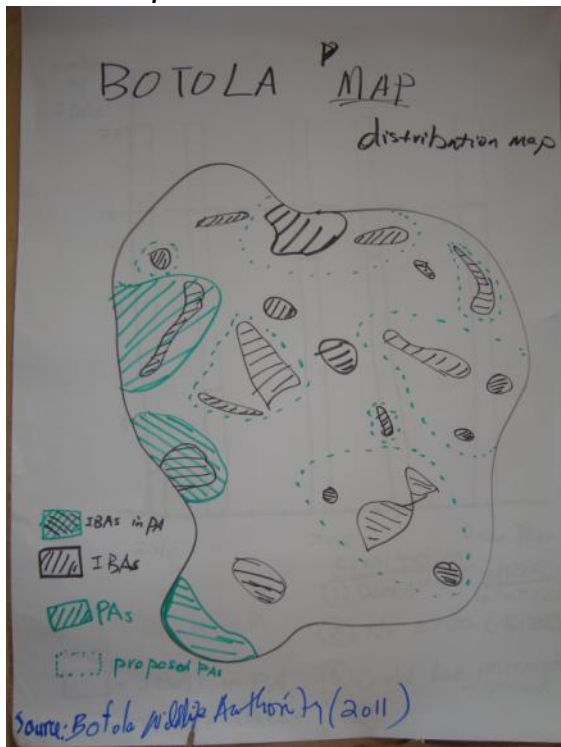


Botola

Selected Indicator:

Number of IBAs in PAs

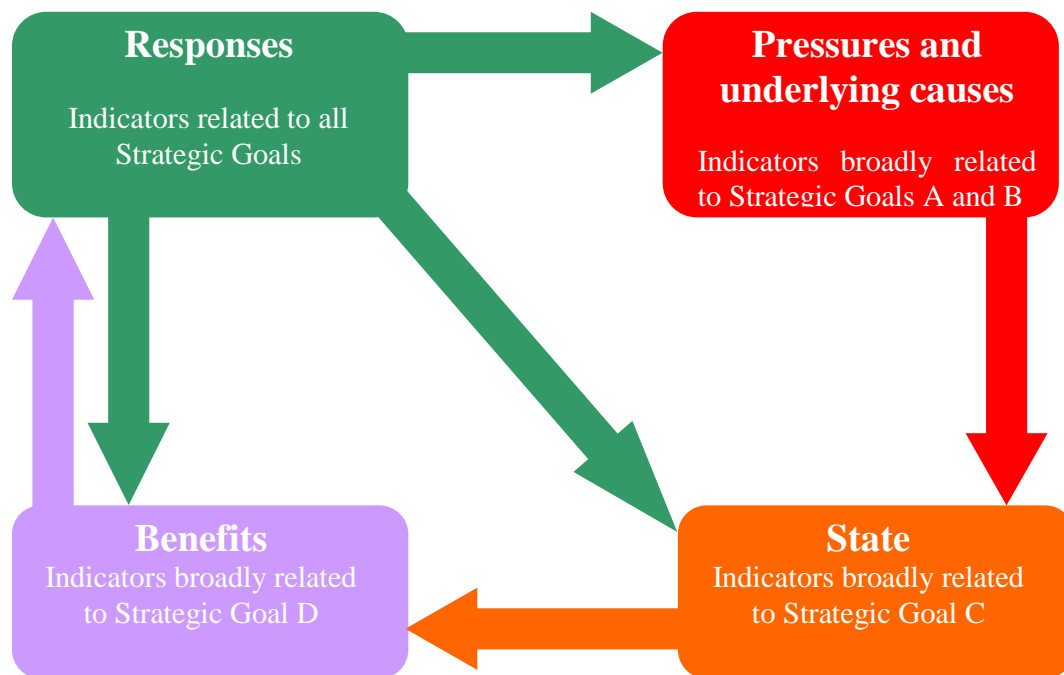
Presentation Options:



5.2 Field Trip

In an afternoon of day two a field trip to Mabira forest reserve was organized by the workshop hosts, Uganda Wildlife Authority (UWA) and Uganda National Environment Management Authority (NEMA), with the assistance of NatureUganda. The field trip provided an opportunity to apply some of the concepts covered in the workshop in an external environment.

Participants were referred to an earlier conceptual model (below) that was presented on Day 1 of the workshop, which illustrates how indicators of Pressures/State/Benefits/Responses can be linked. This conceptual model can be used as a basis for selecting indicators and also communicating indicators at a later stage.



Participants were separated into four groups. Each group was assigned with one of the conceptual model boxes (Pressures/State/Benefits/Responses) and tasked with identifying applicable information from the Mabira forest case study that could be use to aid indicator development for Mabira forest.

Field Trip Results	
State	
<ul style="list-style-type: none"> • Forest Area= 29,974ha • 27 enclaves with the forest which were left out when forest gazetted • 3 management zones <ul style="list-style-type: none"> ○ Strict Nature Reserve 20% ○ Buffer Zone 10% ○ Production Zone 70% • Species inventory: <ul style="list-style-type: none"> ○ 312 tree species (including medicinal trees) ○ 287 bird species ○ 16 small mammals ○ 97 moth species ○ 199 butterfly species • Some species of moth endangered 	

Responses

- Conservation education activities
- Local communities (approximately 10) involved in collaborative forest management
- Four ecotourism sites established
- Communities encouraged to plant trees on private land
- Ground rent agreement for planting trees on government land
- 10 -11 staff for forest management
- 1 vehicle for covering all districts

Pressures

- Demand for forest products increasing due to increased population
- Firewood Provision
- Price of charcoal increasing
- Increase in infrastructure resulting in increased demand for timber products
- Limited resource in terms of staff and resources
- River pollution industrial effluent, this moves downstream impacting the forest and wetlands

Benefits

- Employment – ecotourism and forest protection rangers
- Craft groups make souvenirs out of local materials
- Medicinal plants
- Collaborative forest management – indirect benefits
- Community ecotourism site
- Number of non-forest products:
 - Sticks for selling roasted meats
 - Mushrooms
 - Fruits
 - Honey
 - Craft materials

6. Day 3

6.1 Presentation

6.1.1 Supporting national and regional biodiversity monitoring through dashboard presentation of downscaled global indicators

This was presented by Alexandra Sanchez de Lozada and Xumei Han (NatureServe), providing an introduction to NatureServe and its information value chain, and an introduction and background to their dashboard project of downscaled global indicators.

Full presentation available in Annex 4

- The Pressure-State-Benefits-Response indicator framework and example indicators

The Pressure-State-Response-Benefits indicator framework, and example indicators



- Dashboard organization
- Draft map view

Draft dashboard map view

- Draft map view and table view

Draft dashboard graph view

6.2 Exercises

6.2.1 A day in the life of a national target setter and indicator developer (continued)



Workbook 7: Communicate and interpret indicators

During this exercise each “country” indicator development team was asked to select one of the indicator presentation options identified from workbook 6, interpret the indicator in isolation and list shortcomings/limitations. Furthermore, each team was asked to identify ideas for two additional indicators using the conceptual model and available data, and if time permitted write a short story combining the results from the three indicators.

Exercise Results

Interpretation and additional indicators

Kambezi



Presentation option:

Protected area coverage map

Presentation limitations and shortcomings:

- Only shows one indicator
- Hard to show progressive trend
- Need extra effort to calculate actual percentage increase from the map
- Does not reflect effective management

Indicator Interpretation:

- Result = increase in PA coverage
- Interpretation:
 - Political will to conserve
 - Biodiversity conservation is improving
 - Improved conservation status in key “hotspots”
 - Increased management responsibility (\$, staff, enforcement)
 - Increased awareness on importance of PA to biodiversity

Additional Indicators:

1. Number of new management plans, by-laws, regulations
2. Number of new biodiversity hotspots incorporated in PA network



Presentation option:

Protected area coverage map

Shortcomings of indicator:

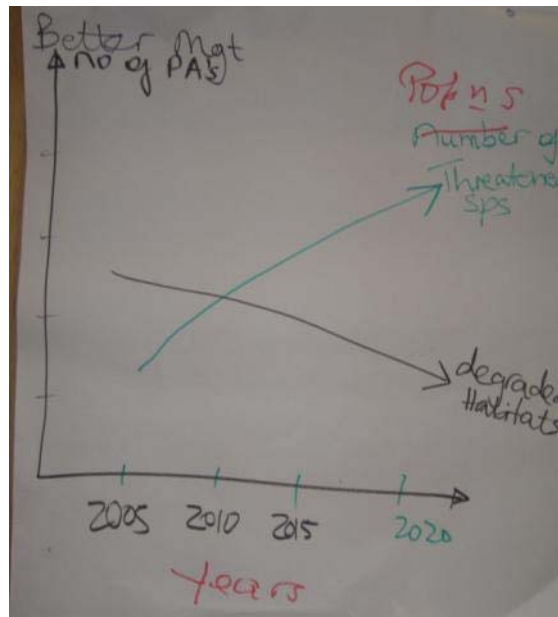
- Area doesn't give details on specific composition (species/bird areas)
- Legislative status
- Doesn't allow for interpretation of ecosystem health
- Doesn't allow for interpretation of pressures, benefits, status, responses

Shortcomings of presentation:

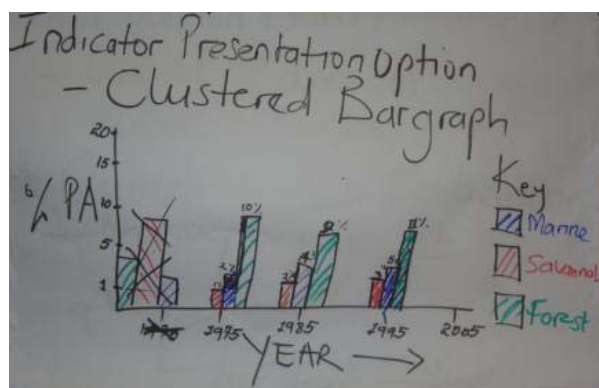
- Doesn't show vulnerable habitats/ species in various ecosystems
- Map doesn't easily show trends in Pressures/Status/Benefits/Responses

Additional Indicators:

1. Index of threatened species by ecosystems
2. Index of degraded habitats



Presentation option:



Indicator interpretation:

- It shows coverage by ecosystem type and over time

Shortcomings of presentation:

- It doesn't show the actual location and status of biodiversity
- Use of percentage doesn't show actual measure

Additional Indicators:

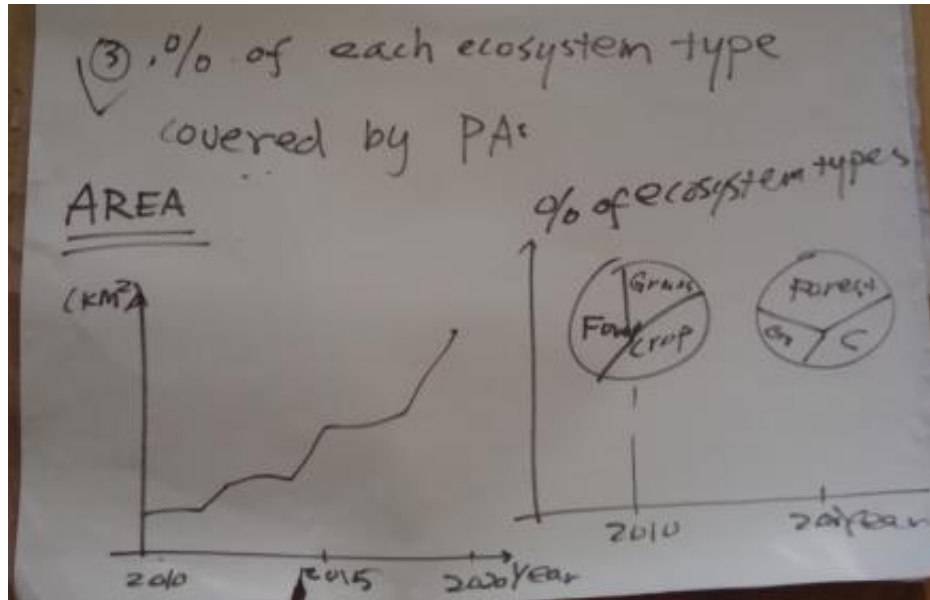
1. Species populations within PAs over time

**Presentation option:**

Clustered bar chart

Shortcomings of indicator presentation:

- Does not show location
- No area (size)
- Could be misunderstood

Additional Indicators:**Lessons learnt and conclusions**

Participants were asked what they felt they had learnt from taking part in the ‘the day in the life of a national target setter and indicator developer’ exercise.

Lessons and conclusions:

- Conceptual model is essential
- To set targets need data and information
- Communicating and testing the indicators with stakeholders is essential
- Need to have monitoring systems
- Importance of back-and-forth working
- Clarity of key questions for users
- Demonstrate benefits of PAs
- NBSAP updating needs to involve different sectors
- Ongoing problem of lack of data/scattered
- Database/information system (potentially online) would greatly benefit target setting and indicator selection and development

Exercise Results
available in
Annex 5

6.2.2 The Aichi Targets: Information needs, possible indicators and national level constraints

For the afternoon exercise participants first worked individually. Each participant was given a different Aichi target and asked to review the target and write on a flipchart information under the following sub-headings:

- Essential information needed to set the target
- Possible indicators
- Feasibility issues for national adoption of the target

Participants were provided with the following resources to assist in the evaluation of the targets:

- CBD Aichi Target Rationale: NEP/CBD/COP/10/INF/12/
- Conceptual and knowledge issues for Aichi Targets 1 to 19. Taken from the Annex of the report, *National Indicators, Monitoring and Reporting for the Strategy for Biodiversity 2011-2020*

Each participant presented their results back to the group and all the results are provided in Annex 5 of this report.

6.3 Workshop conclusions

The last session of the workshop was a group discussion on the main conclusions generated from participating in the workshop, which were:

- The Aichi Targets can be achieved through collaboration and if adequate resource are available
- Developing indicators is not easy, there are many steps
- International collaboration is needed; follow up in countries and between countries (e.g. transboundary issues)
- NBSAP is a complex document or framework of documents
- NBSAPS should integrate biodiversity into other strategies and sectors
- NBSAPS should include an indicators section
- The monitoring and reporting of NBSAP implementation should occur across different sectors.

6.4 Evaluation and thanks

Philip Bubb thanked the Uganda National Environment Management Authority and in particular, Aggrey Rwetsiba and Francis Ogwal, for organising a very successful workshop. Philip also thanked all workshop participants for their active participation in the workshop. He also extended his gratitude to the project funders UNEP, and the MEA Focal Points from the UNEP Regional Offices, for supporting such a worthwhile initiative. NatureServe and UNDP were also acknowledged for their valuable contribution to the workshop.

Participants were asked to complete a feedback form before leaving. Twenty forms were completed, and the average score for the question *“How useful was this workshop in helping to develop your capacity to produce and use biodiversity indicators, on a scale of 0 to 10?”* was 8.8. The comments have been evaluated and the lessons identified so they can be utilized when developing future workshops.

7. Annexes

7.1 Annex 1: Workshop participants

Name	Institution	Country	Email
Mr. Benoit Nzigidahera	Institut National pour l'Environnement et la Conservation de la Nature	Burundi	nzigidaherabenoit@yahoo.fr inecn.biodiv@cbinf.com
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Mr. Dieudonne Bizimana	ABO	Burundi	aboburundi@yahoo.fr
Mr. Abiyot Birhanu	Institute of Biodiversity	Ethiopia	info@ibc-et.org
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Jessie Mee	UNDP	South Africa	jessie.mee@undp.org

7.2 Annex 2: Presentation - Workshop Introduction, the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets



**Eastern Africa Capacity Building Workshop
on Information Use and Indicators
in Updating NBSAPs**

27th-29th September 2011

Imperial Botanical Beach Hotel, Entebbe, Uganda

Philip Iubb
philp.iubb@unep-wcmc.org

UNEP World Conservation Monitoring Centre




www.biodindicators.net




Workshop Objectives

Government agencies, NGOs and academic institutes involved in updating NBSAPs have a basic understanding of the information and analytical needs to develop national targets in support of the global Aichi Targets, including possible indicators.

Participants are supported in the use of analysis and indicators in developing national targets and the design and monitoring of implementation strategies.

Participants have developed initial action plans to maximise the use of information in their NBSAP updating process.

Increased learning and collaboration between government agencies, NGOs and academic institutes involved in updating NBSAPs within and between countries in eastern Africa.

Increased awareness of participants of international organisations providing relevant information for NBSAP updating.

www.biodindicators.net



Biodiversity Indicators Partnership (BIP)

Formed in 2007, its primary focus was to report on the global progress towards achieving the 2010 Biodiversity Target.

UNEP-WCMC is the Secretariat.

Following Cop-10, the BIP is developing four components:

- Development and use of global, regional and national biodiversity indicators
- Capacity building and learning for biodiversity indicators
- Mainstreaming biodiversity indicators into other sectors

www.biodindicators.net – the website for information resources and e-learning on biodiversity (and related) indicators

www.biodindicators.net



Workshop Style and Agreements



www.biodindicators.net



Use-It Assessments

- 1) I understand the Aichi Targets
- 2) How much relevant information is available in your country for NBSAP updating?
- 3) How ready is my institution for updating our country's NBSAP?
- 4) How confident am I in developing indicators for NBSAPs?

www.biodindicators.net

Strategic Plan for Biodiversity 2011-2020

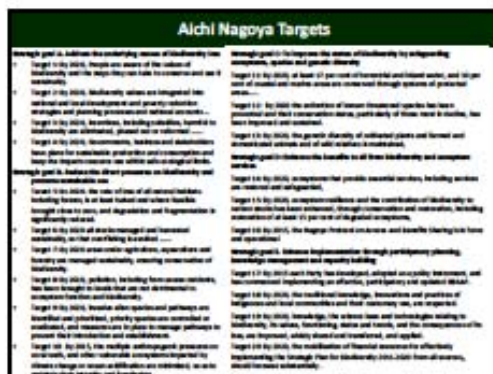
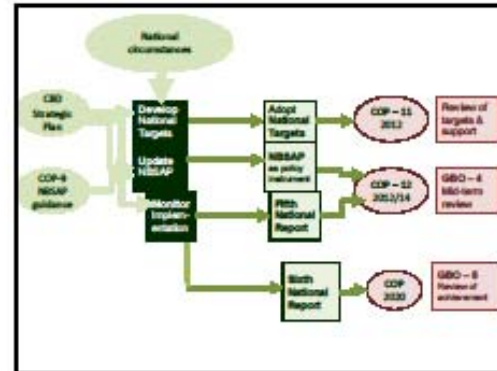
Framework for all Conventions and stakeholders.

Vision: Living in harmony with nature. By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.

Mission: Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being, and poverty eradication.

5 Strategic Goals

20 Aichi Biodiversity Targets for 2020



Updating NBSAPs - Three important points

- The NBSAP does not have to take the form of a single biodiversity-planning document.**
Second generation, or revised NBSAPs resemble a planning process rather than a fixed document.
- Mainstreaming.** The Convention requires countries not just to prepare an NBSAP, but to ensure that it contains elements that are incorporated into the planning and activities of all those sectors whose activities can have an impact (positive and negative) on biodiversity.
- The Strategic Plan for Biodiversity for 2011-2020 is a flexible framework for the establishment of national or regional targets.**

Next Steps

Decision X/2 on the Strategic Plan urges Parties with the support of other organizations to:

- Enable participation at all levels;
- Develop national targets by 2012, taking into account both the global targets and the status & trends of biological diversity in the country, with a view to contributing to collective global efforts to reach the global targets, and report to COP-11;
- Review, update and revise NBSAPs by 2014, in line with the Strategic Plan and Decision X/2, and integrating national targets, adopt as a policy instrument, and report to COP-12 or -13 (2014);
- Use the revised and updated NBSAPs as effective instruments for the integration of biodiversity targets into national development and poverty reduction policies and strategies;
- Monitor and review the implementation of their NBSAPs making use of the set of indicators developed for the Strategic Plan and report to COP through the fifth and sixth national reports.

Updating and implementing NBSAPs

Discuss as a table:

What was successful about the current NBSAP and why? (10 min.)
Write the top 2 successes and why on the flipchart.

What was not successful about the current NBSAP and why? (10 min.)
Write the top 2 successes and why on the flipchart.

Report back per table (3 min. each)

National Target Setting

What is a successful national target and why - from any sector.

Are there examples of successful and unsuccessful national targets?

Why are national measurable and time-bound targets rare?

Results of the 2010 UNU - IAS Review:

- **National targets and prioritisation:**
 - Only very few NBSAPs include time bound and measurable targets; also very few quantified targets;
 - few countries prioritise between actions in their action plans;
 - generally very few NBSAPs with mechanisms for monitoring and review at country level
- **Financing:**
 - few countries have strategies for financing NBSAPs - most action plans are just "wish lists" of projects without secure funding;
 - newer NBSAPs have a more programmatic approach

National Target Setting

Examples of national targets

Uganda National Development Plan 2010/11 - 2014/15

Restore Forest Cover from 3,604,176 hectares to 4,833,746 hectares by 2015.

Increase access to safe water supply in rural areas from 63 per cent to 77 per cent by 2015.

Results of the 2010 UNU - IAS Review of NBSAPs

- **Stakeholders** involved in NBSAP preparation.....
.... but not enough to ensure ownership & mainstreaming
- **Goals & targets**
.... but few quantitative, or respond to 2010 Target
- **Ecosystem approach** is largely absent
- **Action plans** included
.... but often focussed on projects rather than fundamentals of policy or institutional change needed
.... few specify funding
- **Communication plans** lacking
- **Mainstreaming** in some sectors (eg: forestry, tourism)
.... but weak in national development strategies, poverty reduction strategies and planning processes
- Little available information on **Implementation**
- **Funding, budget cuts are problems**
- **Some innovative financing mechanisms**
.... but not sufficient to meet the needs.

UNEP/CBD/INW/2010/Rev.1; —-INF.9; UNEP/CBD/COP10/4/Rev.1

Results of the 2010 UNU - IAS Review:

- **Coverage of the CBD Objectives:**
 - Very uneven focus of CBD objectives,
 - conservation features dominantly, especially protected areas,
 - sustainable use appear mostly in very general terms,
 - ABS is absent from most NBSAPs
- **Mainstreaming:**
 - Although NBSAPs portray biodiversity as an asset for, rather than an impediment to development, biodiversity is poorly reflecting in development and poverty reduction strategies and policies
 - most NBSAPs highlight the need to value and create economic incentives for biodiversity, but few move beyond general statements
 - Sectoral mainstreaming: strong for some sectors e.g. forestry and tourism but weak for other sectors e.g. agriculture
 - Integration of climate change is not so strong

1. Getting Organized

- Identify stakeholders who should be involved and bring them together
- Important to ensure "buy-in"

Results:

- ▶ A small representative group willing to form part of the NBSAP working group or committee
- ▶ A broad range of participants engaged in the larger process
- ▶ Motivated and active participants
- ▶ Brings additional stakeholders on board

More information in module 5 (stakeholder engagement)

2. Assessment of current conditions

- A brief assessment of why biodiversity is important for the country:
 - Its contribution to human well-being
 - Its economic and other values and the costs of its loss
 - The diverse and underlying causes of its loss
- Review relevant laws and policies
- Lessons learned from the previous NBSAP
- Gaps and unmet needs

Results:

- A reliable picture of what is already known about national biodiversity and the threats it faces
- Understanding of why biodiversity is important for the country.
- Understanding of legal and administrative frameworks and existing institutional and human capacities.
- A list of gaps and unmet needs

Much of this information will already be available in the country's fourth national report

5. Implementation

- Carrying out the agreed plan of action in the way envisaged, within the allocated time frame
- Implementation will occur on several fronts and by different actors simultaneously:
 - Preparing, negotiating and adopting legislative and administrative measures (civil servants and politicians)
 - Scientific and research activities (scientific community)
 - Undertaking specific projects (national or international NGOs, or governments)
 - Carrying out education and public awareness activities (educational institutions)
- Establishing an effective NBSAP management unit to have reliable and comprehensive overview of implementation

3. Developing the Strategy

- Statement of where the country wants to go and which route it will take to get there.
- Should include:
 - Principles
 - Values and beliefs underlying the NBSAP
 - Priorities
 - Clear alignment with the country's development and poverty reduction policies and strategies
 - National targets in support of the Strategic Plan

More information on developing targets in module 4

6. Monitoring and Evaluation

- Mechanisms for monitoring and evaluation need to be built into the plan of action, and in place at the start of implementation
- Important to identify appropriate baselines and indicators to evaluate outcomes and effectiveness
- Monitoring and evaluation is preferably done by a range of stakeholders or by independent bodies

4. Developing the Action Plan

- Vehicle for implementation – "How we are going to get to where we want to go".
- Identifying the action that will be implemented
 - Who does what?
 - Where?
 - When?
 - How?
- Identifying and securing the human, technical and financial resources necessary
- Establishing indicators to measure and report on progress towards national targets and deciding on monitoring and evaluation mechanisms.

More information on Decision (IV), which provides guidance on NBSAP content and processes, is in module 3

7. Reporting

- Parties to the CBD are required to present National Reports to COP every four years on the measures they have taken to implement the Convention
- Preparing a national report can help to:
 - Identify gaps in the NBSAP
 - Identify issues which require special attention.
 - Provide the basis for a proposed revision of the NBSAP.
- Countries may be obliged to prepare other reports on biodiversity policy or implementation of the CBD such as to Parliament or to national audit offices.
- The process of preparing the national report should be a fully participative national process, involving all the stakeholders

More information on the RB's national reports is available from

Block	Content
I Preparation	1. Drafting and review of relevant policies, plans and reports 2. Identifying stakeholders, consultants and priorities
II Setting national objectives and targets	3. Engaging with stakeholders to develop the national biodiversity objectives (by identifying the national biodiversity conservation systems and their contribution to human well-being) 4. Setting goals of targets (or goals) to support the national strategy (with stakeholder input)
III Developing the strategy and action plan	5. Developing the strategy and action to implement the agreed targets through national conservation plans 6. Addressing the collaborative and implementation of the NBSAP in national development and national well-being and policies 7. Developing the strategy and action to implement the agreed targets through national conservation plans
IV Development of the implementation plan (action plan)	8. Developing plan for capacity development for NBSAP implementation 9. Developing a financing plan (or more) alternative, involving a plan for increasing financial capacity 10. Developing a communication and outreach strategy for the NBSAP to develop a plan for resource mobilization for NBSAP implementation 11. Developing a monitoring and review strategy for the NBSAP to develop a plan for resource mobilization for NBSAP implementation
V Institutional working, reporting and exchange	12. Development of national and regional approach 13. Civil society input 14. Development of national and regional approach 15. Public relations events
VI Approval by the government	16. Approval

NBSAP Training Package

Updated modules:

1. Introduction to National Biodiversity Strategies and Action Plans
2. How to prepare or update a NBSAP
3. Mainstreaming biodiversity
4. Setting national biodiversity targets

Modules under revision/preparation:

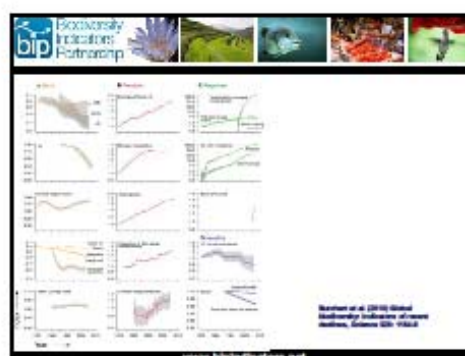
5. Ensuring stakeholder engagement
6. Financial resource mobilization for the NBSAP
7. Communication strategies for NBSAPs
8. Sub-national and local application of NBSAPs

— Implementation of the biodiversity-related

www.cbd.int/nbsap

Contents of NBSAP (based on decision IX/8)

- Rationale for the NBSAP (importance of biodiversity; identification of threats; national framework; lessons from previous experience)
- Strategy, including priorities, principles and national targets
- Action Plan, including application of strategy across sectors and at the local level
- Plans for capacity building; communication and outreach and resource mobilization
- Institutional mechanisms to support implementation, monitoring and review



Block/Section	Chapter or Sub-section
I Introduction (setting the scene, and providing the rationale)	1. Values of biodiversity and ecosystem services in the country and their contribution to human well-being 2. Current and consequences of biodiversity loss 3. Constitutional, legal and institutional framework 4. Lessons learnt from the earlier (NGO's) and the process of developing the national NBSAP
II National Biodiversity Strategy	5. Long term vision 6. Principles guiding biodiversity 7. Main priority areas 8. National theme (SMART)
III National Biodiversity Action Plan	9. National action plan (with the following sub-sections) 10. Application of NBSAP across the main sectors 11. Sectoral Action - implementation into development, poverty reduction and climate change plans
IV Implementation plan	12. Plan for capacity development for NBSAP implementation, including in knowledge/institutional development 13. Communication and outreach strategy for the NBSAP 14. Plan for resource mobilization for NBSAP implementation
V Institutional working and reporting	15. National Coordination Structure 16. Creating Incentives/Motivators 17. Monitoring and Review



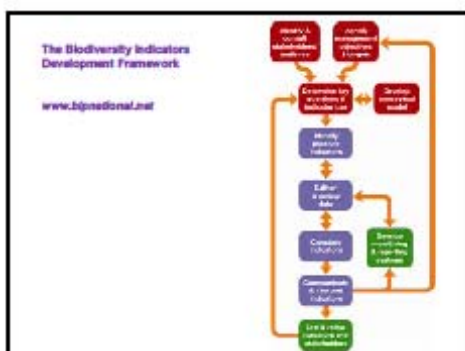
Uses of biodiversity indicators:

- Track progress in achieving targets
- Guide policy design & implementation:
 - Highlight where action is needed
 - Adaptive management
- Build support:
 - Communicate simple messages

www.bipindicators.net

www.bipnational.net

The screenshot shows the homepage of the Biodiversity Indicators Partnership National website. It features a navigation menu, a central dashboard with a pie chart, and several informational sections including a 'Biodiversity Indicators Partnership' overview and a 'National Indicators' section.



www.bipnational.net

- Indicator Guidance and factsheets
- Useful literature
- Indicator resources

This block shows a collage of various resources available on the website, including guidance documents, factsheets, and literature related to biodiversity indicators. The resources are organized into categories and feature images of natural environments and animals.

This block shows a collage of various resources available on the website, including guidance documents, factsheets, and literature related to biodiversity indicators. The resources are organized into categories and feature images of natural environments and animals.

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7.3 Annex 3: Presentation - NBSAP Updating: Framework & indicators

NBSAP updating: Framework and Indicators

Philip Kubb
BP NBSAP workshop, Entebbe, 27 Sep 2011
Ecosystem Assessment Programme
UNEP World Conservation Monitoring Centre
Cambridge, UK

www.biodindicators.net

Biodiversity Indicators Partnership

Flowchart illustrating the process: National priorities (red) lead to National indicators (purple), which lead to Global indicators (green). A feedback loop exists from Global indicators back to National indicators. A box on the right shows various indicator reports.

www.biodindicators.net

Biodiversity Indicators Partnership

"National governments and regional organizations using and contributing to the improved delivery of global indicators"

Flowchart showing the flow from National priorities to National indicators, then to Global indicators, and finally to National indicators again. A box on the right shows a person presenting.

www.biodindicators.net

Biodiversity Indicators Partnership

"National governments developing and using indicators relevant to national priorities"

USUAL "ENTRY POINT"

Flowchart showing the process from National priorities to National indicators, then to Global indicators, and finally to National indicators again. A box on the right shows a sign that says "DANGER: WADING WAD TURTLE HERE".

www.biodindicators.net

Biodiversity Indicators Partnership

"National governments developing and using indicators relevant to national priorities"

Capacity building in 45 Countries

- South East Asia
- Caribbean
- Mesoamerica
- Eastern Africa
- Southern Africa

Flowchart showing the process from National priorities to National indicators, then to Global indicators, and finally to National indicators again. A box on the right shows a person presenting.

www.biodindicators.net

Biodiversity Indicators Partnership

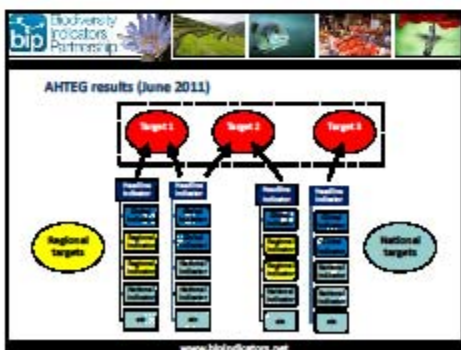
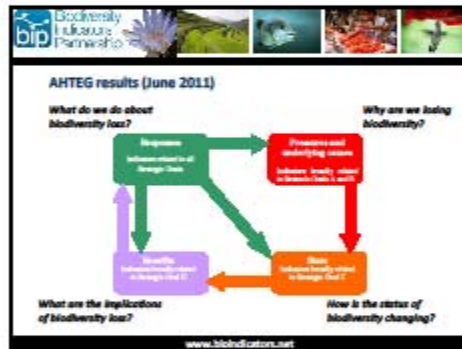
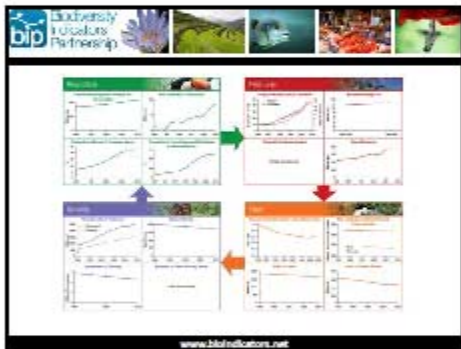
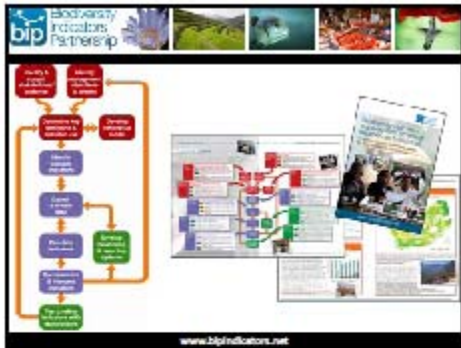
"National governments developing and using indicators relevant to national priorities"

Capacity building in 45 Countries

- South East Asia
- Caribbean
- Mesoamerica
- Eastern Africa
- Southern Africa

Flowchart showing the process from National priorities to National indicators, then to Global indicators, and finally to National indicators again. A box on the right shows a person presenting.

www.biodindicators.net



- AHTEG results (June 2011)**
- 12 **Headline Indicators** – each covers several sub-topics
 - Operational indicators needed under each headline
 - Three 'grades'
 - A: **Priority indicators, ready for use globally/sub-globally** (22 indicators)
 - B: **Priority indicators to be developed** (51 indicators)
 - C: **Additional indicators for consideration at sub-global level**
 - Main development needs for strategic goals
 - A (scaling up)
 - D (benefits)
 - E (implementation)
- www.cbd.int/doc/?meeting=AHTEG-SP-IND-01
- www.biodindicators.net

What makes a successful indicator?

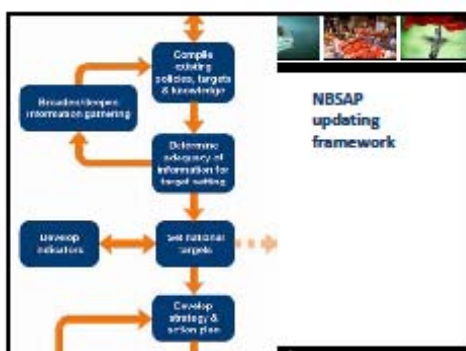
- Scientifically valid
- Based on available data
- Responsive to change in the issue of interest
- Easily understandable
- Relevant to user's needs
- Used!

www.bipindicators.net

What makes a successful indicator?

- Scientifically valid
- Based on available data
- Responsive to change in the issue of interest
- Easily understandable
- Relevant to user's needs
- Used!

www.bipindicators.net





bip Biodiversity Indicators Partnership

How are indicators used?

- Linked...
- Dashboards
- Warnings


www.bipindicators.net

7.4 Annex 4: Presentation - Supporting national and regional biodiversity monitoring through dashboard presentation of downscaled global indicators

SUPPORTING NATIONAL AND REGIONAL BIODIVERSITY MONITORING THROUGH DASHBOARD PRESENTATION OF DOWNSCALED GLOBAL INDICATORS

Xuemei Han
Alexandra Sanchez de Lozada

September 27-29
Entebbe, Uganda



Overview

- NatureServe
- Background to the “dashboards program”
- Dashboard program objectives 2011-12
- Draft dashboard organization
- Questions

NatureServe’s Mission

- To provide the scientific basis for effective conservation action
- A non profit biodiversity conservation data and science network, founded 2001




NatureServe is an International Network


- 81 collaborating “Conservation Data Centers”
- Detailed data on populations of at risk species and natural communities
- Develop biodiversity data management tools
- Tools and methodologies for conservation and land-use planning, climate change assessment, environmental review
- Guide natural resource decision making
- Biodiversity information available to users

Answering Basic Questions for Biodiversity Conservation

- What species and communities exist?
 - Where are they found?
 - How are they doing?
 - How are they changing?
- What are their management needs?



NatureServe Information Value Chain



The diagram illustrates the Information Value Chain as a horizontal flow of three main stages, each supported by specific activities:

- Exploration and Discovery** (Supported by: Scientific Methods and Methods)
- Integrating and Accessing Information** (Supported by: Data Management and Quality Assurance, and Data Collection and Sampling)
- Interpreting and Using Information** (Supported by: Information Assessment/Interoperability, and Conservation Interpretation and Analysis)

The final outcome is **Informing CONSERVATION ACTION**, supported by **Decision Support**.

www.natureserve.org

Supporting national and regional biodiversity monitoring through dashboard presentation of downscaled global indicators

A partnership program:

- John D. and Catherine T. MacArthur Foundation
- BIP, UNEP-World Conservation Monitoring Center
- BirdLife International
- International Union for the Conservation of Nature (IUCN) and its Species Survival Commission (SSC)
- Conservation International (CI)
- Centre d'Ecologie Fonctionnelle et Evolutive (CEFE)

Background Dashboards Program

- Monitoring trends in biodiversity: 20 Aichi Biodiversity Targets, Strategic Plan for Biodiversity 2011-2020
- National capacity to measure on biodiversity indicators through sustainable data collection on the ground
- Countries need to document and visualize the indicators: useful to focus action and support policy and decision-making
- Understanding the impact of conservation actions within the regional context of biodiversity trends

Dashboards program: long term goals

- Establish national and regional dashboards for reporting on trends in biodiversity across a "pressure-state-response-benefits" indicator framework
- Build national capacity to input these data
- Develop the information infrastructure required to allow data upload, maintenance, analysis, and reporting
- Informing adaptive management and investment, by better placing responses within the regional context of status, threats, and benefits to humanity

Dashboards program: specific objectives for 2011-2012

- Proof-of concept for the dashboard assessments framework and baseline data



Dashboards program: specific objectives for 2011-2012

- Downscale global datasets for four example biodiversity indicators:
 - **Pressure:** Threats to biodiversity (e.g., forest loss)
 - **State:** Biodiversity itself (e.g., species extinction risk)
 - **Response:** Biodiversity conservation action (e.g., protected areas)
 - **Benefit:** Societal impacts on human well-being (e.g., hydrological ecosystem services)
- Regions: African Great Lakes, Mekong region, Tropical Andes

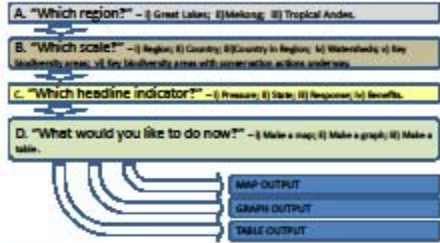
The Pressure-State-Response-Benefits indicator framework, and example indicators



Dashboards program: specific objectives for 2011- 2012

- Collaborate with regional workshops to understand how such downscaled indicators can best support national monitoring efforts and capacity

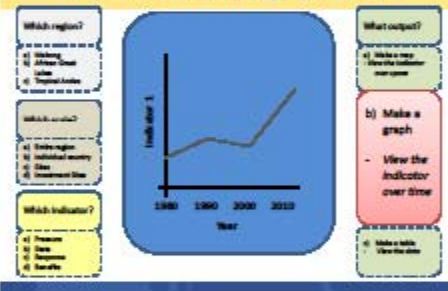
Draft dashboard organization



Draft dashboard map view



Draft dashboard graph view



Draft dashboard table view



Questions to workshop participants

- How might the dashboards program be useful in your country?
 - Are indicators for tracking progress towards Aichi Targets 5, 11, 12, and 14 being monitored in your country? What other indicators are being monitored?
 - Which of the spatial scales of reporting proposed for the dashboard would be most useful in your country? Would any additional scales be useful?
 - Do you have any other questions about the dashboards program?
- Xuemel and Alexandra would love to discuss these points with you!
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7.5 Annex 5: Exercise Results - The Aichi Targets: Information needs, possible indicators and national level feasibility

Target 1
Target Text
By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.
Essential information needed to set the target
<ul style="list-style-type: none"> • Behavioural change • Understanding, Awareness and Appreciation • Key audiences: Regional Agencies, National and Local governments, NGOs, Civil Society, CBOs
Possible indicators
<ul style="list-style-type: none"> • Number of visits to Natural History Museums, Botanical Gardens, Protected Areas • Number of school biodiversity education programs • Number of activities carried out by Indigenous Peoples, Local Communities and Local Citizen groups • Number of news articles published by the media
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • The target is most feasible and urgent • Communication tools and infrastructure could be limiting (target is expensive to implement)

Target 2
Target Text
By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting as appropriate and reporting systems.
Essential information needed to set the target
<ul style="list-style-type: none"> • Map key/all biodiversity rich areas • Carry out economic valuation of each • Document current and potential ecosystem services • Determine their conservation status • Determine threats faced by these areas
Possible indicators
<ul style="list-style-type: none"> • Areas under effective conservation, approved management plans • Area's economic valuation reports • Trends in bioprospective potential of the areas • Trends in payment of ecosystem services • Government/Community awareness of values/importance • Government funding levels for conservation • Trends in environmental legislation
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Capacity for effective valuation • Capacity for bioprospecting • Harmonization of different players – Government, NGOs, Community, Researchers • Policies, laws, enforcement

Target 3
Target Text
By 2020, at the latest, incentives including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimise or avoid negative impacts and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.
Essential information needed to set the target
<ul style="list-style-type: none"> • Elimination, phasing out of incentives and subsidies harmful to biodiversity • Develop and apply incentives beneficial to biodiversity • Need to be reformed
Possible indicators
<ul style="list-style-type: none"> • Removal (value and trend) of incentives and subsidies harmful to biodiversity • Positive change in factors improving the positive incentives and subsidies
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Country economy is based on primary production • Legislative instruments and plans are in place (Constitution, National Strategic plans etc.) • Awareness is rising about biodiversity • Compliance with relevant regional and international Agreements.

Target 4
Target Text
By 2020, at the latest, Governments, businesses and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.
Essential information needed to set the target
<ul style="list-style-type: none"> • Identification of sectors and practices of natural resource use and impact • Definition of ecological limits and carrying capacity of natural resource use • Assessment of impact of natural resource unsustainable use • Example case studies of sustainable management (community based and others) • Demand for natural resources • Drivers (policy and economic) that influence unsustainable use of natural resources
Possible indicators
<ul style="list-style-type: none"> • Areas of forest and ecosystems under sustainable management plans • Sectors and practices that have greatest impact on unsustainable use of natural resources • Demand for products derived from sustainable practices • Status of species in trade
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Insufficient integrated data about sustainable practices • Unsustainable practices are difficult to change • Difficult to change the drivers (policy and economic) that promote unsustainable practices • Legislation and policy is not orientated (or very little) to promote sustainable use of natural resources

Target 5
Target Text
By 2020, at the latest, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
Essential information needed to set the target
<ul style="list-style-type: none"> • Type and status of natural habitats: rate of biodiversity loss • Endangered and endemic species • Pressure and threats to these habitats/ecosystems • Number of people/communities dependent to the habitats • Resource available: technical, financial and equipment
Possible indicators
<ul style="list-style-type: none"> • Number of critical habitats • Number of endangered/threatened species • Number of protected habitats • Rate of species recovery/ecosystems recovery • Amount of income generated from ecosystems
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Data availability • Financial and technical resources • Political will/interference • Level of awareness • Information sharing and networking • Infrastructure

Target 6
Target Text
By 2020, at the latest, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem-based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species-fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are in safe ecological limits.
Essential information needed to set the target
<ul style="list-style-type: none"> Fish / Invertebrates / Aquatic plants*: stocks / current levels and trends of harvesting <p>* Along with status/ pressures / benefits and pressures for each</p> <ul style="list-style-type: none"> Managed / harvested sustainably: sustainable exploitation Legally/ legal issues: policies, legislation, strategies , plans Ecosystem-based approach/ management issues: overfishing avoided, recovering plans of measures in place for all depleted species
Possible indicators
<ul style="list-style-type: none"> Fish catch – catch per unit effort (CPUE) Proportion of over exploited species Number of presence/ absence of policies/ legislation and management plans (ecosystem-based management approaches) Marine Trophic Index Trends in numbers and distribution of selected species Incidence of co-op with stakeholders (e.g. fisheries management organisations) Number of critical habitats Number of ecosystem-based management approached developed
Feasibility issues for national adoption of the target

Target 7
Target Text
By 2020, areas under agriculture, aquaculture and forestry are managed sustainably ensuring conservation of biodiversity
Essential information needed to set the target
Information/ baseline data on: <ul style="list-style-type: none"> • Demography • Existing land use • Area coverage of agriculture, aquaculture and forestry • Species diversity and population / XXX all fields • Trends of deforestation/ afforestation • Trends of natural resource utilization • Extent of area affected by invasive species / pollution / siltation / de-vegetation / overgrazing etc.
Possible indicators
<ul style="list-style-type: none"> • Rate of stocking utilization of XX **/ forestry resources* • Species diversity / number of species* • Percentage of land restored* • Percentage affected by deforestation* • Percentage area covered with Indigenous plant species*
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Feasible (nationally) = * • In between = ? • May not be feasible = **

Target 8
Target Text
By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.
Essential information needed to set the target
<ul style="list-style-type: none"> • Data on non-point and point source of pollution • Data on levels of pollution and nutrients • Data on impacts of pollution
Possible indicators
<ul style="list-style-type: none"> • Level of nutrients • Numbers of of species affected by pollution
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • No data (current) on non-point source of pollution • No data on impacts of pollution

Target 9
Target Text
By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated and measures are in place to manage pathways to prevent their introduction and establishment.
Essential information needed to set the target
<ul style="list-style-type: none"> • What are the invasive species existing in the country? • Where do they come from? • What are their introduction and spread pathways? • What are their ecological, economical and social impacts individually and as a group? • What are the causes of the prioritized invasive species? (Trade: lack of education, knowledge, tourism, planting etc.) • What are the existing policies and measures to control them and what needs to be done further?
Possible indicators
<ul style="list-style-type: none"> • Areas of occurrence of prioritized invasive species • Number of prioritized invasive species with understood pathways
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Trade-off and uncertainty amongst sector responsibility • Pace and investment in scientific investment: pathways, cause, eradication, recovery of native co-amity • Identification and prioritization is a dynamic process, needs consistent monitoring and updating

Target 10
Target Text
By 2015, the multiple anthropogenic pressures on coral reefs and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized so as to maintain their integrity and functioning.
Essential information needed to set the target
<ul style="list-style-type: none"> • List of vulnerable ecosystems impacted by climate change and ocean acidification • List of anthropogenic pressures on those ecosystems e.g. unsustainable fishing, pollution, unsustainable tourism
Possible indicators
<p>Aquatic (coral) ecosystems</p> <ul style="list-style-type: none"> • Percentage hard coral damage • Nitrogen (others?) level (Trophic Index) • Population / growth rate (human) on coastal areas
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Enforcement of illegal activities • Local communities: awareness and alternative income • Presence of policy, strategy and management

Target 11
Target Text
By 2020, at least 17 per cent of terrestrial and inland-water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures and integrated into the wider landscape and seascape.
Essential information needed to set the target
<p>Baseline data e.g.:</p> <ul style="list-style-type: none"> • Coverage of protected areas • Coverage of water areas (terrestrial and inland, marine etc.) • Biodiversity hotspots inventory • Survey on ecosystem services and access by beneficiaries
Possible indicators
<ul style="list-style-type: none"> • Percentage of terrestrial and inland water areas under protection • Number of households benefiting from ecosystem services
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Country priorities (food security by changing wetlands into agricultural land) • Socio-political will • Insufficient funds • Stakeholders support

Target 12
Target Text
By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those in decline, has been improved and sustained.
Essential information needed to set the target
<ul style="list-style-type: none"> • A list of threatened species • A status of threatened species (distribution, abundance etc..) • Assessment of the conservation status of the threatened species • Ex-situ measures as complement of in-situ conservation • Reason for declining of species
Possible indicators
<ul style="list-style-type: none"> • Number of threats totally avoided • Increase of population size within threatened species • Number of species restored and conservation programmes
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Political will and public awareness • Law for the prevention of extinction of all nationally threatened species is in place

Target 13
Target Text
By 2020 ,the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives including other socio-economically as well as culturally valuable species is maintained and strategies have been developed and implemented for minimizing genetic erosion and safe guarding their genetic diversity.
Essential information needed to set the target
<ul style="list-style-type: none"> • Assessment on FAO on: Cultivated plants and farmed animals + Identification of economically valuable species • Ex-situ storage in gene banks • Lists of wild relatives and wild animals for conservation (endemic species) • Traded/imported species (plants / animals) causing potential genetic erosion through breeding
Possible indicators
<ul style="list-style-type: none"> • Number of wild / endemic species cultivated in-situ • Area of land used for cultivation of wild / endemic species • Number of wild / endemic species genetic material preserved in gene banks • Number of relevant International Treaties ratified and integrated into national strategies • Area of land cultivated with exotic species
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Funding limitations • Perverse subsidies • Political support / buy-in from farmers • Competition pressure from imported economically-favoured species (e.g. GMOs)

Target 14
Target Text
By 2020, ecosystems that provide essential services, including services relating to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities and the poor and vulnerable.
Essential information needed to set the target
<ul style="list-style-type: none"> • Evaluation studies of the ecosystems services / identification • Population data (women, indigenous communities/ the poor and vulnerable)
Possible indicators
<ul style="list-style-type: none"> • Number of data on people dependent on various ecosystems • Number or data on various ecosystems and what they provide • Trends of those ecosystems and the services they provide
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • For planning purposes / development plans • To encourage sustainable use of biodiversity • Enable free access to the ecological services • Identify appropriate actions to restore / safeguard those ecosystems

Target 15
Target Text
By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks have been enhanced, through conservation and restoration, including restoration of at least 15% of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.
Essential information needed to set the target
<ul style="list-style-type: none"> • List and area of biodiversity hotspots in the country and their status of degradation • Carbon stocks in degraded hot spots and potential for enhancement • Challenges / constraints facing biodiversity hot spots • Contribution of benefits to population and country from carbon and ecosystem services
Possible indicators
<ul style="list-style-type: none"> • Area of identified biodiversity hotspots in the country under REDD / CDM mechanism • Area of degraded biodiversity hotspots restored • Extent of biodiversity enhancement due to carbon stocks enhanced in hot spots
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • REDD strategy under development –Political will / interest

Target 16
Target Text
By 2015, the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization is in force and operational, consistent with national legislation.
Essential information needed to set the target
<ul style="list-style-type: none"> • Identification of policies and legislations or Abs • Institutional framework and capacity for implementation of ABS • Implementation of ABS legislations • Cabinet paper for signing and ratification of the Nagoya Protocol • On ABS GR and TK and practices
Possible indicators
<ul style="list-style-type: none"> • Date of signing and ratification of Nagoya Protocol on ABS • Institutional capacity for implementation • Number of policies and legislation reviewed and aligned to the Nagoya Protocol on ABS
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • ABS is a priority for Government of Uganda • Government is expected to adopt the target • Capacity to negotiate, awareness

Target 17
Target Text
By 2015, each party has developed, adopted as a policy instrument, and has commenced implementing, an effective participatory and updated NBSAP
Essential information needed to set the target
<ul style="list-style-type: none"> • State and trends of biodiversity: genetic, species, ecosystem levels • Existing legislation and gaps that need to be filled for implementation • National implementation framework – institutional set up
Possible indicators
<ul style="list-style-type: none"> • Number of participating institutions • Biodiversity components trends (better/worse)
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Institutional framework • Economy – heavy reliance on natural resources • Political will and national security • Peoples awareness of biodiversity importance

Target 18
Target Text
By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with full and effective participation of indigenous and local communities, at all levels.
Essential information needed to set the target
<ul style="list-style-type: none"> • Indigenous and local communities: geographic location, definition, numbers, structures • Traditional knowledge, innovations and practices • Land tenure system: resource ownership • Existing laws
Possible indicators
<ul style="list-style-type: none"> • Number of legislations formulated and adopted • Number of indigenous and local communities identified • Number of capacity building and awareness campaigns held
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Identification and demarcation of indigenous and local communities • Representation and participation • Benefits sharing modalities

Target 19
Target Text
By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred and applied.
Essential information needed to set the target
<ul style="list-style-type: none"> • Threats to biodiversity • Priorities for conservation and sustainable use • New research and monitoring undertaken • Development of new technologies • Policy-science interface in place • For existing information: clearing house at all levels in place • Data on biodiversity use shared, ecosystem services and impact on human well-being • Investment in global and national biodiversity observation network • Taxonomy initiative, modelling
Possible indicators
<ul style="list-style-type: none"> • Institutions undertaking data management on biodiversity • Number of national clearing house mechanisms developed • Visitors per year at each CHM (clearing house mechanism) website • A set of globally agreed status and trends • Extent of data coverage for global biodiversity indicators and measures • Use of biodiversity-related information in the 5th and 6th national reports
Feasibility issues for national adoption of the target
<p>(knowledge, science base and technologies)</p> <ul style="list-style-type: none"> • Surveys for assessment and monitoring lack capacity: human and funds • Transfer of required knowledge: capacity building, exchange visits (collaboration) and grants • Application of required technologies: field data collection and analysis, communication of results, survey methods, and development of research

Target 20
Target Text
By 2020, at the latest, the mobilization of financial resources for effective implementation of the Strategic Plan for Biodiversity 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by parties.
Essential information needed to set the target
<ul style="list-style-type: none"> • Evaluation for financial needs for implementing the NBSAP • Data on all funders and other financial opportunities for biodiversity conservation • Governmental fund for biodiversity conservation • Investment plan and mechanisms for financial resources mobilization
Possible indicators
<ul style="list-style-type: none"> • Having an investment plan for NBSAP implementation • Having a mechanism for financial resources mobilization • Having a mechanism for financial coordination
Feasibility issues for national adoption of the target
<ul style="list-style-type: none"> • Financial Ministry not implicated in the NBSAP process • Decision makers not sensitized