Western Balkans Capacity Building Workshop on Indicators as part of NBSAP updating

Workshop Report
19-22 March 2013

Hotel Garden City, Konjic, Bosnia and Herzegovina

A workshop of the Biodiversity Indicators Partnership (BIP) co-convened by UNEP Regional Office for Europe and UNEP-WCMC, with the Secretariat of the CBD and the Federal Ministry for the Environment and Tourism of Bosnia and Herzegovina

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1. Summary

The western Balkans Capacity Building Workshop on Indicators as part of NBSAP Updating was held from the 19th to the 22nd March 2013 at the Hotel Garden City, Konjic, Bosnia and Herzegovina. The overall objective of the workshop was to strengthen capacity in the production of indicators as part of the National Biodiversity Strategy and Action Plan (NBSAP) updating process.

The workshop brought together a total of 16 delegates from seven countries of the western Balkans: Albania, Bosnia and Herzegovina, Croatia, Kosovo*, Macedonia, Serbia and Slovenia (Montenegro was invited but was unable to attend). Participants included representatives from government ministries, national environmental agencies, NGOs and research centres. Representatives from the Secretariat of the Convention on Biological Diversity (SCBD), UNEP Regional Office for Europe (UNEP ROE), UNEP Office in Sarajevo, the European Centre for Nature Conservation (ECNC) and Zoi Environment Network also participated in the workshop and contributed their expertise in information sources, monitoring systems and NBSAPs.

The workshop was funded by the European Commission through UNEP and implemented as an activity of the Biodiversity Indicators Partnership (BIP). The logistics were organized by UNEP ROE and UNEP-WCMC under the patronage of the Ministry of Environment and Tourism of Bosnia and Herzegovina. The workshop facilitation was led by Philip Bubb from the UNEP World Conservation Monitoring Centre (UNEP-WCMC) and the Biodiversity Indicators Partnership (BIP) Secretariat.

The programme consisted of a mix of presentations, interactive group work and training exercises, designed to promote the development of national targets and indicators as part of the NBSAP updating process.

On the first day, after an inauguration ceremony and introductions, participants looked at plans and challenges for updating NBSAPs in the region, before moving on to discussing target setting as part of national planning. The afternoon session first looked at the distinction between targets and indicators, and then the uses of indicators. Then a role play training exercise was started, aimed at taking participants in mixed groups through the purpose and production steps of the Biodiversity Indicator Development Framework. During this exercise, which was continued on Days 2 and 3, participants were provided with a series of six workbooks and worked in small groups to develop national targets and indicators for a fictional country. Each workbook exercise concluded with the groups reporting on their results and lessons learnt and consolidation of key learning points. On Day 1 participants completed the first two workbooks, which considered identifying key questions and setting targets.

On Day 2, participants completed the third workbook of the role-play exercise, learning to develop a conceptual model. Ben Delbaere of ECNC then gave a presentation on EEA’s project ‘Streamlining Biodiversity Indicators in the West Balkans’. In the afternoon a field trip to the Neretvica river (a

1. www.bipindicators.net

*This designation is without prejudice to positions on status, and is in line with UNSC 1244 and the ICJ Opinion on the Kosovo* declaration of independence.
tributary of a main river in the region, the Neretva), explored the use of indicators to examine the biodiversity issues of plans to build a number of small hydroelectric power plants on the river.

On Day 3 participants finished the three remaining workbooks of the role play exercise, in which they looked at identifying indicators, gathering and reviewing data and calculating and communicating indicators. In the afternoon, David Duthie of SCBD gave an introduction to the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets, and participants then began analyzing information needs of the 20 Targets. This exercise was concluded in the morning of Day 4. The afternoon session on the final day included a presentation by Aleksandra Siljic on the work of Zoi Environment Network, and a presentation on the BIP’s resources for capacity building. Following this was a brief exercise assessing essential capacity for successful NBSAP indicators. Participants then reported on their country’s next steps for NBSAP updating, before discussing possible themes and subjects for the next workshop in the region. The day concluded with an evaluation of the workshop by the participants, thanks from Philip Bubb and the official closing of the workshop.

Copies of the presentations and workbooks used during the workshop were made available to the participants on a CD.

15 participants completed the workshop evaluation form and the average rating for the question, ‘How useful was this workshop in developing your capacity to update your NBSAP with indicators, on a scale of 0 to 10?’ was 9.4.

2. Background

With the adoption of the Strategic Plan for Biodiversity 2011-2020 at CBD COP-10 in Nagoya, Japan, Parties to the CBD have been requested to update their NBSAPs with the new Aichi Biodiversity Targets, including reporting on their adopted strategies at COP-12. To support this process, two workshops for western Balkan countries on indicator capacity building as part of updated NBSAPs are being held in 2013.

The workshops are funded by the European Commission through UNEP and implemented by UNEP-WCMC and the UNEP Regional Office for Europe (ROE) as an activity of the Biodiversity Indicators Partnership (BIP²). The workshops are designed in co-ordination with the Secretariat of the CBD and the first workshop was hosted by the Federal Ministry of Environment and Tourism of Bosnia and Herzegovina.

The workshop format was based on interactive group work and training exercises, focusing on the information needs and use of indicators in setting and monitoring national targets.

² [www.bipindicators.net](http://www.bipindicators.net)
3. Workshop Objectives

Government agencies, NGOs and academic institutes in countries of the western Balkans region that are involved in updating NBSAPs have:

- Increased skills and confidence in developing and using indicators as part of NBSAP updating and implementation.
- Improved understanding of the information needs to develop national targets and indicators within framework of the Strategic Plan for Biodiversity 2011-2020;
- Gained new ideas, inspiration and opportunities for NBSAP updating from the experience of other countries in the region.

In addition, the workshop had a secondary set of objectives for participants to:

- Understand that ‘Indicators are Purpose Dependent’;
- Have confidence to use the ‘Biodiversity Indicator Development Framework’;
- Have confidence to develop indicators for NBSAPS, including Aichi Targets; increased collaboration – national, regional, global levels.
4. Day 1

4.1. Welcome

The workshop inauguration was conducted on Tuesday, 19th March 2013 under the patronage of Zineta Mujaković, of the Federal Ministry of Environment and Tourism of Bosnia and Herzegovina.

Mr. Philip Bubb, UNEP-WCMC, welcomed and thanked all delegates for attending the western Balkans Capacity Building Workshop on Indicators in NBSAP Updating. He also thanked UNEP Regional Office for Europe (UNEP ROE), the Government of Bosnia and Herzegovina, and the Secretariat of the CBD for their help in organizing, hosting and facilitating the workshop.

Zineta Mujaković then spoke to the attendees and welcomed them to the workshop. She expressed gratitude that the workshop was being held in Bosnia and Herzegovina, and emphasized the readiness of her Ministry, as the political focal point of the Convention on Biological Diversity, to support the revision of the NBSAP and other convention processes.

David Duthie of the Secretariat of the CBD also welcomed delegates and thanked the hosts and organizers of the workshop.

Thierry Lucas and Pier Carlo Sandei of UNEP Regional Office for Europe also both welcomed the participants to the workshop, thanking them for attending and stressing the importance of regional cooperation and collaboration.
Following the opening and welcome statements, the workshop participants were invited to introduce themselves briefly to the group. A complete list of participants is available in Annex 1.

Philip Bubb then gave a short presentation, in which he outlined the workshop objectives and agenda (attached in annex 2 of this report) before introducing the Biodiversity Indicators Partnership (BIP) and its work on capacity strengthening for national indicator development. He provided information on the National Indicator web-portal www.bipnational.net, a tool and resource including guidance materials to assist indicator developers and also talked about the Partnership’s current work supporting the implementation of the Strategic Plan for Biodiversity 2011-2020.
To help lay the foundations for the workshop and set the style and tone for the following days, the participants were invited to share with the rest of the group their expectations and requests regarding the style of the workshop. Their responses included:

**Workshop Agreements**
- Informal
- Open
- Mutual respect of everybody
- Work in groups to share experience and knowledge
- Produce concrete conclusions
- Use relevant examples
- Spend time on difficulties countries have had
- Be on time
- Be interactive
- Be flexible
- Look after your neighbour – ensure nobody is ‘left behind’

Lastly, participants were asked four self assessment questions regarding their understanding of the Aichi targets and confidence in updating NBSAPs. Instead of giving a verbal response, participants were asked to express their understanding and confidence by ‘voting with their body’: they were invited to place themselves on an imaginary line with either end of the line representing the extremes of the responses. The questions asked and the results are depicted below.
Q1: I understand the Aichi Targets

No understanding at all  

Completely understand all targets

Range: 2 – 8/9

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

No information  

All the information needed

Range: 2/3 – 7

Q3: How confident am I in developing indicators for NBSAPs?

Not confident at all  

Completely confident

Range: 2/3 – 7
The outcomes show a variation in answers across countries but also among participants from the same country. The responses show that even for those who are more confident in their understanding of the Aichi Targets, confidence in developing indicators for NBSAPs is not very high at this stage.

4.2. Updating and implementing NBSAPs in the western Balkans

4.2.1. Introduction to the Strategic Plan for Biodiversity 2011-2020

Philip Bubb gave a brief summary of the Strategic Plan for Biodiversity 2011-2020, and then referred participants to the handout on ‘Summary of Country NBSAP Progress and Plans’ (see annex 3). Thierry Lucas spoke about progress to date in the region in NBSAPs and particular challenges and obstacles encountered. He had reviewed the first round of NBSAPs for the pan-European region and found some good examples, but noted that a lot of improvement was needed in planning. He highlighted several common issues, in particular relating to financial and human resources, and noted the importance of regional cooperation on transboundary issues.

Participants then discussed within their tables the two or three biggest challenges encountered in having information and indicators for NBSAP design, and then for NBSAP implementation. They were given 30 minutes to discuss these questions and to write the results on a flip chart, before nominating one person to feed back to the group.
4.2.2. Target setting and national planning

After an overview of important considerations for target setting, participants were asked to discuss within their groups what they thought is required for successful national targets (from any sector), and then why measurable and time-bound national targets are rare. Suggestions were written on a flip chart and one person from each table reported back to the group.
**What is required for successful national targets (from any sector)?**

- Identify and consult stakeholders (local government, central government, NGOs)
- Public awareness and support
- Compile existing policies, targets and information needed
- Targets should be SMART (Specific, Measureable, Ambitious, Relevant and Time-Bound)
- Easy to understand for decision-makers (‘simple’)
- Have a clear vision of what you want to achieve

**Why are measurable and time-bound national targets rare?**

- Difficulties to get all stakeholders together in consultation
- Lack of funding sources
- Lack of national databases
- No history of using indicators in decision-making
- Big gap between science and policy
- Lack of responsibility for achieving targets
- Hard to monitor national target
- To be real when achieving targets
4.2.3. **What is an indicator and the uses of indicators**

Philip Bubb gave a presentation on indicators and their uses. A key point to remember is that “Indicators are purpose dependent”: the interpretation or meaning given to the data depends on the purpose or issue of concern. To demonstrate this, Philip gave examples of how one data set could be used for multiple different indicators. He also talked about different uses of indicators, such as tracking progress towards targets, guiding policy design and implementation and building support. Philip drew attention to the difference between an indicator and an index and then looked at what makes a successful indicator. Finally he gave a number of key messages for using indicators:

- Understand your data: their strengths, their limitations, where they come from.
- Always put your indicators in context.
- Don’t try to answer everything at once: one indicator will never tell you all you want to know.
- What story are you trying to tell?!
- Indicators should lead on to other things – *they are not ends in themselves*.

4.2.4. **The distinction between targets and indicators**

Philip Bubb gave a short presentation to highlight the distinction between targets and indicators. He gave an example target: ‘to increase terrestrial Protected Area coverage from 5% of the country to 15% by 2020’. He then 4 suggested possible indicator names to go with this target:

1. 15% terrestrial Protected Area coverage
2. Increase in Protected Area coverage
3. Protected Area coverage
4. Percentage Protected Area coverage

He asked the group whether they felt that each example in turn would make a suitable indicator for the target. The group decided that the first example was a target in itself. The second example was not suitable because it defines that the value of the indicator should increase, and so has been
confused with the Target. The third and fourth examples were both possible indicator names, although the fourth made a better indicator name as it included a unit of measurement.

4.2.5. Steps in updating NBSAPs with the Aichi Targets and the roles of indicators

Philip Bubb then gave a short introduction to two key frameworks for participants to know.

He began by introducing the ‘Biodiversity Indicator Development Framework’ (BIDF). The BIDF was developed over a number of years through the experience of UNEP-WCMC and its partners and initiatives, including the BIP.

This framework can be divided into three areas:

1. Purpose – actions needed for selecting successful indicators
2. Production – stages essential for indicator development
3. Permanence – mechanisms for ensuring indicator continuity and sustainability

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

Further information on the framework and each of its steps is available in the document ‘Guidance for national indicator development and use’ which can be downloaded on http://www.bipnational.net. An interactive online version of the framework is available on: http://www.bipnational.net/biodiversityindicatordevelopmentframework.

The BIDF can be seen on the following page:
Biodiversity Indicator Development Framework

- Identify & consult stakeholders/audience
- Identify management objectives & targets
- Determine key questions & indicator use
- Develop conceptual model

1. Identify possible indicators
2. Gather & review data
3. Calculate indicators
4. Communicate & interpret indicators
5. Test & refine indicators with stakeholders
6. Develop monitoring & reporting systems
The following possible Framework of steps for Indicators and NBSAP Updating was then presented. The steps up to national target setting and developing indicators were emphasized.
4.2.6.  Training Exercise– Learning the Biodiversity Indicator Development Framework (BIDF)

The afternoon session was dedicated to a training exercise entitled “Setting 2020 Targets and choosing indicators - A day in the life of an NBSAP target and indicator developer”. The exercise, which started on Day 1 and continued intermittently on Days 2 and 3, used role play to take participants through both the NBSAP Updating framework introduced above and the purpose and production steps of the Biodiversity Indicator Development Framework shown on page 15 of this report. During this exercise, participants worked in small groups to develop national targets and indicators for a fictional country. Participants were divided into three mixed groups that represented three fictional countries: Marsrova, Syladvrica and Ardazhia. A total of six workbooks were used to guide participants throughout the exercise:

1. Workbook 1: Defining the purpose of indicators
2. Workbook 2: Target setting
3. Workbook 3: Developing a conceptual model
4. Workbook 4: Identifying indicators
5. Workbook 5: Gather and review data
6. Workbook 6: Calculate indicators

Each workbook contained background information and a specific task or question. The country teams were asked to write or illustrate their results on a flipchart and present them to the other participants.

Workbook 1: Defining the purpose of indicators

During this exercise participants in each fictional country were tasked with identifying three priority key questions regarding habitat loss and conservation, and then setting a national version of Aichi Target 5 for their fictional country. In order to determine the key questions participants were asked to take into account stakeholder comments presented in the workbook. They were also requested to provide a reason or justification for each key question they selected.

Ardazhia’s team presenting their results

3 By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
### Workbook 1: Exercise Results

<table>
<thead>
<tr>
<th>Ardazhia</th>
<th>Reason/Justification for key question selection, or who wants to know the answer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the most threatened habitats in Ardazhia and what is their trend of loss?</td>
<td>- To define the priorities for nature conservation and appropriate funding</td>
</tr>
<tr>
<td>2. What are the key threats and what is their pressure level on the habitat?</td>
<td>- In order to identify actions and draft new legislation</td>
</tr>
<tr>
<td>3. What is agriculture’s impact on wetlands?</td>
<td>- To define agro-environmental measures and to protect freshwater fish species as the most threatened taxa in the world</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marserova</th>
<th>Reason/Justification for key question selection, or who wants to know the answer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Which are the main threats to habitat loss?</td>
<td>- Institute of biodiversity conservation/environmental NGOs, National Forest Authority, Ministry of Fisheries &amp; Water Management</td>
</tr>
<tr>
<td>2. How many fires occurred and what is the surface area (ha) of damaged forest annually?</td>
<td>- National Farmers Union, Institute of Environment and Development, National Forest Institute, Institute of Biodiversity Conservation</td>
</tr>
<tr>
<td>3. What is the protection status of natural habitats in Marserova?</td>
<td>- Institute of Biodiversity Conservation, Birdlife, National Forest Institute</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sylldavrica</th>
<th>Reason/Justification for key question selection, or who wants to know the answer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Which are the threats/targets?</td>
<td>- Who is responsible for the pressure/threat?</td>
</tr>
<tr>
<td>2. What are the most vulnerable habitats/species?</td>
<td>- Based on list of vulnerable habitats (IUCN)</td>
</tr>
<tr>
<td>3. Do we have a baseline in order to assess our data?</td>
<td>- Spatial planning agencies, forest directorate, inspectorate of fisheries</td>
</tr>
<tr>
<td>4. What is the conservation status of habitats/species?</td>
<td>- Environment agencies, red list, availability of a management plan, local communities</td>
</tr>
</tbody>
</table>

### 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 provided in workbook 2.
### Workbook 2 Exercise Results:

#### Ardazhia

**Selected Key Question:**
What are the most threatened habitats in Ardazhia and what is their trend of loss?

**Targets:**
1. Gradually reduce forest loss from 100km\(^2\) in 2013 to +/- 0 in 2020 (reason: dramatic historic loss must stop now)
2. 90% of primary forest to be strictly protected by 2020 (reason: most effective measure)
3. Total wetland area increased to 6,000km\(^2\) by 2020 including by restoration (reason: boost species numbers and ecosystem services)

#### Marsrova

**Selected Key Question:**
How many fires occurred and what is the surface area (ha) of damaged forest annually?

**Targets:**
1. Restoration of 20% of damaged forest by 2020
2. Reducing the occurrence of forest fire for 40% by 2020
3. Place under protection the remaining unprotected primary forest area by 2015

#### Syladavrica

**Selected Key Question:**
What are the most vulnerable habitats?

**Targets:**
1. By 2015, halt loss of primary forest and restore its initial surface area to 50,000km\(^2\) by 2025 (Reason: conserve and develop natural and near-natural habitats)
2. By 2015 protect 75% of all existing wetlands and place a moratorium on unsustainable aquaculture
3. By 2020 develop and implement management for all Protected Areas

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**Lessons learned from workbook 2:**

> Setting targets is hard!

We may have found this hard, but we are all working together – in real life it would not be this simple and people would have very different views and priorities.
5. Day 2

5.1. Exercises

Workbook 3: Developing a conceptual model

For this exercise each 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 was the selected key question identified in Workbook 1. Each team was requested to pick one of the targets identified in the previous workbook exercise and then draw a conceptual model on the flip chart provided.

Workbook 3: Exercise Results

<table>
<thead>
<tr>
<th>Targets</th>
<th>Ardazhia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Key Question:</td>
<td>What are the most threatened habitats in Ardazhia and what is their trend of loss?</td>
</tr>
<tr>
<td>Target:</td>
<td>Total wetland area increased to 6,000km(^2) by 2020 including by restoration</td>
</tr>
</tbody>
</table>
Marserova

Selected Key Question:
How many fires occurred and what is the surface area (ha) of damaged forest annually?

Targets:
Restoration of 20% of damaged forest by 2020
Syldavraica

Selected Key Question:
What are the most vulnerable habitats?

Target:
By 2015, halt loss of primary forest and restore its initial surface area to 50,000km² by 2025
To: By 2015, halt the loss of primary forests and restore its wild surface to 50,000 sq km by 2020

Pencah:

1. Unsustainable forestry
   - Deforestation, illegal logging, squatters, cattle, forest fires
   - Loss of biodiversity
   - Degradation of environmental services
   - Loss of ecosystem services
   - Loss of economic opportunities
   - Loss of cultural heritage

2. Urbanization
   - Impact on transportation
   - Impact on the forest sector

Benefits:
- Water purification
- Carbon sequestration
- Improved state of health

Pressures:
- Unsustainable use of the forest
- Rapid growth of population

State:
- Loss of natural habitats
- Decline of species
- Loss of ecosystem services
- Ecological balance (instability)
Lessons learned from workbook 3

Participants’ observations:

“The conceptual model helps you refine your target and key question”

“This exercise helps you identify different stakeholders you might otherwise not have thought of”

5.2. Presentation by ECNC

After the participants had completed the third workbook, Ben Delbaere from the European Centre for Nature Conservation gave a short presentation on behalf of the European Topic Centre on Biological Diversity. He spoke about the ‘Streamlining European Biodiversity Indicators’ initiative, talking about SEBI’s background and establishment, the indicators developed, and their future use in tracking progress towards the global Aichi Targets. He then introduced EEA’s project, ‘Streamlining Biodiversity indicators in the western Balkans’, with the aim of building linkages between its activities and the BIP-supported work in the region.
5.3. Field Trip

In the afternoon, as a result of poor weather forecast for the following days, the field trip that was originally planned for Day 3 took place. The field trip provided an opportunity to apply some of the concepts covered in the workshop in an external environment, by taking participants to the Neretvica region. The Neretvica is a tributary of a major river in the region, and plans have been made for the construction of approximately 14 small hydroelectric power plants along it.

Before departure, Philip Bubb gave a short presentation outlining the plan for the trip and also introducing a conceptual model (below), which illustrates how analyses and 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.

Pressure-State-Benefits-Response Framework

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 regarding the management of the Neretvica region that could be used to aid indicator development in light of the planned hydroelectric power installations. Information was provided in advance that summarized the results of an Environmental Impact Assessment on the area, and during the trip Asad Herić, a participant and representative of the local NGO, ‘Environmental Protection Association – Green Neretva’, acted as a guide and resource person.

After stopping along the river to learn more about the planned installations and their potential impact on the region, the participants visited a local school where the head teacher gave more information about the impacts of the installations on the local communities, and specifically why the
communities had consented to the building of the hydroelectric power plants. The participants then made use of the school buildings to work in their groups to identify possible indicators for their assigned categories. Each group reported back and shared their findings and comments with the others.

### Field Trip Results

#### State

| Land use change - % of land use types, loss of land for different purposes |
| Distribution and abundance of species – number of species and population number |
| Aesthetic values of landscapes – number of visitors per year |
| Fragmentation index and habitats – number, size and connectivity |
| Changes to natural fish spawning - Density and population |

#### Responses

| Public presentation (biased?) – held? Who involved? How many participants? Votes? |
| Public hearing on biodiversity – as above + rules of Aarhus convention followed? |
| Independent impact assessment with experts – Held? Public? |
| NGO Looks for balanced solution – alternatives developed? Which stakeholders involved? |
| Biological minimum to be included in law and to be based on scientific evidence – in law? Science used? |
| Protection of habitats and species – are species/habitats listed in national law/EU habitats directive? |

#### Pressures

| Forest damage - % Forest Coverage |
| Changes to hydro regime - Water level and flow rate |
| Decrease of fish populations - Density of fish populations |
| Loss of autochthonous species - Indices of biodiversity (e.g. aquatic macro-invertebrates) |

#### Benefits

| Benefits before hydroelectric power plants: |
| Benefits after hydroelectric power plants: |
| Species habitats – species richness and population size |
| Public Services and infrastructure – value of investment |
| Migratory routes – existing or absent |
| Employment – number of short & long term jobs created |
| Clean water – water quality analysis |
| 3. Increased potential forestry - employment in forestry; area commercially forested per year |
| Recreation and aesthetic value – number of tourists and income from tourism |
| Fishing tourism/fly fishing – number of licenses |
| Animal husbandry (small-scale) – no. of cattle/sheep per household |
| Forest/plant products – income from products |
| Value-added agriculture – income per household |
| Potential Protected Area – Surface under protection |
| |
| |

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6. Day 3

6.1. Exercises

**Workbook 4: Identifying Indicators**

During this exercise, each country team was asked to consider their conceptual model and propose three potential indicators that could be used to monitor progress towards their chosen target. They were also asked to justify why they had selected the indicators by relating them to the target and key question.

**Workbook 4: Exercise Results**

<table>
<thead>
<tr>
<th>Proposed Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ardazhia</strong></td>
</tr>
<tr>
<td><strong>Selected Target:</strong></td>
</tr>
<tr>
<td><strong>Indicators:</strong></td>
</tr>
<tr>
<td>1. Total wetland area (km²)</td>
</tr>
<tr>
<td><em>Justification:</em> Describes the problem (expected/evident decrease) and trend of loss</td>
</tr>
<tr>
<td>2. Wetlands under restoration (spatial, map based)</td>
</tr>
<tr>
<td><em>Justification:</em> Measures taken so far – actions to be taken</td>
</tr>
<tr>
<td>3. Percentage biomass of alien fish species in total biomass</td>
</tr>
<tr>
<td><em>Justification:</em> State of ecosystem – showing ecosystem changes and changes in trophic levels</td>
</tr>
</tbody>
</table>

| **Marserova**       |
| **Selected Target:** | 20% of fire damaged forest area from 2012 under restoration management by 2020. |
| **Indicators:**     |
| 1. Change in forest cover from 2012-2020 (%) |
| *Justification:* To monitor the success of damaged area restoration activities |
| 2. Changes in structure of forest avifauna 2012-2020 (number of species and their abundance) |
| *Justification:* To monitor how fast and successful forest ecosystems recover |
| 3. Changes in soil cover for 2012-2020 (physical, biological and chemical components) |
| *Justification:* To monitor the potential conditions for successful restoration |

| **Syldavrica**      |
| **Selected Target:** | By 2015 halt loss of primary forest and restore its initial surface to 50,000km² by 2025. |
| **Indicators:**     |
| 1. Surface of primary forest (km²) |
| *Justification:* directly linked with the target, fast to measure, easy to understand, fast method |
| 2. Population size of key species |
| *Justification:* Show the success and quality of restoration measures for biodiversity, improvement of ecosystem functions and services, not complicated (we need good, scientific data) |
| 3. Surface of eroded area (in time) |
| *Justification:* Stability of ecosystems, easily understandable for public and decision making, easy to measure, relatively cheap |
Lessons learned from workbook 4

Participants’ observations:

“Having an expert in the field helps to ensure a scientifically valid and robust indicator”

“It can be useful to turn lots of separate measurements on one aspect into an index, but these do not always communicate very well”

“It is quite easy to extract indicators, partly due to the conceptual model which helped select them”

“Today we are just looking at ‘possible’ or ‘ideal’ indicators; in practice it is not so easy to convince people”

“Simplicity is very important to harness support”
Workbook 5: Gather and review data

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

Workbook 5: Exercise Results

<table>
<thead>
<tr>
<th>Proposed Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ardazhia</td>
</tr>
<tr>
<td>Can any of the identified indicators be calculated with available data: Yes</td>
</tr>
<tr>
<td>Selected Indicator: Total wetland area</td>
</tr>
<tr>
<td>Data fields used: Total wetland area (km²)</td>
</tr>
<tr>
<td>MarsEROVA</td>
</tr>
<tr>
<td>Can any of the identified indicators be calculated with available data: Yes</td>
</tr>
<tr>
<td>Selected Indicator: Change in forest cover from 2012-2020 (%)</td>
</tr>
<tr>
<td>Data fields used: Total Land area (km²) Surface area (km²) of primary (and secondary) forest Number of fires and affected areas (ha) in PAs and NPs</td>
</tr>
<tr>
<td>Syldavrica</td>
</tr>
<tr>
<td>Can any of the identified indicators be calculated with available data: Yes</td>
</tr>
<tr>
<td>Selected Indicator/s: Surface area of primary forest</td>
</tr>
<tr>
<td>Data fields used: Primary forest area</td>
</tr>
</tbody>
</table>

Lessons learned from workbook 5

Participants’ observations:

“This helps show data needs for the future and the importance of gathering data from other sectors”

“This is just one type of data – we may also have spatial data for other analyses”
**Workbook 6: Calculate Indicators**

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

**Workbook 6: Exercise Results**

<table>
<thead>
<tr>
<th>Indicator Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ardazhia</strong></td>
</tr>
<tr>
<td><strong>Selected Indicator:</strong></td>
</tr>
<tr>
<td>Total wetland area</td>
</tr>
<tr>
<td><strong>Presentation Options:</strong></td>
</tr>
</tbody>
</table>
Selected Indicator:
Change in forest cover

Presentation Options:
CALCULATION OF INDICATOR

GRAPH 1:
SURFACE OF PRIMARY FOREST FROM 1970 TO 2011

MAP OF HABITATS

- Grassland
- Shrubland
- Inland Waters
- Estuaries
- Wetlands
- Secondary Forest
- Primary Forest
- Deciduous, Coniferous & Mixed Forest
GRAPH 2. Area affected by fire and the number of fires from 1999 to 2012.

E. Fire occurrence in NP Krkonose.
To conclude the role-play exercise, Philip Bubb summarised the exercises and lessons learned. He asked participants for any conclusions from the workbooks:

**Conclusions from the training exercise**

- Respect the arrows! Always go back and think of your objective.
- Contact all stakeholders at the beginning.
- Use graphic designers.
- Keep it simple. It may take longer to get a shorter and clearer message.
- Setting concrete targets helps develop successful indicators, but is not always easy.
- Country ownership of targets is very important.
- Look in other sectors for data, and think in advance about data needs.
- Consulting stakeholders and analyzing existing targets is important in setting targets.
- The time this whole process will take will depend on many things, including capacity in teams and institutions.
- National statistics offices can be very useful.
- It is important to address at the political level (have policy relevance) to actually have influence.
- Public awareness of biodiversity and its importance is very important for their support.
6.2. Presentation by Asad Herić

Asad Herić, a workshop participant and representative of local NGO ‘Environmental Protection Association – Green Neretva’ gave a short presentation on hydroelectric power and its importance for, and influence on the region.

6.3. The Strategic Plan for Biodiversity and Analyzing the Aichi Targets: Information needs, possible indicators and national level constraints

David Duthie of the CBD Secretariat provided an overview on the Strategic Plan for Biodiversity 2011-2020 and the 20 Aichi Targets. He noted that it provides a framework for all Conventions and stakeholders within the UN Network. He outlined its vision and mission, as well as the five Strategic Goals and 20 Aichi Biodiversity Targets. He also referenced a number of Decisions taken at COP 10 and COP 11 with relevance to indicators.

The participants were then divided into pairs. Each pair chose an Aichi Target, and then asked to review the target and write information on a flipchart under the following sub-headings:

- Essential information needed to set a national target or targets under this Aichi Target
- Possible indicators for the Target
- Information availability for national target setting and reporting for this Target and possible improvements.
- 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/
  - Aichi Target Quick Guides for each target.

Each group presented their results back to the other participants in turn. Once the first set of Aichi Targets had been covered, participants then chose another Aichi Target and completed the same exercise again in pairs. Finally, participants worked in groups of four to analyse the remaining four targets. This exercise continued on Day 4.
7. Day 4

7.1. Analyzing the Aichi Targets: Information needs, possible indicators and national level constraints (Continued)

Participants continued to analyse the Aichi Targets as per Day 3. The results of their analysis for each Target are shown on the following pages.
Exercise Results - The Aichi Targets: Information needs, possible indicators and availability of information

<table>
<thead>
<tr>
<th>Target 1</th>
</tr>
</thead>
</table>

**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 a national target or targets under this Aichi Target**

- NGO List – to help us conduct public opinion surveys and undertake specific actions for biodiversity protection/conservation
- Education institutions – kindergarten, primary/secondary school, high school, universities
- Religious institutions (churches, synagogues, mosques)
- Sectoral institutes/agencies/ministries (water, forestry, soil)
- Media representatives (TV, newspapers, radio, scientific magazines)
- Industrial Sector
- Celebrities (actors, musicians, artist, football players)

**Possible indicators for the Target**

- No. of opinion and awareness surveys
- No. of education programmes or materials/communication strategy plans
- No. of visits to museum/parks
- No. of media products (articles, video material, TV shows, document)
- No. of organized international/national days important for the promotion of biodiversity

**Available information for target setting and reporting, and possible improvements**

- Data from museums/parks
- Networking platforms for NGOs
- Ministry of education
- Media clippings – PR agencies
- State budget – lines for financing biodiversity
- Agencies for research and surveys
- Continuous consultation and meeting with stakeholders/annual workshop to set database for relevant information regarding public awareness activities.
- Implementation of biodiversity CHM
### 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 a national target or targets under this Aichi Target**

- Valuation of biodiversity (assessments)
- Information on relations between different strategies (current)
- Methods for assessment of value developed

**Possible indicators for the Target**

- Level of biodiversity values in national accounting
- National Target – value of forests (ecosystem services generated by forests) estimated and incorporated into national accounting

**Available information for target setting and reporting, and possible improvements**

- Most information not available (partial academic data)
- Clear monetary value partially available (timber, non timber products)
- Regulating services, cultural services, supporting services not available

### 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 a national target or targets under this Aichi Target**

- List of all incentives including subsidies in the country
- harmful to biodiversity (i.e. subsidies for industrial agriculture)
- positive incentives (treatment of industrial waste water)
- TOAL amount of money (state expenditure for a) and b) annually

**Possible indicators for the Target**

- Index of the value of harmful subsidies
Trends in establishing positive incentives
- Percentage of agricultural area used for organic farming for which the incentives are being received

Available information for target setting and reporting, and possible improvements
- Partly: E.I agriculture (industrial)
- Waste water treatment (partially) – short term grants
- Establishing data base for environmental monitoring and information system!
- Environmental agency!

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 a national target or targets under this Aichi Target
- What are the main biological production sectors in the country?
- What effect to these have on natural resources?
- What is the ecological footprint?
- Sustainability, what processes are in place? Effectiveness?
- What plans for sustainable consumption and production in place?
- Effectiveness? Can it be improved? Sectoral coverage?
- Opportunities and constraints for achievement of plans?
- List of stakeholders?

Possible indicators for the Target
- Trends in ecological footprint/sectors
- Number of companies/sectors with management plans incorporating biodiversity
- Number of stakeholders
- Ecological limits assessed in terms of sustainable production and consumption
- Certification schemes

Available information for target setting and reporting, and possible improvements
<table>
<thead>
<tr>
<th><strong>Target 5</strong></th>
</tr>
</thead>
</table>

**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 a national target or targets under this Aichi Target**

- General information for natural habitats – surface, species density (in time)
- Pressures (natural and human) on degradation – human population and activities, agriculture development, tourism (in time)
- Information for degradation and fragmentation – surface (in time)
- Existing legislation framework - if there is any plan, strategy etc.

**Possible indicators for the Target**

- Trends of decreasing of natural surfaces, species & distribution etc.
- Trends of agriculture development
- Trends of human population encroachment
- Trends of key species declined (species abundance)

**Available information for target setting and reporting, and possible improvements**

- Improvements - better inter-institutional cooperation, improving legislation
**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 a national target or targets under this Aichi Target**

- Fish stock assessment
- Productivity
- Potential productivity
- Abundance
- List of species available for fishing activities
- List of threatened/protected species
- Fish stock management system – mid-term fisheries strategies/EU operation plans
- Control and surveillance system – selectivity of tools and methods (e.g. gill, seine and purse nets)
- Illegal, unregulated and unreported catch (IUU)

**Possible indicators for the Target**

- Fishing effort – CPUE – units: kg/fisherman, t/boat – per unit of time
- Total number of stakeholders involved – recreational/sports fishermen, commercial fishermen/companies
- Quota system – commercial fisheries quotas, recreational fisherman daily bag limit (result of permanent monitoring)
- Threatened and protected species

**Available information for target setting and reporting, and possible improvements**

- Most data is available.
- Control and surveillance system needs to be improved
- Illegal, unregulated and unreported catch brought to a minimum.
<table>
<thead>
<tr>
<th>Target 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Text</strong></td>
</tr>
<tr>
<td>By 2020, areas under agriculture, aquaculture and forestry are managed sustainably ensuring conservation of biodiversity</td>
</tr>
<tr>
<td><strong>Essential information needed to set a national target or targets under this Aichi Target</strong></td>
</tr>
<tr>
<td>• Areas in country used for AFA</td>
</tr>
<tr>
<td>• State of sustainable management</td>
</tr>
<tr>
<td>• State of biodiversity</td>
</tr>
<tr>
<td>• Who are the stakeholders</td>
</tr>
<tr>
<td><strong>Possible indicators</strong></td>
</tr>
<tr>
<td>• Trends of sustainable managed AFA ecosystems</td>
</tr>
<tr>
<td>• Changes of population size of species related to AFA areas</td>
</tr>
<tr>
<td>• No. of strategic plans related to AFA sector</td>
</tr>
<tr>
<td><strong>Available information for target setting and reporting, and possible improvements</strong></td>
</tr>
<tr>
<td>• Data from Ministry of agriculture, water management, forestry, environment and related agencies and institutes, NGOs, research institutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Text</strong></td>
</tr>
<tr>
<td>By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.</td>
</tr>
<tr>
<td><strong>Essential information needed to set a national target or targets under this Aichi Target</strong></td>
</tr>
<tr>
<td>• Pollution from industry</td>
</tr>
<tr>
<td>• Hot spots</td>
</tr>
<tr>
<td>• IPPC Permit</td>
</tr>
<tr>
<td>• Water pollution</td>
</tr>
<tr>
<td>• Agriculture</td>
</tr>
<tr>
<td>• Use of pesticides &amp; legislation</td>
</tr>
<tr>
<td>• Waste Water</td>
</tr>
<tr>
<td>• Households (waste water treatment plants)</td>
</tr>
<tr>
<td>• Animal breeding (farms)</td>
</tr>
<tr>
<td><strong>Possible indicators for the Target</strong></td>
</tr>
</tbody>
</table>
- Water quality
- Quantity of pesticides used
- Proportion of the households with waste water treatment
- Nitrogen deposition

### Available information for target setting and reporting, and possible improvements
- Municipal level – number of households
- Data from ministry of environment and agriculture

### 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 a national target or targets under this Aichi Target

- Identification of alien species
- Abundance of alien species
- Information for pathway
- Information for species distribution
- Information for specific needs for species life
- Information on whether there is any plan for their management

#### Possible indicators for the Target

- Trends of alien species abundance
- Trends of alien species number
- Trends of impact of alien species in habitats and other species
- Trends in alien species pathway management

### Available information for target setting and reporting, and possible improvements

**Poor existing information - need more specific information**

- Natural science university
- National botanic garden (they made some study)
- Agricultural agency
- Agro-university of Tirana etc.
### 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 a national target or targets under this Aichi Target**

- Data on most vulnerable ecosystems (size, area, structure of ES, Conservation...)
- Assessments of multiple pressures
- Spatial planning data (if it is already protected)
- Global assessments and scenarios on climate change

**Possible indicators for the Target**

- Surface of protected areas with most vulnerable ecosystems
- All other indicators referencing a reduction of multiple anthropogenic pressures

**Available information for target setting and reporting, and possible improvements**

Available information:

- Global assessments and sets of data
- Spatial planning data

Information not available:

- Scientific data on most valuable ecosystem services
- Multiple pressures assessments
### 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 a national target or targets under this Aichi Target**

- State of PA
- Assessment of areas with high biodiversity values (in order to protect)
- Strategic documents (HSP...)
- Management effectiveness
- Ecological network establishing data

**Possible indicators for the Target**

- Trends of increase of protected areas
- Ecological networks (Natura 2000) “coverage”
- No. of management plans
- Changes in protected area condition

**Available information for target setting and reporting, and possible improvements**

- Mostly yes
- TEEB needed

### 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 a national target or targets under this Aichi Target**

- List of threatened species
- Distribution of threatened species in relation to PAs
- Main threats: Overuse, habitat degradation/fragmentation, land use change, invasive species, climate change
**Socio-economic analysis – threatened species (medicinal plants)**

**Possible indicators**

- Number of threatened species, distribution trend
- PA trends
- No. of conservation measures for species threatened by overuse
- Trends of extinction risk of species
- No. of invasive species (abundance)
- Public awareness campaigns

**Available information for target setting and reporting, and possible improvements**

- IUCN/National red lists
- Database for PAs
- Ministries, NGOs, Institutes, Agencies, Customs, Admin, Forestry enterprise, Scientific institutions

**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 safeguarding their genetic diversity.

**Essential information needed to set a national target or targets under this Aichi Target**

- List of cultivated plants
- List of farmed and domesticated animals
- List of wild relatives
- Other socio-economic/culturally valuable species (e.g. traditional medicine)
- How is genetic diversity maintained (ex-situ/in-situ) – strategies/plans
- Stakeholders (NGOs, farmers, community)

**Possible indicators for the Target**

- Trends in genetic diversity in plants/farmed and domesticated animals and species
- Number of policies and management plans in place

**Available information for target setting and reporting, and possible improvements**

- Farmers
- Ministries of agriculture and environment
- Universities and research centres/institutes
- Genetic catalogues
- Management plans could include data collection for more information

**Target 14**

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 a national target or targets under this Aichi Target**

- Set up ecological network and establish management plan
- Evaluation studies on ecosystems and economic valuation of services in the country
- Identify main pressures on the most threatened ecosystems
- Identify ecosystems that are particularly important for local community
- Integration of essential ecosystem services into sustainable development strategies

**Possible indicators for the Target**

- Ecosystem services used in food and medicine
- Trends in proportion of the population using improved water services
- Status and trends of traditional practice and land use in local territories

**Available information for target setting and reporting, and possible improvements**

- Tools for mapping ecosystem services and for the valuation, tested and implemented
- Actions/action plans for degraded ecosystems (restoration) – freshwater, wetlands...
- Organization of campaigns for improving ecosystem services that locals depend on
### 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 a national target or targets under this Aichi Target**

- Which ecosystems in the country are carbon stocks (and how many)?
- Status of degradation of key ecosystems
- Sources and quantity of GHG emissions
- National plans and finance for ecosystem restoration

**Possible indicators for the Target**

- Status and trends in extent and condition of habitats that provide carbon storage
- % of habitats that provide carbon storage
- Trends in proportion of land affected by degradation

**Available information for target setting and reporting, and possible improvements**

- GHG emissions
- Status of UNCCD and UNFCCC
- REDD plus available in the country

### 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 a national target or targets under this Aichi Target**

- Legislative, administrative or policy measures
- As it is a so-called mixed agreement, the relation between EU and national level needs to be defined
- Access pillar won’t be implemented at EU level
- Draft regulation on ABS exists at EU level
- National capacities in terms of institutional structure for implementation
- Research into genetic resources within the country
- Donor/user existence and ratio – national level (provider)
### Possible indicators for the Target

- No. of countries that have signed/ratified Nagoya protocol
- Public consultations – stakeholders and sectors involved
- Existing instruments, guidelines and tools at national level
- Technical assistance programs – no. and scope

### Available information for target setting and reporting, and possible improvements

- Next INP meeting and COP 12 will provide more information
- National ABS CHM mechanism to be developed
- Public awareness

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### 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 a national target or targets under this Aichi Target

- Analysis of existing NBSAPs and other relevant strategies, plans, reports, policies
- Identify all stakeholders
- Assessment of financial, human and technical resources
- Considering the regional situation
- Cost-benefit (ecological, economic, social benefits)

#### Possible indicators for the Target

- No. of NBSAPs revised, adopted and implemented
- No. of NBSAP activities conducted in sectors
- No. of stakeholders involved (different sectors)
- Trends of available funding sources

#### Available information for target setting and reporting, and possible improvements

- Mostly available – needs for improvement/amendments of existing legislation
- Increase in stakeholder participation process and public awareness
### 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 a national target or targets under this Aichi Target**

- Types of traditional knowledge and practices
- Data about already conserved TK&P (museums, publications, institutions)
- State of existing TK&P (in situ)
- Policy framework
- Cost-benefit analysis
- List of stakeholders

**Possible indicators for the Target**

- Income obtained from TK&P (local communities)
- Income obtained from TK&P (protected areas)

**Available information for target setting and reporting, and possible improvements**

- Lack of data!

---

### 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 a national target or targets under this Aichi Target**

- Technologies available related to biodiversity
- Assessed biodiversity values on national level
- Role and function of species in ecosystems
- Red data lists
- Resources for biodiversity research
- Existence of national biodiversity CHM
- International platform on Biodiversity and Ecosystem Services – science policy interface
### Possible indicators for the target
- Trends in using biodiversity indicators for national reporting
- Uptake of relevant biodiversity assessments into national policies
- Loss of biodiversity/species

### Available information for target setting and reporting, and possible improvements
- Analyse gaps in capacity of academic society in collecting and disseminating biodiversity-related knowledge
- Establish species inventories
- Public awareness
- Wider participation of all relevant stakeholders in national CHM

### 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 a national target or targets under this Aichi Target
- Biodiversity financing available—mechanisms, national budget, other sources, NGO, cross-sectoral
- Assessment of funding needs for implementing NBSAP
- Potential funding – national/international; donors/recipients
- Assessments of human capacities and needs

### Possible indicators for the Target
- ODA provided in support of CBD
- Amount & sources of national/international funding
- No. of officials and experts qualified in biodiversity related matters (training, capacity-building)

### Available information for target setting and reporting, and possible improvements
- New mechanisms and reallocation of funds needed for biodiversity
- Improved dialogue and coordination among donors and recipients
- Country-specific resource mobilization strategy
Participants were asked for their conclusion from this exercise, and the following comments were given:

<table>
<thead>
<tr>
<th>Comments on Aichi Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>- It provided a synthesis of how to put indicators in the Strategic Plan</td>
</tr>
<tr>
<td>- We have to work harder – there is more to do than we thought!</td>
</tr>
<tr>
<td>- The exercise showed the relationships and cross cutting issues between targets</td>
</tr>
<tr>
<td>- Need to ‘see through’ the target – take time to analyze and understand them, and the implications for national targets</td>
</tr>
</tbody>
</table>

### 7.2. Presentations

**Presentation from Aleksandra Šiljić of Zoi Environment Network**

In the afternoon of Day 4, Aleksandra Šiljić gave a short presentation on the work of the Zoi Environment Network. The Geneva-based organization aims to reveal, explain and communicate connections between the environment and society. Of particular relevance was the recent publication on the ‘West Balkan Environmental Core Set of Indicators’ (2012). This collated information and data compiled by the public and private sector as well as civil society. The book presents a number of core indicators based on data contributed by experts within each country.

**Presentation on BIP Resources for Indicator Developers**

Sarah Brooks of the BIP Secretariat gave an introduction to the varied resources that are available, mostly online, to support the development of national biodiversity indicators. She introduced the two different BIP websites ([www.bipindicators.net](http://www.bipindicators.net) and [www.bipnational.net](http://www.bipnational.net)), focusing mostly on the BIP National website where the majority of the resources are available. Of particular note is the forthcoming e-learning module and online discussion forum, to encourage a ‘Community of Practice’ among indicator developers and users in the western Balkans region as well as further afield.

**Presentation on Components of Capacity for Developing Successful NBSAP Indicators**

Philip Bubb introduced a diagram produced by the BIP secretariat that summarises the key elements or conditions that they have identified for a country to develop successful indicators for their NBSAP. The diagram was introduced as a kind of template which could assist countries in identifying their indicator capacity strengths and weaknesses, and therefore what could be included in their NBSAPs to strengthen their capacity.

Participants commented that the diagram was useful.
7.3. **Next steps in developing NBSAP indicators**

Each country team was asked to draft and share their next steps in NBSAP updating and indicator development, including stakeholder involvement and addressing capacity and information needs.

**Results of the exercise:**

<table>
<thead>
<tr>
<th>Bosnia and Herzegovina</th>
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<tbody>
<tr>
<td>- Adjustments of the previous steps in the NBSAP revision process according to the lessons learned</td>
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<tr>
<td>- Reflection on conceptual model (R S P B)</td>
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<td>- Consultations and meetings with policy decision makers from different sectors (national targets)</td>
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<td>- Suggestion: Separate sub-project on identifying indicators</td>
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<tr>
<td>- Preparation of fifth National Report</td>
</tr>
<tr>
<td>- Regional cooperation – exchange of information and knowledge</td>
</tr>
</tbody>
</table>
**Albania**

- Being in touch with project team (responsible for NBSAP review; trying to be part of the next meeting with the team.
- At the same time transmitting to the ministry staff the information taken in this workshop to stress the importance of developing achievable targets.
- The most important issue to be stressed at the ministry level and project team is the importance of having data that means to improve the monitoring system.
- When the project will send the first draft of the update and review NBSAP we will give our input (in this phase we will need your support).

**Kosovo**

Indicators of actual strategy:

- Percentage of protected area
- Level of harmonization of national legislation
- Percentage of species endangered by extinction

Next steps:

- How to set targets at National level
- Setting up of monitoring system
- Developing indicators to achieve the national targets as part of national biodiversity strategy

**Macedonia**

Establish national team for revision of NBSAP – April 2013

- Rapid assessment of biodiversity status – Sept 2013
- Identification of stakeholders – April 2013
- Review relevant policy documents/data/data-holders – May-June 2013
- Check EEA biodiversity indicators developed
- Eionet workshops on biodiversity indicators:
  - Tirana - June 2013
  - Macedonia - Oct 2013

Draft national biodiversity targets and possible indicators with experts – August 2013

Discuss targets and indicators at a stakeholder workshop – Sept/Oct 2013

**Serbia**

Action Plan:

By Mid-2013 multi-stakeholder working group established

Review of results of previous biodiversity planning process (NBSAP 2011-2018):

- Addresses the establishment of national level targets according to the Aichi Targets - National level biodiversity targets will be developed
- Indicator development process
- Stakeholder consultations

Multi-sectoral consultations/mainstreaming

Draft NBSAP – 2014

Public consultation process
Croatia

Done:
Strengthening of national coordination structure
1st Quarter 2013:
Stocktaking overview of relevant plans, policies, reports
Upcoming period:
- Identification of stakeholders,
- Review of national targets and analysis of alignment with Aichi Targets and EU 2020
- Analysis gaps and recommendations for update, new targets/indicators
- Preparation of Ecosystem Services Freshwater Study (TEEB-like study)
- National workshop on Ecosystem Services

2014:
National targets developed ready for stakeholder communication → government
April 2014:
Complete plan for implementing including financial needs assessment
5th National report prepared.

7.4. Second capacity building workshop for the Western Balkans

Participants were then asked to discuss the second workshop and any areas that would be useful to address in this workshop.

Ideas included:

- Bring any targets and indicators so far to share and improve, and identify regional targets and indicators, as well as any issues or sectors such as energy.
- One day to examine certain Aichi Targets and their connection with others e.g. Targets 14 and 20. (understand the Targets)
- Ecosystem functioning and ecosystem services field trip
- Host country to invite other sectors (statistics, finance, water...)
- Develop monitoring and reporting systems – see examples and how to organize this
- Communicate and interpret indicators – visualization
- CBD 5th National Report and reporting on global Aichi Targets
### 7.5. Workshop conclusions

The last session of the workshop consisted of a group discussion on the main conclusions generated from the workshop.

These can be summarized as follows:

**Workshop Conclusions**

- We must try to follow the frameworks, but it needs a lot of time – prepare first with experts
- There is more to do than we thought!
- There may not be time to do all this when back in reality, it will be ambitious but we should try.
- Consulting stakeholders throughout the process is particularly time consuming
- We should share information and experiences
- We need more regional cooperation
- It is really important to always go back and review and test your indicators.

### 7.6. Evaluation and thanks

Philip Bubb thanked the Ministry of Environment and Tourism of Bosnia and Herzegovina for having hosted the event. He thanked UNEP Office in Sarajevo for all the support in organization and planning. He thanked David Duthie the CBD Secretariat for attending the workshop and for his valued contribution. Philip also thanked all workshop participants for their active participation and commitment. Finally the organizations who had presented at the workshop, ECNC and Zoi Environment Network were thanked for their contribution and efforts to coordinate work in the region.

Participants were asked to complete a feedback form before leaving. 15 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 9.4. The comments have been evaluated and the lessons identified so they can be utilized when developing future workshops. Some examples of the comments on the feedback forms are:

- “It was very useful in the situation that our country is reviewing and updating the NBSAP. Developing and using successful indicators is very important to achieve the national target. This CB workshop has increased our skills and understanding of indicators.”
- “I will use the knowledge gained at the workshop in the process of updating our NBSAP. Unfortunately, reality is not a “day in life of Luka Petrović” and in practice there will not be sufficient time to work with a team specifically on indicators.”
- “This is my first time to have the opportunity to learn about indicators in this way. This workshop is going to be very useful for my next work.”
### 8. Annexes

#### 8.1. Annex 1: Workshop participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Designation and Organization</th>
<th>Contact Information</th>
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8.2. Annex 2: Workshop programme

Monday 18th March – Arrival of participants

Tuesday 19th March, Day 1 - Indicators in NBSAP updating and Training Exercise

| 9.00 | Welcome - UNEP, Secretariat of the CBD |
|      | Introductions, agree workshop programme |
| 9.45 | Rapid assessments of plans for NBSAP updating & capacity for indicators. |
| 10.00 | Updating and implementing NBSAPs in the western Balkans |
|       | An overview and discussion on the plans for NBSAP updating in the region and particular needs and lessons for information to support this. |
| 11.00 | Break |
| 11.20 | Target setting as part of national planning |
|       | What is required for successful target setting and ‘ownership’, including the role of information? |
| 11.45 | What is an indicator and the uses of indicators |
|       | A brief introduction and discussion. This subject will be further developed in the role-play exercise. |
| 12.20 | The distinctions between targets and indicators |
|       | Presentation and discussion. This subject will be developed in the role-play exercise. |
| 13.00 | Lunch |
| 14.00 | Steps in updating NBSAPs with the Aichi Targets and the roles of indicators |
|       | An introduction, to be developed in the role-play exercise. |
| 14.20 | Training Exercise—Learning the Biodiversity Indicator Development Framework (BIDF) |
|       | The ten steps in the BIDF result from experiences in national biodiversity indicator production in countries around the world. The BIP has developed a role-play exercise around the BIDF in which the participants develop national targets and indicators for a fictional country and in so doing learn the steps of the BIDF. |
|       | The exercise will start on Day 1 and continue on Day 2. |
|       | Workbook 1. Analyse a given Aichi Target and determine relevant key questions to... |
guide national target setting.

15.30  Break

15.50  Workbook 2. Draft national versions of the Aichi Target.

17.30  End of Day 1.

Evening meal – social event

Wednesday 20th March, Day 2 - Learning the Biodiversity Indicator Development Framework (BIDF) - Part 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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| 9.00  | Continue Training Exercise – Learning the Biodiversity Indicator Development Framework (BIDF)  
Workbook 3. Develop a conceptual model to guide indicator selection & communication. |
| 10.15 | Workbook 4. Identify possible indicators.                                |
| 11.20 | Break                                                                    |
| 11.40 | Workbook 5. Gather and review data.                                      |
| 13.00 | Lunch                                                                    |
| 14.00 | Workbook 6. Calculate and communicate indicators.                        |
| 15.30 | Break                                                                    |
| 15.50 | Conclusions from the Training Exercise                                   |
| 16.15 | EEA’s Project ‘Streamlining Biodiversity Indicators in the West Balkans’  
Presentation by ECNC on behalf of the ETC/BD and Questions and Answers. |
| 17.00 | West Balkan Environmental Core Set of Indicators compiled by EEA         
Presentation compiled by Zoi Environment Network in close cooperation with EEA and Questions and Answers |
| 17.30 | End of Day 2                                                             |

Thursday 21st March, Day 3 – Analysing the Aichi Targets and Field Trip
### The Strategic Plan for Biodiversity 2011-2020 and Analysing the Aichi Targets

A quick overview of Strategic Plan for Biodiversity 2011-2020 - vision, mission, the strategic goals and how they relate to each other, the Aichi Targets, and the frameworks of indicators.

Group work and reporting to identify the information needs of the Aichi Targets and possible indicators.

#### Conclusions for NBSAP updating and indicator development from analysing the Aichi Targets

Visit to the Neretvica river to explore the application of the Pressure-State-Benefit-Response framework to guide the use of information and indicators in management.

#### Visit to Mostar

#### Return to hotel.

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### Friday 22nd March, Day 4 – Biodiversity monitoring, information sources and Next Steps.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09.00</td>
<td>What makes a successful indicator?</td>
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<td>Analysis of examples from the region and elsewhere of successful indicators.</td>
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<tr>
<td>10.30</td>
<td>BIP resources for indicator developers</td>
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<td>E-learning and other internet resources.</td>
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<tr>
<td>11.00</td>
<td>Break</td>
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<tr>
<td>11.20</td>
<td>Review and inputs on the indicator needs of any draft national targets and strategies in NBSAPs</td>
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<tr>
<td>13.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>14.00</td>
<td>Next steps in developing NBSAPs and indicators</td>
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<td>Each country team will draft and share their next steps, including addressing capacity and information needs.</td>
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<td>15.30</td>
<td>Break</td>
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<tr>
<td>Time</td>
<td>Session Title</td>
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<tr>
<td>15.50</td>
<td>Regional co-operation and the next BIP workshop</td>
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<td>Identification of opportunities for ‘South-South’ co-operation, exchange of expertise, planning the next BIP regional workshop in late 2013, and co-ordination with EEA indicator support in the region.</td>
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<tr>
<td>16.40</td>
<td>Workshop conclusions and thanks.</td>
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<tr>
<td>17.00</td>
<td>End of workshop.</td>
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