Setting National Biodiversity Targets: General and an Example

David Duthie, CBD Secretariat
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CBD

Why Targets?

The purpose of targets is

- to make it easier to move from words to action;

- and from action to measurable results.

Targets help to do this by:

- being aspirational and catalytic for change;

- providing a focus for action;

- allowing better measuring and reporting of progress;

- allowing clear communication of status and trends of biodiversity to policy makers and the public;

- thus increasing accountability; and

- allowing adaptive management responses.

COP-10 Decision X/2

COP10 has urged Parties to :

- **Develop national and regional targets**,

  "using the Strategic Plan and its Aichi Targets, as a flexible framework, in accordance with national priorities and capacities …. with a view to contributing to a collective effort to reach the global targets";

- *"integrate the targets into revised and updated NBSAPs, adopted as a policy instrument at the highest level"*;

- in time to report to COP 11 (**Oct 2012**).

Setting national targets

Adapting the global framework to the national level means developing targets that contribute to each of the 5 goals of the Strategic Plan:

A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;

B. Reduce the direct pressures on biodiversity and promote sustainable use;

C. To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;

D. Enhance the benefits to all from biodiversity and ecosystem services;

E. Enhance implementation through participatory planning, knowledge management and capacity building.

Each of these five goals are relevant to all Parties, and national biodiversity planning committees should should consider developing national targets for each goal.

Aichi Nagoya Targets

Strategic goal A. Address the underlying causes of biodiversity loss

Target 1: By 2020, People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, biodiversity values are integrated into national and local development and poverty reduction strategies and planning processes and national accounts …

Target 3: By 2020, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed …….

Target 4: By 2020, Governments, business and stakeholders have plans for sustainable production and consumption and keep the impacts resource use within safe ecological limits.

Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6: By 2020 all stocks managed and harvested sustainably, so that overfishing is avoided …….

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: 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.

Target 10: 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.

Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas are conserved through systems of protected areas…...

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives is maintained,

Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 14: By 2020, ecosystems that provide essential services, including services are restored and safeguarded,

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems,

Target 16: By 2015, the Nagoya Protocol on Access and Benefits Sharing is in force and operational

Strategic goal E. Enhance implementation through participatory planning, knowledge management and capacity building

Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated NBSAP.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities and their customary use, are respected.

Target 19: 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.

Target 20: By 2020, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources,, should increase substantially .

Setting national targets

Adapting the global Aichi goals and targets to the national level:

- does **not** mean setting national targets for all 20 global targets -- not all will be relevant to national circumstances;

- **does** mean that targets should be appropriate for each country and its particular circumstances (including biodiversity in varying states of biodiversity status, under differing pressures, management regimes, and socio-economic/financial situations).

- and if any national targets already exist, a first step could be to examine these in relation to the 20 global targets.

Setting national targets

A <u>set</u> of national biodiversity goals and targets should have the following characteristics:

- cover the main biodiversity issues in the country;

- address the three objectives of the Convention (conservation, sustainable use, and benefit sharing) and the five Goals;

- be specific and measurable (more specific than the global targets);

- be realistic (credibility for biodiversity planning);

- be ambitious – go beyond business as usual (BAU); not limited to existing resources;

- be intricately tied to the NBSAP;

- relate to the Aichi Biodiversity Target (ABTs);

- be developed using a participatory, multi-stakeholder process;

- not be identical to ABTs but "mapable"; and

- time bound.

Setting national targets

Australia national targets 1-5:

1. By 2015, achieve a 25% increase in the number of Australians and public and private organisations who participate in biodiversity conservation activities.

2. By 2015, achieve a 25% increase in employment and participation of Indigenous peoples in biodiversity conservation.

3. By 2015, achieve a doubling of the value of complementary markets for ecosystem services.

4. By 2015, achieve a national increase of 600,000 km^2 of native habitat managed primarily for biodiversity conservation across terrestrial, aquatic and marine environments.

5. By 2015, 1,000 km^2 of fragmented landscapes and aquatic systems are being restored to improve ecological connectivity.

Setting national targets

Australia national targets 6-10:

6. By 2015, four collaborative continental-scale linkages are established and managed to improve ecological connectivity.

7. By 2015, reduce by at least 10% the impacts of invasive species on threatened species and ecological communities in terrestrial, aquatic and marine environments.

8. By 2015, nationally agreed science and knowledge priorities for biodiversity conservation are guiding research activities.

9. By 2015, all jurisdictions will review relevant legislation, policies and programs to maximise alignment with Australia's Biodiversity Conservation Strategy.

10. By 2015, establish a national long-term biodiversity monitoring and reporting system.

Example: Target 11

Strategic goal C: To improve the status of biodiversity
by safeguarding ecosystems, species and genetic diversity

"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 landscapes and seascapes"

Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
Target 11

- by 2020

- at least 17 % of terrestrial and inland water areas, and 10 % of coastal and marine areas

- especially areas of particular importance for biodiversity and ecosystem services

- are conserved through …. protected areas …. and other effective area-based conservation measures

- effectively and equitably managed,

- ecologically representative, and

- well connected systems of protected areas integrated into the wider landscapes and seascapes

Target 11

Examples of Protected Area Targets at national level (pre-Nagoya)

- **Costa Rica** - by 2012, 1% of EEZ in management categories, increasing to 2% by 2015 (new Marine Protected Area (MPA) of 1 million hectares around Cocos Island NP)

- **Canada** – Quebec has pledged to protect 12% of it's territory by 2015, as part of Plan Nord development

- **Brazil** - at least 30% of the Amazon Biome, and 10% in the other biomes, including marine and coastal zone, effectively conserved through the National System of Conservation Units

Target 11

- What is the current extent of protected areas on land and in marine areas, (1) overall, and (2) by ecoregion?

- What areas of importance for biodiversity and ecosystem services are not currently protected?

- How effective are existing protected areas?

- What are the opportunities and constraints to expanding protected areas, generally and by eco-region, and how may these justify higher or lower figures for the national target than for the global target?

- Who are the stakeholders, including indigenous and local communities, that may be affected?

- What additional resources (financial, human and technical) will be required to reach the national target that is set?

Target 11

Actions and milestones should be guided by the CBD Programme of Work on protected areas and decisions XI/18 and X/31:

- Ecological gap analysis for identifying "ecologically representative areas (including unprotected IBAs, KBAs, etc.);

- Institutionalize management effectiveness assessment;

- Integration of Protected areas into wider land and seascapes to showcase mainstreaming of biodiversity with other sectors and ecosystem-based approaches to adaptation to climate change adaptation and leading to mitigation through carbon sequestration;

- Recognition of ICCAs, including through acknowledgement in national legislation or other effective means formal inclusion in the national systems and practicing of various governance types;

- Development and implementation of sustainable finance plans.

Target 11

To meet the target several conditions need to be met:

The area conserved should:

- increase;

- include areas of particular importance for biodiversity and ecosystem services;

- be ecologically representative;

- be effectively and equitably managed;

- be well-connected;

- can include different protection status categories

Target 11

Possible indicators:

- Coverage of Protected Areas;
- Overlays of protected area coverage with species richness;
- Threatened species;
- Important biodiversity areas, etc.;
- Trends in abundance of keystone/flagship species, etc.;
- Management effectiveness

Resources:

New PoWPA Website: www.cbd.int/protected

PoWPA e-learning modules: www.cbd.int/protected/e-learning/

Policy-driven versus Evidence-based Conservation: A Review of Political Targets and Biological Needs

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"How much is enough?" is a question that conservationists, scientists, and policymakers have struggled with for years in conservation planning. To answer this question, and to ensure the long-term protection of biodiversity, many have sought to establish quantitative targets or goals based on the percentage of area in a country or region that is conserved. In recent years, policy-driven targets have frequently been faulted for their lack of biological foundation. In this manuscript, we reviewed 159 articles reporting or proposing 222 conservation targets and assessed differences between policy-driven and evidence-based approaches. Our findings suggest that the average percentages of area recommended for evidence-based targets were nearly three times as high as those recommended in policy-driven approaches. Implementing a minimalist, policy-driven approach to conservation could result in unanticipated decreases in species numbers and increases in the number of endangered species.
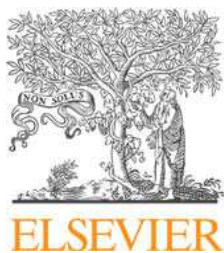
Review

Quantitative methods for defining percentage area targets for habitat types in conservation planning

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ABSTRACT

The Earth's resources are finite, therefore planning for their use requires the definition of broad goals and the formulation of operational targets derived from goals, that enable decisions to be made and success measured. The objective of this study was to review methods for the formulation of percentage conservation targets for the coverage of habitat types within a network of conservation areas. We reviewed the scope and data requirements of these methods and discussed the strengths and limitations of their application. We identified five groups of methods applicable to habitat types that define: (1) fixed percentage targets across all habitats based on species–area relationship, or habitat-specific targets based on (2) species–area relationship, (3) heuristic principles, (4) trade-off of target size with reserved area, or (5) spatially-explicit Population Viability Analysis (PVA) for selected species. No ideal method exists and two factors should guide the choice of a method: the type of biodiversity goal and data availability. Given the lack of perfect biodiversity data, we suggest the use of a composite target based on a combination of methods.
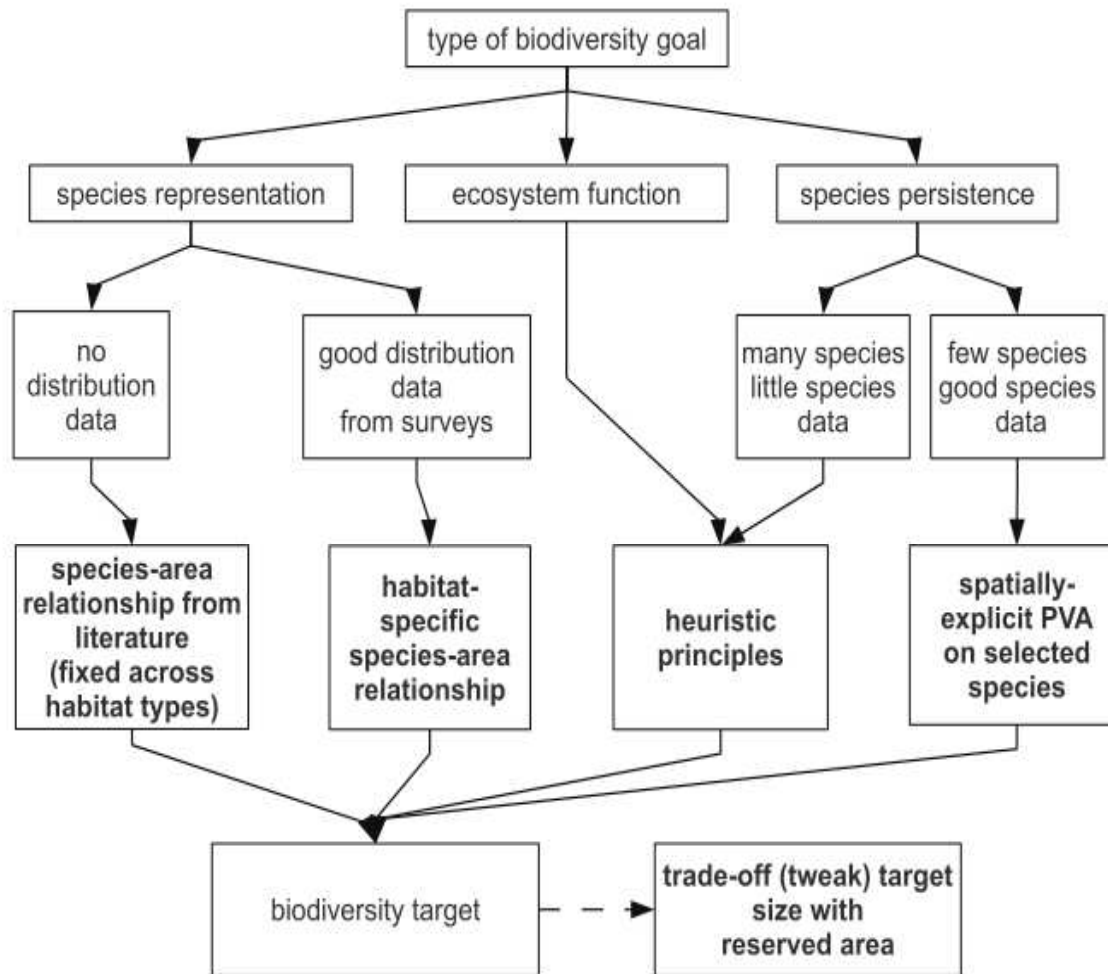
Fig. 2. Decision tree for choosing a method for the definition of percentage area targets for habitat types. In most cases the method chosen should be a combination of these methods that meets a complex biodiversity goal (e.g. representation and persistence of biodiversity). The dotted line represents an optional step.

Designing
a Geography
of Hope

A Practitioner's Handbook to Ecoregional Conservation Planning

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