Translating the Aichi Biodiversity Targets into National Targets – a quick overview

David Duthie, CBD Secretariat

Muscat, Oman, 27th August 2012

Convention on Biological Diversity

Japan Biodiversity Fund
生物多様性日本基金

Why Set 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.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

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.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Setting national targets

A set 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 **ambitious** – go beyond business as usual (BAU); not limited to existing resources;
- be **realistic** (credibility for biodiversity planning);
- **time bound**
- be intricately tied to the NBSAP;
- be developed using a participatory, multi-stakeholder process;
- need not be identical to the ABTs but should be “mapable”.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

SMART Global Target Setting

Wood, L. (2012) **Global Marine Protection Targets: How S.M.A.R.T are They?**. Environmental Management, 2011 vol. 47 (4) pp. 525-535
http://www.springerlink.com/index/10.1007/s00267-011-9668-6

Three targets adopted in the past ten years were assessed using the SMART (Specific, Measurable, Achievable, Realistic, and Timebound) framework. This assessment showed that the targets appear to have evolved to have become 'SMARTer' over time, particularly more Specific.

Three broad issues emerged:

(i) that SMART target formulation, implementation, monitoring, and revision, is critically underpinned by relevant data and information;

(ii) that perceived irrelevance of global targets may be at least partly due to a mismatch between the scale at which the targets were intended to operate, and the scale at which they have been assessed; and

(iii) the primary role/value of global-scale targets may indeed be psychological rather than ecological.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

How SMART are global targets?

Table 1 Table summarising the scope, numerical targets, and deadlines for three

Target name	Date Adopted	Deadline	Numerical target (%)	Target pertains to:	Original target text, and additional notes
World Summit on Sustainable Development	2002	2012	–	Global ocean	Section IV, paragraph 32(c): "the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks by 2012" (United Nations, 2002)
World Parks Congress	2004	2012	20–30	Global ocean	Recommendation 5.22: "Establish by 2012 a global system of effectively managed, representative networks of marine and coastal protected areas….. these networks should be extensive and include strictly protected areas that amount to at least 20-30% of each habitat" (IUCN 2003)
Convention on Biological Diversity[a]					
Seventh Conference of the Parties (COP7)	2004	2021	–	Areas under national jurisdiction	Decision VII/28 (Goal 1.1 Target): "By 2010, terrestrially 6/ and 2012 in the marine area, a global network of comprehensive, representative and effectively managed national and regional protected area system is established…"
Eighth Conference of the Parties (COP8)	2006	2012[b]	10		Suggested activity 1.1.1 of the Parties under this target was to "By 2006, establish suitable time-bound and measurable national and regional level protected area targets and indicators." (CBD 2007)
Tenth Conference of the Parties (COP10)	2010	2020	10		Decision VIII/15: "at least 10% of each of the world's ecological regions [including marine and coastal be] effectively conserved [by 2012]" (CBD 2006)
					Decision X/2 (Target 11): "By 2020, at least … 10 per cent of coastal and marine areas…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." (CBD 2010)

[a] A marine protection target was first adopted in 2006 at COP8. This was revised in October 2010 at COP10; however, due to slow progress in achieving the target adopted at COP8, the target remained unchanged aside from the deadline being extended. At the time of writing, no l b t d id h t b bli h d t f th i f SMART t f th 2010 t t A h t f h SMART th

How SMART are global targets?

Table 2 Summary of the extent to which global marine protection targets could be considered SMART

Target name	Specific				Measurable		Achievable	Realistic	Time-bound
	Definition of MPA	Representative features	Network characteristics	Management effectiveness	Quantitative	Information available			
World Summit on Sustainable Development	○	○	○	○	○	–	○	○	●
World Parks Congress	○	●	○	○	◖	◖	○	○	●
Convention on Biological Diversity									
Eighth Conference of the Parties (COP8)	◖	●	○	○	●	◖	○	○	●
Tenth Conference of the Parties (COP10)	◖	●	○	○	●	◖	◖	◖	●

Open circles no, *half circles* partially, *full circles* yes. Target. Further explanation is provided in the text

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.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

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.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

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*"

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

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

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

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

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Target 11

Guiding questions for setting national targets:

- 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

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.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

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/

Conservation Target Setting

SVANCARA, L. et al (2005) **Policy-driven versus Evidence- based Conservation: A Review of Political Targets and Biological Needs**. BioScience, 2005 vol. 55 (11) pp. 989-995

"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.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Conservation Target Setting

Desmet P. and R Cowling (2004) **Using the species–area relationship to set baseline targets for conservation**. Ecology and Society, 2004 vol. 9 (2) p. art11http://www.ecologyandsociety.org/vol9/iss2/art11/print.pdf

This paper demonstrates how the power form of the Species–Area Relationship (SAR) can be used to set conservation targets for land classes using biodiversity survey data.

The SAR predicts that for most Succulent Karoo vegetation types a conservation target of 10% of the land area would not be sufficient to conserve the majority of species. We also demonstrate that not all land classes are equal from a plant biodiversity perspective, so **applying one target to all land classes in a region will lead to significant gaps and inefficiencies** in any reserve network based on this universal target.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Conservation Target Setting

$$S' = A'^{z}.$$

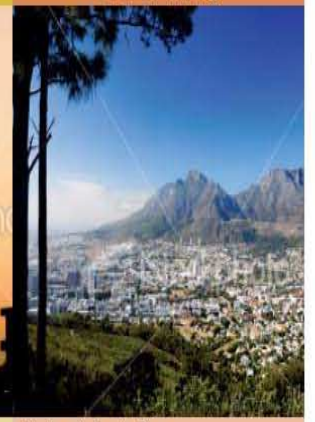
$$A' = \sqrt[z]{S'} \quad \text{or} \quad \text{Log}\, A' = \text{Log}\, S'/z\,.$$

$$z = (y_2 - y_1)/(x_2 - x_1)\,.$$

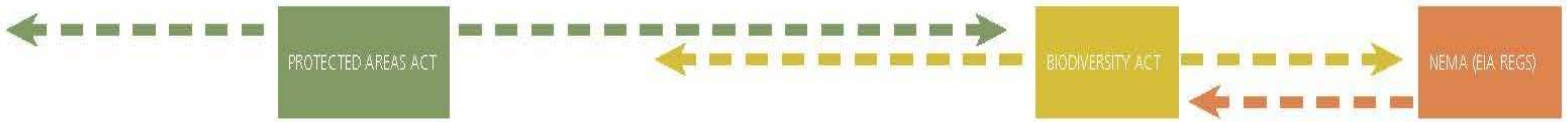
Convention on Biological Diversity

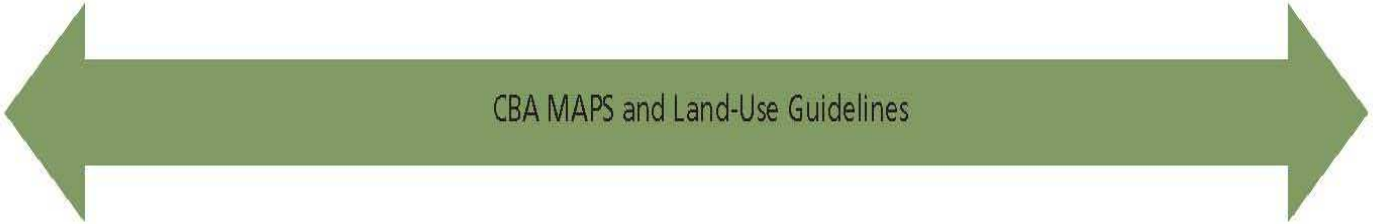
Japan Biodiversity Fund 生物多様性日本基金

Landscape approach - mosaic of land uses

TYPE OF LANDSCAPE	PROTECTED LANDSCAPES		PRODUCTION LANDSCAPES		DEVELOPED LANDSCAPES
Type of land	State-owned and managed Protected areas (mostly natural/wild land) e.g. National Park	Mostly natural land of high biodiversity importance privately or communally owned and managed through partnerships e.g. Private Nature Reserve	Largely natural land with elements of biodiversity importance and low-impact production areas e.g. grazing	Land largely modified for intensive production e.g. commercial crops	Lightly to heavily modified landscapes with fragments of important biodiversity
Strategy for conserving biodiversity	Formal protected areas		Biodiversity Stewardship Best-practice production		Land-Use Planning and Decision Making
					 
Our main biodiversity management tools	Proclaimed protected areas Protected Area management plans Protected Area Expansion Strategy	Biodiversity Stewardship Agreements (Statutory) Management plans	Biodiversity Stewardship agreements (contract law and informal) Management plans Industry best-practice production guidelines	Best-practice production guidelines and resource for well managed farms	Biodiversity Sector Plans CBAs incorporated into spatial development frameworks Ecosystem guidelines for environmental assessment

Key legislation





Conservation Target Setting

- "the best way to predict a more uncertain future is to have the inventiveness and reflexivity to create it . . . visioning is about thinking in the future tense, appreciating that in a period of rapid and profound change it is less viable to deduce from the experienced present than to trace back from an imagined future"

- this scenario- approach is often theoretically located within the concept of 'backcasting', where desirable futures are defined and described and subsequently worked ''backwards through time to identify retrospectively the various elements needed to bring that future about''

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Conservation Target Setting

Bailey, R. et al (2012) **Exploring a city's potential low carbon futures using Delphi methods: some preliminary findings.** Journal of Environmental Planning and Management. Journal of Environmental Planning and Management, 2012 pp. 1-25.
URL: http://dx.doi.org/10.1080/09640568.2011.635192

This paper describes a Delphi methodology to generate a number of broadly consensual low carbon scenarios for 2050. This approach to “creating” the future, rather than predicting, is useful when dealing with profound and uncertain change over a long period of time and is therefore suited to carbon management. The methodology is described, and the first stage of the consultation process is discussed with reference to its application in the UK city region of Bristol. Findings from the first round have resulted in the identification of seven working scenarios and patterns in the responses of individuals from different backgrounds, suggesting that strong world-views and agendas are present within groups. Subsequent rounds of a questionnaire and a backcasting workshop will refine these working scenarios and identify pathways to achieve them.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Conservation Target Setting

The Delphi method

•is ‘‘a type of brainstorming used for scenario building’’.

•Originated in the 1950s from the RAND Corporation and ‘‘established itself as one of the standard techniques to accumulate, to pool, and to appraise expert opinions’’.

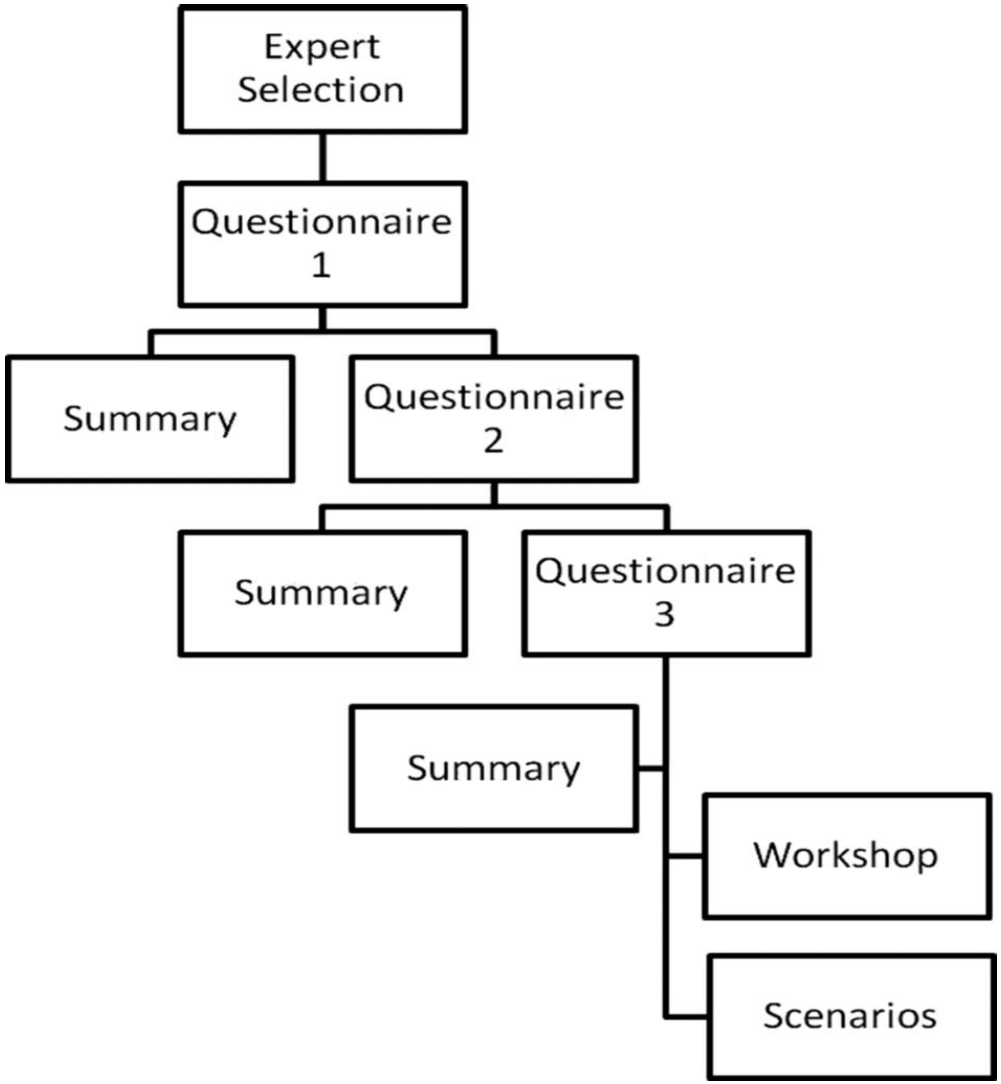
•Delphi studies seek to obtain an expert panel estimation of probable futures on a topic that has many interpretations and is relatively unknown in scientific terms.

•An **iterative**, **remote**, consultative process, using a group of ‘experts’, where subsequent rounds of consultation are conducted in light of the group’s answers to the first, with the aim of achieving convergence on a consensus.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

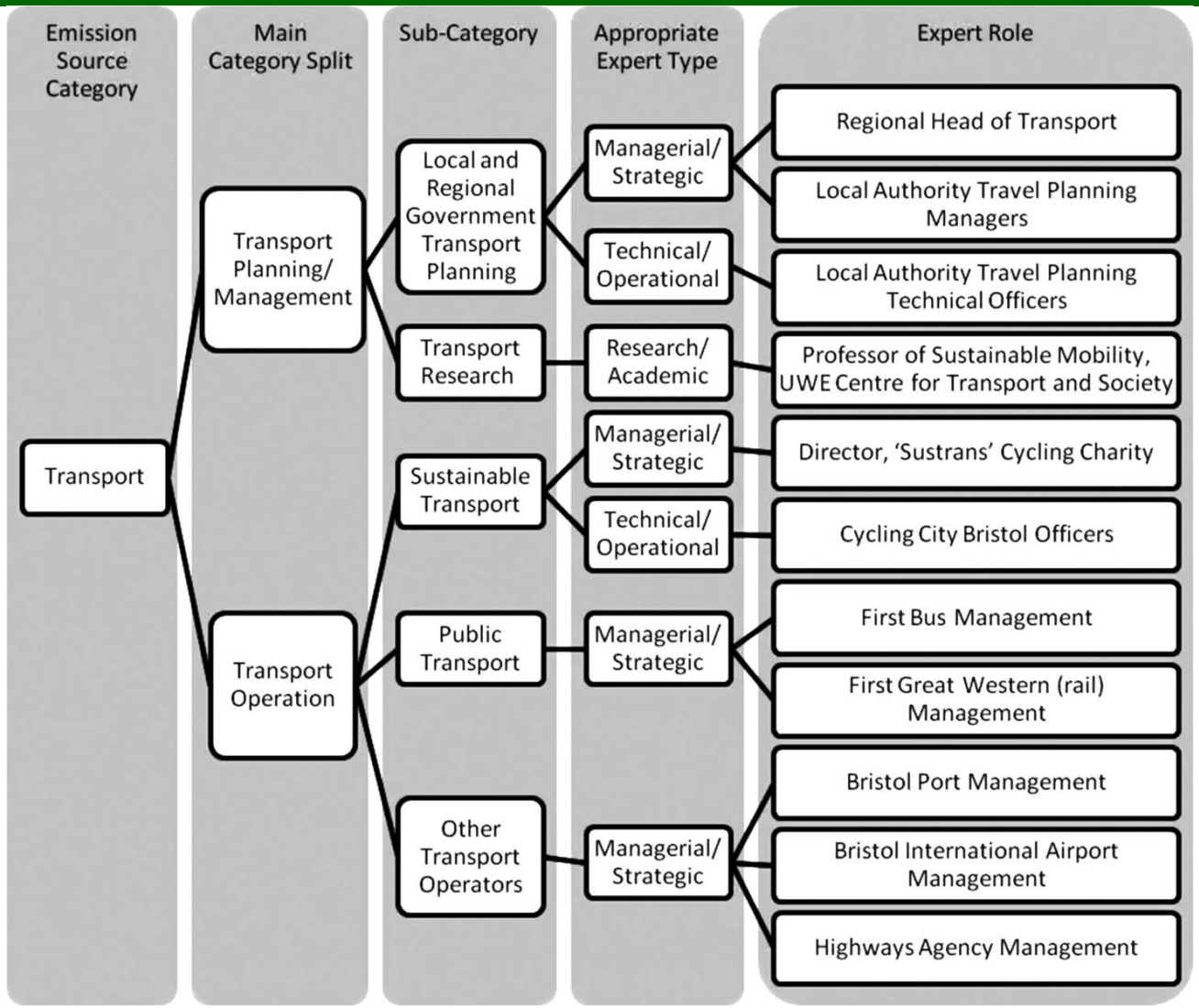
The Delphi technique



Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Conservation Target Setting



Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Group Exercise 2: Setting SMART targets

Specific	*relating to your country*
Measurable	*quantifiable*
Ambitious	*not just business as usual*
Realistic	*achievable!*
Time-bound	*by when?*

Convention on Biological Diversity

Japan Biodiversity Fund
生物多様性日本基金

Setting SMART targets

Work on select Goals of the Strategic Plan:

Table 1: Goal A – underlying causes
Table 2: Goal B – direct drivers
Table 3: Goal C – habitat conservation
Table 4: Goal D – benefits
Table 5: Goal E – enabling conditions

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Setting SMART targets

1. Select one country on each table to have a target set;

2. The rest of the table are consultants contracted to develop a SMART target;

1. Consultants interview the country to:

    - identify a problem that needs to be addressed to achieve the Strategic Goal;
    - identify the questions and answers needed to develop a SMART target; and
    - propose a draft target.

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金

Convention on
Biological Diversity

Setting SMART targets

The chosen countries from each table move to a new table:

Assess how SMART the Target is;

1) Show how your target contributes to reaching the respective Aichi Goal/Target;

2) Critically comment on the SMART-ness (what you like, what you would change);

3) Which tools/indicators will you need to measure the targets?

Convention on Biological Diversity

Japan Biodiversity Fund
生物多様性日本基金

Setting SMART targets

Record some lessons learnt:

- What are the major difficulties in setting SMART targets?
- What lessons learned from this group exercise that can be used „back home“?

Convention on Biological Diversity

Japan Biodiversity Fund 生物多様性日本基金