

Cities and Biodiversity

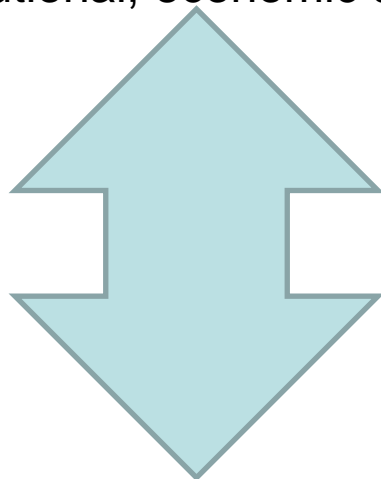
BiodiverCIDADE - Como considerar a biodiversidade na gestão do meio urbano?



Linking Global and Local

PROBLEMS (Global):

- **Cities and climate change:** cities are affected by and coping with climate change
- **Cities and Biodiversity:** urbanization processes compete with ecosystems, looking at the institutional, economic and social dimensions



SOLUTIONS (Local):

- **Local governance:** local governance structures emerge and change, and how they affect the environment and development
- **Old problems, new agendas for implementation:** global environmental policy implementation more effective at the local level by integrating with other policies

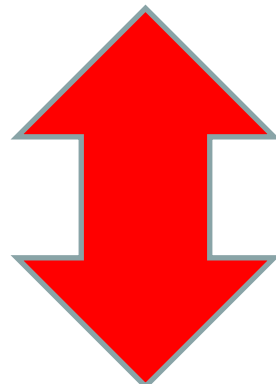




Bridging Theory and Practice

THEORY (THINKING)

- Input: Get the best from the multi-disciplinary literature to have a strong analytical ground and inputs from the cutting edge science, as well as traditional knowledge



PRACTICE (ACTING):

- Input: Be well informed about global and local policy processes to get the cutting edge knowledge from practice to link to and feed in the theory
- Output: Produce practical results to local and international processes based on the cutting edge theories and ideas



The World Today

- Human population growing (2011 ~ 7 bi, 1911 ~ 1.75 bi)
- More than half-of the world population live in cities
- The trend will continue in the next decades



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Urban Challenges

- Rapid urban growth in LDCs (population+economy)
- Need economic opportunities for local population
- Local /Regional environmental problems (e.g., air pollution)
- Global issues (e.g., climate change, biodiversity).
Mitigation/adaptation



Cities, economy and environment

- Cities occupy just ~2-3% of surface
- The economic activities located in cities account for approximately 55% of GNP in least developed countries, 73% in middle income countries, and 85% in the most developed countries
- 75% of the global economic production takes place in cities
- 67% of total global energy consumption
- More than 70% of greenhouse gas emissions
- Challenges, but opportunities as cities concentrate



Scale of Cities' Impacts

- **Local** (within the city)
- **Regional** (in the immediate boundaries of the city)
- **Global** (in far away places).



Convention on
Biological Diversity



Biodiversity



2010 国际生物多样性年



2010 International Year of Biodiversity

生物多样性就是生命
生物多样性就是我们的生命

Biodiversity is life
Biodiversity is our life



United Nations
Decade on Biodiversity
2011-2020



Global Partnership on Local and Sub-national Actions for Biodiversity

UNITED NATIONS

- UNEP/SCBD, as a coordinator
- United Nations Educational, Scientific and Cultural Organization ([UNESCO](#))
- United Nations Environment Programme ([UNEP](#))
- United Nations Human Settlements Programme ([UN-HABITAT](#))
- United Nations University Institute of Advanced Studies (UNU-IAS)

NON-GOVERNMENTAL ORGANIZATIONS

- World Conservation Union (IUCN)
- [ICLEI](#) - Local Governments for Sustainability

- STEERING COMMITTEE (cities and biodiversity)
- City of Curitiba, Brazil
- City of Montreal, Canada
- City of Bonn, Germany
- City of Nagoya, Japan
- City of Singapore, Singapore



United Nations
Decade on Biodiversity
2011-2020

- Local Authorities and Biodiversity site of SCBD for information about the policy process at CBD: <http://www.cbd.int/authorities/>



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Challenges and Opportunities

- Convergence between urban planning and biological conservation paradigms
- Lack of tools or understanding on what biodiversity and cities mean

Decision X/22



CBD



**Convention on
Biological Diversity**

Distr.
GENERAL

UNEP/CBD/COP/DEC/X/22
29 October 2010

ORIGINAL: ENGLISH

CONFERENCE OF THE PARTIES TO THE
CONVENTION ON BIOLOGICAL DIVERSITY

Tenth meeting

Nagoya, Japan, 18-29 October 2010

Agenda items 2.3 and 7

**DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION
ON BIOLOGICAL DIVERSITY AT ITS TENTH MEETING**

X/22. *Plan of Action on Subnational Governments, Cities and Other Local
Authorities for Biodiversity¹*

Cities and Biodiversity

- Explore a research agenda in the area
- Developed a Policy Report with a multidisciplinary team
- Think about tools to link cities and biodiversity

UNU-IAS Policy Report

Cities, Biodiversity and Governance: Perspectives and Challenges of the Implementation of the Convention on Biological Diversity at the City Level



Biological Conservation 144 (2011) 1302–1313

Contents lists available at ScienceDirect

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ELSEVIER

REVIEW

Cities and biodiversity: Perspectives and governance challenges for implementing the convention on biological diversity (CBD) at the city level

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Urban biodiversity

ABSTRACT

City governments are fundamental to implement international environmental agreements, such as the convention on biological diversity (CBD). Even though many of them are not directly involved in the negotiation of international agreements, which are signed by national governments, most of those agreements are in fact implemented at the city level. The importance of city governance to tackle the challenges of biodiversity loss has increased as urban population has grown enormously in the last decades, particularly in developing countries. The way cities are designed, planned and governed influences the magnitude of their direct and indirect impacts on biodiversity. This paper analyses the relationship between cities, local governance and biodiversity. Initially, we examine the relationships between cities and biodiversity by looking at the major influences cities have on biodiversity loss or conservation within and outside the city boundaries, as well as the benefits of biodiversity conservation to cities, such as the provision of ecosystem services. The paper then moves to understand what are the main urban processes and governance mechanisms that can be improved to make cities effective to implement the directives of the CBD. Urbanization creates new challenges for biodiversity conservation. As a large part of the world's population moves from rural to urban areas, there are changes in the link between human activities and biodiversity, and consequently to the way we should think biodiversity conservation policies. However, scarce attention has been given to understand how to make cities more biodiversity friendly, both within the urban fabric, but particularly in faraway places.




United Nations
Decade on Biodiversity
2011-2020



- The Convention
- Cartagena Protocol
- Nagoya Protocol
- Programmes
- Mechanisms
- Information
- Secretaria

LOCAL AUTHORITIES

- About
- Getting involved
- Global Partnership on Cities and Biodiversity
- 2011-2020 CBD Plan of Action on Cities, Local Authorities and Biodiversity
- The Singapore Index on Cities' Biodiversity (CBI)
- Local Action for Biodiversity (LAB)
- Important Events and Activities
- Case studies
- Information resources
- Calendar of Events
- Photo Gallery

 > [Information](#) > [Major Groups](#) > [Local Authorities](#)

Local Authorities and Biodiversity

The Plan of Action was endorsed at COP 10!

On 29 October 2010, the Plan of Action on Sub-national Governments, Cities, and other Local Authorities for Biodiversity was endorsed, and decision X/22 including the Plan was adopted by 193 CBD Parties at COP 10. The Plan calls for capacity building and dissemination of best practices and for an "assessment of the links and opportunities between urbanization and biodiversity based on the third edition of the Global Biodiversity Outlook" to be produced by 2012, and aims at providing national governments with opportunities to work together with sub-national governments, cities, and other local authorities on biodiversity strategies and action plans. Please have a look at [Decision X/22 and its annex The Plan of Action on Sub-National Governments, Cities and Other Local Authorities on Biodiversity](#).

City Biodiversity Summit 2010

October 24 - 26, 2010

Venue : Nagoya City, Aichi Prefecture, Japan



The City Biodiversity Summit 2010 was held concurrently with the Conference of the Parties to the Convention on Biological Diversity from October 24 to 26 of 2010. Local authorities gathered to exchange information of biodiversity-related issues in their respective communities and best practices for sustainable development.



Convention on Biological Diversity

CONFERENCE OF THE PARTIES TO THE
CONVENTION ON BIOLOGICAL DIVERSITY
Eleventh meeting
Hyderabad, India, 8-19 October 2012

LBSAP Guidelines

Local Biodiversity Strategies and Action Plans (LBSAP)

GUIDELINES |



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What is an LBSAP?

- A Local Biodiversity Strategy and Action Plan (LBSAP) is a guiding strategy, complemented by specific actions to achieve that strategy, to ensure optimal and realistic management of a local authority's biodiversity, ecosystems and ecosystem services.
- ALBSAP can be a stand-alone document, but should detail steps for integrating biodiversity and ecosystem considerations into broader city plans and ensuring that they become cross-cutting themes taken up by all line functions because the work of all line functions is affected by, and impacts on, biodiversity and ecosystems.

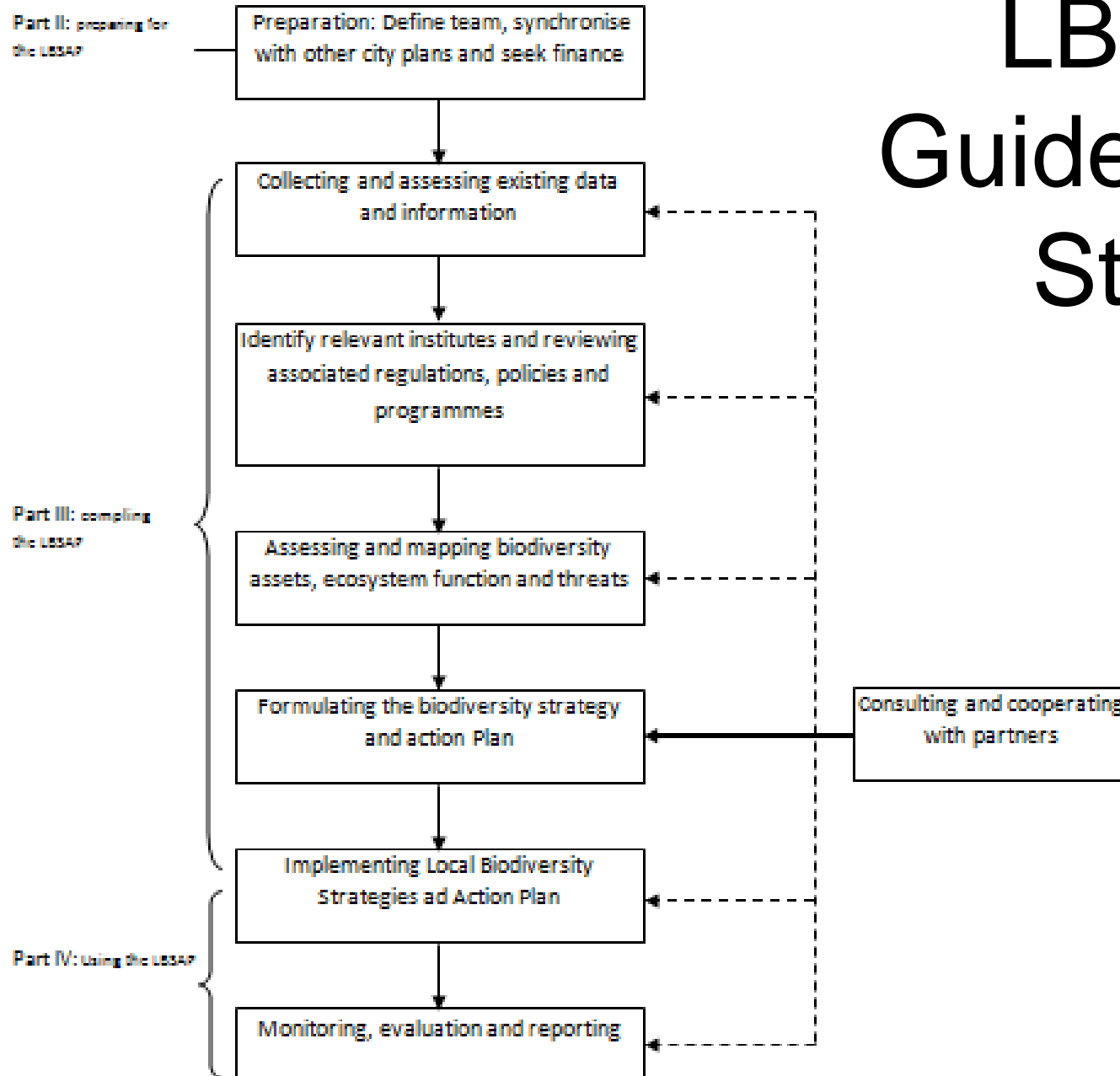


BS and BA

- A **biodiversity strategy** is an overarching vision of what will ideally be achieved in terms of biodiversity, including a statement of principles, clearly defined priorities and defined short, medium and long-term goals, as well as a set of targets to help guide implementation.
- A **biodiversity action plan** identifies priority actions and clearly outlines how these will be implemented, by whom, by when, and using what resources.

LBSAP

Guide: Basic Steps





Some tools used for assessment in the LBSAPs

- CBI - the City Biodiversity Index:
<http://www.cbd.int/authorities/gettinginvolved/cbi.shtml>
- TEEB - The Economics of Ecosystems and Biodiversity. 2011. TEEB Manual for Cities: Ecosystem Services in Urban Management: www.teebweb.org



Strategy

- Firstly, the local strategy needs to join efforts with other initiatives related to biodiversity at the different levels to get maximum synergy among the efforts, such as the Aichi Targets and NBSAPs.
- Secondly, it should be based on the proper assessment of the local biodiversity using the assessment tools that map the conditions of the biodiversity and ecosystem services locally, such as the CBI and TEEB.
- Thirdly, in order to be effective, the strategy should focus on changing on-going development processes that can affect positively or negatively the biodiversity.
- Finally, the strategy should reflect a vision to contain the main threats to biodiversity locally and the opportunities to improve biodiversity overall.



Aichi Strategic Goals

- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use
- Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
- Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services
- Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

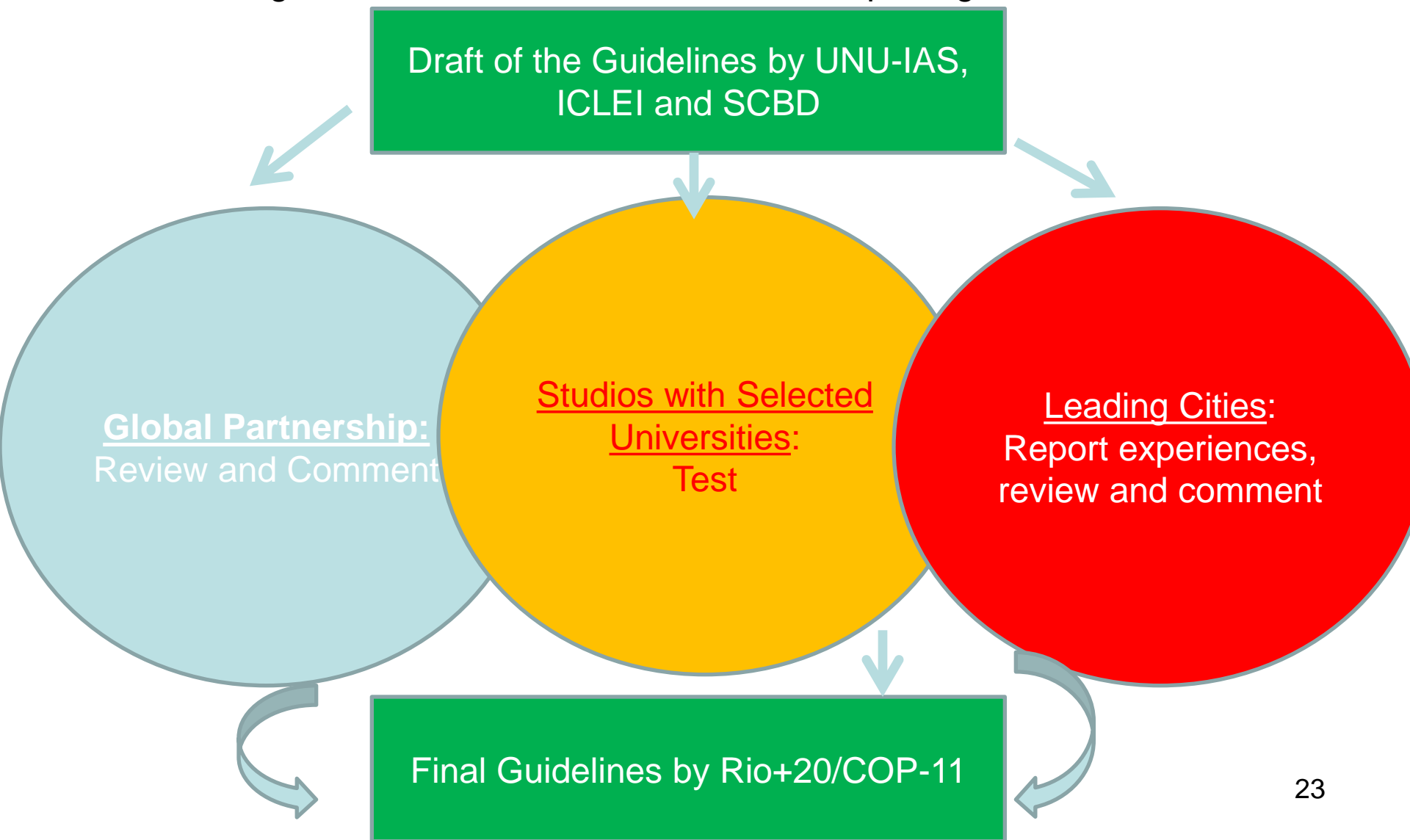


Actions and Review

- Once the strategy (directions) are defined, a plan of actions should be developed to increase the likelihood that the targets in the strategy will be achieved
- Process of reviewing and revising strategy and actions (PDCA)

Policy-oriented Tool: Local Biodiversity Strategy and Action Plans (LBSAPs)

SUF is working with SBCD and ICLEI-LAB to develop the guidelines for LBSAPs



Studios



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Local Biodiversity Strategies and Action Plan (LBSAP)

STUDIO GENERAL GUIDELINES FOR TESTING LBSAPs

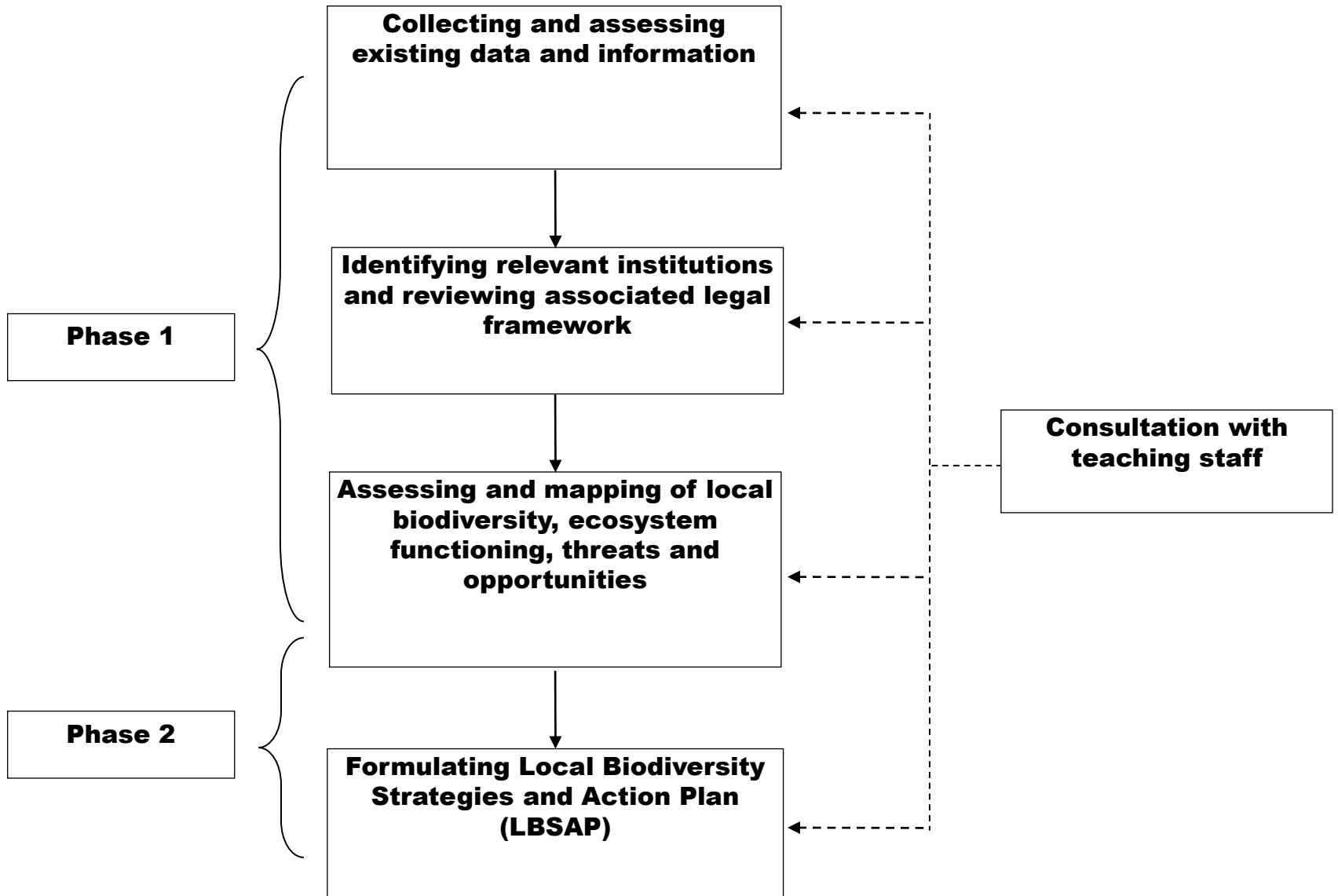


Aims of the Studio Exercise:

- 1) To carry out an exercise of developing a Local Biodiversity Strategies and Action Plan (LBSAP) for a specific local context based on the guidance in the LBSAP guideline.
- 2) To evaluate the explicitness and validity of the guidelines, and the process described in the LBSAP guideline.

Organizers and Teaching Staff

- Studio exercises should be carried out under the supervision and guidance of a group of experts so as to ensure multi- and inter-disciplinary knowledge and teaching environment throughout the entire process. Ideally, the teaching staff should include experts from a range of disciplines and backgrounds, such as biology, ecology, geology, urban planning, architecture and landscape architecture.




Studios



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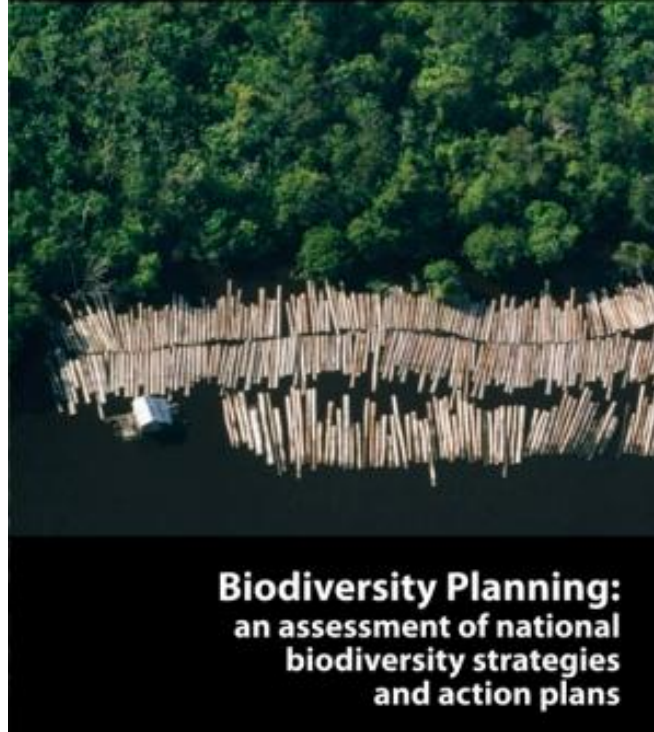
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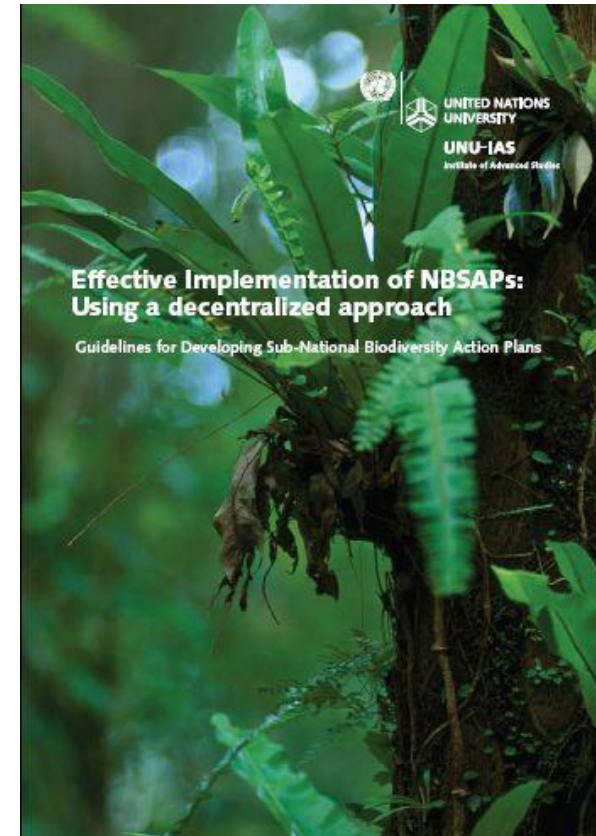
Cities, Biodiversity and Governance:
Perspectives and Challenges of the
Implementation of the Convention on
Biological Diversity at the City Level



Biodiversity Planning:
an assessment of national
biodiversity strategies
and action plans

Effective Implementation of NBSAPs:
Using a decentralized approach

Guidelines for Developing Sub-National Biodiversity Action Plans

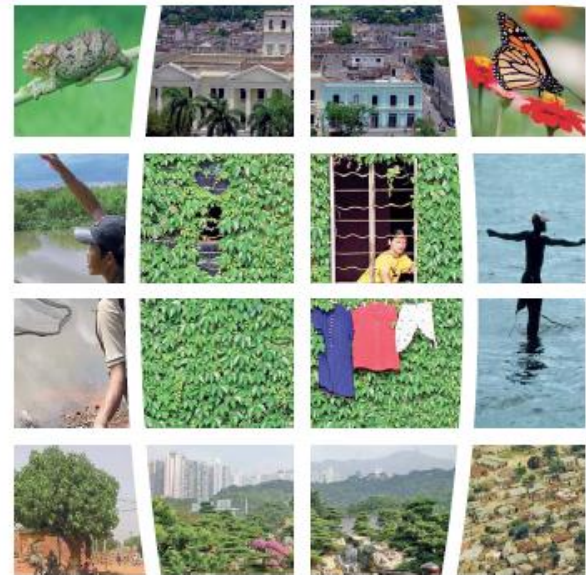


Downloadable from www.ias.unu.edu

Publications SCBD, ICLEI, Habitat



ICLEI-LAB, Local Action for Biodiversity Guidebook



Academic Publications



Review

Cities and biodiversity: Perspectives and governance challenges for implementing the convention on biological diversity (CBD) at the city level

J.A. Puppim de Oliveira^{a,*}, O. Balaban^a, C.N.H. Doll^{a,b}, R. Moreno-Peñaranda^a, A. Gasparatos^{a,c}, D. Iossifova^{a,d}, A. Suwa^a

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Environment and Planning A 2011, volume 43, pages 1894–1909

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Why an air pollution achiever lags on climate policy? The case of local policy implementation in Mie, Japan

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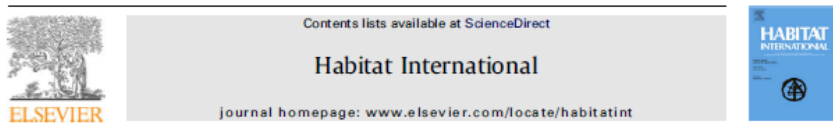
Biodiversity

ABSTRACT

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Habitat International 33 (2009) 253–259

we



The implementation of climate change related policies at the subnational level: An analysis of three countries

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ABSTRACT

The objective of this article is to analyze the implementation of climate change related policies by subnational governments in 3 countries: Japan (Mie Prefecture), Germany (Saxony-Anhalt) and Brazil (Sao Paulo). Through an empirical research, the article develops the 3 cases to understand the achievements and obstacles to implement mitigation and adaptation policies. The cases provide an interesting sample, including countries that range from a developed country more pro-active in environmental international negotiations (Germany) to a more conservative developed country (Japan) and a developing country (Brazil).

The results have pointed that, as compared to adaptation, mitigation policies (such as energy conservation) have a much longer implementation history and government support at the subnational level, especially in more progressive governments, but adaptation policies have gained space in the policy agenda in the context of the increasing public interest in the implementation of climate change related policies.

Keywords:

Climate change

Mitigation

Adaptation

Subnational government

Implementation

Germany

Japan

Brazil

Saxony-Anhalt

Mie

Sao Paulo

Abstract. Many localities that are politically committed to tackling the causes and consequences of climate change have faced obstacles in getting results, even though they were successful in implementing other environmental policies in the past. What makes implementation of climate policy different from other local environmental policies, such as air pollution control? This paper makes a comparison between the implementation of two environmental policies in Mie Prefecture in Japan. The first was the successful reduction in local air pollution (1960s–70s). The second was the more recent

UNU-IAS Policy Report

**Governance Challenges for Greening
the Urban Economy: Understanding and
Assessing the Links between Governance
and Green Economy in Cities**

