

# Curitiba Meeting on Cities and Biodiversity: Achieving the 2010 Target

## Areas of Collaboration

### Challenges

- Pressures: Urbanization, encroachment, illegal settlements, urban economic development, loss of habitat;
- Socio-economic challenges: poverty, lack of human and financial resources, illegal deforestation and hunting, lack of knowledge, protected areas are without economic value;
- Local challenges: Standardized landscaping, aged and outdated infrastructure, waste discharge, pollution of water bodies;
- Global environmental threats: Climate change, invasive species.

### Lessons learned and solutions

- Solutions lie within cities themselves;
- You cannot have a healthy society without protection of biodiversity;
- Communities directly depend on ecosystems;
- It's much cheaper to preserve ecosystems than paying for end-of-pipe technologies or recreating habitats and ecosystems later;
- Every city can change within 3 years – financial resources or level of development are no impediment;
- Correlation between ecological integrity and viability.

What we need:	How we can get there:
Political leadership	<ul style="list-style-type: none"> <li>▪ Identify champions in cities for each term of office;</li> <li>▪ Perseverance.</li> </ul>
Vision for the city	<ul style="list-style-type: none"> <li>▪ Public participation;</li> <li>▪ Sustainable use of natural resources.</li> </ul>
Sensitive spacial planning	<ul style="list-style-type: none"> <li>▪ Planning in favour of undeveloped areas;</li> <li>▪ Integration of biodiversity into urban plans;</li> <li>▪ Biodiversity treated as a platform infrastructure just like transport etc.;</li> <li>▪ Increase green spaces, forests and protected areas in a way that is compatible with city development and growth;</li> <li>▪ Create green corridors or systems of city-wide interconnected green spaces to promote species migration.</li> </ul>
Implementation tools for management of urban biodiversity	<ul style="list-style-type: none"> <li>▪ Environmental impact assessments of development projects;</li> <li>▪ Monitoring: by involving local communities (river pollution assessment kits distributed to schools);</li> <li>▪ Communication with land owners;</li> <li>▪ Establish the economic value of open space system;</li> <li>▪ Land acquisition by municipality;</li> <li>▪ Breeding programmes for endangered species;</li> <li>▪ Bring biodiversity closer to people and people into biodiversity;</li> <li>▪ Build living places through introduction of biodiversity;</li> <li>▪ Urban legal reserve which limits human interventions such as tree felling;</li> <li>▪ Tree planting: establish a target per inhabitant (trees have shown to provide oxygen for 4 persons and an 8°C difference has been recorded between green areas and “concrete” areas);</li> <li>▪ No cutting of branches allowed in birds’ nesting season;</li> </ul>

	<ul style="list-style-type: none"> <li>▪ List of invasive species and monitoring of alien species.</li> </ul>
Create strategic partnerships	<ul style="list-style-type: none"> <li>▪ With local communities;</li> <li>▪ National and provincial governments;</li> <li>▪ With other cities (nationally and globally), e.g. City Friends of the the Amazon;</li> <li>▪ Private sector (“What is good for communities is also good for business”);</li> <li>▪ NGOs;</li> <li>▪ Donor agencies;</li> <li>▪ Other departments of the same city.</li> </ul>
Fundraising	<ul style="list-style-type: none"> <li>▪ Local authorities develop a project and propose it to private sector for implementation.</li> </ul>
Participatory approach and community involvement	<ul style="list-style-type: none"> <li>▪ Early negotiation with communities supported by assessments;</li> <li>▪ Clear goals that can be met;</li> <li>▪ Manage rehabilitated areas with communities that formerly occupied them;</li> <li>▪ Constant contact with communities through social and health workers;</li> <li>▪ Give people viable alternatives and meet local needs (provide new housing, nursery for medicinal plants used by traditional healers);</li> <li>▪ Getting land owners to “adopt a tree” outside their porperty - can reduce vandalism by 80%.</li> </ul>
Create benefits for poor communities	<ul style="list-style-type: none"> <li>▪ Job creation in biodiversity management;</li> <li>▪ Make fruits of policies visible to citizens, planning needs to contribute to well-being.</li> </ul>
Awareness raising and education	<ul style="list-style-type: none"> <li>▪ Consumer awareness and campaigns on products from far-away ecosystems, promoting fair trade (e.g. Amazon);</li> <li>▪ Campaigns on local organic farming;</li> <li>▪ Promoting sustainable lifestyles;</li> <li>▪ Botanical gardens have evolved to become interactive: it is no longer sufficient to simply see/observe;</li> <li>▪ Public fairs, lectures, excursions, free environmental university, eco-bus, eco-library, environmental village;</li> <li>▪ Educate children to change future consumption habits;</li> <li>▪ Establish a target for environmental education: 10% of children population = number of environmental education days;</li> <li>▪ Environment and health programmes;</li> <li>▪ Children fish invasive fish species;</li> <li>▪ River pollution assessment kits distributed to schools, visualization of results;</li> <li>▪ “Plant Life” (tree planting of indigenous species for citizens who sign an agreement of responsibility).</li> </ul>
Legislation	<ul style="list-style-type: none"> <li>▪ Integrated environmental management policies;</li> <li>▪ Integrated programmes across city boundaries (e.g. with provinial governments);</li> <li>▪ Green by-laws;</li> <li>▪ Enforcement mechanisms through decentralization of power, giving legislative authority to municipalities;</li> <li>▪ Energy adaptation policies and strategies in favour of biodiversity, e.g. 2% mix of biofuels as city by-law.</li> <li>▪ Green procurement.</li> </ul>
Compliance through incentives	<ul style="list-style-type: none"> <li>▪ Get developers to cooperate with sustainable policies by</li> </ul>

	<p>giving tax incentives: no tax/rates payable where land is used for biodiversity;</p> <ul style="list-style-type: none"> <li>▪ Incentives for land owners to protect biodiversity: “servitudes”;</li> <li>▪ “Offsetting policy” or “no net loss policy” where developers are given development rights on inner city sites instead of biodiversity-sensitive sites.</li> </ul>
Compliance through penalties	<ul style="list-style-type: none"> <li>▪ Municipal environmental police;</li> <li>▪ 24 hour green telephone where citizens can report environmental aggressions;</li> <li>▪ Developers have to “off-set” environmental impact by financing green strips/parks along highways or paying compensation, replacing felled trees;</li> <li>▪ Monitoring systems.</li> </ul>
Locally adapted technologies	<ul style="list-style-type: none"> <li>▪ “Bio Lung” (green wall that absorbs CO2 emissions and avoids heat island effect);</li> <li>▪ Integrated horticulture programmes to reduce use of pesticides;</li> <li>▪ Use of species as “green tools”, e.g. as noise barriers, erosion control, decontamination and carbon sinks.</li> </ul>
Sector examples:	<ul style="list-style-type: none"> <li>▪ Transform waste into economic assets, food for waste programmes;</li> <li>▪ Engage in carbon trading around landfills for methane reduction;</li> <li>▪ Bus Rapid Transport Systems: quicker, cheaper, easier to implement. Future lies in integration of transport systems, systems must not compete. Five compromises: 1. Less use of cars; 2. Separate waste; 3. Mixed use (bring living and working closer together); 4. Sustainability equation is spending – savings; 5. Reoccupy city centres.</li> </ul>

## Areas of Collaboration

- a) Information exchange and dialogue: Use positive success stories and share experiences nationally (through city associations) and globally (through partnerships).
- b) Promoting cooperation: City-to-city cooperation; project partnerships between cities; partnership of global research centers linked together to share info; rally multiple parties around 2010 target.
- c) Strengthening of local-national dialogue: Use institutionalized mechanisms with legislative and normative power.
- d) Support to local action: Development of tools to integrate biodiversity into city planning.
- e) Promotion of research and development of up-to-date data in cooperation with universities.
- f) Training and capacity building of stakeholders and environmental education.
- g) Commit to global environmental goals and action.
- h) Create political capital at local level through a global partnership and global visibility.