National Consultation Meeting for Creating a Scientific Advisory Mechanism Regarding Policy Decisions on the Scope of the Convention on Biological Diversity and the Brazilian Government

Final Report

Organization
Ministry of the Environment
Ministry of Science and Technology

Brazil

Brasília
January 2008

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National Consultation Process

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Introduction

Science strives to broaden our knowledge about the surrounding world, as well as to solve practical problems faced by society (Shrader-Frechette & McCoy 1993). However, the agent of these two actions is not always the same. The person making decisions is frequently in charge of solving problems and as such, in a scientific culture, is the main person responsible for translating science into decisions. The success of this relationship is readily measured through the fact that numerous common practices of the modern world result from science developments. Drori et al. (2003), for example, demonstrated science's success in problem-solving and its consequent globalization, a process now reaching a point where knowledge produced by a given country is almost imperceptibly absorbed by others.

In general, this successful record seems to suggest that communication between scientists and decision-makers is problem-free, but this is hardly the case. For instance, while Brazil is placed among the 20 nations responsible for the greatest scientific impact in biodiversity-related subjects (e.g., Ecology and Environment, Botany and Zoology), the country still faces serious environmental problems related to deforestation and greenhouse gas emissions (Scarano 2007).

Such problems also occur at the global level. To deal with them, the French government took the initiative to create an international advisory panel, the IMoSEB (International Mechanism of Scientific Expertise on Biodiversity), to establish a continuous consultation process among scientists and those in charge of making political decisions.

With the creation of IMoSEB as a model, the Ministry of the Environment and the Ministry of Science and Technology took the initiative of gathering representatives from academia to promote national discussions, with the purpose of strengthening the relationship among government, decision-makers, and the science sector, which are all responsible for producing information. This meeting had the purpose of creating a mechanism to obtain advice from the research sector for developing the Brazilian stand point related to policy decisions concerning biological diversity and, therefore, also to provide scientific advice to the Convention on Biological Diversity (CBD). The directives established by this Convention and the decisions arising from each Conference of the Parties have become indispensable tools for the development of public policies by the Brazilian government.

The communication problems among scientific community and decision-makers are frequently attributed to three fundamental differences in the nature of the work developed by both agents concerning: (i) priorities (e.g., Franck 1999); (ii) the different time scale of actions developed by each agent (e.g., Briggs 2006); and (iii) the different languages used (e.g., Briggs 2006). In general, the results of this meeting are clearly associated to these three considerable differences among scientists and decision-makers.

Methodology

This consultation occurred on November 21 and 22, 2007, in a workshop gathering 45 participants representing 33 academic and/or managing institutions (Appendix I). Participants heard introductory presentations (Appendix II), after which three working groups were formed to discuss two sets of four questions each (Appendix III), related to the Brazilian national level and the international level. Questions related to the national level guided debates on: (1) obstacles to communication between government and scientific community (from this point forward SC); (2) necessary measures to improve communication; (3) mechanisms to implement these measures; and (4) how to mobilize the SC around this purpose. Questions related to the international level focused: (1) obstacles to communication between CBD's SBSTTA (Subsidiary Body on Scientific, Technical and Technological Advice) and the SC, particularly the Brazilian SC; (2) necessary measures to improve communication; (3) mechanisms to involve the SC in the achievement of CBD 2010 targets; (4) models for government-academia dialogue and coordination that are successful under other multilateral environmental conventions; and (5) mechanisms that should be created to improve coordination with SBSTTA.

The three working groups presented their respective results in two plenary sessions, and comments and proposals were consolidated from November 23 to 30, 2007.

Results

Mechanisms at the Brazilian national level

1. Obstacles to communication between government and scientific community

Obstacles to better communication between government and the scientific community (SC) can be classified as one of the following three types: (i) obstacles related to consultation mechanisms; (ii) dialogue obstacles; and (iii) obstacles related to regulatory mechanisms. Before beginning discussion on these three types of obstacles, it should be noted that three structural obstacles permeate all three types: lack of capacity among decision-makers (from this point forward DM), lack of SC capacity to communicate with outsiders, and lack of action continuity both within the SC and among DM due to changes in the national and regional political scenario. Since these three problems affect the consultation, the dialogue, and the regulatory mechanisms they will not be emphasized under the next items below, but will be discussed again under the results section (items 2 and 3), and particularly in the Discussion section.

National Consultation Process

1.1 Obstacles related to consultation

· Low proportion and irregular quality of representatives from academia in deliberative forums: among the various members of councils, working groups, and other deliberative forums, the proportion of representatives from the scientific community is frequently low and disproportionate relative to groups representing other interests.

· Lack of institutional identity among representatives: the absence of debate and other specific policies for this purpose within academic institutions sometimes cause representation in deliberative forums to be more frequently individual than institutional.

· Difference in the fluency of SC communication with the various decision-making agencies: the existing deficient dialogue among decision-making agencies, which will be discussed below, unbalances the fluency of SC communication with these agencies. For example, for a given scientific research purpose requiring that DMs are consulted the researcher will choose to consult with the agency with which the easiest relationship exists, instead of seeking the specific agency with the strongest affinity with the given theme. On the other hand, if the DM needs a scientific opinion for a given action or venture, sometimes the researcher or institution providing the fastest response will be chosen, instead of the most competent researcher or institution for that specific subject.

1.2 Dialogue obstacles

· Poor communication among DMs: several aspects related to biodiversity research and decision-making would require greater information integration and exchange among ministries. This workshop, promoted by a partnership among the Ministry of Science and Technology (MCT) and the Ministry of the Environment (MMA), and with participation of the Ministry of Foreign Affairs (MRE), is already a sign of progress in this respect. The Biodiversity Research Program – PPBio (MCT) is another positive example in this respect, since its Board of Directors is composed by members from MCT (including the National Scientific and Technological Development Council - CNPq and research institutes), the Ministry of Education and Culture - MEC (particularly the Coordination for Professional Improvement of Higher Education Graduates - CAPES), MMA (Brazilian Institute for the Environment and Renewable Natural Resources - IBAMA), and from the Ministry of Agriculture (through the Brazilian Agricultural Research Company - Embrapa). The PPBio Scientific Board was selected based on names indicated by scientific societies.

· Lack of clarity regarding interlocutors: it is not always clear to scientists or DMs who they should be talking with on the other side. Therefore, it is sometimes easier and faster for the DM to seek as scientific interlocutor someone of his/her personal relations than to seek scientific societies or similar organizations. On the other hand, the scientist does not always know who to turn to when seeking support for decision making.

· Precarious access to information for DMs: scientific information, and information on the scientific merit and competence of potential interlocutors, consultants or partners is not always readily available to DMs. For example, environmental analysts based at protected areas have no access to CAPES' journals portal. Yet to resolve this situation, MMA would simply need to request right of access to CAPES. Additionally, aspects related to the scientist/science evaluation process developed by CNPq and CAPES are not sufficiently self-explanatory to allow DMs to make their interlocution choices.

· Lack of familiarity: the SC is unfamiliar with public policies and with the operation of policy decision-making processes.

1.3 Obstacles related to regulatory mechanisms

· Incrimination of research: research is sometimes misunderstood and treated as biopiracy, both by DMs and by traditional communities. For example, IBAMA's requirements for issuing authorizations for scientific research are frequently considered exaggerated or even unreasonable by academia. And the traditional communities sometimes face the researcher as a potential usurper of information, data, and even natural or cultural property. On the other hand, the scientific community greatly mistrusts the government's capacity to develop policies and fulfill agreements.

· Lack of clarity regarding property of data: while incrimination of research results from an excessive number of regulations, there is almost no regulation regarding data property. Data produced by scientists, most of which are civil servants, should be of public domain, even though scientists should have the right to use these data, at least for a period of time. Therefore, scientific institutions should have data policies to clarify, coordinate, and regulate data availability. Data policies developed on strong foundations can ensure DMs' access to good databases and information to assist them in their functions.

· Low or inexistent participation from academia in the preparation of opinions on licensing of ventures and/or research authorizations: these regulatory actions do not operate through ad hoc consultation systems, and as such are not submitted to academia's scrutiny.

2. Measures to improve communication between government and scientific community

2.1 Staff capacity-building

Decision-makers: DMs need training to understand science and, particularly, to know where to find quality science and practitioners to consult with them, and thus improve quality of decision-making processes. Scientists: scientists need training to do science and to communicate science among themselves, to DMs, and to the general public. The scientist's language is not always the same as the DM's and also not the same language used by the general public. Therefore, sometimes scientists face difficulties to translate generated knowledge into something understandable and applicable to someone outside academia.

2.2 Ensuring continuity of scientific and decision-making actions

· Changes in the national and regional political scenario do not ensure continuity of these actions. Changing this culture and practice is a necessary measure.

2.3 Improving consultation mechanisms

· The proportion and quality of representatives from academia need to be increased in deliberative forums, ensuring proper institutional representation and less individual representation.

2.4 Improving dialogue

· Government-government: communication must be implemented among the various governmental agencies directly or indirectly related to biodiversity.

· Government-academia: the number of possible interlocutors from both sides should perhaps be reduced to decrease noise and increase communication quality.

2.5 Improving the regulatory process

· Reverse the incrimination of research by revising regulatory mechanisms related to biodiversity research, and involving the interested researcher in the process to assess requests for research authorization.

· Create data policies in agencies that promote and/or manage biodiversity and environmental research to ensure the availability of data and information resulting from scientific research in an information network.

3. Mechanisms to implement measures to improve communication between government and scientific community

3.1 Capacity-building

· Build DM capacity through professional post-graduation-level courses on biomes and actions (management plans for protected areas, species conservation plans, etc.). For that it would be necessary, for example, to publish a call for proposals to select one professional post-graduation course per biome. This action could be implemented in partnership with MMA-CAPES.

· Create courses on scientific communication and introduction to public policies within post-graduation courses and programs, to train post-graduates on communication among peers, with decision-makers, and with the general public. CAPES' Ecology and Environment subject already requires this theme to be included in its courses. This practice could be fostered under other subjects related to biodiversity.

3.2 Continuity

· This may be the hardest of all items, since it implies significant cultural and political changes. The proposal for a National Biodiversity Scientific Research Program, with long-term funding ensured by governmental partners (MMA; Ministry of Agriculture, Livestock and Supply – MAPA; MCT; MEC; etc), could facilitate this process. This program could follow the PPBio model, creating minimum standards for collecting biodiversity data for various purposes: basic and applied research, preparation of Environmental Impact Studies and Reports, etc.

3.3 Consultation

· Request to agencies responsible for biodiversity and environmental councils, working groups, and working commissions a better and more proportional representation from academia in these forums.

· Create permanent committees coordinated by SBPC, and obtain from the ministries the commitment to use the created committees.

3.4 Dialogue

· Create mechanisms to digitalize and make scientific information available to DMs, to ensure support for the analysis of ad hoc opinions.

· Prepare summaries of available information through CNPq, CAPES, and the Research Support Foundation - FAP.

· Cross-index publications of scientific societies in the Scielo Biodiversity portal and

in the Information Sciences Institute (ISI), and add individual publications, theses, and technical reports to the virtual library.

· Request to the relevant parties that activities directed at improving the interaction between science and decision-makers are accounted towards the evaluation of scientific merit and bonuses. Such actions are already incorporated to the evaluation of post-graduation courses carried out by CAPES, as the "Social Insertion" requisite.

3.5 Regulatory mechanisms

· There was a division of opinions on this theme among participants. While some defend that environmental regulatory agencies should issue research authorizations to institutions (based on criteria such as reputation, etc.) and not to individuals, others propose that these agencies should deal directly with the researcher.

· However, there are three forms of dealing directly with the researcher: (a) the request for authorization submitted by the scientist would be jointly evaluated by the various involved agencies, and with the ad hoc participation of other representatives from academia; (b) once the request for research authorization was received by the environmental regulatory agency, ad hoc support from CNPq would be requested to evaluate the scientific merit of the request; and (c) communication between science and decision-makers would be centralized by CNPq: for example, the researcher would submit a request to CNPq for evaluation of its scientific merit and, once approved, CNPq itself would submit the request to the environmental agency for verification of its legal aspects.

· Use existing mechanisms within CNPq/MCT related to ethical aspects, scientific information, etc.

· Create an Ethics in Environmental and Biodiversity Research Commission, analogous to the Health Ethics Commission.

· Follow recommendations of the Brazilian Society for the Progress of Science (SBPC) working group on the preparation of the original document of the Normative Ruling on Collection.

· Recall the CAT SISBIO discussions and results.

4. Mobilization of the scientific community

4.1 Information

· Make available, e.g. through the Virtual Biodiversity Library (BV), a cadastre of people and institutions developing biodiversity-related activities.

· Provide incentives to the production of summaries. MMA's "Biodiversity" series is a good example of this. The publication by CAPES, CNPq, MMA, etc. of calls for papers to promote this type of production would be very helpful.

· Cross-index publications from scientific societies in the Scielo Biodiversity portal and in ISI, and add individual publications, theses, and technical reports to the Virtual Library (the BV resulted from a demand expressed by MMA, Bireme, and Memoria Naturalis Association).

· MMA patronage program, complementary to the CAPES/CNPq program, to support electronic or printed scientific journals on biodiversity, as well as other publications (books, information dissemination, etc.).

4.2 Communication

· Promote contact with social professionals and scientists to discuss impacts, biodiversity, potential opportunities, etc.

· Call a multi-partner symposium, gathering the SC, DMs, businesses, third sector, and educators to discuss ways and means for actions directed at the conservation of biodiversity in the country.

· Provide incentives to scientific societies, ensuring continuity.

Mechanisms at the global level

5. Obstacles to communication between scientific community and CBD's SBSTTA

· Lack of participation of the Brazilian academia in the generation of resource information for the country's representation in the SBSTTA. The mechanisms for consulting academia are limited and precarious.

· Absence of academia representatives in international forums, technical chambers, and advisory committees.

· Need to institutionalize the indication of representatives.

· Need of adequate profile of representatives (for example, use of the English language).

6. Measures to improve communication between SBSTTA (CDB) and the scientific community

· Increase the number of academia representatives in international forums, technical chambers, and advisory committees.

· Institutionalize the indication of representatives through consultation with scientific societies (e.g., SBPC, Brazilian Sciences Academy - ABC), which would be strengthened by this process.

· Define interlocutors.

· Connect the national structure to the international structure.

· Re-establish SBPC's international network.

7. Mechanisms to implement the recommended measures

· Implementation of the Biome Virtual Library and creation of an expert network, through consultation with scientific societies, to be electronically accessed by committees and the ministries (see 4.1).

· Permanent consultation with academia (promote a consultation on the themes of the next COP) through workshops and consultation with the expert network through BV.

· Strengthening of the information databases to support the committees' work and to provide resource information to the general public.

· Creation of an "internal SBSTTA" under the National Biodiversity Commission - CONABIO.

· Name SBPC and ABC interlocutors of the scientific community to dialogue with the government, creating permanent thematic committees within them, with the responsibility to produce technical-scientific documents related to themes that are essential to decision-making. Obtain the commitment of involved ministries and other environmental agencies

to use the created committees. This mechanism could draw on the AAAS (American Association of the Advance of Science) as a model.

· The ministries and other involved governmental agencies should ensure funding to an executive secretariat, quarterly meetings, publication of documents, and eventual consulting work to prepare specific documents.

8. Mobilization of the scientific community

· Institutionalization of the process to consult with academia through strengthening scientific societies, specifically the SBPC.

· No explicit suggestion to mobilize the scientific community resulted from group discussions. However, it is expected that some of the measures proposed at the national level may be applicable to the global level.

Discussion

The problems identified in the workshop affecting communication between scientists and decision-makers, and related to environmental themes in Brazil, are commonly identified in literature as present in various countries and various thematic areas. To improve communication between these two parties, various mechanisms were suggested. Problems and proposed solutions were mostly related to differences between scientists and decision-makers regarding their priorities, time-scale of actions, and language.

Priority differences

The establishment of priorities within any line of action is strongly related to the subject's motivation. It was recently proposed that personal, institutional, and even patriotic motivations lay behind biodiversity-related scientific production in Brazil (Scarano 2008). However, literature on motivation for scientific production strongly emphasizes the role of personal, individualistic motivations (Brenner 1998, Franck 1999, Grace 2007). How personal motivation can lead to the production of something as collective as knowledge is what interests authors such as Merton (1973) and Franck (1999), who agree that the "collective intelligence" is a product of competition for attention among scientists, which is stimulated through a typically academic system of reward and punishment. Under this viewpoint, if a gradient from strictly individual to broadly collective is pictured, it is expected that the scientist's priorities are established predominantly based on his/her individuality, while the actions of the decision-maker, under the assumption of all basic ethical correction principles, are expected to be strongly based on collective interests. The value of the two types of activities is not under consideration here; rather, it is simply observed that this difference of priorities presents difficulties for communication.

Differences in the time-scale of actions

Additionally, there is a difference in the time-scale of actions from both parties. While the person making a decision on a given subject is working on a hurried time-scale of minutes, hours or days, the scientist may work on that same subject for years, decades, or even throughout an entire career (Briggs 2006). In summary, science takes time while decision-making is immediate. This scenario is worsened by the fact that current science, characterized by some as post-modern science (Appignanesi 2002), recognizes that it deals with a high degree of imprecision, despite all scientific rigor. Sardar (2002) summarizes well this dilemma when affirming that science currently faces a post-normal phase where "facts are imprecise, values are disputed, interests are high, and decisions are urgent". This statement is particularly correct regarding biodiversity-related sciences (e.g., Shrivastava & Vellend 2005, Botkin et al. 2007, and Scarano 2007). Thus, environmental degradation and biodiversity loss currently occur at unprecedented rate in Brazil and in the world, and science is sometimes unable of even knowing what was lost (Lewinsohn & Prado 2002, 2006). Under this scenario, it is not surprising that environmental decision-making is sometimes disastrous.

Language and cultural differences

In addition to the obvious differences between the scientist's language and the DM's language, the cultures in which both are immersed are also profoundly different. The scientist belongs to a culture of debate and criticism, while the DM or politician works in a culture of specious agreements (Briggs 2006). Therefore, it is necessary to promote a cultural approach between these two parties, allowing communication to reach understanding. For example, Latour & Woolgar (1979) detail the routine of a scientist and show that scientific activity is inserted in, and is affected by, a strong sociological and economic context. This may surprise an outsider to academia, who tends to see scientists as people wrapped in an aura of purism and alienation.

Understanding the scientists' routine and aspirations will be essential for the decision-maker to communicate with them. On the other hand, efforts from the scientists will be needed to understand the DMs' expectations and obligations.

Final considerations

For biodiversity-related science to effectively provide resource information to decision-making related to environmental and biodiversity policies in Brazil, scientists and decision-makers will need to improve communication. This requires greater sophistication of consultation and information mechanisms, the clear definition of interlocutors, and a broad revision of the processes regulating scientific environmental research. Demands at the global level are similar.

Scientists and decision-makers in Brazil lack capacity to communicate and understand each other. This situation can be reverted at two different time scales. At the present scale, through thematic meetings involving both parties (such as the one reported in this document), training managers through professional post-graduate-level courses (e.g. Scarano & Oliveira 2005), and training young researchers through courses directed at scientific communication and introduction to public policies within graduate and post-graduate academic courses. And at the future scale, beginning now to form young professionals who will be able to move well from knowledge production to decision-making with no language, prejudice, or chauvinism barriers. At the global scale, this capacity will be particularly important. The Intergovernmental Panel on Climate Change (IPCC) example demonstrates that, if on one hand science can be effectively communicated to the general public and to decision-makers, on the other hand different decision-makers and different countries may use the same science communicated in different formats (Pielke Jr. 2002).

NOTE: During this event, Ione Egler, representative of the Ministry of Science and Technology, announced the new action plan of this Ministry, which includes Biodiversity among priority themes. The full text of the relevant documents can be obtained at http://www.mct.gov.br/index.php/content/view/66226.html. (Click on "Prioridade Estratégica III - Pesquisa, Desenvolvimento e Inovação em Áreas Estratégicas" – *Strategic Priority III – Research, Development and Innovation in Strategic Areas.)*

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Appendix I. Table with the list of participants and respective affiliations

1 Maria Cecília Wey de Brito - Secretária de Biodiversidade e Florestas Ministério do Meio Ambiente (Secretary of Biodiversity and Forests, Ministry of the Environment)

2 Bráulio Ferreira de Souza Dias - Ministério do Meio Ambiente (Ministry of the Environment)

3 Ione Egler - Ministério de Ciências e Tecnologia (Ministry of Science and Technology)

4 Fernando Coimbra - Ministério das Relações Exteriores (Ministry of Foreign Affairs)

5 Herbert Schubart - Ministério de Ciências e Tecnologia (Ministry of Science and Technology)

6 Celeste Emerik - Ministério do Meio Ambiente Departamento do Patrimônio Genético (Ministry of the Environment, Department of Genetic Heritage)

7 Mauro Amaral - Ministério do Meio Ambiente Departamento do Patrimônio Genético (Ministry of the Environment, Department of Genetic Heritage)

8 Carla Lemos - Ministério do Meio Ambiente Departamento do Patrimônio Genético (Ministry of the Environment, Department of Genetic Heritage)

9 Ana Paula Prates - Ministério do Meio Ambiente Núcleo da Zona Costeira e Marinha (Ministry of the Environment, Coastal and Marine Zone Nucleus)

10 Marina Landeiro - Ministério do Meio Ambiente Departamento de Conservação da Biodiversidade (Ministry of the Environment, Department of Biodiversity Conservation)

11 Ionaí Ossami de Moura - Ministério do Meio Ambiente Núcleo do Cerrado (Ministry of the Environment, Cerrado Nucleus)

12 Joana Galinkin - Instituto Chico Mendes de Conservação da Biodiversidade (Chico Mendes Institute for Biodiversity Conservation)

13 Adriana Carvalhal Fonseca - Instituto Chico Mendes de Conservação da Biodiversidade (Chico Mendes Institute for Biodiversity Conservation)

14 Caren Cristina Dalmolin - Instituto Chico Mendes de Conservação da Biodiversidade (Chico Mendes Institute for Biodiversity Conservation)

15 Maria José Sampaio - Empresa Brasileira de Pesquisa Agropecuária - Embrapa (Brazilian Agricultural Research Corporation)

16 Sergio Alex Kugland Azevedo - Museu Nacional – RJ (Rio de Janeiro National Museum)

17 Hussam El Dine Zaher - Museu de Zoologia – USP (São Paulo Zoology Museum)

18 David Oren - Museu Goeldi – PA (Emílio Goeldi Museum of Pará)

19 William Ernest Magnusson - Instituto Nacional de Pesquisas da Amazônia - INPA (National Amazon Research Institute)

20 Luiza Chomenko - Fundação ZooBotânica – RS (ZooBotânica Foundation)

21 Fabio Rubio Scarano - Instituto de Pesquisas Jardim Botânico do Rio de Janeiro – JBRJ (Research Institute of the Rio de Janeiro Botanical Garden)

22 Gustavo Martinelli - Instituto de Pesquisas Jardim Botânico do Rio de Janeiro – JBRJ (Research Institute of the Rio de Janeiro Botanical Garden)

23 Rejan Guedes Bruni - Instituto de Pesquisas Jardim Botânico do Rio de Janeiro – JBRJ (Research Institute of the Rio de Janeiro Botanical Garden)

24 Mauro Lambert Ribeiro - Instituto Brasileiro de Geografia e Estatística - IBGE (Brazilian Geography and Statistics Institute)

25 Tânia Sampaio Pereira - Rede Brasileira de Jardins Botânicos (Brazilian Network of Botanical Gardens)

26 Sidinéia Aparecida Amadio - Secretaria de Ciência e Tecnologia do Amazonas – SECT (Amazonas State Secretariat of Science and Technology)

27 Maria Olívia de Albuquerque Ribeiro Simão - Fundação para o Amparo a Pesquisa do Amazonas – FAPEAM (Amazonas State Research Support Foundation)

28 Alice Rangel de Paiva Abreu - International Council for Science - ICSU

29 Miguel Guerra Sociedade Brasileira para o Progresso da Ciência – SBPC (Brazilian Society for the Progress of Science)

30 Nanuza Luiza de Menezes - Associação Brasileira de Ciências – ABC (Brazilian Sciences Association)

31 Hélio César Salgado - Federação da Sociedades de Biologia Experimental- FESBE (Federation of Experimental Biology Societies)

32 Fátima Moreira - Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq (National Scientific and Technological Development Council)

33 Iury de Almeida Accordi - Sociedade Brasileira de Ornitologia (Brazilian Ornithological Society)

34 Paulo Gunter Windisch - Sociedade de Botânica do Brasil (Brazilian Botanical Society)

35 Ademar Romeiro - Sociedade de Economia Ecológica (Ecological Economy Society)

36 Claudio José Barros de Carvalho - Sociedade Brasileira de Entomologia (Brazilian Entomological Society)

37 Fabrício Rodrigues dos Santos - Sociedade Brasileira de Genética (Brazilian Genetics Society)

38 Marina Baquerizo Martinez - Sociedade Brasileira de Microbiologia (Brazilian Microbiology Society)

39 Magno Segalla - Sociedade Brasileira de Herpetologia (Brazilian Herpetological Society)

40 Walter Antonio Pereira Boeger - Sociedade Brasileira de Zoologia (Brazilian Zoology Society)

41 Gilberto Gonçalves Rodrigues - Sociedade Brasileira de Limnologia (Brazilian Limnology Society)

42 Roberto Warlich - Associação Brasileira de Oceanografia (Brazilian Oceanographical Society)

43 Paul Little - Associação Brasileira de Antropologia (Brazilian Anthropological Society)

44 Carlos A. Joly - Universidade Estadual de Campinas (Campinas State University)

45 Maria José Carneiro - Universidade Federal Rural do Rio de Janeiro (Rio de Janeiro Rural Federal University)

Secretariado da Reunião (Meeting Secretariat) - MMA

Felipe Diniz

Andreina D'Ayala Valva

Hugo José Lopes Guimarães

Appendix II. Schedule of the event

I- STRUCTURE OF THE MEETING
Organizers: Ministry of the Environment and Ministry of Science and Technology
Venue and date : Ministry of the Environment – Cultura Auditorium - Térreo -Esplanada dos Ministérios - Bloco B - Brasília – November 21 and 22, 2007
Objective of the meeting: To obtain advice from the scientific community for the preparation of Brazilian stand points related to scientific consultation and evaluation mechanisms to advise the Convention on Biological Diversity
Expected outputs:
1st output – Options of mechanisms for the CBD
2nd output – Options of mechanisms for consulting academia to support policy decision-making in the federal government
Confirmed institutions: INPA; Goeldi Museum; National Museum; ABC; SBPC; CNPq; Zoology, Entomology, Ornithological, Botanical, Ecological Economy, Herpetology, Microbiology, Oceanography, Limnology, Anthropological, and Genetics Societies; FESBE; Embrapa; JBRJ; Brazilian Network of Botanical Gardens; Zoobotânica Foundation (RS); Chico Mendes Institute; International Council for Science (ICSU); CONABIO; SECt-AM; Fapeam; USP Zoology Museum; UNICAMP; UFRRJ; MRE Environment Department; MMA Secretariat of Biodiversity and Forests; and MCT.
Number of participants: 45 people.

II – PROGRAM
1st day – Morning – 10:00 am
- Introductory presentations
Themes: SBSTTA/CBB Mechanisms - Bráulio Dias (MMA)
IMOSEB Mechanism – Carlos Joly
Biodiversity Research Program - PPBio – Ione Egler - (MCT)
MMA Mechanisms – Maria Cecília Wey de Brito (MMA)
Scielo Biodiversidade Mechanisms – Hussam Zaher (USP)
- Presentation of guidance to the working groups.
Afternoon – 2:00 pm
- Organization of participants in working groups (Mixed groups with one reporter and one coordinator) for a brainstorm on consultation mechanisms.
- Plenary session to detail ideas from the previous discussion
2nd day – Morning – 9:00 am
· Plenary session to detail ideas of the previous discussion
Afternoon – 2:00 pm
· Organization of participants in working groups to prioritize the detailed ideas
Afternoon – 4:00 pm
· Plenary session to present the results of the National Consultation
1st output – Options of mechanisms for the CBD
2nd output – Options of mechanisms for consultations with academia to support policy decision-making in the federal government

Appendix III. List of the nine questions guiding discussions within the three working groups

Mechanisms at the Brazilian national level:

1. What are the main obstacles to better coordination between the Brazilian federal government, particularly the Ministry of the Environment and the Ministry of Science and Technology, and the Brazilian scientific community for the purpose of providing scientific support to the decision-making processes related to national public policies and the definition of the stand of Brazilian delegations to international negotiation forums on biodiversity?

2. What measures would be necessary to improve coordination between the federal government, particularly the Ministry of the Environment and the Ministry of Science and Technology, and the Brazilian scientific community for the purpose of providing scientific support to the decision-making processes related to national public policies and the definition of the stand of Brazilian delegations to international negotiation forums on biodiversity?

3. What type(s) of mechanism(s) should be created or strengthened to broaden and facilitate better coordination between the federal government, particularly the Ministry of the Environment and the Ministry of Science and Technology, and the Brazilian scientific community for strengthening the development and implementation of public policies related to biodiversity, particularly the implementation of the National Biodiversity Policy – PNB and the country's commitments under the Convention on Biological Diversity? [Please detail your proposal indicating the legal nature, institutional connection, operational structure, composition/members, jurisdiction, types of expected products, operation, use of consultation and peer review processes, use of information technologies, etc.]

4. What type(s) of mechanism(s) should be created or strengthened to propitiate the mobilization of the Brazilian scientific community for the periodic preparation of national or biome assessments of the status and trends of biodiversity components and associated environmental services, effectiveness of measures adopted by public policies for biodiversity conservation and sustainable use, as well as the development of prospective modeling to evaluate potential impacts on Brazilian biodiversity caused by different alternatives of public policies and public investment programs? [Please detail your proposal indicating the legal nature, institutional connection, operational structure, composition/members, jurisdiction, types of expected products, operation, use of consultation and peer review processes, use of information technologies, use of molecular technologies, use of remote sensing technologies, use of indicators, etc.]

Mechanisms at the global level (CBD):

5. What are the main obstacles to better coordination between the Convention on Biological Diversity's SBSTTA and the international scientific community, particularly that of developing countries, for the purpose of providing scientific support to the decision-making processes on global and national policies under the CBD?

6. What measures would be necessary for better coordination between the CBD's SBSTTA and the international scientific community, particular that of developing countries, for the purpose of providing scientific support to decision-making processes on global and national public policies under the CBD?

7. How to better involve the international scientific community, particular the scientific community of developing countries (universities, research institutions, scientific societies, think tanks, among others), in the implementation of programs of work and 2010 global targets under the Convention on Biological Diversity?

8. Which government-academia coordination models have been successful under other multilateral environmental conventions, with significant impacts on the improvement of the development and implementation of public policies? [Please identify the reasons for the success of this/these mechanism(s) and characterize its/their operation.]

9.What type(s) of mechanism(s) should be created or strengthened to broaden and facilitate better coordination between CBD's SBSTTA and the international scientific community, particularly that of developing countries, to support the preparation of policy decisions and implementation of programs of work under the Convention on Biological Diversity? [Please detail your proposal indicating the legal nature, institutional connection, operational structure, composition/members, jurisdiction, types of expected products, operation, use of consultation and peer review processes, use of information technologies, etc.]

Appendix