

International Group of
Funding Agencies for
Global Change Research

IGFA

Meeting Report No. 6

Vancouver, Canada
September 28-30, 1994

The International Group of Funding Agencies for Global Change Research (IGFA) is an informal group of representatives of agencies and ministries of 21 countries and the EU, responsible for the funding of global change research. The purpose of the Group is to facilitate international global change research in the natural, social and economic sciences by bringing the perspective of these national funding agencies to strategic planning and implementation of such research.

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Executive Summary of the IGFA Meeting

The following summarizes the major conclusions of and actions taken by IGFA at its Meeting, September 28-30, 1994, in Vancouver.

I. Opening of the Meeting

1. The Meeting was opened on Wednesday, 28 September 1994, at the Harborside Campus of the Simon Fraser University in Vancouver by Dr. Robert Corell, IGFA Chair. Dr. Corell introduced Dr Lynn Penrod, President of the Social Sciences and Human Research Council of Canada, who welcomed the participants. Dr. Penrod noted that interdisciplinary research is essential if we are to successfully address global change, its interaction with humankind, and its impact on policy. Natural sciences are independent of local culture and thus facilitate comparison of data and results across national boundaries. Social sciences are much more closely related to national cultures, thus making international interaction more complex. Global change research is linked to problems of development and it is essential to involve developing countries in such research.

II. Presentation on Canadian Global Change Research Efforts

2. Dr. Alex Chisholm introduced the Canadian Eco-Research Program which had been initiated under the Canadian "Green Plan". Under this Program, fellowships are giving students opportunities that would not otherwise be available under the classic research council mode for supporting research. New chairs generate similar opportunities for universities to enter new areas of research at the institutional level. Continuity of support for new chairs established by this program is assured because the universities are required to pick up the costs of these posts after the initial five-year period and additional funding is being provided from the private sector.

3. Dr. John Pierce stressed the importance of developing an effective peer review process for proposals for interdisciplinary research. He indicated that such a process would have to overcome problems which include: overspecialization and the "disciplinary straight-jacket" of reviewers; the lack of generalists to review interdisciplinary proposals; and the differences in the approaches used in the natural and social sciences, especially the values they assign to "the world view".

4. Drs. Michael Healy and John Robinson discussed the Basin Eco-System Study (BEST) of the Fraser River Basin. The Study is focussing on the sustainability of the lower Fraser River Basin system which is one of the fastest-growing areas in Canada, with a growing population

and economy and a culture, all of which are undergoing profound change. First, it was decided to focus on the inhabited part of the drainage basin, including all of the Vancouver area, even though some of the city is formally outside the Fraser Basin drainage area.

5. The Study is trying to address a number of important issues: what is the system now? what kind of system is desirable thirty or forty years from now? what is feasible, not only in terms of resources, but within appropriate societal and cultural bounds? what kind(s) of new institutions might be needed to achieve identified objectives? In the Study, scientists work regularly with local officials who not only receive the results of the research, but have the opportunity to provide input to its planning. Those involved in the Study are working to make the various user groups aware of the trade-offs they would need to make in order to achieve their long-term objectives. Wide outreach to the community is thus an essential part of the Study.

6. The Study has identified hard issues which require concerted attention and/or action and has brought together experts in the various social sciences. Convergence appears to be underway involving government, industry, and society in developing joint approaches to environment-related studies in the region.

III. The International Geosphere-Biosphere Programme (IGBP)

7. Dr. Chris Rapley, the new Director of the IGBP Secretariat, presented a report on the workplan and budget for the IGBP's centralized activities. The estimated budget for the present year is around \$1.6 million which includes travel support for the next meeting of the Scientific Committee for the IGBP in Canberra; additional regular IGBP meetings; and publication of meeting documents and scientific reports. He reported that approximately 75% of this support comes from the countries participating in the IGBP primarily through efforts of IGBP national committees.

8. Dr. Rapley noted that the target budget for next year is approximately \$2.1 million which includes the full cost of the IGBP Scientific Advisory Committee meeting in Beijing (about \$1 00K), but little in the way of inter-core-project activities. In addition, the IGBP needs about \$1 00-150k to update their computer and communications capabilities. The IGBP Secretariat reported that they had approached computer manufacturers and distributors seeking donations of equipment with some success, but with the result that the office is now equipped with a variety of computers with varying capabilities. The IGBP Secretariat reported that they had requested from IGFA Members additional support for specific IGBP central operations following the IGFA Meeting in Taipei in January of 1994, but almost no additional such funding had been provided.

9. The IGBP core project offices consider they are overloaded with administrative work. It is estimated that each such core project office/staff requires about one-half of an administrative staff person per year, that is, about \$50k per core project and about \$550k overall. It was recalled that the countries participating in IGBP agreed in Taipei to support reasonable core project support costs. However, it was suggested that there is a timelag for developing such support which may explain in part the lack of responses to date for new intra-core-project support.

10. It was suggested that the IGBP appears to have an expected shortfall for the current year of about \$500k. It was noted, however, that some countries are not able to increase their annual contribution to the IGBP by 25% or 30% per year. It was suggested that perhaps the programme is too ambitious.

11. The IGFA member agencies reaffirmed their willingness to support the IGBP core project offices in their countries and requested the IGBP to inform them if such requirements are not being met by individual national funding agencies. IGFA re-confirmed that the current funding schedule, plus about 5% per year to meet inflation pressures, is about the maximum that the present funding agencies can provide. It was further agreed to distribute the request for support for upgrading the IGBP office's computer and communications capabilities to IGFA members. Members also reconfirmed their willingness to consider requests for specific core project needs on an ad hoc basis. However, it was foreseen that it would not be possible to develop an additional \$500K for base support for the IGBP.

IV. The Next IGFA Resource Assessment Survey

12. Dr. Werner Menden introduced plans for the next survey. He noted that the results of the first survey had produced some very important results. It could be concluded that there is not a major difference between the funds allocated for global change research and the total funds requested on an overall basis; however, the funds allocated to the major international programs (i.e., the World Climate Research Programme (WCRP), IGBP and Human Dimensions of Global Environmental Change Programme (HDP) appeared to be only about 10% of the total funds allocated.

13. Dr. Helmut Kuhr reported that the survey will include a request for information on specific projects funds that will permit development of a database for all projects being conducted under the aegis of global change research that would be accessible through a network, in conjunction with the IGBP-Data and Information System (DIS), using Internet. The objective is to use "clever" user-friendly software to handle a relational database. Such new software should facilitate the accounting process but will not make the decisions easier regarding what programs and funding should or should not be included in the survey. The international groups are invited to provide data on projected requirements for the five-year period 1994-

1998. The Working Group will discuss, finalize, and send out a description of the procedure to be used by end of October 1994.

14. Data will be requested in three categories: core research, regional/national research, and relevant research. The first category will include activities within the scientific agendas of the WCRP IGBP and HDP and accepted by these programs or their core projects. The second will include research directly related to these programs. The third will include all other relevant research. Data will be sought for both university and non-university research. Information on capital assets for global change research will be sought in indicative form only, since the data obtained in this area in the first survey were not very usable.

15. Each country will be asked to identify a single point of contact who will be expected to submit the requested data. The collected data will then be sent to the IGBP core project offices with a request that these offices verify whether the projects reported have been identified by the scientists involved as components of the core projects. The process will also result in the core projects being informed of other activities underway that are related to their projects. Finally, the survey is also expected to develop and provide a series of diagrams describing how each country functions with respect to funding of global change research.

16. It was acknowledged that this survey is a very important scientific management tool which requires full cooperation. Making such information available to the community also opens the process and has been very well received in the community. It was suggested that a short training course/workshop be offered for national contact points, especially those not involved in the working group, and that International Council of Scientific Unions (ICSU), IGBP and WCRP be kept informed and possibly invited to participate in the workshop. Consideration should be given to also inviting non-IGFA members, private foundations and industry. It is expected that an intermediate report will be provided at the next meeting in Japan and a full summary at the following meeting.

17. IGFA strongly supported the convening of a workshop to bring together the individuals who will be working on the survey. IGFA stressed the potential value of this activity for IGFA, the major international programs, and the scientific community. All IGFA members were urged to respond fully and on a timely basis to this effort.

V. IGFA Working Group on Data and Observations

18. Mr. David Brown, National Environment Research Council (NERC), distributed a report which summarized activities to date. IGFA recognized the importance of the implications of data collection observing and management systems and policies for the Organisation of Economic Co-operation and Development (OECD) science ministers meeting which may provide a unique opportunity to advance global concerns in this area. The Working Group

was urged to focus on specific issues of importance such as data policy.

VI. The Organisation for Economic Co-operation and Development (OECD) Megascience Forum

19. Dr. John Marks reported that an OECD ministerial conference in September 1995 will address generic issues which follow on from the OECD megascience fora. The megascience forum on global change research resulted in a number of important recommendations relevant to IGFA and the Chair of IGFA thus keeps OECD informed of our activities. Dr. Peter Tindemans, Chair of the OECD Megascience Forum, has asked IGFA to provide input to the ministerial conference from IGFA's perspective and involvement in the only "distributed" international research program addressed by the Megascience Forum. IGFA could report to the meeting on how IGFA is working to respond to the recommendations of the megascience forum.

20. This conference provides the opportunity to involve science ministers, as well as environment ministers, in global change research-related issues. The conference provides the opportunity to convince the science ministers of the value of aligning their national science funding policies to international efforts so that the result of these is greater than the sum of the parts and to sustain effective global change research by safeguarding in their national systems the funds and support systems for global change research. The conference also provides an opportunity to bring to the attention of science ministers the importance of global change research for sustainable development and the recently agreed international conventions, such as the Framework Convention on Climate Change; the importance of global observing systems; and the need for capacity building in interdisciplinary research.

21. It was agreed that IGFA should respond positively to the invitation from Dr. Tindemans. The integrating theme for the response should be the links between global change research and other key issues, such as: the links between global change research and sustainability, monitoring, data management, and capacity building; the new challenges that global change research, as an interdisciplinary cooperative activity, poses for the science community; the very useful role that IGFA plays; and the increasingly important role being played by regional activities such as the Inter-American Institute for Global Change Research (IAI), Asia-Pacific Network for Global Change Research (APN), European Network for Research in Global Change (ENRICH), and Global Change System for Analysis, Research, and Training (START) and mechanisms for assuring continuity of support for them. Dr. John Marks was asked to prepare a response for Dr. Tindemans on this issue with support from Dr. John Stone, Dr. Werner Menden and the IGFA Secretariat.

VII. The Review of the IGBP

22. Dr. Maurits la Riviere, ICSU, reported that the review process has identified the key questions to be asked and that a schedule has been agreed. The evaluation by expert groups is presently underway with first drafts expected to be ready in January of 1995. The IGBP Evaluation Committee has met for the first time; will meet again in April and July 1995. They will then send out the final draft out for approval by mail in July/August to permit distribution of the final report in September 1995. The sponsors' group (including Drs. Menden and Corell) will receive the draft report at an early date, but will be called upon to exercise discretion with regard to the substance of the evaluation. ICSU expressed its appreciation for IGFA's cosponsorship of this effort and the substantial funding provided by IGFA members.

23. The evaluators are participating in meetings of core project scientific steering groups; reviewing articles and other relevant documents; and interviewing scientists participating in the projects. The review will address the interactions and relationships between the core projects and other activities and mechanisms.

VIII. Interaction with Aid Agencies

24. Dr. Roland Fuchs reported that a five-year plan for START is now available. Major accomplishments to date include the establishment of six regional research networks and regional committees for oversight of each of these networks; and five regional offices (no office has yet been set up for Southern Africa). START in the Americas is well underway through the Inter-American Institute for Global Change Research (IAI). START activities in Africa were initiated at a regional workshop in 1992. There are three START programs in Asia: in Temperate East Asia (TEACOM); in South Asia (SASCOM); and in Southeast Asia (SARCS) for which GEF funding has been made available.

25. New directions for START include regional programmes in Oceania and the Arabic States. Countries participating in START envisage a close relationship between global change research and sustainable development and thus START is moving towards addressing sustainable development issues and capacity building.

26. Although a reasonable amount of core funding has been provided, START has not able to build the core staff originally envisaged and some original tasks have yet to be completed. IGFA members were invited to consider secondment of staff to the START Secretariat. Improved coordination is needed between START and national programs and scientific committees for global change research programs. Finally, for START to move from the planning stage to implementation requires a major increase in resources which has not yet been forthcoming.

27. START has little discretionary funding because most of its funds are allocated for specific purposes. In-kind support for START from developing countries is substantially greater than that now being provided by developed countries. Dr. Fuchs presented a budget for START activities presently unfunded or underfunded. These include regional planning meetings, capacity building (one training course in each region each year); electronic communications; development of regional research centers/secretariats; participation by LDC scientists in international global change research-related meetings; and scientific workshops.

28. It was recalled that the IGBP had been directed to solicit through START support for developing country scientists in international global change research activities (including the WCRP IGBP and HDP) START. It was suggested that the Chair of IGFA invite support from IGFA Members in this area and if Members are not able to respond positively, then START and IGBP should be so informed. Dr Robert Corell reported that the Global Environmental Facility (GEF) is strongly interested in interacting with IGFA and will plan to be well-represented in future IGFA activities.

IX. The Perspective from a National Aid Agency

29. Dr. Henry Gholz, U.S. Agency for International Development (AID), discussed AID's perspective on global change research-related issues. AID had in the past focussed on bilateral activities responsive primarily to requests/proposals initiated in individual countries. Recently and presently, the AID objectives are evolving; are developing increasingly on a multilateral basis; and are addressing more global issues than in the past. However, in the future budgets may be reduced (e.g., forestry research has been cut from around \$100 million to around \$50 million).

30. Most AID funding has been in the "brown area" - energy efficiency, carbon dioxide emissions, etc. - rather than in "green areas", such as mitigation and adaptation. Since AID has primarily an international mission, it has no natural national constituency. Although "new" funds are unlikely, there is some opportunity for redirecting funds to areas and approaches with high potential. AID is trying to identify "key" countries for global climate change efforts and to determine how to integrate global change research into a broader concept. AID is rethinking its support pattern and would welcome input to this process in terms of ideas and suggestions for such redirection.

31. It was noted that funding structures in aid agencies include: country bureaus; delegations to multilateral bodies; and cross-cutting programmes. In most aid agencies, the accent is not on research, but on capacity building which result in direct improvements to environment in recipient countries or in these countries playing a stronger role in international conventions on environment-related issues.

32. It is important to establish regional networks through which scientists in the countries involved can establish or improve linkages to the policy process. In Africa, the major scientific interest that has been expressed is precipitation in rain forest and agricultural areas. In Southeast Asia a very high priority is study of the impact of monsoon changes on fisheries and agriculture. The Inter-governmental Panel on Climate Change (IPCC) Working Group III has concluded that little progress can be achieved in climate change research until developing countries have scientific capability in these areas. There is both an opportunity and a need for IGFA and aid agencies to converge on these issues.

33. It was suggested that START could assist scientists in developing countries to develop proposals for funding of research and related activities in these countries and that START could also be very useful in promoting the distribution of information to scientists in developing countries.

34. It was agreed that: IGFA members should establish links to their national aid agencies; IGFA should develop an inventory of programs funded by its member agencies in developing countries; the possibility of joint donor efforts should be explored; and consideration should be given to development of pilot project(s) that build on existing interests and capabilities.

35. It was acknowledged that aid agencies have significant interest in activities related to global change in developing countries. START was asked to provide IGFA members with a list of START activities that are unfunded or underfunded in order that members can approach aid agencies for funding or for support of pilot projects in specific countries.

36. It was agreed that IGFA should first determine what is going on in IGFA member countries related to global change research in developing countries; then should consider the possibility of establishing one or more pilot projects involving coordination between research and aid agencies; and then develop an action plan for long-term activities in this area. It was recognized that such an effort would be extensive and take more than a year. It was agreed to set up a task group in this area chaired by Dr. John Marks and members were asked to designate members. It was agreed that a workplan and schedule should be developed.

X. Social Sciences Research Related to Global Change

37. Dr. Paul Berendsen introduced this discussion. He suggested that, since global change research is issue-driven and policy-relevant, contributions from social sciences are essential. There is a growing need for developing common methodologies which reflect the growing interaction between social and natural sciences. Major social sciences projects are often distributed in the sense that they involve a number of scientists working in individual facilities networked loosely together. Although networking is essential to promote the exchange of views, few mechanisms exist to do so, e.g., there are few peer-reviewed journals in which

both natural and social sciences can publish.

38. Dr. Berendsen suggested there is a need to develop cooperation among national councils for natural and social sciences research. Interdisciplinary research requires effective and consistent review by scientists experienced in such research. It is important to promote international dialogue in the social sciences through the HDP or a similar mechanism at the global level and/or through efforts at the regional and national levels as well.

39. Dr. Chris Caswill, Working Group Chair, reported that the Working Group has met twice, most importantly in Stockholm in 1994, and has sponsored additional ad hoc activities as well. He noted there are important specific scientific issues which require an interdisciplinary international research approach involving both natural and social sciences, e.g., land use, biodiversity, climate change modelling, sustainability, etc.

40. The Working Group has considered needs for and activities underway in interdisciplinary research; has identified barriers facing such research; and has made recommendations for action by ministries, national social science funding agencies, and national natural science funding agencies. It was suggested that social science funding agencies should review their internal social science paradigms and methods, since some of them may inhibit interdisciplinary cooperation. Individual researchers and students with particular interest in and capability for interdisciplinary research should be identified and encouraged in this direction.

41. The Working Group found that there is a need for a multiplicity of approaches in social sciences research. The Working Group concluded that a single global programme cannot, and should not, be expected to meet all of these needs. The Working Group convened a meeting in June 1994 in Brussels to obtain also the views and perspectives of independent social science scholars regarding global change issues and ways to promote and encourage needed research.

42. The basic needs for human dimensions research were discussed. It was suggested that some science priorities identified by the HDP should be advanced, but that important issues have not yet been addressed. It had been argued, on the one hand, that there was an overriding need for a cooperative social science research programme to sit alongside the IGBP. The HDP was seen as making slow but important progress in that direction. Others had questioned this, seeing the case rather for networking of existing projects and flexible responses to new leading edge ideas. These critics had seen a large-scale Programme as an unhelpful top-down mechanism which would be unlikely to attract widespread support within the social sciences.

43. The Working Group then developed the recommendations summarized in the report. The report acknowledges that HDP is useful while at the same time human dimensions research is being conducted in other arenas as well. The Brussels meeting considered that it would be

useful to connect these activities.

44. The Scientific Director of the HDP reported that HDP considers that it has responded to the issues summarized in the Stockholm and Brussels meetings as follows:

- The HDP workplan is to be revised to include additional rationale for the program components; address other important issues such as that of program coordination; and provide for openness and quality control in its review and updating;
- A new HDP steering committee is to be selected. IGFA members were invited to suggest researchers who might serve on the new committee;
- The HDP will focus its scientific activities in Geneva and will maintain liaison with the IGBP Secretariat in Stockholm; and
- The HDP's third scientific symposium in September 1995 is intended to bring scientists together to resolve many of the programmatic issues raised and develop networking needed to promote international collaboration.

45. The HDP officers will meet in November 1994 with representatives of international organizations, members of the IGFA Working Group, and others who have expressed interest and/or concerns regarding the development of the HDP. The results of this meeting will be submitted to the HDP scientific conference in 1995.

XI. The Human Dimensions (of Global Environmental Change) Program (HDP)

The IGBP/HDP Land Use and Land Use Cover Change Project (LUCC)

46. Dr. Billy Turner stressed the importance of being able to model land-use land-cover processes better in order to project changes. Spatial scales of from ten-by-ten kilometers are possible as the scientists move towards integrated models. Today, agriculture, livestock, and timber models are typically separate. Scientists hope to be able to integrate such models; to develop regionally sensitive models, and, if possible, aggregate these into a global model.

47. He noted that changes in land cover result from land use change which result from human and biophysical driving forces. Thus LUCC problems cannot be addressed from any single disciplinary perspective. A scientific plan for LUCC is undergoing final revision and updating for presentation to the SC/IGBP in December of 1994. This scientific plan for LUCC involves three scientific foci. Land use dynamics interaction is the core of the first focus. The second focus is on the classic use of satellite and other remote sensing, historical datasets,

etc., to develop short-term empirical spatially-explicit models. The third focus is to utilize the results of the first two foci as inputs to prognostic integrative regional and global models.

Presentation on the HDP Scientific Program

48. Dr. Ellen Wiegandt, Scientific Director of the HDP indicated that the primary aims of the HDP are to: emphasize problems of global scope, such as human survival and well-being, in ways which national approaches cannot; focus on issues for which reasonable research programs can produce useful results over the next decade; and address data collection and management and similar methodology issues essential to conduct the program.

49. In addition to the joint HDP-IGBP project on land use and land cover change (LUCC) described earlier, topics of interest include industrial transformation and energy production and consumption; demographic and social dimensions of resource use; environmental security; and public attitudes, perceptions, behavior, and knowledge. Dr. Wiegandt indicated that the HDP workplan, which outlines the products the HDP expects to deliver over the next few years, is based on inputs received since 1990 and has involved many social scientists, as well as representatives of national programmes and policy-makers.

50. It was suggested that the workplan does not include a schedule for preparation and distribution of a comprehensive research plan, although such plans are available for the individual HDP research areas. It was noted that many national programmes underway have little connection to the HDR. It was proposed that the HDP take account of and work with these national programmes in the development of HDP priorities, but that this does not appear to be happening.

51. Dr. Wiegandt indicated that the key need is to develop a consensus agenda at the international level for priority research that should be undertaken which the scientists involved expect to be able to develop by 1996 or earlier, if added resources were to be available.

52. There are indications that governments are stepping back somewhat from the strong support they have been giving to global change research in recent years and that these governments are looking for greater return on their investment in research, an investment which many perceive as being driven by policy needs. Increased emphasis on interdisciplinary research involving social sciences could result in policymakers being informed, not only regarding the physical processes of global change, but also regarding social and economic implications of global change and potential response options and their consequences. Strong positive support was voiced for additional social science research, including both national and regional efforts, irrespective of the final nature of the HDP.

53. It was agreed that IGFA should continue to focus on issues which require and could

benefit from IGFA's strength which lies in the funding capability of IGFA members. Although new paradigms for global change research are necessary, the specific task of considering its implications should be addressed by the scientists involved in the programs. It was suggested that IGFA further dwell on how the interface between interdisciplinary research and policy comes into play in the science process. It was agreed that expansion of networking efforts already underway be promoted and that scientists be encouraged to participate in and utilize such networks. It was agreed that IGFA should inform other bodies of its actions and interact with these bodies on issues of mutual interest, e.g., with START regarding capacity-building.

HDP Donors' Session

54. The Scientific Director for the HDP presented the "HDP Budget, 1994-1995" and reported that the HDP is facing a substantial shortfall, the primary impact which would be on science planning. The HDP is piecing together small contributions from interested international organizations and countries to support essential HDP scientific planning meetings.

55. It was noted that the HDP does not presently have a well-defined linkage to governments similar to those developed by the WCRP and the IGBP. Thus far, IGFA is the only such channel for the HDP. It was pointed out that social science grants generally do not have flexibility to cover the scientists' participation in planning activities for global programs, let alone the participation of developing country scientists in such planning. The IGFA Member from Germany offered to provide funding for German scientists to participate in HDP planning activities.

56. IGFA confirmed its commitment to strengthening of social sciences research related to global change and of finding ways to do this. IGFA considers it essential for the HDP to strategize its program within a short time frame and to show distinct progress with respect to several well-defined IGFA recommendations, as specified at the Stockholm 1994 meeting. IGFA members were encouraged to provide funds for this further test period. IGFA was pleased to learn of the planned establishment of the new HDP Steering Committee and considered that this new group might be able to address some of the unresolved issues.

57. It was suggested that neither fully-established focussed and prioritized agendas nor funding requirements for social sciences research related to global change are yet available at global, regional, or, in some cases, national levels. While the HDP considers that it has responded positively to the recommendations resulting from Noordwijk, Stockholm and Brussels, it was suggested that the HDP workplan neither specifies for which questions global or regional approaches would be best nor addresses needs for regional cooperation or how networking for human dimensions research.

58. IGFA recommended to its members that they provide "risk" money to enable the HDP to develop a credible scientific agenda, with the understanding that IGFA would keep the program under review, initially at the next IGFA Meeting. The HDP was invited to provide

more details on specific HDP activities for distribution to members so that they can consider providing additional funds for specific HDP activities of interest. IGFA indicated that it is prepared to work with the HDP to provide the support necessary to support the proposed scientific planning process. Dr. Wiegandt indicated that HDP would accept and respond positively to this challenge. Networking will be addressed in the HDP science plans. Lucc planning has demonstrated an effective method for involving scientists in an HDP planning process which could serve as a model for other HDP programs.

59. In summary, it was agreed that a number of steps are being taken to advance social sciences research related to global change. The HDP scientific conference in 1995 provides a signal opportunity to move the social sciences agenda forward. This agenda could include a global component called the HDP provided that scientists come away from the conference with a clear understanding of the scientific issues; of the program recommended, and of the needs for support of the program. The HDP research plan will have to address the questions that the IGFA process has raised, address ways in which to engage the best scientists, and respond to other issues as well. IGFA decided to continue the Working Group in this area with a revised title and terms of reference (see Appendix A).

XII. IGFA Operations and Future Activities

60. IGFA decided to maintain a work program based on the following activities already underway: the second resource assessment; the Working Group on Socio-Economic Research Related to Global Change; the Working Group on Data and Observations; the Task Group on Interaction with Aid Agencies; preparations for the OECD ministerial meeting on megascience; and development of a policy paper on social sciences research related to global change.

61. IGFA accepted with appreciation the offer to convene its next meeting in Japan at the end of October 1995, either just prior to or just following the meeting of the Scientific Advisory Committee in Beijing. It was tentatively agreed that the IGFA Meeting in 1996 would be in Scandinavia, either Norway or Sweden.

62. The Chair expressed the Group's deep appreciation to Dr. Werner Menden for the valuable insight he has provided during his four years of participation in and service to IGFA. IGFA expressed its appreciation to Dr. Chris Caswill for his chairing of the Working Group on Socio-Economic Research Related to Global Change. The Chair also conveyed IGFA's thanks to the Canadian officials who had arranged very successfully for this meeting: Drs. Carmen Charette, Alex Chisholm, Alan Fox, Lynn Penrod, and the staffs of the supporting Canadian agencies.

XIII. Close of Meeting

63. The Chair expressed his thanks to the members for their active participation in the meeting. The Chair then closed the meeting on Friday, September 30th.

Appendix A

Summary of the IGFA Socio-Economic Work Group Meeting On HDP Issues

Stockholm, February 8-9,1994

The IGFA socio-economic work group held a workshop February 8-9,1994, at the krusenberg Manor outside Stockholm. Funding agencies from 8 European countries, as well as Canada and the United States were represented at the meeting.

The main aim for the Stockholm meeting was to make precise the various perceptions of funding agencies about the Human Dimensions Programme (HDP) and in a distinct fashion convey a possible consensus about what needs to be done by the HDP before the Vancouver fall IGFA meeting in September 1994. Thus the Stockholm meeting bridges the Noordwijk, September 1993, the Taipei January 1994, and the Vancouver September 1994, meetings.

The discussions in Stockholm were summarized and presented by Uno Svedin, as host of the meeting. There was a general agreement that the summary covered the essential points raised at the meeting. The meeting participants agreed to give the task to the host, Uno Svedin, the Chairman of the IGFA socio-economic work group, Chris Caswill, and the Chairman of the forthcoming Vancouver meeting, Alan Fox, of formulating in words the content agreed upon in general at the end of the meeting by those present. Thus the wording is solely the responsibility of the three persons, but we believe it reflects a broader consensus at the end of the meeting.

The observations were grouped in four categories, each starting with a block of "perceptions of problems". This does not say any more than that these problems were in summary perceived by different actors. There is not necessarily a coherence between the items on this list of perceptions, but the list provides a framework for the next block conveying the perceived needs the workshop thought were important for the HDP to address. In each category there were a number of proposed actions which we hope the HDP Programme will aim to provide. These are summarized after the four problem areas below. With regard to the timetable it is our understanding that Martin Parry on behalf of the HDP programme agreed to the desirability to provide documents in due time before scheduled future meetings. This holds true especially for the documentation intended for the Brussels 27-28 June meeting which needs to be ready for distribution by June 1.

I. INTELLECTUAL CONTENT

Perception of problems about HDP

Too broad/too vague/too many bits/overlaps among programmes/HDP less of a programme - more a group of suggested projects/lack of specification of what is needed to address just at the global level/lack of rationale for the choice of what is important, including the selection or non-selection of "explosion prone issues", like population issues.

Perceived needs

- A clear statement of vision.
- A statement on the scientific rationale for specific programme choices and their relative priorities.
- An examination of the intellectual subsidiarity or "value added" from a global programme, including an analysis of what constitutes the "global element".
- Clear ideas on quality enhancement mechanisms in HDP. Especially the potential capacity to contribute to the general theoretical development of social science needs to be highlighted.

2. RELATIONSHIP TO NATIONAL AND REGIONAL PROGRAMMES

Perception of problems about HDP

- Relationships not sufficiently developed to national and regional actors.
- A mutual benefits approach is needed, and it is not visible so far.
- There seems to be a lack of flexibility in the HDP with regard to ways to relate to parallel interests
- There seems to be a lack of mechanism in HDP scanning what is going on in terms of existing national activities in order to find out their relevance for the HDP.
- There seems to be a lack of openness to suggestions from national and regional bodies with regard to the general topic formulation.

Perceived needs

- Make visible the style in which HDP intends in the future to relate to other actors, including national and regional bodies.
- Clear operational ideas about how the process could be designed for such relations.
- A clarification from the HDP on the attitude towards and the future process oriented to "knowing what is going on elsewhere".

3. PROCESS AND POLICY OF OPENNESS

Perception of problems about HDP

- HDP seen as a very closed process.
- Lack of convincing clearly stated access rules for involvement in the work at various stages and levels of operation.

Perceived needs

- A HDP policy paper on intentions and style of openness and access.

4. MANAGERIAL ISSUES ETC.

Perception of problems about HDP

- The three locations of secretariat functions Barcelona/Geneva/Stockholm are seen as a very scattered and inefficient mode of operation.
- The relationship of tasks between the various secretariats.

Perceived needs

- To clarify how the HDP intends to operate
- Express the policy on capacity building (including principles about the START participation)

HDP ACTIONS - NEXT STEPS AND TIMETABLE

Within the Stockholm workshop the following policy oriented documents and actions were agreed upon by the HDP representatives to be possible to provide within a few months time.

- A. A paper clarifying
 - the vision
 - the approaches and programmes

- in which way the global element is expressing itself in the chosen set of activities
 - the potential impact from HDP on social science in general (31 May 94)
- B. A revised work plan (30 April 94)
- C. A draft operations principles paper about
- procedures
 - quality enhancement issues
 - openness issues (including agenda setting access rules)
 - capacity building (31 May94)
- D. A paper covering "new agenda exploring work meetings" to be conducted during the Spring of 1994 (31 July94)
- E. A policy paper providing outlines for the relationship to national and regional Programmes (31 May94)
- F. A descriptive part on national and regional programme activities with relevance to HDP (later)

The Stockholm workshop accepted the invitation by the representative of EC, Andrew Sors, to host a meeting in Brussels 27-28 June, 1994, as a checkpoint and discussion possibility about these items. The workshop also took note of the idea that such a meeting in Brussels could be extended to include leading scholars who have an interest in global change issues. The invitation could be made by the host after consultations with the HDP programme.

With the Brussels event included four points in time for the future development could be envisaged.

- June 1,1994 (Provision of Spring 94 HDP papers)
- June 27-28,1994 (the Brussels meeting)
- Late September 1994 (Vancouver)
- Spring 1995 (the scheduled HDP 3rd Scientific Conference)

The proposed memoranda from HDP are thus expected to be circulated in advance and discussed in Brussels in order to prepare for the Vancouver meeting of IGFA in September 1994. It is of great help in the process to get an early indication from the HDP programme if these suggestions could be met and in which form this could be done. It would be useful to have one single point of contact for responses within the HDP programme. An indication from HDP in this regard would be appreciated.

Stockholm, February 25, 1994

On behalf of the Stockholm IGFA socio-economic work group meeting.

Uno Svedin
Host for the
Stockholm meeting

Chris Caswill
Chair, IGFA Socio-
economic work group

Alan Fox
IGFA Vice-Chair
Host for the
Forthcoming Vancouver meeting

Appendix B Meeting Agenda

IGFA Meeting: Harbour Centre Campus of the Simon Fraser University
September 28-30, 1994

TUESDAY, 27 SEPTEMBER

19:00 Cocktails and informal dinner for all interested meeting participants. Meet at the Renaissance Hotel.

WEDNESDAY, 28 SEPTEMBER

09:00 Welcome and Opening of Meeting

Dr. Lynn Penrod, President, Social Sciences & Humanities Research Council of Canada, will welcome the participants and open the Meeting.

09:20 Approval of the Agenda

09:30 Panel on the Canadian Eco-research Program: A Model for Interdisciplinary Environmental Research

Chair: Alan Fox, SSHRC, Canada

Panelists:

Alex Chisholm, Director, Science Policy, Environment, Canada
"Regional Ecosystems, Environmental Science and Improved Decision Making"

John Pierce, Department of Geography, Simon Fraser University, and Member of the Eco-research Peer Review Committee.

"The Challenge of Peer Review in an Interdisciplinary Environment"

Michael Healy, Director, Westwater Research Centre and John Robinson, Director, Institute for Sustainable Development, University of British Columbia

"Integrating Natural, Health and Social Sciences in the Lower Fraser Basin Eco-Research Project"

10:45 Break

11:15 Interdisciplinary Environmental Research (Continued)

Discussion

Exploration of issues raised during the panel presentations, including science and policy development; ecosystems as an organizing principle to encourage interdisciplinary research and training; and issues related to peer review.

12:30 Lunch

14:00 Human Dimensions Research Related to Global Change and Promoting Collaboration between Natural and Social Sciences in Global Change Research

14:00 Presentations

An Overview of Activities of the IGFA Human Dimensions Working Group, (Chris Caswill, ESRC, United Kingdom, and Chair, IGFA Human Dimensions Working Group)

Developments Regarding the Human Dimensions Program (HDP) (Martin Parry, VP and Ellen Wiegandt, Scientific Director, HDP)

Results and Recommendations of the Working Group Meeting on "Collaboration between Natural and Social Sciences in Environmental Research", September, 1993, in The Netherlands (Paul Berendsen, NWO, The Netherlands)

15:30 Break

16:00 Recent Developments in Planning the HDP/IGBP Project on Land Use Cover Change (LUCC) (Dr. B.L. Turner II, Director of the George Perkins Marsh Institute, Clark University, and Chair, HDP/IGBP Core Project Planning Committee on LUCC)

16:30 Discussion

Establishment of guidelines for encouraging international cooperation on human dimensions research related to global change and discuss potential actions by Funding Agencies to facilitate increased collaboration. Exploration of the steps Funding Agencies can take to advance collaboration between the natural and social sciences in global change research.

Identification of opportunities and constraints related to this issue. Identification of the main actors that should be involved and potential activities that could be undertaken nationally and internationally.

18:00 Adjourn

19:00 Reception and Dinner

THURSDAY, 29 SEPTEMBER

09:00 Human Dimensions Research Related to Global Change and Promoting Collaboration between Natural and Social Sciences in Global Change Research: Discussion (Continued)

10:45 Break

11:15 The International Institute for Applied Systems Analysis (IIASA)

A representative of IIASA has been invited to present a report on IIASA present and planned activities related to global change.

11:45 Meeting of HDP and IGBP Donors

The objective of this session will be to review the proposals, address issues which have arisen and develop shared international funding arrangements for the support of HDP and IGBP centralized costs. Donors will consider proposals from the HDP and IGBP for shared international funding of their centralized costs.

11:45 HDP

Presentation

Report on the discussions of HDP centralized costs during the IGFA Human Dimensions Working Group meetings with the HDP at Stockholm (February, 1994) and Brussels (June, 1994) when the HDP Work Plan was discussed (Uno Svedin, FRN, Sweden and Andrew Sors, Commission of the European Communities)

Presentation

The HDP proposal and its response to the issues raised at meetings the IGFA Human Dimensions Working Group (Ellen Wiegandt, Scientific Director, HDP)

12:30 Lunch

The luncheon speaker will be The Honorable John A. Fraser, Ambassador for the Environment, Canada. Amb. Fraser will speak on "Global Environmental Issues".

14:00 Meeting of HDP and IGBP Donors (Continued)

IGBP

Dr. Chris Rapley, the new Director of the IGBP Secretariat, will report on recent developments in the planning and funding of the IGBP.

14:30 Discussion

Donors will review the proposals and related documentation from the IGBP related to funding of its centralized costs.

15:30 Break

16:00 Discussion (continued from before the break)

16:30 The Next IGFA Resource Assessment Survey

The Chair and Staff of the Working Group on Resource Issues will report on plans for the next survey. These will include plans for improving the format and a proposed timetable.

17:45 Global Observations and Data Management for Global Change

The Chair of the Working Group on Global Observations and Data Management for Global Change will report on recent developments in this area and plans for future activities.

18:00 Adjourn

FRIDAY, 30 SEPTEMBER

09:00 Preparations for the OECD Science Ministerial Meeting, September 1995

IGFA has been invited to provide input to the OECD Ministerial Meeting which will focus on megascience issues, including the results of the Megascience Fora. Dr. Peter Tindemans, Director, Research and Science Policy, OECD, has asked IGFA to consider the following issues on the basis of IGFA's experience in global change research with the view to providing guidance for other "mega-research" programs. Among the specific questions which IGFA may wish to address are the following:

What are the issues that future megascience programs likely to encounter? Of these, which issues should be addressed by scientists, by research institutions, by funding agencies, by governments, and by international organizations? In particular, are there specific megascience issues that should be addressed at the ministerial level, either within individual governments or multilaterally or both?

Following initial discussions at this meeting, IGFA may wish to adopt a process for preparing a more detailed response to OECD during the intersessional period.

09:30 ICSU/IGBP/IGFA Evaluation of the IGBP at the Five-Year Point

A report will be presented on the status of this review and plans for its implementation (Prof. J.W.M. la Riviere, Chairman, ICSU Advisory Committee on the Environment)

10:00 Cooperation between Funding Agencies for Global Change Research and National and International Aid Agencies

IGFA initiated discussions at its previous meeting in Taipei of the needs of developing countries related to global change research. IGFA decided to set up a task group to (1) investigate the feasibility of long-term funding from national, multilateral and private sources, for global change research networks and related capacity building in developing countries; (2) identify options for improving communications between agencies which fund global change research and those which fund international aid; and (3) to establish linkages with START and similar regional networks and donors' groups.

The objective of this session is to present to IGFA the perspectives of aid agencies and of START towards the funding of regional activities related to global change, including research and capacity building, in developing countries.

Presentations

Dr. Roland Fuchs, Director of the START Secretariat

Dr. David Runnalls, Senior Advisor to the President, International Development Research Centre (IDRC), Canada

10:45 Break

11:15 Cooperation between Funding Agencies for Global Change Research and National and International Aid Agencies: Presentations (continued)

12:00 Discussion

Discussion will identify common objectives of research and aid funding agencies and how best to achieve these through joint action and improved communications.

12:30 Lunch

14:00 Cooperation between Funding Agencies for Global Change Research and National and International Aid Agencies: Discussion (continued)

15:00 IGFA Operations and Future Activities

It has been proposed that IGFA Members support the participation of scientists from IGFA countries in START meetings, workshops and related activities. Plans will be discussed for intersessional activities, especially under the various Working Groups and Task Group; for the next IGFA Meeting; and for interaction with related international organizations.

15:30 Adjourn

Following the adjournment of the session, rooms will be available for ad hoc meetings, especially to further plan intersessional activities.

SATURDAY, 1 OCTOBER

In addition to the pre-meeting and post-meeting tours which were outlined in the initial announcement of the meeting, a field trip up the Lower Fraser River will be arranged, if there is sufficient interest. If you would like to take such a field trip, please let the Secretariat know via fax as soon as possible.

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