

*Public Education and Information
Mechanisms*

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7.1 INTRODUCTION

7.1.1 An environmentally informed global population is essential to addressing and coping with climate change. Throughout the world in whatever the sphere of human activity or exchange, there is now ignorance, apprehension, and confusion about climate change. For some individuals, groups, and organizations, the problem is unknown, irrelevant, or remote. For others, it is of overwhelming proportion or misunderstood. Few bring to the world forum a workable grasp of the issue and the potential adverse consequences of climate change. Despite the fact that there are uncertainties and unknown dimensions about the topic, there is little disagreement among experts about the importance of understanding about greenhouse gas emissions and achieving sustainable human development.

Given the importance of a well-informed population, the Working Group developed suggestions and approaches for improving international awareness about the causes and potential impacts of climate change. These suggestions and approaches are summarized in this section. While it was recognized that broad-based understanding is essential, it was also appreciated that no single mechanism or template can work for every group or in every culture or country. The social, economic, and cultural diversity of nations will likely require educational approaches and information tailored to the specific requirements and resources of particular locales, countries, or regions. Nonetheless, international collaboration is critical to taking efficient and effective steps. So, too, is mobilizing and fully integrating the expertise and resources of international organizations. Although education must ultimately be context-specific and reflect what individuals and organizations can best do to make a difference, the

commonality of the climate change problem requires cooperative solutions.

Across communities and target audiences, education and information should be geared toward making people more capable of dealing with the problems associated with climate change and better able to make responsible decisions as full global partners. Education is used broadly to encompass formal and informal processes of teaching and learning that occur throughout the life of the individual in the home, the school, the workplace and a range of other settings where instruction, training, and firsthand experience are conveyed. Similarly, information refers to materials and data that are produced and accessible in a variety of formats varying in formality and technical sophistication. Thus, for purposes of IPCC response strategies, both education and information are interactive and dynamic ways of fostering new levels of environmental sensitivity and awareness in public and private lives.

7.1.2 It was recognized that a set of guiding principles must govern the structure for developing and implementing education and public information measures. First, multilevel approaches are important; both education and information measures must be appropriate to international, regional, national, and local formats and to wide-ranging audiences from individuals to private and public sector organizations. Second, education and information strategies must be attentive to the cultural and multi-cultural diversity within and between nations and regions, including language diversity and the capacity to communicate fundamental concepts. Third, there must be sensitivity to other national differences, including those between developed and developing nations in education and information

resources, in mass media capacity, and in other regional variations. Fourth, education and information mechanisms must strengthen an appreciation of commonality and global interdependence among people facing the complex issues of climate change. Finally, it is important to convey an understanding that early responses are essential to resolving problems of future generations.

This report examines public education and information on climate change in terms of aims, audiences, measures, and actions. Each is addressed in turn. It must be emphasized, however, that these sections do not stand on their own merit but are closely interrelated. The aims, audiences, measures, and actions identified in this section in reality also fall into three overlapping categories—those of immediate concern, those of the near term, and those of a long-range nature. In devising public education and information mechanisms, a balance between long-term and short-term actions is recommended. Additionally, there must be a balance between top-down and bottom-up target audiences.

7.2 AIMS

7.2.1 The purpose of public education and information is to foster a common understanding about causes and effects of global climate change. There is also a need to change public attitudes and policies to effect responses to climate change.

7.2.2 The core aims may be summarized as follows:

- Promote awareness and knowledge of climate change issues.
- Encourage positive practices to limit and/or adapt to climate change.
- Encourage wide participation by all countries, both developed and developing, in addressing climate change and developing appropriate responses.

Among the aims of education and information is the need to ensure timely flow of authoritative, frank, and dispassionate information about global climate change, exchanging the most up-to-date informa-

tion as it becomes available. The information must fit into general approaches for information dissemination on world environmental problems.

7.2.3 An aware public is absolutely essential if politicians and other decision makers are to mobilize the necessary means to limit the effects. Most people realize that climate changes exceed the length of human life; yet, unlike the physical Earth where deterioration is visible to the naked eye, deterioration of the air is not a tangible element. Therefore, a priority should be placed on education and information because attitudinal and behavioral changes can bring about structural change in production and consumption processes. Global strategies defined by IPCC and others at all levels can convince leaders of the need for joint or complementary action to achieve common goals—to foster a concept of global common good.

These aims can be met by governments ensuring the understanding, support, knowledge, and expertise of the private sector, including non-governmental organizations, and the general public and by moving normally long-term measures of public education and information into the mainstream much more rapidly. Recognizing that well-planned and well-organized public information and education are separate activities, both must develop on parallel tracks, both must form an inseparable part of response strategies, and both must be open to public action so that people feel directly concerned and mobilized.

7.3 AUDIENCES

7.3.1 The audience or target groups include everyone. No person or organization should be excluded. For purposes of discussion, audiences are aggregated into common or related groups that might best be served by particular activities.

7.3.2 These audiences include present and future generations of children and youth as well as individuals at household levels. Public and private sector policymakers and leaders at each level (local, national, and international) are a high priority, special

target for immediate and short-term actions. Further, media, educators and educational institutions, and scientists and other professional groups and their organizations similarly comprise an important group. Finally, but no less important, industrial, business, and agricultural sectors are key target groups. In particular, attention should be given to the bulk of the rural population.

7.4 MEASURES FOR DEVELOPING INFORMATION

7.4.1 Informational and educational materials must be developed. Materials should be objective and reflect broadly accepted assessments of the science of climate change suitable for use throughout the world. An explanation of the range of uncertainty is essential for clearly understanding the scope of the issue. Because of the dynamic nature of climate issues and because research is constantly producing new knowledge, information and educational materials must be periodically revised and updated. Informational and educational materials should include data on: resource and energy conservation; efficient utilization of energy sources with reduced carbon dioxide emissions; control of air pollutant emissions; and promotion of sound national conservation strategies that highlight the special role of conservation of forests and reforestation/afforestation in climate change issues.

7.4.2 Materials should provide consistent, reliable, and realistic information on climate change and its consequences in simple and attractive formats. Such materials should also include special attention to the mechanics of the atmosphere and the interaction of human activities with it.

7.4.3 Materials should be appropriate for use by technology-based learning media ranging from basic radio, television, film, and video through very sophisticated levels of computer-interactive systems. Information in the form of basic data can be supplied by scientists and other professionals who develop the scientific base from which extension personnel develop the materials provided to the end

users. This maintains a continual flow of knowledge and information needed to keep the public well informed. It is important to choose instruments, however, that are adapted to the receiver of the message. What is appropriate for one country or region likely will not be for another.

Mass media—in particular, radio, television, oral, and print—must play an important role in developing and providing an in-depth approach to both education and information, ranging from information for schools to detailed publications and radio programming to meet special needs. Attention should also be given to developing forms of communication in more remote areas in developing countries.

7.4.4 Information packets, textbooks, and other educational materials for use in schools, as well as more detailed materials to meet teacher-preparation and trainer needs, must be developed.

7.4.5 Countries with information on the labeling of energy-efficient and environmentally preferred or low emission products should compile such information and make it available to all countries. Such information must be continually updated and provided quickly and effectively to all sectors.

7.5 ACTIONS FOR DISSEMINATION

7.5.1 NATIONAL AND LOCAL ACTIONS

7.5.1.1 National committees or other organizations on climate change should be encouraged or clearinghouses should be established to collect, develop, and disseminate materials on climate change. This could help provide focal points for information on issues such as energy efficiency, energy savings, forestry, agriculture, environmentally sound housing and transportation efficiency. Information exchanges would also provide a means to share technical knowledge and expertise.

7.5.1.2 Information obtained through greenhouse gas emission audits may be used to identify the size of the problem as it relates to each nation. Practices

may then be identified which would provide simple and cost-effective actions. Use of available research about attitudes and behavior of populations may be used to define local and national programs, identify primary and secondary target audiences, and enable the setting of realistic goals.

7.5.1.3 It is important to consider the following procedures for the development of action programs at this level:

- Organize symposia, seminars, and workshops. (For example, use professional and scientific societies to develop special programs for engineers, architects, land-use planners, and other designers and policymakers, making them aware of how they can contribute to energy efficiency and conservation, and anticipate likely impacts of climate change.)
- Develop specialized programs to provide training for educators and communicators (for example, media personnel).
- Devise or work through existing programs that will take advantage of local language and local culture. (For example, use public meetings and hearings, community organizations, and radio programs to inform the public.)
- Establish or use existing extension-type service organizations to assist in technology transfer and education.
- Establish local outreach through the development of, or use of, existing support groups.
- Call on the skill, structure, and involvement of local and regional special interest groups, for example, women's organizations and environmental interest groups.
- Use media campaigns to raise awareness about climate change concerns affecting the public and about what individuals themselves can do in their daily lives with regard to them.
- Develop and/or strengthen, in the developing countries, the role of NGOs specializing in the field of environment, particularly in the field of global climate change.

7.5.1.4 It is important to recognize that, irrespective of global climate change problems, certain actions at the local level are environmentally useful. These include education and information on the

utilization of available alternative technology and on utilization of all resources as efficiently as possible, recycling waste where economically practicable, encouraging more efficient use of all forms of energy, increasing tree planting, and minimizing loss of biomass.

7.5.2 INTERNATIONAL ACTIONS

7.5.2.1 International organizations (UNESCO, UNEP, WMO, etc.) should utilize IPCC reports in developing and providing to all countries understandable guidelines for future program actions.

7.5.2.2 An international institution should be developed or an existing international institution should serve as a clearinghouse for existing and newly developed informational and educational materials. Focal points within existing networks should be established for the development or coordination of materials specific to global climate change issues.

7.5.2.3 Upon completion of IPCC reports, seminars should be developed that focus on providing informational programs and educational materials to developing countries.

7.5.2.4 Information activities should pay special attention to the issues of geographic isolation, cultural and linguistic diversity, and the absence of effective mass media within certain regions and countries throughout the world.

7.5.3 IMMEDIATE RESPONSES

While a number of actions are immediately feasible at the international, national, and local levels, some specific examples are provided below to illustrate the inter-relationship between components discussed earlier and available steps.

7.5.3.1 Develop strategies at the national, regional, and international level for the production, communication, and release of the IPCC reports. Participation by invited experts from the develop-

ing countries at this stage in particular, and in the IPCC activities in general, is highly desirable; funding for such participation should be ensured.

7.5.3.2 Upon completion of the IPCC reports, or earlier as also proposed by the IPCC Special Committee, a series of short-term seminars should be targeted to inform high-priority decision makers, world leaders, scientists and other professionals, education and media developers, both in the public and private sectors, of the causes and effects of climate change, and the related international efforts already under way. This should include specially formatted publications, news releases, and related media events. Existing institutions (international organizations and NGOs) may be approached to determine interest in implementing such a seminar series.

7.5.3.3 Establish multi-disciplinary national committees, or other forms of national coordinating mechanisms, on climate change, to build a partnership for implementing educational and informational strategies nationally and to establish appropriate networks with international and re-

gional organizations. Through such mechanisms, or otherwise, establish focal points in each country. This and other measures would help improve distribution channels for dissemination of up-to-date information.

7.5.3.4 Solicit the support of international and regional organizations and NGOs for curriculum development by devising model courses of studies at various levels for primary grades through universities. These could be expected to include educational material (trainer and student texts) tailored at the national or local level, including appropriate specific examples of what individuals, organizations, and institutions can themselves do.

7.5.3.5 Solicit the support of the international and regional organizations and NGOs in implementing educational and informational strategies in general.

The immediate responses should take special account of the needs of the developing countries. In this connection, it may be noted that a Special Committee on the Participation of the Developing Countries has been established by IPCC for such purposes.

