

WOMEN AND ENERGY IN THE IMPLEMENTATION OF THE NAIROBI PROGRAMME OF ACTION

United Nations International
Research and Training Institute
for the Advancement of Women
(INSTRAW)



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1. INTRODUCTION

In August, 1981, the United Nations Conference on New and Renewable Sources of Energy (UNCNRSE) was convened in Nairobi, Kenya. From the preparatory phases of the Conference through the efforts to implement the Nairobi Programme of Action (NPA)¹, the role of women in the development and use of new and renewable sources of energy (NRSE) has been viewed as vital to the successful transition to greater reliance on alternative sources of energy.

The results of the Conference were different than those of most United Nations conferences in that no new institution was created nor were firm financial commitments made. Rather, because of the international economic climate at the time and due to the recognition that NRSE activities are of a decentralized nature, participating governments decided that United Nations specialized agencies and organizations, bilateral assistance agencies and non-governmental organizations (NGOs) should all participate jointly in implementing the NPA. Assistance entities were asked in essence to review their on-going and planned activities in light of the NPA and to develop cooperatively operational activities for themselves.

INSTRAW, as the institute responsible for research, training and information for women in development has taken up this challenge. This essay attempts to outline a role for INSTRAW in implementing the NPA as the work in this area could have a major impact on the status of women in developing countries.

2. WOMEN AND ENERGY

The past five years have witnessed the emergence of consideration of the role of women as an increasingly important topic in the elaboration of energy strategies for developing countries.

Energy is ubiquitous: it is used in all activities, including growing, processing, marketing and cooking food. To power machinery,

¹/ A/Conf. 100/11

it includes everything from petroleum and hydropower to fuelwood, charcoal and residues. In fact, it is so all-encompassing that often the relationship between different forms of energy, its extraction, conversion and use, between those individuals in society who consume energy and those involved in its production, are confused and misleading. Energy can mean many things to many people, but most often energy strategies have sought to achieve one or more of three major goals: amelioration of balance of payment difficulties stemming from reliance on oil imports; improvement of the economic condition of the rural population; or curtailment of environmental degradation.

Given the impact of the petroleum crisis in the 1970's, international agencies and governments have been preoccupied with energy in the "modern" sector, and with finding indigenous substitutes for imported petroleum. A major emphasis among governments during the United Nations conference was in fact on the role NRSE could play in substituting for oil.

However, in most developing countries, petroleum, coal and hydropower account for only a portion of the total amount of energy used. Food production, processing, and preparation, heat and light and running small-scale enterprises comprise the major uses, especially in rural areas, and in most instances fuelwood, charcoal, dung and agricultural residues provide the fuel.

Estimates of how much traditional fuels are used vary, largely because of the difficulty in measuring so-called non-commercial fuel use. Recent estimates indicate that in Asia these fuels account for about 65 percent of total energy use, in Africa about 85 percent, and in Latin America about 20 percent. This indicates the enormous variation both between and within countries.

The first strategy, amelioration of balance of payments difficulties is, naturally, of great importance, though the other two should not be discounted. These, the improved economic condition of the rural population, and the curtailment of environmental degradation address different types of problems than does oil substitution and affect most directly the poor, who comprise the majority in the developing world. At this level, energy strategies are dominated by the improved production and use of renewable energy, e.g., developing sustainable fuelwood supplies, finding inexpensive ways to pump water for irrigation and drinking, and disseminating efficient cookstoves and charcoal cookers. NRSE are not just substitutes, rather they are integral parts of rural life

and the natural resource base; to improve the economic condition of the rural population and the environment requires using renewable energy resources more efficiently.

For energy use in the rural areas, the natural resource base provides for fuel as well as food, fodder, fertilizer, construction material, feedstock and medicines. Therefore, energy production and use cannot be isolated from other uses of the natural resource base; for socio-cultural and environmental reasons, energy projects which ignore these interrelations often fail. In addition, energy is produced, converted and consumed by individuals or households though centralized generation and distribution systems rarely meet rural needs in most developing countries.

The perspective of women and energy in the consideration of development issues offers the promise of bridging the gap between the "traditional" and people-oriented approaches to development strategy. Tinker (1982) illustrates the difficulties encountered by development strategies that fail to take into consideration the role of women. She points, for example, to development projects that have foundered owing to the incorrect assumption that village women are underemployed. In fact, research has revealed under-productivity, rather than under-employment to be the problem. These women appear not to be fully employed as a result of a definition of work as activities with market value, a definition that ignores the demonstrably greater time they had to spend in subsistence activities. Tinker also illustrates the difficulties faced by development programmes attempting to introduce new technical solutions without adequate consideration of social practices and constraints that may impede their adoption.

More importantly, Tinker points out the contribution that research on women and energy has made to making development goals explicit. In so doing, policy makers and planners have been provided with the means to design development strategies with elements expressly aimed at achieving separable development goals.

3. THE ROLE OF WOMEN: MANDATE FROM THE NAIROBI CONFERENCE AND FOLLOW-UP MEETINGS

The recognition of the role of women in developing new and renewable energy sources was highlighted at the Conference in

Nairobi by the Director General of Development and International Economic Cooperation who stated:

I would like to add my voice to those who stressed the need to consider energy problems not only from a technical or economic point of view, but also in a broader social and cultural context. In particular, I should like to emphasize the role played by women as producers and users of energy.

It is worth noting that if one takes into account the use of non-commercial sources of energy, a very large part of the energy consumed in developing countries is still in the form of household and homecraft activities. Women are not only the main users for such purposes, in rural communities in particular, they are also more often than not, providers of energy... A disregard for the role of women can easily lead, just to take an example, to the design of products such as certain types of cooking stoves which are not suitable to the needs of women in given communities, vis-a-vis their daily activities or of their traditions. It has also been observed that the introduction of modern techniques for fuelwood commercial production, may already, as is the case for other cash crops, actually render the task of women in rural communities more difficult as providers of food and energy for their households.

Without the close association of women at various levels in the formulation and implementation of measures and programmes which affect their welfare, they may not benefit from, or contribute to the technical advances in the production or utilization of energy. In the same manner, training programmes should take into account the special needs of women. Let me add that this is true not only for women in rural communities, but also in urban ones as well, both as members of heads of the household and as members of the labor force.

An examination of the NPA and subsequent intergovernmental reports indicate, *inter alia*, that women are to be taken into account in every sphere of NRSE activity. This can be seen in the following:

1. In Part I. *Introduction*, under the heading *Energy Transition*, it states:

"The energy transition must include consideration of the social dimensions, including the role of women as agents in and beneficiaries of the process of development, in view of their special burdens as producers and users of energy, particularly in rural areas".

2. In Part II. *Measures for Concerted Action*, under the heading *Policy Measures*, it states:

"Every effort should be made to ensure that the concerted action in the above-mentioned areas involves and benefits men and women equally".

3. In Part III. *Implementation and Monitoring*, under the heading *Areas for Priority Action*, it states:

"...Every effort should be made to ensure that the above programmes involve and benefit men and women equally".

This recognition of the importance of the role of women was reiterated in the Report of the Interim Committee on NRSE, which states that, in the efforts of the international community to assist and support national efforts in NRSE, "All these efforts should be made with due regard to the necessity of promoting the full participation of men and women, on an equal basis".

The Report of the Intergovernmental Committee on the Development and Utilization of NRSE reinforces this. At the heart of the Report, in the discussion of action-oriented plans and programmes, the Committee enumerated eleven areas requiring emphasis in the development of programmes and projects to implement the NPA. Included in this: "(g) All of those efforts should be made with due regard to the necessity of promoting the full participation of men and women on an equal basis".

While it is of obvious interest to highlight specific references to women in the relevant documents, it should be noted that an overriding concern of the Conference was with the impact even marginal improvements in the use of NRSE could have on rural development, every aspect of which involves women. In fact, a general conclusion of the Conference is that most forms of NRSE have greatest potential for small-scale decentralized use, especially in the rural areas.

Unfortunately, however, at no point has the issue been raised of how the interests and concerns of women in this area will be addressed, nor have mechanisms been established to solicit and assure the participation of experts on women into the process.

As the United Nations body with direct responsibility for research, training and information activities to enhance the role of women in development, INSTRAW has an important role to play in implementing the objectives of the NPA and to work closely with other United Nations specialized agencies in this field.

4. ACTIVITIES ON NEW AND RENEWABLE SOURCES OF ENERGY IN THE UNITED NATIONS SYSTEM

The United Nations Conference on New and Renewable Sources of Energy ended without resolving the institutional and financial arrangements for the implementation of its decisions. The conference concluded that national governments bear the greatest responsibility for NPA implementation, and that the international community —multilateral and bilateral assistance agencies, and intergovernmental and non-governmental organizations— have responsibility for assisting national governments in their efforts.

Both the mood of the international community and the local, site-specific nature of NRSE helped lead to the conclusion that decentralized activity was most appropriate. The challenge for the United Nations system was to formulate a workable institutional arrangement along these lines that would minimize duplication while maximizing project success, promoting increased activity and impact at essentially unchanged funding levels.

Within the United Nations system, an Intergovernmental Committee on the Development and Utilization of New and Renewable Sources of Energy was formed. The responsibilities of the Committee are to promote international cooperation to define short and long-term energy strategies, to review the work of the United Nations system with respect to energy, and to mobilize financial resources.

The Committee held its first meeting in New York from 18-29 April 1983 at which time arrangements for implementing the NPA were announced.

The Office of the Director-General for Development and International Economic Cooperation is responsible for overall coordination in the United Nations system in the implementation of the NPA and a Special Coordinator has been designated. In addition to coordinating NRSE activity in the United Nations system, the Special Coordinator assists in the mobilization of financial resources for, and in promotion of, NRSE projects.

To promote coordination within the United Nations system, the Special Coordinator convenes meetings of the Interagency Working Group on NRSE, attended by representatives of relevant entities within the United Nations system, including the regional commissions. Projects are submitted to the Interagency Working Group, which exists within the framework of the Administrative Committee on Coordination (ACC). The Interagency Working Group has decided, among other things to devise a questionnaire for United Nations specialized agencies and organizations and governments in order to create a profile of all NRSE activities.

To mobilize additional financial resources, the Special Coordinator holds consultative meetings. The consultative meetings are essentially donor meetings, with participation of donors, recipients and operating agencies.

In addition, a special unit on NRSE has been established in the Department of International Economic and Social Affairs (DIESA). This unit serves as a secretariat on substantive matters to the Intergovernmental Committee on the Development and Utilization of NRSE, and as a focal point for information. Its work is undertaken in cooperation with the Special Coordinator.

The regional commissions have responsibility for promoting and implementing the NPA at the regional level. There is a focal point in each commission with this responsibility.

At the national level, the international community assists in implementing the NPA through the Round Table meetings sponsored by the World Bank and the United Nations Development Programme (UNDP). In addition, UNDP and the World Bank have been jointly conducting the Energy Sector Assessment Programme.

By April 1983, energy assessments had been completed for twenty developing countries, with an additional sixteen expected to be completed before the end of 1983, and a further twelve in

various stages of planning. UNDP had also developed four major follow-up activities to the energy assessments: an energy management assistance programme; an energy efficiency programme; a rural renewable energy pilot programme; and a manpower and institutional development programme. The cost for these programmes, covering the four year period starting in 1983 is estimate to be US\$47 million of which US\$5.6 million is drawn from the UNDP Energy Account. These planned expenditures will completely deplete the Energy Account. Any additional efforts will, therefore, require additional funding. The World Bank has begun to diversify its energy lending to provide greater support for the development of indigenous energy resources, and has put greater emphasis on advice and technical assistance to strengthen the capability of its borrowers to plan and manage their energy sectors.

The Economic Commission for Latin America (ECLA) initiated a regional programme adopted by member countries in 1981 and is jointly undertaking activities with the Latin American Energy Organization (OLADE). ECLA and OLADE will convene a consultative meeting for the mobilization of financial resources and identification of projects for possible co-financing.

The Food and Agriculture Organization (FAO) is concentrating on rural energy and has intensified its activities in the relevant priority areas identified in the NPA. These activities include rural energy assessment and planning, fuelwood and charcoal, application of solar and wind energy for agricultural and rural energy programmes. FAO expends more resources on NRSE projects than any other United Nations agency; it allocated more than US\$30 million for the 1982-83 biennium.

The International Labor Organization (ILO) is assigning priority to providing assistance to governments in assessing manpower and training needs, as well as training activities in the energy sector of developing countries with special emphasis on NRSE for the rural poor. ILO stresses the need for further attention to popular participation and the social, economic, cultural, labor and environmental implications of NRSE; it has initiated a research and assistance programme on labor and the social aspects of NRSE.

The Centre for Human Settlements (HABITAT) has identified priorities related to human settlements in the field of NRSE including cooking, lighting, space conditioning, refrigeration,

water heating and pumping, and desalination of water. The Centre has developed a work programme focusing on these areas as part of energy-conscious settlement planning.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) emphasizes both the scientific and technical aspects as well as the cultural and social dimensions of energy issues. UNESCO, which is particularly concerned with the problems of rural areas, has a global plan for energy education and training which includes the study of manpower needs, support of training courses and workshops, developing curricula and teaching aids, providing expert consultants, and a variety of related activities.

The United Nations University (UNU) will continue research, training and dissemination of information to strengthen the capabilities of developing countries to plan and execute new and renewable sources of energy projects, primarily in rural areas. The UNU has launched a number of rural energy pilot projects to test the concept of rural energy systems.

The United Nations Children's Fund (UNICEF) is concentrating on NRSE aspects directly affecting welfare of rural women and children as part of its basic services strategy. While NRSE only comprises less than five percent of its budget, UNICEF is involved in a variety of projects including cookstoves, improved crop drying, biogas, etc.

As noted above, the Nairobi Programme of Action included no provision for additional funding for the NRSE activities described therein. In its report on "Current and Planned Activities of the United Nations System to Implement the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy"¹, the ACC reports the total value of all energy activities in the United Nations system in the 1982-1983 work programme to be US\$120,930,000. Of this amount, US\$79,731,000 is from regular budgetary sources and US\$41,199,000 from extrabudgetary sources. This constitutes approximately five percent of the estimated programme expenditure of the system in that time period.

NRSE work is found in 152 (35 percent) of the energy-related sub-programmes. The value of this work is estimated to be US\$46,402,000 or 45 percent of the value of the energy-related activities. Twenty-six sub-programmes with a value of

US\$14,700,000 are completely devoted to issues relating to NRSE.

5. INSTRAW PARTICIPATION IN THE IMPLEMENTATION OF THE NPA

The Conference identified five priority action areas: energy assessment and planning; research, development and demonstration; transfer, adaptation and application of mature technologies; information flows; and education and training.

It should be noted at the outset that activities are being proposed in a climate in which energy initiatives must have tangible and identifiable results. Financial constraints for project funding dictate this, as does the ever-increasing hardship posed by energy scarcity. INSTRAW activities should be relatively low cost with potentially high returns. Its special areas of interest: research, training and information, should be closely linked with the issues of other intergovernmental, governmental and non-governmental agencies, organizations and entities with which INSTRAW hopes to undertake collaborative or cooperative activities.

Energy is an intermediate good; out of context it is not a useful concept. Likewise, energy and women is an irrelevant concept unless the tasks in which the energy is being employed are identified. Energy is used to grow crops, to pump water, to power machinery, to provide light, to cook and process food, and for other uses. Each use affects and is affected by women differently. The capacity of a technology to produce, harness, or conserve energy is a useless abstraction from the point of view of development. It becomes only when energy is produced, harnessed, or conserved to perform some task. Women and energy research suggests that the proper assessment of women's role and the attendant efficient utilization of their resources often makes the difference between abstraction and concrete results. Research on women and energy must focus on end-users lest the subject remain over-generalized and esoteric.

INSTRAW has a very special role to play in the area of non-technological factors affecting the NRSE diffusion process. Many NRSE technologies have reached a state of "maturity" from a technical point of view, but their successful adoption is

constrained by a variety of non-technological factors, including social acceptability, economic feasibility, and environmental soundness. Women's issues are central to this aspect of the diffusion process.

INSTRAW can assist in ensuring that United Nations agencies consider the impact their energy programmes and policy statements have on the status of women, by improving the data base which the agencies may use. The reliance of policy-makers and planners on data that incorrectly interprets the role women play in the development process not only results in decisions adversely affecting women, but also results in proposed activities which are liable to fail. Demonstrably, energy projects that have made no provision to gain acceptance by women, required for their success, that have placed unrealistic time, labor and monetary demands on women, that have led to unacceptable division of resources between men and women within the household, have failed. Yet, data demonstrating these relationships are inadequate, subject to misinterpretation, and normative in nature.

In particular, INSTRAW should document projects in which an effort has been made realistically to assess the position of women in the target community and where project design reflects that assessment. What little evidence on this subject does exist suggests that the participation of women from the community in the process of project design is the best way to ensure that the project does not founder owing to misapprehension of women's role in the household energy economy.

A training manual for national bureaus, energy ministries and other national entities should be devised.

Although it is widely acknowledged that non-technological factors present serious constraints to successful NRSE projects, a great deal of confusion remains on how women's issues are involved, and, in particular, how best to devise policies, formulate programmes and design projects to comprehend this. INSTRAW could provide an important service by collecting existing information on this, analyzing it and making it available to international assistance agencies as well as governments and non-governmental organizations. This could be used as material in a training programme.

Further, since the NPA encourages the formation of national focal points for NRSE technology issues, INSTRAW could con-

tact governments to determine which countries have established such focal points, and to follow through, upon request, with technical assistance. This area of work could be potentially very important in linking macro-energy planning with micro-level NRSE issues, especially if data-related issues are also pursued.

Facilitating the flow of information on women and energy, developing curricula and other educational material, and supporting and implementing training programmes are all activities of potential interest for INSTRAW.

A consultant will be engaged to evaluate these three areas in depth, in consultation with the ongoing activities of other United Nations specialized agencies and organizations. INSTRAW or its consultant will meet with other institutions involved with collecting and disseminating information on women and energy. Not only could INSTRAW identify the type and quality of information now being gathered, but it could attempt to identify potential users of such information.

Regarding education, INSTRAW could develop a catalogue of courses being taught worldwide on relevant subjects. In addition, INSTRAW could begin to collect curricula, course material and other information, which could then be used later to produce a series of course curricula and teaching materials.

6. RECOMENDATIONS FOR THE PARTICIPATION OF INSTRAW IN THE IMPLEMENTATION OF THE NPA

There are several areas in which INSTRAW can play a major role to assist in the implementation of the NPA:

1. INSTRAW can collect, analyze and disseminate information worldwide concerning women and energy to be used by United Nations specialized agencies, bilateral assistance agencies, governments and non-governmental organizations.
2. INSTRAW can help to identify areas where research and training can make a critical difference in the field of women and energy as well as provide a link between experts and sources of funding in order to facilitate such research and training.
3. INSTRAW can provide, upon request, assistance to United

Nations specialized agencies and organizations, bilateral assistance agencies, governments and non-governmental organizations in integrating issues of relevance to women into energy policies, programmes and projects. This can be done through consultations, dissemination of information, seminars and workshops.

4. INSTRAW can prepare and disseminate orientation/awareness and training packages and materials on the subject of women and energy designed for specific audiences.

To this end, the following activities are being undertaken:

1. An expert group meeting to be held for the purpose of exchanging views and experiences on the role of women in developing new and renewable sources of energy. The participants will be experts from developing countries taking the approach of Technical Cooperation among Developing Countries (TCDC) in order to identify and promote cooperation among developing countries in this field.
2. A one-week interregional seminar to be held as a follow-up for the purpose of exploring the possibilities of multilateral and bilateral technical and financial support for programmes identified during the first meeting.
3. Based on the outcome of these meetings, particularly the expert group meeting, it is envisaged that INSTRAW will:
 - i. establish an interregional network of contacts to promote the TCDC concept in the incorporation of women into activities to implement the Nairobi Programme of Action;
 - ii. delineate areas within the subject where further research is required;
 - iii. establish and disseminate training guidelines and manuals to assist governments in incorporating the role of women in plans to develop new and renewable sources of energy.

ANNEX

FOCAL POINTS IN THE UNITED NATIONS SYSTEM FOR NEW AND RENEWABLE SOURCES OF ENERGY FOR DEVELOPMENT

FAO	Mr. M. Moutappa FAO Rome	UNITAR	Mr. M. Bloome UNITAR New York
ILO	Mr. L. Kohler ILO Geneva	ECA	Mr. P. Mwanza ECA Addis Ababa
UNESCO	Mr. T. Beresovski UNICEF New York	ECE	Mr. M. Nadezhdin ECE Geneva
WHO	Mr. E. Komarov WHO Geneva	ECLA	Mr. G. Best ECLA Mexico
IAEA	Mr. H.J. Laue IAEA Vienna	ECWA	Mr. M. Wahab ECWA Bagdad
UNCHS	Mr. G. Rao UNCHS Nairobi	ESCAP	Mr. J. Guru-Raja ESCAP Bangkok
UNCTAD	Mr. J. d'Oliveria e Souza UNCTAD Geneva	WORLD BANK	Mr. R. Dosik World Bank Washington, D.C.
UNDP	Mr. B. Harland UNDP New York	CSTD	Mr. A. Padang UNCSTD New York
UNEP	Mr. El Maghary UNEP Nairobi	DIEC	Mr. M. Yeganeh DIESA New York
UNICEF	Mr. A. Robinson UNICEF New York	DIESA	Mr. T. Hadj-Sadok DIESA New York
UNIDO	Mr. B. Epziman UNIDO Vienna	DTCD	Mr. E. Leo DTCD New York

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