

Aid convergence is obviously a disaster in itself and can Mr Britton suggest an effective prevention of it?

DROs have failed as Mr Britton agrees but how can they be replaced except by efficient international co-operation as suggested by me through an IRO?

I trust that these comments are helpful and that it will prove possible for Unesco to further this very important topic of discussion by any means available to a United Nations Organization.

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### **United Nations water conference in retrospect**

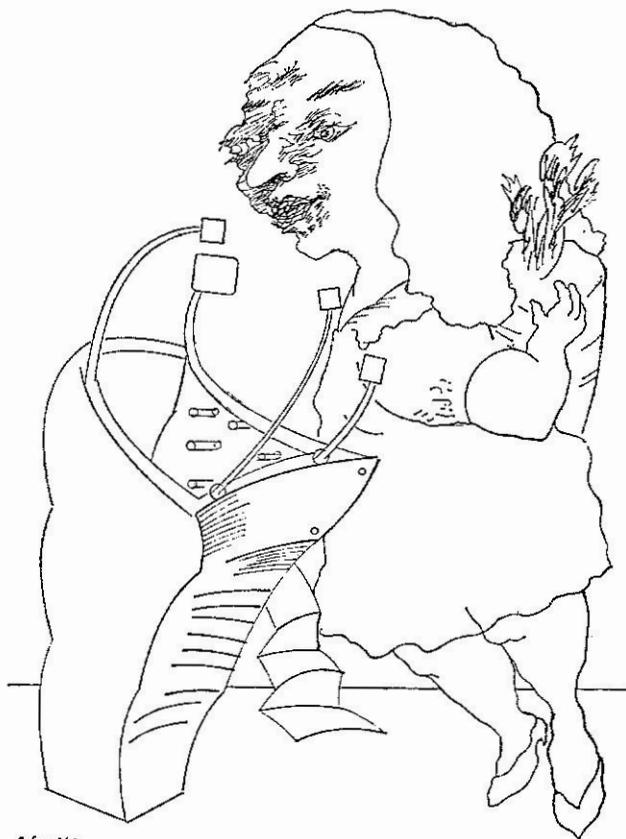
*The 'Fresh Water Resources' issue of impact (1983, No. 1) stimulated our correspondent to prepare the following appraisal of the United Nations Water Conference of 1972. Mr Biswas is a well-known international authority on water-resources development and environmental management. Author of twenty-eight books and well over 250 papers, he is currently President of the International Society of Ecological Modelling and Vice-President of the International Water Resources Association. He lives at: 76 Woodstock Close, Oxford OX2 8DD (United Kingdom).*

Nearly a decade ago, in June 1972, the United Nations convened an inter-governmental conference on the Human Environment at the highest policy-making level in Stockholm. It was the first of the United Nations mega-conferences that set the pattern for international decision-making in the 1970s on critical global issues which required urgent attention and solution. The conference on the human environment was followed in rapid succession by several other similar major conferences on pressing international problems. These were, in chronological order, on population (Bucharest, 1974), food (Rome, 1974), human settlements (Vancouver, 1976), water (Mar del Plata, 1977), desertification (Nairobi, 1977), science and technology for development (Vienna, 1979) and new and renewable sources of energy (Nairobi, 1981).

#### *Water Conference proposed*

The proposal for convening a Water Conference was first discussed by the United Nations Committee on Natural Resources in 1971. Initially, the primary objectives were to share different experiences in water-resource developments, review technologies available and provide better international co-operation. The idea of the conference and a provisional agenda were finally approved by the United Nations Economic and Social Commission in May 1973. By 1975, the topics that were being suggested for the conference were Resources and Needs, Promise of Technology, Policy Options and the Action Plan. It was proposed at that time that Policy Options would be the central theme of the meeting.

Unfortunately even in 1975, barely two years before the conference was held in March 1977, no Secretary-General was appointed. This meant the conference preparation and the overall direction suffered much due to the absence of a senior official who knew the magnitude of the global water problems and also had the authority to carry out the necessary tasks. Since



most of the United Nations agencies had an interest in water, and the interagency relations in this field were not exactly cordial, the absence of a Secretary-General at the Under-Secretary-General level created major difficulties. This was not helped by the suspicion in certain quarters that the conference might spawn a new agency on water, which might adversely affect the budgets and operations of existing agencies dealing with water.

#### *Conference Secretary-General appointed*

The Secretary-General of the Water Conference was appointed barely a year before it was held. He was Yahia Abdel Mageed, who prior to his appointment was Minister of Irrigation of the Sudan. In retrospect one can only say that the United Nations could not have appointed a better man for this challenging and daunting task. Mageed was only one of the two Secretary-Generals of the mega-conferences of the 1970s who were acknowledged experts in their fields. A brilliant administrator, and a polished diplomat, Mageed soon took charge of the overall preparation of the conference. A major problem he faced was lack of resources. For example, the budget for the Water Conference was less than what was spent only on the audio-visual aspect of the Habitat Conference in Vancouver in 1976. Furthermore, by the time Mageed arrived, a significant part of the overall budget had either been expended or allocated.

In spite of these constraints, it has to be admitted that Mageed achieved a miracle. I am one of the only two technical people who have attended all of these mega-conferences, and it can be categorically said that the Water

Conference turned out to be one of the two best organized meetings of this kind. The conference was attended by 116 governments and also United Nations, international and non-governmental organizations.<sup>1</sup>

#### *Wealth of information produced*

The conference approved a final action plan in two parts: recommendations that covered all important aspects of water development (assessment; use and efficiency; environment, health and pollution control; policy, planning and management; natural hazards; public information, education, training and research; and regional and international co-operation) and *resolutions* on a wide range of topics. In addition, a wealth of information was produced. Many countries prepared for the first time comprehensive reports on the availability and use of water based on available data. Several countries put in motion a process to assess the availability of national water resources, which has continued ever since. Many countries also prepared thematic papers, these numbering 215 in all.

The secretariat itself prepared some important documents, probably the most important of which was a report on the *Present and Future Activities of the United Nations System in Water Resources Development*. This was the first major and most comprehensive review of its kind ever carried out by the United Nations system on any subject. It identified a series of constraints which make the work of the United Nations system less effective. Among these are:

Lack of adequate resources to carry out the mandate given by the governing bodies, which makes programme planning and manpower planning difficult. This often results in a 'stop-go' approach which is detrimental to the effectiveness of the system.

Rules of certain Specialized Agencies which restrict channels of communication, resulting in inability to contact appropriate persons dealing with water at national level.

Administrative procedures which are inefficient.

Decision of governing bodies to place a higher priority on activities with early benefits, often at the cost of longer-term projects.

Fragmentation of responsibilities for water development at national and subnational levels (different parts of the United Nations system may have to communicate with different national agencies in the same country).

Lack of trained personnel at the national level and ineffectiveness of some of the United Nations training projects and seminars.

Lack of adequate expertise in some of the Regional Commissions.

While it was urged that every effort should be made to remove the constraints identified, the situation is hardly better at present. In fact, the situation has worsened in some of the important areas, i.e. availability of resources.

#### *Looking back at conference achievements*

Looking back, a major problem of the conference was the delay in the clearing of documents. For example, the Committee on Natural Resources

1. For a review of the conference, see Margaret R. Biswas, 'United Nations Water Conference: A Perspective', *United Nations Water Conference: Summary and Main Documents*, Oxford, Pergamon Press, 1978.

(CNR) was reformulating documents in January 1977, barely two months before the conference. As Mageed has recently commented:

With hindsight, it appears desirable that the procedures followed in such international events as the Water Conference be simplified. Questions of formulation of agendas, documentation and the preparatory process itself—all need to be examined with a view to simplifying these procedures to ensure a smooth, functioning and effective preparation for future conferences.<sup>1</sup>

The Water Conference ended some five and a half years ago. It is thus useful to review what it has achieved. Before we can review its achievements, we must ask: What were its hopes and aspirations? To quote Mageed again:

It was hoped that the Water Conference would mark the beginning of a new era in the history of water development in the world and that it would engender a new spirit of dedication for the betterment of all people—creating a new climate for a wiser appreciation of these critical problems, generating a greater flow of funds through the channels of international financial assistance towards the cause of development and in general making a finer commitment, on the part of all concerned, to establish a real breakthrough, so that our planet would be a better place to live.<sup>2</sup>

#### *Timing was right*

There is no doubt that the Water Conference sensitized the international community on the problems and complexities of water development. Its timing fortuitously turned out to be right. When it was first proposed in 1971, its proponents little realized the severity of the emerging energy and food crises and the magnitude of the global problem of the availability of clean drinking water. With the ending of the era of cheap energy in October 1973, many countries started to review hydro-electric developments as a source of indigenous energy. Since hydro-electric and agricultural developments are compatible uses (hydropower generation does not consume water but globally agriculture accounts for 80 per cent of all water used), both can be satisfied simultaneously without much difficulty.

The Water Conference also had a major impact on the overall thinking of many developing countries. There is now a marked preference towards integrated water development projects as well as preparation of comprehensive national plans on how best to use water optimally. While it is unlikely that the Water Conference was solely responsible for this trend, there is no doubt that it accelerated it.

Another direct benefit of the conference has been in developing countries, especially in those countries where infrastructures for water development and trained manpower already existed. In many of these countries, responsible water authorities have been able to convince central decision-making bodies, by using the results of the conference, that water developments require a higher national priority. This, in turn, has resulted in the allocation of more resources for water development than otherwise may have been possible.

With respect to increase in bilateral and multilateral aids, there is no doubt that there was an increase in funding to water projects immediately following the conference. However, it is debatable whether the increase

1. Y. A. Mageed, 'The UN Water Conference: The Scramble for Resolutions and the Implementation Gap', *Mazingira*, Vol. 6, No. 1, 1982, pp. 4-13.
2. *Ibid.*

represented new funds or just funds that were transferred from other budget lines. After the initial increase, the fundings have declined in real terms.

So far as the United Nations system as a whole is concerned, the impact has been marginal. As Mageed has noted:

While there was unanimous agreement on the necessity for effective monitoring, follow-up and co-ordination, views expressed during the conference differed considerably on the institutional means by which these aims might be accomplished. The differences centred chiefly on whether at the intergovernmental and intersecretariat levels, new machinery should be created or whether improvements to existing machinery should be created or whether improvements to existing machinery and procedures would suffice.

### *International Drinking Water Supply and Sanitation Decade launched*

Undoubtedly, a major impact of the conference has been on the lack of availability of clean drinking water to millions of people in developing countries, especially in rural areas. The conference approved a resolution stating that 'all peoples have the right to have access to drinking water in quantities and of a quality equal to their basic needs'. It recommended that 'priority attention' be given to the 'segments of population in greatest need', re-endorsed the Habitat target of clean water for all by the year 1990, and urged the countries to develop by 1980 suitable national plans and programmes to meet the targets. It further recommended that the decade 1980-90 should be designated as the International Drinking Water Supply and Sanitation Decade. On 10 November 1980, the United Nations General Assembly officially launched the Decade, reaffirming the goal of clean water for all by 1990.<sup>1</sup>

Even though there have been discussions on clean water at various international forums earlier, there is no doubt the Water Conference was instrumental in placing it firmly on all future international development agendas.

Goals and targets are easy to design and resolutions are easy to pass. Unfortunately, international agreements on targets will in no way guarantee that the necessary plans will be developed and implemented, or that necessary funds and trained manpower will be available for execution. In a world full of resolutions on targets and designated decades for different areas, national and international interest often tends to be ephemeral. One is reminded of a resolution of the World Food Conference in 1974, which stipulated that no child should go to bed hungry by 1984—today that target appears hollow indeed.

### *Target is not an 'impossible dream'*

Regrettably, there has been much debate internationally on the need for cutback in the targets for the decade. There was no doubt in my mind in 1977 that the decade target would not be met, and I see no reason to change my view at present. However, this is not the way the target should be viewed. As one intimately associated with the Water Conference, I have always felt that the proclaimed objective of the decade is a worthy one, and may be capable of achievement in a number of countries. But in a great

1. For a comprehensive review of this problem, see Asit K. Biswas, 'Water for the Third World', *Foreign Affairs*, Autumn 1981, pp. 148-66.

many others it will not be realized. The target should not be considered as an end in itself. If we do, we shall only face disappointment. It should rather be considered to have greatly contributed to the beginning of a process of intensified programmes and activities that proceed on a realistic timetable and in double stages. The goal should be provision of clean water and sanitation for all in as many countries as possible by 1990, and where it cannot be achieved by 1990, reasonably soon thereafter. The Water Conference ensured that millions of people will have access to clean water and sanitation in their lifetime, and the target, if viewed logically, is not an 'impossible dream', and this fact alone made the conference worthwhile.

Asit K. BISWAS

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## Traditional technologies and development

*Vasile Mihai, a young researcher at the International Centre of Methodology for Future and Development Studies (ICMFDS) in Bucarest, has asked us to share his thoughts on an illustrated article we published recently by Jean Gimpel ('Working Models Promote Rural Development', Vol. 31, No. 4). Our correspondent's address is ICMFDS—University of Bucarest, Str. Academiei 14, 70109 București, Romania.*

The introduction of sophisticated, Western-type technologies in the economy of a developing country is a difficult and frustrating process. Traditional technologies have recently been 'rediscovered', but some of these have already been scorned by their proponents. J. Gimpel has remarked that the advantages of these techniques, as well as their transfer by way of working models, are undeniable. But to the question of whether the resuscitation of traditional techniques is able to ensure a country's development, the answer is, in our opinion, negative.

Traditional technologies may solve, for a while, problems related to food, energy, health; but their low productivity will not keep pace with the growth and consumption of the population. Encouraging their spread regionally or worldwide is likely to return these areas to a medieval economy. Large-scale use of such technologies in developing countries could lead to restriction of market, reduction of economic and cultural exchange, and the impossibility of going beyond the present civilization model.

The problems of developing countries today are more those of technology than resources, so it seems advisable to conduct complex studies on technologies.

### *Technology as a system*

Technology is usually viewed as a mechanical ensemble of means for the manufacture of goods or the provision of services, but the systemic approach emphasizes other components, too. Gennady Dobrov defines technology as 'a system made of an ensemble of technical means (hardware), of methods and procedures of effective utilization of these means (software), and of specific organization (orgware) designed to be used' by decision-makers.<sup>1</sup>

1. Gennady Dobrov, 'A Strategy for Organized Technology', *Technological Forecasting and Social Change*, No. 13, 1979.