

16. This point is actually even stronger than it may seem from the table. The method by which the EPZ estimates are derived (see the notes to Table 4) probably overestimates value-added content, because domestically supplied intermediate inputs to EPZ production indirectly contain some imports.

17. Such a model is formulated and used for a somewhat different purpose in A. Wood, *North-South Trade and the Demand for Labour*. Final Report of ESCOR Research Scheme R4258. Institute of Development Studies, 1989, Ch. 5.

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## Debating the Water Decade: A View from the Yemen Republic

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In September 1990 the world community met to review the successes and failures of the Water Decade, 1980-90, and to set an agenda for the 1990s, in the 'Global Consultation on Safe Water and Sanitation for the 1990s'. The aim of the Water Decade was the achievement of universal access to safe water and sanitation by the year 2000. This aim remains largely under-achieved, although 1.3bn new users have been supplied with clean water and 700m. with sanitary facilities (Draper, 1990). Progress has been particularly poor in the Middle East. Estimates for the Western Asian region show that, although there has been an increase in coverage of rural water supply of 28%, the numbers remaining unserved have increased by 5%. Rural sanitation coverage has increased by 17%, but the numbers remaining unserved have also increased by 17% (Economic and Social Council, 1990). This article questions whether the recent international debate will contribute to an improvement in water service provision, using the Yemen Republic as a case study.

The 1980s have also been a decade of general debate in development administration, particularly its evolution relative to other areas of public administration and indigenous organizations, and the use of all these forms of administration for 'nation-building activities'. This is demonstrated here with information from the Yemen. It seems that many weaknesses mentioned in the Global Consultation were known before or early on in the Decade, but rarely led to revision of donor policies and programmes. There are also few new donor initiatives to cope with the challenges of the 1990s.

Several background papers and regional reports were tabled at

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the GCSWS. The background documents provide only a partial set of recommendations for policy and programme reform, with particular weaknesses and contradictions in the area of institutional development and its links to development assistance. The conclusions and recommendations from the regional meeting for the Middle East, held in Amman in May 1990 under the auspices of the World Bank, the World Health Organization and the UNDP, were particularly generalized and bland (UNDP, 1990b), couched in a language which uses virtually all the 'escape hatches' for avoiding policy reform cited by Clay and Schäffer (1984). The General Consultation finally produced 'The New Delhi Statement' (UNDP, 1990a) as a call to action. This Statement is reviewed in the final section of this article. Our conclusion is that it suffers from confusing and contradictory rhetoric, and will not contribute at all to improve policies to achieve even some water for all by the year 2000.

There are, in short, few realistic recommendations for closing the gap between programme provision and programme implementation which was the hallmark of the Water Decade. Water for all may be achieved in some countries where both donors and national governments are committed to learning the lessons of the 1980s. However, it is unlikely that the Yemen Republic will have full coverage by the year 2000, owing to a range of bureaucratic, financial and environmental challenges, although it will continue to improve the provision of water services.

The information for this article is based on experiences in the Yemen Arab Republic (YAR), where the author worked as part of a local unit to construct rural water supplies in the district of Al Jabin (Raymah subgovernorate) during the period 1985-7. The YAR united with the Peoples Democratic Republic of Yemen (PDRY) in May 1990 to form the Yemen Republic, but little information is currently available as to how this will affect water management. The focus of the article is therefore on lessons from the YAR.

#### Development and development administration in the YAR

One feature of the 1980s has been the considerable progress in understanding both the complexity of local institutions and their advantages and limitations for different activities. Perhaps the

most fundamental distinctions lie between indigenous organizations for social and resource management, and those which have been centrally imposed for law and order purposes, and for rural development. Indigenous institutions are often particularly hard to define, as they are sometimes invisible except at times of crisis. The shifting needs and pressures that shape local institutional activities are usually well understood by local people, but can become a nightmare for aid personnel simplistically looking for one group or one person with whom they can immediately start working. These issues have been influential in the complex tribal societies and fragile environments of the Yemen.

The YAR covered some 200,000 square kilometres, and, with the exception of the coastal plain (the Tihama), most land lies at altitudes above 1000 metres and is heavily terraced. In 1985, the estimated population was 9.25m., including the million men working outside the country in neighbouring Gulf states (Central Planning Organization, 1986). The rural settlement pattern consisted of some 30,000 small settlements ranging from 50 to 1500 people. Mullick (1987) estimated it would cost about US\$516m. in construction costs alone to improve water supplies for the 1985 population, a total some 20 times greater than the basic export earnings of the country at the time.

Rainfall varies from 1500 mm per year in some areas to less than 400 mm per year in eastern areas and in the Tihama. Much of the agriculture is rainfed, but most small water sources are used for irrigation, resulting in considerable competition for water. Much rain water is harvested in cisterns for domestic water supply and irrigation, which is also taken from springs and streams supported by groundwater. Wells of any form are uncommon in the mountains, but do feature prominently in valleys and the lowlands, where there is growing concern at the over-exploitation of groundwater and rapidly falling water levels. Spate irrigation using flood run-off is important in certain lowland wadis. These are complex hydrological environments, requiring careful consideration of appropriate technology for their development.

Yemen has a tribal history, although not all parts of the country are equally tribal, nor does everyone belong to a tribe (Varisco, 1988). The history of the YAR begins in 1962, when a military revolt overthrew the religious authority of the Imam and proclaimed a republic. This revolt was followed by a protracted civil war, which ended in 1969, although resistance to the central

government continued into the early 1980s in some areas. The Constitution of the YAR was declared in 1970, and states that Islam is the state religion, and that Islamic law (the *Shari'ah*) constitutes the basis of all legislation. Nevertheless, customary law remains strong, with much regional diversity; it is still administered through tribal structures in some areas, although the central government made attempts to change this during the 1980s (Varisco, 1983; Vincent, 1990).

Misjudged political and economic experiments led to a succession of political assassinations throughout the 1970s, and it is only since Colonel Ali Abdullah Saleh came to power in 1978 that the leadership has stabilized. During the 1980s reforms of the bureaucracy began, together with increased numbers of councils for representation of a wide range of interests, but all very much under the direction of the President. By 1985 centrally appointed 'district officers' were in post for law and order in most areas, although they were not necessarily fully effective in replacing indigenous political frameworks.

Inevitably, new legal problems arise with social and technical change, and solutions are developed, at least in theory, with reference to Islamic Schools of Law, of which there are several for the different religious sects in Yemen. However, potential confrontation in the derivation of new laws can stem not so much from the wording of actual rules, as from the source of decision-making and their subsequent administration. It seems that both the key Islamic sects recognize the principle of *ijma* or 'consensus', although attitudes vary as to whether this consensus should come from the nation, the community or Muslim scholars. Controversy does occur, however, over the use of *qiyā* or 'deduction by analogy' because of differences in the Schools of Law about which are acceptable, and particularly whether legal solutions from non-Islamic countries can be considered (Caponera, 1973). There are also questions as to who applies this law, especially regarding religious and tribal leaders, or civil judges.

Much of the history of the YAR has been dogged by the issue of finding a forum for discussion and promotion of development activities, and the ability of the government/presidential power to judge how and when to develop and introduce new legislation and administration. If these are delicate matters at the general political level, it is hardly surprising that they are difficult in rural water supply. One impressive feature of the regime of Ali Abdullah

Saleh is its balancing of secular, tribal and religious interests in the creation of 'nationhood'. Although water problems have been debated for a long time, there are sound reasons as to why no detailed Water Code has yet been clarified. The government cannot risk its political legitimacy by getting embroiled in legal issues which it cannot enforce, or where it may need to decide between multiple contestants.

Thompson and Warburton (1985a,b) attempted to get behind the apparent complexity and confusion of local institutions in environmental management and made a strong case for preserving plurality, as the arrangement which actually offers the *villager* the most options. The same applies to national governments in relation to donors. Strong indigenous institutions are mentioned by Nonneman (1988) as an important feature of some Middle Eastern countries, and their incorporation into the state has been of major importance for political legitimacy. Nonneman also cites the phenomenon of the 'charity economy' first described by Abu-Lughod (1984), where foreign assistance provides the absolute majority of activities, theoretically giving donors considerable influence over the shape of administrations and activities. Secondly, he comments that development plans may become essentially 'window-dressing' exercises, for the benefit of potential donors and of the domestic audience as a means of generating legitimacy. Nevertheless, despite the apparent inconsistencies of planning and bureaucratic evolution, the central government may be pursuing a very careful plan of political and economic change. This is also visible in Yemen.

Despite the YAR having a strong tradition of agriculture and trade, the value of its exports was low, and in the mid-1980s it experienced a severe balance-of-payments problem. The country has limited natural resources, although oil has been discovered and has now begun to make some contribution to the economy. The balance-of-payments problem has been exacerbated by the need for food imports, consequent on stagnation in the agricultural sector, especially in rainfed production.

Economic planning began with the first Three-Year Plan, 1973/4-1975/6. Since 1976/7 there have been three five-year plans (FYP) which developed both central and local expenditure programmes. Central government revenue came mainly from taxes on imports and direct taxation, but the bulk of the funding for the development plans came from foreign aid. The YAR followed a

non-aligned foreign policy and received economic and technical assistance from many countries. In the first FYP, 95% of the funds for the water and electricity sector came from aid donors, and 80% in the second FYP (Mullick, 1987). This gave donors a huge potential for experimentation in the country and also resulted in bureaucratic structures on a tightrope between the desires of the donors on the one hand and the government on the other.

Despite the limitations on central funding, the YAR was not a very poor country. A substantial amount of wealth is in private hands, especially that acquired through remittance income from Yemenis working in the Gulf states. Although these opportunities had decreased substantially even before the Gulf crisis, this income, and the experiences of life in the Gulf states, had fuelled rising expectations in the population, which are also buoyant since the discovery of oil. Such oil revenues as are available, however, will be used for employment generation and agricultural improvements before they go into infrastructure.

In addition to individual wealth, further local funds are raised through the *zakat* levy, a religious ruling on donations for charitable purposes based on income from agriculture and commerce, and these have had an important influence on the shape of local politics. Prior to the revolution, there was no standard local administration, and the new central government needed a structure to link the villages with the centre. It used the Islamic principle of welfare groups, originally called Local Development Associations (LDAs), but these were *not* an indigenous political structure.

These associations grew in number from 29 in 1973, to 203 by the end of the first FYP. Until 1985 they had considerable financial autonomy in the collection of local taxes and their subsequent use. Schools, roads, health centres and water projects have always been the most popular budget items, but financial management was poor. In 1985 the structure of local councils was revised. They were renamed Local Councils for Co-operative Development (LCCDs) and designed to co-ordinate representatives from the smallest administrative unit (the *uzla*) upwards. *Zakat* taxes are now collected by the Ministry of Finance, and given back to the local councils as an agreed budget rather than simply a fixed percentage, thereby increasing accountability. These local councils, whose representatives are now elected locally, form the bottom tier of a structure of governorate administrative councils,

where there are also centrally appointed representatives involved in committees at all levels.

In this section an attempt has been made to portray the basic facts of a country which has shown extraordinary progress in developing as a nation, and made considerable improvements in infrastructure and welfare services relative to its situation in 1970. It thus becomes all the more interesting to understand why the performance of its water programmes has been so weak. Firstly, however, attention must be paid to donor policies.

### The decade and debate in policy formulation and reform

The inability of donors to undertake appropriate policy and design was being debated well before the last decade. Henry (1978) mentioned the tendency for agencies to produce grand designs which cause confusion and failure because local knowledge and experience play a limited role. He noted that it is the availability of weapons that should decide tactics, and not the reverse. It is not, however, uncommon for aid donors to misjudge both, as we show for the Yemen Republic in the following section. Henry lamented the limited role of the important multilateral donors in backing 'appropriate technology' for rural water supply. Many larger-scale programmes have been wholly associated with lift technologies, especially from groundwater, for which technology is imported wholesale. Some donor packages in the earlier programmes in the Yemen did assist with the development of cisterns and spring rehabilitation, but by the mid-1980s many donors were refusing to give funds for such sources on the grounds that the water sources were unreliable in terms of quantity and quality. This is an ironic argument when, under other conservation and agricultural programmes, water harvesting has been given exceptional prominence as a key technology.

Also well understood was the tendency for donors to take a highly directive stance on appropriate administrative development (Rondinelli, 1976). Therkildsen (1988) provides a strong criticism of 'control-oriented' planning, of funds wasted in the design of comprehensive plans which were never used, and of 'feasibility research' which was sometimes not used, or not disseminated. Another tendency noted early on was for donors to opt for experimentation in a variety of conceptual development models

when evaluation found practice wanting, rather than for a systematic policy review (Rondinelli, 1983; Clay and Schaffer, 1984).

'Strategies' and 'target groups' may help donors to define their budgets and personnel in a manageable format, and appear to be appropriate for the technology transfer desired by the donor, but there is absolutely no reason to expect the recipient country to share this orientation. Indeed, there is no reason to expect recipient governments to co-operate fully, and it is not actually helpful to portray them as 'victims' of donors. Nor is it reasonable to assume that governments seek the same objectives as donors, or support their frameworks to achieve them. The outcomes from donor assistance, failures in their own terms, may be the result of a number of other government objectives in which governments may in fact be very successful.

In short, at both policy and programme levels, aid for water projects has experienced all the problems highlighted for public policy generally in the 1980s (Rondinelli, 1976, 1983; Clay and Schaffer, 1984).

The most common approach by donors in the water field has been first to oversee 'turnkey' companies for implementing projects which were only notionally linked with government departments, and then to attempt to create an overarching Ministry for Water to oversee projects and create efficient use of manpower. There are a number of responses likely from governments and existing Ministries threatened by this level of interference, and of disregard for appropriate political developments. The response of the Tanzanian Government, documented by Mutahaba (1989), was to reject a central Ministry and instead extend donor assistance across Regional Directorates with widespread cross-sectoral responsibilities including rural water supply. This approach was also taken in Yemen, although only some provinces had adequate infrastructure and administrative competence to absorb large quantities of foreign assistance in the 1980s.

The inadequacy of much policy formulation and related implementation has led to calls for greater involvement of local institutions and increased villager participation in the selection, construction and maintenance of projects. However, the rhetoric of participation and empowerment has also come in for some stiff debate. Gow and Vansant (1983) studied rural development approaches that have emphasized participation, and linked their poor performance to three sets of constraints: national policies,

the bureaucracy and the socio-economic pressures of the immediate project environment. They saw the reorientation of both national policies and bureaucracies towards real participatory approaches as rather intractable problems.

McPherson and McGarry (1987) point out that, while some administrative and technical staff may understand the wider concepts of the participatory approach, others simply equate it with specific concepts of 'self-help', especially provision of free labour, local materials or local transport in order to reduce project costs and provide a demonstration of commitment. Many development workers now highlight that, instead of asking 'What is the agency role in community schemes?', all too many agencies still ask 'What is the community role in agency schemes?'. Mutahaba (1989) notes that the insistence on more community participation in rural water supply schemes can in itself become a form of intervention, and may not be 'appropriate' aid because it will still be unsustainable when agencies withdraw. The focus on achievements may still lead to adoption of an approach which 'may push the process [of community participation] but never at the expense of the goal' (p. 119). If a high return of benefits to donor countries remains a motive in aid assistance, then considerable numbers of expatriates and a high degree of foreign equipment will still be used to make the process work.

### Rural water supply planning in Yemen

The key feature of water institutions in the YAR was seen to be their fragmentation, with piecemeal intervention by a variety of donors (Mullick, 1987; Merabet, 1984; Laredo et al., 1986; Carapico, 1989). Their 'high technology' approach was also seen to be inappropriate both to maintenance potential and to customary water management, causing many disputes and delays. Despite very limited information on water sources and settlement geography, technical services for rural water supply in the 1980s soon began their own assessments of the projects required, without asking the villagers. Some 50% of the population could, it was thought, be served by spring or dug-well projects which were simple to construct, although not necessarily cheap. Expensive systems based on borewells were required for 40%, with 10% involved in major programmes with booster pumps and extensive

pipe distribution. According to estimates, at least 70% of the rural population needed systems linked to some form of 'lift technology' involving pumps (Mullick, 1987). This emphasis on lift technology, which is very amenable to certain forms of credit assistance, was experienced in many countries during the decade.

Although in the early 1980s several donors worked in rehabilitation or development of small springs, and even funded water harvesting work; by the mid-decade the technological focus had become much narrower. The emphasis on high technology was a problem, given the strong import controls in force, leaving donors to import all their own pumps and equipment (although this was in many donors' interests). A sad tale of poorly stored equipment, and projects which could not be operated by villagers, inevitably followed. Not all donors abandoned improvements to dug wells, but ironically attempts were made to promote manual lift technologies which were rejected by the villagers (Warner and Varisco, 1988). As far as we know, the ban on 'unreliable' sources is still in force, and much confusion still reigns about the advantages and disadvantages of different technologies. Thus, beneath the rhetoric there is little agreement on what actually constitutes appropriate technology.

A very different technological profile was requested by villagers in the mountains of Al Jabin. Although in the late 1970s one could perhaps assume that villagers were neither interested nor informed about options for water improvements, this was not the case by the late 1980s. Stimulated into awareness through the media and returning migrants, but also from the reorganization of local taxes for local welfare spending, they actively desired improvements. When the local council in Al Jabin canvassed local representatives about water projects, 43% of those listed were cistern improvements; 46% spring developments and only 7% borewell projects. Villagers judged their options primarily in relation to availability of source and other settlements with which they could co-operate; 90% of the projects requested were for small water sources, which are unattractive to donors and central water supply agencies.

Nevertheless, despite the lack of detailed knowledge of local water needs, a considerable amount of foreign aid was targeted for technical assistance and project construction (Merabet, 1980), primarily through 'turnkey' companies linked with the few existing bureaucracies. In the 1980s USAID alone spent US\$20m. on strengthening administration and implementation of 172 projects

under this approach (Laredo et al., 1986). Inevitably, with restricted central power, Ministries were able to operate forms of patrimony of very limited efficiency within which, unfortunately, turnkey operations can co-exist. Although effective to some extent, this approach was seen to be unsuccessful by donors who closed down these companies and shifted to other experiments in Integrated Rural Development Projects and health-related projects during the late 1970s and the 1980s. At the same time, changes in the strength and approach of central government also led to the eclipse of older programmes and departments, and an emphasis on new bureaucracies, some of them outside the influence of international donors.

The 'turnkey' line of donor experimentation operated mainly through the Rural Water Supply Department (RWSD) in the Ministry of Public Works, the oldest institution operating in the field of rural water supply. Several donors had focused on the administrative development of the RWSD and devoted great efforts to making it an autonomous agency. The RWSD executed its own series of programmes, the largest being the 'turnkey' water companies, 'Chemonics' and the 'New Transcentury Foundation' (NTF), funded by USAID, with construction work on projects tendered out to Yemeni contractors, but with supervision largely by expatriates. NTF purchased materials and other equipment through the local market. Other donors imported all the necessary pumps, generators and pipes, an approach which proved problematic as materials lay unused for considerable periods of time, resulting in subsequent maintenance problems and losses. UNICEF concentrated on villages with primary health-care facilities, and therefore projects took place with the co-operation of the Ministry of Health, but were executed by RWSD personnel. However, after withdrawal by USAID of its technical assistance in 1987, the RWSD was transferred to the newer Ministry of Water, Power and Sewage.

Evaluations of these programmes, such as that by Laredo et al. (1986), show a sad list of frustrations with this kind of intervention. Foremost were the poor administrative evolution of the RWSD and difficulties in finding appropriate aid personnel to negotiate programmes and oversee them. But there were also technical problems in the design and implementation of projects so that they rapidly required rehabilitation, and constructed projects tended to have little impact on water use. The slow pace of work,

largely attributed to the complex problems of liaising with central assistance, aid inputs and village participation, combined with very high costs to portray aid operations in the YAR as very poor value for money.

The RWSD was not the only agency operating in the field of water projects. In 1973 the National Water and Sewerage Authority (NAWASA) was created with responsibilities for urban water supply and sewage. In 1980 it was attached to the newly created Ministry of Water, Power and Sewage, which now has overall responsibility for the control and exploitation of water resources throughout the country. All the urban supply systems are financed by water charges which, together with donor assistance, leave NAWASA with a well-defined and amply financed role (Carapico, 1989). However, although rural water supply is now located within a framework which might permit cross-sector subsidies for funding, there are no signs of funds or manpower being transferred to it.

The second line of donor experimentation has been through Integrated Rural Development Projects (IRDP) which include rural water projects within their brief, co-ordinated by the Ministry of Agriculture and Fisheries. While the World Bank was the prime mover in the creation of these IRDPs, a number of bilateral donors have also assisted them. The problems and successes within these projects are far less well documented, although work such as that of Merabet (1984) shows that they have adopted more flexible approaches to working with local communities. However, when new regional authorities with a wider brief were scheduled for the third FYP, with multilateral encouragement, the YAR Government had to insist that their duties included rural water supply. While IDA funds were available for agricultural services, technical co-operation and training, other funders had to be sought to support rural water supply (Carapico, 1989; World Bank, 1987).

The third line of approach has been through health-focused sectors. The Ministry of Housing and Municipalities has been involved in some small schemes, and the Environmental Health Unit within this Ministry has a commitment to helping rural sanitation programmes. Recently, a new Environmental Protection Council was set up with Dutch technical assistance; however, it has neither the manpower nor the resources for an extensive pollution control or sanitation programme.

The fourth line of experimentation has been attempts to work

directly with the local councils which actually have the funds to implement the projects. These experiments have been undertaken primarily by non-governmental organizations, although some local funds have also been used for 'local contributions' in projects overseen by both the IRDPs and the RWSD. Typically, funds from the local council are combined with donor funds and village contributions, usually in the form of local materials and transport. Some NGO projects did try to train local representatives to continue working on rural water supply projects selected in the local council budgets. However, there are now no longer any NGO water programmes operating in the YAR.

NGO activities collapsed for several reasons. The biggest problem was their determination to work in the poorest and 'least served' areas, which unfortunately tended to be those where local government was weakest. Water disputes, disagreements with local politicians and local feuding were responsible for the withdrawal of personnel in several projects. They also foundered on the difficulties of maintaining sufficient personnel or a continuity of personnel in the area selected, and the costs of maintaining such programmes when few projects were completed. Donors, as well as NGOs, misjudged the competence and local legitimacy of the new councils. Council appointees were not necessarily traditional representatives empowered to oversee water allocation and development needs. Also, many locally powerful families were inevitably strongly represented on these new councils, and did not have dispassionate interests in water development.

Turning to broader management issues, donor activities in water resources assessment have been equally fragmented, and rarely relevant to the actual hydrological environments of the country, especially for spring monitoring and water harvesting. Some of the interventions in traditional spate irrigation systems have been positively disruptive, although assessment reports here remain confidential. The prime concern was always with rapid expansion of groundwater, with the predictable call for central action to control borewell developments. In 1990 a UNDP technical assistance programme was advising on the draft of a national water plan, including legal and administrative mechanisms.

Donors have tended to see the lack of action on water legislation and centralized water planning as an indication of the inability of the bureaucracy to deal with current problems. But an alternative view is possible. The 'slow progress' in water legislation may

be understandable as simple pragmatism. Plurality of water institutions and water rights may not actually be a problem for the government, for whom it may be easier to co-ordinate interests in a committee than to control donor activities in a new water Ministry. A High Water Council has been in existence since 1985, co-ordinating ministries with water-related programmes, under the aegis of the Central Planning Organization. It is the role and status of water representatives in the planning process which is critical to the success of water programmes, not the actual shape of the administrative structure. The High Water Council does accord debate a high priority, and does take action where possible, as recent negotiation over the brief of the new regional authorities suggests.

The key strategy of the government appears to be to rely on local funds available to LCCDs to cover much of the rural demand simply to provide water services. They want no special large target programmes, which incur heavy loan responsibilities, and which would still require large numbers of expatriates to run them. Moreover, to date, few of the technical assistance programmes have shown much interest in the small-scale water technologies suitable for the mountainous terrains of much of Yemen.

Such an approach can also avoid wasting donor money in trying to work with local councils which are still corrupt, or in territories where water disputes are common. Lack of technicians may push local councils to work with local contractors, but this will at least keep wealth circulating in the Yemeni economy. Of course, this strategy requires some help to prevent villagers getting poor advice and assistance from contractors. However, few donors have given thought to assisting such programmes outside a large-scale water infrastructure like the RWSD.

The second approach, to have drinking water projects implemented in IRDP projects, also makes sense. Some of the areas covered will be amenable to the borewell technology which has acquired such pre-eminence among donors, and the expenses can probably be justified, given the wealth creation activities in other components of the projects. Problems here relate more to the efficient purchase and use of equipment co-ordinated by these agencies, although they are also likely to use contractors. It

remains to be seen how the initiative within the Environmental Health Unit will fare.

However, the prospects for assistance with these strategies look limited, with shrinking funds, technical restrictions on the type of projects that will be funded, and adoption of expensive technical solutions. Donor expectations persist that there can be rapid central innovation in water management issues and programmes, if only the right administrative configuration can be found. The realities are in stark contrast to the rhetoric of culturally appropriate technical assistance and close community involvement being used by the donor community in rural water supply.

### Conclusions

Experiences in the YAR mirror difficulties in rural water service provision in other developing countries. Other mountainous and semi-arid areas face the apparent 'non-existence' of affordable technologies to cope with the high development costs, complex hydrology and poor water quantity and quality. Strong traditions of customary water management which are disrupted by new technologies, and come into conflict with newly imposed local institutions, are common in many tribal societies across West Asia, and also in Peru and the Philippines. Water projects have been used in many countries to increase central government legitimacy in rural areas, but the preferred government approach is by simple service provision of water needs, rather than the development of comprehensive water administrations which financially and politically it cannot afford.

Finally, many countries have limited central funding, pushing a high degree of responsibility and initiative on to local people. Programmes are needed that can work with the plurality of local institutions likely to be involved in such ventures. Few countries have quite the YAR's level of local wealth or have people as well as money flowing back to the rural areas. Nevertheless, many areas do have a return flow of remittances, and policies and approaches are needed which are flexible to variable local incomes. How, then, will the recommendations of the New Delhi Statement of the GCSWS help?



### The New Delhi Statement

#### 'Some for all rather than all for some'

1. Protection of the environment and safeguarding of health through the integrated management of water resources and liquid and solid wastes.
2. Institutional reforms promoting an integrated approach and including changes in procedures, attitudes and behaviour, and the full participation of women at all levels in sector institutions.
3. Community management of services, backed by measures to strengthen local institutions in implementing and sustaining water and sanitation programmes.
4. Sound financial practices, achieved through better management of existing assets and widespread use of appropriate technologies.

Item 1 is in effect promoting the latest 'experiment' in Western aid — integrated environmental management including conservation, water supply and sanitation. Although we know that improved health education will improve the use of water systems and that consideration of sanitation should be associated with water supply, putting them together in a package will not necessarily improve the rate of implementation of projects at the village level or their sustainability. This is still an unproven framework for providing water services, and until more is known about it, it should remain as part of a range of approaches available to governments. This is the way it is currently being treated by the Yemen Republic.

Mutahaba (1989) has raised the issue of whether this is just another kind of 'control-oriented' strategy which, though relevant to the aid preferred by donors and with an 'acceptable face' to it, will nevertheless not assist sustainable institutional development. Also there would seem to be few prospects of governments being willing or able to introduce specific overarching water institutions at the centre, since their interests may be better served by plural institutions. Integrated management of water resources has always been important at the local level, and indeed in arid countries may be part of the basis of local administration. However, local environmental management will be maintained through forms of local institutions that can interact rather than conflict, and techni-

cal directives from a central agency would probably cause more conflict than co-operation, given the local politics of countries like the Yemen.

Item 2 is a particularly confusing statement. Many developing countries do not have a clearly demarcated water sector, and quite possibly do not want one. Many countries would welcome more women into their administration, but the nature of the dialogue within and between institutions has to change before having female or male personnel makes much difference. Institutional reform is not necessarily the answer to an integrated approach: what is needed is better institutional co-operation. There is every evidence that many countries already have central water committees to debate as many of the issues as is politically feasible. Funds to encourage sector development or reforms may not be what most countries want, particularly since they will incur financial obligations if the relevant technical assistance comes as a loan.

Donors need to modify their belief that new central legal systems and administrations will create improvements. They must also understand the causes of disruption better. This comes partly from *depletion* of resources, which may invalidate many investments. However, it is disruption from attempted *misappropriation* which has been more damaging to many rural water supply projects. Ironically, donor intervention can encourage attempts at misappropriation, as villagers conclude that water agencies and expatriates will give them more backing to take over resources, or that donors can be duped into developing a collective project which is subsequently privatized by an individual or powerful group.

Item 3, promoting community management and strengthening local institutions, is a clearer statement, in which many governments have strong interests. However, this is the topic in which there is the weakest donor activity in realistic funding. All too frequently, the 'community' is used as a means of implementing projects, rather than a group which is systematically trained and empowered. The timing, degree of commitment and costs mean that this sector is all too frequently left to NGOs and voluntary workers. Donors, too, have an unclear picture of what 'local institutions' actually are, and therefore how to encourage work with them, and have made many mistakes by dealing with representatives who are not impartial. Governments do want their local institutions strengthened, but in terms of accountability both to their electorate and to the centre, not to donors.

Returning to Yemen as an example, we can see that the current policy of making local councils use their budgets for local projects is part of a highly important internal agenda for nation-building. The question is, are donors prepared to work with local institutions outside of specific bureaucratic structures over which they can exert considerable influence and how can they manage to do it? Despite the GCSWS, this is still not known.

Item 4 on financial services and technology is both contradictory and controversial. The GCSWS was more realistic about difficulties (indeed the unlikelihood) of raising adequate finance to achieve universal water services. However, its rhetoric on funding, and using simpler technologies, has yet to be substantiated by policies in the background documents.

Implicit in the wording, sound financial management, are cost recovery and charging, although the high costs of small water supplies usually prevent them from being self-financing. Such an attitude assumes that people will take more care of things they have to pay for. But it also assumes an administration to oversee the collection of fees, which does not tie in with decentralization initiatives taking place in many countries. Most countries, and some donors, recognize that some element of subsidy is inevitable; the question is how to raise it, given current attitudes to aid? Although the GCSWS put up several theoretical models, for example cross-subsidy from urban water supply, there is little actual evidence that these work. Also, as was pointed out for the YAR, several donors refused to sanction expenditure on cisterns and spring rehabilitation, which are the appropriate and sustainable technologies for much of the country. One fallacy which must be removed is the idea that also in the 1990s construction can be made cheaper. For rural water supplies, transport remains one of the main cost components in any technology, and sustainable technologies must be different technologies, not some downgraded version of the system preferred by donors.

This article has attempted to demonstrate that governments encourage/permit the growth of certain types of local administration, in accordance with their own broad imperatives and constraints, and that donors have to work with these at a realistic pace and with realistic political expectations, instead of using a veneer of non-sustainable institutions and technological approaches. Perhaps the biggest irony of all is that so much of the New Delhi Statement is calling for technical assistance to improve institu-

tions. Countries like Yemen do not need further institutional change but do need technical assistance, in the true sense of the word, to use their preferred institutions to get the required water services into the villages in ways that the villagers can manage.

Despite the sympathetic rhetoric of the New Delhi Statement, it does not really point to changes in the forms of dialogue between donors and recipients, and is still highly directive. It is still, in effect, recommending governments to change their administrative procedures to what the aid fraternity thinks will work in rural water supply, and to what suits the forms of aid they are prepared to give. This will not encourage successful indigenous institution building, nor the technical and financial approaches that will give villages improved water supplies which are sustainable beyond the year 2000. Our review of the Yemen Republic shows at least one country that has a much clearer picture of what is realistic in rural water supply than the recommendations summarized in the GCSWS. Should the international community have spared itself the rhetoric of yet another 'Grand Design' when it knows that donors and governments will not agree on the means to fulfil it?

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## Book Review Article

## Aid Without Power

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*Western Middle Powers and Global Poverty. The Determinants of the Aid Policies of Canada, Denmark, the Netherlands, Norway and Sweden*. Edited by Olav Stokke. Uppsala: The Scandinavian Institute of African Studies, 1989. 355 pp. £16.95.

*The Emergence of Japan's Foreign Aid Power*. By Robert M. Orr Jr. New York: Columbia University Press, 1990. 178 pp. US\$32.00.

*Development Cooperation, 1990 Report. Efforts and Policies of the Members of the Development Assistance Committee*. OECD Development Assistance Committee. Paris: OECD, 1990. 272 pp. FF190.

All these books are about aid, despite their sometimes more circumlocutory titular terminology. Modern aid — official assistance given to developing countries for economic and social development — is a full generation old; the systems surrounding it and the impulses underpinning it were fathered and disciplined by the OECD (with its specialized Development Assistance Committee) in the early 1960s. That parentage drew heavily on earlier economists, politicians and strategists who devised, implemented and succeeded with Marshall Aid. So far, so good: an illustrious family tree. But there is enough self-doubt in these three books to lead readers to conclude that foreign aid is due for substantial rejuvenation. Some observers already see a danger, for instance, that not much will be learned, when determining how best to assist East-Central Europe, from the lessons of 30 years of aid to developing countries (the stock references seem always to be to Marshall Aid, not to the challenges of policy-based lending to heavily indebted countries in the tropics).

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