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Policy in the Making



WATER: **Systems, Sustainability** **and Economic Impact**



Discussion Paper No.2

PDU November 1994

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WATER: Systems, Sustainability and Economic Impact

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SYSTEMS, SUSTAINABILITY AND ECONOMIC IMPACT

These papers take forward questions that were initially raised at SCF's water policy meeting held in Malawi in 1993. They explore institutional issues; the role of national governments, donors, NGOs and communities; and the wider economic impact of interventions in the water sector.

The papers are intended for a broad range of overseas and headquarters staff within SCF: planners, implementers and decision makers. Their overall aim is to explore the changing operational context and its implications for SCF's policy and practice. Themes such as decentralisation, the impact of structural adjustment (particularly falling central budgets and reduced government capacity), cost recovery, and the role of the community as 'service deliverers' figure prominently in these discussions. The comparison with experience in other sectors is striking, and might usefully be followed through at country/regional level.

The papers, which are informed directly by SCF experience, argue for changes in donor and government approaches which might be of direct and immediate benefit to children and communities. At the same time, they leave no doubt 'water for all' is beyond the reach of the current international order.

'Systems, Sustainability and Economic Impact' is accompanied by a second set of papers which looks at Water and Communities.

Responses to 'Policy in the Making' discussion papers are welcome and encouraged. These should be sent to PDU and will be forwarded to authors and other interested sections in the Overseas Department.

INSTITUTIONAL ISSUES

1. INTRODUCTION

The development of the water and sanitation sector has received a great deal of support in recent years as it is seen as a high priority both by donors and developing countries. And it is perhaps in recognition of the importance of the sector in developmental terms, particularly in relation to improvements in health, that has resulted in increased interest by SCF.

The experience gained by SCF in the past has largely been in the health sector, with a special emphasis on institutional support to strengthen policies and improve the technical capacities of government agencies. In many ways the institutional issues in relation to the provision of water supplies are very similar to those which concern other service sectors such as health, and it therefore seems likely that SCF will consider institutional support in the water sector as a major part of its strategy to promote any improvements in the water and sanitation sector.

During the 1980s it was recognised that water programmes (especially for rural areas) were too technical and greater efforts were needed to involve communities in the planning and implementation of the projects. As a consequence of this approach and the relegation in importance of technical considerations, there was a need to strengthen the various institutions involved to allow for more effective planning, greater efficiency in implementation and greater accountability to recipient communities. At the same time there has been a change in attitude by donor countries who are more prepared to tie aid to policy changes, particularly in relation to the public sector, sometimes referred to as "The New Policy Agenda". This has focused more attention on the institutions which are responsible for development and encouraged the growth of the private sector and NGOs in development work.

This paper looks at some of the institutional issues in relation to the water sector. It is primarily related to rural water supplies but there are references to urban situations.

2. MULTISECTORAL APPROACH

One of the primary reasons for the development of water resources is to improve health, and it is well understood that improvements in health do not necessarily come from increased water supplies alone. Sometimes increased quantities of water can increase risks to health if sanitation facilities are not available and good sanitary habits are not adopted. Therefore the development of water resources has generally been considered in recent years together with sanitation and hygiene education.

The development of water resources can also be for irrigation and industry (small-scale or large-scale). The planning for such infrastructural development and the inclusion of other agencies who have an interest in the development of the water resources is therefore of primary importance.

The development of water, sanitation and hygiene education should ideally be a multisectoral effort and include agencies which have varied responsibilities such as :

Water - to provide technical expertise for water supply programmes

Agriculture - to provide data on land use, stock management and irrigation possibilities

Health - to give technical advice on sanitation, hygiene education and water quality control

Community and Social Welfare services - to help technical agencies to develop an understanding of community issues and to gain the acceptance of recipient communities particularly for rural water programmes

Local government - to provide an institutional framework and coordinating services for technical agencies

Community groups - to articulate user views.

3. INSTITUTIONS

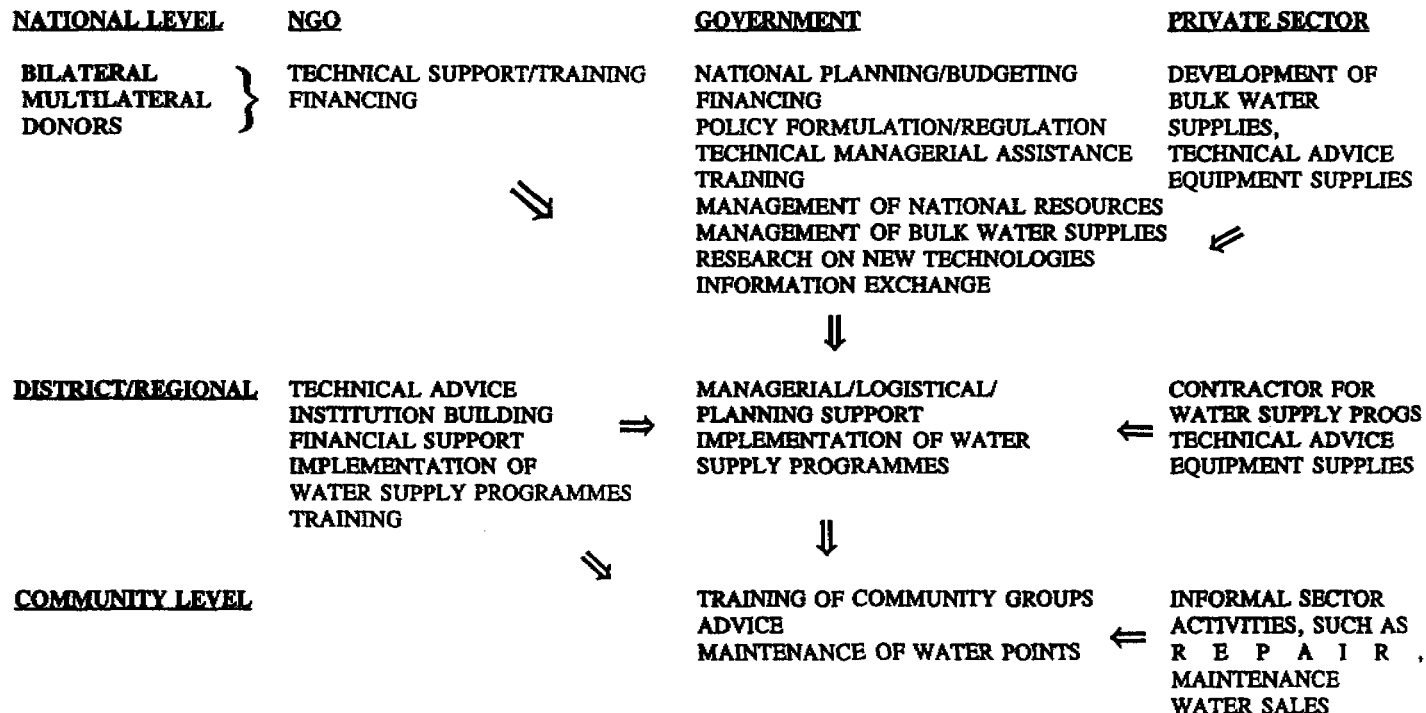
Ideally, agency representatives of the different sectors would then provide support to three main levels of institutions, community, district/regional and national level. They would be supported by the private sector and NGOs (see diagram).

3.1 National Level

Government water departments are usually the key agency although they are very technically orientated and concentrate mainly on the provision of bulk water supplies to urban areas. They do not usually lend themselves to a multisectoral approach. There may be an extension service to community level but generally such agencies are not very accountable to communities and are rather inflexible and prescriptive in their approach. Water departments are almost invariably short of skilled manpower.

Sometimes different agencies are involved in the provision of low cost water supplies which, coupled with a lack of coordination, result in overlapping implementation. In addition appropriate technologies are often not fully exploited because of a lack of communication between those in research and those agencies who might apply the technology in the field. Agencies with the responsibilities of sanitation and hygiene education are often weak.

ROLES OF DIFFERENT AGENCIES IN THE WATER SECTOR



Policy formulation at national level often lags behind developments on the ground and political agendas will sometimes affect institutions involved in water. As a result projects are often driven by donors which can lead to inappropriate methods and technologies being used.

National government institutions are therefore not at their most effective in the physical implementation of rural water supply projects. They do however have vital functions including:

- national planning/budgeting;
- financing;
- policy formulation/regulation; (standardisation of equipment, distribution of spare parts)
- technical assistance and training;
- management of natural resources (eg. water) and trunk services (eg. bulk water supplies)
- research for new technologies
- information exchange.
- management support

3.2 Regional/Local Authorities

The most appropriate institution for the development of low cost rural water supplies is at local authority level. This is probably the lowest level at which there can be an appropriate technical capacity to support communities. Ideally local authorities should be responsible for:

- development of strategic rural development plans, including the management of land and natural resources;
- ensuring the delivery of primary services, including water and sanitation; and
- supporting community initiatives, including the common management of a rural water and sanitation programme.

In many cases however, local authorities are not sufficiently well developed to have a technical capacity for the development of water supplies, in which case the regional authority may take on this role. Under these circumstances efforts would need to be made to ensure that communities were adequately involved in the programme. NGOs and the private sector can provide useful implementational roles in support of the regional or district authorities but they would need to operate within an appropriate framework supported by government.

3.3 Communities

Although it is arguable that communities are not really institutions they are often referred to as if they were. Ideally communities should be aware, active and self-organised, with the strong participation of women, able to influence local authorities, playing a central role in planning and setting priorities, and managing operation and maintenance.

In practice communities often have development programmes imposed upon them and have only been involved in the planning in a rudimentary way. They often find it difficult to influence local authorities and have to accept whatever is provided for them. The amount of community involvement is increasing but it is often seen by outside agencies as a means to

keep costs down rather than to increase participation. Women's participation is often only as collectors of water.

It is therefore at community level that the demands on outside agencies are greatest as the development of communities from passive observers of development to active and demanding participants can be a long process, and does not always fit in with the time-frame of the supporting agency.

Communities are generally not able to adequately support the maintenance of water points because of technical or financial limitations. However the increasing importance of sustainability in water supply and sanitation programmes has resulted in more efforts being made to involve communities in the planning and implementation of programmes. The VLOM (Village Level Operation and Maintenance) concept has been specifically developed to help communities to be responsible for their own water supplies.

More attention is being given to supporting the provision of low cost water points owned by individual families, in an effort to increase the ability of users to take responsibility and pay for the maintenance of water supplies.

3.4 Private Sector

Ideally there should be a well developed private sector (formal and informal, large-scale and small-scale) delivering goods and services in rural areas. However in practice the private sector is generally limited except perhaps in the case of the small-scale informal sector but which often lacks sufficient skills (e.g. mechanical repairs and building) to be very effective. Large-scale private sector companies are often active in the development of bulk water supplies but are not so involved in the provision of low-cost community water supplies, excluding perhaps borehole construction.

Government agencies often lack the flexibility for the implementation of water supply and sanitation schemes and the private sector is sometimes better able to handle the demands of implementation, especially the effective use and maintenance of equipment. There should therefore be more encouragement for private sector involvement although guidelines and procedures need to be in place to ensure quality control.

3.5 NGOs

Whereas the private sector is sometimes more effective in the actual implementation of water projects, so NGOs are often better able to help develop community initiatives within local authority/regional development plans. At present however there are limited numbers of local NGOs active in the water sector but their numbers are increasing. However, some NGOs have their own development agendas which do not always fit in with local authority or community development plans. This lack of coordination is often an issue with NGOs in the water sector and requires careful monitoring.

4. DECENTRALISATION

The purpose of decentralisation is to bring control of the development of rural water and sanitation closer to the beneficiaries through the devolution of power to local authority (or even community) level from central government. As a consequence of this process there should be an improvement in the quality and sustainability of development inputs and an increase in efficiency of implementation. However the outcome may not be clear since communities will have more control over the supply of water and may decide not to make improvements. In addition the effectiveness of decentralisation will depend on which functions are devolved (eg. drilling boreholes), what powers are devolved (eg. financial control) and to what levels the process is taken (eg. to local authority or communities).

There will also be important changes in the relationship and the balance of power between local authorities, central government staff, politicians and community. So in the transfer of key powers and functions there is likely to be some resistance to the change which may decrease the effectiveness of the institution.

Decentralisation is sometimes seen as a palliative by central government which enables it to off-load responsibilities in response to financial difficulties. The reality, however, is that after decentralisation local government is likely to need increased funding to take on the extra functions that central government previously had responsibility for. Under such circumstances the objectives of the decentralisation process would be compromised.

5. STRUCTURAL ADJUSTMENT

Many countries are being asked to undertake structural adjustment as a prerequisite for obtaining additional financing. The structural adjustment process includes deregulation measures to remove price controls, removal of subsidies and increased emphasis on cost recovery in the social sectors, currency devaluation, trade liberalisation covering imports, and a reduction in expenditure (which generally includes retrenchment of staff) in the civil service. The reforms may mean the following to the rural water and sanitation sector :

- donor funding priorities may alter, diverting finances towards more "productive" sectors;
- central government responsibilities will shift to local authorities which may not have the technical, managerial or financial capacity to deal with the sector;
- the financial burden of water supplies will increasingly be placed on communities, particularly for maintenance;
- trade liberalisation may improve the availability and speed of procurement of materials from overseas. However currency devaluation and subsequent inflation may substantially increase the costs of essential imported goods;
- reduction in the public service may help to resolve the problem of duplication in the sector but contribute to the problem of staff shortages in others;
- decentralisation to local authorities is likely to encourage a more market orientated approach and facilitate greater use of the private sector in rural development activities, including rural infrastructure development and maintenance;
- the reforms will put pressure on vulnerable communities. In Zimbabwe there are reports

of substantial reductions in the number of clinic visits, in response to the need to pay, and the withdrawal of children from school (particularly girls) because of increases in school fees. However the impact on water supplies is not likely to be so marked.

6. MINIMUM STANDARDS AND LEVELS OF TECHNOLOGY

In the interests of equity there should be a minimum standard of water supply provision as a guide to implementing institutions.

The level of technology should be as "low" as possible but appropriate to technical demands and have particular reference to the maintenance mechanism of the facilities. If communities wish to develop improved facilities then they should be encouraged and supported but much of the additional resources should be provided by the communities themselves.

Water should not be considered a free good but access to water supplies should be open to all and therefore the cost to users should be very low. If there is a situation whereby water becomes restricted as a result of a pricing policy then it may be necessary to subsidise the supply/maintenance in the short term.

7. IMPLICATIONS FOR SCF

SCF already has a small but well developed interest in the water and sanitation sector which is mainly in the development of actual water facilities. However within the sector, institutional development should be an important focus for SCF, especially with the possible changes which might occur under structural adjustment and decentralisation. Possible further areas of involvement are:

- capacity building work at the various different institutional levels to provide a framework for the development of water facilities;
- technology development (eg. upgraded family well, spring protection, pump development), research into hygiene education or health impact studies;
- general policy development at national level.

References

Hammar A. & Conyers D. (1992) Report on the Decentralisation of Gokwe Integrated Water Supply and Sanitation Project. Zimbabwe, September 1992

World Bank (1992) World Bank Sector Review (Zimbabwe) - January 1992

INTERVENTIONS IN THE WATER SECTOR

The Role of National Governments, Donors and NGOs

1. INTRODUCTION

At least 30 per cent of the world's population still does not have access to safe water. The documentary evidence linking improved water supply to improved public health is overwhelming.

In Africa alone more than 264 million people lack a basic safe water supply and almost 350 million lack proper sanitation. Compounding this problem is a rapidly expanding population, coupled with shrinking resources in a context, for many countries, of chronic economic stagnation or negative growth.

The UN's 1981-1990 International Drinking Water Supply and Sanitation Decade (IDWSSD) was aimed at "providing all people with water of safe quality in adequate quantity and basic sanitary facilities by 1990". WHO regarded the IDWSSD as a decisive contribution to the objective of "health for all by the year 2000" and linked promotion of the Water Decade with implementation of Primary Health Care.

From the Decade's outset, 'recipient' communities were to be encouraged to participate, in the spirit of the 1977 Mar del Plata Conference recommendation of *"policies for the mobilisation of users and local labour in the construction, operation and maintenance of projects for the supply of drinking water and the disposal of waste water."*

Tremendous momentum was created by IDWSSD within the water sector. But the ambitious goal of universal coverage by 1990 was not achieved.

Rapid population growth prevented marked increases in water and sanitation coverage. In fact, by the end of the Decade, the total number of people without adequate water and sanitation facilities had actually increased. Moreover, because of lack of attention to maintenance, many facilities built during the Decade rapidly fell into disrepair, or functioned below optimum capacity.

Whilst population growth is commonly identified as the prime reason for the Decade's failure to meet its target, many within the aid community have also complained of lack of commitment by recipient governments. There has been a growing pressure on donors and governments for financial accountability, particularly in operation and maintenance where the record has been poor.

At the same time, however, the Decade's failure to meet its target has exacerbated a tendency (particularly notable among the UN agencies) to concentrate on 'the numbers game' to the detriment of sustainability and quality of provision. Concentrating, that is, on the number of boreholes, shallow wells etc provided, in a knee-jerk reaction to the dire need,

without thinking through the maintenance issues.

In the wake of the Decade, water and sanitation remain, for good reasons, the focus of much donor and NGO interest. There is a plethora of players, all hoping to make a contribution to the development of adequate and sustainable water supply systems.

But there is a general lack of clarity about what roles are appropriate to these players: about who should be doing what.

This is the main issue addressed here; although it will be necessary to touch on related questions of technology choice, cost recovery and private sector involvement. Numerous examples are drawn from Malawi, since this is a country with a long record of donor and NGO involvement in the sector, and one with which the author is familiar.

2. SUMMARY OF MAIN POINTS

Typical mistakes/failing of governments are:-

- poor coordination and ineffective sector management;
- donor driven policies (the failure, however understandable since they don't hold the purse strings, to insist upon their own priorities);
- centralised maintenance, even where resources prevent it from being effective;
- expensive project implementors;
- lack of accountability;

What can/should governments do?

- effective sector management;
- provide planning and policy guidelines;
- decentralise maintenance;
- set regulatory standards;
- supervise construction;
- monitor and evaluate;
- ensure sustainability through training commitment.

Typical mistakes/failings of donors are:-

- lack of coordination (amongst themselves);
- dictating to government over sector development;
- inflexibility;
- obsessed with concrete performance indicators – numbers of constructions.

What can/should donors do?

- coordinate their approach;
- take a longer view of sustainability needs, notably by funding;
- invest in institutional capacity building;
- provide "software" packages (hygiene education, maintenance training for Village Level Operation and Maintenance, etc) to accompany construction projects.

Typical mistakes/failing of NGOs are:-

- not applying government standards;
- acting in isolation;
- shoddy construction.

What can/should NGOs do?

- innovative community work;
- test/refine government strategies;
- test new technologies/methodologies;
- feed back to government and donors (setting trends for the future)

3. THE ROLE OF GOVERNMENTS

Water supply and sanitation have in the past normally been seen as the institutional responsibility of less developed country (LDC) governments, which have characteristically played a major role in rural water supply development, frequently ignoring local initiatives, NGOs and private sector institutions.

Donors initially welcomed this centralised approach as seemingly the best way of maximising coverage. It was argued that water systems have economies of scale that can be realised only by having a single large provider. It was assumed that rural communities had neither the resources nor the capacity to supply the necessary construction and maintenance services.

But developing country governments are poor and so government support for installed water infrastructure is often very small. Almost invariably, recurrent budgets (for salaries, training, operation and maintenance) are inadequate. The pattern has therefore tended to be one in which governments seek money for construction programmes to extend coverage, but lack resources and systems to prevent new installations from falling apart. The idea of government as 'provider' has also militated against full use of community resources and initiative.

Experience has shown, moreover, that LDC governments are no more economically efficient in the construction and maintenance of water supplies than they are in running state farms or factories. In Malawi, for example, government drillers are considerably less efficient, produce work of a lower standard (particularly as they do not allow themselves to be supervised) and generally charge more than the private sector.

Donors are frequently suspicious of government's ability to manage project construction, and lament the lack of accountability when money is passed over. In Malawi, a 'borehole treasury fund' was established in the early 1980s to absorb donor funding for development of rural groundwater resources. Poor management of the fund has led the local Aid community to refer to it as "the borehole slush fund."

Nevertheless, donors continue directly to fund many government projects. For example, again in Malawi, most of the funding available to the Water Department for rural water resources development is as soft loans from the World Bank and the IDA, (usually conditional upon programme management and drilling contracts going to the private sector).

UNICEF funds the government directly in one district to implement a rural groundwater programme which has been plagued by poor performance, poor results and lack of accountability. This raises the question why UNICEF continues to fund such programmes rather than re-direct their efforts to institutional capacity building.

Two broad currents are now coming together to question the allocation of institutional responsibility. On the one hand, the World Bank/IMF 'user pays'/'cost recovery' philosophy demands a diminished role for government in social provision, in favour of 'the market' and a more rigorous application of criteria or economic efficiency. On the other, current thinking in NGO/development studies circles demands a more vigorously participative role for communities in their own development. This confluence suggests that LDC national governments should move away from their traditional role as perceived providers/constructors/implementors of infrastructure and maintenance. Their role, rather, should be that of manager-supervisors, facilitators and regulators.

This should not necessarily be seen as a vote in favour of the private sector. The World Bank's (ideologically-driven) preference for private sector involvement in construction and maintenance of water facilities is supported primarily by case studies from middle-income countries. It is far from clear that the poorest and most needy countries offer openings in the water sector which are sufficiently attractive to private entrepreneurs; or that entrepreneurial capacity is itself sufficiently developed to fill gaps when government withdraws.

Notoriously in Malawi, the 'structurally adjusted' withdrawal of state maize purchasing facilities from smallholders in marginal areas left a marketing gap which the entrepreneurial community failed spontaneously to fill. Farmers in remote areas, where it was 'economically inefficient' to send a government truck, were for two seasons unable to market their maize.

For the poorest countries, the potential of the community is likely yet to prove the crucial factor.

Decentralisation

As coverage increases it is generally impracticable for central governments to administer, manage and maintain rural water supply systems. They don't have the cash; donors are unwilling to provide it under a 'maintenance' heading. Decentralisation is required on the part of government; and managerial responsibility is required from the user community.

A separate paper, in Discussion Paper N°3, discusses Community Based Management (CBM) and Village Level Operation and Maintenance (VLOM.) The essence of these concepts is that most people in developing countries will, for a long time to come, rely on communal water points for which adequate maintenance can only be ensured through community involvement. The operation and maintenance of large urban supplies in developing countries is also invariably improved if they are run as private or parastatal companies.

Malawi's government-run, centralised maintenance system is ineffective and unsustainable. The present system, in which district crews maintain rural supplies, costs some Kwacha 12 million per annum (£1 million approx.). As much as 80 per cent of this goes on staff allowances and transport. Funding from central government is sporadic, with the result that at any one time as many as 60 per cent of supplies are out of order. Some district teams are unable to mobilise even when funding is available because of lack of transport.

Such models, already unworkable, can only deteriorate in proportion to increased coverage which increases government responsibility. Governments should therefore be encouraged to insist that donors recognise the need to earmark a significant proportion of funding for the "software" component of water supply.

This begins with user hygiene education: teaching people, for example, how to prevent contamination of the water they draw. In orthodox economic terms, this represents good value for money: ensuring a maximum return (in terms of the objectives of improved health) on investment - roughly comparable to supplying a user's manual, and perhaps a free day's training, with a new computer. If your computer breaks down you can, hopefully, take it back to the shop. This is precisely what the user of a village water point cannot do when the tap, borehole or well runs dry. Hence the need for the second element of the software component: training in DIY maintenance and repair.

Switching from a centralised to a decentralised system will itself require funding.

Strong Sector Management

Reducing government's role in implementation, and decentralising maintenance responsibilities, should not imply emasculation of government. On the contrary, strong central government institutions are essential for water supply and sanitation development to be managed effectively.

Governments should assume primary responsibility for sector management. This should include planning, donor and NGO coordination, policy development, regulation (setting

standards), provision of technical support/advice, and institutional aspects of development. Unfortunately government departments responsible for water are seldom vested with financial and political clout equal to their duties.

Many supervising institutions are not accorded full ministerial status. In many countries, water supply is the responsibility of one department or ministry, and sanitation the responsibility of another. Similarly, in some countries, rural water supply comes under one department, urban water under another.

Effective water sector management implies, minimally:

- establishing clear goals, policies and institutions;
- training personnel to carry them out;
- providing a regulatory framework to ensure that development efforts match government priorities;
- monitoring donor, NGO and other involvement to ensure that programmes meet country needs.

Governments must set out policy with clear and precise guidelines for water resources development, choice of technology, standard specifications, and delineation of responsibilities for operation and maintenance, in such a way that provides direction to all involved parties.

Many countries have developed national water resources master plans, often funded by the UN. A frequent problem with these are that they are not easily available to other organisations active in the sector and often are very large and off-putting, not to mention unrealistic. This is the case in Malawi. This seriously hampers efforts to coordinate the plethora of organisations working in water development. There is no apparent legal framework to work within; no obligatory registration of organisations involved with provision of drinking water. Government standards are widely ignored.

4. THE ROLE OF DONORS

The Need for Coordination

"The donor role is to provide coordinated support to governments in designing or carrying out their national plans." So says WASH (USAID's Water and Sanitation for Health project) after thirteen years study of the sector. This is an apparently un-contentious statement, defining a role which, one would have thought, should be relatively easy to execute.

Yet the donor record in the water and sanitation sector is one of extremely poor inter-agency coordination. In some countries donor committees meet periodically to discuss their activities and planned projects, and to share assessments of sector progress. But this is far from the rule. Very often the burden of coordination is passed on to governments which are frequently either not equal to the task or else seeking to manipulate key players to secure maximum control over funding.

The World Bank is committed on paper to donor collaboration and exploration of possible co-financing. In Malawi such talks have been going on during the negotiation of World Bank support for the water sector. However, sector specialists in other agencies seldom feel "involved" in Bank efforts to assist in the restructuring of sector management; rather they are "informed" and requested to contribute with funds.

The agencies need to communicate better not only with each other but also with NGOs active in the sector. This is particularly important where, for whatever reason, donor agencies turn to NGOs as implementing agencies, rather than entrusting money to government.

Malawi is a case in point, with USAID, eg. increasingly channelling resources through World Vision and SCF. In the last two years, more money has been channelled through SCF than has been funded by UNICEF - although UNICEF enjoys more privileged access to government by virtue of being a UN agency which funds government directly.

Yet, during three World Bank missions to Malawi in the last six months, in the process of negotiating a \$25 million loan to the Water Department, no-one suggested to mission members that dialogue with the main NGOs working in the sector might be useful. The Bank was clearly unaware of how significant NGO contribution to the sector actually is.

To some extent, in Malawi's case, government is engaged in a (highly understandable) political game to keep control over funds. This entails down-playing, in discussions with donors, the significance of the NGO sector, for fear of losing funds to NGOs. Where the World Bank is involved, this tendency is sharpened by the nature of funding (in many cases, 'soft', interest-free 50 year loans) which government is anxious to secure and control. This means that government effectively calls the shots. Bank missions meet only those agencies government wants them to meet, and the tendency is to keep donors and NGOs apart.

Lack of three-way collaboration and coordination (among and between government, donors and NGOs) risks duplication of effort, frequent 're-discovery of the wheel,' mixed or contradictory donor messages and initiatives, neglect of critical areas of work (such as 'software' and maintenance components) and operational diseconomies (such as failure to agree on standard equipment). A collaborative, inter-agency approach among bi- and multi-lateral agencies is essential to improved donor performance in the sector.

The Perception of Performance as Numbers

For both funding agencies and NGOs, involvement in water supply has long proved attractive. It is an important development need which receives widespread public support in both donor countries and LDCs. Moreover, because those without water are invariably poor and frequently 'the poorest of the poor,' and because improved water supply can substantially improve women's lives, involvement in the sector fits well with current development orthodoxies whilst remaining comfortably politically neutral. For all these reasons, water attracts funding relatively easily.

But for many years donors have tended to measure their own performance, and compare it with 'competing' agencies, almost exclusively in terms of numbers - numbers of water points constructed, numbers of latrines installed, etc.

This reflects an historic, technocratic approach, where water supply was seen as involving purely technical problems, and which neglected issues with an essentially social dimension such as sustainability, user attitudes and perceptions, management of installations, and good user practice. All the neglected areas are essential to optimising the benefits of new constructions.

The worst offenders have been UN agencies, which tend to a self-important view of their role which inclines them against collaboration with other donors and NGOs. UNICEF is a prime example. An internal document reporting on a January 1993 meeting in Nairobi ("The Water and Environmental Sanitation Challenge of the 1990s") comes up with the following accolade:

'Although UNICEF has at its disposal only 3.5% of the total sector funding invested in Africa each year, it has nonetheless managed (with inputs from government and communities) to make greater use of such limited resources resulting in approximately 14% of the total number of people served with water supply and 26% of the total served with sanitation

There is no critical discussion of the quality of work done by the agency, and no information on how many of the supplies were still working, how many of the latrines still used, or what operation and maintenance systems were left in place.

In Angola, UNICEF funds rural water supply construction with no attention to operation and maintenance and no community training in handpump maintenance. When systems break down, communities inform the local UNICEF office which then merely notifies the Water Department.

In sum, it is perhaps not too unkind to suggest that some of the larger agencies act in competition for 'good development' accolades, rather than attending to what can be achieved in unison (reprise of the 'coordination' theme) whilst at the same time having an unimaginative and narrow minded view as to what 'good development' consists of. The most important contribution of NGOs is, perhaps, to set new agendas through innovative projects.

Two Kinds of Flexibility

Donors have to be more flexible and permit budget restructuring as reflected by baseline/community needs assessments and project monitoring. Monitoring and evaluation may lead to recommendations for changes of approach, methodology and/or technology; donors should be responsive to such evidence and permit unforeseen changes to occur midway through a project; even if this may have budgetary repercussions.

On the other hand, donor agencies not infrequently demonstrate the wrong kind of flexibility through sometimes quite rapid shifts in priorities. This, sadly, often reflects not revised institutional objectives but lack of institutional continuity: as sector specialists change so might their funding priorities.

In Malawi, the former ODA health sector specialist believed that water supply was fundamental to improved health. The incoming social sector specialist believes sanitation to be the priority. How this will impact on their plans for the sector is as yet unclear but switching of development priorities every few years is likely to lead to inefficient use of resources and does little to help national government sector development and management.

Institutional Capacity Building

Many donors theoretically endorse national government taking the lead in water supply and sanitation development, but in practice dictate, in detail, how funds are to be used.

Support is often conditional upon a broad range of donor rules being followed, including specification of equipment and materials. A bilateral agency may stipulate clauses which amount to small, national trade deals: eg. ODA will insist on the employment of British engineering consultants using British manufactured goods and vehicles.

Some donors (eg. UNDP) even insist that a separate operational department be established to handle all projects the donor is underwriting, and that this department function independently from all others.

Thus, in many countries which receive funding from several donors, each donor-funded project may develop and adopt its own methodology and use its own technical and social procedures, rather than ensure that government has developed standards and strategies which dictate such matters. (Lack of coordination is again a key issue here).

Donors feel this is justified in countries where government has neither developed the policy, plans and strategies nor created strong institutions to manage the sector. Lack of administrative capacity, poor institutional arrangements, political interference, inappropriate senior appointments, rapid staff turnover, low public sector salaries are all frequently bemoaned as contributing to poor performance.

The common sense answer is to address at least some of these issues through providing assistance to develop national government management capability. This is beginning to happen in Malawi: the World Bank is switching its focus from structural adjustment to the broader concept of 'good [and by implication effective] government'.

There are promising signs that donor driven investment in the water sector in developing countries is on the decline. Interestingly one of the main protagonists of this and other important changes such as seeking to improve coordination is the World Bank. Many of the ideas are widely recognised, for example by sector specialists in NGOs, but until now have not been openly endorsed by sector donors.

The Bank started lending in the water sector in 1961 but did not begin activities in rural areas until the early 1970s as a small component of some agricultural and rural development programmes. From 1974 to 1984 rural water and sanitation components represented less than 3% of the total costs of the projects of which they were a part. A 1985 Bank review of the sector concluded that overall performance was disappointing and suggested that technology did not appear to be a major problem.

Current World Bank policy (1993) on water resources management states that it will encourage and selectively help countries develop a systematic analytical framework for managing water resources that is suitable for a country's needs, resources and capacities. "To facilitate the introduction of such a framework, the Bank is ready to support capacity building through training, demonstrating participatory techniques and helping in water resource assessments".

This is being done in Malawi. The Bank has been assisting the Water Department to develop a Water Resources Management Policy and Strategies and is negotiating a large soft loan for its implementation via a National Water Development Project.

THE ROLE OF NGOS

NGOs and the private sector did not play a prominent role in "formal" Decade activities although they were active generally in small scale rural schemes.

However, their record is variable and insufficiently evaluated and there are questions about how much additional public funding they could absorb without compromising their flexible character and independence (should be explored elsewhere vis a vis the millions received by SCF during 1992-3 in Malawi).

Many NGOs tend to work independently of government structures which makes coordination, replication and sustainability difficult. It is not uncommon for the government not to know what is going on in the water sector within its own boundaries. NGOs working within such a vacuum may be a law unto themselves producing, in some cases, shoddy work, installing non-standard equipment, such as hand pumps, and failing to inform government of the existence of supplies they construct; all of which cause major difficulties for government and the beneficiary community and bodes ill for the longevity of the supply; particularly when an NGO's project life comes to an end.

Many NGOs working in the sector lack a clearly defined sectoral policy and tend towards a project by project approach, which results in a range of un-integrated pilot projects and little headway is made in development from lessons learned. Often NGOs begin working in provision of water as a result of their work in community health having identified water as an urgent health-related need. Unfortunately in many such cases technical expertise is sometimes lacking and poorly constructed water supplies may result which are at risk of supplying water of inferior quality to traditional sources.

Today, NGOs are clearly regarded as crucial players in the water sector as exemplified by the New Delhi statement (an appeal to all nations for concerted action to enable people to obtain two of the most basic human needs - safe drinking water and environmental sanitation. The statement was adopted by 600 participants from 115 countries at the UNDP-organised Global Consultation on Safe Water and Sanitation held in New Delhi in 1992):

"The special role in development of non-government organisations (NGOs) and of volunteers must be acknowledged and strengthened. NGOs are flexible, credible, ready and able to experiment with innovative approaches. Government should support the NGOs in replicating these approaches, and include NGOs, wherever appropriate, as partners in projects."

NGOs are particularly well placed to promote community management. Their approach to projects is less formal and more flexible, encouraging participation of marginal groups including women and the poor and acting as intermediaries between governments and the people; assumptions which are not always realised in practice.

Most NGOs involved in health and water and sanitation tend to be non-political and as such are often more acceptable than donor agencies to both local communities and national governments and can work in countries regardless of official relations between the developing country government and the NGOs home government. In Nicaragua during the Sandinista regime for example political problems prevented USAID from working directly but much of the work in water and sanitation was carried out by US-based CARE International.

NGOs also tend to use local staff very effectively giving them proportionately greater responsibility than donor and international development agencies. Staff are usually motivated (often better paid than their government counterparts) and experienced. Combined with their flexibility and aptitude for rapid response, NGOs can be very effective, particularly at introducing pilot projects using innovative ideas, technologies and development methods. They tend to have lower financial overheads and less cumbersome bureaucracies which enable them to carry out more cost-effective work. They generally have excellent community-level ties and have spear-headed innovative participative methods.

Historically, many NGOs began as relief organisations that prided themselves on their independence and whose financial supporters demanded quick and visible results. While these characteristics are not problematic in disaster relief, they can be damaging in long-term programmes aimed at sustainable development.

In peri-urban or informal areas which may lack legal status and consequently may be cut off from access to governmental resources and institutions, NGOs can serve as useful bridges to formal institutions. For example, an NGO may organise a community and then reach out to formal institutions from that base. Also in working with communities NGOs can function as commercial enterprises, providing services for building infrastructure at a low cost. With NGO assistance and community labour and pressure, the cost and red tape involved in infrastructure can generally be reduced and government support and recognition can be fostered.

Some NGOs either do not prioritise monitoring and evaluation of their work or lack the resources with which to adequately monitor their field operations and often are unable to conduct detailed evaluations of completed projects. Much work is carried out without due attention as to how work will be monitored and evaluated; unclear objectives, no key indicators, no base line information.

Another problem of some NGOs is their lack of recognition of strengthening institutions and promoting participation. Often NGOs will carry out their work in the communities with their own paid staff rather than use government extension workers and the community. This could be a result of the "doing for" mentality of disaster relief organisations rather than the facilitating approach which sustainable development requires. Rather than paying salaries, they could be training which would have positive implications for sustainability.

The shift towards community management might appear to be a welcome development for NGOs which are operating in a more sympathetic environment. The new attention directed to them changes their image from organisations good at grass roots level to agencies at the forefront of the development effort.

THE ROLE OF THE COMMUNITY

Current sector philosophy suggests that sustainability of rural water supplies is only possible if local level community organisations are responsible for the management, operation and maintenance of their own system. They can be enabled to mobilise sufficient local resources and encouraged to appoint staff accountable to the community rather than to any branch of government.

It is widely recognized that a financial or material contribution from the user community is likely to strengthen their commitment to the installation and improve the chances of sustainability.

It is necessary to enable community water committees to have access to technical support. This has generally come from the 'deconcentrated' government offices. There are examples of support services being purchased from autonomous agencies (with full or partial cost recovery) or from private institutions and enterprises.

Community participation - often a euphemism for unpaid labour - is not enough. It is based on a model of society which is too simplistic, namely that external agency and community values and priorities coincide, and that the latter, given the necessary motivation through education and skills training, will voluntarily participate in externally-induced environmental and social engineering. In effect there is a single model for development to which everyone aspires.

Despite rhetorical support during the Decade for a 'software' component in projects it was frequently neglected, poorly implemented or largely ignored in project design (Yacoub 1988).

Any shift from the established pattern creates difficulties in countries where communities have come to expect governments to provide services. It raises important questions about the rights and duties of citizens. Why should individuals in one region, district or village be made to participate and manage services while the state provides for others? What are the costs to low-income groups of managing their services compared to those who pay the state as provider and manager?

The concept of community management implies that community members are active decision-makers taking responsibility for, and control over, decisions affecting how services are provided and maintained. Sustainable services depend upon this devolution of power, authority and control in circumstances where communities are charged with a measure of responsibility for the costs of operation and maintenance. The concept suggests that communities are well able to organise and manage change. But they cannot be left to get on with it.

For donors, governments and NGOs, community management involves establishing or strengthening local decision making structures - reshaping the social organisation of marginal groups - in order to achieve sustainable and replicable projects.

To ensure that community participation and community management take place is a slow and complicated process, lacking established models and rules and not amenable to standardised and managerial techniques. It conflicts with technocratic efficiency such as the drive to meet construction schedules or to use up aid funds and is therefore very difficult for bureaucratic organisations to accommodate. In consequence the role of the expert must change from provider to facilitator. This shift in responsibility requires 'effective' social research including participatory methods, in order that the workings of communities be properly understood and their own priorities identified. Urgent new questions arising from this approach, such as 'what follows from water?' may require aid agencies to look beyond water, sanitation and health education to their relationship with other sectors including income generation.

THE ECONOMIC USES OF WATER AND IMPLICATIONS FOR SCF

1. INTRODUCTION

The meeting on SCF water policy held in Malawi in September 1993 focused on providing safe domestic water supplies and this is undoubtedly an area of great need in many countries. Most of our existing water projects are concentrated in this area. This is partly as a natural extension to our traditional work in the health sector though the relationships between water quality, water quantity and health are complex.

Any discussion on water would not be complete, however, without consideration of the much wider implications of water for our target group of the most disadvantaged. Many of the problems of low incomes or poor nutrition can be alleviated by a well designed water project.

Poor villagers in arid areas want water projects but their motivation is not always for improved domestic water supplies for health benefits. In questionnaires completed without prompting by seven groups of Zimbabwean villagers wanting a dam, the following emerged:

- All but one group had livestock, domestic supplies and gardening as their top three priorities. The last group had replaced livestock with fishing.
- Water for construction and fishing were the only other motivations mentioned.
- Only three groups demonstrated a clear understanding of links between water and health.
- Five groups indicated that any other water source would meet their needs just as well.

This is only a small sample and biased by the fact that they were all likely to receive dams. Even so, I feel the points made are generally representative and we must take this into account if our projects aim to address the felt needs of the beneficiaries.

With wells, an agenda of improved water quality for health benefits may not be the main motivation for the recipient community. Increased supplies for domestic use, animals and gardens, the reduction in the workload of women and security in times of drought are also important. Water is wanted to make life easier and to generate more income.

In the following sections, some of the relationships between man and water are highlighted where possible interventions by SCF could be of benefit to children.

2. AGRICULTURE

By far the majority of the water used by man goes into the growing of crops. Most of this water is from rain falling directly on fields and the farmer is the passive recipient. In arid or semi-arid areas the low or erratic rainfall can be the cause of crop failure and the resulting food shortages affect more people on a regular basis than any other disaster.

Populations in many of the areas in which we work suffer from occasional or recurrent drought and have difficulty in growing the food that they need. SCF has a history of involvement in famine relief with food distribution, child supplementary feeding to combat malnutrition and the provision of seed for the next season. Supporting food security thus clearly falls within the remit of SCF.

In drought prone areas, irrigation projects can enable people to harvest a crop which would otherwise have been impossible. In some areas, particularly in Asia, the practice is already widespread and well understood and appropriate interventions may be in agricultural loans to buy equipment. In other places such as parts of Africa where river flooding or shallow ground-water are not available, it may be more appropriate to develop sources such as small dams to store the seasonal run-off. Demonstration irrigation schemes can then be built with interested groups.

Where water is scarce it is usually uneconomic to water large areas of staple cereal crops and the size of project necessary would certainly be beyond the scope of SCF. There are, however, various methods of soil and water conservation and rain-water harvesting that can be used to boost the size and reliability of harvests in dry areas and these would be appropriate for SCF involvement. An often quoted example of what can be done is the Oxfam project of contour ridging with rocks in Yatenga Province of Burkina Faso. This increased yields of millet and sorghum by up to 50%.

Actual irrigation schemes that SCF could get involved with are likely to be on a small scale. These would be for higher value crops such as cash crops or vegetables which can be used either to improve nutrition or to generate income. This sort of small agricultural development is often made adjacent to even quite small water sources such as wells and springs.

Agriculture, like water, is a comparatively new area for SCF involvement and should be embarked on with caution. Badly designed irrigation projects have ruined large areas of land due to salination. Before starting any projects, appropriate specialists need to be recruited or consulted. It is a large and complex field and a decision must be made as to whether the Fund should stick to its existing areas of expertise or develop a capacity in a new field.

3. LIVESTOCK PRODUCTION

This is another vital component of the rural economy and a significant consumer of water. Almost everybody keeps a few goats, sheep or pigs. In traditional African culture, cattle represent wealth. The animals often use the same water sources as people though in dry periods herds may be driven great distances to drink.

When designing any water point it should be designed so that animals can drink without causing contamination or other damage. The animals using a water point may well be consuming far more water than the people and this should be taken into account when assessing the requirements of an area.

Water is often a limiting factor on livestock production. There is a danger that putting more water points in marginal land may lead to over-stocking. In the Sahel it is recognised that water points can be foci of desertification as large herds of cattle coming to drink eat all of the vegetation around. In such conditions some assessment of the carrying capacity of the land should be made.

4. ECONOMIC USES OF WATER

Water is a vital ingredient in a whole range of economic activities. In most cases the scale of the industry and the profits that can be made mean that the provision of water is the business of a central authority or the private sector and beyond the scope of SCF. There are, however, small scale income generating projects which depend on water where the Fund could have a role.

In the rural setting dams or other surface waters are often used for fishing. This has the dual role of improving nutrition and providing a cash income. If they do not already exist, waters can be stocked with appropriate fish and instruction given on sustainable fishing. This is the classic, if rather patronizing, example used to describe development work; "give a man a fish and he eats for a day, teach him how to fish and he eats for life".

Brick making and other construction work is another benefit that can come to rural communities with water. In the study described above it was cited by 3 villages as a reason for wanting a dam and the building projects they were talking about were clinics and schools.

Food processing before sale is a way to increase the value of agricultural produce and often requires large quantities of good quality water. On a small scale this could be an appropriate intervention for SCF. Such projects are very appropriate for income generation by women's groups.

In the urban setting water is more likely to be supplied by a central authority (except, perhaps, in peri-urban areas). Though a whole range of large and small scale economic activities may depend on this, the water supply is unlikely to be the concern of SCF.

Health hazards caused by pollution with domestic or industrial effluent or toxic waste dumping could well be of interest to SCF, especially if work is to expand in Eastern Europe. The problems are likely to be complex to solve or contain but an understanding of hydrological processes could help small rural communities threatened by such problems.

Hydroelectricity on the scale of Kariba is certainly beyond the scope of SCF. Micro-hydro projects could, however, be an appropriate intervention to improve facilities at schools, clinics or small rural communities. Intermediate Technology Development Group have built some projects in Nepal and other mountainous countries with abundant water could benefit from such schemes.

Large scale water projects often displace large numbers of people and fail to provide adequate compensation or alternative land. In Zimbabwe we are still working with people displaced by the construction of the Kariba Dam over 30 years ago. SCF could perhaps have an advocacy role for people affected by projects such as the Narmada Dam in India.

5. ENVIRONMENTAL CONSIDERATIONS

In all water projects we should bear in mind the possible environmental impacts of our actions and carry out an environmental assessment. This should always be on a scale appropriate to the size of the development and the severity of the expected risks since huge amounts can be spent on a full assessment. In Zimbabwe's Binga District, for example, the construction of dams could attract elephants to a village. The damage caused to crops by elephants can be more significant than the losses due to low rainfall. This would be far more worthy of attention than a river corridor survey study to determine the plants that will be affected.

Perhaps some percentage of the budget could be allocated for environmental assessment. As with agriculture, the specialists required may be very different from those required for the development of water sources.

The provision of rural water supplies could encourage people to remain in an area where even subsistence agriculture is not sustainable. Average rainfalls have been low in many parts of Africa over the last two decades causing crop failures and food shortages. It is impossible to prove statistically if this is actually climatic change or part of a long term cycle. Whatever the cause, it means that people are living in places where crop failure is more likely than has been the case in the past. Putting more wells in such places can only worsen the problems of falling ground-water, soil erosion and desertification through over stocking, over-cultivation and deforestation.

Land use planning could help to determine what the land can be used for and hence where water points are required. We should support this process though we should perhaps adopt an advocacy role to try and ensure that the needs of the most disadvantaged groups are reflected. Other issues such as land tenure, water rights and the conflicts between subsistence farmers and wildlife interests should also be considered.

6. CONCLUSIONS

The connection between involvement in water projects and the rights of the child may often be difficult to see. It is much clearer with the more "traditional" projects in health, education and social services. Water is, however, such an important ingredient in so many aspects of social and economic development that an interest from SCF can easily be justified.

Safe and adequate domestic supplies are clearly a pressing need and should continue as a high priority. Other water projects concerned with water for agricultural or other production should be considered on their merits.

Where water is not simply for domestic supplies, projects should be carefully designed and targets set in terms of economic and social benefits to meet the felt needs of the communities. We should try to avoid specifying numbers of water points and losing sight of the real objective.

Appropriate specialists need to be involved in projects. Wonderful as they are, water engineers cannot do everything! In all this we should recognize the limitations on the expertise of SCF. Even if a water project is indicated we should not undertake it we do not have the necessary skills. Where the project moves beyond providing the water point into developing associated economic activities the situation becomes more complex.

Given that poverty is the root cause of poor health and deprivation in many rural societies with which we work there is a strong case for the Fund to try to alleviate this poverty. In subsistence farming economies the limiting factor is often agricultural or other economic production dependant on water. Extending our work in this area could be of more lasting value than trying to improve health or welfare services in a society that cannot afford the luxury.