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United Republic of Tanzania - The Kingdom of Norway

**Joint Review  
of  
TAN 055 Kigoma Water Programme**

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*Mr. Knudsen*

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Mission, December 1989  
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## CONTENTS

	<u>Page</u>
1. EXECUTIVE SUMMARY	3
2. INTRODUCTION	
2.1 Purpose of the Review Mission	5
2.2 Additional Tasks of the Mission	5
2.3 Composition of the Team	7
2.4 Itinerary of the Team	7
3. BACKGROUND INFORMATION ON THE PROGRAMME	
3.1 Brief History	8
3.2 1987 Review Mission	8
3.3 Current Objectives of the Programme	9
4. ASSESSMENT OF THE CURRENT SITUATION	
4.1 Introduction: Replicability and Sustainability	10
4.2 Funds Available from Norway and Tanzania	10
4.3 Costs	13
4.4 Local and Foreign Personnel	14
4.5 The Need for A New Approach	15
4.6 Choice of Technology	16
4.7 Decentralisation	17
4.8 Health Education and Sanitation	19
4.9 Community Participation	20
4.10 Gender Issues	22
4.11 Human Resource Development	23
4.12 Conclusion	24
5. OUTLINE PLAN OF OPERATION 1990/91	
5.1 Introduction	25
5.2 Technical Activities	26
5.3 Decentralisation	27
5.4 Community Participation	27
5.5 Human Resources Development	27
5.6 Sanitation	28
5.7 Transport and Stores	29

	<u>Page</u>
<b>6. ORGANISATIONAL ISSUES</b>	
6.1 Relationship to KIDEP	30
6.2 Annual Meeting	30
6.3 Annual Review Mission	30
6.4 Steering Committee	30
6.5 Progress Reporting	31
6.6 Local and Foreign Personnel	31
6.7 Financial Routines	32
6.8 Procurement	33
6.9 Stores	33
6.10 Financial Control	34
<b>7. FURTHER ACTION TO BE TAKEN</b>	
7.1 Finalisation of the Project Document	35
7.2 Signing of the Agreement	35
Annex 1. Terms of Reference of the Review Mission	36
Annex 2. List of Persons Met	38

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**Abbreviations:**

NORAD	Norwegian Agency for Development Cooperation.
PMO	Prime Minister's Office, Tanzania.
MLGCM	Ministry of Local Government, Cooperatives, Community Development and Marketing (Maendeleo).
MOW	Ministry of Water (Maji).
CCM	Chama Cha Mapinduzi - Party.
UWT	Umoja wa Wanawake wa Tanzania - Women's Organisation.
CPHE	Community participation and health education.

**Exchange rate:**

The exchange rate used in this report is, unless otherwise specified, NOK 1 = Tz.Shs 27. (This compares to a rate of NOK 1 = Tz.Shs 11 at end-1987. Even within the duration of the Mission there was a marked reduction in the value of the Tanzanian Shilling in terms of the Norwegian Kroner).

## 1. EXECUTIVE SUMMARY

The Kigoma Water Programme (TAN 055) dates back to 1979. A new phase, 1989-91, has already begun, and the formal agreement relating to this phase is expected to be signed soon; but the release of funds for the years 1990 and 1991 is dependent on the outcome of this joint Norwegian-Tanzanian review.

It is evident (Section 4) that the programme is not replicable. At present levels of expenditure, NORAD provides over 95% of the investment funds, yet this is barely enough to keep up with the rate of growth of rural population. A new approach is proposed, based on a change in technology and in the organisation of the programme.

It is recommended that, wherever possible, point sources be developed or improved instead of constructing piped gravity schemes. This could reduce investment costs enormously. It is, however, important to make adequate provision for maintenance, especially by the beneficiaries themselves, to ensure that the supplies are sustainable.

The region is currently discussing proposals for decentralising its operations more to District level. These plans are welcomed, and can contribute to the success of the programme. Also of crucial importance are the proposals (outlined in Tanzania's new Water Policy) to involve the villages in all stages of the programme.

These organisational changes, as well as the proposed change in technology, will, however, not be easy. The transition period will be demanding, especially since senior level staff are few. If, as is necessary, villages are to be truly and effectively involved from the outset, this will necessitate a radical change in roles and attitudes of MOW staff (and also villagers), as well as training in the rather different skills required. Thus the need for support and human resource development will be considerable.

In the light of this proposed new approach, and an assessment of the current situation, recommendations are also made, in Section 4, with regard to community participation, gender issues, health education and sanitation.

Apart from reviewing the programme as a whole, the Mission was required to prepare a two-year outline plan for the period 1990-91, and to recommend a new organisational framework for the programme. Section 5 contains an outline Plan of Operation for 1990/91, indicating the implications of the above proposals for different components of the programme.

A final decision has yet to be made, but it is likely that the water programme will be incorporated into KIDEP (the Kigoma Integrated Development Programme) after 1991. The major organisational change proposed (Section 6) is to establish an Annual Meeting for the programme, similar to that already agreed for KIDEP, with the current Steering Committee being limited to a regional forum. Other recommendations are also made, relating mainly to financial aspects and the use of foreign experts.

## **2. INTRODUCTION**

### **2.1 Purpose of the Review Mission**

A new phase, 1989-91, of the Kigoma Water Programme (TAN 055) has already begun, and the formal agreement relating to this phase is expected to be signed soon. It has, however, been specified that the release of funds for the years 1990 and 1991 is dependent on the outcome of this review. The full Terms of Reference of the Mission are contained in Annex 1. They specify that the Team should prepare a two-year outline plan for the period 1990-91, and recommend a new organisational framework for the programme. In addition to the organisational aspects of the programme, the Team is required to pay particular attention to manpower and human resource development, community participation and health education.

### **2.2 Additional Tasks of the Mission**

#### **Steering Committee Meeting**

On arriving in Tanzania the Team was informed that the Steering Committee meeting which should have already taken place had been deferred so as to coincide with the visit by the Review Mission. This meeting took up most of the third day for some of the Team members, but did give them the opportunity both to benefit from the discussions and to voice their concerns about two issues of particular importance: recent thefts of project stores, and personnel problems within the office of the RWE.

#### **Thefts**

Over a period of about a year, four incidents of theft of materials from the project stores had come to light. One involved a break-in, but others were such that it was clear that one or more employees were implicated. The total value of the goods was considerable. NORAD had expressed a strong view on the matter, in writing, and the police had been called in to investigate. This had led to criminal proceedings against at least some of those thought to be involved, within MOW and outside. The issue of the thefts was one of the items on the agenda of the Steering Committee meeting, and the acting RDD, who was chairing the meeting, took the opportunity to summarise the current situation, to express the Region's concern, and to assure NORAD that the matter was being actively pursued. NORAD welcomed these assurances and noted that they would continue to follow up the matter.

For the Review Mission, looking to the future of the project, this is clearly a matter of grave concern. It is evident that controls have been very lax (and indeed there is no guarantee that there have not been other thefts beyond those that have come to light). In the immediate future it is up to the

regional authorities to pursue the matter, and for NORAD, Dar es Salaam to ensure that this is done to their satisfaction. But it is also necessary, in designing the proposed next phase of the programme, to take necessary steps to minimise the likelihood of thefts in future.

#### Personnel Problems

At an early stage in their work, the Team became aware of serious personnel problems within the office of the RWE. Team members were informed, both formally and informally, of the nature and extent of the problem. The matter was discussed by all members of the Review Mission and it was agreed that the situation was sufficiently serious that it threatened the effective operation of the project. It could, therefore, not be regarded as an internal matter, but as a proper issue for the Review Mission to take up in the course of their visit. At the Steering Committee meeting, therefore, the issue was raised under "any other business". After brief discussion it was agreed that the matter would not be addressed by the Committee, but would be taken up between the Chairman and the Review Mission in a separate meeting. This meeting took place, after members of the Team had also had the opportunity to discuss the matter more informally with the RWE, and with some of his staff.

In their meeting with the acting RDD, the Review Mission expressed the view that the matter should be resolved, as early as possible, by the RDD (and, if necessary, central authorities). The Team noted only that they had found no evidence of improper action on the part of the RWE, and expressed their confidence in the ability of the RDD to deal with the situation. The acting RDD welcomed this view and noted that the regional authorities were very well acquainted with the problem and had already initiated action to find a lasting solution.

The personnel problems that have arisen are complex issues. There seems little doubt, as noted above, that the problems that have arisen have been sufficiently serious to prejudice the effective operation of the project, and it should be recognised that in the coming months the progress made will continue to suffer to some degree.

It was not the task of the Review Mission itself to pass judgement, and in any event the brevity of their visit could not give more than a cursory understanding of the issues. NORAD will keep themselves informed of progress to ensure that the matter is rapidly resolved.

### 2.3 Composition of the Team

The Team was as follows:

Dr Desmond McNeill, economist, NORAD/NVE Oslo, (Team Leader).  
Ms Ingunn Klepsvik, Senior Programme Officer, NORAD,  
Dar es Salaam

Mr Aage Kruger, engineer, consultant to NORAD Oslo.

Ms Vigdis Wathne, Executive Officer, NORAD, Oslo.

Mr M.S.J Mwenda, Planning and Control Officer, PMO.

Mr R.N.Nzowa, Planning Officer, MLGCM.

Mr J.P.N.Mosha, Zone Construction Officer, MOW.

### 2.4 Itinerary of the Team

The three Team members from Norway arrived in Dar es Salaam on 3rd December. The full Team mobilised the following morning, and travelled by plane to Kigoma where they remained until 9th December. The period from then until the evening of 14th December was used for discussion and drafting of major parts of the report. The full draft report was then prepared in Oslo and sent to the Team members in Tanzania for comment. The report was then amended in Oslo incorporating the comments received.

A list of persons met by the Team is contained in Annex 2.



### **3. BACKGROUND INFORMATION ON THE PROGRAMME**

#### **3.1 Brief History**

NORAD's assistance to the water sector in Tanzania dates back to the 1970's when hydrological studies were undertaken in several regions of Western and South-Western Tanzania. The water supply programme itself began in 1979 with the preparation of two Water Master Plans, for Kigoma and Rukwa Regions, presented in December 1982. The Implementation Programme (TAN 055) was started in 1983, and is now entering its third stage - usually referred to as phase V of the whole programme (1989-91).

Although assistance has been provided to urban water supplies, most notably rehabilitation and upgrading in Kigoma/Ujiji, the major focus of the programme has been in rural areas. Here, piped gravity schemes have been the dominant technology selected, and by 1987 an estimated 115,000 people in 22 villages had been served under the programme in Kigoma. (In addition, the report estimated that a further 60,000 in rural areas had a partly operational supply, not provided under the programme).

Following a review in 1987, the water supply programme for Rukwa was separated from that of Kigoma and incorporated into RUDEP - the Rukwa Integrated Development Programme (TAN 060). Thus the project TAN 055 now consists only of the water supply programme in Kigoma. An integrated rural development programme, KIDEP, is also under preparation in Kigoma. This is at present administratively separate from TAN 055, but it is envisaged that the water supply programme in Kigoma may, in 1991, also be incorporated into KIDEP, following the model of Rukwa.

#### **3.2 1987 Review Mission**

In 1987 a joint Norwegian-Tanzanian review was undertaken of TAN 055, with visits to both Kigoma and Rukwa. Apart from administrative matters relating to the separation of the Rukwa component, the main issues addressed by the review were choice of technology, sustainability, costs and impacts. These are controversial issues, and this perhaps influenced the way in which the report is presented: the relevant sections of the report begin with a statement of each issue, followed by a discussion of contrasting views, ending with conclusions and recommendations which generally represent a compromise position. In general terms, it is apparent from the report that a major change in approach is under discussion, but that agreement on such a change is far from complete. A brief summary of some of the relevant sections follows:

Choice of technology: the case for simpler technologies is presented, and criticised, but it is concluded only that "As

opposed to Rukwa where natural conditions have largely dictated the technology choice, it is the level of service to the consumers that largely govern the appropriate choice of technology in most areas of Kigoma." (p.29)

**Sustainability:** possible problems of operation and maintenance are identified; the need is stressed for assessing affordability, for monitoring costs, and for clarifying responsibilities from village through to regional level. (p.34)

**Costs:** the review concludes that "although the programme appears costly in terms of total spending, its per capita costs figures compare well to other international aid programmes in the sector." (For the validity of this conclusion, the distinction between marginal and average programme costs is important. It appears that the former excludes substantial cost elements - notably the preparation of the Master Plan itself). The review recommends, inter alia, "that the service level criteria be relaxed where feasible, that full time resident technical assistance personnel be replaced with regularly returning short term professionals for some positions." (p.41)

**Impacts:** the review notes that "no efforts (are) being made to collect data which may assist in determining the benefits and impacts of improved water supply" (p.42) and recommends that "more efforts should be put into monitoring of key indicators." (p.44)

### 3.3 Current Objectives of the Programme

The general objectives of the current phase of the programme have not changed in any significant way since the 1987 Review Mission. They may be, to quote from the draft Project Document:

- improved health
- increased social welfare
- reduced workload for women.

As regards the scope of the programme, the 1987 Review Mission noted that although urban water schemes were never given status as rightful receivers of NORAD funds they had nevertheless received support from NORAD (and since then assistance has continued for urban supplies). The Mission recommended that urban water supplies be included as a normal budget item "but with a very modest budget allocation". In summary, it may be stated that the major focus of the programme is on rural areas, but that urban dwellers are not wholly excluded.

#### **4. ASSESSMENT OF THE CURRENT SITUATION**

##### **4.1 Introduction: Replicability and Sustainability**

The problems referred to above, which were the main focus of the 1987 Review Mission, have become more clearly recognised in Tanzania in the intervening period. The need to take more account of the economic constraints facing the water supply sector and to adopt a more realistic approach, has been acknowledged, and a new policy adopted in Tanzania for the sector, which inter alia, provides for a greater involvement of the people themselves. To quote from "The Water Policy", issued in 1988, there has been "negligible success in the Government's 20 year plan (1971-91) to supply all people with enough, clean and safe water. ... The capacity of the government to implement such monumental programme is very little especially because of the present arrangement in the water sector in which all responsibilities of inventing, designing, constructing, managing and repairing the water projects rest on the Government. This system must be changed so as to involve the villagers in contributing at all the levels of the implementation of the water projects and in managing and taking care of the projects."

It seems that the necessity of ensuring that the programme is replicable and sustainable is well accepted, at national and regional levels. Therefore although the crucial issues facing the programme now are much the same as those addressed by the 1987 Review Team, there appears to be a greater degree of consensus as to what should be done.

This section of the report begins with an elaboration of the problems of replicability and sustainability, which are most manifest in terms of the financial resources available relative to the costs of the programme, and in terms of personnel resources. This provides the grounds for a new approach, as described in section 4.5. The major two issues arising out of such a new approach are choice of technology and decentralisation, which are then discussed.

The remainder of the section relates to other aspects of the programme, and contains some more specific recommendations, dealt with under separate headings. In each case a brief assessment of the current situation is followed by recommendations, some of which follow directly from the new approach to be adopted.

##### **4.2 Funds Available from Norway and Tanzania**

In previous phases of the programme (up to end-1988), annual average expenditure by NORAD in Kigoma has been slightly over NOK 10 million (in current prices). In 1989 the figure was NOK 12.4 million. The breakdown of the 1989 budget is shown in the following table. (The figures shown are those included

in the proposed Project Document, currently under discussion, with the slight changes shown, which were approved during the course of 1989).

1989 Budget for NORAD Funds (000 NOK)

	Original Budget	Revised Budget	
Operation costs	530	530	
Development costs	3,995	4,190	
Recurrent costs	1,150	1,370	
Districts	540	540	
Other	720	705	
sub-total	6,935	7,335	
Procurement services (Norconsult)	1,650	1,650	
Long-term Technical Assistance	2,365	2,215	(a)
Short-term Consultants	1,475	1,225	(b)
sub-total	3,840	3,440	
<b>TOTAL</b>	<b>12,425</b>	<b>12,425</b>	

(a) Includes an overhead of 70% being the estimated cost of administering these expatriates.

(b) Includes NOK 675,000 for an Operation and Maintenance adviser, hired as a consultant, but working on a more long-term basis.

The proposed budget for the current phase of the programme is NOK 33 million over 3 years. It is not possible to forecast likely NORAD grants thereafter, but it seems unlikely that they will be substantially higher. And as is clear from the above budget, the actual proportion of this that is spent on new investment may be less than half.

Tanzania's contribution to the programme has in the past been very small by comparison. The actual experience from financial year 1988/89, summarised in the table below, may be taken as indicative. The total expenditure of development funds was equivalent to approximately NOK 0.3 million, which amounts to only about 2.5% of the funds provided by NORAD. (And, of this amount, about half was allocated to urban supplies).

Tanzanian Government Funds  
for Kigoma Region Water Programme  
Development Budgets 1988/89 (Tz.Shs million)

Source	Funds Approved		Funds Released	
	Total	of which rural	Total	Of which rural
RWE	4.84	ca. 0.8	4.84	ca. 0.8
Ministry	0.3	ca. 0.0	0.25	ca. 0.0
DED's (3)	3.5	3.5	3.07	3.07
<b>TOTAL</b>	<b>8.64</b>	<b>ca. 4.3</b>	<b>8.16</b>	<b>ca. 3.87</b>

It is difficult to forecast future budgets, but there is not likely to be any great increase in the medium term. The Review Mission were informed that the allocation from Ministry of Water to different Regions varies. In some Regions which have donor funds the contribution from Tanzania is relatively higher than the above figures.

NORAD could, like some donors, press for a higher contribution from the Tanzanian side. But there is clearly a problem: if all donors require the Tanzanian contribution to be significant in relation to the donor contribution, those few regions that are not donor funded will receive less funds for water programmes. Without more accurate figures it is difficult to make a final assessment of the situation, but the Review Mission is reluctant to recommend pressing for a higher contribution from Tanzania. (A minimum requirement, however, should be that those funds which are approved must be released for the purpose intended - see Section 6.7 below).

Thus, for the purpose of assessing the replicability of the programme, it may be assumed that the total funds available annually for investment in rural water supplies in Kigoma are likely to be in the region of NOK 10 million.

When it comes to sustainability it is the recurrent funds that are important. As is apparent from the 1989 budget above, some of the NORAD funds are at present used to cover recurrent costs. The amounts available from the Tanzanian budget (excluding salaries) were, in 1988/89, as follows:

Tanzanian Government Funds  
for Kigoma Region Water Programme  
Recurrent Budgets 1988/89 (Tz.Shs million)

Source	Funds Approved		Funds Released	
	Total	of which rural	Total	of which rural
RWE	48.0	ca. 3.0	32.0	ca. 3.0*
Ministry	0.3	ca. 0.3	0.3	ca. 0.3
DED's (3)	6.3	6.3	3.7**	3.7**
TOTAL	54.6	ca. 9.6	36.0	ca 7.0*

\* Maximum figure.

\*\* Only figures for Kigoma and Kasulu available. This total assumes that 60% of approved funds were released in Kibondo.

Note: salaries are not included.

As the figures show, most of the recurrent funds were spent in Kigoma/Ujiji. (In fact, about half the total was expenditure on electricity for pumping). The recurrent funds released for rural areas totalled at most Tz.Shs 7.0 million, (about NOK 260,000).

#### 4.3 Costs

As noted above, the 1987 Review Mission discussed the issue of per capita costs of piped gravity schemes at some length, and concluded that - with regard to marginal costs at least - these were not unacceptably high, by comparison with per capita costs in comparable projects. But for replicability, what matters is the level of costs in relation to the financial resources likely to be available and the number of people to be served. Seen in this light, cost levels are very high, and there is indeed a severe problem of replicability. The situation may be briefly summarised as follows.

The total rural population of Kigoma Region is now about 750,000 and is growing at over 15,000 per year. Of this total, over 600,000 are still unserved by the project.

The average per capita investment cost of piped gravity schemes may be estimated, in very rough terms, at NOK 1,000. (An average figure of NOK 560 was estimated in the 1987 report. A calculation based on one of the schemes currently under consideration - described below, yields a figure of NOK 1,500.)

On the basis of these figures, the volume of funds likely to be available for investment in the coming years would barely

be sufficient to cover the annual increase in rural population. Even with a doubling of the annual NORAD grant, it would be over thirty years before the whole rural population was provided with piped water.

And this is on the assumption of continuing NORAD support. As noted above, local funds for investment in rural water supplies are insignificant by comparison. In summary, the present strategy is not replicable - even with substantial NORAD support to the programme. If it is pursued, it will provide a relatively high level of service to only a very few people. If the benefits of improved water supply are to be provided to more than a fraction of the Region's population a reduction in per capita investment costs must be achieved. As indicated in Section 4.6 below, such a major reduction should be possible - given a change in choice of technology.

Recurrent costs must also be taken into account, but here too data are very poor. The 1987 Review Mission report quotes figures for piped gravity schemes based on percentage of capital costs (Tz.Shs 20 per capita per year), and expresses concern as to whether villagers will be able to afford them. A change in technology would not necessarily reduce recurrent costs, and could well increase them (as discussed below), but it may be possible to reduce the financial burden on government by involving villages more actively.

#### 4.4 Local and Foreign Personnel

Apart from financial resources, personnel can also be a constraint. Here, it is useful to distinguish between quantity and performance of manpower, and between higher and lower levels.

The quantity of higher level manpower available in Kigoma Region would appear to be low relative to the tasks to be accomplished, although on the basis of information supplied to the Team it seems that the situation in Kigoma is no worse than in other Regions.

In terms of the performance of higher level local personnel, the serious problem is that of salaries. Salary levels have fallen substantially in real terms during the 1980's. At present, these are only a fraction of what is required for even modest living standards (some have estimated a figure of 25%). It is thus not that staff have insufficient incentive to work hard, it is that they cannot afford to do so. It is well known that throughout Tanzania, well qualified civil servants find it necessary to supplement their income in other ways, like engaging in petty trading or agriculture. This is a waste of scarce and valuable trained staff.

With regard to lower level staff, the Team were informed that the quantitative needs are less - indeed there may well be an excess of staff in some grades. In terms of matching skills

to needs, it appears that the number of hydrologists is disproportionately high.

The number of NORAD funded experts provided under the programme has been greatly reduced in recent years, from 12 in 1985, to 7 in 1987, and 3 - 4 at present. As noted in the 1987 report, the resulting cost savings are very substantial. Unfortunately, those departing have in some cases not been replaced by Tanzanian personnel, and, according to some reports, the progress of the programme has suffered as a result.

Currently, it appears that the technical experts are being used for "gap-filling". The danger is that this can become a permanent situation, with the programme dependent on foreign personnel - whereas the aim should be one of institution-building, with each expert working as adviser to a Tanzanian counterpart, in a post with a specified and limited duration.

It seems clear that the rate of progress of the programme could be increased by providing more technical assistance. But apart from the issues just raised there is also the question of expense. The financial costs of foreign experts are huge (the total cost of an expatriate graduate engineer is over 100 times that of the local water engineer; and, as the 1989 budget shows, the proportion of the total NORAD budget devoted to technical assistance is still over one third). Every effort should be made to make the programme more self-reliant, both in terms of personnel and the funds to pay for them.

This is a very serious problem, which arises also in other programmes. The major policy issues raised have been discussed more generally both in Tanzania and in NORAD, and go beyond the scope of this report. The Team has therefore limited itself to pointing out the severity of the problem, and making some limited recommendations as to how local and foreign personnel may be more effectively used (see Section 6.6)

#### 4.5 The Need for a New Approach

Given the severe problems of replicability and sustainability just described, it is clear that a different approach is required, as the Team discussed with the Regional Water Engineer and with the Regional authorities during the Review Mission. Two key issues which emerged at an early stage of these discussions were choice of technology and decentralisation, as elaborated on further below..

In summary, a new approach must be found which reduces the cost of development of new supplies dramatically so as to increase replicability and hence serve a far greater number of people - even if the level of service provided is lower than with a piped gravity scheme. But it is also essential to ensure that water supplies are well operated and maintained.



This, especially, is where a policy of decentralisation can be important - for which some of the groundwork for such a new approach has already been laid in Kigoma.

What is being recommended by this Team is broadly similar to the "Hesawa" approach now being promoted in SIDA-supported schemes in some other regions in Tanzania. And a crucial component of such an approach is the increased role to be played by the villages, as set out in the new Tanzanian water policy.

The implications of such a change in approach are far-reaching. To shift the emphasis, in technological terms, to invest more in point sources and less in piped gravity supplies is itself significant. And to decentralise the activities of MOW more to the District level will involve major changes. But perhaps the greatest challenge will be how to involve villages right from the outset.

*called  
villagers*

The potential benefits of doing so are great. There should be savings in the cost of constructing supplies, and in operating and maintaining them thereafter. But to perceive community participation simply as a means of obtaining cheap labour is to miss the point. In recent months, representatives have come forward from one or two villages in Kigoma asking for assistance from RWE - not to finance and construct new supplies, but only to provide guidance to the villagers who themselves would undertake the work.

The change in approach will require changes in roles and attitudes - both from MOW staff and from villagers. To involve the community from the outset, to change from a top-down to a bottom-up approach, will imply different roles for those involved. The technical staff of MOW will continue to use their expertise (although emphasising simpler technologies), but their task will increasingly be to respond to community initiatives; to support the activities of villagers themselves.

#### 4.6 Choice of Technology

During their brief visit, members of the Team were able to visit three piped gravity schemes which were considered representative of the physical outputs of the project to date. In addition they had discussions with regional staff, and had the benefits of other sources of information - notably progress reports, and a few other written documents.

The Team profited from having among its members one who had been engaged from 1980-83 in the implementation of the project, and was therefore particularly well placed to assess what had been achieved. The general impression formed was that the piped gravity schemes were operating effectively and providing a substantially higher level of service than traditional sources. (A detailed study has been made of one village, Songambebe, before and after improvement which

substantiates this impression in this particular instance). In terms of quantity and accessibility this technology provides major benefits. In terms of quality the benefits are less evident. In almost all cases the source is untreated surface water - not very effectively protected against possible pollution. In terms of reliability this supply is generally better than traditional sources which may dry up for part of the year, to be replaced by other more distant sources. Breakdowns of piped schemes appear to be rare.

The investment costs of piped gravity schemes are, however, very high relative to point sources. One of the schemes currently being designed may be taken as an example. This involves the extension of a piped gravity scheme to serve an additional village. (There is thus a major expenditure on a 6 km main, but less expenditure on source development than would be the case for a wholly new scheme). The estimated per capita cost amounts to about Tz Shs 40,000. By comparison, the per capita cost of a dug well was estimated at Tz. Shs 2,500 and of a borehole at Tz. Shs. 4 - 5,000. The latter estimates are necessarily approximate, but it is clear that they are an order of magnitude less.

In terms of recurrent cost, comparison between piped gravity schemes, wells and boreholes is more difficult (even though it may be assumed that mechanised pumps will not be used, not merely because of the cost, but because of the unavailability of fuel). Operation costs of manually operated supplies would be negligible in money terms, but maintenance costs could be higher than for piped gravity schemes. (The problem with the latter is that if breakdowns do occur, the cost of repair is relatively substantial).

In terms of sustainability, therefore, piped gravity schemes have certain merits. The problem, however, is one of replicability. In terms of investment cost, the advantages of a point source are many, and, as discussed above, the case for changing to this technology is strong. There is a danger, which should not be denied, of abandoning a strategy which is not replicable for one which is not sustainable. The choice is an unpleasant one; but the case for a change in strategy is strong. The present approach of piped gravity schemes clearly cannot serve more than a small proportion of the rural population. An alternative, low technology approach offers the possibility of reaching a far greater number, albeit at rather lower levels of service. Such an approach will, however, require very considerable support - and of a rather different kind than has been provided so far. This is why organisational and human resource aspects are of particular importance.

#### 4.7 Decentralisation

The RWE has already initiated a process of decentralisation from Region to District level. The proposed guidelines for Organisation, Planning, Reporting, Monitoring and Evaluation

for MOW Kigoma Region outline a structure where more responsibility, in particular on construction, will be laid on the DWEs and their staff.

The ultimate aim is for the Districts to have the major responsibility for implementation, with the Region playing a supporting role. (In some ways this is analogous to the increasing responsibility that is to be given to the villages themselves; but it must be recognised that there is a great difference between transferring duties within the bureaucracy and transferring duties from the bureaucracy to the villages).

Over a period this will enable the RWE to reduce his staff under the Construction Section to contain mainly "specialists" for supervision, training and backup services. It is also proposed that changes be made in the method of allocating other resources - notably transport and materials- which are intended to reduce costs and give greater autonomy to the Districts.

However, to make the proposed organisation work, a well organized plan for transfer of knowledge, manpower and equipment has to be outlined, and in the transition period the districts will depend on support from RWE. Focus should therefore be made on strengthening the organisational structure of the DWEs' and of the CPHE teams both at regional and district level before decentralisation of activities are made. (Note: since RWE is employed by MOW, while DED's are employed by Local Government Services Commission, there are some administrative uncertainties regarding the secondment of staff from RWE to DWE, but it is hoped that these will be resolved shortly.)

The above mentioned guidelines indicate the following sections under DWE: Administration, Survey, Construction, CPHE, O&M. However, the manpower consequences of the setup have not been thoroughly discussed. The following staff assessment has been made by the Review Mission:

*Handwritten note:*  
Hva en för  
distriktsnivå  
med (för detta)

<u>Administration:</u>	DWE, Asst. DWE, Accountant, Bookkeeper, Storekeeper and Secretary.
<u>Survey:</u>	Technician II, Technician IV, 2 Assistants.
<u>Construction:</u>	Technician I or II, Technician III or IV, 4 Foremen, 2 Masons, 2 Pipefitters, 2 Carpenters plus Workers.
<u>CPHE:</u>	The CPHE teams at district level have to be strengthened to full post positions i.e 3 - 5 persons.
<u>O&amp;M:</u>	Technician II, Pumpmechanic (handpumps), Pipefitter, Mason.
<u>Workshop:</u>	Mechanic

Totally this amounts to a staff of 30 - 40 persons. At present none of the districts has nearly as many as this, (at senior level the shortage of qualified staff is especially

serious in Kasulu), and there is a shortage of recurrent funds . It should be possible to adjust the administrative setup such that one person can cover two or more positions, but it is still clear that manpower will be a constraint to the decentralisation process.

To ease this situation a training programme will be needed, as well as organisational support. (See Section 3.11 below).

#### 4.8 Health Education and Sanitation

Even provided that a water supply scheme is successfully built, operated and maintained, the resulting benefits to health (if not time saved) may still be slight, if water using practices are not changed. Pollution of water between source and mouth can negate the benefits which would otherwise be achieved.

There is evidence that this, a common problem in other areas, is also a problem in Kigoma. It is on these grounds that the need for health education has been stressed. The purpose of such health education should, however, not only be to advise those newly supplied with improved water supplies in how to minimise pollution. Rather, the aim should be to reach all villages, both because the potential benefits of improvements in water-using practices are available to all, and also because the ideal situation is one in which the health education process itself acts as a stimulus to villagers, and most especially women, to recognise the potential benefits of an improved water supply and therefore to take initiatives to request the necessary support from MOW.

Health education is part of the task of the CPHE teams (whose work is discussed on the following page). Far more significant, in numerical terms, are the Village Health Workers (VHW's), one per village, supported by Ministry of Health. The Team did not have the opportunity to assess the work of either of these in any depth, but two problems were reported. The first was that those employed as VHW's are generally girls or young women, whose status in the village is low. The second issue is that the village health workers and CPHE teams need better training to improve their performance.

A closely related issue here is that of sanitation, for improved water supply alone is unlikely to yield major health benefits. By contrast with water supplies, the potential benefits of improved sanitation may be less evident to the villagers themselves. Health education has an important part to play here too, and should not only complement, but to a large extent precede, physical improvements in sanitation facilities. The development of an effective sanitation programme will take time, and progress initially (at least in physical terms) will be slow. Experience from elsewhere indicates the need for a very low-cost, simple technology, with priority given to the squatting slab rather than to the

superstructure or other components. It will, almost certainly, be necessary to subsidise slabs to some extent.

To date, the health education and sanitation components of the programme have had relatively low priority, despite the stress laid on them in the 1987 Mission Report. The Team regards these as important components of the programme, and also urges that more emphasis should in future be given to them. But further preparatory work needs to be done with regard to both health education and sanitation. In the case of the former, a priority is to increase the competence and prestige of the CPHE teams and VHW's. In the case of sanitation, physical targets should not be set at this stage. Experience from other Regions in Tanzania would be instructive, not only with regard to physical design, but also to organisational aspects such as affordability, methods of financing (revolving fund etc.).

#### 4.9 Community Participation

The case for community participation may be argued on two levels. There is sufficient evidence from many countries now to conclude that unless the community is actively involved in the process of improving rural water supplies, there is a considerable danger that the supplies, once built, may be badly maintained and operated. The costs of operation and maintenance are typically so high that it is impossible for the government to provide this service. This alone provides strong grounds for involving the community. (It is also often the case that the initial costs of improvement can be only partially met by government, so that communities themselves have to contribute - either in cash or in kind).

But community participation is also an end in itself. The approach to water supply projects (or indeed other development projects) in which an outside agency, with technical skills and public funding, arrives in a village to plan and implement a scheme and then hand it over to the recipients is increasingly being criticised not only because the practical outcome is often, after a short period of time, unsatisfactory, but also because this is reinforcing a model and attitude to development which is inappropriate. In Tanzania, this is well recognised, and efforts are being made to revitalise the bottom up approach, involving ward and village level decision-making bodies from the outset. But it is recognised that the alternative model is at present often found.

In Kigoma, in some of the piped gravity schemes it is apparent that communities were not involved in the initial stages. It is therefore not surprising that when they were called upon to participate, by providing their labour for digging trenches, they were often reluctant, and did so only because they were informed that water would not be provided unless they cooperated. Even if such an approach enables schemes to be completed, the likelihood of the schemes being

maintained is certainly reduced. The situation improved with the inclusion of a more well planned CP component and the involvement of an expatriate short term adviser. There is always a danger that the imperative of maintaining physical progress can prejudice the slow but essential process of community participation.

The situation is currently as follows: There is a full-time CPHE team serving the Region, with part-time teams in each of the Districts. At regional level the CPHE is integrated in the MOW structure and plan their activities in cooperation with other sections. Through field experience the team has developed methods in how to involve the community in the programme. However, it still appears that many water supply schemes are not constructed in accordance with the felt need of the villagers. There is also often a lack of coordination with activities/campaigns run by other ministries.

The Mission was impressed by the enthusiasm of the CPHE teams, and it appears that they have made commendable progress given their limited resources. However, their capacity to undertake a larger and more ambitious programme is very limited. Yet the need is very great. As noted above, the involvement of villages, as outlined in the new Tanzania water policy and proposed in this report, will be achieved only through changes in roles and attitudes - and the CPHE teams will be central to this task. The support and cooperation of the District Councils and the village leaders will be crucial to the success of the programme. It is a delicate task, for although villages will be invited to initiate proposals and identify needs, they will also be informed of the limited support they can expect from MOW in financial terms. It will also require communicating with MOW staff, to work out with them the details of their new role, and how they are to collaborate with the CPHE teams.

Thus the "bottom-up" approach in planning and decisions should be fully and effectively built into the programme. The CPHE teams should play a major role in the process of developing the new approach. District Teams should be full-time employees, adopting the same organisational arrangement as at the RWE office.

The CPHE team at regional level should further develop their role as advisers and supervisors of the district teams and in this aspect train the district teams in fields such as:

- Communication with different groups in the village.
- Creating an understanding of women's role and involvement in water supply schemes.
- Building up women's confidence.
- Health related issues (e.g diarrhoea, clean water, oral rehydration therapy, skin diseases).

The team should also train technical staff of MOW in communicating with village population.

The regional team should participate in village surveys, monitor progress and evaluate performance. The district teams should perform village surveys, work out strategies for community participation, carry out health education, and assist in establishing criteria for willingness to participate in the water supply programme. The following may be useful guidelines for such criteria:

- existence of a Village Water Committee with adequate women's participation;
- establishment of a Village Water Fund;
- established payment procedures for remuneration to Village Health Workers (VHW) and Village Health Attendants (VHA).
- selected personnel (female and male) for training as VHWS and VHAs.

#### 4.10 Gender Issues

With regard to the issue of gender, also, there are two levels of debate. At one level it is argued that women (and to some extent also children) are those who have the major burden of fetching water for all purposes. Therefore any improvement in water supply is necessarily beneficial to women more than men. (The question does arise as to how the time that is saved is then used, but one would assume that there is at least some net benefit to women as a result of improved water supplies). It is also argued that women, more than men, should be involved in initiating proposals for water supplies and in planning them - for it is they who know best their needs. At this level, the case for involving women actively in the decision-making process is now generally well accepted.

But here too there is another level of debate. If water supply projects are initiated and implemented by an outside, male, technical agency this in itself reflects and reinforces the relative role and status of men in relation to women. This is a complex ideological issue, which cannot be adequately discussed here. To the extent that activities in the water supply sector simply reflect the wider values and culture of Tanzania society, the issue is clearly beyond the scope of this report. But there are nevertheless important conclusions to be drawn from this brief discussion. First, that activities may not only reflect but also reinforce the situation. In this regard, a shift towards greater community participation, provided that women are adequately represented, should in itself be beneficial to women. Second, if these complex issues are to be taken up and thought through it will require action over an extended period of time. Third, in addition to such a learning process there are a number of very specific proposals which can and should be made with regard to the involvement of women in the planning, design and implementation of water supply schemes.

In Kigoma, the piped gravity schemes required considerable

labour inputs for digging trenches. In general, the trenches within each village were dug by women, without payment (see Community Participation above), while the trenches outside villages were dug by men on a paid basis. This form of participation is not beneficial to women.

Women have equal numerical representation on water committees. But it is not clear how effective this is. There are reports that the influence of men on such committees is greater, and certainly there is evidence to suggest that women have had little influence on the design of existing supplies (e.g the lack of washing slabs, and the design of communal water points).

Tanzania has stated policies and principles which stress the importance of raising the status of women. More specifically, in the context of the water sector, guidelines are currently being prepared with regard to the Hesawa programme which should give rather more concrete recommendations concerning the involvement of women.

It is recommended that when the above-mentioned guidelines have been prepared they should be reviewed in relation also to the Kigoma programme, and adopted (with modifications if necessary). It is recommended that the regional and the district CPHE teams should play a major role in developing methods of involving women in the planning and decision-making process - preferably with specific targets to be achieved. In order to assess how effective is the current level of participation of women in village level decisions, it also recommended that the CPHE teams (with assistance if necessary) undertake a brief investigation.

Although there are provisions to ensure the participation of women in village water committees, more should be done to increase the number of women Village Water Attendants. There are few cases where the type of labour required excludes the possibility of employing women. The Team also recommends that more be done to ensure women's participation at a higher level. To this end, it is recommended that at least one woman from each District (from the CPHE team or elsewhere) should be a member of the Steering Committee.

#### 4.11 Human Resource Development

Human resource development refers both to institutional development and training. In recent months, HRD efforts have been largely focussed on the crucial issue of operations and maintenance, through the involvement of a long-term foreign consultant, and short-term assistance in the preparation of O&M manual. A brief assessment of the current staff situation has been given in section 4.4. The changes proposed in this report have significant implications for both the organisation and its staff. Many of the organisational issues have been discussed above. In terms of training, the implications may be briefly summarised.



A change in technology will require some retraining. At higher levels staff will have to be versatile, and innovative. At field level, the skills required are simple and can be learnt with a short on-the-job course.

Decentralisation - involving the transfer of staff from Region to District - will also require some retraining. Again, staff will have to become versatile, and, at senior level, management training is likely to be the primary need.

The greater involvement of villages will require changes in attitude more than changes of skills, although communications will be important especially for CPHE staff.

Although HRD will be a very important component of the programme, it is difficult at this stage to be specific as to what it should contain. The first step should be a needs assessment - undertaken largely by the staff themselves, for this is part of the learning exercise necessary for achieving change. Next, a training programme should be designed. This would largely consist of short on-the-job courses, workshops, and exchange of experience with other Regions of Tanzania. At senior levels, there might be a need for outside assistance, but at junior levels the training should be mainly done by senior staff.

There may be a good case for short-term consultants here, and the possibility has already been discussed at some length of engaging WHO to assist in the HRD component of the programme. Certainly their experience and materials would be of great relevance to the tasks just described. The costs of such assistance should be carefully weighed, but it is apparent that this is a high priority within the programme, especially at this transitional stage.

#### 4.12 Conclusion

It is evident from the foregoing that rather significant changes are here being proposed. To translate these into a detailed action plan will be difficult and will take time. Section 5 of this report contains an outline plan of operation for 1990/91 which should serve to initiate this process. In Section 6, a number of organisational issues are addressed, including financial and personnel issues. Thus the main emphasis is on the nature of the programme and its individual components. Although the Team has not been required to make recommendations regarding the scale of NORAD funding year by year, two general points may be made. First, there may be other ways of economising in addition to changing the choice of technology; procurement is one (discussed below); transport may be another, the RWE has made proposals here which should be effective. Second, there will be a need for flexibility in the transitional stage of the programme - the rate of progress may be slow (in terms of expenditure) and may vary considerably between different components.

## 5. OUTLINE PLAN OF OPERATION 1990/91

### 5.1 Introduction

To enable the Plan of Operation (planop) to fit in with the Tanzanian financial year it covers the period up to July 1991. The intention of this planop is to focus on activities and responsibilities in the region for the coming 18 months. No attempt is made here to cost individual components, but it should be noted that the activities to which the MOW is already committed will demand the greater part of the available funds.

On the basis of the proposals in Section 4, and the outline planop below, the RWE should work out a more detailed planop and a budget reflecting the activities for the financial year starting July 1990. The planop and the budget for 1990/91 will be negotiated and finally approved in the annual meeting in March 1990.

The new water policy focussing on local involvement, the decentralisation of responsibilities, the training needs and the need for manpower planning discussed in the Review Mission's report, will necessitate reduced ambitions on physical progress in 1990-91. In this period more emphasis should be laid on organisational aspects, training of staff and on guidelines for local planning procedures. Quality of work should be regarded as more essential than physical progress.

The short term consequences of the above will be that:

- more emphasis should be on investigating, in as many villages as practically possible, willingness to participate in the programme, therefore
- the district CPHE teams should be seconded on a full time basis within DWE, and
- more responsibility should be given to the CPHE teams when decisions on priorities are made, therefore
- more training is needed for the CPHE personnel at regional and district level.
- already designed gravity schemes might be obsolete, therefore
- more need for the PP&P section to react quickly when designs are required, but
- less need for the PP&P section to present designs when wells are selected.
- more need for trained personnel at all levels particularly

in management, training, communication, motivation and technical skills, therefore

- plans for training of personnel and for personnel development at regional and district level have to be worked out .

## 5.2 Technical Activities

It is recommended that the schemes under construction should be completed as previously designed, leaving the option of "the new approach" to new villages to be considered in the project.

At present 14 schemes are under construction in the Kigoma Region with 4 in Kibondo, 5 in Kasulu and 5 in Kigoma rural districts. According to present plans 5 should be completed in 1990, 7 in 1991 and 2 in 1992. However, the present progress plan should be revised with reference to the comments made above.

In addition staff houses in Kibondo and Kasulu and workshops in Kasulu and Kigoma will be completed in 1990.

The feasibility study on Kigoma - Ujiji water supply should be completed before February 1990.

With the present manpower situation and the constraints made by the change of approach it is recommended that only a limited number of villages should be added to the project in this planop period. Within the RWE /DWEs' capacity and the project's budget frame, assistance should, however, be given to villages with particular interest in constructing water supplies by self-help.

MOW staff, and especially the CPHE teams, will have an important role here, in publicising and promoting the new approach and assessing the merits of the villages that apply.

The capacity of the drilling unit is approximately two boreholes per month and the rig itself is ageing. Where wells will be the main water source there may be a need for boreholes as additional sources and as fallback sources in the dry season. In some villages boreholes may even be the only feasible water source. It is therefore accepted that the region needs a drilling rig. However, when the present rig is due to undergo major repairs it should be considered to replace the present rig with for example two percussion rigs as they are simpler, cheaper, easy to operate and able to produce 1 to 2 boreholes per month each.

For Kibondo and Kasulu townships a feasibility study should be carried out before decisions on type of water supply are made. The study should also include low cost alternatives. Preferably the study should be carried out by a Tanzanian consultant.

### 5.3 Decentralisation

To make the proposed decentralisation work, a well organized plan for transfer of knowledge, manpower and equipment has to be outlined.

In the planop period the districts will depend on support from RWE. Focus should therefore be made on strengthening the organisational structure of the DWE's and of the CPHE teams both at regional and district level before decentralisation of activities is made.

### 5.4 Community Participation

Recommendations relating to community participation are contained in Section 4.9 above. The first stage is to establish full-time District Teams, and to strengthen the Regional Team to enable it to provide the necessary support, and carry out its other expanded functions.

A training programme for the CPHE units should be established to:

- train the regional CPHE team to become supervisors and trainers of trainers.
- train the district CPHE teams to work independently at village level.
- train technical staff at regional and district level in communication, village planning procedures and the consequences of the new water policy.

The training should be conducted with the assistance of an external consultant, working with regional CPHE staff and others, and consist of a combination of classroom training, workshops and seminars and on-the-job training.

(The training of VHW's is also an important priority. These are employed by Ministry of Health, with whom the matter should be taken up).

Other types of assistance could, of course, be given in the form of finances (e.g for transport) or for personnel (including full-time foreign experts). Such assistance should, however, be given with care, for otherwise it would not only be unsustainable, but could itself damage the whole approach of CP. The services of a short-term consultant would, at the minimum, seem to be required.

### 5.5 Human Resources Development

To improve the quality of the project, training of personnel from management level in the region to extension workers and "fundis" in the villages is needed. A range of different types of training may be required (such as training of staff

for other tasks, training of personnel to fill new or higher positions, training of trainers), in various topics (project management, construction skills), for different types of staff (extension workers, masons).

Within the MOW organisation training possibilities and career plans for technical personnel exist and should be utilized. However, several posts and professions in the new setup have to be defined and training programmes created. It is therefore recommended that a consultant be hired to assist in assessing needs and to propose training programmes.

Particular emphasis should be laid on the need for strengthening the competence and capacity of the CPHE teams both at regional and district level.

### 5.6 Sanitation

Sanitation has been included in the project since 1988 but progress so far has been relatively limited. It is recommended that the sanitation part of the project should be better structured in the project.

The outline of sanitation presented by the CPHE team could with some amendments form a basis for sanitation activities. It should however, be appreciated that as sanitation is a more slow moving process than water supply, and therefore is more heavily dependent on long term involvement of CPHE and extension workers, involvement over several years will be needed.

In the planop period the following activities are proposed:

- assessment of the need for a washing slab/basin near all new water points.
- assessment of the merits of alternative designs of the slab based on comments from present users.
- continued construction of simple, low-cost demonstration latrines, training of builders and extension workers (the merits of alternative designs to the relative expensive VIP latrine should be considered, with particular emphasis on simplifying the superstructure).
- initiation of a two to three year plan for follow up on sanitation (promotion, monitoring and education) in the villages.

The review mission recommends that slabs should be sold at subsidized prices; funds received from sale of slabs could be put into a revolving fund for procurement of materials for slabs.

## 5.7 Transport and Stores

To enable the project to be carried out in accordance with the new water policy the use and maintenance of vehicles has to be firmly coordinated and monitored. Organisational plans for use of vehicles, service and maintenance procedures should be scrutinized and if necessary revised and reintroduced. All expenses including procurement costs, fuel, service and maintenance should be claimed on the respective section and/or project. Procedures for requisition and issuing of materials and spares should be followed and controlled.

The new procedures now being proposed by the RWE should go a long way to achieving these aims.

## **6. ORGANISATIONAL ISSUES**

### **6.1 Relationship to KIDEP**

On the basis of experience with RUDEP, and with progress made with the recently initiated KIDEP, a decision will be taken before the expiry of the present agreement for TAN 055 whether the water supply programme will, in future, be integrated into KIDEP or continue as an independent, but parallel programme. Preparations are, however, being made for possible integration - most notably by giving the NORAD-financed Financial Controller responsibility for both programmes. It has not been the task of the Review Team to advise on this issue, but there are some practical implications of such a change which the Team has taken into account. First, the timing of the Annual Meeting and possible Annual Review Missions should be coordinated between the two programmes. Second, the Tanzanian financial year (July to June) should, in future, be used as the basis for budgeting (as is now the case with RUDEP, and is intended to be the case for KIDEP).

### **6.2 Annual Meeting**

The Team recommends that there be an Annual Meeting for TAN 055. The first meeting should take place in early March 1990. Those represented should be NORAD, PMO, MLGCM, MOW, RDD.

### **6.3 Annual Review Mission**

The Team also recommends that there should be an annual Review Mission, similar to that which has just taken place. A Joint Norwegian/Tanzanian Team should visit at a date to be agreed. The period October - November would appear to be most appropriate since this would allow time for any findings of the Mission to be taken into account in the submission to the Annual Meeting.

### **6.4 Steering Committee**

Provided it is agreed that an Annual Meeting should take place, the Team recommends that the role and composition of the Steering Committee should be changed. The Committee should act as an advisory and controlling body at regional, rather than national level. Meetings should take place at least twice a year. One of the meetings should (from 1991) take place after the Review Mission and before the Annual Meeting, so as to allow the committee to influence the annual Plan of Operations which is of importance both for the Annual Meeting and for the Tanzanian budget.

The Steering Committee should thus be composed of Regional personnel (with NORAD invited as an observer, as at present, but without representatives from central government). There should be at least one woman representative from each

District (from the CPHE teams or elsewhere). All efforts should be made to ensure that DED's participate in person.

#### 6.5 Progress Reporting

Progress reports should continue to be submitted to the Steering Committee, and copied for information to NORAD, Dar es Salaam. It is recommended that these be set out in a way which clearly relates actual achievements to planned achievements for the period in question.

The proposed change in approach should also be reflected in a change in reporting procedures from an emphasis on physical construction to a broader assessment of progress, including such aspects as maintenance, community participation, health education, sanitation, human resource development. This will not be easy, and will require further effort with regard to monitoring and performance indicators.

#### 6.6 Local and Foreign Personnel

Increasing the number of senior level Tanzanian staff could be achieved, in the short term, only at the expense of other regions. But it is both desirable in itself and cost-effective to ensure, as the first priority, that the limited numbers of senior level Tanzanian staff are used to maximum effect. This will require action with regard to incentives. A number of possible schemes have been considered in the past. It appears that the method of overtime payments which has been tried recently is not to be recommended. Also discussed at the recent Steering Committee meeting, however, is a more complex bonus scheme. It has been agreed that this will be operated for a trial period of one year, and the experience will then be reviewed. The Team was also informed that PMO has undertaken to prepare a policy on incentives in the context of the Hesawa programme. This may provide the basis for a more lasting (and more consistent) policy in future.

More can and should be done to make better use of the limited staff available - both through training and organisational improvements, as discussed above.

The other manpower resource is foreign experts. In the short term, it is apparent that any further reductions in expatriate support would prejudice the progress of the programme. But such support is very expensive, and every effort must be made to ensure that this is cost-effective. This implies the need for very careful attention to job descriptions and personnel selection. Here, the proposed new approach has important implications, which are relevant to an issue of immediate concern. The policy of decentralisation implies a need for strengthening at District rather than Regional level. Foreign experts have been provided for the Districts of Kigoma and Kibondo, but none for Kasulu - where, in some respects, the need is greatest. At the same time a Design Engineer is under recruitment for Kigoma Region



- a position which now seems of lower priority both in view of the decentralisation policy and the proposed change in technology. The Team therefore recommends that instead of an expatriate Design Engineer being recruited for Kigoma, an expatriate should be recruited to work in the office of the District Water Engineer, Kasulu.

Those engineers provided under Technical Assistance are at present formally occupying line positions (e.g they are designated as Assistant District Water Engineer). This has led to some difficulties, notably that the Tanzanian authorities, in approving requests for such positions, are required to state that there is no Tanzanian available to perform the task. It has been proposed by the Tanzanian authorities that such persons should henceforth be designated as Advisers. The Review Mission endorses this proposal. With regard to the post of Financial Controller, however, the situation is rather different. (See Section 6.10 below).

In assessing the need for technical assistance, the merits of using short-term consultants rather than longer term experts should be given greater attention. The difference in financial costs may not be substantial (if all overhead costs are included) while the advantages of employing personnel with directly relevant experience are considerable.

#### **6.7 Financial Routines**

Although integration of NORAD grant funds into the Tanzanian budgetary system may not at present be feasible, there should be more attempt made to present, and to perceive, the NORAD and Tanzanian funds as complementary. With regard to the amount of the Tanzanian government contribution the Review Mission is, as noted above, reluctant to press for a substantial increase. A minimum requirement, however, must be that those funds which are approved should be released (this applies mainly to recurrent funds). A continuing cause for concern, raised in the 1987 Review Mission report and at numerous Steering Committee Meetings, is the failure of the Tanzanian authorities to allocate the recurrent funds which have been approved. There are two related reasons: delayed release of funds, and use of funds for other purposes. Last year, according to the July 1989 Progress Report, 33% of recurrent RWE funds, and a rather higher percentage of DED recurrent funds were not released for their intended purpose.

This issue was again taken up at the Steering Committee Meeting attended by some members of the Review Mission. It was agreed that in future DED funds should be channelled through the RDD. To judge by the experience of 1988/89 this would not necessarily improve the situation substantially, but the Team was informed that in the current year the situation - with regard to RDD funds - was greatly improved. It is to be hoped that this will indeed be the case, but there is certainly a need to follow this matter up and ensure that a lasting solution is found.

## 6.8 Procurement

Procurement of materials (from abroad, and also, in some cases from Dar es Salaam) is the responsibility of Norconsult, who also provide similar services to RUDEP and KIDEP. The question of procurement has been a matter of concern for some time, and a study was commissioned by independent consultants (Myra Beckman AB, Sweden) who presented their report "Localization of Procurement Services to NORAD Sponsored Projects in Rukwa and Kigoma Regions" in October 1988). Among its conclusions were the following:

- "in our opinion there is no existing organization capable of replacing Norconsult at present, rendering the same wide range of procurement services."
- "a new contract with Norconsult should aim at stimulating cost efficiency within Norconsult as the present mark-up is considered to be too high. Gradually Norconsult should be phased out, shifting responsibility for procurement to the projects in the regions."

The mark-up charged by Norconsult was calculated at 12.5% in 1988, and the report recommended a new type of contract, either:

- "a contract giving 10% mark up on the value of the goods procured; or
- a contract with a cost ceiling for the office in Dar es Salaam."

The figures shown in section 4.2. above suggest that in 1989 a fee of NOK 1,650,000 was budgeted for procuring goods valued at less than NOK 6,935,000 - a mark-up of over 23%. Actual figures based on invoices for the year 1989 up to November indicate a lower figure - of 1,165,000/6,660,000 or about 17.5%. More accurate estimates may show this too to be an overestimate, but it seems clear that the amount of the markup has increased since the consultants' report. The current contract with Norconsult expires at the end of 1990. There seems to be considerable scope for reducing the cost of the procurement services provided, and the Team recommends that this matter be followed up, in line with the proposals in the consultant's report. The Team also recommends that the RWE should have an opportunity to express his views regarding the provision of procurement services.

## 6.9 Stores

The need to ensure adequate management of stores is particularly relevant in view of the recent problems described in Section 2. The proposals regarding financial control, in Section 6.10 below, may go some way to improving the situation, but consideration might also be given to the

method adopted by SIDA in their water programmes, in which all materials are the property of SIDA until released from the regional store.

#### 6.10 Financial Control

NORAD will wish to ensure adequate safeguards over the expenditure of funds under the project. At present, one of the persons supplied under Technical Assistance is a Financial Controller (FC). According to the current job description, as someone occupying a line position, the FC is formally answerable to the RWE, and not to NORAD. If it is intended that one of the duties of the FC should be to exercise financial control on NORAD's behalf it would be best for all concerned (NORAD, the Tanzanian authorities, and the FC) that this be made explicit. Although it is recognised that this is a, perhaps controversial, change from past practice, the Review Mission recommends that it be made clear in the job description that the person concerned has the right to communicate directly with NORAD, and the responsibility to do so if in doubt as to whether adequate control is being exercised. This should not prevent the person occupying this post from also undertaking the task of providing advice to the RWE.

## **7. FURTHER ACTION TO BE TAKEN**

### **7.1 Finalisation of the Project Document**

According to their Terms of Reference, the Team is required to finalise the Project Document for the 1989-91 phase of the project (which serves as an annex to the Agreement). A draft Project Document was submitted to the Tanzanian authorities, and comments were received from PMO and RDD. A revised Project Document was prepared by the Team Leader on the basis of these comments and discussed by the Team as a whole. The advice of the representatives on the Team from PMO and MOW was sought, and further modifications made. The resulting revised draft was submitted to the Tanzanian authorities with the Draft Agreement.

### **7.2 Signing of the Agreement**

A draft of the Agreement was received in NORAD, Dar es Salaam from NORAD, Oslo shortly before the Team left. This draft was also discussed by the Team. Two issues of substance were taken up. First, it was suggested that MOW should, along with PMO and MLGCM, be included as central government ministries (the proposed wording is "PMO should be the responsible Ministry at central level, participating with MLGCM and MOW") Second, it was suggested that provision for an Annual Meeting and a joint Annual Review should be included in the Agreement.

A revised draft Agreement should be submitted to the Tanzanian authorities very soon, so that the Agreement can be signed before the Annual Meeting proposed for March 1990.

## Annex 1.

### TERMS OF REFERENCE

#### REVIEW OF THE KIGOMA WATER SUPPLY PROGRAMME

##### 1.0 BACKGROUND

Norway has provided support to the water supply sector in Kigoma since 1979. A review of the project was carried out by a joint Norwegian-Tanzanian team in 1987. The review concluded that the project had achieved positive results, but expressed some reservations, stressing the need to ensure sustainability. The Team recommended that more emphasis should be put on operations and maintenance right down to the village level, more systematic human resource development, and improvement of monitoring procedures, including setting up key performance indicators.

A new phase of the programme covering the period 1989-91, with a Norwegian contribution of NOK 33 million kroner, is expected to be approved soon. It has, however, been specified that the release of funds for the years 1990 and 1991 should be dependent on the outcome of the review now to be undertaken.

##### 2.0 OBJECTIVES

The general objectives of the water supply programme are to improve health, increase social welfare, and reduce the workload for women. The more specific project objectives are:

- increased water use,
- increased local capacity for operation and maintenance,
- increased user participation,
- allocation of a reasonable share of paid project employment to women

The objectives of this review are to recommend necessary organisational changes and to prepare a detailed two-year plan, laying stress on the importance of sustainable benefits: the increased use of better quality water from a programme which can successfully continue when external support ceases.

##### 3.0 SCOPE OF WORK

the Team shall review the relevant documentation in Norway and Tanzania, and shall visit Kigoma for discussions with project personnel. The Team shall pay particular attention to the following issues:

Manpower and human resource development. The region has experienced difficulty in having Tanzanian personnel assigned to vacant posts. Alternative measures for resolving this problem should be assessed, including the possibility of

offering funds to the Ministry of Water for the training of staff to compensate for those assigned to Kigoma. In addition, the appropriateness of the current allocation of expatriate personnel should be assessed, and specific proposals made with regard to the human resource development component of the programme, for which very limited funds have so far been allocated.

Community participation and health education. These components of the programme, especially health education, will require more resources than have been allocated in the past. The Team shall assess how such resources can best be used.

Organisational arrangements. A critical assessment of the administrative and decision-making procedures for the programme is now overdue. The need is to establish an organisational framework for the programme based on annual meetings where the work programme and detailed budget are decided, and to ensure the active participation of all ministries and departments concerned, besides the Ministry of Water and the Prime Minister's Office.

Taking these, and other relevant factors into account, the Team shall:

- 1) Prepare a two-year outline plan for the period 1990-91;
- 2) Recommend a new organisational framework for the programme.

The team shall through discussions with Tanzanian Government finalize the Project Document.

#### 4.0 IMPLEMENTATION

The Team will be composed as follows:

Desmond McNeill, economist, NORAD/NVE Oslo. Team leader  
Åge Krüger, engineer, consultant to NORAD, Oslo  
Ingunn Klepshvik, programme officer, NORAD, Dar es Salaam  
Vigdis Wathne, executive officer, NORAD, Oslo  
Mr. M.S.J. Mwenda, PMO  
Mr. R.N. Nzowa, Ministry of Local Government  
Mr. J.P.N. Mosha, Ministry of Water

The Team shall mobilise in Dar es Salaam on or about 4th December 1989, and prepare draft findings for discussion in Tanzania by 14th December 1989. The report of the Team shall be finalised by end-January 1990.

Kjell Storløyken  
Director  
Regional Department, Africa

Oslo, November 1989

Annex 2.

LIST OF PERSONS MET

Kigoma

C.M. Mzindakaya	Regional Commissioner, Kigoma
F. Mwanambilimbi	Regional Secretary CCM
J.K. Kileo	Regional Development Director
C.M.W. Maheri	Regional Water Engineer
F. Walele	Regional Police Commander
J. Shungu	Private Secretary to Regional Commissioner
Z.J. Abuya	Regional Planning Officer
M.G.E. Lwakatare	In charge, PP&P, MOW
F.W. Masanja	PP&P, MOW
S.J. Katiyuhagira	In charge, construction, MOW
D.R.D. Kalimwenjuma	In charge, O&M, MOW
H.A.M. Mwidadi	O&M, MOW
M. Munanka	Finance & stores, MOW
J.K. Ngodagula	In charge, Kigoma urban water supply
M.R. Mabula	In charge, CPHE, MOW
K. Nkulizi	DWE, Kibondo
I. Dalen	Ass.DWE, Kibondo
S. Kitenze	DWE, Kigoma
J. Eklund	Ass.DWE, Kigoma
W. Ruheta	MOW
H. Super	CPHE, MOW
K. Mwamba	Ministry of Health
R. Feruzih	Ministry of Health
E. Ntirugelegwa	Ministry of Health
E. Biguza	CPHE, MOW
S. Banyura	CPHE/MLGCM
C. Samson	CPHE/MLGCM
E. Kamila	CPHE/MLGCM
M.H. Mandiga	CPHE/UWT
P. Ntiyakama	Village Chairman, Mgaraganza
J. Bitonkwa	Village Secretary, Mgaraganza
P. Mziro	Village Water Attendant, Mgaraganza