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JESS MANPOWER AND TRAINING ASSESSMENT

Prepared by:

Richard Z. Donovan
Associates in Rural Development, Inc.
110 Main Street, Fourth Floor
P.O. Box 1397
Burlington, VT 05402
U.S.A.
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ACRONYMS AND ABBREVIATIONS

AHT	Agrar und HydroTechnik, GMBH
AID	U.S. Agency for International Development
ARD	Associates in Rural Development, Inc.
BuRec	U.S. Bureau of Reclamation
GSDR	Government of the Somali Democratic Republic
GTZ	German Agency for Technical Cooperation
JESS	Jubba Environmental and Socioeconomic Study
JuDAS	Jubba Development Analytical Studies project
MJVD	Ministry of Jubba Valley Development
NAS	National Academy of Sciences
NTTCP	National Tsetse and Trypanosomiasis Control Program
PP	project paper
SIDAM	Somali Institute for Development Administration and Management
USAID	U.S. Agency for International Development

PREFACE

The Jubba Environmental and Socioeconomic Studies (JESS) (number 649-0134) is jointly funded by the Government of the Somali Democratic Republic (GSDR) and U.S. Agency for International Development (AID). Technical assistance and project management are being provided by Associates in Rural Development, Inc. (ARD) of Burlington, Vermont, under AID contract number AFR-0134-C-00-5047. This report describes a portion of the work undertaken by Mr. Richard Z. Donovan, ARD's project manager for JESS, during his consultancy in Somalia from 23 January to 20 February.

The manpower and training assessment discussed here is part of the overall institution-building framework for JESS. It intended to complement other efforts currently being implemented by AID, the U.S. Bureau of Reclamation (BuRec) and German Agency for Technical Cooperation (GTZ), which will culminate in a fully staffed and trained unit at the Ministry of Jubba Valley Development (MJVD) for planning and coordinating river basin development activities in Somalia's Jubba Valley.

The technical and administrative staff of JESS, both Somalis and expatriate advisors, provided encouragement and assistance during this assessment. As a relatively young agency, MJVD is in the midst of attempting to establish a strong presence in Somalia. JESS can contribute to this effort by providing training and conducting environmental and socioeconomic studies that are of near-term and long-range practical value to development projects in Somalia.

The author wishes to acknowledge the assistance of Ms. Sally Patton, Jubba Development Analytical Studies (JuDAS) project manager at USAID/Somalia; Mr. Ali Warsame Aden, MJVD project manager for JESS; Mr. Aweys Haji Yusuf, Director of Planning at MJVD; and the ARD field team--Dr. E. Drannon Buskirk, Jr., Dr. Kathryn Craven, Dr. Ian K. Deshmukh and Dr. James L. Merryman--for their guidance and suggestions on approaches to institutional development for JESS. At ARD's home office, Dr. Gus Tillman, Mr. Richard Hart and Dr. George Burrill were quite helpful. Finally, thanks go to Ms. Lisa Beale Powlison for coordinating the editing and production of this report.

I. SUMMARY

In view of the long-term objectives of both JESS and the JuDAS project, this manpower and training assessment was conducted to provide a basis for long-term institutional development within MJVD. AID's project paper (PP) suggests short- and long-term training as the principal institution-building component of the JuDAS project, of which JESS is a part.

The conclusions and recommendations of the manpower assessment (see Section III.C) are summarized here. First, to date, MJVD has assigned counterparts to JESS who have training in appropriate disciplines, with the exception of economics, sociology and water-resources/irrigation engineering. These counterparts are young and relatively inexperienced in such JESS-related areas as river basin assessments and data gathering and analysis. It is recommended that MJVD counterparts in economics, sociology and water-resources (irrigation) engineering be assigned to JESS as soon as possible. Existing counterparts should receive training that includes exposure to related river basin programs in Africa (e.g., the Shabeelle in Somalia and the Tana River in Kenya). Other counterpart training should focus on applied skills in data gathering and analysis, interpretation of aerial photographs and multi-sectoral/regional planning.

Second, in addition to designated counterparts and administrative staff for JESS, there are a number of other MJVD staff (e.g., those working on the Baardheere Dam Project) who have complementary skills that are important to JESS. These individuals could also benefit from training opportunities identified by JESS and are open to coordinating such activities. It is recommended that JESS continue to cooperate with all MJVD staff, including those who are not specifically assigned to JESS. Ensuring that such cooperation occurs is the shared responsibility of ARD's field team leader and MJVD project manager for JESS, with guidance from USAID/Somalia. Training opportunities should be sought that will further solidify intra-MJVD staff cooperation.

Third, within MJVD, three major overall manpower weaknesses were identified during this assessment:

- social science expertise for gathering and analyzing field information, and developing institutional approaches for the management and implementation of development projects;
- irrigation and water management-related engineering expertise for guiding water management operations; and

- field experience and exposure to the technical and administrative aspects of managing a comprehensive river basin development program, such as that envisioned for the Jubba Valley.

It is recommended that a more detailed, labor-intensive assessment of MJVD's overall institutional direction and capabilities is needed to guide the ministry's recruitment of future staff. Clearly, expertise in the social sciences and water management engineering is needed. To the greatest extent possible, given funding restrictions, the JESS training program should address MJVD's overall need for exposure to the complexities of managing river basin development programs in Africa and elsewhere.

Fourth, supplemental staff resources outside MJVD are available and interested in cooperating with JESS. In general, these individuals have more applied experience and skills in relevant areas, which will be necessary to complete JESS activities in a timely and high-quality manner. It is recommended that efforts made by JESS, AID and MJVD to obtain assistance from qualified individuals and institutions outside MJVD continue to be given a very high priority. Prior to the 1986 Gu rains (roughly late March through May), JESS field staff should continue to concentrate on identifying valuable sources of expertise in Somalia, particularly in terms of training and conducting the field studies.

Fifth, although most counterparts and administrative staff speak adequate English, more language training is an immediate priority if staff members are to participate in other training programs in a meaningful way. USAID/Somalia has recognized this problem and is taking appropriate steps to address it. It is recommended that USAID/Somalia, JESS and MJVD continue to place a high priority on English-language training for JESS staff members, particularly counterparts.

Sixth, JESS administrative staff have already started to improve their office administration and computer skills, and are proving quite useful in this regard. To date, staff members who have very limited or no computer skills have indicated an interest in receiving such training. It is recommended that JESS administrative and counterpart staff continue to receive computer-related training. However, such training should not preempt the use of computer equipment for the preparation or production of JESS studies or reports.

Based on the results of the manpower assessment, and keeping in mind previous experiences with AID-funded training programs in Somalia and other parts of Africa, the following principles are proposed as guidelines for JESS-related training over the next two and a half years:

- the training of JESS Somali staff should be directed by individualized objectives that the staff member has provided input to and agreed on;
- counterparts should coordinate their training activities with a specific ARD field team member, but should not limit their professional interaction or on-the-job training to that staff person;
- JESS should emphasize short-term and on-the-job training in Somalia;
- JESS staff should have at least three, and preferably six, months of experience working on JESS or a similar project before they are eligible for either short- or long-term training courses;
- ARD's field team leader should serve as the coordinator and central contact for JESS-related training activities;
- whenever possible, JESS should encourage the coordination of training activities between different agencies, in terms of both planning and implementing training courses; and
- any training activities that occur outside Somalia should be carefully planned to ensure that they are cost-effective, trainees are given adequate supervision, the subject matter is appropriate to Somali circumstances, and trainees receive certificates indicating the type of training they have received, if appropriate.

The following step-by-step process is suggested for implementing the proposed training principles. First, the ARD field team should review the preliminary training objectives provided in Appendix B with each counterpart and administrative staff member and revise them, as necessary. These preliminary objectives can and should be changed substantially, as deemed appropriate by ARD's field team leader and other field staff who are suggested as training advisors.

Second, the revised training objectives and plan should be sent to the JESS managers at MJVD, USAID/Somalia, National Academy of Sciences (NAS) in Washington, DC and ARD in Burlington, Vermont. A copy should also be kept on record by the ARD field team leader.

Third, based on the revised objectives and plan, AID, ARD, NAS and MJVD should send their training ideas (e.g., possible study tours, workshops, seminars, short courses, sources of

training expertise, etc.) to the ARD field team leader. All ongoing and potential JESS training activities should be coordinated through ARD's field team leader. In addition, ARD home-office staff should immediately begin to forward training materials (such as books, case studies, etc.) for each individual staff member to the team leader.

Fourth, as appropriate or if requested by either USAID/Somalia or MJVD, the ARD team leader should convene meetings to discuss and decide on training options, and select participants.

Fifth, the relevant ARD field team member should review individual training objectives and plans with each JESS staff member every six months, at a minimum. Thus, the first major review and revision of training objectives should take place in the fall of 1986.

II. INTRODUCTION

A. Objectives of the Assessment

This manpower and training assessment identifies ways that JESS can enhance the long-term effectiveness of MJVD as an organization for planning and coordinating regional development activities in the Jubba Valley. As such, it is one of ARD's initial steps in developing a plan and approach for institutional development activities with MJVD.

The manpower assessment component of this report (Section III) begins by identifying MJVD staff who should be able to contribute to JESS, which ARD will be conducting for the next two and a half years. To do this, the capabilities of MJVD staff assigned to JESS were assessed. In addition, the range of skills that MJVD staff might acquire were studied. The manpower assessment also identifies outside resources that may be utilized for JESS activities. The focus is on human resources outside MJVD, but located in Somalia (e.g., universities and government agencies), which may prove useful in conducting field studies or as sources of training assistance for MJVD staff.

Using information from the manpower study, a training assessment was also conducted (see Section IV). ARD's home-office staff, field team and consultants will provide training for MJVD personnel, which will be coordinated with USAID/Somalia, NAS, BuRec and GTZ.

B. Institutional Development and JESS

The overall agenda for JuDAS is presented in the logical framework (reproduced on the following page) from the PP amendment dated June 1985. It states that JuDAS activities are intended to increase MJVD's capacity to effectively plan rational development projects. Obviously, JESS has a key role to play in achieving this overall institution-building objective. Other, more specific objectives of JESS are to:

- provide GSDR with timely information to be used in formulating a socially and environmentally sound master plan for the Jubba Valley, as well as guidelines for formulating future projects that are socially and environmentally sound;
- identify and evaluate interrelated socioeconomic and environmental effects that will be caused by development of the river valley, and further describe procedures and development activities to

LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date 9/88
Date of this Summary _____

Project Title: Juba Valley Development Analytical Studies

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program Goal: The broader objective to which this project contributes: Create a Master Plan which will optimize resource uses in the Juba River Valley.</p>	<p>Measures of Goal Achievement: Increased planning capability of MJVD leading to increased food production.</p>	<p>Ministry of Planning Statistical Abstracts, acceptable development project design output.</p>	<p>Concerning long term value of program/project: GSDR maintains Juba Valley development priority.</p>
<p>Project Purpose: Provide necessary information on soils/land use, social and environmental effects for incorporation into Master Plan. Provide support to the MJVD.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status. Baseline data collected from Juba Valley project planning in valley can commence with full knowledge of soil/environment. Increase in capacity of MJVD to effectively plan rational development projects.</p>	<p>Review of MJVD use of current data base. Environmental assessment used in planning design. Review of MJVD project design schemes.</p>	<p>Affecting purpose-to-goal link: No major disaster in Juba Valley area. MJVD provides technical assistance agreed upon.</p>
<p>Outputs: Classification of soils and land use. Identification of environmental/sociological constraints. Development of MJVD as effective planning body. Incorporation of environmental assessment in planning stages.</p>	<p>Magnitude of Outputs necessary and sufficient to achieve purpose. Contracts signed for all surveys needed. Long- and short-term assistance as contracted for.</p>	<p>Project and field records. Project accounts. Review of final reports.</p>	<p>Affecting output-to-purpose link: MJVD provides counterparts in a timely fashion. Petrol and staff provided in a timely fashion.</p>
<p>Inputs: Activities and Types of Resources See Financial Plan. Training. Technical assistance. Planning strategies.</p>	<p>Level of Effort/Expenditure for each activity. See Financial/Implementation plan. See annexes for scopes of work and RFTP.</p>	<p>Project records. Contractor's field reports (phases I, II and III). Project manager's quarterly assessment.</p>	<p>Affecting input-to-output link: Project technicians and commodities arrive in a timely fashion.</p>

|| If Purpose, Then Goal
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 || If Purpose, Then Purpose
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 || If Outputs, Then Purpose
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 || If Inputs, Then Outputs

mitigate adverse impacts and enhance beneficial effects;

- provide GSDR with a realistic plan for monitoring environmental, social, land-use and agricultural parameters in the Jubba River Valley so that national development decisions can be based on sound, current data; and
- develop institutional strengths within MJVD through classroom and on-the-job training.

A review of the first three objectives clarifies the fact that first and foremost, JESS is a set of technical studies. Strictly speaking, it is not expected to implement broad-based physical development activities in the Jubba Valley. The last objective, and to a lesser extent, the third, provides JESS with its "institution-building" agenda. Tangible ways that institutional development within MJVD can be accomplished through JESS include:

- providing technical, office and field logistic equipment for MJVD's use, now and in the future;
- establishing daily working relationships with residents and professionals/technicians working with other Somali and international agencies in the valley;
- producing project reports and technical studies that will be widely disseminated, and hence, increasing the exposure of MJVD to other national, regional and international agencies;
- establishing processes and procedures (guidelines) within MJVD for conducting environmental and socioeconomic assessments and monitoring in cooperation with other national and international agencies; and
- training MJVD staff to conduct such assessments and, to the extent possible, plan and coordinate development activities in the Jubba Valley.

To expand on the second point above, the JESS team will make a special effort to establish working relationships with other organizations that have activities in the Jubba Valley. This is important for two reasons. First, MJVD already has a mandate to coordinate development activities in the Jubba Valley, so any experience that is gained working with different agencies should enhance the possibilities for coordination in the future. Second, many organizations have already done or are currently

conducting relevant studies or development activities in the valley. In some cases, JESS staff may be able to assist personnel from other institutions as they conduct fieldwork. JESS may also invite staff from other agencies to assist in conducting some of the project's specific studies, if such collaboration is appropriate and efficient.

The 1985 PP amendment emphasizes training as the largest component of institutional development for the JUDAS project and JESS. This includes both long- and short-term training, such as seminars, advanced-degree programs, study tours and short courses conducted in Somalia. The technical areas of interest cover ecosystems management, natural resources, soil science, water resources, water management and soils laboratory management. ARD acknowledges the emphasis placed on training by JUDAS project designers, and it is the rationale behind this manpower and training assessment. However, it is important to note that the primary emphasis of ARD's involvement in training will be on-the-job training and perhaps short courses in Somalia. Training funds for short- or long-term course-work outside Somalia and study tours are under the control of USAID/Somalia. Hence, ARD's role in such training will be to offer suggestions to USAID/Somalia's JUDAS project manager regarding technically appropriate courses and, as specifically requested by USAID/ Somalia, assist with the logistic arrangements involved in having Somalis attend such courses.

III. MANPOWER ASSESSMENT

The types of Somali staff available to the JESS team include individuals from both within and outside MJVD. In terms of MJVD staff, appropriate personnel include:

- permanent MJVD counterparts provided through the civil service,
- permanent MJVD administrative staff selected through the civil service,
- temporary MJVD field technicians hired to work for JESS in the valley, and
- temporary MJVD administrative staff employed for JESS-specific activities.

Outside staff that may be available to JESS are as follows:

- Somalis from other agencies/institutions that will be coordinating activities with JESS as part of their current jobs--e.g., personnel from the National Tsetse and Trypanosomiasis Control Program (NTTCP), Ministry of Agriculture and National Range Agency; and
- Somalis hired by ARD through subcontracts for specific tasks (for example, water-quality specialists from the national university).

This manpower assessment reviewed the capabilities of available staff, both within and outside MJVD, from three different perspectives:

- formal degree(s) and/or training in specific disciplines;
- applied experience in river basin development programs (or elements of such programs), the Jubba Valley, data gathering and analysis, and multi-discipline/sector planning or assessment; and
- "hands-on" skills with computers, the English language, writing, typing, interpretation of aerial photographs, etc.

A. MJVD Staff

In all its activities, JESS will place primary emphasis on developing the capabilities of permanent MJVD/JESS staff, particularly those designated as counterparts. During the design of the JuDAS project, it was expected that MJVD would provide seven counterpart specialists who would work collaboratively with the JuDAS contractors (BuRec and ARD). These seven specialists were to include a sociologist, economist, agronomist, civil and water-resources engineers, soil scientist and livestock expert.

The counterpart specialists mentioned in the JuDAS design were not specifically assigned to either BuRec or JESS. In any case, as of February 1986, the following counterparts had been assigned to JESS:

- two veterinarians,
- one agronomist,
- one data technician with postsecondary training in statistics and economics, and
- one management and administration specialist.

Also, at the time of this assessment, MJVD was in the process of assigning other counterparts to the project (i.e., economists). BuRec has had soil scientists and civil engineers assigned to work on their activities.

In terms of formal degree(s) and/or training, MJVD has staff capabilities in engineering (particularly in its Baardheere Dam Project offices and, to a lesser extent, the BuRec program), veterinary science/livestock, agronomy and planning. Most staff members have either two- or three-year undergraduate-degree training at Somali schools. In general, the staff is young, and hence, their experience with an assessment such as JESS is quite limited. In the case of MJVD's engineering and planning staff, thus far, none have been assigned to JESS as counterparts. In addition, no MJVD staff have yet been available to work with JESS that have either training or much experience in economics, water-resources engineering (especially irrigation/ water management) or sociology. However, the need for counterparts with skills in these areas is clear. One or more economists are expected to join MJVD as counterparts to JESS in the very near future (within a month).

Probably the greatest weakness that MJVD staff currently face is their lack of field experience. This is particularly true in relation to river basin development programs, multi-sectoral/regional planning and assessment, and data gathering and analysis. It is extremely important that JESS staff be exposed

to different ways of addressing various dam development issues, such as rapid urban growth near the construction site, livestock access, irrigation management, crop selection, public health, fisheries development, resettlement and power distribution. Most of the counterparts assigned to JESS have traveled in the Jubba Valley and are familiar with conditions there. However, few are from the valley, or have spent extended periods of time or conducted in-depth fieldwork there. Before counterparts will be able to make the best use of training provided through JESS (or other resources), it is important that they get more field experience working directly on JESS field activities. Such experience and training seminars should help Somali staff become more familiar with JESS' objectives and intricacies.

In general, the English-language skills of many counterpart staff members are adequate for working with ARD field staff and consultants. However, in a few cases, English-language training will be necessary if MJVD staff are going to interact effectively with ARD and other expatriate consultants. Better English-language skills will also be required if counterpart personnel are to participate in study tours, advanced-degree training or short courses outside Somalia. The experience of MJVD counterparts with computers, typing and interpretation of aerial photographs is very limited. JESS can focus on all of these skills during its training activities and has the potential to make major positive changes in the capabilities of the MJVD staff. However, the fundamental building block for such training is adequate English-language skills.

The non-counterpart JESS staff at MJVD is made up of administrative and logistics assistants. As of February 1986, it included a word-processing/computer specialist, secretary and office assistant. At that time, JESS had also identified two final candidates for the positions of logistics assistant and office manager, but neither had yet been hired by MJVD. The individuals that have already been employed possess skills that are quite useful to JESS. Of particular importance is the fact that these administrative and logistics specialists have a basic foundation of skills that JESS can build on through its training program. This is especially true in the case of the word-processing/computer specialist, who has report-production skills. Also, a number of the administrative staff have had formal training in accounting. Report production and accounting are two areas where the use of computers represents a major positive step toward improving both efficiency and the quality of work done. In addition, enhanced computer capabilities would improve the professional standing of all the staff within MJVD.

A final point concerning MJVD staff resources and JESS should be made. It will be easier to meet the overall objectives of both JESS and JuDAS when all MJVD staff are aware of the positive and negative experiences encountered by river basin

development programs elsewhere. In general, it appears that most MJVD staff have had little exposure to information about dam projects in Africa or other regions of the world. Addressing this gap in their knowledge is a valuable function that can be performed by JESS through its training activities (i.e., seminars, study tours and short courses).

B. Outside Personnel

A number of organizations and individuals outside MJVD have technical expertise and/or field experience in the Jubba Valley that is appropriate for JESS. They include staff at the Ministry of Agriculture, National Range Agency, Ministry of Health, NTTCP, World Concern International, Somali Institute for Development Administration and Management (SIDAM), and national university. There are also a number of individuals, who were previously employed or are now working with other organizations, that have very relevant technical skills. For example, this group includes current and former staff members working on the Bay Region studies funded by AID or at the forestry training center in Afgoi. These outside resources can be valuable for conducting JESS training activities and assisting in the implementation of field studies. For instance, utilizing outside personnel as technicians at the start of the field studies will allow MJVD counterparts to gain field experience and learn from highly skilled specialists. As a result, there should be less pressure on MJVD staff, and it will be possible to start the field studies earlier.

Currently, it is expected that input from outside resources can be obtained in four different ways:

- hiring outside staff as temporary technicians to work on JESS through MJVD local funds;
- cooperating on an informal or formal basis with staff at other agencies and ministries;
- subcontracting for specific services through ARD; and
- using USAID/Somalia project funds to hire outside specialists.

The first two possibilities are being actively pursued by JESS with support from AID and MJVD, and ARD is now working with the national university on water-quality training. The third alternative is the least desirable because ARD contract funds have already been programmed primarily for external assistance. The fourth option utilizes experts from NAS.

JESS is in the process of completing a draft of the Phase II work plan which will encompass all data collection activities for the next two years. During the design of this plan, ARD staff will be identifying appropriate entities or individuals for direct involvement in the field studies as well as institutions that the studies should be coordinated with. Preliminary investigations by ARD personnel indicate that there are a number of Somalis outside MJVD with formal training, applied experience and hands-on skills which complement those of existing MJVD personnel. The JESS field team is currently attempting to identify such individuals more definitively and make agreements on their integration into project activities.

One important area that JESS will focus on is hiring Jubba Valley residents to do short-term survey work and manage base camps, if appropriate. To date, MJVD's presence in the valley has consisted solely of visits--no MJVD staff are based there. JESS can contribute to improving MJVD's image in the Jubba Valley by actively involving local residents in project activities. Obviously, this also serves another valuable purpose, enhancing local participation in planning valley development activities. In the long run, such local input can be a cost-effective method for environmental and socioeconomic monitoring in the valley.*

C. Conclusions and Recommendations

Conclusion 1: To date, MJVD has assigned counterparts to JESS who have training in appropriate disciplines, with the exception of economics, sociology and water-resources/ irrigation engineering. Due to the low salaries being offered, these counterparts are young and relatively inexperienced in such JESS-related areas as river basin assessments and data gathering and analysis.

Recommendation 1: Three MJVD counterparts in economics, sociology and water-resources (irrigation) engineering should be assigned to JESS as soon as possible. Existing counterparts should receive training, provided through other USAID project funds or donors, that includes exposure to related river basin programs in Africa, i.e., the Shabeelle in Somalia and the Tana River in Kenya. Other counterpart training should focus on applied skills in data gathering and analysis, interpretation of aerial photographs and multi-sectoral/regional planning. The availability of such training through USAID project funds can be used as an incentive to attract staff in the future and keep good staff at MJVD in spite of the relatively low compensation.

*Local participation of individuals and institutions from the Jubba Valley is proposed in ARD's Phase II work plan as the subject of a more detailed assessment by an ARD specialist.

Conclusion 2: In addition to designated counterparts and administrative staff for JESS, there are a number of other MJVD staff (e.g., those working on the Baardheere Dam Project) who have complementary skills that are important to JESS. These individuals could also benefit from training opportunities identified by JESS and are open to coordinating such activities with JESS.

Recommendation 2: JESS should continue to cooperate with all MJVD staff, including those who are not specifically assigned to the project. Ensuring that such cooperation occurs should be a shared responsibility of the ARD team leader and MJVD project manager, with guidance from USAID/Somalia. Training opportunities should be sought that will further solidify intra-MJVD staff cooperation.

Conclusion 3: Within MJVD, three major overall manpower weaknesses were identified during this assessment:

- social science expertise for gathering and analyzing field information, and developing institutional approaches for the management and implementation of development projects;
- irrigation and water management-related engineering expertise for guiding water management operations; and
- field experience and exposure to the technical and administrative aspects of managing a comprehensive river basin development program, such as that envisioned for the Jubba Valley.

Recommendation 3: A more detailed, labor-intensive assessment of MJVD's overall institutional direction and capabilities is needed to guide the ministry's recruitment of future staff. Until such time as an in-depth assessment is performed, the JESS training program should address MJVD's overall need for exposure to the complexities of managing river basin development programs in Africa and elsewhere. This should be done principally through in-service training, seminars, short courses in Somalia and interaction with ARD field staff, using literature secured during the Phase I literature search as a basis for informal training.

Conclusion 4: Supplemental staff outside MJVD are available and interested in cooperating with JESS. In general, these individuals have more applied experience and skills in relevant areas, which will be necessary to complete JESS activities in a timely and high-quality manner.

Recommendation 4: Efforts made by JESS, AID and MJVD to obtain assistance from qualified individuals and institutions outside MJVD should continue to be given a very high priority. Prior to the 1986 Gu rains (roughly late March through May), JESS field staff should continue to concentrate on identifying valuable sources of expertise in Somalia, particularly in terms of training and conducting the field studies.

Conclusion 5: Although most counterparts and administrative staff speak adequate English, more language training is an immediate priority if staff members are to participate in other training programs in a meaningful way. USAID/Somalia has recognized this problem and is taking appropriate steps to address it.

Recommendation 5: USAID/Somalia, JESS and MJVD should continue to place a high priority on English-language training for JESS staff members, particularly the counterparts.

Conclusion 6: JESS administrative staff have already started to improve their office administration and computer skills, and are proving quite useful in this respect. To date, staff members who have very limited or no computer skills have indicated an interest in receiving such training.

Recommendation 6: JESS administrative and counterpart staff should continue to receive computer-related training. However, such training should not preempt the use of computer equipment for the preparation or production of JESS studies or reports.

IV. TRAINING ASSESSMENT

A. Previous and Ongoing Activities

Through BuRec, USAID/Somalia, GTZ and other donors, a number of Somalis from MJVD have been involved in short- and long-term training programs. The experience gained from those programs is relevant for designing the implementation of JESS training.

The BuRec project is concerned with an economic land-use classification system for the Jubba Valley. For their training activities, individual programs were designed. Based on MJVD staff members' backgrounds, BuRec then discussed with MJVD the expected future role for each individual. Using this information, training programs were designed.

Most of the BuRec training that Somalis have received has taken place "on the job." Through AID, funding has also been arranged for some advanced-degree study. One agronomist began working on an M.S. in soil science in June 1985. In this case, a three-month English-language course in the United States was completed prior to the start of the graduate program. Two other applications are now pending for M.S.-level training--one is for a civil engineer, who would undertake a program in hydraulic engineering, and the other is another agronomist, who would also work toward an M.S. in soil science. If the civil engineer is not accepted for M.S. training in hydraulic engineering, he would work with BuRec on a six-month practicum, concentrating on hydraulic engineering.

GTZ, with Agrar und HydroTechnik (AHT) as the technical contractor, has been working with MJVD since 1982 on activities that will lead to the production of a master plan for development activities throughout the Jubba Valley. To date, no institutional or manpower analyses have been made available by GTZ or MJVD. GTZ has sent one MJVD staff member to Cairo (starting in February 1986) for a three-month course in range management. (This individual is actually a counterpart assigned to JESS.) It has also arranged for one MJVD staff member to go to Germany for a year-long course in interpretation of aerial photographs. GTZ has substantial resources available for training, but thus far, has had difficulty finding qualified candidates. It had originally envisioned a combination of short-term fellowships and long-term training focusing on regional planning.

Other MJVD staff training has been funded by AID and other donors for engineers and geologists working in the Baardheere Dam Project office. A Somali geologist is now in the middle of an M.S. program in engineering geology at the University of Arizona. To upgrade the previous training he received in Somalia, this

geologist took one year of remedial training prior to beginning his M.S. program. In August 1985, a Somali mechanical engineer attended an energy planning course in the United States and will also undertake an M.S. program in mechanical engineering. One other Somali went to the United States, funded by AID, and returned before completing an M.S. in engineering geology. In this case, MJVD staff were not satisfied with the results. The trainee was sent home early by the organization in the United States that was managing the training program.

As of February 1986, MJVD is in the process of preparing for a World Bank pre-appraisal mission that is scheduled to take place in Somalia during the fall of 1986. Prior to this pre-appraisal mission, it is expected that MJVD will be the subject of an institutional analysis conducted by World Bank staff and other specialists. This will be a relatively intensive effort, involving as much as, and perhaps more than, six person-months of technical expertise. The institutional analysis will center on the overall focus and capabilities of MJVD for constructing the Baardheere Dam and managing water-resource development activities in the Jubba Valley. Clearly, information on MJVD's current manpower resources and projected personnel requirements should be a component of that analysis.

All these training activities at MJVD have taken place on a project-by-project basis. To date, there has been no overall training and manpower assessment within the context of MJVD's institutional development, although the World Bank institutional analysis may fill that gap. Such an overall assessment is important as a method for clarifying the types of specialists and skills needed throughout MJVD over the long run. The manpower and training assessment presented here is a project-specific study, as it concentrates on only those parts of MJVD where JESS will function.

B. Proposed Approach

The approach that ARD is proposing for JESS training is based on the past experience of MJVD in Somalia as well as ARD's other projects, and recognizes the special circumstances surrounding JESS. This section presents and discusses a series of seven proposed principles that characterize ARD's approach to JESS training. The types of training considered include on-the-job training, classroom sessions, field trips and seminars, and short- and long-term course-work.

It should be noted that both ARD field and home-office staff will be far more specific, particularly concerning in-service training, in the fall of 1986, when training plans will be more fully developed and revised (including readings, exercises, lesson plans, etc.), once ARD's work plan for field activities is

accepted by AID. Training plan revision is described as the fifth step in the following section on program implementation (IV.D).

First, the training of JESS Somali staff should be directed by individualized objectives that the staff member has had input to and agreed on. Each Somali who is working on project activities should have long-term training objectives filed with the JESS field team leader and MJVD (with copies sent to AID). Appendix B contains suggested training objectives for the existing counterpart staff and other JESS administrative personnel. As other staff members are added to JESS, training objectives should be developed for them. Progress toward the achievement of training objectives should be reviewed at least every six months and possibly every three months. The assessment of progress toward objectives should be a cooperative effort between ARD's field and home-office staff and MJVD. Such assessments should not be evaluations, but rather, used as a means of adjusting objectives or the focus of training and setting up time-lines for accomplishments.

Second, counterparts should coordinate their training activities with a specific ARD field team member, but not limit their professional interaction or on-the-job training to that staff person. MJVD has assigned a number of Somali staff to JESS as counterparts. ARD proposes that Somali counterparts be considered as a group, rather than specifically assigning individuals to particular ARD field team members. In this way, counterparts can focus on developing their skills across (rather than within) disciplines. However, to ensure a continued focus for training programs, one ARD field team member will be assigned to monitor the training of each MJVD staff counterpart.

Third, JESS should emphasize short-term and on-the-job training in Somalia. At this time, JESS is dependent on additional funding from either AID or another source if any special training costs are involved (i.e., air fare, per diem, course registration or instructor fees, etc.). Funding resources do exist, but are subject to conditional availability. Hence, JESS staff should be realistic and concentrate on training that can be offered in Somalia at relatively low cost. ARD's field team leader and home-office staff will work with the AID Judas project manager to identify potential courses and funding sources for training programs. Overall, the focus of training for most Somali staff will be acquiring hands-on practical skills that will enhance their status at MJVD.

On-the-job training will be the predominant mode of training under JESS and is an effective way of obtaining hands-on experience. However, it is also expected that technical staff members will need some theoretical training to give them an overall perspective on the practical skills they are learning.

Theoretical training will be provided through classroom sessions. Field trips and seminars may be arranged either within or outside Somalia. JESS may organize its own trips or seminars, or may send representatives to those offered by other agencies (e.g., the National Range Agency). ARD field staff have already begun to offer such training seminars, with short-term consultants or themselves as instructors. Usually, such seminars or field trips will focus on applied skills training, as they are typically too short for theoretical work. Short courses are defined as programs lasting from two weeks to six months, while long courses require six months or more. These can be undertaken inside or outside Somalia.

Fourth, JESS staff should have at least three, and preferably six, months of experience working on JESS or a similar project before they are eligible for either short- or long-term training courses. JESS represents a relatively new and different approach to conducting development work in Somalia. Its identity within MJVD and elsewhere is still being established, and its purpose and objectives are just beginning to be understood. In addition, MJVD is evolving, and it is unclear exactly how JESS-type activities will be incorporated into that institution over the long term. As previously discussed, JESS staff are generally unfamiliar with the processes of environmental and socioeconomic assessment, and river basin development. From ARD's experience in other projects, as well as lessons learned from other AID-funded projects in Somalia, it is important that staff members, who will be receiving training, and MJVD management personnel understand the long-term roles of these staff within JESS and MJVD. In this case, ARD suggests that Somali staff members work with ARD's field team and consultants for roughly six months to enable them to make the most of training programs outside Somalia or special short or long courses offered in-country.

Fifth, ARD's field team leader should serve as the coordinator and central contact for JESS-related training activities. This is not intended to diminish the importance of other contact points (e.g., AID, MJVD, etc.), but rather to clarify the lines of communication. In fact, AID is a very important contact in terms of funding and MJVD from a long-term institutional perspective.

Sixth, whenever possible, JESS should encourage the coordination of training activities between different agencies, in terms of both planning and implementing training courses. This includes the coordination of training plans as well as participation in courses offered by other agencies (e.g., the National Range Agency) that are relevant for JESS staff. Once training objectives have been clarified, specific sources and opportunities for appropriate training will be identified.

Seventh, any training activities that occur outside Somalia should be carefully planned to ensure that they are cost-effective, trainees are given adequate supervision, the subject matter is appropriate to Somali circumstances, and trainees receive certificates indicating the type of training they have received, if appropriate. Many stumbling blocks are encountered in the implementation of participant training programs. Probably most prevalent is the situation where participants receive training on technologies or approaches that are unsuitable for local conditions. Another example is study tours which involve so much travel time that participants are too tired to take advantage of the technical sessions they are attending. ARD has learned from previous experience that a careful process of training design is required prior to undertaking any training program, particularly one involving foreign travel.

C. Program Implementation

In accordance with the JESS training principles proposed above, this summary section presents suggested steps for finalizing and implementing the individualized training programs. First, the ARD field team should review the preliminary training objectives provided in Appendix B with each counterpart and administrative staff member, and revise them, as necessary. These preliminary objectives can and should be changed substantially, as deemed appropriate by ARD's field team leader and other field staff who are suggested as training advisors.

Second, the revised training objectives and plan should be sent to JESS managers at MJVD, USAID/Somalia, the National Academy of Sciences (NAS) in Washington, DC and ARD in Burlington, Vermont. A copy should also be kept on record by the ARD field team leader.

Third, based on the revised objectives and plan, AID, ARD, NAS and MJVD should send their training ideas (e.g., possible study tours, workshops, seminars, short courses, sources of training expertise, etc.) to the ARD field team leader. All ongoing and potential JESS training activities should be coordinated through ARD's field team leader. In addition, ARD home office staff should immediately begin to forward training materials (such as books, case studies, etc.) for each individual staff member to the team leader with a copy to the AID project manager.

Fourth, as appropriate or if requested by either USAID/Somalia or MJVD, the ARD team leader should convene meetings to discuss and decide on training options, and select participants.

Fifth, the relevant ARD field team member should review individual training objectives and plans with each JESS staff

member every six months, at a minimum. Thus, the first major review and revision of training objectives should take place in Somalia in the fall of 1986. It is hoped that more counterparts will then be on the staff, there will be a better understanding of MJVD's future directions through work now being done by GTZ and the World Bank, and ARD staff can be far more specific about the design and implementation of in-service, Somalia-based training programs.

APPENDIX A

Individuals Contacted

Mumina Aden Abdi	Word-Processing/Computer Specialist, JESS
Ali Warsame Aden	Project Manager counterpart, MJVD
Roda Maxamed Abdilaahi Bile	Secretary, JESS
Louis Cohen	Mission Director, USAID/Somalia
William Darkins	Assistant Project Development Officer, USAID/Somalia
Omar Alwan Farax	Data Technician counterpart, MJVD
John Gaudet	Regional Environmental Advisor, AID
Dennis Herlocker	Ecologist, AID/NRA/CRDP
Richard Holt	Extension Specialist, AID/NRA/CRDP
Abdulcadir Hagi Ibrahim	Agronomist counterpart, MJVD
Dan Macura	Team Leader, BuRec
Mohamed Abdi Omar	Office Assistant, JESS
Sally Patton	Project Manager, JuDAS, USAID/Somalia
Ahmed Nur Weyrah	Veterinarian counterpart, MJVD
Aweys Haji Yusuf	Director of Planning, MJVD

APPENDIX B

Preliminary Training Objectives for JESS Staff

JESS Counterparts

Ali Warsame Aden, project management specialist

Background--three-year undergraduate degree in administration; experience in project administration; interested in further management training, particularly uses of computers.

General training objective--improve capabilities for administrative support to projects and programs within MJVD, including procurement, financial accounting and reporting methods, and contracting.

Specific training objectives--

- improve capabilities for management of local JESS project funds through on-the-job training in the planning and forecasting project expenditures; and
- in cooperation with JESS data base management specialist in 1986 and ARD's field team leader, gain competence in the use of computers for accounting and reporting.

Suggested training advisor--Dr. E. Drannon Buskirk, Jr.

Omar Alwan Farax, data technician

Background--postsecondary training in statistics and applied economics; probably FSI 2 or 2+ in English; previous experience with Ministry of Planning; one year of theoretical training in data processing; primarily interested in socioeconomic component of JESS.

General training objectives--gain understanding of the use of data gathering and analysis for applied policy analysis; focus training on data analysis.

Specific training objectives--

- on-the-job and classroom training on survey research and its role in the JESS project, including readings, observation of rapid appraisal and baseline survey design, and participation in data

analysis, particularly tabulations, if an appropriate skill level is attained;

- structured training during office hours in use of computers for data analysis--training plan to be further designed, and training begun during visit of ARD consultant on data base management in 1986; and
- ultimately, he could be involved in tabulation and analysis of data for long-term environmental and socioeconomic monitoring in the Jubba Valley.

Suggested training advisor--Dr. James Merryman.

Mohammed Hassan, veterinarian

Background--bachelor's degree in veterinary science; currently attending GTZ-funded rangelands management course in Egypt; extensive experience in and very knowledgeable about the Jubba Valley; good working knowledge of English.

General training objective--continue training in rangelands and livestock topics in order to assume long-term role in MJVD for providing input on these topics for planning, assessment and implementation of development projects in the valley.

Specific training objectives--

- on-the-job training and background reading in rangelands assessment techniques, including the use of aerial censuses and photography, and possibly vegetation assessment; and
- background reading, on-the-job training and perhaps research with all JESS/ARD field staff on the integration of livestock concerns into planning development projects in the valley, including readings on experiences in other African countries with such integration.

Suggested training advisor--Dr. Ian Deshmukh.

Abdulcadir Haqi Ibrahim, agronomist

Background--undergraduate degree in agriculture, thesis on entomology of citrus pest; probably FSI 2+ or 3 in English; interested in ultimately getting M.S. in ecology and agriculture; primarily interested in environmental aspects of assessment, particularly in relation to agriculture.

General training objectives--gain exposure to methods for environmental assessment of agricultural projects; widen experience and exposure to different agricultural development strategies and schemes.

Specific training objectives--

- on-the-job training and background readings in the environmental assessment of agricultural development (irrigation and livestock), and review of the JESS project's proposed plan for field investigations; and
- ultimately, he could assist in implementation of the environmental component of the long-term monitoring program and use future JESS guidelines to review proposed development projects in the Jubba Valley.

Suggested training advisor--Dr. Ian Deshmukh, with assistance from Dr. Kathryn Craven.

Ahmed Nur Weyrah, veterinarian

Background--bachelor's degree in veterinary science; previous experience conducting laboratory analyses and vaccination programs in rural areas of lower Jubba Valley under livestock program; probably FSI 1- or 1 in English; teaches Arabic to MJV staff; interested in further formal training in environmental science.

General training objective--gain ability to review and monitor impacts of development projects in the Jubba Valley as they relate to livestock development and animal health.

Specific training objectives--

- improve English language competency to conversational level (FSI 2+ or more);
- on-the-job training and experience to understand how dam construction will alter livestock development in the valley and what can be done to minimize negative impacts on existing livestock resources; and
- improve on previous experience and training in the assessment of livestock-resource conditions, including animal health and vegetation/browse assessment, which should fit into long-term monitoring in the valley.

Suggested training advisor--Dr. Ian Deshmukh.

Administrative Staff

The JESS office team is not yet complete, as an office manager and logistics assistant have yet to be hired. This subsection presents training programs for each current staff member. Dr. Buskirk is the suggested training advisor for all of the project's administrative staff.

Mumina Aden Abdi, word processing/computer specialist

Background--two-year administration and accounting degree; four years of computer experience; certified accountant; eight months of communications studies in Egypt; six years' experience in an office setting.

General training objective--increase skills in certain computer-related areas and the management of other office staff members for report production and administration.

Specific training objectives--

- through on-the-job training, gain experience in using computer software for bibliographic reference banks and financial management;
- continue on-the-job training to achieve mastery of word processing as it relates to report production; and
- begin on-the-job training in management and training of other office staff involved in administrative tasks, which may include training other staff members in computer use.

Roda Maxamed Abdilaahi Bile, secretary

Background--one year of accounting training; experience as a secretary.

General training objective--improve applied skills for project administration, including draft report production and general office administration.

Specific training objectives--

- continue training in word processing for report production; and

- read background materials on the use of computers for financial management and office administration.

Mohamed Abdi Omar, office assistant

Background--one-and-a-half years of training in accounting in West Germany; general inclination toward mathematics-oriented work; interested in starting undergraduate program in environmental studies.

General training objective--gain applied experience in providing administrative and logistical support to a field assessment such as the JESS project.

Specific training objective--become experienced and competent in providing logistical support (e.g., purchasing equipment for field expeditions) for JESS field studies.

Field Technicians

At the time of this assessment, no field technicians had begun working on the project. Field technicians will be Somalis who work primarily in the Jubba Valley on "temporary" contracts. Thus, they are not projected to become either MJVD staff or members of the civil service. It is expected that they will work with MJVD only on the JESS project. They will work with ARD team members conducting fieldwork, including baseline socioeconomic and environmental surveys and will assist with supervising survey enumerators hired by JESS. They will also assist in the tabulation and analysis of field data. The training that field technicians will receive will be limited to on-the-job or short-term applied instruction (e.g., short courses, seminars and workshops). When these technicians are hired by the project, ARD/JESS field staff should establish short-term training objectives for each individual.