

Final Evaluation Report
on
First HASNA/GAP/RUDF Training Program
in
Irrigation Management

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Abbreviations

| | |
|---------|--|
| CDS | Center for Dispute Settlement |
| CLED | Center for Language Education and Development (GU) |
| DSI | The Turkish national water agency |
| GAP | Southeastern Anatolia Project |
| GAP-RDA | GAP Regional Development Administration |
| GU | Georgetown University |
| GS | General Secretary (of IU) |
| IU | Irrigation Union |
| PME | Participatory Monitoring and Evaluation |
| RUDF | Rural and Urban Development Foundation |
| SH | Sanliurfa-Harran Plain Irrigation System |

Executive Summary

This report presents the findings of a formative participatory monitoring and evaluation process implemented April-September, 2001. The subject of the evaluation was a training project jointly initiated by the Southeastern Anatolia Project Regional Development Administration (GAP-RDA), the Rural and Urban Development Foundation (RUDF) and HASNA, Inc during the winter of 2000-01. The purpose of the US-based training was to improve the capacity of young Turkish irrigation technicians working as General Secretaries of Irrigation Unions (IU) in the GAP region. The project is based on the assumption that irrigation is essential to agriculture in the region, and that a more productive, equitable, and sustainable agriculture base will transform the socio-economic landscape and help to resolve long-standing ethnic conflicts present in the region. In this context, the three partner organizations have organized a joint effort to improve the performance of irrigation systems in the GAP region. The training program for IU General Secretaries is a part of that effort. The partners have also established a local training center and computer facility in the GAP region and intend to provide on-going support to program alumni.

The program consisted of a two-month stay for participants in Washington DC and Arizona, during which they received training in five subject areas: English language, conflict resolution, soil and water engineering, computer skills, and management and marketing. The US portion of the training was preceded by a period of English language instruction in Turkey. This evaluation took place about 10 months after the conclusion of the training when trainees had been back on the job for one full irrigation season. The evaluation was participatory in nature and involved the trainees directly in developing performance indicators and collecting and analyzing impact data.

The evaluation generated the following conclusions.

Key Conclusion

THE HASNA/GAP/RUDF PROGRAM HAS HAD A STRONG POSITIVE IMPACT ON THE ATTITUDES, SKILLS, AND KNOWLEDGE BASE OF PARTICIPANTS, CHANGING THEIR BEHAVIOR AND PRODUCING POSITIVE IMPACTS ON THEIR JOB PERFORMANCE. THIS TRAINING PROGRAM STANDS OUT FROM ITS PEERS IN ITS EFFECTIVENESS.

Other Conclusions:

- Training program objectives were implicit and not always clear to participants and training providers.
- Individual components of the training program were uneven in the quality of their execution and their relevance to the participants' working environment.
- The strategy of training a number of IU General Secretaries from the same irrigation system is sound.

- Although everyone seemed to benefit from the US English language training experience, ability levels of most participants following the training were not adequate for learning directly from instruction in other subjects conducted in English.
- Beyond the effects of individual training components, the US venue for the training had its own powerful impact on participants' thinking by exposing them to approaches to interpersonal relations and problem-solving that complement those in their own cultural backgrounds.
- The guided participatory monitoring and evaluation activity conducted during the first on-the-job year for the participants produced a high-quality and internally consistent set of findings relating to the training program.
- Innovation is lonely and difficult and requires ongoing support to be sustained.
- Changes in General Secretaries' behavior has led to positive impacts on IU performance. Changes in knowledge, skills, and attitudes on the part of IU Chairmen and staff are required to deepen and sustain the impact.
- Participants experience frustration over not knowing where responsibility among the partners for particular decisions lie and at being unable to get timely decisions, at times, on questions facing them. This is leading to confusion and disenchantment.
- Establishment of the training/computer facility preceded the demand for it.

Final Evaluation Report on First HASNA/GAP/RUDF Training Program in Irrigation Management

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1 Purpose of the Evaluation

The purpose of this evaluation is to assess a training program for Turkish engineers, termed here the “First Training Program” (FTP), and its outcomes and impacts. Training of Irrigation Union (IU) General Secretaries (GS) is a new program of assistance for the sponsors and they wish to confirm that the design being employed is appropriate and effective and to identify ways to enhance its performance and usefulness. The evaluation is thus a formative one, in which the aim is to improve an ongoing program rather than to capture lessons learned for an unspecified future effort.

The FTP is also a part of a larger design aimed at achieving broad objectives in the GAP area. A secondary purpose of the evaluation is to examine the relationship between the FTP (and its successors) and the activities of the larger program and to identify, if possible, ways in which synergy can be enhanced and the effectiveness of the larger program improved.

2 Background

2.1 Context

Bordering Syria and Iraq to the south, southeastern Turkey is largely rural and very poor and differs markedly from the rest of the country in several respects. In this harsh climate, subsistence farming is still prevalent, land distribution has been uneven for centuries, and the dearth of transportation and communication infrastructures has inhibited both outside investment and integration into the national economy. Isolated from the country’s administrative and industrial centers, the area has an average annual family income of \$3,851, 30% lower than the national average. The GNP per capita in the poorest locations is less than one-tenth of the GNP in Turkey’s more prosperous western cities.

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Continuous waves of migration over several centuries have made the southeast home to diverse ethnic and linguistic groups. The region's current population of slightly over 6 million (of Turkey's national population of 67 million) remains heterogeneous, with major Turkish, Kurdish, and Arab communities. Many people still speak various Kurdish and Arabic dialects and some speak no, or only limited, Turkish.

2.1.1 GAP

To develop the region, in the 1970s the Turkish government launched the Southeastern Anatolia Project, or GAP³, an ambitious project to tap the waters of the Tigris and Euphrates Rivers, both of which rise on the Central Anatolian plateau, to generate power and irrigate new lands. The project was situated in the area where the majority of Turkey's Kurdish population lives.

In the mid-1980s, GAP was transformed into a comprehensive socioeconomic development program to address the civil unrest in the region through greater employment opportunities, land reform, and integration into the national economy, coordinated by the GAP Regional Development Administration (GAP-RDA). GAP-RDA's mandate now covers a wide spectrum, from agriculture and transportation infrastructure projects to health and education programs, environmental protection, and tourism. The GAP region, as it is called, encompasses 75,000 square kilometers in 9 provinces (Figure 1). At an estimated final cost of \$32 billion – of which about half has already been invested, primarily by the Turkish government – GAP is the biggest regional development program in Turkey's history.

The highest expectations now lie with the project's focus on expanded irrigation schemes. Ultimately, 1.7 million hectares of land in the GAP region will be under irrigation, comprising almost 20% of the total irrigated land in Turkey. The goals of this intervention are varied and ambitious, and have regional and national implications. At its core, however, is the assumption that a more productive, equitable, and sustainable agriculture base will transform the social as well as economic landscape of the region and resolve the conflicts long associated with the region.

³ After its Turkish acronym.

SOUTHEASTERN ANATOLIA REGION



Figure 1. Nine GAP Provinces

2.1.2 Irrigation Unions

Irrigation Unions (IU) are locally based organizations that act as retailers of water received from the government irrigation agency DSI. Farmers participate directly in the governance of IUs. Each IU is guided by a general assembly made up of the village headman and two elected village representatives from all villages within the IU boundaries. Through its executive committee, each IU hires a General Secretary (GS) to oversee the work of the IU in distributing water to farmers. This brings the GS and his staff into intimate daily contact with the farmers of the IU as they plan and implement the system of rotational turns through which each farmer receives a share of the available water. Because water is such a valuable resource, and a scarce one, farmers do not always follow established rules and these interactions can involve disagreements and controversy. In addition to their roles as water distributors, GS also are in a position to provide advice to farmers on other aspects of crop production and marketing.

2.2 Partners

In this context, three partner organizations undertook a joint effort to improve the performance of irrigation systems in the GAP region, entering into a memorandum of

understanding in September 2000⁴. As an initial program activity under this MOU, partners organized a training program for the young irrigation engineers who are IU General Secretaries. The Sanliurfa-Harran Plain Irrigation System (SH) within GAP was selected as the pilot area for the program (Figure 2) and the GS came from the green rectangle to the southeast of Sanliurfa circled in blue on the map.

The training took place in the United States and was supported and organized by HASNA, with in-Turkey assistance from its Turkish partners. Principle training venues were Washington, DC, and Phoenix, Arizona.

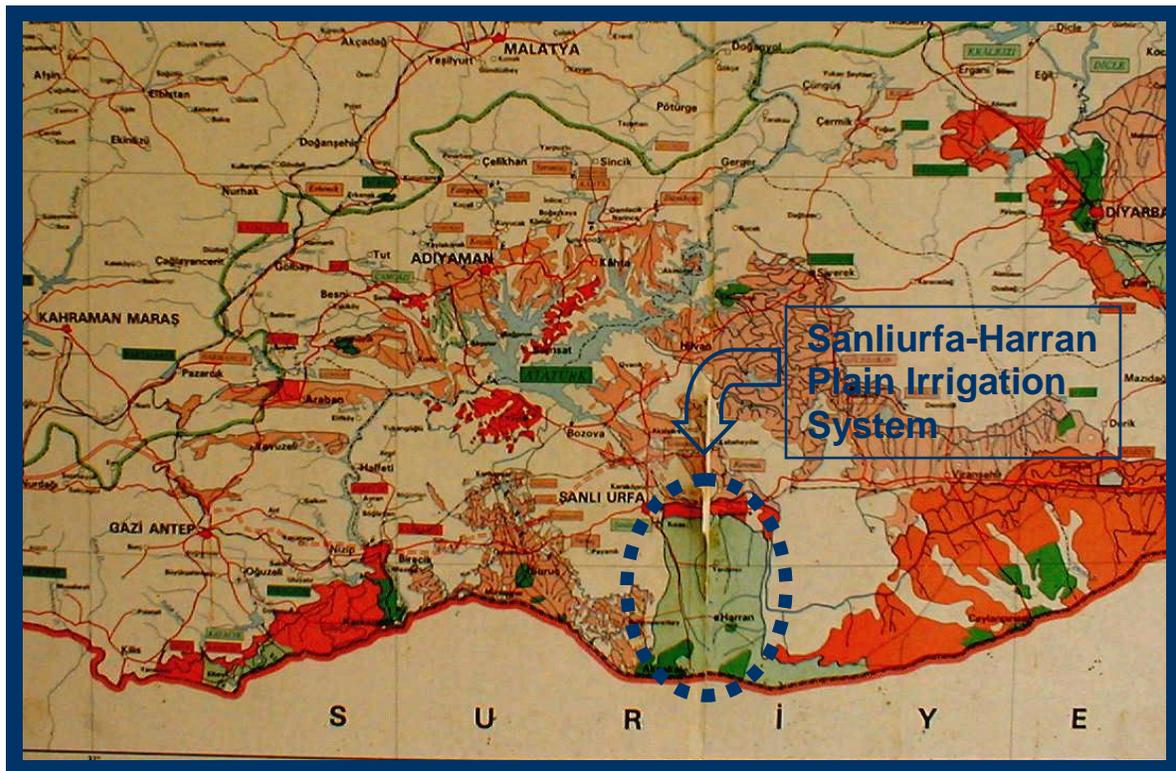


Figure 2. Ataturk Reservoir and the Sanliurfa-Harran Irrigation Scheme

2.2.1 HASNA

Founded in 1998, HASNA Inc. is a registered nonprofit organization based in Washington, D.C. Its mission is to promote peace by improving job skills and opportunities for those entering the workforce and instilling a spirit of cooperation that reaches beyond the workplace. HASNA’s programs target young adults of different ethnic and cultural backgrounds from areas where cycles of conflict and mistrust have hindered economic growth and community cohesion. Its programs are rooted in communities facing conflict, and HASNA consequently has a strong commitment to

⁴ Programs conducted under this partnership will subsequently be called “HASNA activities”, for short, since HASNA typically acts as the lead action agency.

neutrality and fostering cooperation among groups. By forming inclusive partnerships based on these principles, HASNA expects to promote the understanding that enables young adults to play a vital and constructive role in developing their communities.

2.2.2 RUDF

Based in Ankara, the Rural and Urban Development Foundation (RUDF) is a nongovernmental organization founded in 1995 to provide expertise in agricultural and environmental management, monitoring, and assessment in areas affected by Turkey's development projects. Much of RUDF's work focuses on the developmental and social issues surrounding resettled communities in the GAP region and the alleviation of poverty in rural communities. RUDF has carried out such projects as social assessments for GAP region agricultural and sanitation projects, environmental audits, and advising on human settlement and ecotourism. The organization has collaborated with municipalities, universities, government agencies, and international organizations and has received funding from the World Bank, the UN Food and Agricultural Organization, and other international institutions.

2.2.3 GAP-RDA

The GAP Rural Development Administration (GAP-RDA) was established in 1989 and consists of a Higher Council in Ankara chaired by the prime minister or his designee, and the headquarters in Sanliurfa. Its mandate is to plan and rapidly develop the GAP area and coordinate the efforts of the various involved agencies and projects. It was extensively reorganized in 1997.

3 Evaluation Process

3.1 Participatory Approach

The term "participation" appears throughout development activities and literature and has many nuances and connotations. When applied to evaluation, it implies, at the very least, that "when doing an evaluation, researchers facilitators, or professional evaluators collaborate in some way with individuals, groups, or communities who have a decided stake in the program, development project, or other entity being evaluated."⁵ The following aspects of this evaluation help to make it *participatory*:

- The evaluation was transparent in process.
- The evaluation was context-specific, rooted in the interests, concerns, and questions of the key stakeholders, especially those involved in the program.

⁵ Cousins, J. B. (Winter 1998). Framing participatory evaluation. *New Directions for Evaluation*. No. 80. San Francisco: Jossey-Bass.

- Participants played key roles in deciding what information to collect and how to collect it and collaborated with evaluators in interpreting the data they had collected.
- The evaluation emphasized collective methods of knowledge generation rather than basing results solely on opinions and experience of the evaluators.
- All information was openly shared with participants throughout the process.

Another virtue of participatory evaluation is that it can build capacity among those who participate. Since this project focuses on building capacity among the participants to more effectively do their jobs, the evaluation was also consciously designed to further strengthen participants' abilities to set goals and objectives, define indicators, collect monitoring data, and analyze that data to inform future planning.

The evaluation methodology also encouraged participants to take an “appreciative approach” to examining their work. This approach focuses on what has worked well and seeks to discover why. The approach does not ignore problems but puts a learning frame around them. The process turns problems into constructive hopes for the future. Through identifying desired future change, participants identify the problems. Rather than dwelling on and focusing on what went wrong, it encourages learning that leads to future improvements. This learning-focused method draws from Appreciative Inquiry (AI), a cutting edge organization development approach that focuses on success instead of failure – what works instead of what doesn't. An appreciative approach seeks to find the root causes of success.

3.2 Evaluation Plan

Prior to beginning the evaluation, evaluators prepared an evaluation plan laying out the concepts and approach to be adopted (see Annex Four).

3.3 Data Collection

Before entering the field, evaluators reviewed all materials made available to them by HASNA. These included background materials on HASNA and on GAP, the MOU among partners, the evaluation concept note prepared by the partners, and written descriptions of the Arizona-based training prepared by the training providers.

Interviews were an important source of information, and evaluators interviewed more than 25 persons in the US and Turkey during the course of the evaluation. See Annex One for a complete listing of persons met.

In Washington, DC in March 2001, evaluators met with Deirdre McCarthy Gallagher at the Center for Dispute Settlement and Bennett Lindaur at Georgetown University. Ms. Gallagher served as a trainer in the conflict management portion of the training and Dr. Lindaur was responsible for the English language training in Washington. Evaluators

also met with Nevzer Stacey, President of HASNA, and Crispin Rigby, HASNA Executive Director.

In Turkey, prior to the initial PME workshop in April, one of the evaluators met with key individuals in GAP, RUDF, DSI and visited agricultural sites in the Sanliurfa area. See the April trip report for details, Annex One for names of persons interviewed during that visit, and the paper on Irrigated Agriculture on the Sanliurfa-Harran Plain for technical background (Annex Four). During the October visit, in addition to people met previously, evaluators also met with Mr. Mustafa Satıcı, Head of the GAP English Training Center in Sanliurfa, which provided English language training to the participants prior to the US component of the program.

In addition to information from these sources, participants collected data on changes in their own behavior and on the resulting impacts on the performance of the IU during the first irrigation season following the training. This process is described in the section on *Workshops* below.

3.4 Workshops

3.4.1 Initial PME Workshop

An initial Participatory Monitoring and Evaluation (PME) workshop was held with participants of the FTP in Sanliurfa on April 11-13, 2001. The purpose of this workshop was twofold: a) to enable participants to develop a participatory monitoring and evaluation plan for the FTP; and b) to build capacity among training program participants related to participatory monitoring thus helping to increase project ownership, effectiveness, and learning. The workshop resulted in a monitoring and evaluation plan for the first field season that included indicators and a data collection plan. (See the *Report on Formative Assessment Planning Meeting* submitted to HASNA in May 2001 for details.)

3.4.2 Data Analysis Workshop

The purpose of this workshop was to identify program strengths and areas needing improvement by guiding participants in analyzing data they had collected related to objectives and indicators. As with the previous PME workshop, this one also was designed to build capacity among the General Secretaries by strengthening their data analysis skills. The workshop focused on discovering what the participants had experienced during the growing season following the training; how their behaviors had changed; the impact of their work on the IUs; and what changes they would suggest for future training cycles⁶.

⁶ Four participants attended the data analysis workshop. One trainee was performing military service and two others were unavailable due to personal emergencies.

Specifically, participants interviewed each other to determine times when they felt particularly good or excited about their work during the growing season. They created a timeline using this information. See Annex Two for results of this exercise.

They then created a “project map” illustrating the project goal, objectives, indicators and results. They then analyzed these results. Table 1 and the accompanying section under *Results* reflects outcomes of this session. Part of analysis including using a tree as a metaphor to identify what elements nourished the project; what formed its roots; its life force; what were the new shoots and buds. See Annex Three for results of this exercise.

The evaluators attempted to organize a focus group meeting with IU Chairmen, but the provincial governor called a meeting of the Chairmen at the last minute and only one Chairman turned up for the focus group. Nonetheless, the meeting with the Chairman proved useful, in that he confirmed what the General Secretaries had been saying and demonstrated that knowledge gained during the training by GS had filtered up to the Chairman as well⁷.

4 Summary of First Training Program

4.1 Goals and Objectives

4.1.1 Goals

- The preliminary goals of the training program, from the perspective of HASNA, were the following⁸.
- To give participants the opportunity to work and study together under the guidance of professional trainers
- To prepare participants to serve as agricultural extension agents in their communities
- To prepare participants to work in job training and mediation activities

As a part of the initial project monitoring and evaluation workshop, participants retrospectively identified goals and objectives for the training program from their perspective. The goal identified in Sanliurfa in April was **“To improve the social and economic condition of people living in this region.”** During the October 2001 session, participants modified that goal to the following, **“To improve Irrigation Unions in the Harran Plain.”**

This change originated spontaneously with the participants and not as a part of the workshop process. It reflects the participants’ growing awareness of the factors that currently lie within their control and those that are outside it and of the scope of the

⁷ The Chairman spoke knowledgeably about the Salt River Irrigation Project in Arizona, for example, a place he had never seen.

⁸ Extracted from a HASNA background document.

causal links extending from the training program. The new goal can clearly be seen as embedded in the first, but given the tools and resources presently available to them, participants felt that the less ambitious goal was the more realistic one. The making of the change also reflects the growing sophistication with which the participants approach goals, objectives, monitoring, and evaluation.

These two sets of goals obviously come from different perspectives. Sponsor's goals focus more specifically on the trainees and the training program, while participants' goals relate to the impacts expected from the internalized results of the training. Sponsor's goals also reflect a somewhat different role description for the General Secretaries than experience indicates, in retrospect, to be the case.

4.1.2 Objectives

It does not appear that explicit sets of training objectives were prepared for any of the components of the training. This complicated the evaluation of particular components and, in a larger sense, makes it difficult to harmonize the design of individual components with overall program goals and objectives.

In their first PME workshop, participants developed, retrospectively, a set of objectives and measurable indicators for those objectives to guide the impact assessment in the field. These are reproduced under *Results* in Table 1⁹, along with measures of indicators added during the October workshop. Participants used these objectives and their associated indicators to help evaluate the training program impact.

4.2 Participants

The participants in the FTP included 8 irrigation technicians from Sanliurfa province in the GAP region, one university student, and the president of RUDF. The irrigation technicians were all were engineers graduated from faculties of agriculture in Turkish universities. The current student was a cartographer. All participants were male and in their mid- to late-twenties or early thirties. Four spoke some English before the training began, and three had been to the United States previously.

4.3 Phases of Training

The FTP can be separated into the following five components.

- English language (in Turkey and in the US)
- Conflict resolution
- Soil and water engineering
- Computer skills

⁹ Drawn from the first workshop report (Annex Four).

- Management and marketing

The following capsule summaries describe these five components.

4.3.1 English Training

Training in the United States was preceded by several months of English language training in Sanliurfa, provided by the GAP English Center, a commercial concern. Because of the timing of the US-based training, English training in Turkey took place in the evenings during the irrigation season when the General Secretaries were working long days in the field in addition to studying English.

The Center for Language Education and Development (CLED) at GU in Washington DC organized a customized one-month program of instruction in English for the 10 participants. The program provided 80 hours of instruction over a four-week period. The normal schedule involved two hours of general instruction in the morning and two hours of more technically-oriented instruction in the afternoon, for a total of 20 hours per week, supplemented by individual work in the language laboratory. The group was divided into two classes with 3 participants who were considered “intermediate and above” in one group and 7 who were rated “basic” in the other. The groups received separate instruction, and as a result, 4 separate instructors were involved in the training. There was no post-training evaluation by participants or the instructors.

The director of the GAP English Center also received 80 hours of instruction at Georgetown University (GU) where the trainees received their training. His visit to the US took place after the initial period of instruction in Turkey and was aimed at improving subsequent programs.

While in Washington, DC, the trainees stayed at a hotel in NW Washington. They traveled daily to GU by city bus and the Georgetown shuttle. They were on a meal plan at the university that provided lunch and dinner and they thus spent most of the day on-campus. They used the CLED computer lab for language practice and for sending and receiving email.

4.3.2 Conflict Resolution and Mediation Training

While in Washington studying English, participants also participated in training provided by the Center for Dispute Settlement (CDS) of Washington. Training was limited to about 30 hours of instruction. Training was conducted on the GU campus and took place on evenings and weekends. There were 6 or 7 sessions of 2 ½ or 3 hours each, and one Saturday session of about 5 hours. Native Turkish speakers sequentially interpreted the sessions, as the English language skills of the trainees were not adequate for this level of discussion. Topics, reflecting participants’ roles and interests, emphasized communication skills, including active listening, reframing, and assessing. Although sessions were held at GU, there was no substantive interaction with the English language program there. No formal assessment of learning was undertaken, and there was no post-training evaluation by participants or the instructors.

4.3.3 Soil and Water Engineering

The second phase of the training was a four-week technical program organized by Edib Kirdar, a consulting engineer based in Phoenix, Arizona. This phase included training in soil and water engineering conducted by the Maricopa Agricultural Center of the University of Arizona; computer and software use training at the University of Arizona Computer Lab; lectures on management, water user organizations, and marketing; a visit to the Salt River Irrigation Project; and a field trip to two irrigation systems in Southern California. In Arizona and California, trainees stayed in motels. The local coordinator organized a number of cultural, social, and sightseeing events for the trainees, several involving interaction with the local Turkish-American community.

Participants completed weekly evaluation forms (in Turkish), but these were not consolidated or reported on in an organized way. Mr. Kirdar submitted a descriptive note on training and social activities covering the second phase of the training.

The Maricopa Agricultural Center (MAC) of the University of Arizona conducted this training comprising four days of lectures and a one-day field trip. Lectures covered soil water properties, water balances, irrigation scheduling, and various measures of irrigation efficiency. The field trip took trainees to a large horticultural operation and to the Maricopa-Stanfield Irrigation and Drainage District. As with the conflict resolution training, lectures were sequentially interpreted, in this case by Ed Kirdar, the local coordinator. MAC administered pre- and post-tests, but in reverse order, and thus provided no useful information on the learning outcomes of the training. The instructor, Dr Edward Martin, provided a 1½-page note giving his impressions of the training. There is no indication that trainees were asked to evaluate the training.

4.3.4 Computer Skills

Two University of Arizona (U of A) faculty members taught a five-day computer skills component at the U of A Computer Laboratory. The program consisted of lectures and computer use. Instruction centered on a number of computer models. Copies of the models and documentation (for most) were provided to the trainees. The two trainees from GAP-RDA whose English was stronger than that of others helped to interpret. There was no formal learning assessment or participant evaluation.

4.3.5 Management and Marketing

This component lasted for two weeks and included two days of classroom sessions, three days in the field visiting the Salt River Project near Tucson, where the local coordinator worked for many years, and a five day road trip to Southern California. Edib Kirdar, consulting engineer, and James Haupt, a marketing specialist conducted the training.

The first day covered management and leadership, communication, U S water user organizations, and the Salt River Project (SRP). The second day addressed marketing and teamwork. The three days in the SRP included an overview of the project and its

operations, a visit to a field office to discuss irrigation scheduling, billing and customer relations, and a farm visit.

The California field trip involved three days of travel and two days of meetings at (1) the Imperial Irrigation District, (2) the UC Cooperative Extension Office for Imperial County, and (3) The Coachella Valley Water District.

5 Results

This section summarizes information gathered during interviews, participant input during the two evaluation workshops, review of documents, and data collected by the General Secretaries from April through September. This data underlies the conclusions and recommendations in the final section.

5.1 Overall Effectiveness

The best measure of overall training effectiveness derives from changes in General Secretaries' performance and their impact on system operations. Table 1 depicts the objectives and indicators developed by participants during the April workshop with results based on data they collected between June and September during the irrigation season.

5.1.1 Impact Data

Table 1. Program objectives and indicators

| Program Objectives | Indicators | Results ¹⁰ | |
|---|---|-----------------------|--|
| | | Year 2000 (baseline) | Year 2001 |
| A. In 2 years, the farmers will receive the water they need at the right time | A.1. Number of farmers who interrupt a rotational program | 509 interruptions | 264 interruptions |
| | A.2. Number of complaints regarding distribution of water | 582 complaints | 385 complaints |
| | A.3. Number of night irrigations ¹¹ | 16% flow to drains | 9.8% flow to drains |
| B. In 3 years the number of problems experienced by | B.1. Percentage of water fees collected ¹² | 44% (average) | 71% (average— not yet finished collecting) |

¹⁰ Results are based on data from four General Secretaries. The data is collated, and is also available by individual GS if needed. As noted earlier, one GS was performing military service, and 2 others were unable to attend because of personal emergencies. One of these two subsequently provided data that is included in the table.

¹¹ Failure to utilize water at night results in wastage to drains. A smaller percentage of wastage is a positive outcome.

¹² Data from 3 GS only

| | | | |
|---|--|-------------------------------------|---|
| farmers will be reduced. | B.2. Number of fines levied | TL 1850 M ¹³ (~25 fines) | Amount unknown (5 fines) |
| | B.3. Number of maintenance actions | 11 | 84 ¹⁴ |
| C. In 5 years, General Secretaries will have transferred improved technology to farmers | C.1. Number of farmers who use improved technology | 24 | 26 |
| | C.2 Irrigation equipment sold by private companies | No data | No data ¹⁵ |
| Enabling Objectives | | | |
| A. In year one, GS will be communicating regularly and working as a team. | Enabling A.1 Number of monthly issues of IU newsletter published | 2 | 1 (awaiting permission from governor to distribute) |
| | Enabling A.2 Number of GS meetings held | 2 | 5 |
| B. In 3 years, IU staff will be working as a team | Enabling B.1 Number of staff leaving employment | 0/52 | 12/52 |
| | Enabling B.2 Number of times Chairmen interrupted rotational program ¹⁶ | 12 | 13 ¹⁷ |

5.1.2 Participant Interpretation

Participants drew the following conclusions, *in their own words*, from this data.

Objective A. General progress in achieving objective was good. In indicator A1, in only one IU is there a problem because of the selection of the Chairman. In looking at A2 and A1, the reason of the success is teamwork (within staff and with farmers).

Objective B. In B1, if collection percentage is high, then the number of complaints about maintenance will decline. The collection percentage is increasing. When you work in a participatory way with farmers the number of maintenance complaints will

¹³ One farmer was fined TL 350M for breaking a canal in 2000.

¹⁴ Information from three GS. General maintenance: 2000 – 0, 2001- 1. Routine maintenance: 2000 - 10, 2001- 15. Excavation of canals: 2000 - no excavator, 2001 – 21 initiated by IU, 26 in response to farmers requests. Facilities: 2000 - 0, 2001 – 13; Pumps: 2000 - 1, 2001- 5; Machines: 2000 – 0, 2001 - 3

¹⁵ Equipment sales personnel were reluctant to share this information. We discussed changing the indicator, but participants felt they should keep the indicator but change the way they could get the information. One participant noted that more equipment is sold in areas irrigated by private wells.

¹⁶ Based on data from 2 GS

¹⁷ One GS had a great decrease (from 10 to 4) and the other had an increase (from 2 to 9)

increase. Now farmers are sharing information about maintenance problems. The number of fines levied is going down. If we work collaboratively with farmers, there is less need for fines.

Objective C. We couldn't get data from private companies because they are afraid of the tax collector. For future, we will try to find friends who can get information. We will try to strengthen relations with companies and friends. For C1, to improve, companies must offer cheap and easy to operate technology. Things like drip or sprinkler are too complex.

Enabling Objective A. We're awaiting permission to publish from the local governor. We now understand that approval to restart a publication is more difficult than new permission. For Enabling A2, the number of meetings is increasing. This shows the strengthened relationships among the first group of trainees.

Enabling Objective B. For B1, for the core group, numbers didn't change for 2 of 3 IUs. Had good season in both 2000 and 2001 and so no changes needed. In other, with 6 Chairmen, Chairmen were firing. For Enabling B2, one GS strengthened the relationship with Chairman and convinced him that he shouldn't interfere. Another Chairman wants to control irrigation pattern directly. This was exacerbated because of election time.

Revised Goal

As mentioned earlier in the report, participants also changed their goal to "To Improve Irrigation Unions in Harran Plain."

Commentary. Interpreting longitudinal data is difficult, for the analyst must always be concerned with possible confounding factors that may be influencing changes occurring over time. The analyst must try to identify these influences and consider their impact on the outcomes of interest. In this case, there were three important influences that need to be considered. The possible influence of these factors is mentioned in the subsequent discussion.

The first and most important is the fact that this was an election year for most Chairmen in the SH area, and to further their chances for reelection, they were anxious to please their farmer constituents. On the one hand, it might be expected that Chairmen would strive to provide good service to all farmers in their IU in an equitable way. This could have the effect of improving the overall performance of the IU. On the other hand, it may have lead to a tendency to grease squeaky wheels, responding on a case-by-case basis to farmers with requests or complaints and making exceptions to established water distribution patterns to curry favor. While perhaps making individual farmers happy, this tendency would tend to reduce the overall performance of the system. Participants' depictions of Chairmen's behavior were consistent with the second pattern. They saw Chairmen's electioneering as generally disruptive to system water distribution. Data patterns showing improved performance would thus have occurred in spite of the contrary influences of the election year.

The second confounding influence is the slightly lower water supply available to the SH in 2001, relative to the baseline 2000 irrigation season, i.e. 1.2 billion m³ versus 1.0 billion m³. The effects of higher levels of water stress are difficult to predict. In general, however, given the fairly loose organization existing both within IUs and among them, one would expect opportunistic behavior, as individuals and IUs attempted to maximize their share of a scarce and valuable resource. This would both make the task of equitably distributing water and reducing intakes of water more difficult. At the same time, it would give successful execution of these tasks a greater impact that they would have in a water-abundant year. It might also tend to reduce the wastage of water that farmers did withdraw from the system.

The third influence affected just one of the IUs. In this IU, six different individuals filled the position of Chairman during the course of the irrigation season. These changes were related initially to administrative irregularities but subsequently, perhaps, to the overzealous actions of the provincial governor who intervened in the process. One impact of this is noted in the participants' analysis of *Enabling Objective B*.

Objective A, that of supplying effective irrigation service to farmers within the IU, is probably the most important of the objectives identified by the participants, in that this is the core activity of their job description and a function absolutely essential to sustaining productive agriculture. With respect to that objective, changes in indicator values are impressive. Farmer interference in the water rotation fell by 48% and the number of complaints about irrigation service fell by 34%. It is reasonable to assume that the smaller decline in numbers of complaints was related to the enhanced communication that took place between GS and farmers during the 2001 season. With respect to confounding influences, both of the major ones would likely have been acting in the opposite direction and thus do not compromise the validity of the change.

With respect to a reduction in night irrigation, data show that the amount of water flowing to the system main drain and out of the area decreased by 49% from 2000 to 2001. This could be a function of an increase in nighttime irrigation by farmers. But this in turn could have resulted from the 17% reduction in overall water supply to the system. Note that this indicator results from the behavior of the entire SH system, of which IUs staffed with HASNA trainees comprise only 40%. The reduction in drainage is a positive change and may have been influenced by the training GS received, but other influences probably were involved as well.

Evidence relating to **Objective B**, reducing the number of problems experienced by farmers, also paints a positive picture. Average fee collection percentages in three of the IUs served by participant GS increased from 44% of collectibles to 71%, with the 2001 collection process not yet finished at the time of reporting. This is also an impressive change, and can be reasonably attributed to an increased level of farmer satisfaction and probably to the improved lines of communication that have been established between GS and farmers. We should note, however, that collection percentages fluctuate depending on the profitability of farming in a given year, which – in turn – depends on weather,

prices, and a number of other factors. A multi-year comparison is thus needed to establish firmly that a change has occurred, but the initial year's results are promising.

Participants created an interesting indicator in *number of fines levied*. Intended to measure farmer behavior in the wake of changed approaches by the newly trained GS, in fact it wound up measuring something quite different, becoming more of an independent variable than a dependent one. In practice, GS generally decided to try consciously to stop imposing fines and to work through positive reinforcements rather than negative ones. As a result the number of fines levied fell sharply, from about 25 in 2000 to just 5 in 2001. Rather than an indicator of improved farmer behavior, though, this was actually a measure of a change in approach by the GS. The impacts of this strategy are found in the indicators for Objective A, which are generally strongly positive. This approach would appear to be a direct outcome of the training in conflict resolution received in Washington DC.

There was a very sharp increase in the number of maintenance interventions by the GS in 2001. It is unlikely that this simply represented an increase in system breakdowns. Rather, although the detail in the footnote to Table 1 shows increases in most types of maintenance activities, the sharpest increase came in the category, *excavation of canals*. This type of maintenance removes silt and vegetation from a canal where it impedes flow of water. The number of such interventions went from 0 in 2000 to 47 in 2001. Interestingly the majority of these actions were in response to farmer requests, again reflecting improved communication between farmers and GS. Such maintenance actions can have powerful effects on the ability of the system to deliver water generally, and to improve equity of distribution by reducing impediments to particular portions of the scheme that were disadvantaged.

Data relating to **Objective C**, transferring improved technology to farmers yields no conclusion. Although not their primary job, the GS were interested in doing this and in establishing this as an objective and in trying to measure their success in achieving it. While the number of farmers using improved technology increased marginally, there is a large number of variables that can lead to such an outcome. There is no evidence at this point to indicate that the change was a result of GS actions, or, derivatively, of the training they received. Participants could collect no data on irrigation equipment sold. Had this data been collected, it would be subject to the same qualifications outlined above. If this objective remains an important one for this or future groups of participants, the indicator set would need to be elaborated to establish a causal chain between GS actions and the outcomes documented by the indicators in Table 1.

Enabling objectives relate to actions that assist the GS in achieving the main program objectives. It appears that GS are communicating more regularly and working more as a team. The increased number of meetings demonstrates this, as does the friendship and camaraderie among the GS that is obvious in interacting with them. The GS indicate that this is a marked change from the situation prior to going for training. Going forward, the challenge will be to maintain this sense of solidarity, while expanding the group to include the second batch of trainees from the same system.

The newsletter is the pet project of one of the GS, who is a former newspaperman. The two newsletter issues dating from 2000 are attractive and of high quality. The revived newsletter, now produced with new desktop publishing software, is awaiting government approval to resume distribution.

Indicators of the second enabling objective, IU staff working together as a team, if anything, exhibit a negative change. To a large extent, this is an artifact of the indicators chosen and the Chairmanship elections. The GS expressed the desire to reduce staff turnover and felt that this would indicate a satisfied and engaged staff. Although staff turnover may have been a problem in the past, in the baseline year there was no staff turnover – not a situation that can persist forever. In 2001, turnover was significantly higher. However, most of this, 10 of 12 cases, occurred in the IU with high chairmanship turnover. The GS of this IU indicated that each new Chairman made changes in his staff composition. If this case is omitted, change in staff turnover, while increased, is relatively modest. Likewise, the instances of chairmen interfering in the rotation was virtually unchanged. The figures reported come from only two IUs. In one of these there was a sharp decrease in interference and in the other an increase. Much of this behavior could also be attributed to Chairmanship elections and so no real conclusions can be drawn.

Improving staff performance and teamwork is a valid and important objective. Although the training addressed GS relationships with farmers through its conflict resolution component, it did not directly address the issue of teamwork and organizational performance. Including the Chairman in efforts to improve organizational effectiveness is critical. These needs have important implications both for training design and for supplemental activities under the HASNA program in the GAP region.

5.2 Training Component Relevance and Effectiveness

This section looks at the individual components of the training program and attempts to establish connections between participant learning, behavioral change, and changes in system performance. The absence of (a) specific learning objectives for training components, and (b) pre- and post-assessment of trainee achievement makes this already difficult task even more challenging. The discussion draws on interviews and discussions with trainers and trainees, outcomes from the impact assessment, and field observations in SH. Components are covered individually below.

5.2.1 English

There are three potential reasons for training participants in English.

1. To enable participants to perform day-to-day living functions, such as ordering meals and taking busses, and social interactions while in the United States.
2. To enable participants to benefit from training in which English is the language of instruction.

3. To equip participants for future learning on the Internet, from books and journals, and in international courses.

In the case of the FTP, while all participants could perform at the level of “1” above, only 2 of the 10 trainees were able to function effectively in technical and management courses taught in English. Most participants can use the Internet, but the range of English-language content they can access is quite limited for most.

This raises a question of the importance and role of English in the HASNA training program. Simply satisfying level “1” above would probably not require the intensive training provided in the GT course. Basic language training in Turkey would suffice for this.

With respect to objective number 2, none of the trainees who began their study of English under the HASNA program was able to function in learning situations effectively without interpretation. Dr. Lindauer, head of CLED, indicates that beginning students who are aiming for a non-academic program at the university would typically receive nine months of instruction in English prior to beginning their program coursework.

Students headed for an academic program would study for 12 months, for 20 hours a week, prior to beginning their program. With respect to reason number 2, the one month at GU must be seen as a polishing and vocabulary-building opportunity rather than the primary English learning activity of the training. Given the limited duration of the trainees stay in the U S, it seems clear that to meet this objective, the training given in Turkey, or elsewhere, would have to be far more extensive than it is currently.

Equipping trainees for further learning – of technical and general topics and English itself – is perhaps a more reasonable goal for a one-month training program in the U S. Even in this case, though, the chances of students learning enough English to equip them for further learning, in English and on their own, is greatly enhanced if they have a solid English-language background before arriving in the United States.

The trainees themselves clearly value the English language training highly. In their rankings of activities for future support, English occupies the number one slot (Box 1). Most of the FTP trainees are currently enrolled in additional English classes in Sanliurfa, adding authority to their ranking. At this point, the value for them clearly lies in the opportunities it opens for further learning.

| Box 1. Participants' rankings of potential activities for future HASNA support | |
|---|---|
| 1. | Internet access, English training, help with publishing |
| 2. | Mediation, conflict resolution, and management |
| 3. | Teamwork training |
| 4. | Marketing training |
| 5. | Technical training, including crops |
| 6. | Training of trainers |
| 7. | Sprinkler and drip irrigation software |

5.2.2 Conflict Resolution

Conflict resolution (CR) is actually shorthand for a range of topics that also included interpersonal relations, management techniques, effective problem solving and related areas.¹⁸ Of all the components of the training program, this one probably had the most profound effect of a majority of the participants. The techniques and values communicated in this short module relating to effective listening and participatory problem solving were raised again and again by trainees in describing the learnings that helped them perform their jobs differently and more effectively. Trainees rank it second only to English in importance, among the components of the FTP.

Participants also credit their training in conflict resolution as contributing greatly to their abilities to constructively address farmers' problems, rather than simply fining them, as they had done in the past. This came out clearly in their discussions around Objectives A and B and accompanying indicators that are shown above in Table 1. The one Chairman interviewed supports this. In his words:

Before the US training, when we saw farmers interfere, we wrote fines. After the US, we had meetings with farmers to convince them that what they were doing was not right. No fines this year. Since we had meetings, maybe 95% followed the rotation plan.

What is remarkable about this impact is that it resulted from only about 30 hours of instruction, supplemented by a partial day of lectures on management techniques in Arizona. Most of the topics taught in the CR component were actually preliminary to the skills of conflict resolution itself. In the words of one of the trainers, we never actually got to conflict resolution proper. The trainer estimated that a week of full-time work in CR would be an appropriate level of effort for a solid introduction to this topic. She also expressed the opinion that the irregular and "after-hours" schedule of the CR training hindered effective learning.

5.2.3 Soil and Water Engineering

All of the trainees have had four years of university training in which they study soil and water engineering topics. The General Secretaries generally appear to have a sound basic knowledge of plant/soil/water relationships, irrigation scheduling, and salinity leaching. At the management intensity currently prevailing in the Harran Plain, there is little need for measuring and managing soil moisture with great precision. Rather the problems faced in the field require resolution at a coarser scale and deal less with technical issues than with human ones. To illustrate, the problem is less calculating the precise depth of irrigation water to apply to a cotton crop at a particular time than it is preventing farmers from taking water out of turn or convincing them to manage irrigation water at night as well as during the day. In this context, the present need for the type of training received

¹⁸ In translating the participants original list from Turkish to English, Fatih, the premier English-speaker of the group penciled in the term "management" opposite this heading, following the literal translation of "mediation and conflict resolution."

in these topics during the FTP is extremely limited. Participant rankings for future support place these topics fairly low on the list (5 of 7), and in face-to-face conversation, without exception they accord this part of the training very little relevance relative to their needs.

Field trips, by contrast were generally felt to be a useful and important learning experience. Participants often cited things they had seen in the field or discussed the history of the Salt River Project (SRP), where they had spent 3 days. As indicated earlier, this learning has even been transmitted on to IU Chairman in at least one case. Learnings from field trips mentioned by participants ranged from water control techniques, to interpersonal dealings between irrigation district staff and farmers, to crop marketing. This part of the technical training was clearly important and effective.

The American West has numerous irrigation districts that are similar in organizational structure and mission to the IUs managed by the GS. These irrigation districts have managers and field staff who engage in tasks very similar to those performed by the GS. Evaluators and participants propose taking greater advantage of these parallels by developing a mentoring or internship component for the training program that will place pairs of trainees with district managers or their field managers for several days to a week. This experience would enable trainees to learn, on the job, how their American counterparts approach these common tasks. Such mentorships would also afford opportunity to observe board meetings and the interactions that take place between district managers and their board chairman. General Secretaries deal with a very similar governance structure in Turkey, but with somewhat different patterns of interaction.

5.2.4 Computer Skills

The same comments made above regarding classroom training in soil and water engineering apply equally to the computer modeling training received in Arizona. Participants rank this topic 7 of 7 (Box 1), and there was no use being made of these models in the field. At the same time, the participants regarded *general* computer skills, particularly internet browser use, as extremely important. This topic should be split from the modeling and enhanced in the second training program design. There are other applications, such as spreadsheet and database programs, that could be quite useful to the GS in performing financial management, personnel management, asset control and other functions. Sponsors should consider training in these generic software applications when revising the computer-training component.

5.2.5 Management and Marketing

Participants felt that these topics, though receiving relatively little time in the schedule, were both highly relevant to their work. Training in organizational management (as opposed to technical water management) is central to the needs of General Secretaries, both as observed by evaluators and as reported by themselves. This type of training should be expanded from a single day of lectures to a fully integrated training component and moved to the center of the curriculum.

Many of the techniques that are important preliminaries to conflict resolution, such as effective listening, “using I statements”, cooperative problem solving, encouraging dialogue, and the importance of consultation, are also key components of effective organizational management. As such, it would make sense to set learning objectives and design these two components – CR and organizational management – in conjunction with each other. Together these two topics should occupy at least 25% of the curriculum, i.e. two weeks of two months. Considering that the mentorship and field visit component proposed above will be laboratories for many of the concepts taught, the overall proportion of time devoted to this pair of topics would be between 30% and 40% of the total. Given the impact that abbreviated versions of these components had on the observed behavior and performance of the GS following the FTP, this is appropriate.

Marketing is important, because even though not strictly within their job descriptions, General Secretaries are often called upon for agricultural advice. Moreover, choice of crop is one of the most powerful determinants of farm income and consequently of farmers’ ability to pay for irrigation services. Poor access to markets, in turn, is one of the key constraints to crop choice. The agronomy of cotton production, and general principles and techniques of output marketing for other crops are thus both relevant for GAP-area trainees.

5.3 Design of Program

Training providers and participants concurred that the training could be strengthened significantly by having (a) clear objectives from the onset, (b) better coordination and integration, and (c) improved scheduling. The evaluators also urge that all training components incorporate some form of evaluation immediately following the training.

None of the training components had clear objectives for the training or explicit expectations of how participants would apply their learning once they returned to Turkey. Participants also indicated that they did not have a clear advance picture of what to expect from the US training, particularly the conflict resolution portion. One said he thought they were being asked to do this because it was thought that they had conflicts among themselves. In spite of such misunderstandings, this turned out to be one of the most useful parts of the training for the participants.

It is also essential that those providing training have a clear picture of participants’ roles in Turkey; their current skill levels pertaining to particular training components; and how participants hope to use their new knowledge, skills, and attitudes in their roles as General Secretaries. With such knowledge, the training providers will be better able to design curricula that best meet participants’ skill levels and needs. A strengthened pre-trip orientation, conducted by past participants, should include a review of these training objectives and expectations.

Coordination and integration among providers is also essential for a quality program. The major groups providing training in the US (CLED, CDS, Edib Kirdar/University of Arizona) had little or no contact with each other and definitely did not integrate and

coordinate their training. Doing this would have enabling the parts to reflect a unified holistic design. These providers not only need to know more about the participants than they did in the FTP, they also need to have a better idea about the whole program and what other training providers are contributing. For example, Georgetown could more effectively gear some of its language instruction to conflict resolution and technical training if instructors better understood the other training. Likewise, CDS could develop more realistic and relevant role-plays if they better understood the work of the participants.

Although participants benefited greatly from the conflict resolution component of the program, benefits could be even greater if this component had its own block of focused time rather than being held “after hours” after a full day of English instruction when participants are tired. Attention to other scheduling details, such as investing three days of travel in two days of meetings during the California field trip, would also be beneficial.

Good objectives should be coupled with good evaluation. None of the components effectively evaluated participant performance. Such evaluation is essential if the program is to evolve and improve. All components should at least have a clear end-of-training evaluation. It would also be useful to develop measures of potential on-the-job impacts. Participants expressed much appreciation for the PME workshop in April saying that it helped them to clarify in their own minds what they were supposed to be doing and how to measure their progress. They suggested that a PME workshop be done prior to trainees’ departure from the US so that they returned to their jobs with a clear picture of how to translate their new learning into job performance.

5.4 Participant Selection

Selecting General Secretaries from the same irrigation system has proven to be a wise decision. The GS made many references to the increased sense of teamwork they experienced during the training and since. This is important, because the changes they are attempting to introduce into their relationships with farmers and with their Chairmen may not be easy to achieve. Having a mutual support group can make perseverance much easier. As indicated under Enabling Objective A in Table 1, participants meet more frequently now and interpret this as evidence of their strengthened relationships. This would not happen if they were from disparate systems.

Having GS comprise the bulk of the trainees in each program puts the focus clearly on their problems and tasks. This is the approach followed in the FTP and is appropriate. It also suggests rounding out the participant list with people whose roles support the GS in their work. This will keep the focus squarely on the problems of managing water harmoniously in the target system rather than dispersing it among other tasks. Such additional participants might include local extension agents, DSI or GAP-RDA field staff dealing directly with IU operations, or even selected IU Chairmen. “External” participants from other agencies would have to bring with them their own financial support and all would have to commit to achieving a specified level of English language

competence before departure. Past and current GS participants should play a role in choosing appropriate supporting roles to include as training candidates.

5.5 Follow-up and Support

Effective and appropriate follow-up and support is often needed for satisfactory long-term results. The HASNA program is off to a strong start. Participants have learned and applied some valuable skills and measurable impacts have resulted. The program will be further strengthened as additional professionals develop similar knowledge, skills, and attitudes. The upcoming second training program should essentially complete the initial training of the GS in the SH Plain, creating a potential critical mass of IU managers, and allowing changes in management approach to reach virtually the entire system. Important in achieving this cumulative impact will be the linkages that develop between the two groups of GS trainees. While bonds within each group tend to form during the US sojourn, integration between the two groups will have to take place *in situ*. Useful will be encouragement and positive incentives for all of the GS in the SH region to organize themselves into an association for initiating and supporting change.

The HASNA program has already taken important supporting steps by sending the GAP English Center head, Mustafa Santici to the US for training, shifting preliminary English language instruction to the off-season for GS, and increasing the number of hours of preliminary instruction offered. This demonstrates a flexible and evolutionary approach on the part of the program sponsors that is an admirable and essential element of a sound and sustainable program.

HASNA has established a training facility about 5 kilometers outside of Sanliurfa, equipped with a number of modern networked personal computers with internet access. To date, this facility has received limited use, despite the main room being an excellent venue for small training programs. General Secretaries argue that, for *ad hoc* computer and internet use, the center is too far from the center of town to be easily accessible.

Plans are also in place for a CDS staff member to conduct follow-up conflict resolution training for FTP participants in Turkey. Workshops conducted by this evaluation also played a role in building capacity among participants related to goal and objective setting, monitoring, data analysis, and evaluation.

The partners will now have to consider, in the next phase, whether to expand the program horizontally or vertically, i.e. to replicate the training in other parts of the GAP area or to deepen involvement in the SH area by working on other elements of the enhanced livelihoods puzzle, or both. Once again, this begins with framing clear program objectives – a priority topic for attention.

6 Conclusions and Recommendations

Based on the foregoing analysis, the following conclusions and recommendations are offered. It should be noted that the *key conclusion* below is the most important of the list,

and validates both the impulse to organize the training program and the overall approach taken. A great many training programs in irrigation management, perhaps the majority, if evaluated honestly would not support the conclusion regarding effectiveness reached below. This is no small accomplishment. Subsequent conclusions and recommendations are intended to provide the information needed to improve future training programs and the overall program of which they are a part, but should not detract from the demonstrable success of the first training program.

6.1 Training Program

6.1.1 Overall

Key Conclusion: Overall, the HASNA/GAP/RUDF program has had a strong positive impact on the attitudes, skills, and knowledge base of participants, changing their behavior and producing positive impacts on their job performance.

Recommendations:

- Build on the successful base by drawing on experience from the first training program to improve the second and subsequent programs.
- Begin to consider now the direction of the program following the completion of the second training program.

6.1.2 Quality and Relevance of Training Components

Conclusion: Individual components of the training program were uneven in the quality of their execution and their relevance to the participants' working environment.

Recommendations:

- Develop a formal training component in organizational management skills and techniques and make it a centerpiece of the program.
- Conduct training in conflict resolution in an intensive mode rather than as an add-on activity.
- Eliminate classroom instruction in technical irrigation topics and computer modeling and develop an interactive field-based component focused on irrigation and organizational management.
- Develop clear processes to measure training effectiveness – both end-of-training and longer-term measures – of all training components.

6.1.3 Clarity of objectives

Conclusion: Training program objectives were implicit and not always clear to participants and training providers.

Recommendations:

- Develop explicit sets of (1) program objectives and (2) training objectives supporting the program objectives.
- Base each training component on a set of explicit objectives developed by the training provider in consultation with the sponsors.
- Ensure that training providers are aware of the training objectives of the other training components in the program for a more coordinated effort.
- Provide more comprehensive pre-trip orientation for participants to help them better understand what to expect from the training in the US, particularly regarding conflict resolution.

6.1.4 US Venue

Conclusion: Beyond the effects of individual training components, the US venue for the training had its own powerful impact on participants' thinking by exposing them to approaches to interpersonal relations and problem-solving that complement those in their own cultural backgrounds.

Recommendations:

- Continue to conduct the basic two-month training program in the United States, augmenting it with supporting training in Turkey.

6.1.5 Participatory Monitoring and Evaluation

Conclusion: The guided participatory monitoring and evaluation activity conducted during the first on-the-job year for the participants produced a high-quality and internally consistent set of findings relating to the training program.

Recommendation:

- Conclude the US training program with a module on participatory monitoring and evaluation to set the stage for self-assessment by participants when they return to their jobs.

6.2 Participants

6.2.1 Selection

Conclusion: The strategy of training a number of IU General Secretaries from the same irrigation system is sound.

Recommendations:

- Continue to select Irrigation Union General Secretaries from a contiguous region to form the majority of participants in each cycle of the training program.

- Select, as other participants, professionals who play roles directly supporting the mission of the General Secretaries.

6.2.2 English Ability

Conclusion: Although everyone seemed to benefit from the US English language training experience, ability levels of most participants following the training were not adequate for learning directly from instruction in other subjects conducted in English.

Recommendations:

- Select participants for US training competitively, based on English language facility and overall motivation, and set a minimum required standard for English ability to be reached prior to departure.
- Continue to provide English-Turkish interpretation for all of technical training components of the program for the second program.

6.3 Country Program

6.3.1 Support Systems for General Secretaries

Conclusion: Innovation is lonely and difficult and requires ongoing support to be sustained.

Recommendations:

- Encourage General Secretary graduates of the program to form or join a system-wide professional group for continued learning, mutual support in implementing change, and a voice in program planning and decision-making.
- Provide responsive low-level follow-up support to these system-wide General Secretary groups.

6.3.2 Deepening Impact on IU Performance

Conclusion: Changes in General Secretaries' behavior have led to positive impacts on IU performance. Changes in knowledge, skills, and attitudes on the part of IU Chairmen and staff are required to deepen and sustain the impact.

Recommendation:

- Organize in-country training for selected IU Chairmen (and possibly other staff), tailored to their needs and abilities and designed to complement and support the work of the General Secretary graduates of the program.

6.3.3 Partners' Roles and Responsibilities

Conclusion: Participants experience frustration over not knowing where responsibility among the partners for particular decisions lie and at being unable to get timely decisions, at times, on questions facing them. This is leading to confusion and disenchantment.

Recommendation:

- Clarify roles and responsibilities and streamline decision-making affecting the ongoing program in Turkey.

6.3.4 Training Center

Conclusion: Establishment of the training/computer facility preceded the demand for it.

Recommendation:

- Consider the uses of and possible changes to the facility in the context of a broader strategic review of the HASNA GAP area program.

ANNEX ONE: PERSONS MET

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ANNEX TWO: HIGH POINTS OF PARTICIPANTS' EXPERIENCE

During the October evaluation workshop participants conducted “appreciative interviews” with each other to determine what were the most exciting, rewarding or memorable events for them during the past year of involvement with the project. These were some of their items that came out of their interviews.

- Catherine (English teacher)
- Ozsel (Turkish student at GT)
- Mustafa (English teacher in Urfa)
- Zekiye (Nevzer friend)
- SUDER
- TEMAV
- To work harder
- Improve English
- To delegate
- Multiple sources of authority
- To identify what we need
- Participatory M&E Workshop
- If no M&E workshop, nothing would change
- Saving fuel by buying IU motorbikes
- Applying information from project
- Edib Kirdar
- April workshop
- Connections with Mehmet Acikgoz, Fatih's boss in regional GAP office
- Meeting prior to new English courses (one of the participants recognized the lack of self-confidence of the new GSs)
- Getting information from consultants and specialists and transferring to farmers

**ANNEX THREE: INTEGRATING THE PROJECTS ESSENTIAL ELEMENTS:
THE METAPHOR OF A TREE**



ANNEX FOUR: DOCUMENTS PRODUCED AS PART OF EVALUATION

Svendsen, M and D. Seslar Svendsen. 2001. Evaluation Plan for HASNA Training Program.

Svendsen, M and D. Seslar Svendsen. 2001. Trip Report: Sanliurfa, 1-14 April 2001.

Seslar Svendsen, D. and M. Svendsen. 2001. Report on Formative Assessment Planning Meeting: Sanliurfa, 10-12 April.

Svendsen, M. 2001. A Note on Agriculture and Irrigation on the Sanliurfa-Harran Plain.

Svendsen, M and D. Seslar Svendsen. 2001. Trip Report: Sanliurfa, 7–12 October 2001.

Svendsen, M and D. Seslar Svendsen. 2001. Final Evaluation Report on First HASNA/GAP/RUDF Training Program in Irrigation Management.

Svendsen, M. 2001. Turkey Program Trains US-Style Irrigation Managers. *USCID Newsletter*. (forthcoming)

ANNEX FIVE: EXPERIENCE OF EVALUATORS

Mark Svendsen has 30 years of experience in International Agricultural Development. He has worked extensively in impact assessment, water resource policy analysis, program and project evaluation, program and project planning and design, and institutional analysis in Asia, South America, Africa, and North America. His background is characterized by a wide range of disciplinary skills in both physical and social sciences and a strong ability to bring diverse perspectives and tools to bear on a problem. He has worked on staff at the International Food Policy Research Institute (IFPRI), the International Water Management Institute (IWMI), the United States Agency for International Development (USAID), the United States Peace Corps, and Cornell University, in addition to carrying out a variety of consulting assignments for various multilateral and bilateral donors. Svendsen holds a Ph.D. from Cornell University in Soil and Water Engineering and International Agriculture and an M.S. degree from Colorado State University in Water Resource Systems Engineering.

Dian Seslar Svendsen has over 30 years experience in over 30 countries in training assessment, design, and delivery related to, participatory skills development, participatory learning and action, participatory monitoring and evaluation, strategic planning, organizational learning, and a wide range of organization development interventions. She has applied her skills to agriculture, integrated conservation and development, community-based natural resource management, preventive health, enterprise development, and community development. She has worked on staff for organizations such as The Battelle Memorial Institute and The Salvation Army World Service Office, and works as a consultant to organizations such as Winrock, International; the Henry Wallace Institute for Alternative Agriculture; USAID; the World Wildlife Fund; and Development Alternatives, International. She holds a Doctorate in Education from The George Washington University, an M.S. in Educational Development from The Ohio State University, and a Masters in International Administration from The School for International Training.