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International Irrigation Management Institute (IIMI)
Pakistan National Program

CONSULTATIVE WORKSHOP ON GENDER, POVERTY AND WATER PROGRAM

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International Irrigation Management Institute (IIMI) Pakistan
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18.5.98 IIMI Pakistan, Lahore

Summary:

A workshop was held on 18 May 1998 at IIMI Pakistan headquarters in Lahore with select government, NGO, academic and International agency participants from around the country to present IIMI Pakistan's proposed program on Gender, Poverty and Water for feedback and suggestions (see Annexure 2 for list of participants).

The program was chaired by Tissa Bandaragoda (IIMI Senior Management Specialist) and by Dr. Prathapar (Research Coordinator and IIMI Pakistan Director-designate) who also presented the overall structure and global programs of IIMI to participants. This was followed by a presentation by Dr. Barbara Van Koppen (IIMI Global Gender Coordinator-designate, based in Colombo), highlighting issues of women's access to land and water resources from past research in Africa and Asia. Anne T. Kuriakose (Consultant to IIMI on Gender, Poverty and Water) outlined the proposed Gender program to the group. Afternoon presentations included a session by Zeenath Khalid and Maroona Arshad (M.A. Sociology students at Punjab University) on their research in Hakra 4-R on Women's Participation and Decision-making in Irrigated Agriculture and Health; and a presentation by Dr. Waqar A. Jehangir (IIMI Pakistan Economist) on findings from the Multiple Use of Irrigation Water study in Hakra 6-R. Working group sessions were also held in the afternoon where participants were asked to break into groups to discuss and present on topics of: institutional gaps in work on gender and irrigated agriculture/ water management; gender and poverty; social organization; proposed research framework.

Constructive suggestions were provided to IIMI regarding goal and objectives of the program, which were supported overall by the group. The group supported the contents of the research, but stated that the approach to poverty in the research needed to be further elaborated. Workshop participants especially stressed the need for the Gender program to ensure that research results feed into government policy and that government capacity is built on gender and irrigated agriculture/ water management. Thus the group underlined the importance of the Gender program developing a comprehensive strategy for policy advocacy and capacity-building around these issues. They also stressed that it was important to develop right from the start of the program a Pakistan network of practitioners and policymakers working on gender and water management, and saw this workshop as a first step in that network-building process. They foresaw a role for IIMI Pakistan as national resource center on gender and water management, particularly as applied to irrigated agriculture. Such a program they said would fill a critical gap in Gender activities in Pakistan, which to date have focused more on the social sector and on issues such as legal status/ human rights.

After recitation from the Holy Quran, a brief welcome to participants and introduction by Tissa Bandaragoda and Anne Kuriakose, and participants' self-introductions, the workshop began with a presentation overview of IIMI by Dr. Prathapar.

SESSION 1 9:40 - 10:00 a.m.

Overview of IIMI/ Pakistan - Current Research (Dr. S. A. Prathapar)

Dr. Prathapar (SAP) introduced IIMI as one of the 16 international research institutes operating under the Consultative Group for International Agricultural Research (CGIAR). He introduced the mission of IIMI as: *'To improve food security and the lives of poor people by fostering sustainable increases in the productivity of water used in agriculture through better management of irrigation and water basin systems'.*

He presented IIMI's mandate to evolve innovative approaches to water policy, institutions and technologies, and also noted how IIMI operated as a Virtual Institute using Internet and other technologies to share knowledge

across distances. SAP mentioned the CGIAR project led by IIMI entitled System-Wide Initiative on Water Management (SWIM), which seeks to enhance the productivity of water in agriculture, given the contact of growing water scarcity and competition. In this work, IIMI pulls together all those around the globe working on water management.

SAP outlined IIMI's global research programs, within which all national program research lie. These global programs are:

1. Performance and Impact Assessment (to identify the determinants of sustainable high irrigation performance and assess impacts)

2. Design and Operation of Irrigation Systems (to identify, field test, and disseminate methodologies and tools to increase the productivity and sustainability of water for irrigation in the context of water basins)

3. Policy, Institutions and Management (to identify tasks, policy tools, organizational designs, and institutional frameworks needed to achieve and sustain high productivity)

4. Health and Environment (to enhance positive contributions of irrigation to human health and the environment and reduce negative effects)

IIMI's headquarters is located in Colombo, Sri Lanka. Regional and National Programs operate in Pakistan, South Asia (India and Nepal), Sri Lanka, Mexico, Turkey/ West Asia, Burkina Faso/ West Africa.

The Pakistan National Program is IIMI's largest national program, and is headquartered in Lahore. Punjab field stations currently operate in Bahawalnagar, Fatehjang, Haroonabad, Hasilpur. Sindh field stations are supervised from Hyderabad with field stations in Nawabshah, Mirpurkhas, and Sanghar. There is also a field office in Quetta.

IIMI's national collaborators in Pakistan are agricultural and engineering universities; farmers; Pakistan Agricultural Research Council (PARC); Provincial Agriculture Departments PADs); Provincial Extension Services; Provincial Irrigation Departments (PIDs); Water and Power Development Authority (WAPDA)/ IRIP; International Waterlogging and Salinity Research Institute (IWASRI); (LIM) and Mona Reclamation Experimental Project (MREP).

IIMI Pakistan's international collaborators are CEMAGREF (France); CSIRO (Australia); Institute for Aerospace Studies - ITC (Netherlands); Institute of Development Anthropology (USA); Swiss Federal Institute of Technology (Switzerland); Wageningen Agricultural University (Netherlands).

Current research issues in IIMI Pakistan are:

- Performance of Irrigation Systems (studied in Chistian Sub-Division and Hasilpur, Punjab)
- Performance of Water Basins (land use mapping of Canal Commands Areas of Sindh)
- Decision Support Systems for Irrigation Management (in Punjab and Sindh)
- Salinity and Groundwater (regional studies in Rechna Doab, Sindh)
- Irrigation Practices
  (Punjab, Quetta -basin irrigation, shallow corrugations, ridge and furrow; bed and furrow)
- Water Allocation for Canal Commands (across Indus Basin)
- Water Resource Institutions
- Gender, Poverty and Water
- Health and Irrigation
- Multiple Uses of Water

SAP detailed further the research on performance of irrigation systems in Chistian and Hasilpur, southeastern Punjab, and on performance of water basins (land use mapping of Canal Command Areas in Sindh; crop identification in Hakra 3R; and temporal and spatial variation mapping of relative water availability through remote sensing). He said that the Water Allocation studies aim to evaluate current water allocation rules and practices including impacts, and determine water allocation rules to maximize agricultural production and

minimize environmental degradation at canal command areas. Salinity and groundwater regional studies in Rechna Doab and Sindh seek to identify inexpensive and locally applicable salinity and watertable control techniques. Such techniques might include: accelerating discharge to lower the water table; soil slotting to reclaim sodic soils; deficit irrigation to minimize drainage; mechanical cultivation to reclaim saline soils.

IIMI's work on water resources institutions has included organization of farmers at the secondary level in Left Bank Outfall Drain (LBOD) Stage 1 area in Sindh; in Fordwah Eastern Sadiqia System (FESS) in Punjab, and in Small Dams Area outside Rawalpindi. A Water Users' Federation has been formed at Hakra 4-R in FESS.

Gender, Poverty and Water program is now under design. Previous work in the area included a 1992 study by Kanchen Basnet on women and agriculture in Punjab, a 364-household gender-disaggregated survey in Multiple Uses of Water in 1997; and field research by 2 students from Punjab University on Women's Role in Decision-making in Irrigated Agriculture and Health. IIMI is currently formulating a 5-year program entitled 'Gender Poverty and Water ' comprising research, capacity-building and institutional development components (the subject of this workshop).

Health and Irrigation work includes follow-up to the Multiple Uses study by examining the relation between water quality and vector-born diseases. This program includes periodic health surveys at selected households in Hakra 6R. Quality of drinking water is being sampled and analyzed for biological and inorganic contents. Health camps are also planned.

Valuation of Multiple Uses of Irrigation Water study planned which will document significant economic financial and health benefits of irrigation canal water when used for domestic, industrial and livestock needs, using previous data set.

Current donors to IIMI Pakistan are: Asian Development Bank; Australian Council for International Agricultural Research; Government of France; Government of the Netherlands; Government of Pakistan; Department for International Development (UK); Republic of China; Swiss Development Corporation; World Bank; IIMI Unrestricted Core Funds.

SESSION 2 10:00-10:45 a.m.

Review of Themes in IIMI Global Program on Gender and Water (Dr. Barbara Van Koppen)

Dr. Barbara Van Koppen (BVK) began her presentation by presenting the three objectives of IIMI's Global Program on Gender and Water as:

i. increasing recognition and understanding of the linkages between gender (in-)equality and water management and increase capacity to identify and address those linkages;
ii. establishing the legitimacy of women's claims to water and irrigation services at all levels of policy and practice;
iii. developing a strong international research and action network on gender analysis in water management.

She then began to deconstruct the myth of the 'universal user' of irrigation water, usually assumed by planners to be male and to fully represent the needs and interests of all household members. She recounted the negative impact that such assumptions had had on new irrigation construction projects accompanied by land reform and reallocation (e.g. in Kenya 1973; and in Sri Lanka, Gambia, Burkina Faso). In these instances, women whose land rights and right to cultivate were previously well accepted in the community now lost their land rights through land redistribution to male household heads and thus were less motivated to work for agricultural production. Thus both equity (land rights) and efficiency (increased agricultural production) goals were subverted.

BVK stated a research hypothesis to be: 'Women in Pakistan have their own needs for irrigated land and water'. Related questions are:

- If women need water, how do they get access to water? And further,
- If women need more (..) water, how can their access to water be improved?

She stated that conclusions from previous research in Pakistan and other countries are that women are agricultural producers in both male- and female-headed households (e.g. Basnet 1992) from which we could see women having their own needs for irrigated land and water (though this remains a hypothesis to be tested through proposed IIMI research in Pakistan). She further hypothesized that women's access to irrigated land and water in Pakistan is limited compared to men's. BVK emphasized that the targeting approach that an irrigation agency takes in its projects, and the assumptions it uses, determine how gender-positive the impacts will be. She gave positive examples of projects which had beneficial outcomes for women as the Dakiri project in Burkina Faso; PATA in Pakistan and Grameen Krishi Foundation in Bangladesh. This depends on the commitment to involve both women and men from the beginning of the project.

She emphasized that in conditions of water scarcity, rights to water become highly developed. Rights (rules governing access) come in a variety of forms such as local, statutory, religious, formal legal. Having rights and realizing rights (being able to put them into practice) are two different things, and depend on the local and extra-local institutional arrangements. Rights are linked with investments and payments for infrastructure, criteria for membership in water users' associations. For example, one project barred women and men over age 60 from participating in construction though they wanted to, thus they lost their water rights.

She stated that Anne Kuriakose would discuss gender and multiple uses of water further.

With regard to gender and poverty, BVK again reminded the audience that there is no universal water user, but that access to water is constrained by poverty and social exclusion factors such as ethnicity and caste. In order to link water management to equitable development goals, rights to irrigated land and water must be vested in poor men and women. Thus the proposed research would also examine poor men's access to irrigated land and water and examine such institutional relationships as tenancy and lease-holding.

Some comments to BVK's presentation were made by members of the audience. Tarique Niazi from PARC stated that women's work is not recognized and valued in Pakistan; there are structural and super-structural barriers. He said that women's work should not be the 'subsidy' to agricultural production that it now is (agricultural wages should be considered).

Ghaffer Chaudhury from PIDE asked the group whether women currently have right of equal access to water, as the government policy stipulates (according to Beijing World Conference on Women guidelines of equal access to resources). Khawar Mumtaz from Shirkat Gah reiterated that the issue regarding inheritance of land is what women actually receive in practice. Having rights and realizing them are two different things.

Corrine Wacker from University of Zurich commented that the issue of water as a threat (e.g. in flooding) had not been raised. She stated that women are sometimes more vulnerable in such cases.

Tea/ Coffee break 10:45 – 11:00 a.m.

SESSION 3 11:00 - 11:30 a.m.

Introduction to IIMI Pakistan Gender, Poverty and Water program (Anne T. Kurlakose)

Anne T. Kurlakose (ATK) started her presentation with a discussion of Multiple Uses and Users of Irrigation Water, saying that irrigation water was used for agricultural and non-agricultural purpose. Various users have to negotiate access to water through both cooperation and conflict/ competition.

The existing conceptual framework around water policy and management leads to operational assumptions which prioritize certain uses over others. She noted the false dichotomy between what is called the 'Domestic' use of water (for drinking, bathing, cooking, washing) and the 'Productive' use of water (for irrigated agriculture, and industry). She said that actually both contribute to the livelihood and well-being of family members, and thus 'domestic' used can be economically valued as contributing to health/ income-earning potential of family laborers, saving on expenditures of medicine and sometime even be income-generating where women do home-based food processing, small scale industry craftwork at home for sale, or water livestock at the homestead - all recognized as 'Productive' activities.

ATK stated that water as a resource flows across many divides: i.' across the agency/ operational divide (departments of agriculture; irrigation; public health); ii. across the social (community) level versus hydrological boundaries (as IWASRI for example found in trying to work socially around hydrological boundaries); iii. and within the household, with variations in water needs and responsibilities according to gender.

She said that both men and women are users of water for agricultural and non-agricultural purposes and yet most water organizations are either for irrigation purposes (often male members) or for water and sanitation purposes (often female members).

ATK introduced the difference between endowments and entitlements. An individual may have access to an asset (endowment) such as cow, land or own labor but may not retain control over its use, sale, or disposal. This is parallel to the previous discussion on having rights versus realizing rights. This all takes place within the realm of overt/ covert social contestation and negotiation for legitimacy.

Further, ATK raised another point from the gender and irrigation literature which is that of equity: where in the irrigation sector, equity has traditionally been defined as a spatial issue (head-enders versus tail-enders) and not in class or gender terms (such as socio-economic stratification and variation in landholdings which affect levels of benefits any household can gain from irrigation, and also the multiple use scenario which is highly gendered).

ATK then began formal presentation of the proposed IIMI program on Gender, Poverty and Water. She stated that this was conceived as part of an overall program for IIMI Pakistan (in Punjab, Baluchistan and NWFP): the other components being: Water Resources Management; Water Quality, Drainage and Health; and Institutional Support.

ATK presented the Goal and Objectives of the Gender, Poverty and Water program as follows:

Goal:
To gain understanding of women's role in irrigated agriculture and water management, with the aim of improving institutional capacity to identify and respond to women's needs and priorities regarding water as a resource

Objectives:

1. To improve the state of knowledge on rural women's roles and responsibilities in irrigated agriculture and water management in Pakistan and social/ institutional constraints and opportunities for women's claims to water as a resource for multiple uses

2. To communicate research results to policymakers, water service providers, research institutes, NGOs and others, and to build the capacity of government agency staff and national collaborators to use gender and social analysis in water sector program and policy design

3. To develop field-tested strategies for gender-positive social organization around water management, with focus on poorer households, using an action research mode to enhance knowledge, skills, and status of rural women

ATK then presented the three components of the program: I. Research; II. Capacity-Building/ Learning and Dissemination; and III. Social Organization. Institutional Development.

The Research component would include research on: i. 'Women's Participation in Irrigated Agriculture in Punjab, Baluchistan and NWFP' and ii. 'Review of Policy and Projects in Pakistan focused on Women or with Women's Components (Agriculture, Irrigation, Water and Sanitation), as well as iii. research collaboration with other IIMI units on Multiple Uses of Water studies. Further, she stated that the Global Gender Coordinator would be doing research reviewing global experience with rural water users' associations (to see whether any organizations exist which combine agricultural and non-agricultural water management functions) and that this research would be fed into the Pakistan program.

The Capacity-Building and Dissemination component comprised: i. training of IIMI Pakistan staff and collaborators in gender analysis tools and participatory research and organizing; ii. training of Government agency staff of irrigation, agriculture, public health and engineering departments in sector-specific gender analysis, based on case study modules prepared from IIMI research results; iii. development of Pakistan network of GO and NGO professionals and institutions working on gender and water management and dissemination of IIMI programs results via email newsgroups, newsletter, and mid-term national conference; iv. International dissemination of IIMI gender program learnings (international conferences at end of project).

The Social Organization/ Institutional Development component was third. It would be participatory action research around women's water needs and priorities (including situation analysis of other project and institutional interventions in the area including water supply schemes with committees); rapport building with men and women around these questions, and identifying whether need exists for formally organizing women. Where IIMI-supported or other water users organizations exist, organizational possibilities for mixed groups, or for formal collaboration between men's and women's groups will be explored. Also, she noted the potential links with the Health and Environment group on inputs such as health education.

In closing, ATK reiterated that the program would place particular emphasis on women's use of water for both agricultural and non-agricultural purposes (instead of a sole focus on 'domestic' uses of water).

Comments from the group on ATK's presentation were as follows.

Khawar Mumtaz said that we needed to be clear on whether this program would be a women's program or a gender program. She said that the role and needs of both men and women need to be clearly understood. Noreen Khan from UNDP agreed and said that while she realized we know more about men's role already, still should we focus only on women or on both gender so that we learn the gendered dynamics of water management.

ATK stated that the program would be studying poor men's access to water, as dynamics of negotiation for poor men class-wise may have similar processes as women have with men gender-wise in negotiations for access.

Another participant stated that you could not improve institutional capacity without a favorable policy and thus advocacy is required.

Khawar Mumtaz raised the concern that the poverty element was under-elaborated in the proposal. Also, she wanted to know the actual strategy planned for working at grassroots level for the organization of women.

SESSION 4 11:30 a.m. - 12:30 p.m.

Group Review of Goal and Objectives of Gender Program (BVK and ATK)

Anne and Barbara facilitated a feedback session where the goal and objectives of the proposed gender program at IIMI were reviewed.

Goal:

The goal was discussed at length and finally deemed to be quite comprehensive. On the goal, the following comments were offered:

- 'Women's role' could be replaced with something such as 'gender and class dynamics'
- 'Rain-fed and irrigated agriculture' would be more comprehensive (and reflect Balochistan)
- Role of women in management of formal water organizations could be an aim
- Advocacy and capacity-building aim should be reflected in goal to show that IIMI wants to feed research into policy level

On the last point, there was a discussion between Nadia Loan and Khawar Mumtaz as to whether the research was simply a means to the end of advocacy, improved institutions, capacity-building or whether the research was also an end in itself (contributing to state of knowledge).

It was agreed that more needed to be done on the conceptualization of poverty in this program.

Objectives:

Regarding the objectives, there was a question as to whether objective 3 (field-testing social organization strategies) should come before objective 2 of dissemination, advocacy and capacity-building. Many in the group thought work on objective 2 must start right from the beginning, whereas number 3 depended on research findings (thus the order was temporal).

Objective 1:

Mehreen Hosain stated that the Uniform Policy of GoP now requires that all domestic water supply projects must have community participation in implementation. The women's committees in practice, however, still play a limited role, i.e. they receive health and hygiene training, while management is done by the men's committees. As many of these schemes will now be turned over to communities ('dumped'), for operation and maintenance, the effect of such handover on women must be monitored.

Objective 2:

It was emphasized that a capacity-building and advocacy strategy must be developed by the program in the beginning. Targets for capacity-building must be identified.

There was a question by Amtul Hadi Fozia for instance of whether capacity-building would be targeted only to government or also with NGOs and CBOs, such as grassroots capacity-building around legal rights to land and water, information sharing on these issues.

The group agreed that the research work must feed into policy in order for it to have an impact. At each step, advocacy is important, as well as capacity building of the GOs. Linkages among objectives/ outputs (research/ social organization/ capacity-building - advocacy - network-development- training) are important.

One person said results should also be fed to donors for greater uptake, as IIMI's efforts were only limited to piloting.

Najia Ali Hyder stressed the importance of targeting government projects and mainstream line agencies in dissemination and capacity-building. Up to now, when donor projects (with limited life spans) end, the learnings from donor projects are not incorporated easily into line agencies as the agencies do not have the development budget and financial resources for this work. Also donor projects comprise contract/ seconded staff whereas the

government projects have permanent staff who may be a greater investment in the future for capacity-building. She noted that the IIMI program should aim to feed into policy (Five Year and Annual Plans et cetera) on women in irrigated agriculture and water management, as well as into operational work and program development. Most donor projects offer limited space for redress of issues once the project has already been designed, though it can be done at mid-term review. Working with Beijing Follow-Up Unit and line agencies could offer a structured route in to the government operations.

Participants stressed that network development on gender and water management must be a priority of the program from the beginning.

Participants noted that some NGOs and projects in NWFP and Balochistan were working on women in irrigated agriculture but that coordination was weak.

One person noted that gender sensitization needs to be created. The female social mobilization staff is marginalized in the government agencies. In response to a query by Dr. Prathapar, Mehreen Hosain offered examples of gender mainstreaming work in Pakistan and training initiatives. These included DFID's work with the police forces on gender sensitization; CIDA's work in the oil and gas sector; Punjab education department; UNDP's efforts towards recruitment of female field assistants in agricultural extension. Dr. Waqar noted that PARC has a Women and Development cell but it is now not functioning.

Mushtaq Khan said that the departments who have a stake in this work were not represented in today's meeting. All agreed on the importance of working with the appropriate agencies right from the start.

Objective 3:

Amtul Hadi Fozia emphasized that awareness creation and capacity building among grassroots women re their land and water rights is also required.

Dr. Cheema said that the legal framework for proposed (women's) organizations would be important to consider (given IIMI experience with registration of farmers' organizations).

Another person said that the social organization work should be viewed as research which can highlight issues for replication, and said that women elsewhere have found that having their own groups works best, as long as the organizational link with male groups is maintained.

Nadia Loan noted that given that the first year of research is diagnostic, to see if there is a need for integrating women in organizational structures around water management, it may be discovered that organization is not required and then work on objective three would not start.

Lunch 12:30 - 1:30

SESSION 5 1:30 - 2:00 p.m.

Women's Participation and Decision-making in Irrigated Agriculture and Health in Hakra Distributary, Southern Punjab (Zeenath Khalid and Maroona Arshad, M.A. students, Punjab University)

The students presented their preliminary results from a study entitled, 'Women's Decision-Making in Irrigated Agriculture and Health'. The objectives of the study were to investigate the role of women in irrigation and agriculture; the role of women in health-related issues and the potential for women's integration in water management.

Zeenath Khalid (ZK) outlined the methodology of study area selection, saying that 1-R Minor in Hakra 4-R Distributary (southeastern Punjab) had been chosen because it had a Water Users Organization and because it

was though to represent rural southeastern Punjab. In order to preserve spatial representation from the entire sub-system, one watercourse from the first three was randomly selected, and then each third element systematically. To select the sample, two small and one medium farm household was selected from each water course (small farm defined as less than 12.5 acre holding and medium-farm as greater than 12.5 acres). The households were selected from the warabandi lists (irrigation rosters). Semi-structured interviews were held with the senior women in the houses.

Preliminary findings confirmed women's participation in household reproductive activities (meal preparation, house cleaning, clothes washing, childcare, milk processing, praying). To meet financial needs of the household, women rear chicks and sell eggs for Rs 3 per egg, raise goats worth Rs 900 each and make ghee which they can sell for Rs 125 per kg.

There is a clear task division for men and women within the household. Women are the main decision-makers on food and clothing expenditures, and maintain social relations by visiting neighbors and relatives. Women and men jointly take decisions on children's education, marriage and health. Men usually take decisions alone on type of occupation to enter, investment, home repairs and purchase of livestock.

Women's main activities in agriculture are: seed preparation (cotton, wheat, mustard, onion); hoeing and weeding of the vegetable plot (10-20 marla) in the fields; cotton and vegetable harvesting; fodder collection; livestock care (if animals are at the homestead compound); crop storage (wheat, chilies, garlic, onions); preparation of gurballs during sugarcane harvest. Agricultural tasks in which women do not participate are: seed bed preparation; ploughing; irrigating and pesticide spraying, though some women have knowledge of these areas from observing their husbands.

The study also investigated women's perceptions about the Water Users Organizations (WUOs) which IIMI helped to form in 1995 for farmers' participation in irrigation management. It was found that women are currently not participating in the WUOs in any way and they do not want to be involved with what they see as a male activity (irrigation). Women's knowledge about the WUO is very limited (husbands and wives are not discussing it). Some women said that the WUO was responsible to clean the water course, line the watercourse, and resolve water disputes. Nearly all women knew that they legally can be accepted as landowners.

Maroona Arshad presented the health component of the study which looked at women's problems and perceptions related to domestic water and health. She found that most of the households did not use canal water for drinking purposes, and that many women adopt precautionary measures with drinking water such as cloth filtration or use of alum salt, though no household boiled water for drinking. Households that relied completely on the canal-water (from village water tank - dighee) would fetch water from neighbors when the tank was dry. Women perceived the groundwater quality to be poor (brackish), and said they were frequently short of water for agricultural and sometimes for domestic purposes. Women said they were willing to pay for improved water supply but that the decision ultimately rested with men. Women take decisions related to which source of water to use for which purpose: e.g. groundwater for drinking and canal water for cooking, cleaning, bathing and washing.

Wastewater disposal is a major problem for almost all households. Women believed the poor water quality caused diarrhea, indigestion, dysentery, kidney stones. The canal water in the dighee is exposed to local (soap, leaves, dead birds and shoes) and remote sources of contamination (silt and occasionally dead bodies of animals)and thus causes disease, the women said. Women said lack of proper sewage causes malaria and other diseases. 32 of 33 women had delivered their children at home. They felt family size was determined by God, though realized many pregnancies affected their health. Women said they were willing to pay for better medical facilities such as a dispensary, and a maternity clinic with a female doctor. Women said they were able to take decisions and carry through on them regarding when and where to take sick family members for treatment, and did not believe there was gender discrimination between male and female children regarding treatment sought.

The presentation ended with the conclusion that women interviewed believed an all women's organization could be formed around waste disposal, health issues, dighee maintenance/ water supply and that they would participate but that men needed to be taken into confidence and an external catalyst was needed.

The students' presentation prompted several questions. Najia Ali Hyder asked whether they had asked women why they did not feel the need to irrigate. The students replied that women had said it was against social norms and that the disputes which arise around irrigation are seen as dangerous for women.

Workshop participants were surprised that the dry dighee as a result of canal closure (at Water Users' Federation's request) happens, and through discussion realized that this is a direct example of the conflicts among uses and users of irrigation water (for drinking water versus irrigation purposes). WAJ stated that the official canal closure period was 21 days but this could go up to 40 days in practice.

Barbara Van Koppen stated that in Kanchen Basnet's study, 9% of the women in her sample performed irrigation tasks (application of water etc) directly. She contrasted this with the results from this study

SESSION 6 2:00 - 2:30 p.m.

Multiple Use of Irrigation Water study and Follow-Up (Dr. Waqar A. Jehangir, Economist, IIMI Pakistan)

Dr. Waqar A. Jehangir (WAJ) introduced the Multiple Use study and its 6 objectives :

- To document the different uses and users of irrigation water in the study area
- To identify sources of water for various non-agricultural uses in the study area
- To document users' perceptions of quality of water for non-agricultural uses
- To document issues related to acquiring water in the study area
- To report the incidence of waterborne diseases and their impacts on human and livestock health in the study area
- To study the relationship between different age groups and the prevalence of waterborne diseases

WAJ stated that the study had been conducted in Hakra 6-R Distributary in FESS, Southeastern Punjab, using stratified multistage random sampling and two pre-testings of questionnaire. 6-R is a very large distributary covering 52,000 hectares and 94 villages. The questionnaire was administered to 364 households from 24 villages (head, middle and tail reaches), interviewing both male and female senior heads. He showed the layout of a surface water treatment plant (with sedimentation tank, slow sand filter, clear water well, pump house with pumping machinery and distribution system) and contracted that with the very basic village water tank which receives its water directly from the irrigation watercourse untreated.

WAJ presented findings on canal water allocation along the 6-R Distributary, showing how population size and water allocation were not correlated in Department decisions. He outlined the various sources of water used for different purposes in the households, quantities of water consumed daily and reasons for preference of a certain source (perceived quality, ease of access, reliability). He reviewed findings related to waterborne diseases in the sample and cases registered in the hospital (admitting a mismatch between figures due to persons not seeking treatment, and in case of malaria, under-reporting by officials). WAJ gave figures related to treatment of water by households (cloth filtration was common) and problems around wastewater disposal. He showed women to be more concerned than men about quality of water sources, and particular divergence on quality of water pump water which many men believed adequate but on which women had doubts. Further, women were more willing than men to pay for improved water supply.

Current and future follow-up studies to the Multiple Use Study include Water Quality Monitoring study and Impact of Irrigation on Human Health already underway, as well as Pesticide Poisoning study, and research on economic valuation of non-agricultural uses of irrigation water.

SESSION 7 2:30 -2:40 p.m.

Introduction to Groupwork (Anne T. Kuriakose)

ATK then introduced the groupwork session and questions, and participants' names for each group.

SESSION 8 2:40 - 3:45 p.m.
Groupwork (with tea served in meeting rooms)

SESSION 9 3:45 - 4:45 p.m.
Presentations on Group Work (Group representatives)

[Questions on which Groups presented are reproduced below, along with their responses].

Group I: ADDING VALUE': INVENTORY AND GAPS

Presented by: Najia Ali Hyder

(Questions posed for groupwork)

1. *What are the government policies and implementation projects in Pakistan on gender and irrigated agriculture, gender and irrigation, and on gender and water supply and sanitation in rural areas?*
2. *What is the work of the Ministry of Women Development (federal and provincial) and Beijing Follow-Up Unit and Gender Core Groups (related to agriculture and water).*
3. *What research institutes have been working in these areas recently?*
4. *Which NGOs in Pakistan are currently active on gender and irrigated agriculture, gender and irrigation, and on gender and water supply and sanitation in rural areas?*
5. *What are the main gaps in the issues addressed in these respective organizations/ institutes/ government?*
6. *How are the relations between water supply and irrigation addressed, and how could that be improved?*
7. *Where can IIMI 'add value' to what has been mentioned above, distinguishing irrigated agriculture, irrigation, water supply and drainage, and the relations?*

1. Government policies are contained in the Ninth Five Year Plan which the MoWD has been reviewing. Also, IUCN as part of CIDA -funded Pakistan Environment Program (PEP) has assisted in strategy development for NWFP (SPCS) and Baluchistan (BCS) as well as a Water Paper for the province which build on the National Conservation Strategy. Partners in PEP (which focuses on institutional development to address environmental issues) are SDPI, IUCN, NCS Unit of Ministry of environment and Environment Section of the Planning Commission. The SPCS unit is housed in the Planning and Development Department. The Social Action Program (SAP) II implemented by the World Bank and GoP has a poverty alleviation objective, working in the area of water supply and sanitation, among others. SAP II adheres to the Uniform Policy which requires community participation in development schemes. Baluchistan (BCIAP) project has been running for some time to integrate gender concerns in agricultural and irrigation development. In the

Northern Areas under NADP, IFAD, UNDP and GoP are funding a program which has a focus on irrigation and agriculture. The World Bank and GoP are also working on the National Drainage Program. Gender sensitization work has been undertaken by IUCN and SDPI (funded by CIDA). Also the NCS Unit is placed in the Environment section of the Planning Commission. IUCN and SDPI are also PEP partners. Also, DFID has conducted a Pakistan Poverty Assessment (1998).

2. Ministry of Women Development (MoWD), particularly Dr. Sabeeha Hafeez, has worked with Federal Bureau of Statistics to define 'labor' and women's participation in the laborforce. The result was that the percentage of female laborforce participation in Pakistan increased by approximately 15%. MoWD has also lobbied the agencies regarding consideration of women's work in livestock, fisheries and water sectors. Agriculture and irrigation (taken together) however have not been seriously addressed yet by the government with regard to women's participation. The National Plan of Action (NPA), following on from the 1994 Beijing Conference, outlines priority actions across the sectors. Core Groups for the NPA at Federal and Provincial level include line agency representatives. For example, Federal Core Group includes a representative from the Ministry of Agriculture, as do some provincial Core Groups. WAPDA is also participating. Sector-specific gender guidelines have also been produced for those preparing PC-1 project documents. The MoWD has also given feedback to the Planning and Development department and individual Ministries on making 9th Five Year Plans more gender-specific. MoWD works with provincial WID advisors in the Planning departments in Balochistan (IMPLAN project) and NWFP (Zarmina Imdad).

3. Research institutes working in these sectors may include Sustainable Development Policy Institute (SDPI) and the Agricultural Universities though IIMI Pakistan may have more detailed information regarding research institute activity around gender and irrigated agriculture. Also PIEDAR (Islamabad) headed by Ayub Qutub. Farzana Bari is working at the Women's Studies Center at Quaid-e-Azam University.

4. NGOs working in this field include: Oxfam; Shirkat Gah; Sungi Development Foundation (NWFP); PATA. SPO (Suleiman Sheikh), Pattan (in Mardan), IUCN. Oxfam has a soil and water management project in Sindh and is working on irrigation and water through women's groups. IUCN has documented work on Rahuki Canal, including effect on population and out-migration, and the rehabilitation work done on the canal by community groups. Sungi and SDPI have researched Ghazi Baroda and Kalabagh dams and tried to integrate gender training in advocacy work around these resettlement issues.

5. Overall gaps are that most gender initiatives in the country are focused on social sectors (education, health, water and sanitation in isolation). No institute or agency has systematically examined gender issues in irrigated agriculture. Also the agencies working are not fully linked up, there is no collaborative platform (provincial gender networks exists but these again are focused more on human rights issues, gender training) rather than on the issues on which IIMI is proposing to work. IIMI could serve as that platform, a resource in the country for gender and water. The networking role is crucial and must start from the beginning of the project. Also, IIMI's research should reflect needs of organizations/ government working in these subjects (systematic needs assessment of informational requirements within the country should be done so that IIMI' s research works in demand rather than supply mode) .

6. Dissemination is a crucial task in the program. This should take place at different levels: at level of 5-Year Plan; for annual Ministry policies and budgeting (e.g. Ministry of Agriculture); for interventions at NGO level -how they can better integrate the technical aspects with social mobilization. Information needs should be researched in advance with all stakeholders before initiating research design so that research is demand, rather than supply-driven. To work within the government training system, IIMI would have to collaborate with National Institute of Public Administration (NIPA) Lahore which is the training institute for all officers above a certain grade. For extension-level government workers, coordination should be sought with the Peshawar Academy for Rural Development.

   Capacity-building strategy should be carefully worked out (including components of networking, dissemination and training with specific target groups). Regarding networking, the decisions has to be taken whether to set up a new network on gender and water management, or whether to try to infuse water management issues within existing gender networks (which are currently more focused on human rights/ social analysis). There are existing gender networks at provincial, though not national, level. In Sindh, there

is a Support Institutions Development Network for the National Drainage Program (NDP) and PIDA development.

GROUP II: GENDER, POVERTY AND WATER

Presenter: Muhammed Naeem

(Questions posed for groupwork)

1. *What is the actual and potential contribution of the irrigation sector to poverty alleviation? Working hypothesis: 'the water sector contributes optimally to poverty alleviation by providing access to irrigated land and water primarily to poor men and women'.*
2. *What are the current poverty issues in irrigation for poor men?*
3. *What are the current poverty issues in irrigation for poor women?*

1. Water sector development is for exploitation of water resources through infrastructure. The working hypothesis stated above needs to be tested but overall for a meaningful answer we need to address: development; management of water; technological improvement; institutional coordination/ framework/ integration.

2. Definition of 'poverty' needs to include subjective indicators, people's own experience of poverty (its relational aspect); area-specific references and methodologies for measurement need to be tested. It was suggested that a sector-specific poverty debate ('water-poor') was needed.

3. For a poverty approach, both women and men must be targeted. Poverty issues exist in the country: employment; access to water(in right quantity, quality); access to water for landless; rent seeking around surface water occurs; health; education, awareness building is important; advocacy work is crucial; turnover of implementation responsibilities (policy change) needed; appropriate technology required ; understanding of community participation (actual versus potential levels).

Comments on group 2's presentation included a debate about the definition of poverty. Tarique Niazi said that poverty has already been defined, especially the World Bank has done a lot of research and writing on this issue, Objective indicators have been defined,. Other participants including representatives from Balochistan said that poverty is relative, and province and area-specific, (as well as country-specific), minimum land required for agricultural production to sustain livelihoods varies across different zones (such as hilly versus plains areas/ rainfed versus irrigated).

Group III: SOCIAL ORGANIZATION/ INSTITUTIONAL DEVELOPMENT

Presented by: Amtul Hadi Fozia

1. *What is your assessment of appropriate mechanisms for organizing rural women in women-specific domains, and in water supply and sanitation?*

2. *What is your assessment of appropriate mechanisms for building linkages between women and men's organizations, especially irrigation water users associations at local and higher levels? (Mixed-sex parallel, representation, formal/ informal, et cetera?)*

3. *What are the required steps in this process of women's integration in existing male organizations and in newly created male organizations? What are common pitfalls?*

4. *What is the respective role of research and social organization in each of these steps?*

1. Social organization steps are as follows: needs assessment; need for WO , need for facilities. Create awareness around social organization issues, take the men into confidence. Use a participatory approach which includes all users. Select village catalysts (men and women of that village). Build capacity through financial management, organizational and technical training. Monitor and evaluate.

2. Decisions must be taken by both men's and women 's organizations so that there is a consensus, on mutual representation. At primary level organizations, female representation should be there, and at higher levels as required.

Comments on presentation by group:

- The relationship between participatory monitoring, action research through capacity-building was again discussed. Mehreen Hosain differentiated process documentation (by project) from participatory monitoring (by clients themselves).

- Also, the participants noted that Group III had delineated the steps of a social mobilization process, but not commented on which types of organizations/ agencies were best suited to organize at the grassroots level, who had comparative advantage in this type of activity. Who should be the external catalyst? What should IIMI's role in social organization be? Can other agencies active in the site areas be identified? (i.e. the importance of using agencies/ organizations already active in the area if any).

Group IV: RESEARCH PROGRAM

Presented by: Dr. S.A. Prathapar

The research will study

1a. Poor women' s role in irrigated agriculture and their water needs

1b. Gendered access to irrigation water:
-direct/indirect; -formal/informal; -individual/ institutional level

2a. Poor women's and men's other water uses (livestock, crafts; drinking water, bathing, washing, cooking, etc)

2b. Gendered access to water for these uses
-direct/indirect; -formal/informal; -individual/ institutional level

[On this basis, experiments on women's participation in water users' organizations will be initiated].

Questions:

1. *Are these research issues relevant and complete?*
2. *Which working hypotheses would you propose?*

The group presented its discussion on the proposed research. They agreed that research on women's role in irrigated agriculture and gendered water needs was required and concluded that one hypothesis could be that gender issues in water management vary demographically and geographically. They thought that 'feminization of agriculture' might be occurring but one needed to test it empirically.

Group members could not agree on what was meant by the terms 'poor' and 'poorer', though they agreed that women in general were the poorer of the poor.

The individual/ institutional levels were not clear to the group.

SESSION 10 4:45 - 5:00 p.m.

CONCLUSION (ATK, BVK, SAP)

After the Group Presentations, the Workshop came to its Conclusion. Anne T. Kuriakose said that many insights had been gained through discussions. She noted particularly that the group had strongly suggested that the IIMI Gender program: i. undertake advocacy at different levels; ii. draw up capacity-building and advocacy strategies; iii. clarify the approach to poverty within the program; iv. undertake an inventory of information needs from many actors around the country particularly government during study design so that the research is demand-driven and fits into a national context; v. act as a national resource center on gender and water management. Anne thanked all those involved in preparation and especially the workshop participants for their enthusiastic participation and valuable comments on the proposed Gender, Poverty and Water program of IIMI Pakistan. Barbara Van Koppen also thanked all for coming and said she was looking forward to continued collaboration. Dr. Prathapar thanked all guests and speakers and Anne T. Kuriakose for arranging the workshop.

Annexure 1 Schedule

INTERNATIONAL IRRIGATION MANAGEMENT INSTITUTE (IIMI) PAKISTAN CONSULTATIVE WORKSHOP on GENDER, POVERTY AND WATER PROGRAM

18 May 1998

SCHEDULE :

9:00 – 9:05	Recitation from Holy Quran
9:05 – 9:20	Introductions
9:20 – 9:40	Welcome and Overview of IIMI Pakistan - Current Research (Dr. S. A. Prathapar, Research Coordinator, IIMI Pakistan)
9:40 – 10:15	Review of Themes in IIMI Global Program on Gender and Water (1993-1998) (Dr. Barbara Van Koppen, Wageningen University, Netherlands)
10:15 – 10:30	**Tea/ Coffee break**
10:30 - 10:50	Introduction to Proposal for IIMI Pakistan Gender, Poverty and Water program (Anne T. Kuriakose)
10:50 – 11:20	Group Review of Goal and Objectives of Gender Program (Dr. Barbara Van Koppen and Anne T. Kuriakose)
11:20 – 11:30	Introduction to Group Work on Program Elements (Anne T. Kuriakose)
11:30 – 12:30	Group Work (Participants)
12:30 – 1:30	**Lunch**
1:30 – 2:00	Women's Participation and Decision-making in Irrigated Agriculture and Health in Hakra 4-R Distributary, Southern Punjab (Zeenath Khalid and Maroona Arshad, M.A. students, Punjab University)
2:00 – 2:45	Multiple Use of Irrigation Water study and Follow-Up (Dr. Waqar A. Jehangir, Economist, IIMI Pakistan)
2:45 - 3:00	**Tea/ coffee break**
3:00 – 4:00	Presentations on Group Work (Group representatives)
4:00 – 4:30	Conclusion (Anne T. Kuriakose and Dr. Barbara Van Koppen)

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