

WOMEN AND WATER
ISSUES
OF
ENTITLEMENTS, ACCESS AND EQUITY

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By
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A. Women's Entitlement and Access to Water

i- Introduction

The poor in South Asia are concentrated in environmentally fragile ecological zones, where they face and sometimes contribute to different kinds of environmental degradation, including polluted water bodies and fast-depleting water sources¹. In this decade some serious analytical work has been done on the idea of 'entitlements', and the linkages between poverty and environment (including water)². This work shows clearly how women are consistently more disadvantaged than men, when it comes to claiming entitlements, whether they are ownership of, or access to, water (and land).

For example, across the world in less developed countries, including Pakistan, women's use of common property resources has been crucial in maintaining household water and food security, but gender disparities distort access to land and water. Existing social and cultural biases, inequitable inheritance laws and the inadequacies of legal structures further limit ownership and control by women.

While water is crucial to Pakistan, the nexus of women and water is largely seen in terms of romantic depiction. Although some attempts at addressing women's needs in domestic water management and water scale water projects have been made but these needs remain largely invisible in the agenda of water institutions and are not much in the picture in terms of water policies, strategies, programs and conservation initiatives.

As Pakistan faces a bleak future in terms of water availability, population growth rates and depletion and pollution of its water bodies and systems, women are not generally recognized as an especially vulnerable group in terms of impact nor as a legitimate group to engage with in the effort to ward off the impending water-related difficulties. They are not recognized as a party to the current debate in the country on dams, water distribution and competing demands. Given that the water sector is considered outside the purview of women as such, there are few women in Pakistan who have become prominent in this area as visionaries, scientists, planners, managers, technicians, researchers and professionals.

This report presents a situation analysis of women and water in Pakistan using an internationally recognized gender analysis framework, which has been adapted here as the gender and water web.

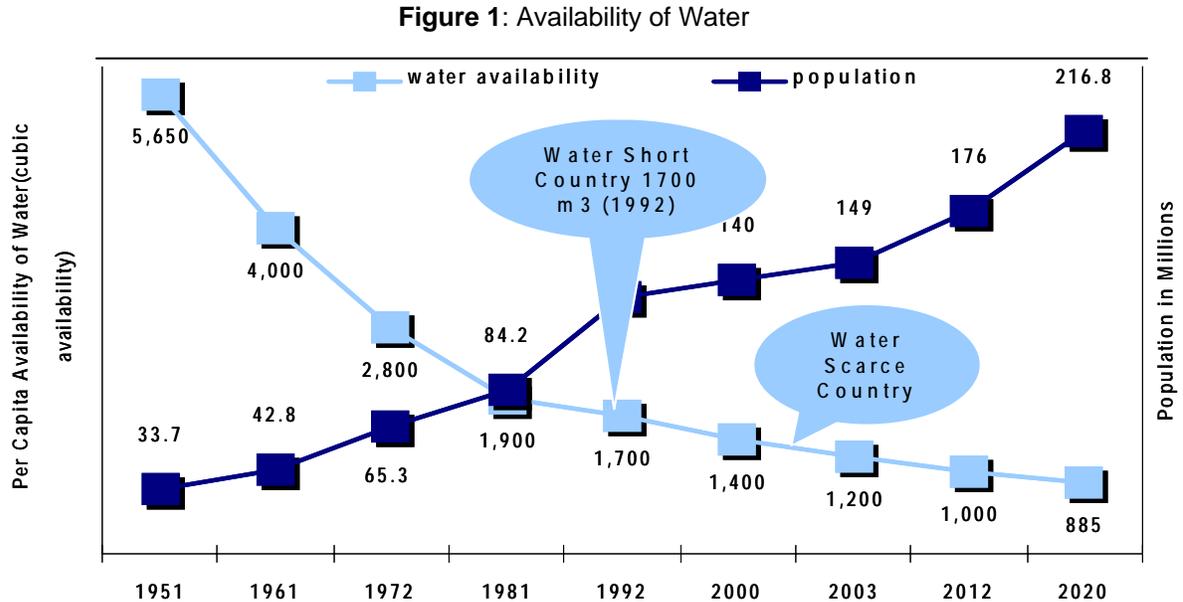
In this paper, section A provides the background in terms of the current status of water availability and water-related problems in Pakistan, and an introduction to the gender and water web. Section B provides a detailed analysis using the gender and water web and suggests what can be done to initiate gender mainstreaming, such that gaps may be reduced. Section C presents the main policy recommendations.

¹ For details see **State of the Environment in Asia and the Pacific**, UNESCAP, ADB, United Nations, 2000
² The concept of 'Entitlements' are best discussed in L Melissa & Mearns R, **Poverty and the Environment in Developing Countries: An Overview Study**, ESRC Society and Politics Group/ GECP AND ODA, 1999

ii- The Water Situation in Pakistan

Pakistan has a population of 151 million of which 49 million are below the poverty line, 54 million do not have access to safe drinking water and 76 million have no sanitation³. Pakistan is faced with the overwhelming issue of growing scarcity of water, water distribution inequalities, water pollution, the loss of ecosystems and generation of effluents.

Figure 1 below shows that Pakistan has become a water-scarce country. There are seasons during the year when the water availability is much lower than the average.



Source: "Population Stabilization, a priority for development", UNFPA/ Ministry of Population Welfare GoP (2003)

For more than a century, the Indus river system has been controlled by the construction of weirs and barrages to feed an extensive canal system that commands 34 million acres for irrigation and is the world's largest contiguous irrigation system.

Of the total disbursement of 155.33 MAF, 149.26 MAF (96 percent) is for irrigation. However, water diversion between canal heads and water courses is about $\frac{1}{4}$ and losses within water courses is $\frac{1}{3}$ of delivery⁴. Pakistan also has fresh groundwater reserves of about 24 MAF, most of it is in Punjab⁵. Thirty-eight percent of Pakistan's irrigated lands are waterlogged, 14 percent saline and groundwater is being withdrawn faster than it is recharging.

Pakistan has been engaged in a protracted debate over the provincial division of water. However, this sort of division hides the more critical problem which is the division among the various uses of water. Irrigation and agriculture uses up 97 percent of Pakistan's freshwater resources, while only four percent is left for all the other uses, including drinking water for 151 million people, supplies for municipal and industrial uses and for maintaining the river courses and the crucial freshwater interface in the coastal areas⁶.

³ Population Stabilization, A Priority for Development, UNFPA/ Ministry of Population Welfare GoP

⁴ Kamal S **Apocalypse Now** Article Published in Newline Magazine, April 2001

⁵ ibid

⁶ PWP, Pakistan Country Report Vision for Water for the 21st Century, June 1999

A major result of the way the water of the Indus river system has been used is the destruction of the Indus Delta. The historical flow of water into the Delta region was over 170 MAF per year. This quantum kept the 14 main creeks of the delta active and maintained a balance between the seawater and fresh water in the tidal zones. Today the Indus Delta receives only 0.50 to 0.70 MAF per year.

The Indus Delta, which hosts the sixth biggest mangrove forest in the world, is under serious threat and has been reduced from 0.6 million acres to 0.25 million acres. The drying up of the River Indus downstream from Kotri Barrage has permanently damaged the eco system from there onwards to the sea.

The water scenario in the urban context is not much better. Karachi, the most populated city and the largest industrial centre in Pakistan, is a typical example of the problems associated with water. It has grave scarcity of water and regularly witnesses riots in certain areas because of non-availability of water. In some parts of the city, water is even sold at Rs1,000 to Rs1,500 per tanker. This one city alone will need a new scheme of 100 MGD every five years at current population growth rates.

Table 1: Water Supply to Karachi

Total Supply	547 MGD
Line Losses	164 MGD
Net Supply	383 MGD

Source: Compiled by the author

Another problem in Pakistan's water sector that receives scant attention is the increasing pollution and depletion of freshwater bodies. The figures in Table 2 give an idea of the enormity of the problem. The total sewerage generated by Karachi alone at present is 315 MGD. Out of this only 90 MGD is being treated. The optimum designed capacity of sewerage treatment plants is 151 MGD and the shortfall in treatment is 164 MGD⁷.

Table 2: Wastewater Scenario in Pakistan

Percentage of cities (population of over 10,000) with wastewater treatment facilities	2%
In cities with treatment facilities, estimated percentage of wastewater that receives treatment	Less than 30%
Amount of wastewater used directly for irrigation	2,400,000 m ³ /day
Amount of untreated wastewater disposed of in irrigation canals	400,000 m ³ /day
Percentage of wastewater generated daily that is used in agriculture	36% (direct use – 31%, through contaminated canal water – 5%)
Percentage of wastewater generated daily that is disposed of in rivers or the Arabian sea	64%

Source: Water Policy Briefing: Confronting the realities of wastewater used in Agriculture, issue 9, IWMI, August 2003

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Kamal S et al, The Karachi Nightmare: Water, Sewerage & Sanitation Issues in a Giant Coastal City, Paper presented at Third South Asia Water Forum Dhaka, July 2004

iii- Status of Women and Pakistan's Commitments

In the Constitution of Pakistan (1973), Article 25 in the chapter on "Fundamental Rights of the Citizens" states that:

- All citizens are equal before law and are entitled to protection of law
- There shall be no discrimination on the basis of sex alone
- Nothing in this Article shall prevent the State from making any special provision for the protection of women and children

Pakistani women face many gender inequalities and some advantages in the social context, which often determine their access to water and their participation in water related debates, policy, programs and community-based initiatives.

Gender inequalities can be seen through some human and social indicators (Table 3) for men and women in Pakistan, which show that, in spite of improvements in some indicators, in comparison to men, women are still lagging behind⁸.

Table 3: Gender Indicators

	Female	Male
Literacy Rate	28.5%	53.4%
Life Expectancy at Birth	60.7%	61.0%
Mortality rate under five years	340 per 100,000 live births	-
Maternal mortality	12% higher than males	-
Gross primary enrollment	61.0%	90.0%
Percentage dropout from schools	15%	16%
Combined primary and secondary enrollment ratio	31%	43%
Labour force participation	13.7%	70.4%
Unemployment rate	17.3%	6.1%

Source: (1) Human Development Report 2004, UNDP 2004 (2) Social Development in Pakistan, Annual Review 2002-03, the State of Education, Social Policy and development Center (SPDC) (3) Economic Survey 2002-03, (4) Facts & Figures Pakistan 2002 (Ministry of Education, UNICEF), (5) National Plan of Action on Education for All (2001-201), Pakistan (Ministry of Education), (6) United Nation Development Program 1998, (7) Statement of Gender in Pakistan.

Land ownership by women has increased due to the land reforms undertaken by various governments which fixed ceilings on personal holdings of land. Studies have shown that while many women in economically better families now own land on paper, they do not exercise control⁹.

Seventy-three percent of women in rural areas are economically active, and in agricultural households, 25 percent of fulltime workers and 75 percent of part-time workers are women. A full-time worker is defined as one who does only agricultural work and thus most women fall into

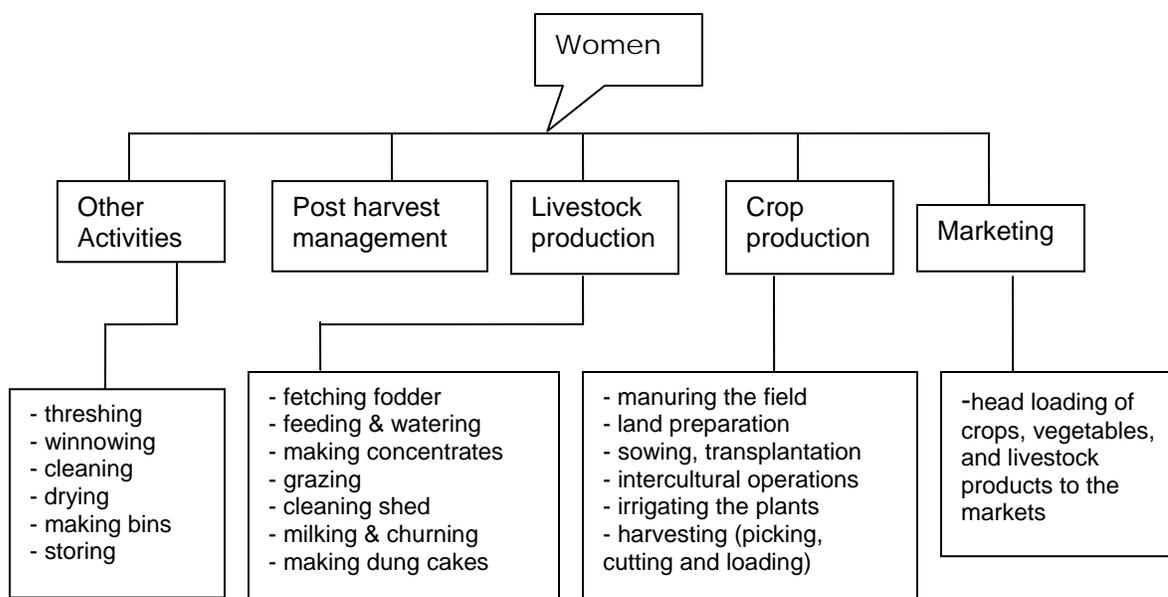
⁸ GENDER REFORM ACTION PLAN (GRAP) Vol – I, Ministry of Women Development, Social Welfare and Special Education Government of Pakistan, June, 2004

⁹ Integrated Social and Environmental Assessment for a Proposed Sindh On-Farm Water Management Project, AEWM, GOS, 2003. Section 8.

the part-time category as they do household work as well therefore, there are probably more full-time female agricultural workers than suggested by the census¹⁰.

However, women earn much lower wages than men in all types of agricultural labour, usually Rs20-30 per day, compared to Rs70-80 per day for men¹¹. Women also perform a variety of agricultural tasks (See Figure 2).

Figure 2: Major Agricultural Activities Performed by Women Farmers



Source: Integrated Social and Environmental Assessment for a proposed Sindh OnFarm Water Management Project, AEWM, GOS, 2003

Pakistan ranks 120 on the Gender-related Development Index, while its Gender Empowerment Measure is only at 0.416¹². The importance of empowering women across the board and mainstreaming women in the management and governance of water has been recognized at the global level since the 1980s. Pakistan is a signatory to the relevant declarations and commitments. Those parts of the international agreement that pertain to women and water are presented in Annex -6.

The global commitments covering water do not specifically address the issues of equitable division of power, work, access to, or ownership of, environmental entitlements (including water) between men and women. Combining the gender equity and equality commitments with water-related goals can, however, give a solid boost to gender mainstreaming in the water sector in Pakistan and ensure that the specific needs and concerns of, and impact on, men and women from different social and economic groups, are identified and addressed.

¹⁰ Kamal S, The Role of Women in the Rural Economy of Pakistan, paper presented in the seminar on FAP Vision about Sustainable Growth of the national Economy and its linkages with Rural and Agricultural Sector, May 1995

¹¹ Integrated Social and Environmental Assessment for a Proposed Sindh On-Farm Water Management Project, AEWM, GOS, 2003

¹² Human Development Report 2004, UNDP 2004

iv- The Framework of Analysis - The Gender and Water Web

In order to carry out a systematic assessment of the gender situation in the water sector of Pakistan, an appropriate analytical framework is required. Here the Gender Web¹³ and its elements have been adapted as the Gender and Water Web (Fig 3). It has both conceptual and analytical rigor and provides guidance for action. The 13 elements¹⁴ of gender institutionalization address either practical gender needs (elements 8 - 13) or strategic gender needs (elements 1-7).

Conceptual Element

- Theory building

Analytical Elements

- Women and men's experience and interpretation of their reality
Research and investigation

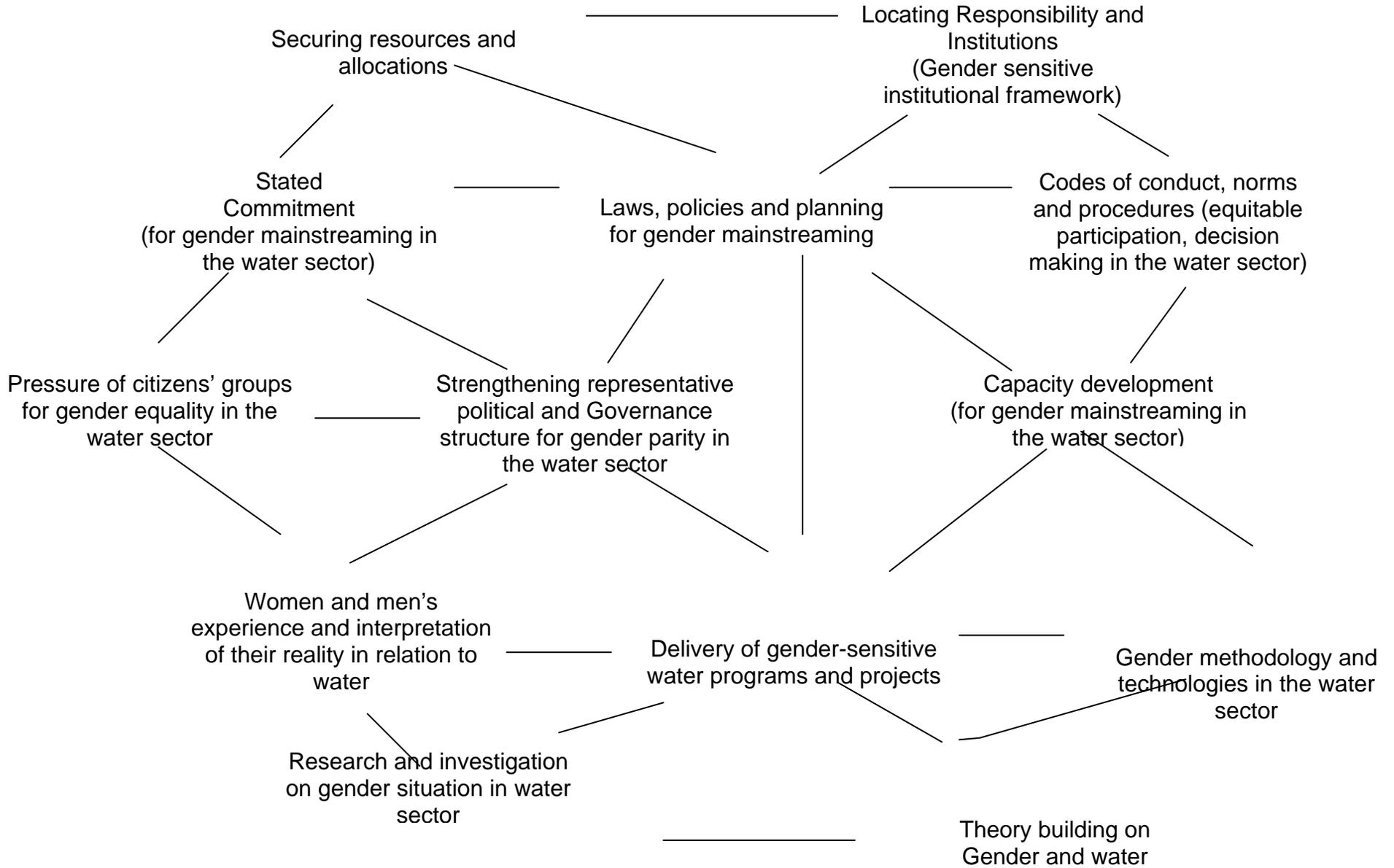
Action Elements

- Pressure of political constituencies and groups
- Representative political and governance structures
- Political (and ideological) commitment
- Laws, policies and planning
- Securing resources (physical, financial and human)
- Location and sharing of responsibility
- Codes of conduct, norms and procedures (for participation, decision-making)
- Methodology (and technology)
- Capacity development
- Delivery of programs and projects

¹³ Levy C, The Process of Institutionalizing Gender in Policy and Planning: The "Web" of Institutionalizing, Development Planning Unit (DPU), University College, London, 1996

¹⁴ Adopted and Interpreted from Levy C, *ibid*

Figure 3 – The Gender and Water Web



B. Gender Analysis of Water Sector in Pakistan

The concept of the Gender and Water Web (Figure 3) has been used in this section to elucidate the current situation in terms of women and water and Pakistan.

i- Building Theory on Gender and Water

There is currently little theory available on gender and water. CEDAW and Beijing Follow Up process have contributed part of a framework of rights and actions while small parts of international declarations refer to women's role in water and the environment. UNDP and the Gender and Water Alliance have prepared some guidelines to gender mainstreaming in the water sectors, but most efforts in the developing world remain rather haphazard and ad hoc.

While we can look for guidance to the gender development initiatives of the last 25 years in other sectors, the issue here is to locate and operationalize gender issues and considerations in water as a permanent part of all analysis and planning processes in the water sector. The analytical framework used here can also aid in the institutionalization of these processes in the water sector of Pakistan.

ii- Experiences and Interpretation of Realities in Relation to Water in Pakistan

The tragedy of gender perceptions related to the water sector in Pakistan is that women often see themselves in ways that are directed by male dominant viewpoints, and hence think that domestic water supply is their responsibility. There are romanticized renderings of women collecting water from long distances, washing clothes and providing water for animals. Water vessels and pitchers used by women to fetch water are part of the folklore of many parts of the world. These images have become pointers for the policy makers¹⁵ who think that carting water on heads and on backs is not hard labour when women do it. Thus in Pakistan, as in many parts of the developing world, there has been little policy or programmatic action to lessen the burden of women carrying water for domestic use by encouraging the sharing of this chore by men of the family.

However, in a recent series of workshops across Pakistan and Nepal¹⁶ rural and urban women, professionals and home makers, educated and unschooled women were all unanimous in stating that obtaining water for families and homes was their job - whether it be head loading, buying jerry cans of water in an urban market, getting up at midnight to fill tankards from a neighborhood supply point, or making trips to municipal pumps for interrupted supplies of piped water. Women found that they accepted this role uncritically and the men of their families endorsed this interpretation.

These interpretations mean that women and men experience changes in domestic water availability, services and prices differently. For men, the bottom line is that water is available for their domestic needs without much effort on their part. They are not likely to be too concerned with issues of service or ease of availability. Women also have to manage the household economy and the rising prices of water which results in cuts elsewhere. Because men are largely above and aloof from domestic water problems, these problems are not a priority for water policy or programs in Pakistan.

¹⁵ Kulkarni S, Gender Matters: Women's Issues in the Water Sector, Delhi, December 2003

¹⁶ Organized by the Women and Water Networks in Pakistan and Nepal during 2003-2004

A study in Azad Kashmir showed that in an area where 20 percent of the households were headed by women, the community and social organizations had male members only. Government departments did not think it necessary to consult the women even though they were the decision-makers in 20 percent of the rural households¹⁷. Women themselves seem to have stayed away from the water related debate, because it was 'not their field'. Once women-only meetings were initiated, women expressed their concerns and viewed water as a health related development activity and associated it further to childcare and medical facilities. The perceptions of local men about water were quite different.

Another instance of the crucial role of perceptions has to do with water as an economic commodity which is being promoted in many quarters. From a gender perspective this presents a problem. If water is treated as a purely economic good and tied with narrowly-defined economic efficiency, then women and some poor men may not be able to access and use this resource freely.

While there has been little systematic exploration of this issue in Pakistan, the prevalent perceptions are quite clear. There is a need for re-defining of water pricing, affordability and access, and making a clear separation between water for livelihoods and its other uses. However, it should also be made clear that water does have 'value', including economic value, and that common perceptions do not include awareness that irrigation water at present is provided below its economic value.

iii- Conducting Research and Investigation on the Gender Situation in the Water Sector

The dominant view in the country is that women's role in the water sector revolves around the availability of water for domestic use. As a result, the core issues of ownership, control and access are seldom in the forefront of research or planning. The area of 'water rights' is very blurred in Pakistani law. Land ownership is usually a proxy for access to water. Given the interplay of formal and customary laws in inheritance to the disadvantages of women, they have perfunctory ownership in a majority of cases with little control to buy or sell.

A review of research studies on water in Pakistan has shown that very few actually attempt a gender analysis or speak of gender impacts. Gender-disaggregated data is very rarely available or is very rudimentary, if and when available. Regular demographic and statistical reports have no reference to water or refer only to drinking water and sanitation (but are not disaggregated by gender)¹⁸. Some data is available from project documents that usually cover local areas.

This hurried type of gender analysis speaks of all women as being disadvantaged, without a proper reference to the context. Not all groups of women are disadvantaged. For example, rich land owning women farmers or women in professional cadres of water agencies may be better off and more 'empowered' than a male field hand or site inspector. Informed social gender analysis is a rarity. However research studies have brought out some aspects of the women and water situation and others have

¹⁷ Community-District Infrastructure Services Project, Azad Kashmir, Social Assessment Report, IBDR, 2001

¹⁸ These reports include the Human Development Reports of UNDP, Pakistan Integrated Household Survey of the Federal Bureau of Statistics and the Pakistan Demographic Survey, also of the Federal Bureau of Statistics

documented the results of certain projects and project interventions designed to support women's participation and/or increase in benefits.

Water Collection and Access to Water: In Pakistan, and much of the Asian sub-continent, water collection is culturally defined as 'women's work', and remains the main focus of gender interventions, given that women spend much time, effort and energy in this crucial domestic responsibility. Sources of water supply include:

- Simple wells
- Hand and electric pumped supplies
- Piped supplies (to stand-post or home)
- Springs
- Tanks
- Ponds
- Streams
- Rivers
- Irrigation canals

In Balochistan, women have to travel for several miles with heavy rubber cans twice or sometimes three times a day to fetch water. In the Thar Desert in Sindh, some women walk up to ten miles a day for the same chore¹⁹. A recent study (Table 4) shows the sources of drinking water, the distances to the source and time taken to fetch water in several localities across Pakistan:

Table 4: Characteristics of Village Water Supply and Collection

District & Province	Source	Transport outside the village* (%)	Distance (kms)	Travel time**(hours)
Hyderabad (Sindh)	Hand pumps within households with some sharing	0	>0.1	0.2
Tharparkar (Sindh)	Wells and hand pumps	61	1.9	0.5
Karak (NWFP)	Spring and tank	45	1.7	1.7
Mardan (NWFP)	Wells and some electrical pumping from deep water table	0	0.3	0.6
Chakwal (Punjab)	Hand pumps and small wells	8	0.4	0.9
Vehari (Punjab)	Electrical and hand pumps from deep water table	0	0.7	0.6
Naseerabad (Balochistan)	Irrigation canal as main supply and pond 2-3 km	43	1.4	0.5

Cont/page 90

¹⁹ Kamal S, The Role of Women in the Rural Economy of Pakistan, Paper presented in the seminar on FAP's Vision about Sustainable Growth of the National Economy and its Linkages with Rural and Agricultural Sector", Islamabad, May 1995, pp 8.

District & Province	Source	Transport outside the village* (%)	Distance (kms)	Travel time**(hours)
	distance in emergencies			
Turbat (Balochistan)	Drinking water supply scheme through taps, but not always reliable and some houses are not connected	0	0.3	0.6

*Percentage of interviewed household ** Round trip travel time
Source: Study of Rural Access and Mobility, WB/Raasta, 2002

Table 4 shows that a closer water supply does not necessarily translate into less water collection time if it leads to increased use by each household. Time saved in walking may be lost in queuing or filling water containers.

The study also shows that except in the singular case where water tap connections are provided, women are the carriers and that head and back loading are normal. Trip frequency can be more than once a day and is determined by:

- Distance to the source
- Household size
- Air temperature
- Size of container
- Person making the trip (adult or child)
- The number of competing households

If a once daily frequency is assumed, it means that more than 200 hours a year are spent in fetching water. The figures for Karak village of 1.73 hours of transport twice a day, implies a yearly water collection time of 1,260 hours. This excludes time spent waiting and filling water containers, which is likely to comprise a further 300 –400 hours a year. At these calculations, most village households incur time and effort of between 380-630 hours and 30-50 tons/km of transport effort per year. The study shows clearly that this load falls predominantly on women members of the households.

Women in the arid zones of Pakistan face particular hardships. For example, in the remote district of Chagai in Balochistan, there are only about 60 small water schemes including water bowsers, tube wells and open wells (not all of them operational) to meet the needs of 210,000 people²⁰. In this district, there is a clear gender division of labor with women fetching water, watering animals, fetching fuel in addition to taking care of household chores.

Ground Water and Drainage: For rural communities groundwater is often a matter of survival - whether it is drinking water obtained through wells, hand pumps and tube wells or rising water tables. Water logging and salinity, on the other hand, destroy agriculture and livelihoods.

In some projects undertaken by the GoP with donor support, systematic research studies were carried out²¹. These studies disaggregated the data by gender and provided

²⁰
²¹

Documents of the Public Health and Engineering Department, Noshki, 2001
SOC-1: Gender Relations Within The Family / Household in The LBOD Area
SOC-3: KAP Study in Relation To LBOD Inputs: Mirpurkhas, Nawabshah and Sanghar District

analytical vigor through which the program design was altered to fit realities. In one instance, the proposed route of a drainage channel was changed so that a path used by women to fetch water from a freshwater well would not be bisected by the channel²².

These studies also illustrate gender impact when women participated in drainage projects. They also showed that women were able to identify the advantages that accrued as a result of their interventions for improving drainage and other disadvantages.

Advantages and Disadvantages of a Drainage Project Identified by Women

Advantages to Women

- Sweet water available at shorter distance (time saved in fetching water)
- Increase in land productivity
- Decrease in water-borne disease
- Ease in home maintenance
- Increase in employment
- More spent on education
- Decrease in domestic workload

Disadvantages to Women

- Workload increased in the rehabilitated and reclaimed land
- The time saved from fetching water and house chores now spent on fields
- Work on fields unremunerated
- Actual labor of women increased

Source: Drainage Advisory Services data from District Sanghar, Sindh, 1997

The gender analysis in this instance showed that the workload of women actually increased as a result of the interventions – with land improvement and less effort in fetching drinking water, women now worked more in the fields.

The research also showed that, contrary to general beliefs, women can play an active role in drainage projects. In Districts Sanghar and Nawabshah in Sindh, women convinced men to desist from plugging channels and succeeded in removing weeds and grass from the channels through organized women's groups. They kept children and animals away from channels, looked after installations as self appointed 'policewomen' and 'caught' people trying to tamper with the equipment and electricity wires²³.

SOC-4: Exploration of Land Ownership, Control and Transfers

SOC-5: Relations Within and Between Different Social Groups – Three Case Studies

All studies were part of GOP/WAPDA Drainage Advisory Services (DAS) Program, supported by MM and Raasta under assignment to DFID, 1998

²² LBOD Communication Strategy, Main Report, GOP/WAPDA DAS Program, supported by MM and Raasta under assignment to DFID, 1998

²³ Drainage Advisory Services data from Districts Sanghar and Nawabshah, Sindh, 1997.

LBOD Communication Strategy, Main Report, GOP/WAPDA DAS Program, supported by MM and Raasta under assignment to DFID, 1998

Gender Impacts of Drought: The gender impacts of drought have been relatively better researched and there are several documents that depict drought vulnerability and its long term effects²⁴. These findings have been summarized below. Given that water, health, livelihood and development are so intertwined in arid zones, the impacts of drought cannot always be neatly categorized.

Impact on Agricultural Livelihoods

- Heightened vulnerability among rural populations, especially women and children, who are usually unable to migrate readily
- Decreased terms of trade for locally produced products that sustain livelihoods, including the products of women owned and managed kitchen livestock and gardens
- Loss of both assets and entitlements, especially women's meager assets in terms of personal jewelry, and one or two heads of small livestock
- Sharply lower income leading to increased poverty and increased indebtedness
- Lower food consumption, where women tend to ensure that men and children eat first, leading to their own malnutrition

Environmental Impact

- Exacerbation of water logging and salinity, rendering more lands uncultivable
- Decline in fresh water additions to surface water bodies rendering them too saline and polluted for drinking and agricultural purposes, resulting in women having to occasionally walk further looking for a suitable source
- Exacerbation of the decade-long decline in the water table (due to reduced water recharge) in Balochistan, increasing the burden of women in drawing water from wells
- Denuding of rangelands and watersheds (due to overgrazing), leading to women going further distances to feed and water livestock
- Reduced holding capacity and more rapid runoff (when normal rains and snowfall return), leading to floods (as has happened recently in Balochistan and in 2003 in Thar in Sindh) and lower reserves of water for drinking and agriculture
- Depletion of forest cover and vegetation due to less rain and cutting down by communities trying to survive. This results in lower capacity of land to support populations and loss of entitlements
- Drying up of Indus Delta – loss of coastal ecosystem, drastically reduced entitlements and economic activities based on fishing, including the deteriorating conditions of women fisher folk.
- Sea Intrusion – drastic reduction of sweet- water pockets, loss of entitlements and economic activities

Economic, Health and Social Impact

- Lower food availability and non-varied diet
- Increased incidence of water-borne and infectious diseases
- Increased vulnerability of children, women and the elderly

²⁴

Supplementary Study of Drought Impacts: Targeting and Mitigation, ADB 2001, Interventions for Drought Recovery, Mitigation and Sustainable Future Development in Balochistan, Oxfam/Raasta, 2002, TRDP drought assessments and reports, 2000-2004

- Children needed for increased work, therefore school dropouts
- Heavier workloads for women and loss of leisure, empowerment and clout
- Permanent dislocation of communities
- Loss of assets, entitlements, mutual obligation and support systems
- Loss of purchasing power, decline in self-respect and increase in indebtedness

It is clear that in Pakistan where research in the water sector takes gender differentials into account, the picture that emerges is often different from stereotypical assumptions, and that in a few instances such research has made a difference in identifying the appropriate gender issues for action.

For example a recent study on sea intrusion²⁵ shows that women in local fishing communities have more freedom to air their views and are given more respect compared to women in other groups. Women have played the role of arbitrators and at times taken on the might of the local landlords in demanding the restoration of their ancestral fishing rights²⁶. While they carry the household responsibilities and water fetching, nonetheless, they have a voice.

iv- Pressure of Citizens' Groups for Gender Equality in the Water Sector

Political pressure here refers to the potential of citizens' groups lobbying for change in favor of gender equality. Many measures for women's empowerment (that have reduced the gender gaps in developed countries), plans of action for the advancement of women (that seek to address the disadvantages faced by women in developing countries), and increased participation of women in formal political structures have come about largely as a result of consistent and hard hitting lobbying by groups of men and women (sometimes working in tandem).

However, in relation to the water sector in Pakistan, there is a great divide in the upper and lower Indus Basin in terms of the political pressure being exerted and these do not always represent the mass of citizens.

The debate is mostly about the Kalabagh Dam, instead of the whole host of water problems, with the result that issues of women and water get sidelined. However, some active citizen groups in lower Indus Basin have attempted to bring some gender and water issues to public notice, by default rather than a focused effort. At the moment the political pressure of citizens' groups on gender balance in the water sector simply does not exist.

²⁵ Environmental Degradation and Impacts on Livelihoods, Sea Intrusion – A Case Study (in Indus Delta area), IUCN, 2003

²⁶ The author is witness to this struggle which took place in the period 1992—4 and which has now resulted in the Sindh High Court restoring the traditional rights of the men and women of part of the Delta area

Table 5: Citizens' Actions on Women and Water

Citizens' Actions	Status
Public hearings	No known case on women and water
Engagement in national policy and planning process such as PRSPs, sectoral planning	To a small extent
Open advocacy: intermediate groups supporting rights claims	For women's empowerment, but not for women and water
Interactions with water officials	To a small extent, more at grassroots level
Informal advocacy through contacts, e.g. interactions with sympathetic officials	To an extent
Engagement in local governance planning in water sector, e.g. on public services priorities	To an extent, usually at local level
Negotiation over entitlement to water resources	For water as a whole sometimes, but not on women and water issues
Meetings between water users	Very rare
Use of media and campaigning	Under utilized
Street protests	Street protests by women quite common in cities during water shortages

Compiled by the author

v- Strengthening Representative Political and Governance Structures for Gender Parity in the Water Sector

To be truly representative, political and governance structures in the water sector should strive for gender parity. Table 6 (Page 95) uses a political participation framework to measure the current status in Pakistan.

In 2004, there was one woman advisor and one woman minister at the federal level and five women ministers at the provincial level. There were six women members of parliamentary standing committees on water, women and related areas. In local councils, many women are reported as members of committees and development projects are associated with women development and/or water. However, there is no formal compilation of this data.

Table 6: Political Participation in the Water sector

Level	Gender Participation	Status in Pakistan
National	Representation or direct participation of both men and women in national elected assembly / bodies	Currently 20 percent of all national assembly members are women - 17 percent are on reserved seats and 3 percent have come in through direct elections
State/ Provincial	Representation or participation of both men and women in state/provincial elected bodies	Between 17 -20 percent of provincial assembly members are women – 17 percent on reserved seats and the rest through direct elections
Regional	Representation or participation of both men and women at river basin level in management 'councils'	Some institutional reforms have been attempted in Pakistan to move towards farmer management of the irrigation and drainage systems. However there are hardly any women in the Provincial Irrigation and Drainage Authorities and the Area Water Boards. There are a few women members in the Farmer Organizations and the Water Course Associations
Local	Representation or participation of both men and women in: <ul style="list-style-type: none"> • River management 'committees' at sub-basin level • Irrigation districts • Other association of water users • Municipal/local elected bodies • Community groups 	In the case of irrigation districts (delineated and used for irrigation water supplies) a handful of women engineers have been reported to be working on mostly donor-funded projects. There are, however many reported women's groups among community-based association of water users. In terms of local elected bodies, 33 percent are now women and some are beginning to take up the issues of local water supply. Community groups that focus on drinking water and sanitation issues have seen a rise in women membership, especially in donor-funded projects.

Source: Framework adopted from Moser C and Norton A, To Claim our Rights; Livelihood Surety, Human Rights and Sustainable Development, ODI, 2001, data from Assembly records and data from National Drainage Program (NDP) documents

vi- Obtaining Stated Political Commitment on Gender and Water

Bringing some of the principles of gender into the water sector policy and achieving political support may be challenging, as it would require making hard decisions. It is therefore, not surprising that major legal and institutional reforms are unlikely to take place until serious water management problems have been resolved. Luckily, Pakistan is in that phase now so this is the time when lobbying can bring results and wrest commitments from governments.

Without a stated political commitment, reference to gender mainstreaming in the water sector remains merely rhetoric. As yet there is no formal declaration of the part of the government of Pakistan or any provincial government about gender mainstreaming in the

water sector. However references to water have been added in the chapter on women's development in the new draft of the Medium Term Development Framework (MTDF) and the chapter on Water Resources and Water/Sanitation will now have reference to gender mainstreaming.²⁷

The water policy remains in draft and has some references to women (but not a comprehensive vision of gender mainstreaming in the water sector as a whole). However, there is as yet no separate budget allocation for women in the water sector.

In terms of political commitment, the mandates of political parties should reflect their positions or 'policies' on gender, water or gender and water together. Once elected, and armed with this mandate, the political leadership should be in a position to develop policies and laws that reflect the gender and water interface. At present, only 3 political parties individually speak of women's rights and empowerment whereas 2 speak of water, but not together.

vii- Gender Related Rights, Laws, Policies and Planning for Water

Water Rights: The situation of water rights is not very clear in Pakistan, but the principles of entitlement to common resources are better established in 'Shamilat laws' which give common property rights to tribal and ancestral lands by precedence and custom.

The ownership of land usually remains a proxy for water rights especially in agricultural areas. Given that few women own agricultural lands (or control the lands, even if owned) or manage these lands, their 'rights' to water are ill-defined.

However, in the case of groups that depend of common resources, the access of women to land (for grazing, gathering, periodic planting) and to water (for drinking, watering animals and watering of small scale cultivation) does not seem to be significantly less than those of men from the same group. However, restrictions on mobility of women for social, developmental, economic or recreational purposes remain, but are not a gender issue in terms of access to water per se.

Water Laws: Pakistan does not have a comprehensive set of water laws that define water rights, uses, value, principles of pricing, subsidies, and conservation or polluter penalties. However the 1991 Water Accord determines water distribution among the provinces and the National Environmental Quality Standards (NEQS) refer to water qualities.

Pakistan does not have a single national regulatory framework as yet which deals with the use of water. However, Balochistan has a provincial groundwater regulatory framework which deals with preserving, extracting and maintaining a balance of groundwater. This framework does not make any specific reference to gender.

Water and Related Policies: Pakistan's draft National Water Policy (NWP) is a general policy paper on water and has been developed through extensive consultations with key stakeholders (including women). One of its stated policy objectives is the rights to water of the poor and disadvantaged, with special emphasis on women and children, who are to be protected. There is an indirect overall gender perspective, in that the draft policy repeatedly refers to "all stakeholders". However, specific mention is made of women in the section on water rights, allocations and trading:

²⁷

In fact a gender mainstreaming exercise has been carried out in early 2005 for gender mainstreaming in the entire draft of MTDF 2005-2010.

Issues

- Inequity of water allocation and distribution in head and tail reaches of channels.
- Absence of defined policies for allocation of water during lean and abundant periods
- Lack of enabling environment for trading and efficient use of water.

Policy Objectives

The GoP wishes to ensure that:

- All citizens have equal right of access to clean water and efficient sanitation facilities.
- Equity will be achieved in water allocation and distribution for agriculture.
- The rights to water of the poor, with special emphasis on women and children are protected.
- Trading of water leading to efficient distribution and utilization of available water supplies permissible.
- There is consideration for the special needs of women, children, the poor and the disadvantaged.
- There is consideration of alternative methods of equitable water distribution.
- Participation and involvement of women, children and the communities in water resources management is established.
- There is promotion of active involvement of women children, poor and vulnerable groups

Policy Statements

- Create an enabling environment for active stakeholder consultation and participation at all levels and in all aspects of the water sector. Special attention be given to the role of women and the active involvement of poor and disadvantaged groups.
- Institutional framework to secure economic and social development of the water sector on an equitable and sustainable basis and to assure public health based on good environmental management and water quality²⁸.

Other policy related documents on water include:

- The Pakistan Water Resources Strategy (Ministry of Water and Power, 2002)
- The Water Policy statements
- Ten Year Perspective Plan (Planning Commission, 2001)
- Vision 2025 (Water and Power Development Authority, 2001)
- Pakistan Water Strategy (Ministry of Water and Power, 2000)

They all contain some reference to gender equality, but few concrete steps for achieving this goal. Although an excellent document in terms of identifying the environmental issues of Pakistan, the National Conservation Strategy (NSC) has little to say on participation, disadvantaged groups or gender. However, the mid-term review (2000)²⁹

²⁸ National water Policy- Policy Statements, Ministry of Water and Power GoP, Associated Consulting Engineers ACE Pvt LTD/Halcrow Group Ltd, no date

²⁹ Mid-term Review (MTR) of National Conservation Strategy (NCS), May-June, 2000

pointed out the slow integration of gender concerns and made recommendations for enabling mechanisms.

Table 7: Gender Analysis of Pakistan Draft Water Policy

Stated focus on gender in the written document (including identification of gender gaps in the sector, clear statements on how these gaps will be filled, guidelines and roadmap of how this will be achieved, in the short, medium and long run)	Details not available in the draft Water Policy
Women recognized as a group to be proactively supported	To an extent
Clarification of the entitlement and responsibilities of users and water providers (specified by gender)	No
Clarification of the roles of the institutions of the state, private sector and civil society (specifying the shares, duties and obligations of men and women, where appropriate)	No
Definition of agreed water allocations for different uses, sectors, basins and sub-basins	To an extent. Equity among citizens
Legal status for water management institutions of government and water user groups, with the share of women in terms of proportion in participation and employment spelt out	Yes, but share of women not spelt out
Quantitative targets stated, where appropriate	No
Wide stakeholder consultations (with women forming half the participants)	Yes, but women do not form half the participants
Initiation and/or approval by the political leadership	Policy will go through the parliament
Indicative budgetary allocations showing proportions to be spent in gender proactive measures and/or directly/indirectly benefiting women	No

Data Compiled by the author

The Draft National Environment Policy³⁰ is a very comprehensive and well-written document that examines environmental issues in their relationship to the challenges of human and social development. The document also touches upon the Pakistan Environmental Protection Act, 1997 and the NEQS, and contains sector projects portfolio and an implementation matrix. It also speaks briefly of involving women in decision-making and to convey conservation ethics. The National Forest Policy³¹ is very technical and covers many threatened ecosystems. It has nothing to say on social issues or gender. In the same way the draft Resettlement Policy³² has no reference to gender.

The LGO affirms the promotion of LG institutions as a principle of state policy. Special representation to peasants, workers and women in such institutions is promised. The ordinance itself does not mention gender clauses per say, but the reservation of 33

³⁰ National Environment Policy of Pakistan (Draft), GoP, Ministry of Environment, Local Government and Rural Development, no date.

³¹ National Forest Policy 2002, GoP, Ministry of Environment, Local Government and Rural Development, Jan 2002

³² Draft National Resettlement Policy, GoP, 2002

percent local government seats for women (and elections against those seats) is a major step towards empowering women politically.

Interestingly Pakistan's National Plan of Action (NPA) for women contains a whole chapter on women and the environment and also makes several references to water. Women are cited as users, stakeholders and managers of water and there is a mention of their role and the impact on them of water degradation and depletion. The particular impact of the depletion of freshwater sources on women fetching household water and the impact of pollution on household health is also discussed. Annex 3 gives details of gender and water/environment clauses from the NPA³³.

The Framework For Action (FFA) for achieving the Pakistan Water Vision 2025³⁴ also carries a whole chapter on gender mainstreaming (see Annex-2). It acknowledges that there are several areas relating to water which concern women such as domestic water supply or irrigation water use where women are the owners of the irrigated lands, but women are excluded in all matters pertaining to water development and management as well as in public sector departments that deal with water.

Planning Processes: The GoP considers water resources planning and management to be a central part of its responsibility. Within the Planning Commission there has been a proactive attempt to induct women and to develop gender focal points with a view to have them carrying out gender assessments of programs and projects that are floated for funding through the government system.

While there are no specific gender audit arrangements in place as yet, attempts are underway to develop guidelines for gender audit and to have these institutionalized through the Planning Commission in all government departments. Once these arrangements are in place they are likely to give a gender perspective to the water initiative as well.

viii- Securing Resources and Allocations for Gender Initiatives in the Water Sector

The crucial step for gender mainstreaming in the water sector of Pakistan would be to find the resources and financial allocations to help bridge gender gaps. There are two gender mainstreaming actions that are appropriate to the water sector: gender budgeting and gender audit.

A gender budget is not a separate budget for women in a given sector. It is an approach that is used to highlight, and then reduce, the gap between policy statements on gender, and the actual allocations made for implementation. For example, one can identify a particular gender gap by keeping a record of allocations made for men and women within a particular sector, determine its scope and then work towards reducing and finally closing it.

Gender budgeting and gender audit can be very powerful tools to measure whether public expenditure matches gender commitments. Both in recent years have become a component of macro-economic policy in many countries³⁵.

³³ Water for Nature and Gender in South Asia - A Chapter for the First Annual Report of the Gender and Water Alliance (GWA), Raasta Development Consultants, July 2002

³⁴ The Framework for Action (FFA) for Achieving the Pakistan Water Vision 2025, Pakistan Water Partnership, 2000

³⁵ Reyes S, Gender and Macroeconomic Policy: Reform Imperatives for PRSP, UNDP, 2003

Given that water remains overwhelmingly an area for government action (sometimes through donor support), it would be important to see what government allocates for closing the gender gaps in the annual budget. Findings show that there has so far been no gender budgeting in this sector in Pakistan.

ix- Location and Sharing of Responsibility for Gender Perspective in the Water Sector - Developing Institutional Framework

Governments see water resources planning and management to be a central part of their responsibility in terms of institutions dealing with water. The Planning Commission of Pakistan has a separate section on the environment, which also deals with water.

The Ministry of Water and Power has responsibility for the Water and Power sectors and has many water related institutions within its purview. These include the Water and Power Development Authority (WAPDA), which is one of the largest public sector water utilities in the world and has several departments and sections dealing with water-related issues. The Federal Flood Commission is also part of the Ministry.

The Indus River System Authority (IRSA) manages inter provincial distribution of water. None of these institutions have a specific policy on gender but attempts are under way to introduce gender focal points.

The functions and structures of several federal and provincial water related institutions are given below:

WAPDA

- Generation, transmission and distribution of power
- Irrigation, water supply and drainage
- Prevention of water logging and reclamation of waterlogged and saline lands
- Flood control
- Inland navigation
- Execution of schemes that are transferred to provincial irrigation departments for operation and maintenance
- Operation and maintenance of large multipurpose reservoirs and inter-provincial link canals

Provincial Agriculture Department

- Organizing input distribution and extension services to farmers, especially farm management
- Implementation of on-farm water management

Provincial Irrigation Department

- Operation and maintenance of irrigation infrastructure
- Technical data collection

Provincial Irrigation and Drainage Authorities (PIDAs)

- Autonomous bodies responsible for intra-provincial aspects of irrigation and drainage from barrages to canal headwork's, and from main drains that cross canal commands to intra-provincial drains
- Structure: Area Water Boards (AWBs), Farmer Organizations (FOs) and Water Course Associations (WCAs). At the moment these are active in Sindh only.

Municipal Water Authorities

- A plethora of provincial and local agencies
- Karachi has 32 different agencies dealing with water supply and sewerage

A study of their rules and functions shows that gender considerations are not part of their mandate, except in the case of Sindh Irrigation and Drainage Authority (SIDA), where an attempt has been made through a Gender Equity Strategy (see Annex 7)

WAPDA, irrigation and agriculture ministries and related departments have a handful of women, mostly in project-related temporary jobs, while SIDA has a few women social organizers.

Institutional Environment for Women's Development: The following form part of the Institutional and Policy Environment around women's development and empowerment.

- National Commission on Status of Women (NCSW)
- Ministry of Women's Development (MoWD)
- Gender Reform Action Plans (GRAPs)
- Proposed Gender and Social Development Sections in Key Ministries (under GRAPs)
- Programs that address gender issues

They contain some actions that can be applied for gender mainstreaming in the water sector. However, a recent study by the National Commission on the Status of Women³⁶ shows that women have less than 6 percent share in public sector employment, most in administration jobs in the lower grades.

x- Establishing Codes of Conduct, Norms and Procedures for Gender Related Participation and Decision-Making

Decentralization in decision-making with management moving towards user control through wide stakeholder participation is an easy concept to accept but hard to implement. There is also a risk that gender mainstreaming in participative structures and decision-making processes will be promoted largely at grassroots level where it is seen to be less effective.

³⁶

Inquiry Report on the Status of Women's Employment in Public Sector Organizations, NCSW, GOP, 2003

The structures at national, regional, departmental and tertiary levels are likely to remain driven by men on the plea that women have to first gain education, experience and exposure in the technical aspects of water related issues before being allowed into decision making. There will need to be a prolonged and concentrated effort on lobbying, invoking stated commitments and taking strategic stances to overcome these barriers. Even at the grassroots level, inclusion of women and landless men as members of FOs and water user bodies is not an easy task.

The issue of environmental entitlements rears its head again when attempting to mainstream gender in local participative frameworks. Even the equitable participation of men who are big, medium sized and small farmers as well as 'Haris' or wage labourers is problematic, with a propensity for the big land owners to appropriate leadership and clout³⁷.

Unless women have a clearly defined right over a resource, their interest in participation is not likely to be too high. With the present scenario of limited gender analysis and the presence of very few women professionals in the water sector, the potential offered by proactive gender policies and gender centred statements will not be realized very easily in Pakistan. A quick survey of program documents of several projects related to drinking water, drainage and RSP have given an idea of grassroots organization.

Women Organized for Action at the Grassroots: A review and broad estimation of current community-based water supply and other projects has shown that participation at grassroots level is not as widespread as imagined.

- Less than one-tenth of projected women beneficiaries and participants from communities are organized
- Many women feel they cannot organize
- Biradaris, tribes and caste-groups are an impediment
- Women want to organize only as 'saving groups'

The most effective ways of organizing women for water supply and drainage at grassroots seems to be:

- First form smaller women's groups (in tune with village based groups)
- Slowly federate them
- Then help them interact with or join the men's groups³⁸

Environmental Entitlements in Local Participative Frameworks: Research data and project reports of water sector initiatives in Pakistan have shown that:

- Unless women have a clearly defined entitlement over a water resource, their interest in participation in water related issues is likely to be low
- Potential of proactive gender policies and strategies in water sector is low unless entitlement issues are resolved
- Sharing of household responsibilities by men of the family to allow women to enhance their participation in water sector programs is very hard to achieve
- Strategic interventions that bypass the accumulated "wisdom" of development can move faster towards equity

³⁷ Shah T et al, Irrigation Management in Pakistan and India: Comparing Notes on Institutions and Policies, IWMI, Working Paper 4, 2000

³⁸ Large-scale water supply and sanitation projects of government supported by donors, small scale water projects of RSPs, other water projects

xi- Developing Methodologies and Technologies for Gender Mainstreaming

Managing water in an integrated and sustainable way may contribute to improving the access of women and men to water and water-related services. However, there has not been much progress in Pakistan in terms of gender mainstreaming in this area because the methodologies and design used for gender mainstreaming are conservative and sometimes end up reinforcing the gender divide, instead of obliterating it.

For example, in the case of irrigation systems or water supply projects, the building of washing spaces and bathing areas in the proximity of the canals is seen as an appropriate gender intervention. It is claimed that such an intervention helps in meeting women's practical needs. While the creation of a domestic water use sphere for women does help in meeting women's current needs, keeping women confined to their gender specific roles arrests the process of empowerment that would come from clear entitlements over water as a productive resource.

Women's roles in the productive sphere (for example producing, buying and selling) needs support also as a critical factor for women's empowerment and gender justice. Most of all, women's strategic needs have to be addressed if gender mainstreaming is to be institutionalized.

Strategic Methodologies: Table 8 assesses whether water projects and initiatives in Pakistan address women's strategic gender needs.

Table 8: Strategic Gender Actions and their Prevalence in Pakistan's Water Sector

Strategic Gender Action	Status in Pakistan
Choice of integrative approaches that take the activity, access and control profiles of women and men in the target area and/or water sector into account	Very few water projects in Pakistan do this
Choice of strategies that address strategic gender concerns - they will be different for different interventions	Hardly any
Identification of concrete gender objectives, especially those relating to gender equality and/or those relating to women's empowerment	Only general pronouncements
Identification of gender-friendly technologies so that women may not be marginalized because they are not technology specialists	Not done
Identification of gender specific benefits and impacts that will accrue from the intervention	Sometimes carried out
Identification of program components that will move towards closing the gender gap	Gender gaps not identified specifically
Establishment of governance structures based on gender equality as a major factor	A few attempts
Establishment of management structures that will proactively solicit women as managers and team members	Attempted in some projects
Development of gender monitoring indicators	Developed in some projects
Specification of allocations for women and men in the budget, and appropriate MIS to keep track of expenditures against the allocations	Not done

Compiled by the author

An example of strategic gender intervention is the Women and Water Networks of South Asia (a regional network and one within each South Asian country). This is a classic case of choosing proactive empowerment and strengthening of women, in order to close the gender gap in water related decisions, participation, actions and impacts.

It does not follow the wisdom that women have to wait to get education and technical training before they can have a say in the water sector. The need for Women and Water Networks (WWNs) emerged during the development of Vision and Framework for Action documents for South Asia Region in 2000 (Annex-4)³⁹. The WWNs have come a long way, and are working on a few well defined strategic goals and functions (Annex-5).

Technology and Women: A review of infrastructure-based water projects in Pakistan shows the following:

- Development and use of technology has often marginalized women
- Women do not get asked for their choices in technological options in the water sector
- Compensations for the cases of livelihood deprivation and displacement of communities due to capital intensive infrastructure development (such as dams and hydropower projects) not provided to men and women individually or separately
- Disasters impact men and women differently but rarely are there gender approaches to disaster relief

xii- Capacity Development for Gender Based Interventions in the Water Sector

Capacity development and training for gender inputs has been established in Pakistan since the mid 1990s in the government implemented community-based water supply and sanitation projects. These projects are usually supported by UN agencies, the World Bank, the Asian Development Bank and in some instances by NGOs and municipal agencies.

However, these projects form a very small percentage of the water sector in Pakistan and do not address the practical needs of women. In key areas of irrigation and drainage infrastructure and management, urban water supply and sewage, capacity building for mainstreaming women has been more rudimentary, though some examples exist of exceptions.

There are few designed modules and trainers available to facilitate gender mainstreaming and to support strategic gender needs. It needs to be recognized that strategic gender needs (that have to do with power relations and institutionalized long-term changes in the situation of women) need actions in tandem with training and capacity building.

In the rural water supply and sanitation sector projects of the 1990s⁴⁰, gender training programs for government and project staff, as well as community groups and beneficiaries were integral components of the projects throughout Pakistan.

³⁹ Kamal S, Gender Mainstreaming in the Global Water Partnership Family of Institutions and the Role of Women and Water Networks, Paper presented at the First South Asia Water Forum, Katmandu, Nepal, February 2002

⁴⁰ Documentation and reports of the many rural water supply, sanitation and health projects carried out by Provincial Rural Development and Local Government Departments throughout Pakistan in the 1990s

The training frameworks for these projects covered both men and women and included the development of training modules, handbooks, manuals and audio-visual materials. They used participatory methods and approached this training in a very systematic way as part of overall institutional strengthening.

The result of this type of capacity development means that the staff of relevant government departments is at least aware of the importance of addressing gender issues at the grassroots level for water and sanitation interventions and has some of the skills needed to develop participation of both men and women.

In recent years other water projects have attempted to develop gender approaches in drainage interventions through extensive gender training programs. One of these projects in the drainage sector, became a model for gender approaches and training in the larger National Drainage Program in Pakistan (2000-2004)⁴¹.

A recent case study from Pakistan presented at the Third World Water Forum in 2003 showed how gender orientation and training of senior federal government officers and of mid-level government and civil society practitioners, combined with strategic actions, eventually made an impact at the grassroots level. These training programs not only contributed to gender interventions in rural water supply in small rural communities, they also helped to enhance women's participation in water related decision-making local platforms of both NGO and government water initiatives⁴². Local women now actively participate in water user associations and are vocal in expressing their needs and viewpoints.

xiii- Gender Mainstreaming in Water Initiatives, Programs and Projects

We can say that in Pakistan, gender approaches in the project and programs of rural water and sanitation have made a difference and there are some success stories. While there has not been an overall analysis of all rural water and sanitation programs in Pakistan, the individual project documentation indicates clearly that there has been some impact on women's lives and there have been improvements in terms of increasing understanding of gender issues among practitioners and beneficiaries, both men and women, and the burden of women in terms of carrying water has been reduced.

For example, under the recently completed seven-year Punjab Rural Water Supply and Sanitation Project 'Ladies First: Assessable Water for Entrepreneurial Women in Pakistan'⁴³, which involved both women and men in all aspects of planning, design and implementation, brought water to 325 poor and remote villages and transformed the lives of 800,000 people. The availability of water has significantly altered the lives of women and girls in these communities. They previously spent two to six hours daily gathering water and additional five to eight hours a week washing clothes at sources far from their homes and villages. As the primary beneficiaries of the project, women were encouraged to carry out projects, operate and maintain them, collect tariff and evaluate projects as active participants in CBOs and community development units.

An internal project survey showed that when relieved of water collection, women become increasingly involved in income generation – women surveyed said that about 45 percent

⁴¹ WAPDA/DAS, Communication Strategy: Main Report, MMP/Raasta/DFID, April 1998

⁴² Mainstreaming Gender for Water through Gender Training and Strategic Gender Actions – Pakistan Case Study Presented at Gender Court, Third World Water Forum, GWA, 2003

⁴³ The Punjab Rural Water Supply and Sanitation Project -Ladies First: Assessable Water for Entrepreneurial Women in Pakistan, funded by the Asian Development Bank (ADB), ADB, CASE STUDY 1, WATER FOR ALL, www.adb.org/water

of the time saved was now being used for income-generating activities. The monetary value of the time saved adds up to about Rs135 to Rs337 (\$4.35 to \$10.87) monthly to household incomes of the project area. Other impacts include a 90 percent reduction in reported water-related diseases, an average household income increase of 24 percent and an impressive 80 percent increase in school enrolment of children.

Another example shows how it is crucial to work on gender education of men in order to enable women to participate. In Hoto village, Balochistan ⁴⁴, where women follow a strict form of Purdah (veil), a participatory action research team went to help the village improve its water management in 1994. For a year the men would not give permission to the NGO team to meet the women of the village. Eventually, the women were able to participate in a joint meeting and put up a proposal to build a new water tank on unused land, which would provide water to the non-functioning public standpipes. The women's solution, which was far more effective, was adopted over a proposal made by the men. Moreover, after this initial success, women became active participants in decision-making, and significant changes have been made in their lives through water and hygiene education.

Through empowerment and participation, women were able to influence other decisions that have a gender impact. Most significant has been the demand for education for their daughters. In 1998, a new girl's school was opened in Hoto, a great achievement given the cultural and tribal norms of the region.

In the urban context of Pakistan, water and sanitation projects are more difficult due to the density of population and haphazardly built environment. However there have been several NGO-led initiatives that originated in the 1980s and that have shown sustainability largely due to pragmatic approaches and the participation of both men and women.

The best known of these, the Orangi Pilot Project (OPP), was established in 1981 to meet the huge environmental drainage, water and poverty challenges. It is world famous for the drainage infrastructure it has developed and maintained:

Table 9: OPP Drainage Infrastructure

Infrastructure	Quantum in 2004
Sewer lines	7,000 plus
Length of sewer lines	1.8 million plus rft
Secondary sewers	500 plus
Length of secondary sewers	200,000 plus rft
Latrines	100,000 plus

Source: OPP Quarterly Reports 2003-4

The people of Orangi town have invested over US\$ 2.5 million in just this one program to improve their living environment. OPP Reports over the last 24 years emphasize the participation of women in all stages of local discussions and development and in maintaining this infrastructure.

⁴⁴ International Water and Sanitation Centre, undated Community Water Supply Management. Case studies, Hoto Community, Pakistan. See: <http://www2.irc.nl/manage/manuals/cases/hoto.html>, 25 March 2004

The lessons of this successful program are that poverty, environment and water issues can be tackled successfully within the same package and that working with the government is essential for tackling development to scale “external” development (such as the laying down of trunk sewers and for water mains).

Another lesson is that there were no “targets” or “time frames” in the conventional sense. The “process” – participation and self-financing for putting in a drainage system and improving the living environment of the poor – was and is paramount⁴⁵.

In some projects undertaken by the GoP with donor support, systematic research studies were carried out to solicit the views of community men and women in maintaining the infrastructure and, in a few cases, actually placing the infrastructure. One such project was the Drainage Advisory Services (DAS) program in Sindh, aimed at countering some of the previously gender blind and non-participatory approaches of the Left Bank Outfall Drain (LBOD) project.

The gender strategy of DAS was based on a commitment to the development of an equitable, gender-balanced and sustainable agrarian society in Pakistan including Sindh. It was developed and implemented in a systematic way, beginning with the exploration and classification of the woman's role in the rural economy (including drainage and irrigation) and built upon the detailed knowledge of community relationships, the environment and key aspects of the agrarian economy that women were found to possess. Women were also found to be traditionally involved with key elements of the environment such as water, fuel, fodder and foodstuffs.

The gender work in DAS was developed through Women Action Groups (WAGs) in three districts and tried three different approaches (one in each district): working directly with user groups, working with local NGOs and teams of women and men approaching community groups together. These approaches demonstrated that women can play an important role in regulation and management of water projects⁴⁶.

The experience of these projects has shown that there are enormous social repercussions of water infrastructure and that it would be far better to design social participation (of communities, women, local institutions and individuals) as the most important and integral part of water projects.

In the National Drainage Program (NDP), which followed the more conventional infrastructure projects in irrigation, drainage and salinity control, social design and gender issues, however, have been emphasized. Social assessments are now regularly providing frameworks for incorporating participation, gender balance, poverty focus and social analysis into the design and delivery of project interventions to beneficiaries, particularly poor and women beneficiaries, as well as project-affected persons⁴⁷.

⁴⁵ www.gwpforum.org/IWRM Toolbox, and OPP Scaling Up of the Orangi Pilot Project programs; Successes, Failures and Potential, May 2000

⁴⁶ Communication Strategy, SV2: Working with Women: Gender, Development and Participation, MMP/DFID/Raasta, April 1998.

⁴⁷ Staff Appraisal Report Pakistan, National Drainage Program Project, September 25, 1997, Document of the World Bank

Water Projects in Pakistan cover the following areas:

- Drinking water projects
- Irrigation projects
- Drainage projects
- Sanitation projects
- Salinity control and reclamation projects
- Urban sewerage projects
- Drought mitigation and rehabilitation projects
- Rural development projects
- Rural support programs
- Small scale local projects

Some other examples of the larger scale projects are:

- Punjab Private Sector Ground Water Development Project
- Remodeling of Existing Thal Canal in Punjab
- Lower Indus Right Bank Irrigation and Drainage Project (Stage I) Sindh/ Balochistan
- National Drainage Program
- Fourth On-Farm Water Management Project (all provinces)
- Chashma Right Bank Irrigation Project in NWFP/Punjab
- Pakistan Community Development Project for Rehabilitation of Saline and Water logged Lands
- Punjab Rural Water Supply & Sanitation Project (Punjab Barani areas)
- Devolved Social Services Program (DSSP)
- Barani Area Development Project

A review of project documentation of these projects, plus the small scale support projects and schemes run by NGOs, show the following:

- All speak of gender mainstreaming
- All define it mainly as grassroots level women's organization and representation
- Some have gender strategies that refer mostly to benefits that will accrue to women and grassroots participation
- Some speak of hiring women professionals but few are actually employed
- There is little reference to identifying gender gaps in the particular aspects of water that the project seeks to address, or how to close them
- Less concern with gender equity and equality
- Little reference to women forming part of management

The project cycle approach is being critiqued because it has not led to sustained and sustainable development. Benefits and costs that accrue from a project or program intervention are also not always disaggregated by gender. Consequently it becomes difficult to understand the effects of those interventions on women and men and manage gender mainstreaming effectively. If budget allocations were not originally gender-based, then it becomes difficult to manage the flow of funds to maintain equality and equity in services, benefits and impacts.

However, the bottom line of managing gender mainstreaming in water projects is simple: Did it lead to gender equality or reducing the gender gap? This question is not always easy to answer because of the following reasons:

- Water projects usually measure “success” in terms of supply targets (hardware allocated, supplied and transported to sites, installed/built and handed over)
- Communities/beneficiaries measure “success” in terms of obtaining water service or supply “at the doorstep”
- Less interest in the quality of water, quality of service, maintenance of infrastructure, hygiene practices associated with safe water, improvement of health, of land rehabilitated due to water supply, and other qualitative indicators
- While gender approaches are often included, gender equality or closing of the gender gap is not usually an explicit objective to be achieved in concrete terms

C. Policy Recommendations

The gender analysis in Section B has helped illustrate the situation of women in the water sector of Pakistan and brought to the limelight some of the issues that relate to women and water through perceptions, policies, commitments, institutions, programs and projects. It is important to understand that just as an analytical framework was needed to get the complete picture on this issue, a similar framework will be necessary for making policy recommendations for them to be taken seriously and implemented.

It is proposed that as a policy tool, gender analysis be used more proactively in determining gender differences in terms of rights, responsibilities, access to resources and products and stereotypes of both (that determine their power and clout in society and professional lives). Such analysis should also be used for identifying gender discrimination, gender gaps and inequalities.

Based on these identifications, gender mainstreaming strategies can be developed for translating and integrating gender equity objectives into policies, systems and programs across all water sectors. This has implications in terms of political, institutional, policy, budgetary and sometimes legal reforms.

Gender mainstreaming strategies may focus partly on women (rather than men and women) to redress the balance and address equity concerns. Gender institutionalization is also about making permanent the changes brought through gender mainstreaming.

The analysis in this paper shows the necessity of a seamless process to close the gender gap in the water sector. This process needs to encompass the following, in order to be effective:

- Defined gender rights and entitlements
- Strategic gender stance and policies in relation to water
- Formal policies initiated, endorsed or amended at the relevant political levels
- Gender statements and declarations by the government
- Putting gender in perspective for water institutions, participatory platforms and technologies
- Gender planning and budgetary allocations
- Suitable gender-based implementation arrangements (including programs, projects, processes and initiatives)

The policy recommendations below are given in this context and together they provide the full ambit of reforms, strategies and actions to close the gender gaps in Pakistan's water sector.

i- Research and Gender Assessments

- Research and investigation is essential for gender-disaggregated data that will help define gender gaps.
- Gender analysis should routinely be part of the planning and evaluation processes of all water programs and projects in Pakistan.
- The Gender Analysis Framework⁴⁸ should be used for programs and

⁴⁸

Originally developed by Moser Caroline and subsequently adopted by UN agencies and by developed organizations, this reference is from the Gender Briefing Kit, UNDP, 1995

projects. This includes:

1. Activity Profile: who does what in the target sector, area of group
2. Access and Control Profile: who has what
3. Analysis of Factors and Trends: what factors influence gender differences
4. Institutional Analysis
5. Program Cycle Analysis

To appropriately highlight gender issues, research and investigation in the water sectors should give importance and recognition to women's contributions, responsibilities and views.

ii- Gender Budgeting

Gender Budgeting should be used as a tool to measure whether public expenditure matches gender commitments and to highlight and then reduce the gap between water policy statement on gender and the actual allocations made for implementation. The process of gender budgeting in the water sectors should include the following:

- Keeping records of allocations made for men and women within a particular water sector.
- Identifying the exact nature of the gender gap.
- Determination of the scope of work in the particular water sector towards reducing and finally closing the gap.

Gender audit should be carried out of each public policy, strategy, or development program to do with water in public, private and NGO sectors to see the impact on men and women and to see if there are concomitant allocations.

The institutionalization of gender budgeting in the water sector (national, provincial and local government levels) will need the following actions and processes:

- Institution of gender analysis in resource allocation
- Gender disaggregated data on expenditures
- Gender disaggregated beneficiary analysis
- Reform and investment in relevant survey instruments
- Gender data systems and indicators
- Gender sensitive accounting system
- Reporting obligation

Gender budgeting is a major component of the Gender Reform Action Plan (GRAP) of the GoP and has already been adopted through the provincial assemblies and the federal cabinet. GRAP proposes gender budgeting eventually for all government departments and lays out the details of how it can be achieved. It is strongly recommended that water initiatives of the government and also of NGOs be linked to GRAP for maximum effect in terms of departmental gender mainstreaming, since women and water issues form part of the work of many departments and their NGO partners.

iii- Policy Formulation Processes

In as far as the policy formulation process can be improved in terms of gender (especially in developing new water policies), several components would be necessary for the policy to be considered as gender sensitive. Such as:

- Stated focus on gender in the written document (including identification of gender gaps in the sector, clear statements on how these gaps will be filled as well as guidelines and a roadmap of how this will be achieved, in the short, medium and long run)
- Women recognized as a group to be proactively supported
- Clarification of the entitlement and responsibilities of users and water providers (specified by gender)
- Clarification of the roles of the institutions of the state, private sector and civil society (specifying the share, duties and obligations of men and women, where appropriate)
- Definition of agreed water allocations for different uses, sectors, basins and sub-basins
- Legal status for water management institutions of government and water user groups, with the share of women in terms of proportion in participation and employment spelt out
- Quantitative targets stated, where appropriate
- Wide stakeholder consultations
- Initiation and/or approval by the political leadership
- Indicative budgetary allocations showing proportions to be spent in gender proactive measures and/or indirectly benefiting women

iv- Proactive Institutional, Participative and Support Structures

Giving water sector institutions a gender perspective requires the following:

- Water as a priority in women's development and women's empowerment institutions
- Water as a priority in environment and other related institutions
- Water as a priority in women's development NGOs
- Giving a gender perspective to water related NGOs

In government institutions dealing with water, in RSPs and the larger NGOs working in the water sectors, reserved quotas for women are needed:

- 10 percent in WAPDA and all other autonomous and semi autonomous bodies under the Ministry of Water and Power in keeping with GRAP and agreed commitment of the Establishment Division, GoP
- Up to 15 percent in the provincial and local government structures
- Up to 30 percent in the staff of water projects and programs

Participatory decision-making means men and women at every level in every water agency or institution, and in user groups, have a say on how that agency or user group incorporates the perspectives, needs and wants of both men and women. In each instance the share of participation should be defined strategically:

- In the case of communities, women's participation should be 50 percent
- In the case of farmers or water user associations, women owners and women members of farmer families should also be eligible to participate

- In the case of water institutions and agencies, where there are usually very few women, a greater proportion of the women (or all women) should participate.

Donors supporting government and NGO water programs as well government supporting NGO programs can insist that the recipients demonstrate that they have the required quotas in their managerial, participative and staff structures to qualify for support.

v- Capacity Building

Special tools and skills are needed to support gender mainstreaming in the water sector. It is therefore, important for training programs to be gender specific in particular context of water sector intervention and should also be in tune with the nature of the intervention. Following points should be considered for capacity building:

- Thorough grounding in both water and gender concepts, practices, experiences, pitfalls and impacts
- Special tools and skills are needed to support gender mainstreaming in the water sector
- The required knowledge base and skills go beyond the rudimentary treatment of gender and development themes
- Focus on changing attitudes of, and imparting knowledge to, both men and women
- Capacity building of women to enable their participation in the water sector at all levels from policy planning to implementation
- Training of engineers in a manner that makes them aware of the social gender context

vi- Immediate Actions

In order to initiate work on the suggested framework of policy recommendations, the following immediate actions are suggested:

- Setting up of a Unit on Gender Mainstreaming headed by a gender and water specialist in the federal Ministry of Water and Power.
- This unit may work towards developing a conceptual framework on gender and water suitable to conditions in Pakistan and later produce a detailed plan of action on the lines of the GRAP of the Ministry of Women Development.
- This unit should work on gender mainstreaming in all water sectors: irrigation, agriculture, drainage, safe drinking water, water pollution, conservation and waste water management.
- This unit should be assisted by and should work in tandem with NGOs, research institutions, activists, private organizations, professionals and conservation specialists.

ANNEX-1: Scope of the Paper

- Synthesize the current state of knowledge on women's costs of accessing water and their rights to water sources and how these vary across provinces
- Provide an assessment of how the recent drought and shortage of water has affected women and their households
- Provide some specific policy recommendations, particularly regarding the implications of privatizing water rights.
- Provide the current and possible roles of women in water resources management
- Provide the current status of women – focused and/or gender – focused policies, planning and program interventions in key water sector national and provincial projects
- Provide some examples of practical and strategic attempts at gender mainstreaming in the water sector
- Suggestions on how the key water ministries, departments, local government institutions etc may be given a gender perspective.

ANNEX-2: Gender Chapter from Framework for Action (Pakistan Water Partnership)

Core Challenges/Issues

- How do we ensure that aspirations of both genders are incorporated in the decision-making process - regarding the planning, management, operation and maintenance of water resources?
- How do we ensure participation of women and the more vulnerable sections of society in decision-making of water resources as this directly impacts their workload, productivity and incomes?
- How do we ensure equal access to both genders in their allocation and use of water resources?

Core Objectives

- The existing gender disparities in Pakistan are so severe that they first need to be rectified through a focused approach that directly improves women's access, decision-making and participation in the use, management and development of water resources.
- We need to recognize that women's needs are legitimate and that they deserve the same level of consideration as those of other users.
- Once the above is achieved, to mainstream gender perspectives in the water sector is to ensure that the interests and needs of women as well as those of men are systematically pursued in the development of all national/regional policies and programs. Attention to gender issues should not be confined to a sector called "women's development" or addressed through isolated or marginal programs within the water sector.
- Ensuring effective women's participation in decision-making at all levels regarding water resources and in decisions which directly or indirectly impact their workload, productivity and incomes.

Strategies

- Raising greater awareness about the necessity of incorporating gender concerns and gender orientation in institutions dealing with the water sector.
- Creation of institutional forums at the village and neighborhood level which enable female participation and representation in the use of village level resources.
- Enhance the incentives and opportunities for women professionals to join the public and private sector institutions dealing with the water sector.

Proposed Actions

- Build capacity to increase the understanding of gender implications for water management, as part of an effort to empower women so that they can acquire the skills to enter water management organizations at a senior level. This involves an increase in technical and scientific education offered to women.
- A proactive effort to gender sensitize water management approaches at senior policy making levels in national structures as part of a strategy to ensure equity and increased women's involvement in these processes.
- Gender training for men and women working in water-related national and regional bodies, non-governmental organizations and private water companies.

- Awareness of gender issues among water sector professionals.
- Identify existing female institutional forums at the village level so that these can be used to enhance women's participation in the water sector.
- Include women in the Water User's Associations at the watercourse level as well as in FOs at the distributary's and minor level.
- Government-NGO collaboration for forming women's groups at the grass-roots level in areas where none exist to facilitate their participation in the water sector.
- Develop a package of incentives to enhance women's participation in the public sector and private sector dealing with water.
- Increase opportunities for women to join public sector institutions dealing with water.
- Encourage in-depth gender-sensitive consultation processes that allow participation of both women and men in decisions regarding location of water installations, technology and price implications. This may require separate meetings to ensure that women feel free to offer their opinions, and the use of female as well as male project staff.
- Ensure gender-balanced participation in management at community levels. Since the provision of water has so long been a women's responsibility in many societies, there is a great danger that efforts to increase community participation can have the unfortunate effect of increasing the work women are expected to undertake. Women continue to provide unpaid, manual work, while men secure any managerial or decision-making roles that become available
- Capacity building to equip women to perform technical as well as managerial functions. This includes the development of skills in financial management, decision-making, community participation, leadership, confidence building and communications.
- Gender training for both men and women at local levels, so that men understand and support the changes taking place in social organization. This requires also training of trainers, both men and women.

Source: Vision and Framework for Action, Pakistan Water Partnership, 2000

ANNEX-3: Example of a Policy on Women Addressing Environment Issues

Women and Environment Chapter of Pakistan, National Plan of Action for Women

The strategic actions needed for sound environmental management require a holistic, multi-disciplinary and inter-sectoral approach. Women's participation and leadership are essential to every aspect of that approach and sustainable policies that do not involve women and men alike will not succeed in the long run.

Women's experience and contributions to an ecologically sound environment must therefore be central to the agenda for the twenty first century. Sustainable development will be an elusive goal unless women's contribution to environmental management is recognized and supported.

In addressing the lack of adequate recognition and support for women's contribution to conservation and management of natural resources and safeguarding the environment, governments and other actors should promote an active and visible policy of mainstreaming a gender perspective in all policies and programs, including, as appropriate, an analysis of the effects on women and men, respectively, before decisions are taken.

Goal

To mainstream women and women's perspectives in environmental management and sustainable development

Four strategic objectives and related actions are stated as under:

1) Strategic Objective

Achieve a gender balance in all aspects of environmental decision making, particularly as it pertains to women's access to natural resources.

Action

- Ensure participation of women at all levels (formal and informal, from local and district, to provincial and national) in environmental decision-making as managers, planners implementers and evaluators of environmental projects/programs by establishing channels of communication and linkages with NGOs, CBOs interest groups and individuals involved in this field.
- Create employment for women in related ministries, departments, major corporations and development authorities in all grades
- Enhance 10% quota of women in these departments and ensure representation in senior decision-making levels.

2) Strategic Objective

Implement national and international provisions pertaining to women and the environment/sustainable development.

Action

- Review existing environmental and development related policies to integrate provisions of Agenda 21, Pakistan NCS and Beijing Platform for Action which pertain to women and the environment in collaboration with NGOs and CBOs
- Establish mechanisms at the local, provincial and national levels in collaboration with NGOs/CBOs, that integrate gender assessment in planning and implementation of policies and programs
- Create an enabling environment for NGOs/CBOs to work with women and government in the field of environment and sustainable development.
- Ensure the inclusion of a gender perspective in provincial and district level conservation strategies

3) Strategic Objective

Build capacity of ministries, related institutions (research and academic) and NGOs for integrating gender concerns and perspectives in environmental policies and programs.

Action

- Development of requisite expertise for internalizing gender concerns and perspectives for government staff and NGOs (both male and female personnel) involved in environment-related work.
- Developing gender sensitive databases, information and monitoring systems, participatory research methodologies and analysis
- Build capacity to apply a holistic approach (environmental, economic, cultural, social and gender sensitive) for the development and monitoring of programs and policies.
- Develop programs for training and research and creating resource centers to disseminate environmentally appropriate technologies to women in the following areas: soil conservation, forestry, range management and sustenance of mangroves.
- Improvement of livestock quality with improved veterinary care. Also pursuing activities like fish farming and fuel-wood growing.
- Energy efficient cooking technologies.
- Health and reproductive health programs, particularly in fragile ecosystems.
- Control of health hazards from industrial toxic wastes and pesticides
- Biodiversity
- Urban and rural water supply, sanitation and waste management.

4) Strategic Objective

Raise awareness among women regarding environmental issues, women's role in resource management and the adverse impact of toxic materials and chemicals.

Action

- Promote knowledge and advocate the role of women, particularly rural women in natural resource management (agriculture, fisheries, forestry, livestock, etc) and highlight adverse impact of toxic materials and chemicals

- Review and reform curricula to include environmental education and good environmental practice from the primary level upwards.
- Employ trained primary school teachers and team in-service teachers to instill environmental and conservation values.

Source: Extract from Women and Environment, Chapter K, National Plan of Action, Ministry of Women, Social Welfare and Special Education Department, GoP, 1998.

ANNEX-4: Section on Gender Mainstreaming in South Asia Vision Document

Mainstreaming Gender

Perception of water as an economic good: the cost differential for men and women on livelihood security cannot be overlooked given the current status and projections of loss-gain analysis due to anticipated shifts in migration pattern and changes in the utilization of water. Gender in water resource management is directly influenced by changes in income sources with the shifts from agriculture to non-agriculture domains. The cost entailed, prices paid, and opportunities lost are often higher than the benefits gained. Agricultural and non-agricultural usage of water has to balance the economic benefits of water equally between men and women.

The following recommendations complement the existing gender perspective in this vision.

- Institute appropriate legislation that provides an enabling environment for women. Gender parity should be a target for regulatory bodies at all levels especially in local level institutions.
- Women should be systematically included in the mainstream implementation level rather than on a project by project basis in an ad hoc manner. Affirmative steps should be taken to encourage and facilitate participation of working women participation in the water sector.
- Separate land rights and water rights: As land rights are bound within traditional, cultural and social practices, which are unequal for men and women in South Asia, the delineation of water and land regimes is important for securing the livelihoods of not only women farmers but also the landless men and women.
- Gender consciousness should permeate thinking about water. Gender initiatives should be undertaken on an ongoing basis and not as an ad hoc process. The introduction of Gender Analysis and Approach to IWRM objectives followed by a Gender Audit that takes into account policies, budgets and financial allocations should be formally instituted.
- Both social and economic rehabilitation should be made mandatory for water resource management programs. In recognition of women's contribution to the economy and productivity on the rights basis, compensations for the cases of livelihood deprivation and displacement of communities due to capital intensive infrastructure development (such as dams and hydropower projects) should be provided for the men and women of a household on an equal basis.
- Development and use of technology have often marginalized women. Use of women- friendly technologies have to be introduced and women have to be given the choice in technological options in the water sector.
- There is need for gender sensitized approaches to disaster relief as disasters impact men and women differently.

- Training and capacity building with respect to gender aspects in water resources management should focus on the need to change attitudes and knowledge of both men and women.
- There should also be attention on gender sensitization of women and men working in the public and private sector organizations as well as capacity building of women to enable their participation in the water sector at all levels, including policy planning and implementation levels. There should also be focus on training of engineers in a manner that makes them aware of both social and gender context.
- There should be more initiatives to get women interested in undertaking research on water resources management including research on women farmers. There is also a need for more research on water issues from the gender perspective.
- Incorporate traditional knowledge base, local wisdom and experiences of women in developing strategies and drawing lessons for the future in integrated water resource management.
- Greater networking and sharing of information for gender, water and technological issues in the South Asian region are needed. Women are repositories of information and can help to share it with others. Also, there is need for more information flow to both men and women to enable them to undertake effective decision making, efficient use of available resources and for sustainable resource management.
- There has to be adequate financial resource allocations for gender programs, initiatives and plans.
- To allow greater participation by women as stakeholders in water resource planning, implementation and management, there is need for sharing of household responsibility by other members of the household particularly men. Women should be given confidence to participate and it should be demonstrated that illiteracy does not preclude participation.
- On the whole, South Asia has to aim at the evolution of a society which has established the sustainable, equitable and efficient use of its water resources fostering gender-balanced social, economic, environmental and cultural life.

Source: Water for the 21st Century: Vision to Action, Global Water Partnership, South Asia, 2000

ANNEX-5: Women and Water Network: Goals and Functions

Short Term Strategic Goals

- The initiation and institutionalization of WWNs in each of the South Asian countries and their interaction with Country Water Partnerships (CWPs) and Regional Water Partnerships (RWPs).
- Promotion of 50% participation and membership of women in the emerging RWP of South Asia and in all Country Water Partnerships (CWPs) and Area Water Partnerships (AWPs).

Long Term Strategic Goals

- An organized women's voice in the water sector in each of the South Asian countries and a combined and strong South Asian women's voice at regional and international levels with active participation in water management at the local, national and regional level.
- The development of active groups of women in the water sector.
- Promotion of viable gender-sensitive Integrated Water Resources Management (IWRM) models.

Functions of WWN

- Identification of women members and women's organizations that can form a women's perspective on water, and highlight (as well as seek to address) those issues that particularly affect women.
 1. Women leaders in water
 2. Gender and water specialists
 3. Active water professionals
 4. Women and water organizations
 5. Women with interest in the water sector
- Development of country and South Asian perspectives (that can be effectively presented at regional and international forums) which highlight the role of women and women's organizations in the planning, development and management of water.
- Strengthening the role of women and women's organizations in planning, development and management of CWPs and AWPs and partner organizations at all levels.
- Promotion and strengthening of empowerment of women in relation to water resource management.
- Institutionalization of gender analysis and gender audit at all levels of policy, planning programs and project implementation (within the GWP family of institutions initially, and then across institutions in each country).
- Incorporation of gender focus, women specific approaches and budgetary allocations in national, regional and sectoral policies.
- Ensuring the implementation of "women-focused" approaches and budgetary allocations in CWP initiatives and programs.
- Regular interaction of these women and women organizations on the basis of AWPs, CWPs and RWPs.

- Evolution of WWNs as pressure and lobbying groups within the various identified levels, to push for solutions of issues and problems impacting on women's welfare, and roles in the socioeconomic structure of the society.
- Sharing of information, experiences and good practices.

Source: Report of First WWN Coordinators' Meeting, JVS/SASTAC, Katmandu, 2001

ANNEX-6: Summary of International Agreements Pertaining to Women and Water Signed by Pakistan

The Convention for the Elimination of All Forms of Discrimination against Women (CEDAW)⁴⁹, signed by most UN member countries including Pakistan, has remained a powerful tool for gender mainstreaming in Pakistan.

Pakistan has also made commitments to gender equality goals through the Beijing Platform for Action⁵⁰ (1995), and recognized gender mainstreaming as the process of assessing the implications for women and men of any planned action, including legislation, policies and programs, in any area and at all levels. The Beijing follow-up process continues in Pakistan, but has had little to do with mainstreaming women in the water sectors so far.

One of the four principles endorsed at the International Conference on Water and the Environment held in Dublin in 1992, recognized that: "Women play a central part in the provision, management and safeguarding of water. This pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources."

It adds that the "Acceptance and implementation of this principle requires positive policies to address women's specific needs and to equip and empower women to participate at all levels in water resources programs, including decision-making and implementation, in ways defined by them".

Principle 20 of the Rio Declaration (to which Pakistan is a signatory) states: "Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development."⁵¹

The declaration also included numerous references to the participation, capacity building, education and mobilization of women as decision makers and managers of water resources and sanitation.

In 2000, the Millennium Declaration called on all member countries to stop the unsustainable exploitation of water resources by developing water management strategies at regional, national and local level which promote both equitable access and adequate supplies. The Summit set eight key goals, many of which depend on effective water management strategies, with the participation of women.

In the Johannesburg Plan of Implementation of the 2002 World Summit on Sustainable Development, governments agreed to: "...support capacity-building for water and sanitation infrastructure and services development, ensuring that such infrastructure and services ...are gender-sensitive."⁵²

In 2003 the UN General Assembly proclaimed 2005 to 2015 as the International Decade for Action on Water for Life to start on World Water Day on March 22, 2005.

⁴⁹ United Nations Convention on the Elimination of All Forms of Discrimination against Women, 1979
⁵⁰ The International Women's Conference, Beijing, 1995
⁵¹ United Nations Conference on Environment and Development, Rio de Janeiro, 1992
⁵² World Summit on Sustainable Development, Johannesburg, 2002

It called for a “greater focus on water-related issues ... and implementation of water-related programs and projects, whilst striving to ensure women’s participation and involvement in the water-related development efforts.”⁵³

The decade will begin with the challenge of the 2005 IWRM targets. It is expected that improved water supply will be available by 2015 to an additional 1.5 billion people and improved sanitation to an additional 1.9 billion people.

Compiled by the author.

⁵³

UN Resolution 58/217, 2003, Quoted in A Gender Perspective on Water Resources and Sanitation, Background Paper submitted by the Interagency Task Force on Gender and Water, Jan 2004

Annex-7: Example of Gender Equity Strategy in a Government Body

An example of an institutional attempt to mainstream gender is SIDA'S Gender Equity Strategy (GES). GES proposes ways to address the concerns and interests of women in particular and of male and female agriculture-dependent end users in general. GES recognizes that gender disparities are additional factors which cross-cut land ownership and share cropping arrangements, making it sometimes difficult to distinguish between equity issues related to gender and those related to larger power structures.

Objective 1: To increase the capacity of male and female staff in SIDA and associated institutions to undertake their tasks with maximum efficiency

Outputs for Objective 1

- Awareness and commitment at all levels of SIDA to integrate gender equality in behavior and practices
- System and procedures for gender mainstreaming in place
- Gender responsive planning and implementation undertaken
- All monitoring and evaluation data collected and analyzed is gender-disaggregated for effective planning and program implementation
- Training and human resource development policies and procedures are responsive to gender differences and requirements

Objective 2: To strengthen the capacity of men and women stakeholders to participate in and equitably share benefits from the water management transfer process

Outputs for Objective 2

- Increased representation of women landholders and male and female non-landholders in decision-making at all levels
- Increased access for women landholders and male and female non-landholders to opportunities and resources in water management transfer, including training and access to improved resources and skills
- Group formation for men and women developed and integrated into FOs
- Plans, design, implementation, monitoring and evaluation of gender equitable programs in villages

Source: Gender Equity Strategy (GES) of SIDA, Government of Sindh, 2004

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