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Gender Mainstreaming in Water Resources Management

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INTRODUCTION

This report documents the methodology and findings of the study project on gender mainstreaming in water resources management (WRM) in the World Bank. An overview of WRM principles and gender concerns is reviewed. This is followed by a discussion of project objectives, study approach, and resultant findings. Gender analysis of select WRM projects is found to reveal low levels of gender integration in a subset of WRM projects at the World Bank to date. Interviews with task team leaders (TTLs) also reveal outstanding issues in gender and WRM at the World Bank, particularly regarding the coordination of water work across departments and regions. A framework outlining the degree to which gender issues might play a role in a particular water subsector is presented, with a focus on the axes of scale (that is, level of management) and "technological versus institutional" focus. The study concludes with specific recommendations for improved gender integration in WRM projects, including sample questions for appraisal and evaluation. Next steps and identification of potential knowledge products are also presented. Further resources such as a sample checklist and sample indicators on gender and water are presented in the appendixes.

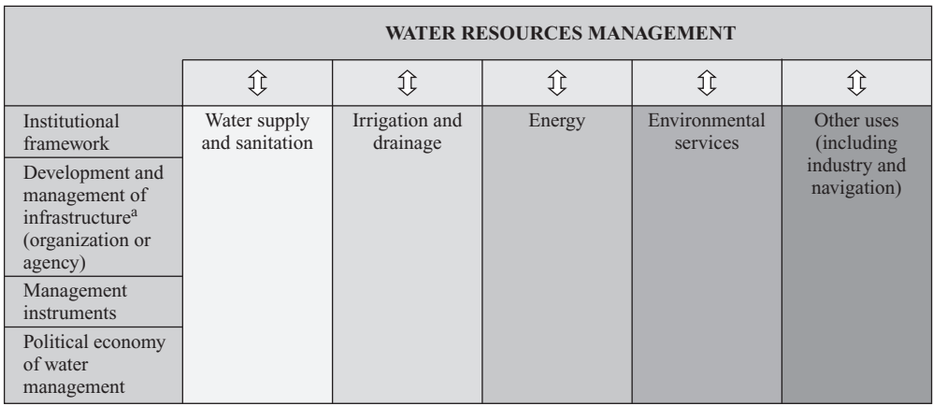
GENDER AND WRM: GLOBAL DEBATES AND THE WORLD BANK CONTEXT

The global debate on water has identified mainstreaming of gender concerns as a key element required for effective integrated water resources management. The World Bank as a key actor in this debate is striving increasingly to account for gender impacts in its project design and implementation in the water sector. This section details elements of the global debate, including the 1992 Dublin Principles on Water and Sustainable Development, in order to place in context recent Bank policy on water, most notably the World Bank Water Resources Sector Strategy (2003). The section outlines a slow but steady shift in thinking at the Bank to include gender considerations across both water services and water resources subsectors, including for example in agricultural water management. Gender concerns are also shown to dovetail well with other Bank strategies and initiatives, including: community-driven development; decentralization; and sector-wide approaches.

STATE OF THE ART IN GENDER AND WATER RESOURCES MANAGEMENT

Integrated water resources management (IWRM) has become the gold standard in project approaches to water sectors. Leaving behind agency-oriented approaches that focus on delivery of particular services (such as irrigation or municipal water supply), IWRM focuses instead on the level of the water basin and takes its starting point from the resource itself. IWRM then can be defined as the "coordinated development and management of water, land, and related resources, in

Figure 1: Comb Diagram



Source: World Bank Water Resources Sector Strategy 2004

[a]The words "Organizational" and "Agency" have been added here by the present author for purposes of clarification.

order to maximize economic and social welfare in an equitable manner without compromising vital ecosystems [or their sustainability]" (GWP 2000, 24).

Drawing upon the analysis provided by the Global Water Partnership on the IWRM concept, the World Bank has developed the idea of a WRM "comb" (World Bank 2004, 12–13; see GWP 2000). In this conceptualization, "water management is a 'comb' in which the 'teeth' are the water-using sectors and the 'handle' is the resource itself, defined by its location, quantity, and quality" (World Bank 2004, 12). In this way, World Bank and other agencies now distinguish between water-using sectors (that is, water services such as water and sanitation) and the water resources themselves ("defined by location, quantity, and quality"), while acknowledging the links between these (see World Bank 2004, 12). Figure 1 portrays the comb diagram, with the shaded areas to the left comprising the institutional and organizational aspects that condition the overall environment of WRM. The five teeth are the major water-using subsectors. The World Bank Water Resources Sector Strategy (WRSS) defines its primary focus as these institutional and organizational aspects, although it does also provide an overview of water subsector issues as an applied context for discussion. Note also that World Bank Operational Policy (OP) 4.07 on WRM identifies the scope of World Bank involvement in WRM as "entail[ing] support for providing potable water, sanitation facilities, flood control, and water for productive activities in a manner that is economically viable, environmentally sustainable, and socially equitable" (2000, 1). While seeking cost recovery and efficient allocation, OP 4.07 also seeks the "establishing [of] strong legal and regulatory frameworks to ensure that social concerns are met, environmental concerns are protected, and monopoly pricing is prevented" (ibid.).

Recent debates around water have centered on the commoditization of this essential element of human (and animal and plant) life. The 1992 Earth Summit in Rio de Janeiro resulted in the adoption of core principles on WRM, known as the Dublin Principles (World Bank 2004, 1; see box 3):

1. The *ecological principle,* which points to the water basin as the unit of analysis and seeks coordinated management of land and water
2. The *institutional principle,* which seeks people's participation in WRM conducted at the lowest level possible (closest to the end user), to particularly include women in sectoral decisionmaking

Box 3: Dublin Statement on Water and Sustainable Development, 1992

Principle 1

Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment. Since water sustains life, effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or groundwater aquifer.

Principle 2

Water development and management should be based on a participatory approach, involving users, planners and policy-makers on all levels. The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects.

Principle 3

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. 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 programmes, including decision-making and implementation, in ways defined by them.

Principle 4

Water has an economic value in all its competing uses and should be recognized as an economic good. Within this principle, it is vital to recognize first the basic rights of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and encouraging conservation and protection of water resources.

Source: COHRE 2004

3. The *instrument principle,* which states that water is a scarce resource and demands the increasing use of economic incentives

These principles reflect the notion that water is not only an economic good but a social and environmental one as well. The institutional principle provides a mandate for gender in WRM as it has been recognized by governments and organizations around the world, including World Bank, that resource allocation and efficiency can be improved when all groups participate in sector management. Competition over water is increasing both between countries as well as within countries (for example, between water-rich and water-poor areas, between rural and urban areas, and among multiple users of water in the domestic, agricultural, and industrial sectors. It is instructive in this context of competition to recall common classifications made in the water sector that refer to end use. These categories are water for nature, water for people, and water for food.

WATER SECTOR POLICY GUIDANCE AT WORLD BANK TO DATE

World Bank defines WRM as encompassing "(i) the *institutional framework* . . . of laws, rights and licenses, responsibilities . . . and standards for water quality and service provision, for the environment, land use management . . . and infrastructure; (ii) the *management instruments,* including regulatory arrangements, financial instruments, standards, plans and mechanisms (for efficient allocation and maintenance); (iii) the *development and management of (water) infrastructure;* and

(iv) the *political economy of water management reform*" (2004, 12).[1] Such an institutional view clearly surpasses old models, based on transmission and conveyance performance, which sought to minimize losses from a finite resource (for example, at the field level in the case of old models of irrigation), and account for basin-wide efficiency[2] and the net losses for downstream users when "efficiency" gains were made at one end of the system. The WRSS builds upon the 1993 World Bank Water Strategy, which, though it focused on economic, natural, and social functions of water and was in that sense an integrated approach, still sought to present a comprehensive framework wherein all uses were accounted for and linear calculations were made about water needs and flow losses across the water resources system. The WRSS argues for a pragmatic, principled approach that focuses on the political economy and institutional framework needed to effect such key principles as subsidiarity (that is, Dublin Principle 2 of devolving decision making to the lowest possible level, closest to end users).

World Bank WRSS offers a number of guiding principles for World Bank work in the water sector. These are presented in box 4.

GENDER ISSUES IN THE WRSS

Reflecting on gender and water policy at World Bank, one can observe a distinct evolution from the 1993 WRM policy paper to the current WRSS. The 1993 document stresses mainly women's role in the water and sanitation subsector, citing positive evidence of the effect of women's participation in both water supply committee management and assessments and decisions regarding site selection and the placement of hand pumps (World Bank 1993, 56). Beyond these examples of best practices, however, the 1993 strategy does not address gender mainstreaming issues directly.

On the other hand, World Bank's WRSS (2004) does include evidence of gender analysis in its formulation. Gender issues are presented in relation to a number of water subsectors. Citing the Dublin Principles regarding women's central role in WRM, the WRSS details a number of areas where gender issues should be considered. Specifically, the WRSS emphasizes women's participation in urban and rural water supply and sanitation (UWSS and RWSS), particularly in management reforms. The WRSS also expands the discussion to include

- a new focus on women's role (as farmers) in irrigation water users' associations.
- the need to protect women's informal customary rights to water.
- an emphasis on the benefits poor women in particular garner from power, irrigation, and water supply sector reforms (ibid.).

The WRSS also notes some gender-positive project impacts, particularly past success in Northeast Brazil, where large-scale irrigation projects led to a dynamic rural economy and the creation of "high-quality, permanent jobs (40 percent held by women)." The WRSS notes similar labor market successes in India in terms of wage smoothing for agricultural labor (again highly feminized) as a result of water sector investments (2004, 7). The strategy also notes with approbation the case of

[1] The WRSS uses the terms "water management" and "water resources management" interchangeably.

[2] It is now understood that supposed efficiency gains at one end of the system could result in net losses for downstream users because of flow reductions.

Box 4: Highlights of the WRSS

Background

The Strategy focuses on the water resources sector and the policy and institutional environment conditioning this sector. It refers to water-using subsectors (such as irrigation, water supply and sanitation, and hydropower) only to provide a context for water resources as a focus.

Key Areas of Intervention

- institutional frameworks
- infrastructure development and management
- management instruments (for example, cost recovery)
- political economy of water management

MAIN MESSAGES

- WRM is central to sustainable growth and poverty reduction, and thus to the World Bank's mission.
- Most less-developed countries need to manage existing water resources infrastructure and develop new infrastructure.
- IWRM is a complex vision focused on efficiency, equity, and sustainability. World Bank's strategy will be "pragmatic but principled" in order to prioritize and phase interventions, focus on political economy reform, and "not make the best the enemy of the good."
- World Bank will support hydraulic infrastructure development in-country by facilitating both public and private financing of those projects that meet environmental and social safeguard criteria. A high-risk, high-reward approach will be followed in this area.
- World Bank will play a coordinating role in water management in-country by providing a common negotiating platform.
- Water sector work will be country-specific and will fall within country assistance strategy (CAS) and poverty reduction strategy paper guidelines for sector priorities in-country.

the Uttar Pradesh Sodic Lands Project (in drainage and reclamation), where women's microcredit groups managed credit funds successfully where the men's group did not.[3]

KEY GENDER AND WATER PRINCIPLES ABSENT FROM THE WRSS

There are a number of key principles of gender and water management that the study team believes are underemphasized within the current World Bank WRSS. These include the allocation among sectors, pro-poor pricing, and representation of all users and uses. The principle that it is important to value the "nonproductive" uses of water, including human health, drinking water, and other consumption uses is not prominent in the WRSS. Although the WRSS does detail at length the concepts of high- and low-value uses, presumably using a willingness-to-pay measure, emphasizing that water allocation should shift from an agriculture bias toward municipal (drinking water) uses,

[3] This element of microcredit and self-help groups is a common feature in rural development projects now, including for example in India, where a central government agency for rural banking uses the self-help group mechanism to disburse funds throughout the country. However, the relation to land reclamation and drainage here is unclear. Self-help groups appear in many cases to be "add-on" components, though many World Bank staff view them as being very successful.

the less easily–costed subsectors such as the environment and environmental health are not considered as closely. From the above discussion, one can begin to see the stark differences in how water is approached across various sectors and the resulting need for an overarching conceptualization of water's various functions. These functions are commonly referred to as water for people (for example, drinking water), water for food (for example, agriculture needs), and water for nature (for example, environment needs). Conceptualizing water as a free-flowing resource to be allocated among various end uses lends itself to a vision that allows for a multiplicity of user-group priorities and needs.

Another avenue to protect vulnerable populations may involve close consideration of the role of customary law.[4] A recent World Bank water policy review has pointed to the need for such an understanding (Pitman 2002, 84), and the WRSS, too, emphasizes that customary water rights of women and poor men should be protected (World Bank 2004, 24). (Crucially though, these customary water rights are mentioned in the WRSS with regard to another politically sensitive aspect of water rights emphasized by World Bank, namely, the development of water markets. The WRSS thus offers protection of customary rights as a potential social mitigation measure against poor users being priced out of markets.) A gender-sensitive approach to WRM would also recognize the context of legal pluralism (that is, multiple and often overlapping rights regimes, including statutory and customary law). A progressive strategy for implementing agencies would strive to protect customary rights already held by members of disadvantaged groups while trying to expand inclusive application of statutory law.

In addition to statutory and customary law, there is the arena of what the Netherlands Development Agency (NEDA) has termed "project law"; that is, tenure system additions arising through development project interventions, particularly where new assets (for example, shrimp polders or reclaimed land) are introduced or new tenure-related organizations (for example, water users' associations) are established (see NEDA 1997).[5] Disadvantaged users, including women and male tenants, must be considered during such processes. Use of participatory forums for establishing existing claimants for water and land rights can help ensure that women and men of different ages and landholding statuses are afforded an arena in which to make their claim. Determining existing rights is particularly important in projects and formal titling schemes where new tenure systems are being developed; for example, in irrigation infrastructure, watershed development, and land reclamation projects (see van Koppen 2000 for a case from Burkina Faso). Further, use rights to water can vary tremendously among different stakeholders, as can these persons' water-allocation preferences, which are often based on the gender division of labor for varied crops (rice versus millet, for example) and the crops' physical water requirements as to amount, duration, and frequency

[4] The study team defines rights within customary law as the locally and continually negotiated system of use rights wherein women and men gain access to resources such as land and water. Individuals' rights are based on ascribed "entitlements" attached to their social position, comprising such factors as gender, marital status, age, birth order, tenant status, and other signifiers.

[5] Another example comes from agro-forestry sector. One project with which the study team is familiar implemented fruit tree development with village women by using reclaimed land at the edge of a village. Once the trees had matured and began to bear fruit, the men of the village claimed these assets as their own. Particularly where subsectoral interventions are traditionally "male" activities, or where cash value is expected to be generated, projects should provide for public negotiations, particularly in traditional tenure or village governance forums. These discussions should cover the crucial tenure questions of: (1) establishing rights to resources and their use and management, (2) rights disposal (for example, transfer), (3) regulation and amendment of rights, and (4) dispute resolution mechanisms and sanctioning for violations (see NEDA 1997). Although such social organization work does not negate the possibility of future resource conflicts, it may lessen them, and it thus constitutes a necessary step in project design and implementation.

of water application. In sum, asset and institutional development by agencies is accompanied by questions of tenure and resource control, carrying with them the scope for either enhancing or further weakening the tenure position of women and poor men.

WORLD BANK GENDER STRATEGY

The World Bank's 2002 strategic paper *Integrating Gender into the World Bank's Work: A Strategy for Action* formally recognizes the connection between gender and development by citing World Bank Operations Evaluation Department (OED) and other studies[6] that show that "gender is an issue of development effectiveness" (World Bank 2002a, 11). Although the 2002 Gender Strategy makes a business case for integrating gender, it also operates under a human rights framework by calling for inclusive development that promotes access, for both men and women, to productive resources and decision-making processes. The Strategy goes on to recommend that country gender assessments be regularly conducted as inputs to CAS preparation. It suggests that mainstreaming gender at the country level is a particularly effective means of ensuring interventions are targeted to client country conditions and commitments. The 2002 World Bank Gender Strategy has been monitored by staff since inception, with some conclusions being that women are still targeted through World Bank projects in their "social" roles (such as health and education) rather than in economic or productive ones (such as agricultural production and marketing). The Strategy also notes mixed performance in the staff's monitoring against gender indicators. Nonetheless, the annual monitoring report of the fiscal 2003 Gender Strategy (dated January 29, 2004) states that from fiscal 2004 on, reporting will be implemented within the context of sector reviews. Such mainstreaming makes improved sectoral staff capacity in social and gender analysis all the more pressing now that gender monitoring is a sectoral responsibility.[7]

The gender and water dimensions of other World Bank strategies in the areas of rural development, environment, and private sector development are further explored in appendix 2. Outside of the emphases in the allied sector strategies discussed in appendix 2, another institutional trend may also be noted. This is the increasing reliance on sectorwide and multisectoral approaches within World Bank—as well as community-driven development (CDD),[8] area development initiatives, and enhanced emphases on decentralization and devolution programs. Such emphases bode well for future gender integration efforts.

PROJECT METHODOLOGY

This section outlines the study methodology and approach, and details the instruments used by the study team. The phasing of the study is also discussed, as is the mix of quantitative and qualitative methods.

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[6] Other studies include "Voices of the Poor: Can Anyone Hear Us?" and "Engendering Development: Through Gender Equality in Rights, Resources, and Voice." World Bank 2002. *Integrating Gender into the World Bank's Work: A Strategy for Action.* Washington DC: World Bank.

[7] See World Bank 2004. "Implementing the Bank's Gender Mainstreaming Strategy: Second Annual Monitoring Report FY03" Washington DC. at http://intresources.worldbank.org/INTGENDER/Resources/FY03Annual_Gender_Monitoring_Report_Jan2904.pdf.

[8] Pitman also draws attention to the need to formulate CDD approaches to WRM (2002, 83).

TERMS OF REFERENCE

This study is intended to produce an overview of mainstreaming gender in a sample of World Bank's WRM portfolio. This report is understood to be the first such effort in World Bank, although gender issues have been explored in some water subsectors, most particularly water and sanitation and to a lesser extent in irrigation and drainage. Key elements of the study are a sample portfolio review of water resource projects that assesses the level of gender integration to date and further recommendations regarding best practices. The report is also expected to provide a typology of water-resource management activities to help identify on the relative merits of considering gender issues in particular projects, especially during project design. The study will also identify further knowledge products required for gender mainstreaming in WRM in World Bank. (For further terms of reference for this project, see appendix 1.)

STUDY APPROACH

This study evaluated the extent of gender-sensitive planning, problem identification, project implementation, and monitoring and evaluation in a sample of the WRM portfolio. Particular attention was given to such project development inputs as social assessments, the development of monitoring and evaluation indicators, and the use of gender analysis more generally in the setting of project objectives and component design.

This study places WRM issues in the broader context of policies in the water sector overall. An improved gender analysis within World Bank's program on water would improve efficiency and effectiveness of water sector investments because project design would account for all users and uses of water. A 2002 OED study on the implementation of the 1993 World Bank Water Strategy underscores room for improvement in this area. The report rates water project performance on gender as uniformly "ineffective" (the lowest score) across subsectors, including water supply and sanitation, irrigation and drainage, and environmental management (Pitman 2002, 27).

It may be noted that the framework presented in this report for identifying the relative importance of gender in water projects refers to all water subsectors (both water resources and water services). However, the projects reviewed in this study concentrated on World Bank projects that comprised more than 20 percent of funds allocated to WRM stand-alone components, as defined by World Bank in appendix 3. In practice, this means that some key sectors of water supply and sanitation, and irrigation in particular, were not emphasized in the analysis (except where they were present as subcomponents of other projects; for example, in infrastructure development). Gender issues within the water and sanitation sector at World Bank have been well analyzed by Fong and Bhushan (1996), and considerable project experience has been gained, including through such global programs as PROWESS, a joint effort of the United Nations Development Programme (UNDP) and World Bank.[9]

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[9] Still, it may be noted that at the overall World Bank level, the *Second Annual Monitoring Report FY2003, Implementing the Bank's Gender Mainstreaming Strategy* (report dated January 29, 2004), states that "increasing attention" needs to be prioritized for work on gender issues in sectors "other than health and education," particularly in rural development and urban water and sanitation, among other sectors. This suggests (as the current study team's research bears out) that although gender-sensitive implementation in RWSS is perhaps a widely understood technology, it is still neither well understood nor systematically implemented in UWSS.

Gender issues in the irrigation (and drainage) sector are less widely discussed at World Bank, although global experts have been researching these topics for several years.[10] Key issues here include the need to involve women as water users in devolution efforts, including in the water users' associations now commonly promoted within irrigation management transfer programs. Another key area is the need for recognition of *multiple uses and users of irrigation water,* including for nonirrigation purposes such as bathing, cooking, and laundry; livestock watering; rural and household industry; household-based agro-processing and seed preparation; and in some cases, drinking water.[11] Because women often have primary responsibility for drinking water and other domestic uses as well as household-based productive activities, the underacknowledgment of (and lack of planned allocation for) such multiple uses affects women more adversely. Intersectoral water-allocation questions exist not only at the local level of water users' associations' decisions about timing and quantity of water flows, but also at higher basin levels where many developing countries' policies on water resources still reflect a bias toward agricultural (crop irrigation) uses over municipal and other forms of domestic water supply. Whereas water rights advocates, backed by international treaties and national law, consider access to drinking water a human right, such access is still lacking for a great proportion of households globally. Water access, as a basis of human life, matters for men and women and boys and girls, but lack of access presents a particular gender-based burden on women and children, who are often responsible for drinking water collection.[12]

Study Constraints and Limitations

The current effort, as a scoping study, aims to provide a first cut at analysis of a sample of the World Bank's water resource sector portfolio's level of gender inclusion, and to provide suggestions on best practices and possibilities for program expansion through research, training, and global networking opportunities. Specific limitations include the small size of the portfolio sample to which the five-point gender criteria was applied. Also, the five-point gender criteria, as a tool, provides only a rough indication regarding attention to gender, though it was useful in flagging projects for more in-depth review. The small number of TTLs interviewed (five persons, representing two regions) also provides a further limitation to the study findings. Further, the findings cannot be said to be representative of all TTLs from the involved subsectors.

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[10] Van Koppen has identified the following as gender and irrigation issues now more commonly found on the agendas of irrigation institutions: land rights for women and poor men, water users' association membership rights and inclusion in local water forums, water rights at the farm level, leadership inclusion and enhanced leadership capacity for women and poor men in water users' associations (2002). In addition, note that in World Bank reviews a distinction is still made between project performance on participation and poverty impact (in which Pitman [2002] rates irrigation and drainage projects as more successful than water and sanitation projects) and project performance on gender (which appears not to have been fully mainstreamed into poverty approaches and social analysis).

[11] The degree to which rural persons are forced to use irrigation water for drinking purposes will depend most particularly on the extent of local-level water scarcity and agro-climatic zones. For example, semiarid zones, particularly where the groundwater is saline, will engender more dependence on irrigation-based sources of water for drinking in contrast to those regions and countries where there are either sound groundwater supplies or country income levels are high enough to enable the government to provide piped water service routinely (see also Bakker et al. [1999] for an in-depth case study conducted in Sri Lanka). Additionally, one of the TTLs interviewed in this study noted the importance of considering dry land areas separately from those with supplemental irrigation. The WRSS also refers extensively to climatic variation across countries.

[12] The distance to water points has been shown to directly affect the likelihood that girls will attend school, since girls are often responsible for collecting water, which can be very time-consuming if the distance is great (WHO 2003).

WORK PLAN

In the first round of analysis, the study applied the five-point gender criteria (see box 5 below) in use by the Agriculture and Rural Development (ARD) Department at World Bank to a subset of 46 projects from all regions in which World Bank operates. More in-depth investigation was undertaken for a further group of projects based on scored potential for illuminating best practices in gender mainstreaming, with discussions held with TTLs of projects that exhibited higher levels of gender integration. A set of recommendations was developed based on the findings, and these recommendations are presented in this report, which is intended to function as a "living document" that may be refined through further discussions at World Bank. Further dialogue is expected to help develop the present framework and recommendations.

The present study was divided into four phases. In Phase I, the study team met with World Bank staff members working on gender and WRM issues to refine the scope of the study and discuss methodological approaches. The team was introduced to project databases available at World Bank, including those managed by the Water Resources Management Group (WRMG). Phase II comprised a search of the WRMG database for projects that had more than 20 percent of project funds allocated to WRM stand-alone activities as a percentage of water components. Once these 46 projects had been identified (as well as a further five BNWPP-supported projects added at World Bank's suggestion), a summary gender analysis of these projects was completed by reviewing project appraisal documents (PADs) and other project documents that employ the five-point gender criteria used by the Gender and Rural Development Thematic Group of the Agriculture and Rural Development Department during annual rural portfolio reviews. This five-point gender criteria is a summary method used to assess the level of gender inclusion in projects that have rural development components. It provides a rough way to assess levels of gender inclusion by a project's use of gender assessments, gender disaggregated monitoring and evaluation, mention of gender as guiding project investment or implementation, and funding specifically allocated to address gender concerns.

The results of this analysis and preliminary discussions about a gender and water framework comprised the contents of an interim report, presented on July 2, 2004, to the project's contracting group at World Bank.

In Phase III, a key questionnaire was developed for use as an interview protocol for meetings with selected TTLs from projects that performed well on the five-point gender criteria. Phone interviews were held with five TTLs to determine their understanding of how gender was included in the reference projects, what factors hindered or helped project approaches to include gender in the

Box 5: Five-Point Gender Criteria Used by ARD

GC-1.	Are any of the following key words mentioned in the project document? gender, women, girls, female-headed households, women's participation Y/N
GC-2.	Is a gender analysis conducted as part of social assessment? Y/N
GC-3.	Is gender mentioned as a factor guiding investments or implementation according to the detailed project description? Y/N
GC-4.	Does the project explicitly allocate resources for gender activities? US$ million
GC-5.	Is monitoring and evaluation gender disaggregated? Y/N

project cycle, and broader discussions on the place of gender in WRM. TTLs provided additional documents on reference projects and, in the case of one individual, additional written responses to the key questionnaire. Phase IV comprised analysis of the interviews with TTLs and preparation of the final report. (For a more detailed description of project methodology, see appendix 3.)

RESULTS FROM SAMPLE PORTFOLIO REVIEW AND TTL INTERVIEWS

Results from the sample portfolio review show variation in performance on gender indicators. Reasons for this were explored through in-depth interviews with TTLs. In addition to the subsector foci discussed previously, other potential factors for divergent results on gender mainstreaming include varied regional requirements for social and gender assessments, policy environment in-country and client receptivity to gender, and development or project environment in-country (for example, an enabling NGO environment, or national history of women's and social movements). Although the level of gender inclusion may vary by project, a number of missed opportunities are identified, revealing a need to better identify and address gender concerns throughout the project life cycle.

Reporting on Five-Point Gender Criteria: Project Cycle Information

The first round of analysis on the selected projects that used the five-point criteria revealed some striking patterns in the extent of gender mainstreaming in WRM projects at World Bank.[13]

The core-group projects represented all six regions in which World Bank works, with sample presence in rough proportion to their presence in the universe of projects. The sample projects were overwhelmingly in the agriculture and environment sectors, with other sectors such as urban development and WSS represented to a much lesser degree.

Overall, the team found that gender was not generally mentioned in project descriptions as an issue requiring specific redress. There was a minority of projects in which project funds were allocated for gender-specific activities within the budget. From among the 46 core-group projects reviewed, eight exhibited gender-sensitive design in terms of the first three gender criteria (that is, GC-1 through GC-3: gender key words, gender analysis in social assessment, gender as a factor in project design).[14] The two remaining categories (GC-4 and GC-5: separate allocation for gender activities, and gender-disaggregated monitoring indicators) proved even more difficult gender benchmarks, with three projects scoring positively on both. Notably, of these three, only one (the

[13] Note that the following discussion will concentrate on the 46 core-group projects (corresponding to projects listed in regular font in appendix 3).

[14] These eight projects were (1) Ethiopia Pastoral Community Development, (2) Niger Private Irrigation Promotion, (3) Uganda LVEMP Supplemental, (4) Cambodia Rural Investment and Local Governance, (5) Indonesia—Water Resources and Irrigation Sector Management, (6) Morocco Pilot Fisheries Development, (7) Bangladesh Fourth Fisheries Project, and (8) India UP Sodic Lands II.

Bangladesh Fourth Fisheries Project) was represented among the original group of seven projects that had scored well on the first three gender indicators.

One reason for these relatively low levels of gender mainstreaming could be the type of projects reviewed. As the draft framework (presented later in this report) demonstrates, some water projects simply generate fewer gender issues than others, owing in particular to their scale and degree of closeness to people. Further, subsectoral foci and portfolio sector emphases also affect how a project performed in our team's review. Projects centered on water supply and sanitation or irrigation and drainage were not the focus of this review, because the former has been the subject of several gender mainstreaming initiatives, and RWSS projects in particular often consider gender issues more routinely as a matter of best practice.

It is also worth noting that, for example, the average score (1 being the lowest score, and 5 the highest) for sample projects from the rural development sector was 2.00, whereas for the environment sector it was 0.73. These two sectors represented the bulk of projects in the sample. Again, it may be more reasonable to say that project types (especially local-level integrated agriculture projects, as are common in this sample) were more amenable to high scores by virtue of their activities, than to say that the rural development sector work was particularly focused on gender (although anecdotal evidence from the TTLs interviewed also suggested that gender is well integrated into the concerns of the rural development portfolio).

The issue then in partially explaining the low level of gender integration would be to not focus solely on performance against these five simple indicators, but instead to assess what the *overall* program portfolio looks like in terms of relative emphasis on technical versus social or institutionally focused projects. Further, it might be assumed that those regions, such as South Asia (SAR) Region, that host portfolios more focused on rural projects that have community development elements can more easily integrate gender elements than those regions focused on either highly technical projects (for example, meteorological system improvement or pollution mitigation), as in the Europe and Central Asia (ECA) Region, or large-scale infrastructure projects including dams and hydraulic works, as in the China projects of the East Asia and Pacific (EAP) Region, where gender issues rest mainly in approaches taken in resettlement.

For the sample portfolio review, clear regional patterns could be observed when the five-gender criteria were applied. SAR projects were the most consistent in terms of applying gender analysis in project assessment and design (see table 1). The ECA did not perform as well using these criteria. Possible reasons for regional variation in performance on gender indicators are explored later in this report, drawing on interviews with TTLs.

Project appraisal documents (PADs) were available for four additional BNWPP-supported projects, and a technical appendix was available for a fifth BNWPP project. These five projects exhibited lower levels of gender mainstreaming. Among these BNWPP-supported projects, only the Nile Transboundary Environmental Action Project scored well on the first three indicators. None of the BNWPP-supported projects scored well on indicator GC-5, and only one scored positively on GC-4 (see table 2).

It is important to note that the projects reviewed scored poorly in terms of gender-sensitive monitoring and evaluation. Of the 46 core-group projects reviewed, only three projects included *any* gender-disaggregated indicators. Of these three projects, two were in SAR. Regardless of the degree of gender-focused interventions in a particular project, the majority of projects do aim for

Table 1: Regionwise Results for Core Group Analysis of 46 Projects

	GC-1	*GC-2*	*GC-3*	*GC-4*	*GC-5*	*Total*[15]	*Extent of Gender Integration*
Indicator / Region	*KEY WORD*	*GENDER ASSESS.*	*FACTOR IN DESIGN*	*FINANCIAL ALLOC.*	*M/E*		
SAR	Y (5) N (0)	Y (5) N (0)	Y (2) N (3)	Y (3) N (2)	Y (2) N (3)	Y (17) N (8)	High (68%)
MENA	Y (5) N (2)	Y (4) N (3)	Y (2)[16] N (4)	Y (2) N (5)	Y (1) N (5)	Y (14) N (19)	Medium (42%)
AFR	Y (4) N (3)	Y (4) N (3)	Y (3) N (4)	Y (1) N (6)	Y (1) N (5)[17]	Y (13) N (21)	Medium (38%)
EAP	Y (4) N (4)	Y (2) N (6)	Y (2) N (6)	Y (0) N (8)	Y (0) N (8)	Y (8) N (32)	Low (20%)
LCR	Y (4) N (6)	Y (2) N (8)	Y (0) N (10)	Y (1) N (9)	Y (0) N (10)	Y (7) N (43)	Low (14%)
ECA	Y (1) N (8)	Y (1) N (8)	Y (0) N (9)	Y (0) N (9)	Y (0) N (8)[18]	Y (2) N (42)	LOW (5%)

[15] The figures in the totals column are intended simply to give an indication of performance across the range of indicators. The indicative percentages provided in the last column summarize only the proportion of "yes" results across all five indicators for projects reviewed from each region.

[16] MENA Region projects reviewed included one project for which only the technical appendix was available. Thus, on GC-3 and GC-5, the projects do not total seven.

[17] The projects under this indicator total only six because one project reviewed from the Africa Region (AFR) had only a staff-appraisal report available for inspection; hence, a detailed monitoring plan could not be examined.

[18] One of the projects under the ECA Region could provide only with a technical appendix, so the monitoring plan was not detailed and could not be reviewed under this indicator.

some outcomes at the level of individuals. There were many examples of projects that called for monitoring of training of "farmers," economic impacts on the "community," and increased participation by "village representatives." Such aggregate terminology can obscure gender outcomes in the field, even unintentionally.

One indicator among the five was especially difficult to apply, namely GC-4, regarding specific financial allocations for gender activities. Although there were almost no explicitly gender-oriented activities (for example, gender-training or -sensitization workshops; or gender research, with the exception of one project), there were a few projects with sub-subsectors that had a large gender impact or that were oriented toward women (for example, shrimp fry collector training—most shrimp fry collectors are women and children—in the Fourth Fisheries Project in Bangladesh, or fish processing training for women in the Morocco Pilot Fisheries Development Project). However, these line items were not always quantified in the documents.

Table 2: Results from Five-Point Gender Analysis of the Sample WRM Portfolio

Five-Point Criteria	*1. Are any of the following key words mentioned in the project document? gender, women, girls, female-headed households, women's participation* *Y/N*	*2. Is gender analysis conducted as part of a social assessment or analysis?* *Y/N*	*3. Is gender mentioned as a factor guiding investments or implementation?* *Y/N*	*4. Does the project explicitly allocate resources for gender activities?*	*5. Is monitoring and evaluation gender disaggregated?* *Y/N*
Core-group projects	Y (23) N (23)	Y (18) N (28)	Y (9) N (36)	Y (7) N (39)	Y (4) N (39)
BNWPP-supported projects	Y (3) N (2)	Y (3) N (2)	Y (1) N (4)	Y (1) N (4)	Y (0) N (5)

Even more difficult to track are projects that are designed to include women; for example,

- (women's) self-help groups for credit.
- water users' associations or farmers' associations including separate women farmers associations (as supported in the World Bank WRSS).
- "master trainers" from among male and female farmers, as in the case of the extension volunteers.[19]
- sectors such as local governance and institutional devolution.

Financial disaggregation for gender-specific project components is not always done. Further, such disaggregation is not always possible, since some gender outcomes, of course, depend on factors such as response among different user groups, women's participation, and staff motivation. Nonetheless, the GC-4 indicator, as the only quantitative indicator among the five criteria, remains a powerful one, showing the proportion of project funds that has an explicit gender focus (see table 3).[20]

[19] Another example is from the Niger Private Irrigation Promotion Project, where market gardens for women were planned, but explicit financial allocation was not disaggregated. At an even larger scale, the livelihoods component in the Ethiopia Pastoral Project was a central plank of the project and had a social sector focus (health and education, as well as veterinary services) with large positive gender implications (that is, women would probably benefit). Notably, this project also had a gender specialist assigned to it—this is another good practice.

[20] It is noted here that in the *Gender Analysis of Rural Portfolio Review FY2003*, prepared for the World Bank ARD by the Gender in Rural Development Thematic Group, the financial allocation indicator (herein referred to as GC-4) is further divided into three levels in order to avoid the problem of gender-specific activities for which no funds have been allocated. The review lists Level 1 as specific allocation for gender activities; Level 2 as projects that mention gender explicitly in the detailed project description of the PAD, even if specific amounts are not detailed; and Level 3 as projects where gender is not mentioned as a component or subcomponent. There appears to be some overlap between these and other ARD gender criteria indicators.

Table 3: Examples of Gender-Specific Project Funding (GC-4)

Project	*Funding Allocation*	*Total Project Cost*	*Subcomponent*
Examples of Gender-Focused Components with Specific Funding[22,23]			
Honduras Emergency Disaster Management (TAL)	US$0.19 million of total project cost of US$12.0 million was allocated to studies on gender differences in disaster response and communication.		
Bangladesh Fourth Fisheries Project	US$0.2 million of US$60.8 million total project costs was allocated for training of shrimp fry collectors (customarily women and children).		
Morocco Fisheries Development	Unspecified portion of a subcomponent of US$0.4 million (of total project cost US$12.9 million) was allotted to train women in fish processing and to establish a separate women's unit.		
Iran Environmental Management Support Program	Unspecified portion of US$3.8 million (from total project cost of US$20 million) for a subcomponent on environmental training was allotted to renovation of a girls' dormitory.		
Examples of Nonspecific Funding that Effects Good Gender Mainstreaming			
Uttar Pradesh Sodic Lands II	Unspecified portion of a subcomponent of US$138.3 million of a US$286.6 million project was allocated for on-farm development and land reclamation. Plans included male and female user groups and women's self-help groups for credit services.		
Watershed Management Hills II	Unspecified portion of a subcomponent on institutional strengthening (US$53.8 million of a total project cost of US$135 million). Plans included income generation activities for women.		

[22] We have divided the table in this way to show that gender-positive outcomes (sometimes more sustainable and far-reaching) can sometimes be achieved through mainstreaming gender activities across the project, in contrast to gender-specific allocation for example. However, to ensure that mainstreaming does not render gender concerns invisible, one must have strong gender analysis in project planning, especially in the monitoring and evaluation indicators that appear in the legal agreement. One must also have specific project mechanisms to guard against so-called "gender-neutral" implementation.

[23] Fisheries projects in general appear to have done as well on gender-inclusive design; however, consider the case of the Albania Pilot Fishery Development Project, which had no gender analysis or mention of women.

The *Gender Analysis of Rural Portfolio Review FY2003,* conducted by the Gender in Rural Development Thematic Group for the World Bank ARD, indicated that the share of explicit lending for gender activities across all rural projects in fiscal years 2001, 2002, and 2003 was approximately 3 percent of total rural project lending in fiscal 2001 and fiscal 2002 and less than 1 percent in fiscal 2003[21] (this figure does not include resource allocation by projects that contain provisions to address gender constraints but do not specify funding for these activities).

[21] Gender in Rural Development Thematic Group, ARD, World Bank. Various years, Gender Analysis of Rural Portfolio Review.

Missed Opportunities

Following are some examples of missed opportunities to improve gender outcomes in the original 46 WRM projects surveyed.

- A study is commissioned on indigenous rights to water, but no mention is made of gender analysis in the study, which considers only one form of social exclusion and disadvantage.
- An in-depth poverty analysis is conducted regarding project impacts on local employment, but gender is overlooked.
- Outreach activities specify a focus on "youth" as a generic category. The project planners might rather have questioned whether boys' and girls' resources and aspirations are similar or different in that project context.
- There is recognition of the multiple uses of water in the water basin in which one project is based, with a modeling component to investigate these uses and allocation implications therein. However, the gender aspects of multiple use and direct or indirect gender impacts possible through changes in water allocation are not discussed.
- A government "women's unit" department is included in project appraisal work; however, there is no specified role for it, nor any gender-focused activities in the final project design.
- Monitoring indicators developed remain gender-aggregated at the community level, despite the fact that the project specifies an "increase in availability of water for multiple uses" as a performance indicator. Here, multiple uses are enumerated, but *users* (that is, women and poor men and their social characteristics) remain invisible.

In summary, the sample portfolio review found clear patterns of regional variation in gender mainstreaming. Although several instances of gender good practice were identified, a number of missed opportunities for greater gender mainstreaming in the project cycle were also found. The review demonstrated that integration of gender in WRM has not been implemented systematically. First, regional requirements for social and gender analysis of projects vary. Second, guidelines for gender integration are not available for all water subsectors. Gender-sensitive project design requires project identification and assessment where women and men's needs, interests, and concerns are heard and responded to through context-specific interventions tailored to the local gender division of labor and social norms in the field. Other cross-cutting factors such as age, religion or sect, caste, and ethnicity must also be taken into account, particularly during social assessments. Provision for engendering the project cycle, from preparation and design to monitoring and evaluation, is crucial. Collection of gender-disaggregated data over the life of the project is essential to ensuring that project impact on all beneficiaries is captured accurately. In addition, as interviews with TTLs show, it is important for the project to remain flexible enough to accommodate unexpected or underestimated needs and constraints once implementation is under way.

Factors Influencing Possibility for Gender Inclusion in Bank Projects (TTL Interview Results)

As a follow-up to the sample portfolio review, interviews with TTLs provided more in-depth, experiential data on factors, both internal and external to World Bank, that could influence the degree to which gender issues are incorporated into a particular project. These include the factors discussed in the following paragraphs.

Issues internal to bank

- Individual TTL interest and competence in pursuing gender within a project.[24]
- Size, time frame, and type of project.
- Choice of subsector (including subsectors that are "closer" to gender issues). Some departmental pressure was said to favor certain subsectors over others.

Bank-client issues

- Impetus for particular project. For example, the client country may have identified a particular project for rapid implementation, leading to a reluctance to follow through on gender, institutional development, and governance guidelines although TTLs stated that they believed application of these would have improved overall project quality in the end.

Issues external to bank

- General level of interest by the client country in gender issues. One TTL commented that World Bank tends to push such issues as gender and environment, as well as safeguards, financial mechanisms, and corruption prevention and accountability. Another said that TTLs must be able to "sell" the need for gender and its practical import in the field, sometimes through funding demonstration projects on a pilot basis. Yet another TTL gave the example of the mainstreaming of toilet facilities for girls in Punjab schools through a World Bank Punjab rural education project, showing the difference this made to girls' attendance.
- The degree of domestic political pressure or support (from civil society or the state apparatus) for gender-positive change. One TTL gave the example of great strides having been made in gender and land rights in Latin America because of the strength of the women's movement there. Another gave a historical legacy example of Tunisia and its long political historical record of advancing women's rights, thanks to particular national leaders' preferences in the past.
- Political legacies with regard to centralization tendencies in administration. The community-driven projects that are being emphasized within World Bank now can be hampered by historical legacies of a tight rein by central government over such basic services as health and education. It is more difficult to integrate gender issues in centralized projects, said one TTL.
- "Receptive" or "conservative" outlook and social structure in the project area. In other words, during implementation a project may be accepted at the national level but be rejected for social reasons at the local level. The case was given of a project in Morocco, which tried

[24] One TTL commented that for gender issues it matters whether the task manager has a personal commitment to the issue and personal experience seeing how gender makes a difference. Without that, the TTL thought gender checklists, data sheets, and so on are just window dressing. Another TTL even conceded that gender issues are sometimes "backfitted" to projects as preparation. Another TTL noted World Bank's dwindling support for particular subsectors, particularly fisheries, because of the perception that they are "risky" (that is, they hurt biodiversity, engendered national corruption with fishing lease transfers, and caused international political conflicts over fishing boundary disputes). Notably, support for fisheries is declining despite the subsector's known contributions to the employment and livelihoods of the coastal poor and women.

unsuccessfully to increase women's participation in local governance. Innovative approaches to women's formal representation are particularly necessary in such settings.

- Country's level of economic development. Low GDP levels can affect possibilities for cross-subsidization in UWSS or RWSS even though it is known that project design elements such as user fee structures affect users differentially, including on a gender basis.

Other Issues Arising in TTL Interviews

TTLs also raised a number of other issues related to gender and water resources at the Bank that bear reporting here. These ranged from organizational questions such as the role and use of Bank strategy documents in project identification to strategic issues such as Bank debates on and progress towards a rights-based approach to development.

- TTLs agreed that gender issues were most likely to come to the fore in local-level, community-based projects, particularly in subsectors such as UWSS and RWSS (though more in rural than in urban projects, because of the more technical and large-scale nature of the water systems infrastructure constructed in urban environments. These systems often result in reduced scope for community participation). Projects dealing with irrigation and water users' associations were also recognized as having gender issues, as were initiatives like water harvesting (in contrast to large-scale irrigation projects, which one TTL thought raised fewer gender issues).
- In general, TTLs considered sectoral strategies as documents existing "out there," providing principles for consideration during project preparation. Country-specific strategies (poverty-reduction strategy paper, CAS, country rural development strategy) were considered far more pressing frameworks to consider.
- One TTL stated that a key issue still unaddressed in gender and WRM at World Bank was that of rights. The TTL emphasized the need for rights-based analysis and work on control over assets and resources, in contrast to the current World Bank approach of "increasing women's access to services" and training.
- The same TTL also stressed that strategic gender issues (versus practical gender needs) are still not commonly addressed through World Bank projects. Here he highlighted the importance of women's participation in formal decision making. He said that it was not just a matter of quotas and seats but that the quality of decision making and women's contribution to it must be examined.[25]

Organizational Issues: Resources and Constraints

During the interviews, TTLs identified the following factors as obstacles to mainstreaming gender in WRM:

- Small social and environmental teams (in terms of staff strength) result in overcompetition for disciplinary input into individual projects within a region.

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[25] Notably, the Bangladesh Country Gender Strategy (2000) listed planned projects in water management improvement and Gorai River restoration, which hosted gender objectives of "empowerment of women as decisionmakers in water and local rural infrastructure management" (21).

- Regional variation was observed regarding policy for carrying out social and gender assessments during project preparation.
- Staff stressed that although the "new [World] Bank" stressed the importance of social assessments, following through on this was not always easy.
- Lack of targeted and applied training for staff and low prioritization of training in individual work plans. No TTLs had taken a full gender course, explaining simply that gender trainings were "too introductory." TTLs reported that they found brown-bag training more useful than courses. One TTL noted that a three-day project cycle training often includes only a one-hour component on gender.

TTLs recounted that all gender issues were "caught" by social team supervisors early in the project development process. They said that gender issues rarely came up in project reviews (above team, advisor, and sector levels) prior to World Bank board approval. One TTL said that World Bank reviewers at higher levels consider gender "too small an issue" to require a halt in a project's work. Rather, reviews tended to focus on issues such as receptiveness of the policy environment in-country and the fit of proposed project instruments with the political economy of the client government.

The study team perceived a lack of ownership for gender issues among nonsocial staff members. Gender was seen as an isolated "sector" with a few projects (for example, girls education projects. However, one TTL noted that a global research program on gender was starting to highlight possibilities for effective gender intervention across various sectors.) This lack of ownership may be due in part to the fact that non–social staff members are not accountable for specific gender-positive outcomes in their projects. One TTL said that although it was the correct direction to go in, he did not think that World Bank was at the stage yet where gender tools had been refined enough to track key gender milestones (implying that better tools were needed). He did say that gender had been mainstreamed within implementation completion reports and post-implementation completion reports.

Interestingly, although staff members relied on social-team members to identify gender issues for them on projects, TTLs interviewed generally displayed a good basic knowledge of gender issues within the water sector, suggesting a firm base upon which to build future mainstreaming efforts. Other TTLs indicated that professional collaboration with gender experts outside World Bank (for example, from the International Water and Sanitation Center) or professional research responsibilities within World Bank (for example, in World Bank Institute) had provided them with some understanding of gender issues.[26]

[26] Review of the Bangladesh Country Gender Strategy also highlighted the fact that global OP 4.20 is "not incorporated systematically and [has] achieved limited results" (10). Whether this is a pattern across regions is a subject of investigation, but given similar staffing arrangements and lack of mainstreamed responsibility for gender, it is likely that the Bangladesh experience would be repeated many times over. The Bangladesh Country Gender Strategy report states, "It is clear from reviewing project documents that gender analysis was not systematically incorporated across the country program. Few staff [members] were familiar with OP 4.20 and as a result gender analysis was not conducted as a normal part of macro, sectoral, or project preparation work. Instead such analysis was done on a piecemeal basis" (2000, 10).

TTL REFERENCE PROJECTS: BEST PRACTICES AND CHALLENGES

The most effective projects combine gender-sensitive analysis and management throughout the project cycle. Project needs assessment, implementation, and monitoring and evaluation procedures should be examined for the degree of inclusiveness sought at different project stages. This can be achieved through, for example:

- use of gender-differentiated focus groups (along with focus groups that include ethnic minorities and members of poorer socioeconomic strata).
- provision for women and men's participation (either separately or in mixed groups, depending on local social norms) in project management committees and other organizations set up through the project.
- flexibility in project components, depending on midterm evaluation results and use of iterative project monitoring methods.
- gender-disaggregated monitoring indicators as well as alternative impact evaluation mechanisms, including qualitative assessments.

Review of PADs and other documents as well as discussions with TTLs revealed best practices as well as challenges outstanding with regard to gender and water. Highlights by way of project examples are presented in the following text according to their stage in the project cycle.

Project design

- Funding provision for a women's unit in one country's ministry of fisheries. The women's unit's explicit objectives were gender mainstreaming within the unit and across other ministries, and quantifying the economic contribution of women to fisheries. The unit (and its interministerial links role) proved effective. While such stand-alone units can sometimes be vulnerable to isolation that hinders mainstreaming, in many cases they are also visible resource sites for government departments to channel and track enhanced program efforts for women and poor men.
- Providing for *male and female extension workers*. Explicit planning for the needs of female and male farmers (both to increase social access to female clients and to elicit different crop knowledge and processes that may be required for project design and modification) is an example of a best practice in gender and agriculture (see Fong and Bhushan 1996).
- Working with NGOs to foster greater inclusion. Learning from earlier project phases, staff in a number of case projects allotted a large role for *NGO social mobilization* and inclusion of the poor and women in follow-up projects.
- Hiring a dedicated gender specialist. Employing a dedicated gender specialist on the project, possibly one who has additional subsectoral expertise, can result in a more practicable and applied approach. In the case of one pastoral development project, the gender specialist had a small-scale enterprise focus, which was both in demand and allowed for greater mainstreaming of gender concerns in project design and implementation.[27]

[27] This project example comes from the core group of 46 projects, not from the reference project group.

Project implementation

- Recruiting *female staff* facilitates engaging with more women (where there are restrictions on male and female interactions). Creative yet simple and economical shifts in project implementation can positively affect female staff recruitment and retention. One TTL interviewed gave an example from Bangladesh where three-wheel vehicles (with a pillion seat) proved to be preferable over the usual motorcycles allocated for work-related travel since the former allowed women to move around the villages in a socially accepted way. Another example included posting husband and wife officers in the same locale so that they would not suffer from living apart.

- Granting *land title* to widows (from female-headed households) as was done in one project (though, notably, no joint land titles were granted). This approach may have improved gender outcomes.

- Identifying the *gendered impacts of policy changes* and deviations from the original project design is also important. In one project a national ban on shrimp fry cultivation, because of environmental concerns, meant an adverse impact on women's employment (and the proposed project component related to shrimp fry cultivation). In response, the project management unit sought proposals from coastal area NGOs for alternative economic activities with women, and planned as part of an exit strategy for some efforts to extend beyond the life of the project.

- Promoting *women's self-help groups* within projects and promoting income-generation projects for women is another effective technique generally. However, it is important to ascertain whether women's contribution is in the form of unpaid labor (for example, in artisanal production projects) and whether women are controlling the income derived from their work.

- Encouraging close *collaboration among donor agencies* in-country allows lessons learned to be shared among project implementers, especially where some agencies have a particular expertise in social issues or a number of livelihoods-focused projects in-country.

- Focusing on *gender staffing assessment* and organizing meetings with female staff to understand requirements for an improved work environment (in a government fisheries department). Notably such a gender staffing assessment was not part of the original project design but was identified as an issue in the midterm review, and the project management unit responded flexibly. The effort was made more sustainable through later elaboration of an action plan regarding female staff. The TTL believed a contributing factor was that the gender-positive goals of the midterm review matched the government's existing gender equality goals from the ministry of women's development, regarding women's employment and training, including reducing the gap between male and female employment levels in the national government. This example highlights the importance of *consonance across project and policy goals,* with opportunities for synergistic impacts. Also, although policy advocacy, even of an informal sort, was not explicitly mentioned by TTLs in the interviews, other development agencies have found policy advocacy a potent tool in seeking gender-positive and antipoverty change.

Nearly there: Cautionary tales and outstanding challenges

- TTLs noted large gaps in protocol among water sector departments at World Bank. Objective and performance indicators ("rules" for best practice) can vary considerably, and there may be real clashes regarding poverty and equity (including gender equity) impact.
- One TTL emphasized the importance of setting project indicators that match the actual project goals and activities. In the reference project, three of the five key indicators for the project specified agro-fishery production and income targets, while only one of the key indicators addressed the institutional development issues at the core of the project. Further, key project objectives of biodiversity were not monitored. The TTL said that such overreliance on economic indicators is a common occurrence among World Bank projects: staff and reviewers are biased toward quantifiable impacts, including production targets. Qualitative assessment methods should also be considered for monitoring project implementation and may be more effective in understanding changes in power dynamics and strategic gender interests. In this case, a joint-donor midterm review suggested changes to the monitoring framework, and the project management unit finalized these for project approval.
- Other important aspects of project design are the newly designed institutional arrangements within an existing local sociopolitical environment. In the case of one fisheries project, fisheries management committees were located under village development committees. The latter committees were more easily captured by elites, yet even at the fisheries management committee level, women had difficulty in reaching leadership positions. Explicit mechanisms for encouraging women's leadership in these committees are necessary (including capacity-building efforts), since simply establishing targets and quotas for women's participation does not necessarily achieve the desired end of enhancing women's voice and interest-representation in local-level decision-making bodies.
- In another project, user committees organized on the basis of small agroeconomic units (from 10 acres to 4 hectares, organized around water points) worked well in terms of women's participation, but the village-level site implementation committees remained more impervious to females assuming leadership roles. It is for reasons such as this that separate male and female groups tend to work well. Designated positions for elected female representatives of village councils and other decision-making settings such as water users' associations may be one route toward increasing women's voice and the representation of gendered needs and interests. Pro-poor outcomes (for example, in water users' associations) can also be enhanced through participation by poor male tenants and nonagriculturalists (for example, small-scale industry representatives, pastoralists, and fisherfolk).
- In situations where women cannot meet the requisite labor contribution (for example, in land clearing and leveling operations) because of a lack of household labor (perhaps resulting from temporary or long-term male out-migration or from the death of the spouse), community labor contributions on behalf of vulnerable households may be arranged from the outset. One TTL interviewed reported doing this on an ad hoc basis during a monitoring visit. However, a more gender-sensitive and sustainable approach would be to identify vulnerable households, including female- and elder-headed households, as part of household beneficiary identification during project assessment by using participatory

methods. Through this process, the community could also be made more aware of the need for such social protection and mitigation responses.[28]

- One project from the MENA region stated that each national program within the project must allocate a minimum of 10 percent of microgrant funds to women and women's organizations. This gender-specific target, however, was not accompanied by evidence of gender analysis throughout the project design.
- One TTL raised the issue of financial monitoring, pointing out that it is particularly difficult to monitor allocations in the water sector because, unlike health or education spending, which is usually centrally controlled, water monies tend to be an amalgamation from local and regional funds as well as community or user contributions in some cases. Thus, tracking allocations becomes difficult; even more so when one wants to track particular expenditures against gender targets. This TTL asserted that decentralization projects (and corruption effects) raise a further level of difficulty in tracking funds because it is hard to monitor the final destination of funds administered at the local level.

UNDERLYING PROJECT ASSUMPTIONS THAT MAY RESULT IN SUBOPTIMAL GENDER OUTCOMES

This section lays out a number of gender-biased assumptions that project planners may hold in designing water resources management projects. The link between gender bias in assumptions and resultant suboptimal project design outcomes is discussed. The assumptions discussed in this section revolve around the nature-society interface, and also refers to project conceptualization of "productive" activities. The importance of laying a virtual social map over the basin resource is emphasized in this section as a route to more equitable analysis of multiple users and uses of water.

- Assumption 1. "It is valuable only if it is monetized."

  Assumptions such as the one above tend to devalue production of subsistence crops, which have important food security implications and, in the case of some African countries, are often women's responsibility. Agricultural intensification and introduction of cash crops will have varied gender impacts, depending on local systems of land rights and entitlements and the existing pattern of such gendered phenomena as male out-migration to cities

[28] It is important to recognize here that labor contributions, while usually external requirements by donors seeking some form of cost recovery, also function as a key element in the production of rights to assets (for example, to new land developed or infrastructure built). According to Netherlands Development Assistance (1997), such labor investments and continued maintenance or rehabilitation strongly legitimize individuals' claims to the improved land or other assets. So the elderly woman who met with the TTL during a monitoring visit and expressed concern that she would lose access to reclaimed lands since she could not contribute labor was justified in her worry according to the literature on resource access and rights. Thus efforts to effect social protection measures within such projects by requiring community labor donations should also be monitored to see how far it is possible to also fully transfer the resource rights (in the eyes of other villagers who are, after all, negotiating resource rights among themselves constantly) to vulnerable individuals, without the associated labor input.

(affecting, for example, local availability of household labor, as in the land-leveling example provided earlier). Male out-migration has been identified as an issue also in medium-income countries, such as Armenia, where a social assessment described extensive male out-migration to Russia for employment.

In the case of water and pricing reforms, uses of water for consumption and so-called "nonproductive" purposes can be adversely affected by rises in water fees, with possible health impacts (for example, when bathing and sanitation uses are self-restricted).

- Assumption 2. "Women's livelihood and production contribution to the household is secondary; they are not farmers, fisherfolk, or pastoralists." Also, the corollary: "Women are concerned only with collecting water for drinking or with doing small activities such as income generation by using microcredit."

  One result of ignoring women's role in production is that user committees do not accurately represent all users or uses.[29] This is the case of irrigation water user associations that do not consider the needs of those using irrigation water for noncrop purposes such as domestic use, livestock watering, kitchen gardening, or household industry. Considering multiple users may mean, depending on the local socioecology, including not only male and female farmers (whether or not they participate directly in field-level application of water) but also fisherfolk of both genders, those working in small-scale industry, and others.

  A classic example of gender-biased targeting of beneficiaries can be found in the sample project portfolio where women were targeted as health-clinic beneficiaries while men were recruited for water users' association membership.

- Assumption 3. "This project is really about 'water for nature' or 'the environment.'"

  Ignoring the nature-society interface or, more specifically, the multifold elements in rural and urban livelihoods (comprising natural, physical or built, economic, social, and human capital) will likely result in worsened outcomes for the most vulnerable groups (women and minorities), who are likely to rely on complex livelihood combinations.[30] A typical example is the development of nature parks (often for tourism, government natural resource revenues, or both, with incomes often going to a select few unless community representation mechanisms are instituted). The advent of such parks often changes tenure rules abruptly, with common property access (for example, to nontimber forest products or water sources by women, tribal, or other populations) suddenly outlawed. Careful attention to the matrix of users and uses of water and land resources in project planning stages can help avoid such scenarios.[31]

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[29] See Zwarteveen and Neupane (1996) for research results from Nepal on women's role in irrigation and irrigated agriculture.

[30] This elaboration of different forms of capital is part of the Department for International Development Sustainable Livelihoods Framework, which can be found at http://www.livelihoods.org/info/guidance_sheets_pdfs/section1.pdf. (See also Moser and Norton 2001.)

[31] Bakker et al. (1999) found significant areas of cooperation and conflict among the following users (many of whom were not formally represented in water users' associations) of irrigation water in a basin in Sri Lanka: those working on irrigated crops, livestock care, fisheries, household industry, and kitchen gardening. Drinking water and environmental uses were also present with, for example, persons responsible for drinking water coming into particular conflict with fishers and livestock keepers.

Finally, this sample portfolio review found a number of projects that seemed overly focused on hydrology without considering the social context. Notably, some projects and specializations break down barriers of people versus nature, most particularly in the case of environmental health and vector control. For some time, water experts have talked about the need to overlay a social map on the basin resource; this has revolutionized the thinking about water systems and is the basis of the IWRM approach.

DRAFT FRAMEWORK FOR GENDER IN WORLD BANK WRM PROJECTS

This section offers a framework for conceptualizing gender and water resource management activities at the World Bank. The framework highlights the "level of management" and "technical vs institutional" orientation as the two axes structuring the degree to which a particular water subsector will host significant gender issues. It is concluded that those subsectors (and projects) where management is more local-level, and which are institutionally-focused, are more likely to have gender issues feature prominently. The framework is intended to help Bank staff identify priority subsectors for gender mainstreaming efforts.

FRAMEWORK OVERVIEW

Figure 2 presents a draft framework for thinking about gender issues in Water Resources Management projects at World Bank. The framework is presented in the form of a four-cell square table, with the x-axis representing the aspect of level of management, and the y-axis representing the relative weight accorded to technological[32] versus institutional components in a particular project. The different water subsectors have been placed within various quadrants according to the particular combination of aspects exhibited by typical projects in the subsector. Further, the individual subsectors have been labeled as (H)igh, (M)edium, or (L)ow according to the presence of gender issues within the subsector.

The x-axis aspect of geographic scale provides good explanatory power for triaging projects according to gender, because local-level projects (those "closer to the people," Quadrants III and IV) are more likely to present gender issues that should be accounted for within project design than projects from subsectors located in Quadrants I and II, which are "further from the people," having a national, international, river-basin, or transboundary unit of analysis. The y-axis aspect (of technological versus institutional focus) holds somewhat less explanatory power but still draws attention to the fact that projects that involve gender issues may include interventions with either a low- or a high-technology focus. Notably with regard to the y-axis, *all* subsector types in Quadrant III exhibit high levels of relation to gender issues, while subsectors in Quadrant IV host both high and medium relevance for gender integration efforts.

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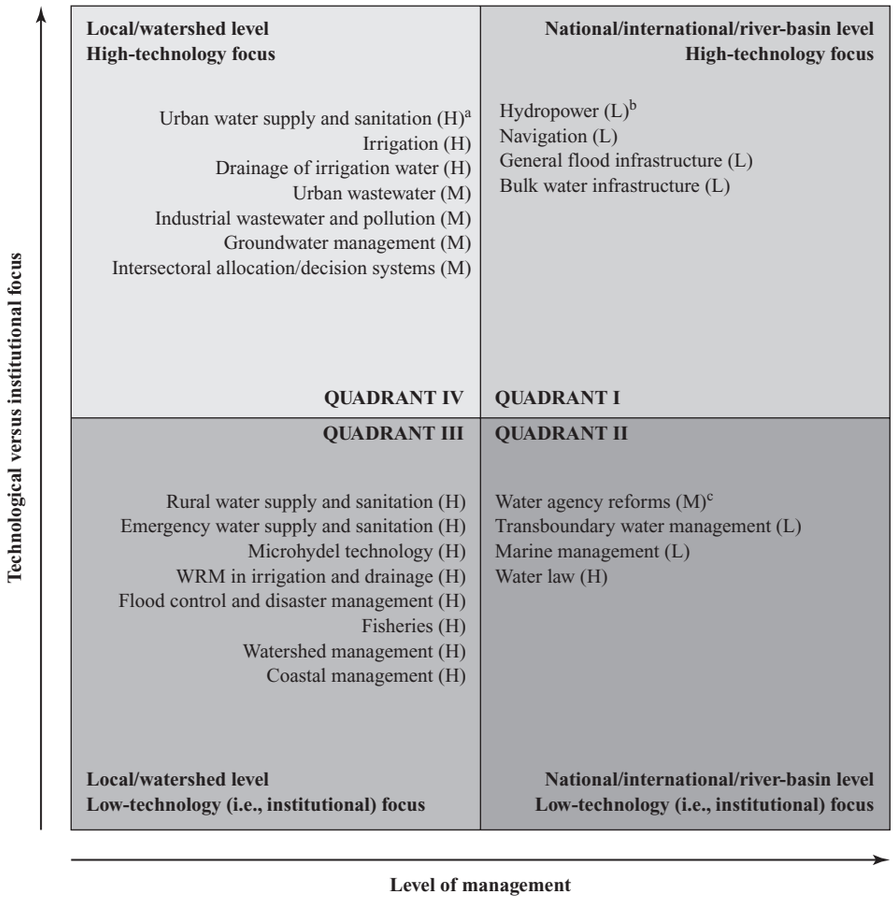
[32] Note that the term *technological* is applied here in its everyday usage, referring to, for example, hard science, machinery, and engineering inputs. It does not refer to the more nuanced definition of technology as "ways of knowing and using knowledge"—that is, all knowledge processes and outputs (that is, socially embedded and tacit knowledges), whether related to formal organizations, indigenous institutions, or individual human capital.

Figure 2: Gender in Water Sector Projects: A Draft Framework



[a](H) = high, (M) = medium, (L) = low presence of gender issues in this water subsector.
[b]With the exception of gender and resettlement issues.
[c]With the exception of both female staffing and water tariff issues.

DISCUSSION OF FRAMEWORK

Clearly, as the draft framework portrays, the degree to which gender matters in particular projects is directly related to the issue of scale. The closer a project is to people, at the village or community level, the more likely it is that gender issues will arise.[33] By this rationale, a local-level project may raise more gender issues typically than a basin-level one, though even the latter may have gender issues related to water quality and intersectoral allocation. Water quality (including pollution) issues intersect with gender in that women may have responsibility for obtaining water of a particular quality (for example, potable drinking water or water with a mineral level reduced for washing) for various uses. Similarly, in terms of intersectoral allocation decisions, as discussed earlier, there are multiple uses of water that are frequently not taken into consideration during decision making on allocation at the basin level. These uses carry more import particularly for women and poor

[33] This team sees gender as combining often with other forms of exclusion prompted by age, ethnicity, socioeconomic standing, marital status, disability, religion, migrant status, and so on.

persons. For more detailed indications regarding the presence of gender issues in particular water subsectors, refer to table 4.

Any water project that focuses on people (rather than, for example, on water flow or sediment discharge) is likely to raise more gender issues. Furthermore, one should not assume that "women" or "girls" are the key words to look for. Rather, use of such common "people" terms as "farmers," "fisherfolk," "pastoralists," "forest dwellers," and so on should alert a TTL to the possibility that gender interests may be subsumed in the project by gender-neutral terms.

In addition to scale, another issue that might alert TTLs to the possible presence of gender issues in a water project is a project focus on institutions and governance. One may consider local governance and natural resource management institutions to determine the relevant socioinstitutional issues that may arise within these, looking at not only producers' organizations, for example, but also land tenure institutions, since land and water are inextricably linked. Related, though to a much lesser degree, are projects focused on pricing, privatization, and service delivery. (Gender issues are also present in these project approaches, though not to the same extent as in the previous examples.)

A further suggestion is that several of World Bank's safeguard policies are likely to accompany gender issues within a water project, particularly the policies on cultural property, involuntary resettlement, indigenous peoples, and forests, all providing another flag to TTLs preparing projects.

In the draft framework, projects in Quadrant I may have fewer associated gender issues than projects that fall into Quadrants III and IV. This suggests that level of management is a particularly strong reason to specifically consider gender. In addition, some projects in Quadrant II, at the national level with an institution or governance focus, may feature significant gender considerations. Note that the framework is meant to indicate where gender issues feature more prominently; however, the study team believes that all WRM projects should have some gender analysis carried out during project preparation in order to determine the appropriate next steps. The framework is not intended to be used as a way of leaving gender aside for particular subsectors; it simply highlights subsectors where gender is particularly crucial.

RECOMMENDATIONS

The study team recommends a number of elements to effect gender-inclusive WRM programming at World Bank. These recommendations are made with respect to three levels: (1) concept or principle, (2) organizational, and (3) project cycle.

WATER PRINCIPLES

With regard to water principles, the study team recommends that:

- water be recognized as an economic, social, and environmental good and that its intrinsic (that is, nontradable) value be captured more adequately in project valuations.[34]

[34] Following this recommendation would help capture some gender-related impacts of water as an input to human health (including, for example, the health of young, old, and other persons not participating in the waged labor market), drinking water, sanitation, laundry, cooking, and other domestic uses where women's unpaid labor predominates.

Table 4: Gender Issues in Water Subsectors

	Geographic Scale (local, water-basin, regional, national, international)	*Water Subsector Type*	*Presence of Gender Issues (high, medium, low)*
Water Services	Local	UWSS	High
	Local	RWSS	High
	Local/watershed	Irrigation (both infrastructure and services management)	High
	Basin/national	Hydropower and basin-level management (including dams and reservoirs)	Low[35]
	Basin/national	Intersectoral water allocation/decision support systems	Medium
	National	Water agency reforms	Medium[36]
	National/international	Navigation	Low
	N.a.[37]	Water economics/pricing and cost recovery[38]	High
	National	Water law	High
Water Resources	Local/watershed	Urban wastewater and drainage	Medium
	Local/watershed	Industrial wastewater and water pollution	Low
	Local/watershed	Flood control and disaster management	High
	Local/watershed	General flood infrastructure	Low
	Local/watershed	Watershed management and improvements	High
	Local/watershed	Drainage of irrigation water	High
	Local/watershed	WRM in irrigation and drainage	High
	Local/watershed	Groundwater management	Medium
	Local/watershed	Coastal management	High
	Local/watershed/national	Fisheries	High
	Local/national	Environmental policy projects	Depends on project type
	National/international	Marine management	Low
	International	Transboundary water management	Low
	National/international	Bulk water infrastructure	Low

[35] The questions related to resettlement issues and dams also involve significant gender issues. These should be considered as part of resettlement or vulnerability mitigation rather than dam infrastructure per se.

[36] Gender issues present here are only those related to water-pricing and willingness-to-pay measures, as well as presence of gender strategy for extension services, staffing questions, et cetera. (Thus gender issues exist to some degree despite the fact that the subsector has been located in Quadrant II in this case.)

[37] "N.a." signifies "not applicable."

[38] Note that water economics or water pricing and environmental policy projects are not represented in the draft framework because these are typically not place-based (that is, they cannot be located in physical space). Nonetheless, water pricing issues can have high gender impacts depending on the gender makeup of negotiated intrahousehold budget responsibilities (which can vary both by region/cultural norms for example separate budgets for women and men in some of Sub-Saharan Africa versus Asia or Latin America); as well as socioeconomic level of the household and extent of a woman's participation in the workforce) Environmental policy projects may also have gender impacts depending on project contents.

- water be understood to have multiple users and uses. Women and poor men in particular may have specific priorities and uses for water that should be taken into account.
- World Bank consider global debates about rights-based approaches to water.[39]
- water be understood as part of an integrated land-water resource bundle, under particular use and ownership rights regimes in which women and poor men may be excluded. Also, World Bank efforts in the WRM sector should increasingly seek to improve the bundle of resource rights held by such socially excluded groups.

Institutional Integration of Gender in WRM at World Bank

Regarding World Bank as an organization, the study team recommends that:

- review of the potential for a more integrated program of work between the "water-resource" and the "water-using" sector teams (most particularly, urban and rural water and sanitation, irrigation, and water resources sectors such as environment and flood management) be conducted in order to gradually develop a less sectoral, more integrated approach to water at the World Bank.[40] This will allow for greater flexibility in accounting for ways in which women and men avail themselves of water projects.
- gender analysis be integrated in social (and perhaps economic) assessments for project preparation, (including use of more regionally uniform guidelines, social and environmental data sheets or integrated safeguards data sheets, and PAD formats that include gender considerations.
- WRSS work and Country Water Sector Strategy preparations include staff members who have gender expertise. Explicit resources should also be made available for a consultative process of gender analysis and planning with water staff in country offices and at headquarters to engender water strategy development at World Bank. This process might be viewed as reflecting World Bank OP 4.20, which provides for country gender assessments to feed into CASs. More in-depth gender assessments of "high priority" subsector areas from the country gender assessments can then follow, as suggested by the World Bank gender strategy (2001).
- targeted, practical opportunities for staff training on gender and water issues be made available (in in-depth, sector-specific training, as well as basic courses in gender analysis training for project design, including tools such as gender budgeting).

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[39] In national-level water regimes, a number of important rights-based linkage issues exist, such as criteria for decision-making on intersectoral water allocation (including for drinking water).

[40] The Pitman report speaks at length about the fact that the two-tier system in place since 1995 (and in earlier decades) with country management units directly supported by sector management units has meant that water work is diluted and its objectives "get lost by subdivision" (despite the later formation of Regional Water Teams in MENA and SAR, for example) (Pitman 2002): 38. The split between ESSD and PSI is identified as an example of isolating UWSS which, while good for promoting other World Bank objectives (e.g., of privatization), weakens the necessary holistic approach to WRM (ibid.).

ENGENDERING THE PROJECT CYCLE

The most effective projects combine gender-sensitive analysis and management throughout the project cycle. In this section, the study team offers examples of gender and WRM issues that should be considered at various stages of the project cycle. Project needs assessment, implementation, and monitoring and evaluation procedures should be examined for the degree of inclusiveness sought at different project stages.

The following are some good practices with regard to gender mainstreaming in water project design and implementation.

Project design and implementation

- Investigate legal avenues for granting title to women where possible (for example, land reform or resettlement projects), and incorporate these processes in project design (for example, with reclaimed lands and wasteland development).
- Ensure that project implementation includes use of participatory forums and management committees that include men and women, with specified dispute resolution mechanisms.
- Plan active recruitment to have female staff among project personnel, not only as female field extension personnel but also in management positions.
- Consider the appropriateness of stand-alone gender units versus mainstreamed efforts; each has pros and cons. Stand-alone units can be isolated and marginalized, whereas mainstreamed structure can render gender efforts invisible. Phasing may be important here; stand-alone units can be most strategic in the initial stages of a project.
- Carefully consider the use of venues and outreach and extension materials. How might location, timing, and use of visual or spatial materials encourage greater participation by women and poor men in project planning and review?
- Work with established women's unions, cooperatives, and other organizations, but be sure to secure inclusion of as many potential members as possible, regardless of socioeconomic or ethnic background. Working with only one officially-designated women's organization (particularly if it is an officially designated one) does not ensure that women from all strata will be served.
- Bring comparative models from other countries to discussions.

Project appraisal

- Project preparation should include investigation of men and women's roles in sectors to be supported, including assessment of existing tenure arrangements and gender and poverty impact of project interventions on these.
- Conduct focus group discussions with both men and women (preferably with regard to socioeconomic standing, age, ethnic, or religious minority status and other forms of difference) as part of needs assessment.
- Include gender analysis as part of social assessment. (See appendix 6 for a checklist of potential Terms of Reference items.)

Figure 3: Checklist of Gender-Related Issues in WRM Activities During Project Cycle

	Identification and Preparation	*Design and Appraisal*	*Implementation and Supervision*	*Implementation Completion*
Socioeconomic	TENURE FRAMEWORK: How has the project defined access to water and other resources for men and women? Are interventions proposed that would result in changes in women's/men's access to (that is, rights to and use of) water/land resource?	DISASTER MANAGEMENT What provisions in project design for women's and men's gendered responses to disasters?	IRRIGATION Do women participate as members and leaders in water user organizations and/or land use committees? How are other users represented in these forums (e.g., fishers, agriculturalists, small entrepreneurs)?	LIVELIHOODS IMPACT What are the gender-differentiated impacts (direct and indirect) re: income, welfare, intra-hh division of labor, livelihoods diversification?
Policy and Institutional	PUBLIC PARTICIPATION What patterns can be observed in women's and poor men's participation in the public sphere?	U/RWSS and WATER ECONOMICS Do drinking water supply programs have graduated fee structures? What provisions are made for destitute persons? INTER-SECTORAL WATER ALLOCATION AND PRICING How are costs allocated among different sectors (industry, agriculture, municipal use)?	INTER-SECTORAL WATER ALLOCATION AND PRICING Do water allocation projects, including at basin level, as well as the rural-urban interface, consider the varied standards required in water quality for different uses (e.g., human drinking water, human and livestock bathing, crop irrigation, small-scale industry)?	TENURE FRAMEWORK Have women and poor men enhanced their water rights (and title to related resources such as land) as a result of the project?
Technology Development		DISASTER MANAGEMENT Do emergency facilities take account of women's needs for privacy in bathing and toilet areas?	CONFLICT RESOLUTION Are women and poor men able to access information about water allocation, water infrastructure maintenance, water pricing policies, and court or other dispute-resolution mechanisms, including local arbitration?	
Notes to Task Teams	Use gender-disaggregated indicators in logframe; track project subcomponents (include indicators in legal agreements).		What gender-specific measures did the project take to counter gender-based risks identified in gender assessment? Did these work during implementation?	

Table 5: Policy and Project Types with Suggested Gender-Positive Elements[41]

	Typical Focus Areas	*Refined Objectives or Approach (gender focused)*	*Examples of Gender Best Practices*
Community-level projects	A. Community participation B. Crop production targets	A. Enhance women's participation in public sphere or village decision making, particularly as part of decentralization or devolution initiatives. B. Take a livelihood approach, combining production and consumption functions of water (including drinking water and multiple uses of water).	• Make provision for separate men's and women's groups at subvillage level (agronomic unit). • Develop mechanisms to enhance (and monitor) women's participation in village-level forum.
Basin-level projects	A. Water allocation and water savings B. Decision support systems	A. Rationalize allocation across sectors to reflect populations of users in agricultural, domestic, and industrial sectors. Include water quality performance criteria. B. Consider institutional implications at local level of changes in timing or quantity of water flow or allocation.	• Conduct basin studies to identify water users and uses in catchment's area. • Adopt irrigation management transfer approaches with male and female water users' associations.
National policy	A. Isolated sectoral approach to water agencies B. Water rights	A. Adopt IWRM approaches that provide enhanced intersectoral coordination among agencies. B. Consider possibilities for legislation around water rights for users who have no land title or leasehold, including groups in communal areas.	• Identify targets for female management and program staff in water agencies. • Support women's networking and training or capacity-building efforts (including female scholarships for water engineering). • Engage in extension campaigns for non- or semiliterate women and poor men regarding land and water use or ownership.
International law	A. Environmental policy B. Human rights	A. Support transboundary efforts for floodplains and for gender-sensitive disaster management. B. Press for government-guaranteed access for users to water of sufficient quantity and quantity as a human right, considering gendered needs of male and female users.	• Support the participation of women's groups from the Global South and North in international water law meetings.

Multilateral agency policy	A. Water pricing B. Cost recovery C. Poverty	A. Alternative valuations and use of water, keeping in mind its function as a social, environmental and economic good. B. Cost recovery with recognition of differences in ability to pay. C. Develop gender strategies to complement anti-poverty strategies; Recognize the complementarities of the strategies.	• Water Pricing: Reexamine "willingness to pay" (contingent valuation) methods against such approaches as opportunity costs. • Water Pricing: Conduct a social impact study for a water tariff system, and consider social protection measures for vulnerable populations (e.g., elder- or female-headed households). • Cost Recovery: In projects where community contribution is required in kind (e.g., construction labor), recognize that de jure and de facto female-headed households (including households affected by male out-migration) may require alternative supports (e.g., community labor input). • Land Registration: Titles to assets (e.g., redistributed land from drainage and reclamation projects) should be held jointly in the case of married couples, or in the name of the head of the female-headed household. • Water Economics: Consider alternative forms of calculating economic value (including imputing value to consumption benefits and environmental uses of land and water; e.g., through hedonic pricing). • Poverty: Recognize that poverty analysis or indigenous strategies do not substitute for gender analyses. • Poverty: Separate gender assessments or gender analysis included in TOR of the social team member or consultant.

[41] Material in this table is drawn partially from Gender and Water Alliance (2003) and Bakker et al. (1999).

- Include national, regional, and local women's associations (trade, producer, and mass organizations and NGOs) in the preparation and negotiation processes. Make provisions for capacity building if needed, and allocate funds for these as part of project preparation.

Project monitoring and evaluation

- Design Phase: Use gender-disaggregated monitoring indicators in the logframe and results framework, and track progress in project components. Note that these should be included in the legal agreements to ensure accountability.
- Implementation Supervision: Use mixed methods (quantitative and qualitative) to allow for client or beneficiary voices and assessment of progress achieved or not achieved.
- Midterm Review: Allow for flexible course correction based on midterm evaluation.
- Completion Review: Communicate lessons learned, particularly if a follow-up project is planned.

Figure 3 offers examples of questions for TTLs to ask during project preparation in particular water subsectors. Table 5 details gender-positive elements for incorporation in program and project design . The column on refined objectives can be considered with reference to the recommendations on the water principles (explained previously).

SUGGESTIONS FOR A WAY FORWARD FOR GENDER INTEGRATION IN WORLD BANK WRM

The study team calls for a more thorough investigation of gender mainstreaming in WRM at World Bank, which would build on the findings of the current study. Elaborating the draft framework and providing guidance to water subsectors targeted as having significant gender issues can help provide TTLs with practical tools for including gender in their projects. Such an effort would be larger in scope than the current study and would involve structured participation by World Bank regional water team representatives and other stakeholders. This consultative process would itself support buy-in and function as a capacity-building initiative by focusing organizational resources on this issue and creating opportunities for cross-regional learning and reflection. Most crucially, this process would engage TTLs, WRM specialists, and other stakeholders in a discussion about the role of gender in the water resources sector.

Box 6: Extent of Gender Mainstreaming in WRM

A significant finding of the current study is that "ownership" of gender issues is far from mainstreamed among staff at World Bank.

MAINSTREAMING GENDER ACROSS WRM

It is recommended that World Bank enhance its efforts internally to integrate gender in WRM planning and policy, particularly emphasizing the water subsectors identified by the draft framework as having a potentially high gender content. Such integration measures to improve coordination and communication across regions and departments in WRM would include the following:

- A process for inclusion of gender analysis and strategy into Country Water Resource Assistance Strategies

  Country Water Resourse Assistance Strategies is currently being developed for select countries. Because this task is time sensitive with strategy development already in its second round, it should be implemented at the earliest possible date. This task should also aim to develop guidelines for other countries to follow because Country Water Strategies are developed across all regions. Note that accountability for effective task completion lies with the TTL who develops the Country Water Sector Strategy, but advisory functions are to be met jointly by the regional water team head and the regional social team manager.

- Promotion of knowledge sharing and practical guidance on gender and WRM for practitioners

  - Prepare gender and WRM guidelines addressing project and program levels. The guidelines will take the form of both a comprehensive toolkit to accompany WRSS implementation, and a "one-pager" format for ready reference on subsector-specific advice.
  - Produce a series of technical notes on gender and WRM, consolidating recent research and the state of the art, as applied to particular subsectors and thematic areas.
  - Design a program of pilot projects that hold gender and IWRM objectives as central design objectives in order to field-test outcomes at different levels of deliberately using gender good practice in this sector.
  - Develop gender and WRM workshops (including a training curriculum product) for inclusion in general sector training events at World Bank's Water Week, ESSD Week, and other network weeks.[42]
  - Establish a gender and WRM community of practice comprising members from Urban Infrastructure, ESSD, Private Sector Development (PSD), and other units and networks.[43]
  - Institute partnerships with global actors in gender and water. (See the following section for more information on this topic.)

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[42] Materials developed for this workshop could be provided also to a larger set of rural development professionals at World Bank to begin needs assessment on capacity-building requirements for intersectoral coordination. In addition to discrete training outputs (for which a stand-alone training curriculum will be developed), there is also a need for more general research and communication with sector groups on the subject of gender and WRM at World Bank. The 2004 Water Week schedule, for example, included no sessions with a particular gender focus, implying that current needs include not specific project preparation tools but more far-ranging discussions among water sector professionals on gender and WRM at World Bank.

[43] It is also possible that such sector-specific (and even cross-organizational) initiatives such as the joint UNDP-World Bank RWSS program that developed from PROWESS could be developed in other subsectors. It appears that these focused initiatives allow for cross-country and cross-regional learning, as well as research and dissemination efforts on best practices and the actual field implementation outcomes observable.

BUILDING PARTNERSHIPS

A key element of mainstreaming gender in WRM would include partnerships on a global basis with leading organizations or individuals in this field. These organizations might include the International Water and Sanitation Center, Gender and Water Alliance (GWA), Global Water Partnership (GWP), International Water Management Institute (IWMI), and International Food Policy Research Institute (IFPRI). A suggested list of organizations and resource persons for such a partnership network is provided in appendix 5.

Partnership activities might take the form of joint research and publications, participation in global water meetings, joint funding of projects, and communication and outreach activities including advocacy and e-conferences. It may be noted that GWA provides somewhat of an umbrella function for organizations and individuals working in gender and WRM, including input into such global events in the sector as the Fourth World Water Forum in Mexico City (March 2006). World Bank might effectively contribute to the GWA effort through both funding and technical contributions. An alternative approach is for World Bank to start its gender and WRM networking activities with organizations with which it already has close working relations (for example, GWP or selected Consultative Group on International Agricultural Research centers such as IWMI and IFPRI).

CONCLUSION

The present study has reviewed the extent of gender integration among a sample of WRM projects at World Bank and provided recommendations and next steps for improved gender mainstreaming in WRM within a context of global best practice and learning to date. WRM theory tells us that it is important to consider social and political structures in tandem with hydrologic and agronomic units. Thus, this study strived to consider multiple users in their hydrospatial locales. Practical implications follow from this understanding and the importance of disaggregating WRM by user and use and of making provisions for social organization along waterpoint or field-crop user lines; for example, simply forming "community groups" has been emphasized. Within these processes, it is important to facilitate negotiation through participatory forums. Tenure systems are continuously in flux and an awareness of legal pluralism is necessary on the part of project planners who seek to minimize social exclusion.

Gender mainstreaming in WRM in the World Bank requires a focus on process and a dual-pronged approach of both re-examining assumptions and reviewing unintended effects in the field, while providing sector staff with the tools that will enable them to implement gender-sensitive policies. Gender mainstreaming in WRM is not simply a matter of new checklists and procedures. Whether dedicated gender activities are required within a project is a matter to be determined through analysis. Nonetheless, social and poverty assessment requirements should explicitly stipulate that some gender analysis be conducted, with resources made available for such work. Thus, gender analysis in program and project planning is not the same thing as gender targeting. The former should be made routine, and the latter is often, though not always, called for.

Ultimately it is hoped that this report constitutes the first step to assist the World Bank community of practitioners in formulating equitable and efficient WRM policies and projects that address the needs and interests of women and poor men in diverse settings throughout the world.

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APPENDIX 1. PROJECT TERMS OF REFERENCE: Gender Mainstreaming in WRM in World Bank

A. **Background**

Understanding the gender dimension in water resources management can enhance the development, utilization, and management of water resources. This has been largely recognized for domestic water supply and sanitation issues, although even there, integration within policies and programs has yet to be fully mainstreamed. Some of the projects and programs supported by the World Bank have applied innovative ways to incorporate gender responsive activities within water resources management initiatives; however, this is mainly a reflection of specific task teams' interests rather than institutionally supported mainstreaming of gender in water resource management. A need exists, therefore, to examine a cross section of water resources management activities and study the various instances where gender was factored in as an analytical dimension and as a guide for investment and evaluate the outcomes. Raising the gender mainstreaming issue in this sector and supporting its implementation will be a valuable contribution towards efficiency, equity and sustainability of the investments promoted by the World Bank.

B. **Objective**

To produce a comprehensive report which would be the first effort to mainstream gender into the World Bank's water resources management portfolio.

To conduct a portfolio review of the water resources portfolio to identify mainstreaming efforts, the levels of success achieved and provide recommendations for considering the merits of gender inclusion in various categories of water resources projects.

C. **Scope of Services**

The consultant/s would work on the following:

- Map the key gender issues in water resources management, with specific emphasis on regional and community level distinctions.
- Assess the level of inclusion of gender issues in the World Bank's water resources management programs and projects.
- Provide guidance in mainstreaming gender in water resource management in the World Bank.
- Identify best practices of gender inclusion and highlight the difference that the effort made to the overall success of the project.
- Develop a classification of water resources management activities to assess the relative merits of considering gender issues in each case.
- Identify the knowledge products necessary to support mainstreaming of gender in water resources management in the World Bank.

D. **Time Schedule**

June 15 to July 20, 2004

APPENDIX 2. RELATED WORLD BANK STRATEGY DOCUMENTS

In addition to the World Bank Water Resources Sector Strategy (WRSS) discussed in this report, support for gender integration across WRM can be found in a number of other key World Bank strategy documents. These include the strategies for: gender, rural development, environment, and private sector development.

GENDER

The World Bank Gender Strategy, titled *Integrating Gender into the World Bank's Work: A Strategy for Action,* was released in 2002. It highlights the importance of gender program activities in both social and economic sectors, with renewed emphasis on the latter. In those sectors, issues such as trade, social protection, and the macroeconomy as well as microeconomic issues, land tenure, and agriculture are emphasized for their connection to gender issues. The strategy identifies several links between gender and economic growth. Similar links exist between gender and the water sector, with regard to agricultural production as well as household reproduction and human capital investments. The strategy calls for a balanced approach that examines links between sectors.

In addition, World Bank Gender Strategy elaborates on how gender programming can help meet the Millennium Development Goals, which seek to do the following:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education for girls and boys
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDs, malaria, and other diseases
7. Ensure environmental sustainability (World Bank 2002)

WRM-specific contributions to these goals could be made through enhanced integration of gender issues within project investments in areas such as water supply and sanitation, environmental health and vector-borne diseases, and groundwater recharging for environmental sustainability.

RURAL DEVELOPMENT[44]

The World Bank Rural Development Strategy (2003) is based on five strategic objectives (see box 7). Among these, gender and WRM is directly linked to Objectives 2 through 5. Areas prioritized for work in this strategy include irrigation and drainage, land reform and administration, and support

[44] The authors were able to review only the sections of the Rural Development Strategy available on the external World Bank Web site.

Box 7: World Bank Rural Development Strategic Objectives

1. Fostering an enabling environment for broad-based rural growth
2. Enhancing agricultural productivity and competitiveness
3. Encouraging non-farm rural economic growth
4. Improving social well-being, managing risk, and reducing vulnerability
5. Enhancing sustainable management of natural resources

for producer organizations and user groups under Objective 2. In Objective 4, the strategy identifies the following as key areas for innovation and scaling-up: social inclusion, with a focus on women and girls, and climate and disaster risk management. In Objective 5 (the most directly linked to WRM), the strategy orders priorities as follows: soil fertility, watershed development, community natural resource management, community forests, and fisheries. Thus, gender and WRM is a strong, cross-cutting theme across key rural development focus areas.

An additional level of analysis present with the Rural Development Strategy is a classification of countries according to level of economic development. A summary of WRM-related points from this classification is presented in table 6. Although some may disagree about the phasing of certain activities (for example, introduction of environmental protection and sustainable agriculture), the underlying point remains: Sectoral priorities and emphases will vary according to a country's level of development. This point was also emphasized by TTLs interviewed for this study.

Priorities will also vary according to agro-climatic and other characteristics of particular world regions. It is worth noting that for the Middle East and North Africa (MENA) Region (that is, the driest region in the world), the top Rural Development priority has been identified as rationalizing water management and water policies, according to the Rural Development Strategy document. This prioritization of water was borne out in discussions with TTLs.

Table 6: Water-Related Priorities According to Level of Development

	Least Developed	*Less Poor*	*Middle Income*
Objectives 1–3	• Promote agriculture • Develop rural infrastructure	• Improve agricultural productivity and diversification	• Promote high-value crops • Expand private-sector provision of semipublic services
Objective 4	• Basic social services	• Expand social services	• N.a.[45]
Objective 5	• Property rights • Reduce soil degradation and deforestation	• Watershed management	• Environmental regulation • Reduce negative externalities of agriculture

[45] "N.a." signifies that information on this point is "not available."

Box 8: What Makes Environmental Problems Different?

Environmental problems exhibit the following unique characteristics:

1. Delayed Impacts: "Long lead times in implementing appropriate prevention or mitigation actions."
2. Spatial Impacts: "Sources and environmental impacts are often separate in space (for example upstream/downstream . . . making it necessary to have a framework that can address diverse stakeholder interests."
3. Cumulative Impacts: The effect of many individuals' actions over time.
4. Need for Government Intervention: "Without government intervention to introduce regulations and create markets where they do not exist, the private sector alone cannot achieve optimal environmental outcomes."
5. Multisectoral Links: "Environmental problems [exist] across a range of sectors through many pathways, calling for coordinated policies and concerted efforts."
6. Regional and Global Implications: "Many environmental impacts have broad cross-boundary and global effects that require international frameworks and agreements."

Source: World Bank Environment Strategy (2001, 9)

ENVIRONMENT

The World Bank Environment Strategy (2001b) lays out three development objectives:

1. Improving the quality of life
2. Improving the quality of growth
3. Protecting the quality of regional and global commons

Under the first objective, WRM-related goals include work on community natural resource management, land tenure and property rights, urban and rural water supply and sanitation (UWSS and RWSS), drainage in irrigation, industrial waste, and disaster management. Under the second objective, the strategy supports the enhanced role of private-sector participation in natural resource management, including water services. The third objective supports increased cooperation and capacity among riparian and littoral communities to assess shared environmental degradation. It also supports assessment of client-country water and other resource vulnerability in the context of greater strategies on poverty reduction.

The World Bank Environment Strategy highlights the unique nature of environmental challenges (see box 8). These characteristics including spatial fixity, multisectoral links, and the need for government intervention in the case of market failure. These characteristics apply equally well to the water sector.

Regional Environmental Strategies also identify region-based priorities and exhibit some variation depending on climatic, political, and economic factors. Table 7 lists some WRM-related regional priorities in the environment.

Notably, the Europe and Central Asia (ECA) Region (which in the current portfolio review has low levels of integration of gender in WRM) appears to offer a number of prioritized areas in which gender issues would figure prominently when compared against the draft framework offered in our present study. While the reasons for poor gender integration in the past in ECA are unclear, many countries in this region have high-vulnerability populations that need social protection measures.

Table 7: Selected Regional Environmental Priorities

	AFR	*EAP*	*ECA*	*LCR*	*MENA*	*SAR*
Community Level	• Environmental health • Fisheries • Drought preparedness	N.s.[47]	• UWSS and RWSS • Disaster mitigation • Energy conservation	• Wastewater • Forestry • Fisheries	• Urban and industrial pollution • Sanitation	• Institutional reforms in UWSS and RWSS • Gender and livelihood strategies (eliminating gender gap and fostering inclusive institutions) • Disaster preparedness • Women in water users' associations[46]
Basin Level	• WRM	• Water pollution	• Integrated water-basin approach (Central Asia) • Community-based watershed management • Dam safety	N.s.	• Water scarcity and quality	N.s.
National Level	• Coastal management	• Development of marine and coastal ecosystems	• Disaster mitigation (floods, droughts)	N.s	• Coastal degradation	N.s.
International Level	N.s	N.s.	N.s.	• International waters • Biodiversity	N.s.	N.s.

Source: Compiled by authors based on materials from World Bank Environment Strategy (2001)

[46] The water users' association detail comes not from the Environment Strategy but from review of the Bangladesh Country Gender Strategy, which prioritizes a "gender in water sector management project" (along with a judicial technical assistance project and a social investment project; 12).

[47] "N.s." signifies that information on this point is "not specified in the Environment Strategy."

In ECA there are also some region-specific gender issues with regard to female-headed households, out-migration, health issues, and a lack of familiarity with community-based social mobilization approaches.

The South Asia Region (SAR) also explicitly presents the gender gap as an obstacle to sustainable development and a key focus in its regional environmental strategy. Similar to priorities in other

regions, SAR highlights community-level (and basin-level) work in the water sector, with relatively less emphasis on international-scale subsectoral activities.

A final point with regard to the World Bank Environmental Strategy is that it supports the more widespread use of economic valuation methods for environmental resources and environmental degradation scenarios. Such methods are in line with gender interests in WRM in that they can help to quantify the under-measured aspects of the water-food-nature-people nexus, where elements such as biodiversity, women's contribution to environmental health at the local level, land degradation, and agro-processing activities conducted with household labor using water are not typically considered in cost-benefit analysis. They are not traded elements in the marketplace, making the assignment of monetary value more difficult, though still possible. The idea here is that the full value of a resource comprises the sum of both its economic value (use value) and its intrinsic value (nonuse value, such as existence of a species for biodiversity purposes) (GWP 2002). Negative externalities (for example, increased salinization or waterlogging from irrigation) must also be computed to arrive at the full value.

PRIVATE SECTOR DEVELOPMENT

The World Bank *Private Sector Development Strategy—Directions for the World Bank Group* (2002b) outlines the cross-cutting functions of Private Sector Development (PSD) within World Bank lending (both policy-based and investment-based loan projects). The Private Sector Development Strategy emphasizes that private sector work is "not about indiscriminate privatization" but rather about "a good balance between the complementary functions of the state and the private sector" (World Bank 2002, i). PSD work overlaps with the focus of the current study in that PSD programming includes objectives of improving access to basic services (for example, water supply or small-scale electricity generation).

The strategy acknowledges a role for both public- and private-sector suppliers in the provision of basic services and highlights the role of small and medium enterprises in providing private infrastructure and services at a local level.[48] Private participation is particularly sought for infrastructure services (telecommunication, energy, transport, and water). The PSD Strategy also outlines its pilot programs, called "output-based aid," which are designed to allow for public fund dispersal (payment to private infrastructure service suppliers) on the condition that results have already been demonstrated (for example, customers are receiving water and electricity). This funds transfer is designed to enable the private or NGO sector to assume the risk of construction and implementation while allowing poor users to, in effect, receive free or reduced-cost services through the taxpayer-funded government subsidy to private suppliers.

The principles of cost recovery and privatization that are presented in the PSD Strategy are known to be at the forefront of urban water supply and sanitation projects, though they are emphasized much less in rural projects (for reasons of both community ability to pay and internal organizational ordering within World Bank, as discussed in the current report). Significant gender and

[48] For interesting examples of private (including collective) provision of irrigation and other rural infrastructure, see the work of Barbara van Koppen (on Burkina Faso), Tushaar Shah (on India), and Geof Wood on Bangladesh and India (e.g., *The Water Sellers* [1990] and *Private Provision After Public Neglect* [1995]).

poverty issues are raised by urban water infrastructure projects, particularly with regard to pricing of services and larger questions of rights- versus market-oriented approaches.

APPENDIX 3. DELINEATION OF STUDY SCOPE AND PARAMETERS

MEETINGS WITH WORLD BANK STAFF

Discussions with key World Bank staff working on WRM and gender were useful in contextualizing and defining the paper's scope and objectives and potential deliverables. The World Bank staff underlined the need for a practical approach to gender and WRM that could be easily applied by TTLs in project design, implementation, and evaluation. In particular, a framework to assess the potential for gender issues arising within water projects was identified as a useful output. In addition, World Bank staff discussed with the study team the importance of providing information to TTLs in a user-friendly format that would outline how to integrate gender in water sector operations.

Meetings also confirmed that the study was an initial step toward a methodology by which TTLs could account for gender-poverty nexus issues within projects funded by the BNWPP program of World Bank. Some subsectors within World Bank (such as water and sanitation) had previously articulated links to gender; however, other water subsectors (such as watershed management and river-basin management) had not yet considered these issues substantively in project design, and the current study was undertaken to help define gender issues across the range of WRM subsectors.

PROJECT SELECTION APPROACH AND SAMPLE PORTFOLIO REVIEW

Selection of projects for review was executed in line with suggestions and recommendations from meetings held with World Bank staff during Phase I. In particular, World Bank staff recommendations on choice of subsectors to use for selecting projects from ESSD's water resources database were taken up directly. Projects were selected from "stand-alone" water resources subsectors (that is, environment and biodiversity, fisheries, general flood infrastructure, multipurpose bulk water management, and watershed management). Project selection was limited to projects that had received approval no earlier than fiscal 1999 and contained 20 percent or more of water-related components allocated to WRM stand-alone elements.

In addition, projects selected from ESSD's water resources database were cross-referenced with a list of BNWPP-supported projects. All WRM projects that had BNWPP financial support were selected for review. Those five BNWPP-supported projects, together with the original 46 WRM projects, were then reviewed by using the five-point gender criteria provided by the World Bank, where PADs or other in-depth documentation such as technical appendixes or program documents were available. Tables 8 through 12 provide a breakdown of the selected projects against regional and other parameters.

Table 8: Comparative WRM Projects[49]

World Bank WRSS			*World Bank water resources database*		*Sector groups with water resources & services*	*Sector groups*
A. Services	A1. Infrastructure	A1.1 Irrigation (new)	2. Irrigation	A. Water infrastructure cost	1. Irrigation services	1. Irrigation
		A1.2 Hydropower	3. Hydropower	A. Water infrastructure cost	2. Hydro services	2. Hydro
		A1.3 Urban water and sanitation	5. Urban Water Supply 7. Low Cost Urban WSS	A. Water infrastructure cost	3. UWSS services	3. UWSS
		A1.4 Rural water and sanitation	9. Rural WSS	A. Water infrastructure cost	4. RWSS services	4. RWSS
		A1.5 Navigation	13. Navigation	A. Water infrastructure cost		
	A2. Management	A2.1 Irrigation services management (new)	24. Irrigation	C. Water services institution strengthening	5. Irrigation services	5. Irrigation
		A2.2 Hydropower	27. Hydropower	C. Water services institution strengthening	6. Hydro services	6. Hydro
		A2.3 Urban water and sanitation	25. Urban WSS	C. Water services institution strengthening	7. UWSS services	7. UWSS
		A2.4 Rural water and sanitation	26. Rural WSS	C. Water services institution strengthening	8. RWSS services	8. RWSS
		A2.5 Navigation				

B. Water Resources	B1. Infrastructure	B1.1 Urban wastewater	6. Urban wastewater	A. Water infrastructure cost	9. UWSS WR	9. UWSS
		B1.2 Urban drainage	8. Urban drainage or flood	A. Water infrastructure cost	10. UWSS WR	10. UWSS
		B1.3 Flood control				
		B1.4 Industrial wastewater	15. Industrial water pollution control	A. Water infrastructure cost	11. UWSS WR	11. UWSS
		B1.5 Watershed improvements	12. Watershed protection	A. Water infrastructure cost	12. WR stand-alone	12. WR
		B1.6 Ecological	14. Ecological	A. Water infrastructure cost	13. WR stand-alone	13. WR
		B1.7 Fisheries	10. Fisheries	A. Water infrastructure cost	14. WR stand-alone	14. WR
		B1.8 General flood infrastructure	11. General flood infrastructure	A. Water infrastructure cost	15. WR stand-alone	15. WR
		B1.9 Drainage of irrigation water (new)	16. Drainage of irrigation water	A. Water infrastructure cost	16. Irrigation WR	16. Irrigation
	B2. Management	B2.1 Multipurpose facilities	4. Multipurpose bulk water	A. Water infrastructure cost	17. WR stand-alone	17. WR
		B2.2 WRM	18. WRM	B. Water management institution strengthening	18. WR stand-alone	18. WR
		B2.3 Environment	19. Environment	B. Water management institution strengthening	19. WR stand-alone	19. WR
		B2.4 Watershed management	20. Watershed management	B. Water management institution strengthening	20. WR stand-alone	20. WR
		B2.5 WRM in irrigation & drainage (new)	21. Irrigation management	B. Water management institution strengthening	21. Irrigation WR	21. Irrigation

Source: Water Resource Management Group (WRMG) and BNWPP databases from ARD-World Bank.

[49] Table produced by Jean Foerster, BNWPP Coordinator.

The following is a list of projects reviewed against the five-point gender criteria.*

Project ID	*Project Title*	*Country or Area*
AFRICA		
P075915	Ethiopia Pastoral Community Development	Ethiopia
P044711	Mauritania Integrated Development Program for Irrigated Agriculture	Mauritania
P072996	Niger Private Irrigation Promotion	Niger
P058706	Tanzania Forest Conservation and Management	Tanzania
P073397	Tanzania Lower Kihansi Environmental Management	Tanzania
P059223	Nakivubo Channel Rehabilitation	Uganda
P077406	Uganda LVEMP Supplemental	Uganda
P064573	*Senegal River Basin Water and Environmental Management*	*Senegal River Basin*
P070073	*Nile Transboundary Environment Action Project*	*Nile River Basin*
EAST ASIA AND THE PACIFIC		
P071146	KH-Rural Investment and Local Governance	Cambodia
P056216	China—Loess Plateau II	China
P064730	China—Yangtze Dike-Strengthening Project	China
P068058	China—Yixing Pumped Storage Project	China
P040599	Second Tianjin Urban Development and Environmental Project	China
P045864	4E—Mekong Water Utilization	EAP
P059931	Indonesia—Water Resources and Irrigation Sector Management	Indonesia
P042927	Vietnam—Mekong Transport and Flood Protection	Vietnam
EASTERN EUROPE AND CENTRAL ASIA		
P069479	Pilot Fishery Development Project	Albania
P057847	Natural Resource Management and Poverty Reduction Project	Armenia
P050911	Integrated Coastal Management	Georgia
P059803	Nura River Cleanup	Kazakhstan
P062682	Kyrgyz Flood Emergency Project	Kyrgyzstan
P050660	Rural Environment Protection	Poland
P059055	Emergency Flood Assistance	Tajikistan
P067610	Lake Sarez Risk Mitigation	Tajikistan
P058877	Emergency Flood Recovery	Turkey
P065416	*Coastal Cities Pollution Control Project*	*Croatia*
P076234	*Rural Investment Project (AZRIP)*	*Azerbaijan*
LATIN AMERICA AND CARIBBEAN		
P006449	Ceara IWRM Project	Brazil
P035741	Brazil Natural Environment 2	Brazil
P076977	Brazil Energy Sector TA Project	Brazil
P069922	Grenada Disaster Management	Grenada
P057271	El Niño Emergency Assistance Project	Guyana
P073851	Guyana Poverty Reduction Support Credit	Guyana

* BNWPP-associated projects, listed in italics above, were also reviewed during the study but not reported on as part of the 46-project Core Group as there was insufficient data available on these projects.

P064913	Honduras Emergency Disaster Management (TAL)	Honduras
P068121	GEF 6L—Guarani Aquifer Project	Latin America
P074539	Mexico Programmatic Environment SAL	Mexico
P070244	St. Lucia Water Sector Reform TA	St. Lucia
MIDDLE EAST AND NORTH AFRICA		
P067605	Urban Natural Hazard Vulnerability Reduction	Algeria
P074499	Iran Environmental Management Supp. Program	Islamic Republic of Iran
P005519	Lakhdar Watershed MG	Morocco
P052247	MA—Pilot Fisheries Development	Morocco
P035707	Water Sector Investment Loan Project	Tunisia
P070092	Yemen Taiz Municipal Dev. and Flood Protection	Republic of Yemen
P064981	Yemen—Sana'a Basin Water Management Project	Republic of Yemen
P080802	*Earthquake Emergency Recovery Project*	*Islamic Republic of Iran*
SOUTH ASIA		
P009468	Fourth Fisheries	Bangladesh
P050646	Uttar Pradesh Sodic Lands II	India
P041264	Watershed Management Hills II	India
P067216	Karnataka Watershed Development	India
P040610	Rajasthan WSRP	India

Analysis of project selection is presented in tables 9–12. As mentioned earlier, rural development sector projects scored higher against the gender criteria employed. This may be due to the type of projects usually undertaken by this sector.

A summary gender analysis of these projects was completed by reviewing PADs and other project documents employing the five-point gender criteria used by the Gender and Rural Development Thematic Group of the ARD during annual rural portfolio reviews. This five-point gender criteria is a summary method used by the Gender and Development Thematic Group to assess the level of gender inclusion in projects that have rural development components. However, it should be noted

Table 9: Region Projects Selected against Universal Database

Region	*No. of Projects in BNWPP Database*	*% of Projects in BNWPP Database*	*No. of Projects Selected*[50]	*% of Projects Selected*
AFR	84	18	7	15
EAP	76	17	8	17
ECA	76	17	9	20
LCR	89	20	10	22
MNA	57	13	7	15
SAR	65	15	5	11
Total	**447**	**100**	**46**	**100**

[50] These figures refer to the core group of 46 projects initially selected for review (that is, those projects that hosted allocations of more than 20 percent for WRM activities). Five projects were added to this number to integrate BNWPP-supported projects, making a total of 51 reviewed projects.

Table 10: Sector Breakdown of 46 Selected Projects[51]

Sector	*Average Project Score (out of possible 5)*	*No. of Projects Reviewed*	*Most Prevalent Region*
Agriculture	2.17	17	SAR
Environment	0.64	11	ECA
Urban development	0.85	7	ECA and MENA
Multisector	1.66	3	LCR
Water supply and sanitation	0.66	3	LCR
Electric power and energy	0.50	2	EAP and LCR
Public sector management	1.50	1	EAP
Transportation	1.00	1	EAP
Total	**1.12**	**46**	—

Table 11: Unit Breakdown of Core Group of 46 Projects and Average Scores Achieved

Unit	*Average Project Score (out of possible 5)*	*No. of Projects Reviewed*	*Most Prevalent Region*
Rural development	2.00	21	MENA and SAR
Environment	0.73	11	ECA and LCR
Urban development	0.85	7	ECA and MENA
Electric power and energy	0.50	2	EAP and LCR
Water supply	1.00	2	LCR
Public sector management	0.00	1	LCR
Transport	1.00	1	EAP
Multisector	1.00	1	LCR
Total	**1.06**	**46**	—

[51] A fair number of projects were in the areas of disaster mitigation and emergency relief, the latter being shorter-term in nature.

Figure 4: Sector Breakdown of 46 Projects Selected for Review

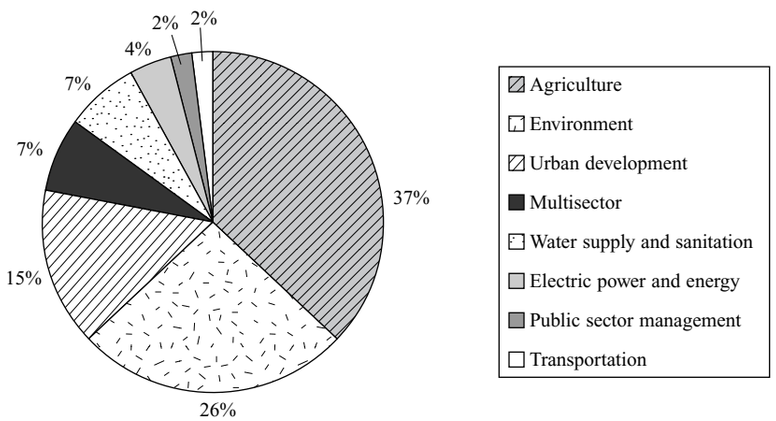

Table 12: Project Documents Reviewed in Phase II[52]

Project type	*PAD*	*Technical Appendix*	*Poverty and Social Impact Analysis*	*Staff Appraisal Report*	*PGD*	*Total Projects Reviewed*
Core group	39	4	1	1	1	46
BNWPP	4	1	0	0	0	5

[52] This table presents key documents reviewed for each project. The PAD was chosen as the main document for review where available. In some cases, integrated safeguards data sheet, resettlement reports, and environmental assessments were reviewed in addition to PADs. However the analysis for the five-point gender criteria was done with reference to the most comprehensive project documents available (usually the PAD, though sometimes other document types). Only five additional BNWPP projects (that is, BNWPP projects with less than 20 percent of projects allocated to WRM) had PADs available for review.

that for WRM projects, these criteria cannot pronounce judgment on TTLs' performance in integrating gender concerns. The level of inclusion and appropriateness of incorporating provisions for gender concerns may vary with the level of water management (from local to national to regional) and with the technological versus institutional focus (although gender analysis should be conducted on projects during project preparation to determine what level of integration is required).

Regional and Sectoral Description of TTLs

In Phase III, the study team conducted a series of phone interviews with TTLs from projects that had scored highly against the five-point gender criteria analysis conducted in Phase II. (See table 15 for a summary of reference projects discussed with TTLs.) Thirteen TTLs from all regions were requested by e-mail and phone to participate in telephone interviews. Of these, five TTLs agreed to requests for interviews.

Four TTLs represented the regions of SAR and MENA, and one provided cross-regional support with ongoing project responsibilities in LAC (see table 13). TTLs held different levels of project and program responsibility at World Bank. Three of the five were focused on the water sector as a primary component of their work responsibilities, whereas two focused on environment and natural resource management issues more broadly. Four of the five were focused on program and project tasks within a single region, while one provided cross-regional support in such areas as research, monitoring and evaluation, training, and learning. Notably, none of the TTLs had held the post since the project start date (citing reasons such as personnel change, retirement, or job change); however, three of the five had been involved with the project during the design phase as part of a larger team.[53]

Interviewees' responses are valuable in providing insight into individual projects and organizational culture and procedures at World Bank. However, the relatively small number of TTLs interviewed by no means constitutes a representative sample, and therefore responses cannot be generalized Bank-wide across regions or sectors.

[53] This appears to support the notion of internal attempts by World Bank to maintain "institutional memory" on projects despite changes in task leadership.

Table 13: Characteristics of TTLs Interviewed in Phase III

Region	***MENA***	—	***SAR***	***SAR***	***MENA***
Department	MNSRE	EWDWS (Energy and Water)	SARD	SASRE	MNSRE
Water as primary sector focus?	No	Yes	Yes	Yes	No
Respon-sibilities	• Environmental safeguards • Regional or transboundary projects	• Advisory role (all regions) • Research or monitoring on energy and water	• Assist with management of regional water portfolio	• Project management (two water projects)	• Rural strategy implementation in region • Cluster coordination • Project management
Current number of projects	TTL (3) Team member (7)	TTL (1)	TTL (1)	TTL (2)	TTL (3)
Ref. project dates	FY2003–08	FY2002–06	FY1999–06	FY2000–04	FY2000–03
TTL of reference project since when?	After start of project	After start of project	2003	2003	2003
Involved in original design of project?	Yes	No	No	Yes	Yes

INTERVIEW PROTOCOL

Individual interview lengths ranged from 45 to 90 minutes. The interviews elicited World Bank staff's experiences in gender mainstreaming in water projects to date. The discussions covered such issues as gender issues in project design; implementation and monitoring or evaluation; World Bank resources for gender, including staff resources; best practices in the reference projects; links among water subsectors at World Bank; country policy environments; and client receptivity to gender issues. Discussions were focused on these key topics in all interviews in order to allow for some degree of comparability. Particular emphasis was placed on understanding key moments in the project cycle where gender mainstreaming interventions were inserted constructively, and factors that helped or hindered attention to gender-positive strategies during implementation. There was also some discussion of knowledge-product areas for future work in gender and WRM at World Bank.

The following list specifies the interview protocol used with TTLs:

1. How routinely do you come across gender issues in your day-to-day work? Is gender part of your formal work responsibilities (for example, project preparation)?
2. Where does gender intersect most commonly with your water sector work? In which water subsectors do you feel it is of lesser importance?

Table 14: Summary of Reference Projects Discussed with TTLs

Region	*AFR and MENA*	*LCR*	*SAR*	*SAR*	*MENA*
Country	Multiple	St. Lucia	India	Bangladesh	Morocco
Department	Nile Team	Finance, Private Sector, and Infrastructure Department	Rural Development	Rural Development	Rural Development, Water and Environment Group
Project objective category or focal area	International water	—	Environmentally sustainable development	Environment	Environmentally sustainable development
World Bank sectors	General water, sanitation and flood protection[54] (100%)	Urban water supply; water supply and sanitation adjustment (100%)	Rural development (100%)	Rural development (100%)	Fisheries (100%)
Total budget	US$8.0 million	US$1.3 million	US$194.1 million	US$33.0 million	US$5.0 million
Timeframe	FY2003–08	FY2002–06	FY1999–06	FY2000–04	FY2000–03
GC criteria performance	3/5 ("No" on GC-4 and GC-5)	3/5 ("No" on GC-4 and GC-5)	4/5 ("No" on GC-5)	5/5	4/5 ("No" on GC-5)

[54] The following themes were also identified for this project: WRM, environmental policies and institutions, pollution management and environmental health, and biodiversity. Notably, specific themes were not listed in the PAD for the remaining four reference projects.

3. Where did gender figure in the design of the reference project? How did you go about including gender in project preparation or design, implementation and monitoring, and evaluation? What factors helped or hindered you in doing so?
4. Were there particular areas or activities in the reference project or other projects in which you were surprised to find that gender issues mattered? What were these, and how was this information uncovered?
5. In your experience with past projects, what gender-related components have worked well for you that you now routinely consider using in other projects? What elements have worked less well or are difficult to implement?
6. What are some of the lessons learned or best practices that you have identified in your work on WRM with regard to gender?
7. Have you received formal training in gender analysis, social analysis, gender-sensitive project design, and monitoring and evaluation?
8. What resources do you draw on at World Bank (or elsewhere) to support you in your work on gender and WRM?
9. What further knowledge products in gender and WRM would be of use to you in your work?

10. In your department, have you discussed application of the Water Resources Sector Strategy? Have you discussed the provisions for gender within this document?
11. What gaps do you think exist in how World Bank currently approaches gender and WRM?
12. What do you see as the main obstacles to incorporating gender in your projects?
13. Are there any other issues or concerns you would like to discuss?

APPENDIX 4. REFERENCE PROJECT DOCUMENTS PROVIDED BY TTLs

Aeron-Thomas, Mark. n.d. *Open Water Fisheries: Analysis of Household Baseline Surveys and Interpretation of Poverty Status of Households at Project Waterbodies*. Fourth Fisheries Project. Washington, DC: World Bank.

Government of Bangladesh (GoB) Department of Fisheries. n.d. *Aquaculture Extension Strategy.* Dhaka: Bangladesh.

IDA-DFID Mid-Term Review Mission. 2002. Fourth Fisheries Project (Credit 3276-BD); Aquatic Biodiversity Conservation Project (GEF Trust Fund Grant TF022832-BD) Mid-Term Review Mission, April 2–May 9, 2002. Aide Memoire.

IDA-DFID Implementation Review Mission. 2004. Fourth Fisheries Project (Credit 3276-BD); Aquatic Biodiversity Conservation Project (GEF Trust Fund Grant TF022832-BD) Implementation Review Mission, February 9–23, 2004. Aide Memoire.

Nicholson Institute. n.d. *A Sectoral Environmental Analysis for the Water and Sewerage Sector of St Lucia*. Alyce Glen, Trinidad: Nicholson Institute.

Project Management Unit; GoB Department of Fisheries. 2003. *Sample Baseline Study of Trainee Farmers in Batch 3 Fisheries Villages of the Aquaculture Extension and Training Component: Volume 1—Main Report*. Report No. 14 of Fourth Fisheries Project, Monitoring and Evaluation Unit and Aquaculture Extension Training Component.

Project Management Unit; GoB Department of Fisheries. 2004. Fourth Fisheries Project. Quarterly Progress Report, January–March 2004: QPR No. 15. April 2004.

Project Management Unit; GoB Department of Fisheries. 2004. *Experience Sharing on Gender Issues in the Department of Fisheries*. Internal Report No. 16. June 2004.

World Bank. 2000. *Bangladesh Country Review: Strategic Choices for Mainstreaming Gender in Bank's Activities*. Dhaka: Bangladesh, World Bank.

World Bank. 2002. India: Uttar Pradesh Sodic Lands Reclamation Project (Cr 3152-IN). Mid-Term Review Mission Aide Memoire. May 2002.

World Bank. 2004. *Implementation Completion Report (SCL-44640) on a Loan in the Amount of US$5.0 Million to the Kingdom of Morocco for a Pilot Fisheries Development Project*.

Report No. 29033. Water, Environment, Social, and Rural Development Department, Middle East and North Africa Region. Washington, DC: World Bank.

World Bank. 2004. *Project Performance Assessment Report: India—Uttar Pradesh Sodic Lands Reclamation Project* (Credit 2510). June 9.

APPENDIX 5. POTENTIAL PARTNERS FOR NETWORK ON GENDER AND WRM

Organization:	**Contact Person:**
Gender and Water Alliance (GWA)	Maria Arce Maliha Hussein
Global Water Partnership (GWP)	Khalid Mohtadullah
International Water and Sanitation Center (IRC)	Jennifer Francis Christine van Wijk
International Water Management Institute (IWMI)	Barbara van Koppen
International Food Policy Research Institute (IFPRI)	Ruth Meinzen-Dick
Water Engineering and Development Center (WEDC)/WELL	Ian Smout

Other international donors:

For example, UNDP, Dutch government, DFID, Australia Aid, United States Agency for International Development, CIDA, Asian Development Bank

Academic Experts:

Margreet Zwarteveen, Irrigation and Water Engineering Group. Wageningen University, Netherlands.

Pauline Peters, Center for International Development. Kennedy School of Government, Harvard University, United States.

Anne Ferguson, Department of Anthropology, Michigan State University, United States.

APPENDIX 6. SAMPLE CHECKLIST FOR GENDER ANALYSIS (WRM PROJECT PREPARATION AND IMPLEMENTATION STAGES)[55]

SOCIAL ASSESSMENT	PROJECT IMPLEMENTATION
❑ Conduct participatory gender analysis in collaboration with other specialists (e.g., social scientists, water sector specialists). ❑ Identify the socioeconomic profile of key stakeholder groups in the target population and disaggregate data by gender. Analyze link between poverty and gender. ❑ Examine gender differences in knowledge, attitudes, practices, roles, constraints, needs, and priorities in WRM. Examine factors accounting for such differences. ❑ Assess men's and women's capacity to participate and the factors affecting this, at group and village levels in particular. ❑ Assess potential gender-differentiated effects of the project and options for maximizing benefits and minimizing adverse effects. ❑ Identify and assess capacity of government agencies, nongovernment- and community-based organizations, and women's groups that can be utilized during social assessment and project preparation and implementation. ❑ Review the related policy and legal framework (e.g., inheritance law, water users group bylaws, water subsidy framework), as necessary. ❑ Based on analysis, develop gender-responsive and participatory project design and identify any further sector work or policy or sector reform required. ❑ Develop a gender-responsive M & E mechanism and indicators. ❑ Prepare terms of reference for implementation and M & E consultants.	❑ Develop or refine project's gender strategy and review its implementation plan. ❑ Assist the project office in recruiting staff to ensure women's equal representation and gender focus. Conduct gender-awareness training for project staff at all levels. ❑ Help recruit female community mobilizers, if required by local norms. Assess the training needs of both staff and beneficiary women in WRM. Supervise both staff- and community-level training for these women to ensure adequate technical and skills training. ❑ Assist the project office in monitoring project implementation. Pay particular attention to potential resistance to women's participation and facilitate conflict resolution as required. ❑ Assess other needs of beneficiary women (e.g., credit, literacy program, skills training for income generation) as these emerge and propose to the project office practical ways of addressing these needs in the project. ❑ Assist staff or consultants in collecting gender-disaggregated and women-specific data. Assist female community mobilizers (if used) in mobilizing beneficiary women for participatory monitoring and evaluation. Propose course correction based on findings.

[55] This sample checklist is drawn from the Asian Development Bank's *Gender Checklist for Water Supply and Sanitation.*

APPENDIX 7. SAMPLE GENDER INDICATORS FOR WATER SECTOR PROJECTS

OUTPUT INDICATORS	*IMPACT INDICATORS*
• Presence of gender-segregated water users' associations or female members and leaders on water users' associations (%) • Percentage of households post-disaster with adequate sanitary and latrine arrangements for men and women • Number and percentage change in number of female staff employed at water agency, at operational and managerial levels • Number and percentage change in proportion of staff at water agency, trained in gender approaches to WRM and gender analysis in project cycle • Number and percentage of community water infrastructure projects maintained in working order • Changes in percentage of households with access to adequate and affordable drinking water supply source, of sufficient quality and quantity • Presence of gender strategy for water agency at start and end of project	• Changes in land tenure and use patterns, by gender • Qualitative assessment of women's formal participation in local-level governance forums • Changes in gender and age-based division of labor in productive and reproductive responsibilities (including water collection) • Men's and women's assessments of quality of service or responsiveness from water agency representatives • Changes in supply of private sector firms engaged locally in WRM services (to monitor extent of market creation, as per PSD objectives) • Changes in men's and women's perception of availability of water for nonagricultural uses (e.g., for cooking, sanitation, home gardens, livestock, household industry) • Changes in household and village-level decision making on water allocation. • Gender-positive changes in gender aspects of water policy or legal and institutional framework for land and water • Trends in conflicts between agricultural and nonagricultural water allocation; (detail the mechanisms for use prioritization, sanctions applied) • Changes in women's and men's access to land and water resources