

Effective infrastructure projects consider the needs and constraints of both women and men

Infrastructure & Gender

GENDER AND DEVELOPMENT BRIEFING NOTES



GENDER AND DEVELOPMENT GROUP, THE WORLD BANK, FEBRUARY 2007

Why are gender issues important in the infrastructure sector?

The infrastructure sector is often assumed to be gender neutral, with women and men benefiting equally from projects. Females and males, however, have different roles, responsibilities and constraints, which result in gender-based differentials in demand for and use of infrastructure facilities and services. The development effectiveness and sustainability of the infrastructure sector could increase significantly by addressing gender differences in demand and utilization. This involves incorporating a gender perspective in selecting and designing infrastructure interventions, assessing safeguards issues, and conducting monitoring and evaluation.

SELECTION OF INFRASTRUCTURE INTERVENTIONS. Recognizing gender asymmetries in demand affects selection of infrastructure activities to be undertaken in a country:

– *Selection of interventions across infrastructure sectors.* Lack of access to certain types of infrastructure services (e.g., water, sanitation, fuel and transport) negatively affects women more than men and can act as a drain on economic growth in a community. Women and girls are disproportionately affected by lack of access to infrastructure services since they bear a larger share of the responsibility and time for household maintenance and care activities. Infrastructure investments within a country, particularly those in transport, energy and water sectors, must be prioritized because of their potential to reduce the opportunity costs to girls and the time and energy costs to women of their household roles.

– *Selection of interventions within infrastructure sectors.* Which interventions are to be selected? Is there a demand for a feeder road or a trunk road (connecting village to main town)? Should water connections be provided in village centers or in homes? The answer depends on who is asked. Calculating the potential benefits of a project requires measuring gender differences in demand. For example, women have larger transport burdens than men and are typically the main users and providers of household water and cooking fuel. Thus demand assessment techniques must measure gender disparities in demand.

SAFEGUARDS. For certain infrastructure sectors such as mining or power generation, gender-relevant considerations might be of critical importance in the context of safeguard issues, such as environmental impacts of increased soil erosion, degradation of water quality, contamination of drinking water systems, and so on. These environmental effects can disproportionately affect women by increasing their workloads and reducing their ability to protect their families' health and wellbeing. The most effective approach to safeguarding the environment would therefore be one that recognizes gender differences in roles and responsibilities.

MONITORING AND EVALUATION. Recognizing gender asymmetries affects the design of monitoring and evaluation of projects. Ignoring this fact might understate or overstate the impact of a project. Effective monitoring requires developing indicators for each stage of project cycle: design, implementation, outputs, impact, and for assessing changes in social and economic characteristics of the communities affected by the project. A few examples of gender-sensitive indicators are: use of gender-disaggregated data in project planning and monitoring, men's and women's groups levels of engagement in project processes, promotion of men's and women's initiatives by the project facilitator, increase in the number of women using intermediate means of transport or using the time saved by improved access to water for other developmental purposes, and improved access to markets for women traders.

Issues to consider

- What are the gender differences in demand for energy, water, sanitation, transport, and ICT? What are the main economic, time, and cultural constraints to access to infrastructure?
- When setting infrastructure priorities, do policies reflect women's and men's different constraints and needs?
- Are both women and men being trained as managers and operators of community infrastructure facilities? Do women and men differ in their willingness to pay (WTP) for infrastructure services? How does this affect service delivery?
- Are projects being designed to fully incorporate an understanding of their gender-related impacts?

What is the World Bank doing?

As the World Bank scales up lending for infrastructure, there are important implications for gender equality and empowerment of women. As the 2006 Gender Action Plan notes: "initiatives to improve infrastructure access can promote women's economic empowerment across all markets. For example, increasing women's ability to use various modes of transport would increase employability, allow women to interact with formal and informal credit market institutions, and provide easier access to markets for goods women produce." Examples of the innovative approaches the World Bank uses to address critical gender-mainstreaming challenges in infrastructure's sub-sectors are presented below.

Transport: The joint World Bank/Inter-American Development Bank Peru Rural Roads Program (RRP) worked with men and women of the Andean region to improve main roads and smaller roads and tracks. It involved rural women in its design and implementation by requiring that women comprise 20% of the members of the road committees and 10% of the members of road maintenance micro-enterprises. The project repaired and improved transport systems heavily used by women, such as 3000 km of pedestrian tracks often forgotten by road upgrading programs. After project completion, 77% of the women reported that the rehabilitated roads and tracks enabled them to travel farther, 67% reported that they enabled them to travel more safely, and 43% reported that they enabled them to obtain additional income. The project helped reduce travel times for both women and men by up to a half. Improved transport services enhanced communities' access to health services and markets, improved the quality of education, and facilitated social interaction.

Energy: Three key gender-relevant components for energy interventions are reducing indoor air pollution, increasing women's participation in electrification programs, and promoting women's participation in small and medium size firms producing or consuming energy. The Women's Cooperative of Char Montaz in Bangladesh demonstrates that poor women can develop energy businesses when properly trained. Sponsored by the World Bank/UNDP Energy Sector Management Assistance Program (ESMAP), the project introduced direct current solar lamps which were manufactured and installed by women in micro-enterprises. Through a local private delivery mechanism, these female-run micro-enterprises bring needed lighting to households off the reach of any electric power grid. The cooperative has now been licensed by a German company to assemble controllers for the Solar Home System market, and accesses the market through competitive procurement in the Third Rural Electrification Project.

ICT: The World Bank currently lends an estimated USD 1 billion per year to various e-government projects. Services such as on-line access to land records, voter registration, rural microfinance, disaster prevention and recovery, and license applications, can benefit women. One successful example is the e-Sri Lanka project, which uses e-government applications in education services tailored to promote women's skills training. A voucher

scheme initially grants women free access to rural telecenters; they then pay a few cents per hour to make the telecenters financially sustainable.

Water & Sanitation: As women most often are the users, providers and managers of water in rural households and the guardians of household hygiene, women are highly affected by water and sanitation projects, and in turn affect their sustainability and effectiveness. The Second Water and Sanitation for Low Income Communities (WSLIC) project in Indonesia recognizes this fact, using gender-sensitive tools and indicators in the design, implementation and monitoring of community-driven activities. For example, village implementation teams for water and sanitation infrastructure creation must be gender-balanced to qualify for project assistance. Gender equity in community capacity building interventions and in the composition of community water management organizations are key performance measures for the project. Gender equity in community voice and choice is pursued through individual voting at well-attended community water system planning meetings.

Extractive industries: There is an emerging body of evidence that the benefits and risks are not distributed equally between men and women in the extractive industries. Women get few of the benefits and shoulder most of the risks, including social and family disruption, loss of land for subsistence agriculture, and limited voice in community decision-making regarding development funds and projects. The World Bank reaches out to women in mining communities to address this gender bias, using novel ways to mainstream gender issues into this sector. For example, in Papua New Guinea, a series of World Bank supported conferences with women in mining communities led to the identification of actions to enhance the benefits and reduce the risks for women of mining projects. These actions formed the basis for a Five Year 2006-2010 Women and Mining Action Plan in each major mining community. These plans were subsequently merged by a team from the Department of National Planning and Rural Development and the Department of Mining into a National 2006-2010 Women and Mining Action Plan which will be presented to the National Economic Council for endorsement.

Resources

- *Engendering Development: Through Gender Equality in Rights, Resources and Voice*, 2001. World Bank Policy Research Report, Oxford University Press.
- *Engendering ICT Toolkit*. <http://www.worldbank.org/ict>
- *Gender Equality as Smart Economics: A World Bank Group Gender Action Plan (Fiscal Years 2007-10)*, 2006. World Bank.
- *Gender and Transport Resource Guide*, World Bank. <http://www4.worldbank.org/afrr/ssatp/Resources/HTML/Gender-RG/index.html>
- Mukherjee, N. and van Wijk, C., 2003. *Sustainability Planning and Monitoring in Community Water Supply and Sanitation*. IRC, Water and Sanitation Program, World Bank.
- UNDP, 2001, *Generating Opportunities: Case Studies on Energy and Women*. <http://www.undp.org/energy/publications/2001/2001a.htm>