

# Annex on Gender and Infrastructure

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*This Annex accompanies a paper on Gender, Poverty and Public Private Partnerships in Infrastructure, (PPPI) which primarily analyses the PPPI process and the gender dimensions of this approach to infrastructure provision and will be used to support training to be offered by the World Bank Institute to African stakeholders in PPPI. This annex complements the paper by summarising key messages about gender and infrastructure, without the dimension of PPP. It is developed for those with little/no understanding of gender issues in infrastructure. It provides an introduction and is meant to stimulate further reading and research towards practical measures to address gender in diverse infrastructure operations (a Reading List is provided with training materials). The annex includes a brief rationale for addressing gender in infrastructure, clarifies concepts and definitions related to gender; identifies key gender issues in infrastructure; examines some sector specific dimensions and illustrations of gender in selected sectors i.e. Water and Sanitation, Urban Transport, Urban Development and Energy; discusses measures and approaches to help address gender in infrastructure and briefly looks at the role of civil society organisations in infrastructure provision and reform.*

## 1. Importance of Infrastructure

Infrastructure is a crucial part of the development of any country and has a fundamental impact on the pattern and outcomes of economic, social and cultural activities. This importance is reflected in the investment made by national governments, international donors, local authorities, the private sector, communities and households in provision of infrastructure facilities and services. Infrastructure encompasses the provision of facilities and delivery of basic services essential to both women and men, such as water, sanitation, energy, and transport; as well as other newly emerging areas, such as information communications technology, which have potential to alter economic activity and women and men's livelihoods. Infrastructure therefore has a key role to play, both directly (e.g. reduction in child mortality through safe water supply), and indirectly (e.g. time reduction for women in fetching fuel through provision of electricity or opening up employment opportunities through greater mobility) in the quality of life of all citizens. Infrastructure has become an increasingly important part of the World Bank's development agenda and is central to the Bank's efforts to help achieve the Millennium Development Goals. The Infrastructure Action Plan (2003), to guide activities, places importance on partnership arrangements along the whole spectrum of public and private collaboration.

Heretofore the provision of infrastructure, and the planning and implementation of reforms in infrastructure sectors, has been dominated by technological and financial concerns, with insufficient attention paid to socio-economic issues and divisions, such as gender, ethnicity and class. A case in point is the World Bank Infrastructure Action Plan, which makes some reference to the need for better infrastructure and poverty linkages, but does not address gender equity dimensions. The World Development Report 2004 is focused on making essential services (including infrastructure) work for poor people. While it does not give a high profile to gender considerations in its analysis or recommendations, the strategies it proposes around building accountability and transparency into service delivery structures, do provide an entry point for better integration of gender concerns into infrastructure provision. Neglect of social dimensions can result in exclusion of the poor from infrastructure provision, with particular impacts on poor women. To ensure affordable access to infrastructure and better services there is need to pay greater attention to the impact of infrastructure facilities and services on different social and income groups, and within this on the differential impacts on women and men.

## **2. Why pay attention to Gender in Infrastructure?**

A gender perspective in infrastructure is important to build a sound and

sustainable basis for effectiveness. There is increasing emphasis on the need for infrastructure service provision to reduce poverty and to increase economic growth. This is a positive development but closer inspection of this attention to the poor shows that there is still insufficient focus on differentiating by gender.<sup>1</sup> Despite much project-level data over recent decades, which has shown that infrastructure is not gender neutral, there has not yet been adequate attention paid to the need for infrastructure reforms to open up equal opportunities and to bring benefits to both women and men. In almost all cases, women have less access to and use of infrastructure facilities and less representation in decision-making positions in these sectors. To achieve equality of opportunity, especially at a time of major changes in infrastructure sectors, the different needs of women and men need to be understood and accommodated in both design and delivery of infrastructure services.

Experience has shown that unless special efforts are made, the benefits of reforms will not be shared equally between women and men. Rather, existing differences and inequalities will be exacerbated unless adequate analysis of the context and anticipation of impacts is factored into the design and

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<sup>1</sup> *Gender in the PRSPs: A Stocktaking* (2001) World Bank: This review of 21 Interim and full PRSPs found that in many sectors, but especially in infrastructure, coverage of gender was very low. If it was mentioned at all it was likely to be a passing reference or vague intention, rather than proper diagnosis, followed by action, and including proposals for monitoring.

implementation of these policies and programmes. Gender is not the only variable. Any society will be made up of people who have different levels of power, resources and influence, determined by a range of variables such as age, education, ethnicity and location. Policy makers and decision makers are encouraged to identify and address these social and economic differences in all of their plans and interventions, but here we look particularly at the issue of gender.

A few core concepts are defined here but there are many resources available that provide further information on gender concepts and approaches.<sup>2</sup>

- **Gender** refers to the relationship between women and men, the particular roles and responsibilities that are deemed to be appropriate for them and assumptions about their abilities and skills. The norms of male and female behaviour and the relationship between men and women are determined by social, economic, political and cultural forces, which operate within any given society. This will vary between societies, different cultures or ethnic groups and will also change with location and with age. Likewise gender does not remain static but changes in all societies (perhaps at different paces) over time.
- **Gender inequality** relates to the unbalanced rights and privileges for men and women as reflected in legal statutes, discriminatory customary laws and practices, in policies and administrative institutions, and in household, family and community practices. The responsibilities, opportunities, power and influence that men and women enjoy are generally unequal, though the nature and extent will vary between societies. In some cases men may experience disadvantage compared with women, but generally the opposite is true. Discrimination against women is the single most pervasive form of inequality globally, and gender equality and women's empowerment are inextricably linked.
- **Gender equality and equity** is the achievement of equality of opportunity, access, and participation (equality) and of outcomes (equity) for women and men. This does not mean that men and women will be treated the same or aspire to become the same but rather that the diversity between and among them is recognised and that the interests, needs and priorities of both men and women are taken into account without bias or favour, even when it is more difficult to determine and address the needs of one more than the other.
- **Gender issues** are those concerns and challenges that are identified from an examination of the status and circumstance of women and

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<sup>2</sup> The United Nations for example has numerous resources available to download from the Internet. The [www.undp.org](http://www.undp.org) site will provide access to many of these and links to other websites.

men in a given context such as in infrastructure.

- ***Gender Disaggregation*** is the collection of mainly quantitative data indicating women and men's experiences separately. This information is needed to inform the development of policies and programmes and for monitoring their implementation and differential impacts.
- ***Gender analysis*** is a process of collection and examination of information on differences between men and women, their roles, responsibilities, access to and control over resources and services, barriers and constraints, their visibility and participation in decision making, in order to understand and address their different needs, interests and priorities in a given context, such as the infrastructure sector. An important dimension is that gender analysis focuses on gender relations (differences and inequalities) between men and women and does not just focus on women. The analysis may pay more attention to women since they generally face more disadvantage and their views are less well known but it must always be placed in the context of overall gender relations. Likewise, it does not assume that all women will be the same but will look for differences between women based on age, income, education, race, ethnicity, location and other variable.

- ***Gender mainstreaming*** is the term given to a process of ensuring that gender issues are identified and addressed in mainstream policies, programmes, budgets and processes. Implicit in this is an awareness of gender and an ability to analyse and include it in all evolving elements of operations. For infrastructure programmes this will mean capturing gender issues within all policy making, delivery, regulatory, operation and usage levels and at all stages of the cycle through design, implementation, monitoring and evaluation [See section 6 below].

The focal question here is how to improve the access, affordability and quality of infrastructure services for the poor in general, and specifically for women. Gender inequalities are entrenched in the infrastructure sector in the division of labour, the roles and responsibilities of women and men, and in access to and control over resources. In order for women and men to be equally able to access all infrastructure services and facilities, policy and decision makers need to take account of their different situations and lifestyles and understand their perspectives and realities. Gender analysis will therefore be essential in design and implementation of infrastructure reforms and gender issues should be considered when selecting technologies and developing institutional arrangements [See section 4 below for key issues].

### 3. Is it sufficient to pay attention to Poverty?

Available data from many countries suggest that women are disproportionately represented among the poor. Understanding poverty and its gender dimensions is critical in the formulation of equitable and effective policies and programmes. Poverty is 'gendered' because it impacts differently on women and men and because gender can be a significant determinant of who will become poor. Likewise including a gender dimension in poverty analysis and poverty reduction strategies can contribute significantly to economic growth and to equity by ensuring that all groups of the poor share in the benefits of poverty reduction.<sup>3</sup> The problem is that gender differences are not routinely acknowledged or addressed in selection and design of poverty reduction strategies or in the sector strategies that link to these.

Furthermore, the relationships between poverty and gender are multiple and gender should not be seen only as a subset of poverty characteristics. Gender inequality can be experienced by the economically rich and otherwise privileged as well as by the poor. Gender is not the only factor to interact with poverty. Other key variables include class, race and age. Issues related to recruitment, training, pay and

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<sup>3</sup> The Gender Chapter in the PRSP Sourcebook: World Bank ([www.worldbank.org/poverty/strategies/chapter/s/gender](http://www.worldbank.org/poverty/strategies/chapter/s/gender)) provides guidance on addressing gender within poverty analysis and poverty reduction strategies.

promotion of women, including non-poor women, within the infrastructure sectors also pose a challenge, and measures to identify and address the barriers that exist need to be included in reform measures. Progress towards poverty reduction will be helped by attention to equity, including gender, while focus on poverty does provide an opportunity to address gender issues of concern to poor women and men, but will not capture all dimensions of gender equity.

### 4. Key Gender Issues in Infrastructure

There are a number of gender issues that are relevant across all infrastructure sectors. These need to be known and understood by planners and decision makers if they are to respond to the needs, interests and priorities of both women and men, and they are briefly described here.<sup>4</sup> It should be noted that the nature of gender disparities will differ among societies and therefore that effective infrastructure policies and programmes need to be grounded in analysis that integrates local and national gender concerns.

- *Different roles and responsibilities of women and men, leading to differences in division of labour/lifestyle and different needs interests and priorities:*

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<sup>4</sup> For further information refer to reading material 'Infrastructure and Poverty: A Gender Analysis (1997) by Rachel Masika and Sally Baden, a report prepared for Sida by Bridge, No 51, IDS, Sussex, UK

Most societies ascribe different roles to men and women, and arising from these, they will have different responsibilities. One of the most persistent and widespread dichotomies is the allocation of responsibility to women for reproductive and domestic activities and for family and community care; while men are expected to be the breadwinners and to also engage more widely in public life. In reality this is changing in many societies, but will still have impact on the domestic and child rearing responsibilities, patterns of activity, length of the working day and needs and priorities of women and men from infrastructure services. Other cultural factors and personal safety concerns may also limit women's mobility. For example, women and men may have different requirements from public transport in terms of timing, mode and routing but women's travel patterns are not routinely analysed or factored into transport services. Women and men may have different preferences for house design, location and facilities, such as sanitation and water supply, that urban planners should be aware of.

Nor is it simply a matter of helping women to meet their traditional role and responsibility. For example, improving women's access to transport can save time but it can also help to increase income and productivity and lead to increased status and independence. This in turn can have other positive impacts on members of the household, for example, on school attendance or health care. *The key message here is that attention must be paid in infrastructure provision to understanding gender differentiated roles, responsibilities and*

*priorities, and arising from this, different needs and preferences of women and men for these services.*

- ***Differences in access to and control of infrastructure facilities and services:***

Evidence suggests that inequalities in roles and responsibilities of women and men and cultural restrictions lead to differences in their access to and use and control of infrastructure facilities and services. The definition of access to infrastructure encompasses the use, affordability and availability of the service. Women's lack of control over income (often even their own earned income) and difficulty in securing loans may make it difficult for them to avail of services such as transport facilities, improved water supply, upgrading of dwellings and energy. Though women may want and be willing to pay for them, they very often do not control the household budget.

In some sectors, especially where a link is made with women's domestic responsibilities such as provision of water, some efforts have been directed towards appropriate service provision to ensure access and time saving for women. However as the level of technology and scale of provisioning increase, efforts to design appropriate facilities and services to ensure access for women (and the poor) decrease. They then have to resort to some form of self-provisioning, which has adverse impacts on their work load and possibly also other indirect impacts on health e.g. from walking long distances, head loading of heavy loads and using unsafe water.

Subsidised provision of infrastructure has proven problematic as a means of making services more accessible as there are difficulties in ensuring that the subsidies actually reach the poor. Evidence suggests that the cost of basic services such as energy (e.g. paraffin) to the poor can be many times higher than that paid by the more wealthy (e.g. for electricity). Other measures to improve access such as different levels of technology, openness to alternative suppliers, greater focus on needs of the poor and of women, differentiated quality levels, access times, and weighting on higher levels of consumption appear to be more promising. Evidence from Latin America suggests that affordability of access is much more of a barrier for poor households than affordability in usage of the service, and, therefore, that subsidising connection charges may have greater impact for poor households, and for women in those households, than subsidies on tariffs.<sup>5</sup>

Another crucial access dimension is the gender gap that exists between men's and women's access to and influence on the decision-making that determines the type and scale of infrastructure service delivery. This results in women's needs and interests not being sufficiently known or understood and a presumption that infrastructure services will benefit everyone.

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<sup>5</sup> Accounting for Poverty in Infrastructure Reforms: Learning from Latin America's Experience (2002) A. Estache, V. Foster & Q. Wodon WBI Development Studies

The UN ranks access to Information and Communications Technologies (ICT) as the third most important issue facing women globally, after poverty and violence.<sup>6</sup> This recognises the enormous potential of ICT to break down barriers to knowledge, participation and economic opportunity but also the fact that gender is a major factor in determining who has access to and who benefits from new information technologies. They point out that poor women in the South suffer from a 'triple-divide' – as citizens of low-income countries, as poor residents in their own societies and as women. Yet there are examples of ICTs being a tool for positive change for poor women and men, when these were adapted to their needs. *The key message here is that infrastructure industries need to be aware of the differentiated demands for services from women and men and of the economic, social, time and cultural conditions that constrain their access and usage in order to design appropriate delivery mechanisms. This in turn will support greater uptake and efficiency.*

• ***Differences in employment patterns and participation rates:***

The presumption that women's domestic responsibilities are their primary function has reinforced barriers to their access to education and training, limits their choice of income-earning activities/employment, and has led to their being under-represented in decision-making processes and positions. Their traditional work tends to be undervalued and the

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<sup>6</sup> UNDP Gender Mainstreaming

predominance of women in a particular occupation or sector is often linked to lack of status, lower skill and low pay.<sup>7</sup> Many infrastructure industries are seen as uniquely male with women concentrated in the lower skill areas. One worrying fact is that, even in new technology areas such as ICT, women are largely found in information-processing jobs, rather than the more prestigious and influential analytical and programming jobs. While some of these problems go back to fundamental issues of gender-differentiated access to education, especially in science and technology, there is much that all infrastructure industries can do to remove gender bias in the working environment and to facilitate the entry of women and their progression within the industries.

Such steps might include reviewing conditions and regulations related to recruitment, working conditions, opportunities for training and advancement, maternity and paternity leave and child-care facilities, in order to eliminate gender bias (also bias based on race, ethnicity, age or class); a promotional campaign to attract women and young girls into the industry; targeting and developing a strategy to increase the proportion of women in supervisory and management positions; ensuring a proper support structure for both women and men to help address particular needs such as freedom from sexual harassment; flexible working hours and access to appropriately delivered further training; and ensure

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<sup>7</sup> *Gender, Poverty and Employment: turning capabilities into entitlements* (1995) The International Labour Office Geneva

that fair and non-discriminatory wage practices are used, with existing disparities corrected.

Other steps that can be taken by policy makers and regulators include ensuring that potential women owners have access to information on market licensing procedures, promotion of business assistance programmes and partnerships that support women entrepreneurs and inclusion of conditions in licenses awarded to promote gender analysis and mainstreaming (and other equal opportunity and socially responsible measures). *The key message here is that infrastructure industries must ensure that their human resource policies and procedures take account of gender differences, are free of bias, and take steps to correct any disparities; and policy makers and regulators should include criteria and conditions to ensure that gender equality and other equal opportunity measures are pursued by providers.*

## **5. Unpacking Gender in Specific Infrastructure Services**

Infrastructure encompasses a wide range of different sectors. While the gender issues identified above are relevant across all of infrastructure, it is important to recognise that each sector is different and requires a sector-specific analysis of gender dimensions in order to transform each service. Following are some illustrations from selected infrastructure sectors. As mentioned in the introduction, the focus here is primarily on the urban context.



- ***Gender Related Issues to consider in Water & Sanitation:***

*'More than a billion people world-wide have no access to an improved water source, and 2.5 billion do not have access to improved sanitation.'* WDR 2004

Access to water and sanitation is broadly accepted to be an indicator of well-being and a right for all citizens. The growing demand for water and its limited supply have focused attention towards more coordinated, sustainable systems at local, national and global levels. A set of global principles has been developed to help optimise economic and social benefits without comprising sustainability.<sup>8</sup> One of these five principles is that: 'there should be recognition that women play a central role in the provision, management and safeguarding of water'. This association between women's traditional gender roles and water is often acknowledged, as are the potential health benefits for the family from women's involvement in water and sanitation. As a result of these associations there is evidence of efforts over the last 20 years to develop gender-sensitive policies and approaches in this sector. The Gender and Water Development Report 2003: Gender Perspectives on Policies in the Water Sector by the Gender and Water Alliance<sup>9</sup> looks at progress in integration of a gender perspective into water policy. Their review of 71 water policies acts and regulations from 29

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<sup>8</sup> Integrated Water Resources Management, Background Paper No 4, The Global Water Partnership, Stockholm, 2000

<sup>9</sup> [www.genderandwateralliance.org/reports/GWA](http://www.genderandwateralliance.org/reports/GWA)

countries found that 30 of them (43%) made no mention of gender at all, and many incorporated women's interests or a gender focus primarily for reasons of efficiency in service delivery.

Numerous studies, including large scale ones by the World Bank and UNDP, highlight the fact that water services are better maintained and used if both women and men are involved in choices about type of service, technology, management and financing systems and if capacities are built to ensure that costs and benefits are equitably shared. Furthermore these studies found that failure to take gender differences and inequalities into account increased the likelihood of project failure.<sup>10</sup>

These lessons from project and community level have, generally, not been translated into large-scale public provision of water and sanitation, still less so to public private partnerships in water and sanitation. A key consideration for women will be choice of technology and affordability. Yet the tendency appears to be to choose a form of technology and to set quality and price for those who can readily afford and demand a high level of service, without modifying or providing additional parallel systems for women and the poor. Poor people often pay higher prices to water sellers than the better-off pay to utilities. In Ghana the approximate price paid per litre of water

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<sup>10</sup> Mainstreaming Gender in Water Management: A Practical Journey to Sustainability: A Resource Guide (UNDP); Fong, M. et al, (1996) Toolkit on Gender in Water and Sanitation: Gender Toolkit Series No.2, UNDP-World Bank Water and Sanitation Program, TWUWS, the World Bank, Washington

purchased by the bucket was between 5 and 16 times higher than the charge for public supply, even though women and children often had to walk a long distance to purchase the water.<sup>11</sup>

**Box1: Female Water Vendors in Honduras**

United in their need for reliable, affordable water and their dislike of high prices from private vendors and licence holders, women in low-income urban neighbourhoods have taken on and managed their own licensed water vending points. Characteristics reported are lower and fixed water prices, provision of part-time employment to poor single women with children and use of the group's surplus for neighbourhood project. The women helped organise their own local water supply or financed a connection to the municipal network. They also use water for income generation from teashops, beer brewing and a launderette. *Espejo, N. Gender and the Management of Drinking Water Supply in Low-income Urban Communities in Latin America, (1993) The Hague, Netherlands, IRC International Water & Sanitation Centre*

Fees set under cost recover programmes need to be sensitive to the possible exclusion of poor women, particularly female-headed households. It is important for affordability studies to take into account constraints to women's control over household resources and not just to base their assessments on male income, as women are often held responsible for securing water for the family but may not control decisions on allocations within the household budget.

At the World Summit on Sustainable Development in Johannesburg in 2002, world leaders demanded action on the

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<sup>11</sup> Making Services Work for Poor People World Development Report 2004, World Bank, Washington

awful sanitation coverage statistics that show 40 percent of the world's population without any form of hygienic sanitation. The target to reduce this by half by the year 2015 provides an opportunity to bring a gender perspective into new and expanded sanitation programmes.

When introducing sanitation improvements, it is important for decision-makers to consider technologies and services appropriate to income, gender and cultural dimensions. Most poor people living in urban settings are unable to afford high-cost sewerage and drainage. They need local systems that are affordable in terms of access, management and maintenance. The Gender and Water Alliance 2003 report highlights the fact that, while low-cost sanitation technologies do exist, there is insufficient investment in staff skilled in these technologies and in the participatory processes, gender sensitivity and awareness campaigns needed to implement improvement programmes.

Because sanitation is a private activity, consideration should be given to offering households a choice of systems for a range of costs. Women and children often have prime responsibility for cleaning latrines and the need to make this easier and to minimise risks from infection should be factored in at design and construction phase. In some countries, cultural factors have a strong influence on location of block toilets, and separate blocks for men and women are essential. The design of toilets in

market places should provide more toilets for women than for men and take account of women's need for space to wash/care for babies and children and to have adequate space for hygienic placement of their market purchases.

**Box 2: Divergent Gender Interests in Sanitation**

Surveys in capital cities of Guinea and Burkina Faso found that people mainly complained about smells and flies when stating what was wrong with sanitation installations. Women complained more than men about this and also about privacy issues. Men, who do not have to clean the facilities, mainly complained that they did not find enough water in the toilet for washing after defecating.

*D Allely et al (2002) Water, Gender and Sustainable Development in Gender & Water Development Report 2003*

Careful planning is needed before introduction of collective sanitation blocks to include issues of conditions of use and cleaning and care, to ensure that women are not further disadvantaged through assumptions of their responsibilities keeping them clean. Safety considerations will also be an issue in certain contexts, as there is a risk that women may suffer from physical attacks when using communal latrines.

Because of women's primary role in water and sanitation provision, there is clearly an imperative to focus on gender in order to improve water and sanitation service performance (such as better design, usage, cost recovery, operation and maintenance). However other potential benefits are equally important and provide a further rationale for

addressing gender. These include economic benefits to women and the overall economy (such as time saving, facilitating productive work and income generating activities); benefits to children (improved health and time saving facilitating better school attendance and retention) and women's empowerment through active participation in decision-making and opening up of opportunities.

**Box 3: Principles of a Gender Approach in Water & Sanitation Development & Management**

A gender sensitive approach seeks to analyse:

- How men and women use water resources and for what purposes?
- How are contributions (labour, time, payments and contributions in kind) divided between women and men, rich and poor?
- Who makes the decisions at various levels?
- Who benefits from projects and programme resources such as knowledge, jobs and training?
- Who benefits from water resources development and has control over these benefits?
- Who carries the costs and disbenefits of a project or programme?
- Do women and men from different age, wealth, religious and ethnic groups benefit equitably?

*The Gender and Water Development Report 2003: Gender Perspectives on Policies in the Water Sector* by the Gender and Water Alliance.

## ***Gender Related Issues in Urban Transport:***

There are heavy demands on women's time and energy from their domestic as well as their income earning roles and responsibilities. Studies in Africa indicate that women account for 65 percent of all transport activities in rural households, and in many urban centres, including in developed economies, women are the main users of public transport. Availability of appropriate infrastructure provision - roads, paths and public transport is therefore of great consequence to women in terms of their ability to access employment, education and health care, and for domestic and social purposes. The frequency and timing of routes, adequacy of information about services, cost and safety considerations will all impact on women's ability to use public transport.

The World Bank Transport Group has identified a number of key issues for gender integration in transport.<sup>12</sup> These relate to economic development, efficiency in time use and involvement in both economic (productive) and non-economic (household) activities. They recommend attention to 4 'As' when integrating a gender perspective:

1. Access (to destination)
2. Appropriateness (of mode)
3. Availability (of service)
4. Affordability (to traveller)

The design of facilities such as buses is of significant importance to women. In some societies the height of entry steps will impact on women's ability to board

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<sup>12</sup> Transport Tools: Integrating Gender Module, the World Bank Washington.

a bus e.g. sari wearers. Many women will be concerned about space for children's buggies, shopping and other loads that they are transporting, and ease of physical access for these.

While the road network is often presumed to be gender-neutral, different access to and uses for different types of roads among men and women have been observed. Likewise provision of accessible transport services are necessary to ensure that women and men can access the facilities and opportunities opened up by new and improved roads. Women generally have less access to private transport. Women and men are likely to have different patterns of commuting based on their employment, child-care and other dependent responsibilities. Men's use of public transport generally relates to access for work and for social life. Women however need public transport for multiple tasks and to have different purposes for trips. Women may work part time or flexi-time and, when possible, they are more likely to work near home. However in some cities, opportunities for poor women to work, especially as domestics, may be concentrated in more affluent and distant parts of the city. Public transport routes may not easily connect such areas, leaving women with longer and exhausting journey times.

The overriding aim is to provide a service that is comprehensive and responsive in terms of provision, and safe and affordable in terms of use. It requires providers and designers to examine a range of issues and to factor in the different needs and priorities of

men and women (as well as other issues such as income, age, location, disability) in road and transport planning and delivery of services. This clearly demands data and needs analysis (See Box 4 and also Section 6).

and use these services in different ways,

#### **Box 4: Recommendations for Pro-poor Urban Transport**

Given existing limitations, the design of transport projects needs to look for alternatives. Based on its experience, the World Bank has concluded that the urban poor encounter three common constraints a) lack of access to jobs and public transit, b) low levels of affordability, c) traffic safety that disproportionately affects the poor (since they are the ones that walk)<sup>1</sup>. To redress these problems and to target urban transport specifically to benefit the poor, it recommends the following:

- improve physical access to jobs and amenities and reduce time spend walking
- remove barriers to market entry by informal transport providers (mini-buses and public motor vehicles) subject to reasonable and enforceable levels of safety
- reform regulation of urban bus services, especially competitive tendering for franchises
- enable greater use of non-motorised forms of transport e.g. make intermediate modes of transport available to women (bicycles, wheelbarrows, animal carts) in areas where there is no alternative to headloading, and if necessary consider provision of a micro-credit scheme
- eliminate gender biases by integrating women's transport needs into the mainstream transport policy and planning
- conduct, where culturally acceptable, awareness sessions for transport professionals and male household members of gender inequalities in access to transport
- facilitate safe, affordable and culturally acceptable forms of transport for women e.g. in India there are separate carriages on trains reserved for women, or in Muslim countries women travel in a separate section of buses from men
- locate water and other such facilities near communities thereby reducing women's transport burden
- ensure adequate participation of women in the design and planning of transport interventions
- facilitate women's work opportunities in transport projects and train women in supervisory work<sup>1</sup>.

Reference: Gannon, C., Gwilliam, K., Lui, Z. & Malmberg Calvo, C. **Transport: Infrastructure and Services**, World Bank... Toolkit, 2001

#### • *Gender Related Issues in Urban Development:*

Urbanisation is accelerating in many developing countries in recent years. Urban development spans a range of fields including housing; provision of services such as water, energy, waste disposal, roads and transport; land use, zoning and regulation for different use (domestic, commercial and industrial); provision of economic infrastructure such as market places; provision of public spaces and leisure activities; upgrading of unplanned settlements; and ensuring the overall planning and cohesion between these many services. Women and men have different needs

Women play a key role in many of the services and activities of concern to urban developers. This includes domestic water, sanitation, waste disposal and management of the environment. Better access to urban infrastructure and services will improve women's health, productivity and standard of living and will also bring knock-on benefits to the family.

The tendency for urban planners has been to focus on physical and spatial

aspects of urban planning, transport, housing, land and men's work patterns. In addition to looking at the gender dimensions of these, however, urban planners must look at access of women and of the poor to basic services such as health, safety and security and constraints to their access to income and employment. Especially important will be looking at the needs of women and men in the informal sector.

Poor women, living in unplanned settlements, are generally less mobile and thus more affected than men by over-crowded conditions and by high levels of pollution. They are often exposed for longer periods to the hazards of uncollected garbage, over-crowded living space and the stress of looking after children in unsafe places. Overcrowded conditions also tend to escalate crime and women are particularly vulnerable to violence. Therefore men and women in communities should be supported through provision of safe places for children to play, culturally appropriate places for women to meet, policing and community security initiatives. Unemployed youth, both male and female will require different social facilities.

Recognition of informal settlements and provision of some form of tenure will have significant impact on the likelihood of community and household investment in upgrading infrastructure. Many women's right to shelter is only guaranteed through their husbands. Even where national law protects them, tradition may inhibit women from inheriting or retaining this shelter in the

event of death or divorce. The practice of some local authorities registering the head of household (usually the man) as owner of property can help reinforce discriminatory, traditional practice. Likewise women may face particular problems in qualifying for loans.

The impact of different zoning policies on men and women and on different groups of men and women (e.g. owners/renters, by age) should be assessed. Consideration should be given to mixed-use planning, which facilitates a combination of productive work with household and child care facilities and does not require women (or men) to travel extreme distances from where they live to where they can work. Zoning regulations may, for example, negatively impact on women's ability to earn income if they are not allowed to run a business from their home.

Social inclusion for all groups, including women, should be the aim of local planners and service providers. It will be important to know the needs and priorities of different groups and households such as female-headed households.

Whether in community-based or large-scale approaches to urban development, a focus on participation of beneficiaries, especially poor women and men are important determinants of effectiveness and sustainability. The positive returns from adopting a gender focus are brought out in a case study on Gender in Urban Infrastructure Projects: The Case

of Caracas Slum-Upgrading Project.<sup>13</sup> Women's participation (i) enhanced project performance by improving quality of civil works, their maintenance and efficiency of staff; (ii) it also created a better enabling environment for slum improvement through building institutional capacity, generating employment and thus improving family livelihoods; (iii) it also improved women's empowerment in changes in gender role and more equal household decisions.

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<sup>13</sup> Ruiz Abril R.M. (2002) Case Study based on Workshop Report: Latin America & Caribbean Gender Unit, World Bank, Washington.



**Box5 : Gender-sensitive improvements to official assessments of urban poverty**

**Need to disaggregate needs** since needs are often influenced by gender.

**Need to take into account intrahousehold differentials.** Households that appear to be above the poverty line may have members who suffer deprivation because they face discrimination in the allocation of resources within the household due to age, gender or social status.

**Need to examine social and health dimensions of poverty.** The deprivation caused by inadequate income is much reduced if those with low income have access to good quality housing (with adequate provision for water and sanitation) and health care.

**Need to take into account non-monetary income sources,** e.g. goods and services obtained free, or below their monetary value and differential entitlement to these.

**Need to develop more accurate measurements for capacity to achieve access to resources** which is influenced by factors such as education, information, legal rights, illness, threatened domestic violence or insecurity.

**Greater understanding of men and women's relative command over assets is required.** Low-income households may have asset bases that allow them to avoid destitution when faced with shocks, e.g. level of education and training. Women may have limited command over certain assets. On the other hand, women may have greater claims, e.g. on social networks.

**Underlying causes of poverty need to be examined.** Structural causes of poverty and processes that create or exacerbate poverty (including gender) need to be considered.

*Adapted from:* Wratten 1995; UNCHS 1995 in *Urbanisation & Urban Poverty: A Gender Analysis* (1997) Masika, R. et al BRIDGE, Institute of Development Studies, UK

• ***Gender Related Issues in Energy:***

*For more than 90% of the 650 million people in Africa, energy is about wood, waste, dung, candles and kerosene.<sup>14</sup>*

Energy is one of the most basic requirements for all people, women and men, rich and poor. It is used to cook food, boil water and to provide heat, light and power for appliances. Typically a poor urban family spends 20 percent of

<sup>14</sup> A Brighter Future? Energy in Africa's Development (200?) Africa Energy Team, World Bank, Washington

its income on fuels. The World Summit on Sustainable Development in Johannesburg 2002 acknowledged that access to energy is needed to help achieve the Millennium Development Goals and included a reference to this in the Plan for Implementation.<sup>15</sup> National energy policies need to target poor households in order to enable them to pursue sustainable livelihoods. However there is still much uncertainty about how

<sup>15</sup> See for example the special issue of ENERGIA News Vol.5, no.4 ([www.energia.org](http://www.energia.org)), an international network on gender and sustainable energy.

to operationalise gender and poverty in energy.

There is a wide gap between women and men and between the rich and the poor in terms of access to different types of energy and in their use of different forms of energy. These gender differences need to be known and understood in order to increase access and affordability, to help both women and men to derive benefits from provision of energy and to ensure that the energy sector is contributing to poverty reduction. The availability of affordable and accessible energy will enable women to devote more of their energy to productive activities by reducing their domestic burden.

Affordability of energy will be crucial but different for both women and men and levels of energy demand, uses, consumption patterns and their ability and willingness to pay will differ. One clear example is reflected in the fact that women's domestic responsibility for cooking will make energy for this purpose a priority for them. Men may instead be primarily concerned to use energy for running appliances. Instead of purchasing labour saving appliances used by women, men, who largely control household income may opt to buy recreational appliances such as radio or television. Understanding the decision-making process within households in relation to energy services is therefore important for designing effective solutions.

Introduction of electricity is often assumed to create a time saving for women but this is not automatic. For

example, the availability of electric light could lead to women spending longer time outside the home on productive activities and still doing their domestic chores in the evening/night using electric light. Some studies suggest that, even with an electricity connection, many poor households will use a different and cheaper source of fuel for cooking. For women to really avail of benefits from electricity, there is need for associated applied technology and access to micro-credit. With access to these, women are more likely to be able to make use of electricity in small enterprise development. Many of the traditional income generating activities for women are energy demanding such as food preparation and processing and beer brewing. Availability and affordability of this energy and energy efficient technologies could have a significant impact on the viability of these activities.

Men and women cannot be treated as a uniform group of customers for energy, any more than one can ignore differences based on income, location and other factors affecting consumer energy needs. When people as both users and producers of energy services are factored into discussions on energy, there is greater potential to address gender and poverty dimensions. There has been some shift in the sector to focusing on the concept of energy services (uses) rather than on fuels (e.g. electricity) and their supply or technologies (e.g. solar equipment). This approach is more promising for poor women and men as it implies shifting emphasis to what people use energy for and identification of the constraints and

conditions around these end uses. Energy planning must focus on this demand rather than supply side if services are to meet the needs of women and the poor.

Large-scale energy projects, such as gas and electricity generation, are generally dominated by better-off men, and the needs of women and of the poor may not be high on their agenda. In such projects, issues such as land tenure, property rights and possible relocation will be significant and the interests of women and of the poor must be protected. Consideration needs to be given to social impact especially how women and men will be differently affected by relocation, and to employment possibilities and whether women will benefit from increased economic opportunities.

The following box provides evidence from a World Bank study in Asia, which looked at the links between gender, poverty and energy and clearly show that these links must be better understood if the energy sector is to contribute positively to poverty reduction.

In guidance provided by the World Bank on Energy and Gender Equality<sup>16</sup>, three particular issues are identified:

- The need for national energy policies to take account of domestic energy needs and requirements, and the priorities of women and men

- The need to know and understand current patterns of energy collection, processing and use
- The need to focus on reduction of women's and girl's heavy work burden due to the existing energy patterns.

**Box 6: Energy, Poverty and Gender**

In 2000, the Asia Alternative Energy Program (ASTAE) in the World Bank initiated the Energy, Poverty and Gender initiative to increase understanding of the linkages and quantify the impact of access to energy on poverty reduction and gender equity. Amongst the conclusions of this study was that energy on its own is an insufficient condition to resolve problems of poverty and gender inequity. Energy strategies need to become more pro-poor and gender sensitive, but they must also be associated with other factors:

- Complementary infrastructure such as roads, communication facilities, water supply, access to markets and credit;
- Production equipment and livelihood assets;
- Good governance in the form of pro-poor policies, institutions and delivery mechanisms
- Integrated 'bundled' projects that combine energy services with the above
- The promotion of private initiative for energy supply

<sup>16</sup> Energy and Gender Equality (July 2002) The World Bank Gender & Development Group Briefing Notes, Washington

- Greater focus on income generation, especially through micro-enterprises
- The use of micro-credit to overcome the poor's lack of purchasing power.

*From Energy, Poverty and Gender A Synthesis (2003) K.V Ramani & Enno*

## **6. Measures and approaches to addressing gender in infrastructure**

A substantive history of efforts to mainstream gender in development policies and processes now exist, and many strategies, tools and case studies have been developed to pursue this goal. However, there is still need for greater attention to sectoral gender issues in guiding and determining mainstream infrastructure policy and programme design and increased support for structures, processes and institutional arrangements that will promote this. It is particularly important not to miss the opportunities provided by reform in infrastructure sectors to incorporate gender equity and pro-poor dimensions. Following is a brief overview of some of the processes and methods that will support this, with guidance on where further information can be found.

- ***Social and Gender Analysis including impact analysis***

The first step in infrastructure service design or reform is ensuring an adequate database to understand socio-economic and gender dimensions in the particular context. An understanding of the gender dimensions of the legal framework, sector policy, market structures, institutional framework and regulatory regime are critical. Since infrastructure also impacts on other social and

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economic sectors, it will be important to understand the gender dimensions of cross-sectoral trade-offs and linkages. An analysis by someone with gender expertise will be needed to identify the relevant aspects in the macro-picture and also to help assess the political will to address gender equality. Much of this information may be derived from existing data or can be obtained from analysis of national and local routine data producing instruments such as household, service delivery, and demographic surveys; or from special studies such as participatory poverty assessments, core welfare indicator surveys and reviews of sector performance. It may be necessary to engage with and influence national institutions (such as a Bureau of Statistics) to ensure that these instruments are gender disaggregated (or can be, given access to the data sets), and that they include issues of national relevance from the infrastructure sectors.

Once available data is utilised to the full, further focused research is likely to be needed. Many approaches have evolved to provide this social and gender analysis. It can, for example, be included in base line studies, social assessments, social impact assessments, beneficiary assessments, and affordability and willingness to pay surveys, where these are planned. One essential element is stakeholder mapping/analysis to indicate

who the stakeholders in the sector are, including different groups of women and men, what their interests are and how they might best be included in the planning and design of interventions.

Special modules or studies may be needed such as a gendered activity profile of the sector to determine who is doing what in both the household and market economies; a gender based assets, access and control of resources profile; current patterns of use and constraints to use of different elements of the service; or a gender audit to understand allocation of and benefits from resources within the sector. A recommendation from a study in South Asia is that an Energy, Poverty and Gender Assessment (EPGA) be carried out when planning and designing all new rural energy-electrification programmes. The design of all such studies must ensure that women and men participate and that they have the opportunity to articulate their realities and priorities.

Particularly for large scale and innovative programmes it can be useful to think in terms of developing an on-going policy research agenda to ensure an adequate analysis and flow of information, not just at the crucial design stage, but throughout implementation, to determine differential impacts. *The key message here is that adequate social and gender analysis is fundamental to proper design and uptake of infrastructure services and doing it at the right time will be more efficient and effective than having to take remedial action.*

- ***Documenting and disaggregating statistics and trends***

*‘Without data there is no visibility’*

It is crucial to capture and track gender differences and not to make generalisations about ‘communities’, ‘people’ or ‘beneficiaries’. Gender must be integrated into sector statistics and indicators in order to make the contribution and situation of women and men visible. A good starting point for any sector or programme is to have a statistical profile of the population to be served, disaggregated by gender, income level and other significant variable. Make it imperative that all sector data collected be disaggregated by gender and ensure that this includes but goes beyond simple ‘head count’ of men and women. This is possibly one of the most resounding recommendations from all global and local forums on gender over the past two decades, yet constant reminders are needed to programme designers and to monitoring and evaluation personnel to ensure that this happens and that the necessary time and other resources are allocated to see that this happens.

- ***Consultation and Participation***

As already mentioned, stakeholder analysis is fundamental. Out of this a framework for consultation and participation can be developed. It is important to be inclusive and to ensure good channels to current and potential customers, especially poor women and men, but also to labour unions and to the media and research, academic and women’s organisations that have potential to influence the shape of reforms and responses to them. Consider

carefully gender differences in access to information and appropriate channels for reaching women and men. Options include consumer consultation forums, user panels, conferences, events and the media to disseminate ideas and canvas views.

- ***Incorporating gender into policy and programme design, institutional structures and organisational culture***

The crunch often comes when translating gender analysis into policy and programme design and into infrastructure development strategies and action plans. The analysis should influence the choice of technology, financing mechanisms, design standards, cross-sectoral linkages and institutional arrangements. Even if they are gender aware, policy and decision-makers may lack the necessary expertise to translate this into appropriate actions. Until this level of expertise has been developed, it will be necessary to get it from elsewhere. This can come from gender experts (men and women) in the private or non-government sector, from government agencies or research, training and academic institutions. Whenever possible, in selecting executing agencies (private, public or non-governmental) apply a weighting in the selection process towards those that have demonstrated gender capacity and resources to address gender. In contractual agreements with executing agencies specify gender equity goals and targets and ensure that these are captured in routine planning review and progress reports.

A process of building capacity within the sector/programme is also necessary. Many sector-specific checklists exist to support operationalisation of a gender approach and these should be made available, together with appropriate training, to all levels of staff. All too often, responsibility rests with one or a few (often junior, mainly female) staff to attend to gender issues but, evidence is clear that responsibility must be shared by all, and that accountability for gender equity should rest at a very senior level. A one-off gender-awareness training course cannot be expected to meet all needs. This is a useful first step but must be accompanied by support to help people relate this to their work realities. Embedding gender equity targets into objectives, action plans and individual appraisals can be effective.

The gender dimensions of both the external (programme) and internal (organisational) arenas need to be addressed. The latter is usually addressed through human resource policies that enshrine lack of bias based on race, gender, ethnicity, age or disability. Addressing gender equity can involve a comparative study of employment statistics, female and male employees' attitudes, locations within the organisation/industry, training and employment opportunities and the basis for promotion. The response will usually require a package of measures that support anti-discrimination, equalising pay and opportunities, measures to retain and develop skilled women and men, assessment of gender impacts and mitigation measures for job losses and supports (including networks) for

women, who traditionally do not have such work-related networks. Attention may be needed to the situation of part time workers, generally female. Family friendly policies, that support sharing of childcare responsibilities by men and women, can help address gender equity by changing traditional roles. It will be important to identify, promote and disseminate promising practice and encourage take up across the sector.

Programme monitoring and evaluation against objectives and targets must contain time series gender-sensitive indicators and targets and responsibilities and reporting mechanisms should be clarified. Indicators will relate to:

- **Planning and Design Stage:** Level of understanding of women and men's priorities, constraints they face and selection of technical and institutional choices that respond to these;
- **Input level:** Gender sensitive allocation of resources and planning of activities;
- **Output level:** Keeping track of gender disaggregated performance in relation to the services offered to women and men; and measures such as training to promote women's participation;
- **Outcome level:** Measuring access, affordability, usage and satisfaction in relation to male and female consumers and workers;
- **Impact level:** Anticipating and tracking medium and long term, intended and unintended impacts on social and economic dimensions, especially inequality and poverty,

intra household relations and distribution of resources, status, self esteem and quality of life of women and men.

## **7. Entry points for Civil Society in promoting gender equity in infrastructure**

For most of the poor in developing countries, there is little or no public provision for infrastructure services. In many countries, efforts have been made by central and local governments and donors to work in association with non-governmental organisations (NGO) and community-based organisations (CSO) to fill the gaps in service delivery. These have not been able to meet needs. Nor should one assume that they would be more gender-aware than public organisations. Therefore all of the above applies to civil society organisations (CSO) engaged in service delivery just as much as to other infrastructure service providers.

Many NGOs - both international and local - are concerned about recent reforms in infrastructure (especially water) to include the private sector in provision of basic services. They see a tension between the right of all, including the poor, to water and energy and the profit motive of the private sector.<sup>17</sup> But evidence suggests that private sector involvement can bring much needed expertise and resources into infrastructure service delivery and

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<sup>17</sup> McDonald (ed) Developing Gender-sensitive Local Services (2001) One World Action, UK (available on [www.siyanda.org/publications](http://www.siyanda.org/publications) )

that, as long as government does not give up its responsibilities but rather provides the policy and regulatory oversight to ensure it, men and women's rights to basic services can be met through private sector involvement. But civil society organisations and the media can play a crucial role in supporting the realisation of this goal.

Based on experience from developed countries and Latin America, where these approaches have been longer established, there are two broad complementary strategies for CSOs and the Media to pursue. One is to support the development of client or consumer power by helping to organise male and female clients and build consumer strength through this organisation. The other is to build citizen voice through access to information and forums for expression. This will create demand for provider and regulator transparency and accountability. Rather than adopting a hostile or stand-off position (unless there is clear evidence that this is warranted), CSOs and the media could promote openness and dialogue and provide opportunities for engagement between parties that can help build mutual respect. They can remain vigilant about attention to the needs of poor women and men by ensuring a rigorous gender analysis of policies and programmes and attention to their impacts. They can also help by providing case study type examples and disseminating information about promising approaches.

Some of the ways in which CSOs can fulfil this important advocacy role are to:

- Be informed about and engage with infrastructure design and reform processes
- Undertake a critical review of the extent to which pro-poor and gender equity concerns are effectively integrated into design and reform processes
- Support stakeholders to further their gender awareness and understanding and measurement of poverty and gender differences
- Ensure access to information and understanding about choices for women and men
- Demand and help build accountability and transparency into service delivery structures
- Promote institutional capacity development of key stakeholders in relation to gender equity and poverty
- Support effective participation of men and women in access to infrastructure services and in decision-making structures.