



*Gender participation in infrastructure investment projects
and rural transport*

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Abstract

The paper relates how women and vulnerable groups participate in different phases of public works' projects. Investments in rural infrastructure or activities in crisis recovery situations constitute an opportunity for rural employment generation, reaching generally isolated rural areas, and benefiting vulnerable populations among them indigenous people, and rural women. The background of the study is linked to gender, poverty and the ILO's declarations and conventions that call for equity in opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity, and the role of the Employment Intensive Investment Program (EIIP) in promoting and influencing its constituents to fulfil these objectives.

This program with more than 30 years promoting labour-based investments collaborates at macro level with governments promoting employment impact assessments and policies, and at meso level with regional governments and enterprises. Using a holistic approach, it has developed strategies, methodologies and tools that are analysed from a gender perspective to show weaknesses, strengths and initiatives for women's participation in four main areas: accessibility planning, labour based technology, small scale contracting and infrastructure maintenance.

The paper shows how women's reproductive and productive roles make it harder for them to reach distant places to work, especially for maintenance works; the need for better understanding by planners to bring services closer to women and disabled people; and the need for constant training on HIV AIDS for workers in roads construction and friendly rules and procurement to allow the poor to enter the formal labour market. Illustrative case studies are given for Africa, Asia and Latin America, with special emphasis the process of mainstreaming gender in the rural roads program.

1. Introduction

The call for papers “Gaps, trends and current research in gender dimensions of agricultural and rural employment: differentiated pathways out of poverty” suggested a variety of situations related to the topic, but the proposal of the EMP/INVEST ILO’s unit focused on the first issue *analysis of gender inequalities as factor influencing employment constraints and opportunities in rural areas of developing countries*. It is based on the experience of its 30 years of operation in the field giving technical assistance to development agencies, governments and private sector to invest in infrastructure projects, and creating methodologies and tools to enable employment creation and inclusion of the most disadvantaged populations in rural and urban areas, among them women.

As demonstrated along the paper, investments in rural infrastructure (roads, channels, schools, health centres) or activities in situations of crisis recovery constitute opportunities for rural employment generation, reaching generally isolated rural areas, and benefiting vulnerable populations among them indigenous people, and rural women. Initially, the paper was focused in three African countries: Uganda, Congo Brazzaville and Guinea Conakry where IFAD’s projects on Rural Transport and Travel RTT operate, however, disaggregated data availability and detailed evidences of women participation were scarce, especially in the last two. Thus many of the sources that illustrate the paper belong to other projects and classical studies, like the Makete district in Tanzania with quantitative evidence in rural transport that has been included.

The paper has three parts; the first presents the background of the study linked to gender and poverty issues, and the ILO’s mandate to assist member countries to promote opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity. The second is a brief presentation of the Employment Intensive-Investment Program (EIIP) strategy, including a brief reference of the ILO’s declarations for the labour-based approach and the Advisory Support, Information Services and Training programme (ASIST) that has developed information in relationship with the infrastructure project cycle. It focuses in four fields of operation: accessibility planning, labour based technology, small scale contracting and infrastructure maintenance strategies that at the same time constitute the structure and sources of analysis of gender issues. The third part is presented for each field of operation, with a brief introduction of the EIIP experience, then a case study with relevant information, the rationale for gender analysis bringing some examples, then policy objectives, gaps and trends. The structure and treatment of the information might look repetitive; the intention is trying to picture women’s situation and positions along each phase of the project cycle. The last part presents in extended the process of gender mainstreaming in the Peruvian Rural Roads Program (RRP) that goes along the project cycle with empirical information that it is expected to enhance women participation in public works rural employment.

Finally I am grateful to the gender specialists of the ILO’s Gender Secretariat that helped to focus the paper, as well as the EMP/INVEST team, specially the secretary that helped to find information.

2. Background

Gender issues came into the development discourse along with the series of economic approaches like the so called *black box* that recognised the importance of women domestic role making visible their contribution in the household income, as well as their increasing participation in the labour market and in community based activities. The demonstration of their triple role and overwhelming load at household level rose up from a series of studies and evidences, positioned women at the core of the development discourse, building up awareness on gender differences and inequalities. Women in Development (WID) policies did not address the basic structure of inequality in the relationship between women and men, as it had a tendency to focus only on women; as result of a great debate, a new theoretical approach Gender and Development (GAD) put the unequal power relations between women and men, as a central category of analysis cross cutting all activities, spaces and decision making levels. In this context, the GAD approach requires that social, political and economic structures and development policies are re-examined from the perspective of gender relations.

These studies of women's real situation in the field showed that due to gender inequalities, female-headed households were placed in a more disadvantage position than headed by males or couples, to access resources, benefits and opportunities. This trend has increased due to male migration and nowadays the percentage of households headed by women is high in rural as in urban areas. This vulnerable population is usually unemployed or underemployed and its income is not enough to raise a family getting trapped in the vicious circle of poverty.

The World Bank (2009) estimates that for 2009, lower economic growth rates will trap 46 million more people on less than \$1.25 a day than was expected prior to the crisis. An extra 53 million will stay trapped on less than \$2 a day. This is on top of the 130-155 million people pushed into poverty in 2008 because of elevated food and fuel prices. The World Bank said almost 40 percent of 107 developing countries were highly exposed to the poverty effects of the crisis and the remainder was moderately exposed, with less than 10 percent facing little risk.

The ILO's mandate is to assist member countries to promote opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity, and provide support through integrated decent work country programmes (DWCP) developed in coordination with ILO constituents: governments, employers' organisations and workers' organisations. They identify the priorities and targets within national development frameworks to deal with major decent work deficits through efficient programmes that link each of the four strategic objectives: fundamental principles and rights at work and international labour standards; employment and income opportunities; social protection and social security; and social dialogue and tripartism. These objectives hold for all workers, women and men, in both formal and informal economies; in wage employment or working on their own account; in the fields, factories and offices; in their home or in the community (ILO, 1999).

It is a big challenge, especially for developing countries with limited economic resources, high level of external debt and some of them political instability, where the ILO main strategic objectives can become a simple declaration. One of the means is employment-investment generation, especially in rural infrastructure.

1. Infrastructure investment projects, opportunity for rural employment generation

Investment in infrastructure accounts for as much as 50 to 70 % of national public investment in most developing countries. In addition, a large share of private and community investments goes into all types of infrastructure, such as access roads, water, dams, drains, irrigation, housing and schools contributing to the well being of the users. It creates access to basic social services such as education and health, and to long-term employment in other sectors such as agriculture or manufacture through the building of productive amenities. It also provides development sustainability by building soil and water conservation infrastructure contributing to the safeguarding of the productive, natural resource base.

The ILO's Employment-Intensive Investment Programme (EIIP) deals with poverty reduction through employment generation in infrastructure investments in developing countries. It supports member States in their efforts to develop comprehensive policies and operational approaches to link public investment policy, employment policy and decent work 'labour-based' in the infrastructure and construction sectors. It has an integrated perspective and collaborates at macro, meso and micro level with its constituents, for more than 30 years mainly in Africa and Asia where is recognised as the means to employment creation and lately its strategy has been introduced in several national roads country programs in Latin America.

If it is the means of employment generation, it may be the opportunity for rural women; however, a necessary definition of employment-intensive will help to understand the level of employment generation, the technical and economic characteristics that may constitute opportunities or barriers for women participation.

“Employment-intensive are projects or approaches where works are carried out through **the use of as great a proportion of labour** as is technically feasible, while remaining cost-effective and cost-competitive in achieving the quality of work.” *ILO_EIIP glossary*

Let's clarify the circumstances and scope of the intervention:

Labour-intensive programmes in crisis recovery situations (post conflict, natural disaster) is a short-term emergency intervention, for 'poverty alleviation' that constitute an opportunity for rural employment generation, reaching generally isolated rural areas, and benefiting vulnerable populations among them indigenous people, and rural women.

Labour-based programmes are considered as the instrument for poverty reduction targeting and screening the poor. In this case the objective of creating employment is prioritised but without compromising efficiency or the quality of the works. This approach has a developmental function and goes along with investment policies to increase its impact on job creation. For this purpose carries out employment-impact analysis, reviews institutional arrangements, assesses on technology choice, and the regulatory environment, that at the same time are also the framework policy for mainstreaming the gender approach.

Along the project cycle, the gender approach will be analyzed through four fields of operation: accessibility planning, labour based technology, small scale contracting and infrastructure maintenance strategies. These four fields represent the key issues in the effective and sustainable provision of infrastructure, from planning through to maintenance.

However, before the presentation of these key issues, it is important to mention that the 1998 ILO's Declaration, establishes the elimination of child labour and forced labour; the freedom of association and the most important, **equality of rights**; that for women is the right to access employment. Even when states have signed these agreements, sometimes women find barriers and stereotypes for participation. For instance the convention on equal remuneration for work of equal value is hardly accepted among male workers, because physical strength is assumed as main feature in construction. The following are some key conventions in the effective and sustainable provision of infrastructure labour-based programmes.

Box 1: Key conventions in the effective and sustainable provision of infrastructure labour-based programmes

Freedom from forced labour

Work or service shall not be exact from any person under the menace of any penalty.
Forced labour convention, 1930 (No. 29)

Equality

Men and women shall receive equal pay for work of equal value, and have equal right to access to job opportunity.
Equal remuneration convention, 1951 (No. 100)

Minimum wages

Minimum wages shall be established and enforced for groups of wage earners. *Minimum wage fixing convention, 1970 (No 131)*

Protection of wages

Wages shall be paid in cash money. Where wages are paid partially in the form of allowances in kind, such allowances should be appropriate for the personal use and benefit of the workers, and fair value shall be attributed to such allowances. *Protection of wages convention, 1949 (No. 95)*

Minimum age

No person under the age of 15 shall be employed or work. No person under the age of 18 shall be employed or work in hazardous circumstances.

Minimum age convention, 1973 (No. 138)

Freedom of association

Workers and employers shall have the right to establish and join organizations of their own choosing, without prior authorization. These organizations shall be independent and voluntary in character, and shall be free from all interference, coercion or repression.

Rural workers organization convention, 1975 (No. 141); Freedom of association and protection of the right to organize convention, 1948 (No. 87); Right to organize and collective bargaining convention, 1949 (No. 98).

2. Key issues in the effective and sustainable provision of infrastructure

2.1 Accessibility planning (Participation: equity and inclusion)

One of the most important contributions of the EIIP has been to develop the **Integrated Rural Accessibility Planning IRAP**, a local level planning tool that allows local participation diversified by sex, age, social and cultural strata to identify physical accessibility problems to basic services infrastructure and markets at village level. Involves a capacity building process, to analyze and prioritize the information at district level by using an accessibility indicator that incorporates time and distance. Thus authorities, technicians and local organisations can take decisions to allocate funds to invest, either in public works or by improving transport services to satisfy local needs.

The source of this planning tool is the information provided by the ILO's Makete Integrated Rural Transport Project in Tanzania that took as reference information from the field that indicated that more time is spent on transport activities than on labour in the fields, having negative impacts on productivity, besides, two-thirds of the transport time is spent in and around the village and the biggest share of the transport burden is carried by women. The project aimed to reduce the transport burden of rural households by improving and constructing roads and tracks and promoting and developing the use of intermediate means of transport.

The methodology developed allowed to rise up an important data base to demonstrate patterns of mobility and time that household members spent in their routine activities. A survey of the transport and production activities of rural households was conducted before the project started (1986 y 1987) and at its termination (1994) in order to appraise the socio-economic changes by Transport and rural development. (Barwell and Malmberg-Calvo, 1989 and (Sieber, 1996). The results showed below, allowed to development planners to recognize that patterns of mobility and travel are different for household members having women the worst burden and being the village its main area of movement.

Box 2: Gender Aspects of Rural Transport in Makete District, Tanzania

1. A sample of 431 households found that ninety percent of all the trips, 80 percent of the time and 95% of the total weight of goods were done within and around the village. The transport activities occupied 2500 hours and involved moving a load of about 23 tonne per annum.
2. On average, women are responsible for nearly 67% of transport and 85% of the load carried. The rest of the transport burden is carried by men and children. Men are responsible for only 21% of the time and 11% of the load.
3. The average adult female makes more than 3 trips per day. She spends over 4 hours per day or more than 1500 hours per year solely on transport. In contrast men make about one trip per day and devote less than 2 hours daily on transport activities.
4. An average women in Makete moves about 50 kg daily or nearly 18 tonnes per annum. The daily load effort is equivalent to moving 50 kg. Over a distance of 4km. in contrast, men move about 6 Kg. per day.
5. More than 90 percent of the trips are by foot. This applies to trips within the village and even to travel outside the village.
6. Nearly the entire load is carried by head-loading.

This study is considered a classical one because the data helped to include **mobility** as an indicator in transports issues, which is at the same time tied to women activities, because given the division of labour, the routine and movement of rural people and their goods are diverse to meet their domestic, economic and social needs by any means along paths, tracks and roads (Jennings, 1992). Thus, for instance, when planning transports works, planners, designers, technicians and politicians must be aware that they are not just related to motorised roads, but also to paths and tracks that women, children and elder people use more. For instance, when designing the improvement of an ancient trail to an important touristic destiny in Peru, designers built steps to facilitate access of tourists to this place; however, indigenous porters that transport luggage had difficulties to ride horses and llamas because of the steps, even losing some of them. After a participatory monitoring process, they had to redesign the route with the 50% with steps for people and the other 50% for horses riding in parallel and thus avoiding damage and lost of their animals.

These paths and trucks should also be incorporated for improvement and maintenance works that will allow safe circulation and the use of intermediate means of transport and animal traction during all seasons. This improvement generates benefits and dynamics at community and household level, making possible for children to reach school, sports, health services; women can improve their income,

trading petit commodities and products in fairs and of festivals in closer communities, expanding social capital and strengthening social relations.

The Rationale for Gender considerations in accessibility Planning¹

Equity: Why should women have such an unequal burden particularly when women contribute equally to economic activities? However, equity issues have cultural, social, political and legal implications and require a fundamental change in society's attitudes. In Paraguay roads system is deficient and public transports scarce, especially in rural areas where between *compañias* or communities distances are long, in average 7.5 to 10 km. Making difficult to reach education, health services and markets. It is common the use of intermediate means of transport of animal traction and motorised, especially during the rainy season, when floods block roads, but just for agricultural activities, mostly run by men. If women would need to leave or go to work in others lands, they depend on men's willingness, because social stereotypes on women behaviour limit them, specially riding motorcycles or bicycles. Division of labour and social stereotypes limit equity².

Economic: Here the assumptions is that time saved in transport can be better used for productivity activities, per example. In Kenya, time saved in water collection through the introduction of rain harvesting, was allocated to craftwork savings, from craftwork were used to buy a maize mill. This saved further time which was then reallocated to literacy classes.

Welfare: Savings in travel and transport can also be utilised for improving the health of both the women and the men and the especially vulnerable members of the family. A study from Tanzania (Bantje, 1980), found positive correlations between women's heavy labour contribution and low weights of babies born during periods of peak labour. Low birth weights are a major cause of infant mortality in Tanzania. In Tanzania, it has been argued that one of the contributory causes of malnutrition among the under fives is the low number of times that they are fed due to the women's heavy burden (UNICEF 1990).

Demographic: The incidence of women headed households is increasing as a result of more frequent divorces, male migration. It is estimated that about one-third of the world's households are headed by women. In Makete district such single, widowed, divorced, women in polygamous households and wives of migrant male heads of households constituted as much as 60% of the households in certain village (Jenninigs, 1994). If women are not considered, it would lead to a neglect of two-third of the households in these villages.

Efficiency: Failure not considering women's issues can lead to failures of projects and programmes. In Tanzania (Brain, 1976) a resettlement programme failed because the land rights of the matrilineal women were not recognised by the settlement scheme. Land was only allocated to the male heads of household and only for cultivating cash crops. The Women therefore had no land to cultivate their own food and other crops for sale. Therefore they left the settlement scheme thus affecting the labour inputs on which both the men and the managers of the scheme depended

Policy objectives addressed to infrastructure and accessibility planners, designers, implementers and local authorities

- To identify and locate local infrastructure, services and facilities according to gender needs;
- To provide rural people with the opportunity and right to prioritize essential physical infrastructure and services;
- To alleviate rural people of walking for long distances and carrying goods physically;
- To incorporate in rural transport projects design diverse patterns of mobility needs and the use of non motorised means of transport;
- To facilitate access to health and education services for women, children and disabled people, improving means of transports or roads access;
- To improve quality of life (economically and socially);
- In peripheral rural areas, to facilitate women mobility and transport to access the labour market in the cities;
- To allocate transport services at school and working time to facilitate accessibility to children and rural workers to education and market.

Gaps addressed to policy makers

- Most of transport rural projects ignore division of labour at the household level and that patterns of mobility and travel are different for household members affecting women's travel and transport burden.
- Transports technicians and public works functionaries avoid participatory planning exercises, addressing just productive needs and ignoring reproductive, social and cultural activities that are essential to rural life and its improvement.
- Religious, ritual and environmental areas can be also ignored in planning and infrastructure design, creating internal conflicts within the community when implementation takes place.
- Power relations at political level are also linked to the design, location and prioritising of the infrastructure benefiting elite families.
- Local authorities conceive investment in public works as physical and visible new infrastructure ignoring that small investment is needed to improve travel and transport at village level.
- Roads are designed for motorised transport means, ignoring intermediate means of transports and paths for women, children and facilities for disable people.
- IRAP application should be the tool to address local accessibility needs and budget allocation, within the decentralisation process.

- Poverty Reduction Strategy Programs PRSP include accessibility to provide availability of efficient and effective infrastructure needed to produce and transport food to market as critical point to face food crisis; however, an integrated inter sectorial approach should also include availability of efficient and effective infrastructure to basic services and women activities.

2.2 Labour based technology³: (developing skills, standards and organisations)

Different comparative analysis of equipment-based vs. labour-based projects have shown the awesome advantages of the latter in terms of generating added value, jobs and income as well as limiting expenditure on imports. The high employment creation effect of labour-based investment does not simply result from additional resources, but is due rather to different choices of technology made in the framework of existing investment budgets. This means that the introduction of sustainable technology choices - i.e. the introduction of labour-based methods into current mainstream investment policy - creates employment and reduces poverty in a structural and financially sustainable manner. How to respond women needs in this scheme in a structured way is the challenge.

The EIIP ensures the sustainability of this infrastructure development through training and awareness building for small and medium enterprises, consulting firms, regional and district technicians, company directors and technical staff, resident engineers, parents' and community associations. This awareness is not just on technical issues, it also responds to specific needs, like in Zambia where an important roads construction project takes place. A periodic sensitization workshop on prevention of VH/AIDS is presented to workers by a group of theatre in the same place of work. It is an example that even when contracts are for short term (generally benefit the people living along the road), they can gain in information. However, these training sessions might address just men and few women, since the last are less employed. There is not information about the effect of this initiative in terms of gender attendance, but it is known that transports sector is a vehicle for VH/AIDS transmission.

The ILO has been active in a number of countries emerging from armed conflict, assisting with the rehabilitation and reintegration of ex-combatants and other affected persons. A significant percentage of them are persons with disabilities, victims of land mines and besides vocational skills training, the EIIP created self-employment opportunities through micro enterprise development. An interesting initiative was carried out in Cambodia to design and adapt appropriate tools for disabled workers. The handbook (Dilli 1997) is impressive in the variety of designs and simple adaptation bringing a broader range of works activities and autonomy for users, and at the same time alleviating household members for taking care, especially women. However a field evaluation reported that the target beneficiaries refused to use them for considering being discriminatory.

In Madagascar⁴ the training centre for labour-based works was established under a private-public partnership arrangement and is financially autonomous since 2005,

addressing the training needs of SMEs, consulting firms, ministerial and communal management and technical personnel. Trained workers and entrepreneurs enter to the formal sector and develop capacities in civil works, entrepreneurship organisation and management, demonstrating their capability to develop different tasks and activities; as well as making the balance within the team for efficiency and quality. A disaggregated data of the trainees is not available, but a report informed that the number of female supervisors is increasing, as well as more qualified female entrepreneurs and workers are becoming leaders of their organisation.

Box No.3: The Gundo Lashu project, South African Model⁵

The Government of South Africa has a strong political commitment to correct historical social imbalances by bringing employment and resources to the rural disadvantaged, especially youth. Its Expanded Public Works Programme (EPWP), launched in 2004 is one of the most important for poverty alleviation. This has a financial allocation of 15b rand for the period 2004-2009. The EPWP is all about technology choice as well as providing essential services and infrastructure to disadvantaged communities, developing skills of the unemployed and creating employment at the community level. Includes HIV/AIDS relevant codes of practice, inclusion of disable people and women.

The Government has decreed that all public sector funded projects have to be labour based. At both project and national level a lot of the focus of the ILO teams is on training of consultants, managers and contractors. ILO provides technical support to the EPWP in the form of a national coordinator in the areas of capacity building, research and supporting collaboration between stakeholders.

One of its most successful projects is the Gundo Lashu project (2001 – 2005) and the following are some of its achievements:

Employment: 850,000 work days over the length of the project so far of which 55% were provided to women, and 35% to youth.

Training: 24 emerging contractors business entrepreneurs (half women) equipped with necessary skills and 24 supervisors to manage execution of work (again half were women); workers (number unknown) provided with skills to participate in local economic development; government staff trained on planning, implementation and management of works. The Giyani College of Education has been renovated to provide sufficient facilities for training programmes.

Institutional Development: Unit established within local government to plan, execute and manage works using EII approaches.

Contractual Developments: ILO (with the support of the Development bank of South Africa – DBSA) has assessed the targeted procurement system, which is a means addressing national government development objective in the course of service delivery, and examining its legislation, effectiveness and impact. It is regarded as an effective tool for procurement policies and in opening up opportunities to emerging enterprises.

Development of capacities and skills a holistic approach:

- **Government staff** report that ILO's role has been very important providing the required skills and documentation and moving along the paradigm shift that the EII approach requires.
- **The donor DfID**⁶ noted that the experience of the ILO team in the use of labour based methods for road rehabilitation and maintenance has been an important factor in the successful implementation of the programme so far.
- **The ILO/ASIST office** in Harare has provided technical backstopping. Their knowledge and experience of the labour intensive works in many sub-Saharan countries as well as of the South African environment and its various previous special public works initiatives has enabled them to play an effective guiding role.
- **The ILO Area Office** in Pretoria has provided the necessary administrative support for carrying out procurement and other issues according to the ILO rules and procedures'.
- **The unions** were widely consulted in the inception phase particularly to ensure that there was no exploitation of labour.
- **Civil society organisations** and **municipality**, to monitor the operation and protect and support workers or surveillance their performance.

The Rationale for Gender considerations in labour based technology and skills development

Capacity building to women, as means of technical skills and leadership development. The training program on gender issues for the routine maintenance microenterprises of the Peruvian rural roads program, put emphasis on participation of women workers and entrepreneurs. For many of these female workers it was their first time to meet their pairs and to exchange experiences, finding that many of them had experienced discrimination within the group. After an exercise that analysed each activity of maintenance executed for men and also for women, in terms of knowledge, skills and efficiency, allowed male participants to recognize that women were capable to develop the maintenance tasks. Moreover, training in management and administrative issues demonstrated also that female participants had better performance. Some of them have secondary education and just few lead their organisation, doing it efficiently.

Developing skills of the unemployed, as means to reach equity. In Guinea Conakry (2005) at national level only 10% of women hold administrative posts or technical and professional positions. Being more than 80% of the population illiterate, the rate for women is high (93% for women against 79% for men), consequently they are poorly prepared to work. Even when data is absent, the introduction of women into the labour-based projects was the opportunity for formal employment access and skills development, which later could engage in productive micro projects and improvement of household's quality of life.

Conversely, the National Employment Policy of the government of Uganda has an inclusive approach and women position is improving like in parliament, where women have a 60% higher representation than the average of SSA. (Uganda Summary gender profile)

Developing awareness to construction companies on local resources and local knowledge value, the construction of a channel for irrigating highlands in a Peruvian community carried out by an external contracting enterprise that preferred to bring its own building team and equipment resulted inappropriate due to high altitude, affecting workers and machinery's performance. The execution of the works delayed, creating internal conflict with the local community.

Developing employment impact assessment (EIA). Provide governments with a set of tools for the estimation of employment in infrastructure projects, and for increasing employment generation with gender perspective. The Ministry of Labour and Justice of Paraguay requested ILO's collaboration after a study identified a number of legal barriers that impeded participation of micro and small enterprises (MSE) and community based organizations (CBO) to public procurement contracts. The regulation of the Public Procurement Law regarding participation of micro, small and medium enterprises, as well as institutionalisation is underway. The main objective of the proposal states clearly the inclusive approach addressing women, youth and indigenous population as target groups.

Policy objectives addressed to governments, project designers, agencies, managers of projects

- Private- public commitment to allocate funds for capacity building and development of technical skills among women and vulnerable groups.
- To scale up gender participation and to promote women training for enterprise and project management.
- Introduce “targeted procurement” in contract specifications. This includes quotas or affirmative action for women and vulnerable group's participation.
- Increasing the role of women as technical staff, contractors and managers.
- Training local government authorities in how to manage gender-sensitive local contracting.
- To generate gender- and vulnerable group-disaggregated reporting on participation rates.
- Technical backstopping for project cycle implementation, and gender approach.
- Providing monitoring and supervision facilities during implementation and promoting female technicians as supervisors.
- To include the concept of sustainable infrastructure development in academic and other training programs related to infrastructure development and transport planning.

Gaps addressed to policy makers

- Low percentage of women as technical staff, contractors and managers.
- Training of officials in how to manage gender-sensitive local contracting.
- Lack of regular gender- and vulnerable group-disaggregated data.
- Getting the regulations over the public works labour accepted by the private sector.
- Investment in infrastructure generates temporary jobs and unless affirmative actions are taken, women do not share the economic benefits of the opportunity.
- Willingness of the contractors to inform communities that the job opportunities are also open to women and to train them to do the job.
- Training programs and educational institutions should include courses for labour-based contractors and foremen and this, an specific module on women participation in public works.
- Reorient the education curriculum with a view to link up gender skills development with labour-intensive technologies in infrastructure provision.
- Improve the position of women through affirmative action in education and training, employment recruitment and promotion.
- Develop training modules, and contracting procedures, like enhancing community participation and management of projects in order to empower local people among them women.

2.3 Small scale contracting (a means to reach decision making)

In the public construction sector, small-scale contractors mainly operate as sub-contractors to large construction firms. Lacking contract management experience is often mentioned as a major disadvantage that prevents the small-scale contractors to perform efficiently. Moreover, complicated government contracting procedures similar to those used in large-scale projects are being applied to small-scale construction, thus further complicating the situation.

To overcome these situations the EIIP has developed negotiation and formulation of innovative forms of community contracting. These have proven to be effective in service delivery, even at current challenges that local government institutions are now facing because of the recent move to decentralize authority and responsibilities for planning and implementation of rural infrastructure works from central agencies.

The promotion of small entities for construction or maintenance of infrastructure is one of the means to promote formal employment, develop technical capacities and skills and to exercise political decision for organization management. It is also an opportunity for women and youth participation.

Box No. 4: The Uganda's District Development Support Program

The District Development Support Program in Uganda (IFAD 2007), with a total cost of USD 21.894 million had as development goal poverty alleviation through increased farm and household productivity and income, and the provision of social and welfare infrastructure and services to benefit 261,000 households.

The civil society was represented by the Uganda Women Finance Trust (UWFT) and Bunyoro Toro Rural Development Company (BUTO) as implementers of the Rural finance component. It had an important percentage of construction and rehabilitation of basic services and communal infrastructure, and included a component on rural roads that focused on construction and rehabilitation of access roads (1,152 Km), bridges, and culvert lines mainly by labour-based method.

The labour-based construction of roads represents a highly efficient investment. This work was done by the Parish Roads Committees (PRC) under the management of the Parish Road Headmen (PRH) trained in record keeping, budgetary processes and planning tools. The average cost per Km was USD 270, paid in wages to local people providing income of the community members and developing roads construction skills to community members.

Impact

The use of L-B in opening up of roads directly benefited the people who worked on the roads, providing employment at relatively low cost

More than 50% HH have access to public transport within less than 1 hour walk

More than 75% HH have access to primary school within less than 1 hour walk

More than 60% HH have access to market within less than 1 hour walk\$

Traffic volume increase by 50%

Interventions that availed physical facilities like safe water sources, sanitation facilities, community access and feeder roads and health centers were effective in that the benefits accruing from them embrace all categories of the community

The rationale for promoting small scale and community contracting

Taking the focus closer to the beneficiaries also means that one has to become much more preoccupied with community involvement and to look in detail at issues of ownership, responsibility and authority. This is the rationale for promoting leadership, developing training strategies to improve capabilities of personnel of the local administrative bodies and small scale construction firms (local based) who are key players of the process and mainstreaming gender perspective becomes a means of empowerment.

This community contracting and getting closer to community organization is in line with the ILO's concern with social dialogue, with employers and workers organisations, with giving the ILO Decent Work agenda practical application and supporting good governance.

Influencing women's **participation** in labour-based works .The feeder roads program project in Mozambique (LIO 2005) had a positive socio-economic impact influencing women's participation in labour-based brigades (average of 13.7 per cent women recruited) and 17 percent in skills training. Most women heads of families benefited from annual cash income per family of US\$233 for eight months per year and used salary for home improvement support for family expenses particularly of children.

Gaps addressed to policy makers

- Lack of gender analysis. Quantitative baseline information at project and program level, resulting in difficulties to measure the project's impact on the larger beneficiary groups.
- Lack of emphasis on labour standards.
- 'Women's issues' have often been seen as part of community development strategies that are usually addressed by social policy.
- The Parish Road Headmen in the above Uganda's project is an example of gender bias ignoring and blocking women opportunity to development of skills and leadership.
- The observation for Local Economic Development LED approaches, that were shaped by the separation of the economic and social has particular relevance for women since they are often not perceived as being dynamic economic agents within a community and thus were often not specifically targeted within an LED approach.
- The integral or intersectoral approach of the EIIP program is spreading and many countries are adopting investment in infrastructure as means of financial crisis response, however explicitly and specific recommendations on disaggregate data and gender analysis have to be incorporated.

2.4 Infrastructure maintenance strategies (Capacity building in technical and organisational skills (empowerment)

The opportunity to incorporate women in the implementation phase of public works: construction, rehabilitation and maintenance activities still constitute a challenge for men to allow and integrate their female pairs within this public sphere of the labour market. For women to access this position means to get an income with direct benefit in the family wealth, to develop skills as means of personal autonomy development and to reach decision making positions, scaling up to empowerment. The following information on the Peruvian Rural Roads Project, RRP (Gutierrez, 2005) relates the process of implementation in extended way to provide broader information.

Box No. 5: The Peruvian Rural Roads Project, RRP

Mainstreaming gender in the Peruvian Rural Roads (RRP) project is the result of a process where three levels of decision and operation came up together. The **endogenous** one or the verification of the active participation of the woman in the works of road maintenance. The **exogenous**, promoted by the World Bank and development agencies to mainstream gender issues into their projects, and the **institutional** one (Ministry of Transports and Communications) that assumes the commitment to facilitate and to recognize the inclusion of the woman in the activities of routine maintenance and management of the improvement of bridle paths.

The RRP was implemented in the 12 poorest departments as part of the National Strategy for the Relief of Poverty. During its first phase (1995- 2001), the RRP rehabilitated 10,881 Km of non paved tertiary roads followed by a routine maintenance program, and carried out an additional project of improvement of more than 3,053 Km of non-motorised tracks. The total cost of both projects reached US\$ 264.256 million, with funding from the Treasury and loans from the Inter-American Development Bank (IDB) and the World Bank (IBRD).

This phase set up the basis of the model that in its second phase would evolve to the transference of the roads management to local government authorities, in line with the policy of **Decentralisation of Central Government**. This second phase run from 2001 to 2006 with an investment of US\$ 151 million (US\$ 50 million from the World Bank, US\$ 50 million from IDB and US\$ 51 million of national matched funding).

Peruvian rural people (28%), are ethnically, racially and culturally diverse population. The division of work by gender assigns the heaviest agricultural work to men, and women take care of cattle, domestic tasks and exchange products on a small scale. The work that women do is rated as less valuable than men's work, where strength is the fundamental nature. Seasonally, men migrate to other regions or to nearby cities, to find employment and even when women raise cattle, men sell them in the market as well as agriculture products. Financial transactions take place in the market place and earn cash income, facts which give men prestige and power. Widows and female head households have the burden of all this activities.

Routine maintenance work of rural paths is the responsibility of small legal entities, called road maintenance micro-enterprises, whose members, both male and female, are rural inhabitants living alongside of road and/or the beneficiary communities. The number of members is related to the length and type of the section of path, as stated in the 'System of Management and Maintenance', a study prepared specifically for the Peruvian road network. The network covers a very rugged terrain, the altitude of which varies from sea level to 5,000 metres above sea level.

Roads are synonymous with progress and a large percentage of Peruvian mountain tracks are the result of communal action, carried out and renewed since

immemorial time; however, the values of solidarity, hard work and organisational skills are diminishing vis `a vis the local authorities and the decentralisation takes place and the practice of routine maintenance has also been transferred.

Having access to paid work in a specialised activity such as road maintenance not only provides men and women with an income, but also gives them a position in their environment, strengthening relations of prestige and power. Rural women are regarded as belonging to the last link in the poverty chain but it has been proven that all of women's income is used for the benefit of their homes. So the opportunity to work on the roads, which the project could offer them, could make the difference between their children, as a generation, having an improved quality of life or remaining stuck in the vicious circle of poverty. For this reason the "entry process" into the Project's gender focus is important, because "the foundation of occupational identity on gender is remarkably long-lasting and is difficult to modify simply by means of including more women or men in an occupational group" (Conway, 2000).

Rationale for gender participation in maintenance public works

Opportunity to participate in the labour market

It has been demonstrated that opportunity is the door to development. When rural men and women live under poverty line due to limits to access to the market's laws, working on the roads maintenance constitutes an opportunity for them to get an income. However, getting an income under an organisation umbrella, such as a microenterprise or a civil association, allow them to become the owners of their future. They start building up social and economic capital. However most of the times they do not understand properly the meaning of being an entrepreneur, because to make benefits is opposite to their economic rationality related to collective goods and actions.

In order to develop their capabilities on microenterprise management for both men and women, the next step following the opportunity is human capital or capacity building.

Capacity building

Most women and men working on maintenance enterprises have limited education, but women have lower of education than men. One of the most cost effective outcomes is to invest on female education. Trained women guarantee quality. The micro-enterprise wins with the presence of women in quality and productivity of the work. She applies her abilities in the execution of tasks (precise, meticulous, careful), and if they are trained on technical management of these tasks, they will not allow the adulteration of the quality and quantity of the product. For example, the technical assistants have verified that the *bacheo*⁷ is executed with the technical severity recommended, while male associations will simply fill the holes. This same behaviour has been verified with women preparing the surface of the road or mixing appropriate quantities of concrete to pave streets.

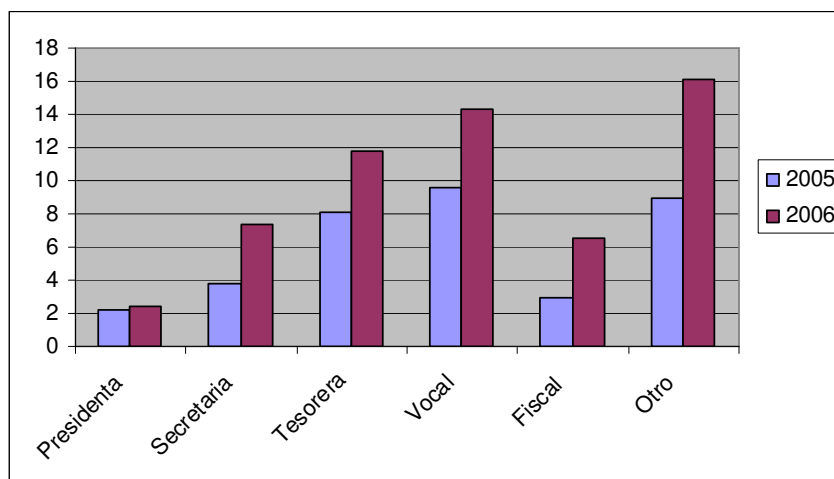
Women presence means social control of the group. If there is one present in the group, men control their behaviour, they will not get drunk and they will assure the compliance of their tasks. They are also efficient dealers with the local authorities, to whom they present the monthly report of good execution, which has to be signed previous verification of a good work.

Checking the monthly reports of the year 2006, from a sample of 113 micro-businesses, 49% of these have female presence and the degree of satisfaction of the maintenance state is high; in none of the associations with female presence, there is a fine or performance under the minimum established. Moreover it is reported fulfilment of the task and the monitors reports recognise and value the role in social control that they run into the group, and they would recommend the presence of a woman in every work brigade.

Citizenship building

The intervention on gender, goes beyond promoting the compliance of the goal of participation established as affirmative action, it puts emphasis in promoting the civic exercise and empowerment of its associated members, participating in the executive charge of the organization.

Graphic N° 1: Political position in Micro-businesses of road maintenance



Between the training periods that lasted a year, a positive variation of female participation in the decision making positions of the micro-businesses took place. A gradual positioning of women on positions of vocal (4.68%) secretary (3, 60%) and treasurer (2.90%), took place.

The effect of this positioning is reproduced within the community where they are involved actively in other activities and communal organizations. They promote with the example, the increment of woman’s participation in grassroots organizations of the locality, where it starts to be seen as normal that women participate on

communal jobs and decision making posts. It is also recognized openly that the participation of the women in reunions and events of the community help to take better decisions. Traditionally, Andean men used to consult their partners but in the private sphere, and they used to bring back to the next meeting the better decision.

Therefore the communal and male perception concerning female leadership is changing, now they value more their participation and intervention, in this sense the citizenship as exercise of political rights tend to expand considerably.

The political exercise of micro enterprise members becomes a lessons learned and success experience space. New leadership in rural institutions and political participation as council members, for instance, confirms that the process of empowerment from the road management is in motion without any distinction with respect to the gender of these new leaders.

Impact on family wealth

The incorporation of gender in projects of road infrastructure, gives as a result better quality of life of their family. A monitoring visit to a microenterprise in Cajamarca, allowed visiting the household of a female micro entrepreneur. She had already finished to build a new house with separate rooms for her children, dining room, kitchen and bath room, the latest not usual in their environment.

But they do not only invest on housing, their main purpose is feeding their children, and since they value training they are prone to get training on nutrition and they are also changing their patterns of consumption and varying their crops.

Most of the cases of micro enterprise siblings are reaching higher levels of education, and we can assure that this is the most valuable asset that this program is making possible, along with equity and inclusion.

An empowerment process

Those attributes inherent to her gender (efficient administrator of resources, time, materials, tasks and money) results in increment of the organization assets. A sample of this, is the experience of the micro-business Daniel A. Carrion, composed of 16 associates, of which, 7 are women. 4 years ago one of their female members began to lead the organization, and during her management she promoted to initiate an alpacas breeding project. She organised the group in a way that one of the members has the task of the supervision of the road and the administration of the alpaca's farm. Up to March of the 2006 they had already got 32 heads of alpacas.

This leader also negotiates with the provincial government to guarantee the approval of the maintenance budget and with the adjoining mines for the transfer of materials due to the high traffic of the trucks. She promotes the training of its members, having her achieved higher education, she's an example for her community and in the last elections she ran for a council membership.

At the end of the period of the enterprise management, her colleagues asked her to continue ruling the group, she declined the proposal, but she accepted to be the treasurer as a strategy to position one of her female colleagues in the presidency of the micro-business. This new position would allow her to accompany the new president in the management tasks that are carried out in the public space, and to transmit her necessary knowledge and experience.

However is not an easy process, the rural woman had to conquer personal barriers as fear and shame of working in the highways, and cultural barriers of her own environment like the machismo.

Policy objectives addressed to policy makers and authorities

Macro and external intervention guiding the gender approach and monitoring the process of implementation (specific missions: World Bank, Interamerican Development Bank IDB, FAO)

Institutional commitment to set up a gender policy within the program made possible participation of women increase from 3.5% in the first phase⁸ of the project, to 22% by the end of the second phase:

- Capacity building targeting the institutional personnel, to disseminate it at decentralized units.
- Affirmative action setting a target of 10% female participation in micro-enterprises, and 20% in road committees for the improvement of bridleways, bodies which generate employment for unqualified workers in rural areas.
- Guidelines and procedures for the structure of Micro-enterprises removing barriers like “to have experience in bricklaying or civil construction” and to be “literate”, as these tacitly marginalised rural women, or placed them in a position of disadvantage.

Gaps to be addressed by policy makers

- Professional, technical staff running the Project, the local authorities and the civil servants responsible for road management see the issue of gender as a trend promoted by the Banks and the inclusion of women is perceived as an act of good faith, a favour which diminishes the productivity of the group; but not as a question of respecting rights.
- Personnel rotation and lack of training replication was not carried out losing capacities.
- Microenterprises lack of capacity to compete under public procurement schemes due to decentralization process.
- Improvement in capacity building for microenterprise management

Achievements of the project

- The application of the perspective of gender in infrastructure projects promote greater equity in the access to the employment, positioning women to the interior of their organization and in its local space; sought make visible the benefits of the presence of the women in activities of maintenance, traditionally male space.
- One of the most important contributions associated to women, is that they are considered the social controllers of the group and surveillance of the execution of tasks assigned.
- The spirit of savings, lead to diversify their routine activity to a productive investment.
- Efficiency for bargaining with the local authorities, making sure that tasks were developed properly.
- Carrying out organization's management with efficiency and transparency.
- Other plus factors are translated in the best deal, exactness and cohesion of the group.

5. Concluding remarks

Do infrastructure investment projects offer opportunity to women for employment and poverty reduction?

Yes, however the level of employment generation has to be placed under EIIP's approaches. Labour-intensive refers to emergency interventions where women, youth and other vulnerable generally unskilled groups are enrolled to provide quick and temporary job. Technical characteristics are low and respond to a welfare approach, but provide income and can be the entrance point for a greater and more sustainable intervention.

Increased 'flexibility' in the labour market may have a negative impact on women in particular. Women are often concentrated in part-time, temporary and casual work. On the one had this may offer advantages by being able to be combined with family responsibilities, but may on the other hand be without the attendant benefits and protections of permanent status.

On the other hand, labour-based refers to a sustainable approach which links, technical, economic and social aspects that may allow women empowerment in the provision of services linked to infrastructure projects.

For this purpose women have to be represented in all the phases of the project and placed in the different positions as main actors. Thus at household, community, training centres, public sector and private sector leadership and skills have to be developed.

The improvement of the use of local resources in the provision of labour, to make sure that women is represented, trained and included in the different schemes developed by the program: micro enterprises for construction and maintenance, as small contractors, as supervisors and managers of the organisations.

At decision making level governments, agencies, contractors and officials to be aware of women and vulnerable groups have the right to access to opportunities of work, but at the same time in order to guarantee technical efficiency, capacity building should be provided at different levels and along the implementation of the project.

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Notes

¹ Adapted from Mascarenhas, 1995.

² Young generations are changing this perception and in peripheral urban areas it is usual to look at girls riding different means of transport.

³ EMP/INVEST reports and internal documents.

⁴ The EIIP projects implemented under ILO's technical cooperation programme have been funded by the Norwegian Government from 1990, to the end of the current phase in 2008, committing over US\$ 25 million since the beginning of the programme. The projects enjoy the collaboration and support of key ministries Public Works and Transport, Education, Decentralization and Land Management, as well as local and regional authorities, such as municipalities, communes and local communities.

⁵ EMP/INVEST South Africa country case study.

⁶ DIFD output-to purpose review of May 2003.

⁷ A technical activity in maintenance of the roads, that consists in fill in the holes on the surface of the road, that are caused due to high transit and bad weather conditions.

⁸ Out of a total of 3,960 members in 1999.