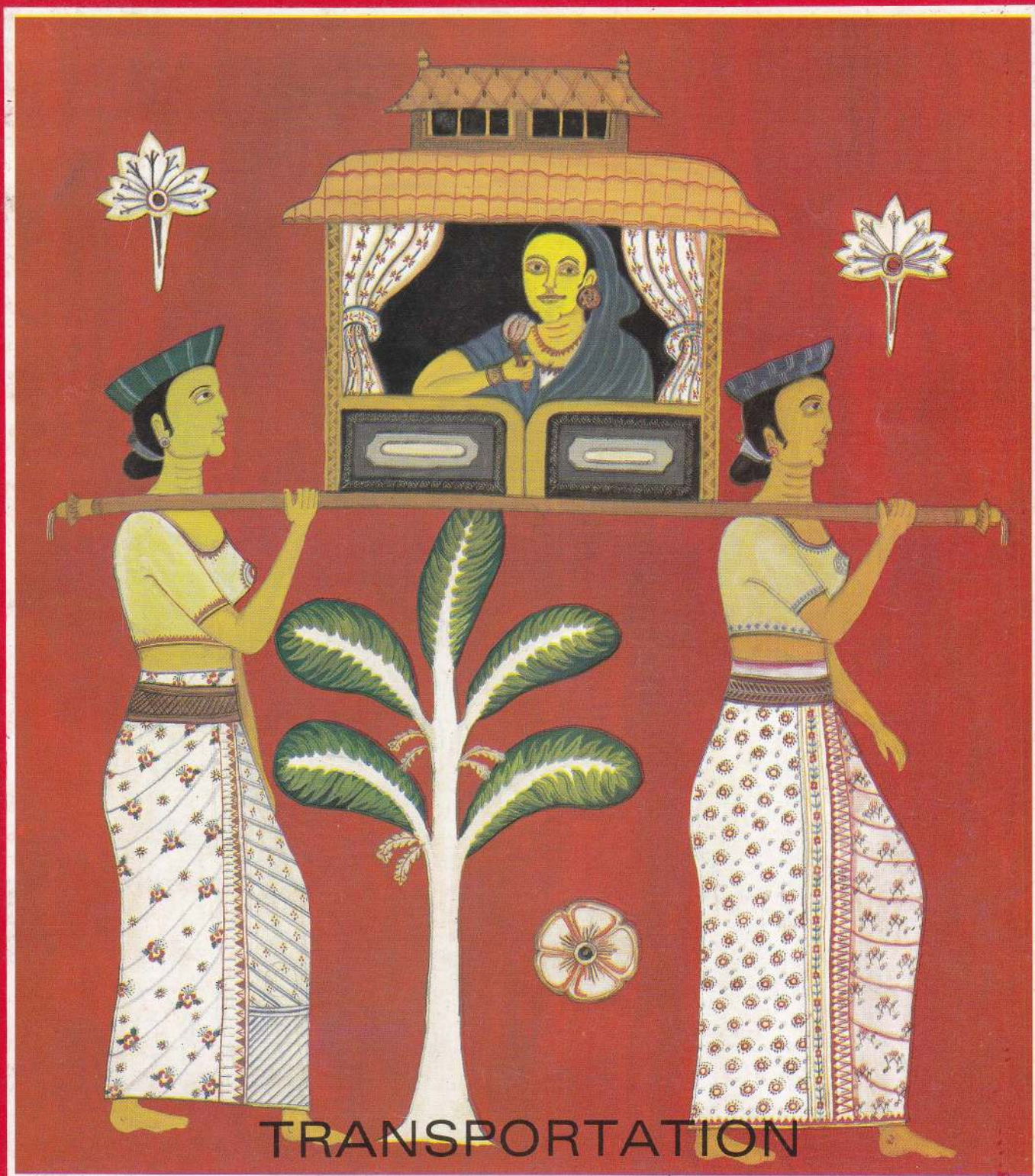




*A Sri Lankan Journal for Women's Liberation*

# voice of women

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## **Balancing the Load**

Lanka Forum on Rural Transport (LFRTD) organised an Asian Regional Seminar from June 21-25, 1999, on Designing National Policy Guidelines for Gender and Rural Transport on behalf of the International Forum on Rural Transport Development (IFRTD, UK).

The researchers from Asia met for a three-day workshop and presented 12 case studies from Asia, analyzed the results and synthesized conclusions in preparation for the seminar, which was followed immediately after the workshop.

This seminar is the culmination of a research project comprising of the 12 case studies from Asia, and is part of a wider research and advocacy effort carried out in Asia and Africa. The seminar, based on the Asian research, provided deeper insight into the widely acknowledged unequal transport burden that women have to bear, and examined the reasons for this imbalance, the effects of development interventions and the changes in socio-cultural conditions in the last decade. The seminar brought together government planners, policy makers, gender specialists, transport professionals, community development workers, rural planners and social development workers. The total number of participants was 53 of which 19 were foreign and 34 were Sri Lankan.

Participants were from Nepal, UK, USA, Pakistan, India, Bangladesh, Philippines, Cambodia, Denmark and Sri Lanka.

The seminar was sponsored by the Department for International Development (DFID, UK), Commonwealth Foundation and the World Bank.

# Gender and Transport

Ganesh Ghamire

'Gender considerations in rural transport interventions in the Nepalese context are new.' This study provides evidence to effectively bear this statement out, through a review of the content of the transport planning component of the Five Year Plans in Nepal from 1956 until the present one which runs to 2002 and fieldwork undertaken in two rural areas, one in the mountains and a comparative piece of research based in the rural Terai (plains).

Travelling and transport take up a huge amount of time for rural Nepalis, and account for a good deal of drudgery. The research sought to answer such questions as:

- how is the burden is shared by women and men?
- what are their transport needs?
- are issues of gender taken into account in policy and planning?
- what impacts have various transport interventions had upon the rural populations?

Difficulty, drudgery and inefficiency of transport is a particular feature of Nepal, and has often been cited as the main obstacle to achieving a more rapid pace of economic and social development. Settlements in the mountains are generally scattered and sparse, and the main method of travel is walking and moving goods is by human load-carrying. Many of the communities have a road which cannot be used by motor vehicle at all. Movement of people and goods involves much physical hardship.

In the plains there are clusters of settlements linked to each other and to the outside world through a network of tracks or wide trails which have evolved over time according to needs. The local people upgrade and repair

sections themselves, so that animal drawn carts, hand-carts and pack animals can be used.

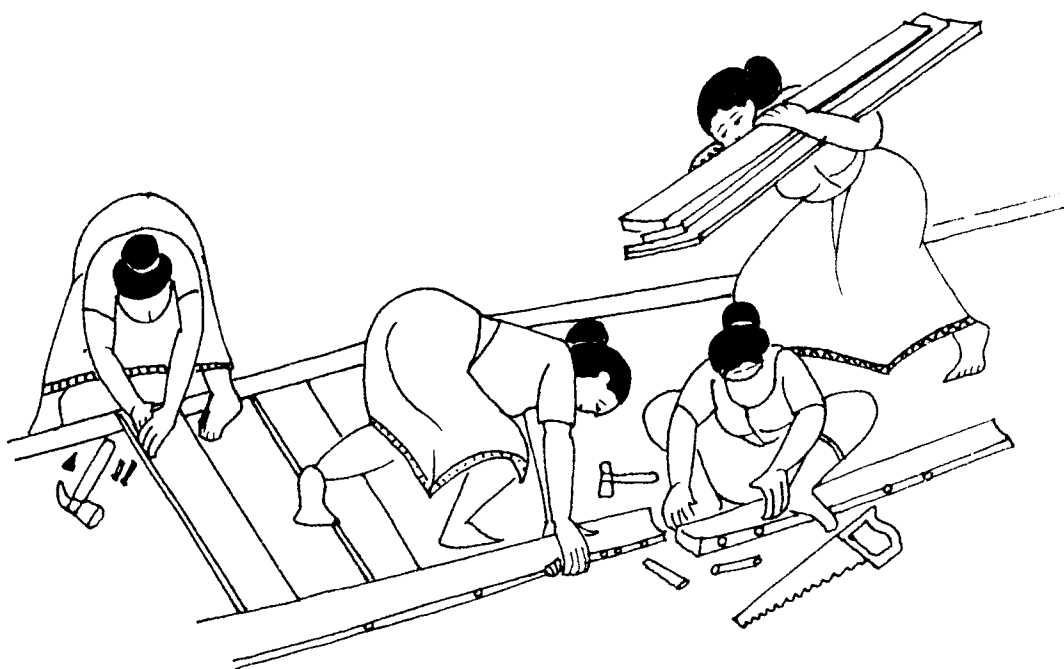
In the mountains the difficulty of travel has led to isolation, whereas in the Terai, malarial infections are a problem, connected with the seasonal flooding of the north/south flowing rivers which constrain movement both within the area and to and from the outside world.

Only since the planned development period, beginning in the mid 1950s, have there been efforts to develop transport systematically to encourage development in Nepal. Concerning the five-year plans, there has been consistent priority given to 'strategic roads' such as feeder roads to main highways, and also aviation, for long distance haulage. For internal mobility, emphasis has been placed on trails, local roads and suspension bridges.

Low-cost rural roads and more environmentally friendly approaches started to emerge in the 1980s but the author concludes that none of the transport planning and policy documents mention "gender. Even implicitly ..... The subjects are dealt with as if they are gender insensitive'.

Only in the sixth five-year plan (1980-85) is there any recognition of women's role in national development but the document still fails to identify women's issues. Subsequent Five-year plans made clear declarations about women and development, but have failed to recognise any of the particular

roles that women play. The plan seems to assume they are not involved in nation building and do not recognise women's contribution to economic growth. Only the current one (1997-2002) begins to address the issues of discrimination based on gender.



The roles taken by men and women in rural areas reveal women's workload is spread more widely than men's over the range of domestic, household, agricultural and transport tasks. It is reported that building a road in a rural area has particular effects not only on the total stock of travel and transport tasks, but on the share of travel and transport tasks that men and women take on, and that this varies between the mountains and the Terai.

The fieldwork reports on a rural road constructed to connect the village with the market centre. The road brought motor vehicles about one hour closer to the village, and there are plans to bring it closer yet. Irrespective of gender, long-distance travel has become easier. With better access to the market, the demand for dairy products has increased dramatically and the village people are raising more cattle to satisfy this need. This has increased the household burdens. Travel and transport-related tasks have also increased and this is not being shared equally between men and women. It is the women who have taken on the increased burden.

In the Terai (plains) on the other hand, there is a village located on the junction of an earth track recently up-

graded to motorable standard and an earth track built by local people. The improved road condition has facilitated the introduction of more motor vehicles such as motorcycles, light jeeps and minibuses.

There is now a regular bus service to the market centre and the village now acts as an important junction for the surrounding areas. Motorcycle ownership has increased dramatically as has the number of shops of all types has increased substantially.

Transport tasks are felt to have been reduced, and many more women are now riding bicycles which has increased their mobility significantly, while some changes in taking responsibility for travel and transport tasks have been observed. For example, men using bicycles to collect fuelwood is a new and regular sight, which might indicate a gender shift of responsibilities at the household level. Women, especially young women, are using bicycles to carry small loads. It is also the case that travel and transport tasks have increased overall and women are taking up the extra load disproportionately, as in the mountains.

# My Daily Odyssey

Rekha Barve and Sangita Shrestova

This study presents evidence regarding the pressing transportation issues faced by SEWA (Self Employed Women's Association) women in and around Ahmedabad, India. These women experience acute access restrictions and transportation constraints and the format of the study, which includes 'stories' of six of the women's lives daily lives gives clear insights into how these issues translate into daily drudgery for the women.

At the outset the study presents a fundamental paradox: that while the SEWA Bank clients' lives are some of the most adversely affected by transport-related problems, the women themselves are not even aware of transportation as a 'separate aspect' of their lives, despite the fact that their lives revolve around it. Concepts such as 'distance travelled' have little meaning for the women, who tend to think in terms of 'time spent' on tasks as having much more relevance to their daily lives.

The study examines what form of transportation women are using for income-generating, leisure and social purposes. It asks: "Why are these transportation decisions made? In other words, to what extent are women's transportation decisions affected by economic, cultural and gender-based considerations?"

Three mechanisms are used to obtain evidence: secondary research (mainly SEWA background information), six case studies about individual women (clothes/utensils peddler, pull-cart labourer, bidi roller, sweeper, ragpicker and farmer) and survey data collected from the questionnaire responses from 79 of the SEWA Bank's clients, who were selected by location from a randomly selected list.

The report is presented in four sections. The first details the methodology as described above, while the second provides geographic and demographic background and detailed research findings.

All the women respondents are workers in the informal sector of the economy, and their monthly income ranged between Rs 0 to Rs. 5000, with an average of Rs. 1300. Both urban and rural workers are represented in the sample. They each work six or seven days a week in income generating activities and household chores combined, and those days are long (up to 19 hours). Women carry headloads of up to 40kg and walking is the main mode of transportation, with many of the women interviewed 'walking anywhere even remotely accessible to cut transportation costs'. This certainly applies all the women featured in the fourth section, containing the six women's 'travel diaries'.

Other modes of transport, such as bus or rickshaw, are secondary to walking, and buses, the second most important form of transportation to the women, are only used in emergencies (such as for health reasons) or where the income earned by the woman is sufficient to stand the use of the bus occasionally.

On average, fractionally under 30 per cent of the women's income is spent each month on transportation, and despite many of the women suffering physical problems as a result of up to 10 hours per day moving around, the highest percentage (more than 80 per cent) rated high public transport costs as a difficulty, before the lack of a vehicle, long waits for public transport or physical strain. It was also noted among the respondents the use of public transport for health reasons for a family member was more likely than the women using it themselves for their own health.



The women's suggested favoured solution to improve their transportation difficulties include a significant majority believing that a new vehicle would help them (58.22 per cent). This figure includes 100 per cent of home-based workers who felt a new vehicle would 'help them significantly', while 92.86 per cent of primary producers (farmers) felt this. Depending on the nature of the business, this might be a bicycle or a push cart (rather than headloading or hiring a cart); a rickshaw (most useful to the vendors), or a bullock cart (farmers). The latter, rural category however were the most hesitant about using one themselves, based on gender/cultural based limitations (which also exist in the city to varying degrees).

In the third section there is a tie with the Ahmedabad Municipal Transport Service (AMTS) which brings in the wider considerations of traffic congestion and

pollution in Ahmedabad itself, which also adversely affects the women respondents, and which it is realised at policy level needs to be addressed urgently. The AMTS study found that only 29 per cent of its passengers are female. Why? This study finds that 'women save money at the expense of time and health', and that the major deterrent to taking a bus is cost. As the AMTS is hoping to restructure to attract new customers, there may be scope for SEWA to negotiate a concession for members using public buses.

Transportation is not often considered as a separate issue in the surveyed women's lives, yet this study demonstrates that [it] plays a vital part in both the professional and personal lives of our respondents.



# Transport to healthcare

Darshini Samaranayake and Kusum Kuruppu

To what extent does the transport infrastructure in Meegahamada village in Kandy district meet the transport needs of women in accessing primary and curative healthcare? That question formed the basis of a study carried out in Meegahamada.

The main argument presented is access to primary and curative care is vital because of the gender-defined productive and reproductive duties of women which gives them responsibility for feeding and nurturing their family and of nursing those who are ill. This is particularly so in a village where nearly half the population comprises women of child-bearing age, increasing the need for ante-natal and post-natal medical facilities. Issues of child survival, immunisation, access to family planning and maternal care supersede other needs of the community.

Meegahamada is one of the few traditional villages located in Kandy district. The origins of the village are unclear but it is recorded that 10 families moved in as part of a Hasalaka peasant resettlement scheme which was initiated in 1958, bringing with it extensive infrastructural development. The community is made up of 56 Buddhist households.

Paddy cultivation is the main agricultural activity, cultivated once a year. Slash and burn cultivation in the highlands and casual wage labour are secondary income sources. Women are exclusively responsible for vegetable cultivation in the highlands even though the men usually clear the area first. Equal numbers of men and women are involved in paddy cultivation, although the women are responsible for taking the harvest and processing all of the paddy and finger millet in mills some 3-4 miles from the village.

In 1997-98, as a result of much pressure from the villagers for an access road to the main road, a non-governmental organisation in the village worked in conjunction with the Pradeshiya Sabha (local bodies made up of elected community members who are responsible for

all aspects of infrastructural facilities at this level) to construct such a road. One of their main justifications was the community's need for better access to medical facilities.

Although the women were aware of the need to participate in village organisations, the lack of functional literacy and access to education deterred their participation in existing organisations, or the formation of spontaneous common interest groups to promote their needs.



There are now two A roads (connecting the capital with provisional capitals and the latter together in a network) in the division to which the village belongs. The main road is 12 km away from the village, connected by two access roads which are gravelled. One access foot path from the main road crosses the river which is often swollen and difficult to



cross, and the final footpath leading to the village is narrow and steep with several flights of stairs. The footpaths are used by the men to visit the fields, transport produce and for bathing. The women use the footpaths for agricultural activities, to collect water for domestic use, washing of clothes and bathing. They also collect firewood and herbs for medicine, collect reeds to weave mats and baskets and maintain social ties with their relatives.

Private bus services operate on the agricultural, local and gravel roads and are used by the villagers more often than the public bus service, but the vans run during peak hours only and are severely overcrowded with goods and commuters. People report that they travel outside the village most often for buying provisions, processing agricultural produce and accessing healthcare services. Despite the addition of the road, infrastructure is still poor: One mother walked nearly 6km, carrying a child to Uddawatta hospital and then had to wait up to four hours for medical attention. Monthly visits to the pre-natal clinic take more than seven hours for a round trip on foot unless the family owns a bicycle - as 72 per cent of families do - when the trip is much quicker.

The women blame their lack of access to healthcare facilities on inadequate basic infrastructure and lack of primary healthcare institutions. The authors found that the community had once relied upon a traditional system of healthcare which was a combination of beliefs and rituals, traditional methods of healing based on the use of herbs and natural substances and traditional birth attendants. However, this traditional system had been gradually eroded over two decades with the process of integration and modernisation. Now, the researchers found that the entire village depended on western medical treatment and primary healthcare facilities provided by the state.

Levels of literacy were very low in the village: 65 per cent for men over 15 years and 55 per cent for the equivalent groups of women. The authors suggest this could be partly due to the fact that the nearest primary school is three miles away from the village and

school attendance is infrequent and of low priority. Girl children are often not sent to school because the footpaths leading to the school from the village are through isolated shrub jungle. The general understanding is that girl children do not need an education, especially secondary education which coincides with puberty. Lack of education was cited by one woman interviewed as being the main constraint to social development which in turn affected their health status.

The most important health need nominated by the women was access to maternal healthcare services. Pre-natal care was accessed at the monthly primary health care clinic held at the hospital 5km from the village. Although the access road to the village had been improved, the lack of motorized transport and the monopolization of the family bicycle by the men meant that women continued to walk to the clinic. Attendance had gone up at the clinic after the road was built, but there were no coincidental increases in the frequency of the Family Health Worker to the village, and according to the residents the lack of road access, the nature of the terrain, and the wide geographical area covered by the Family Health Worker were the main constraints to service delivery.

The impact of inadequate transport infrastructure on access to intra-natal care (while the mother is having the baby) was particularly harsh. Of the 50 women who had given birth in the village, 229 births had taken place in the home while 31 were institutional births. Forty per cent of the women interviewed reported experiencing an infant/child death: a total of 32 infant deaths and two maternal deaths were reported in the household survey.

The lack of access to transport in Meegahamada has led to a situation where a combination of factors interact to form a pocket of poverty, neglect and isolation in terms of healthcare. This is due to lack of access to education, information, services and facilities which are a consequence of the poor transport facilities. Although the provision of a road has not had a significant and immediate impact, it has started a process of change where the women have begun to access services and facilities more regularly and to identify their transport needs.

# Women, water and Head Loads

Poorani Bid, Reema Nanavaty and Neeta Patel

The background to this study is the existing involvement of SEWA (Self employed women's association) in the lives of the women of the rural and drought-prone district of Banaskantha, northern Gujarat. It is an arid, land-locked region with 1375 villages and five towns.

Its name comes from the Banas river, which runs down from the mountains in the north, although it is dry for most of the year. It then floods the villages which border the deserts during the monsoon season. The study assesses the existing relationships between women, water and transportation in the district.

Findings come from knowledge drawn from SEWA's presence, informal discussions with the women and a participatory writing workshop. The women of the area guided the evolution and writing of the study through their involvement at every stage.

An effort was made to include women from villages with as many different water and transport-facilities as possible, as well as those lacking such facilities.

In Banaskantha district, women hold primary responsibility for providing water for domestic and other agricultural, industrial uses. The study sought to examine how this is affected by the availability and utility of transport facilities, linked ultimately to the potential for the economic and social development of the women of the district.

Summarizing their major findings:

'The most striking feature that emerged from the research is the extraordinary amount of time and energy that women expend to collect and transport water from

the source to the home. Secondly, the primary means of transporting water is headloading. In addition, many villages continually face an acute shortage of potable water. Lack of access to safe drinking water, the effects of headloading on women's health, lack of access to adequate transport facilities and the burden of women's household responsibilities all have a detrimental effect on women's income earning abilities. The general welfare of the family suffers as a result.'

The main occupations in the district are agriculture and dairy production. Fifty-eight per cent of the population are cultivators while 19 per cent are agricultural labourers. Owing to the drought, however, agriculture is sporadic and the rate of migration in search of work is high. Most of the women are self-employed, surviving on wages earned from what they can find during the year. Salt workers and gum collectors are among the most transport deprived.

There is a pipeline to some villages in the district since the early 1980s, but water supplied by the pipeline is irregular and even in the pipeline areas the need for potable water is high. SEWA has been active in the district designing and implementing projects that either develop or revive existing local water resources. The main beneficiaries will be the water collectors - women.

Treated as an economic input, transportation takes on added value in the Banaskantha where basic necessities such as food, water, and medical care are either scarce and/or inaccessible to the rural population.

Most families must travel out of their village to the taluka centre to buy food, fuel, etc. Water is collected and transported from a remote common source as homes are not equipped with running water. Villagers also travel long distances to each day to reach their income earn-

ing activities, be it wage labour, gum collecting or salt farming (the latter two categories suffer particular health and social/domestic problems brought about by the harshness of their work and working environment and compounded by severe lack of access to transport other than walking, as detailed in the study.)

The only formally regulated transport facilities (set routes and fares) are the buses operated by the State Transport Corporation (STC). The people of Barnaskantha rely heavily on informal facilities for their needs, such as privately owned jeeps, chhakdas (motorised carts), trucks, bicycles, animal-drawn carts and the most used - walking. The chhakda is the most used mode of transport after walking.

While the STC aims to provide transport facilities which enable the public to participate in social, economic and political activities, and a special effort is made in the rural areas (95 per cent of villages in Gujarat have a bus service), the bus service is still inadequate. It is affordable to many villagers, but they usually have to walk to the nearest main road or district centre (several kilometres) to catch a bus, and they are often infrequent, often making one journey out in the early morning and not returning until night time.

This means that if the women use the bus to collect food, for access to medical care or to collect raw materials for income-earning (eg embroidery), they may lose a whole day's work and therefore income. The alternative is to walk long distances or use private (more expensive and much less safe) transport. The buses remain empty and the villagers are forced to pay more for transport. More frequent and more convenient bus routes would be the best alternative, and women have demanded such a better service. What they have not been told by the STC is that their elected village leader (sarpanch) has the right to request a new route or timetable, and many women don't believe the sarpanch or the corporation would listen to them anyway. In the few instances where the women have approached the ST corporation to demand a better service, the results have been negligible. Women have been told by corporation officers to come back with their requests in writing, knowing that most of them are illiterate.



Thus women are denied direct access to any transport planning activity. Privately owned vehicles come under the sole jurisdiction of the owner and few if any women have the means to purchase their own vehicles.

The authors report that the women involved in the study are deeply involved in all aspects of running their homes and caring for their families. They understand how best to provide for their needs, yet deeply-rooted gender constructions deny women access to the decision-making processes. Their involvement in the transport planning



process might bring about changes benefiting not only these women but the entire village as well.

The effects of transport deprivation on the women include:

- valuable time wasted on shopping for household necessities
- women are often unable to collect rations
- women are forced to walk long distances in severe heat, often headloading
- women are forced to rely on private transport which can be very costly and unsafe
- women cannot access timely medical care
- time and energy are taken away from household income-generating activities
- it is difficult to participate in important inter-village socio-economic activities

Headloading is an important issue for women transporting water and other resources. The consequences include:

- limiting the amount of water women can transport at one time
- forcing women to make several daily trips to the water source
- the loss of valuable time and energy in collecting water
- household duties and children can be neglected
- chronic backache, foot pains and fatigue for women
- skin and other types of diseases caused by lack of sanitation
- causing the growth and development of young girls to be stunted

It should also be remembered that when the water levels are low, women spend much time and energy pulling the

water up from the well. They may also have to wait in a queue at a standpost.

The women expressed they would like pipelines carrying water to their homes, but the authors state that this is a very distant possibility. More effective harvesting of roof rainwater was also discussed; this has been used effectively in other parts of Gujarat, and SEWA has planned to build underwater storage tanks for the harvested water in two of the villages in Bankaskantha. This will help to provide relief for water shortages and from headloading to the home.

Animal carts were also discussed, to carry water from source to home. This could provide part of the solution, but there are immediate problems of cost and the poor quality of the roads, which would result in slow progress and spillages.

## Conclusion

Transport deprivation forces women to spend long hours and waste valuable time in travelling to buy necessities and to collect water. Head loading has compounded effects on the health of women, which, in turn, detracts from the attention they can give to their homes, children and income-earning activities. The welfare of the entire community is affected, and this must be brought to the attention of men and village leaders.

Both adequate transport and adequate water facilities are essential to the rural population of Bankaskantha. Work has been done but women's specific needs must be taken into account during transport planning activities. They are major economic players not given proper attention by STC and others. An integrated approach must be taken; transportation is an important component of many other issues that affect women's lives, such as food security, empowerment through employment and access to medical care.

Other productive areas of enquiry would be the relationship between water, transportation and housing construction and transport used in rural migration. Transport is a key component for sustainable economic development among rural populations.

# Tribal Transportation Patterns - in a Forest Economy

Nitya Rao



This study analyses the transportation patterns and links with gender relations in the Santhal Parganas, in the south-east of Bihar, Southern India. Dumka is its main town and market centre of the area, which takes its name from the Santhal tribes who form a large part of the mainly rural population.

Dumka itself has no rail connection, although all the major towns are well connected by buses. Bullock carts are a main form of conveyance, though these are useless on the steep and rocky rural paths. Bicycles are slowly increasing in number, but are entirely used by men so women have no choice but to walk almost everywhere.

The Santhals and Paharias, who make up the groups studied here, are poor cultivators and gatherers who have been viewed by mainstream society as people to be employed in agriculture and construction, rather than literate people. In the three villages studied they earn an income from the forests, which in some areas is receding rapidly from the settlements.

According to Santhal law and tradition, women are perceived as 'objects' or 'property' to be transferred from the father to husband. Women do not have any claim over property, neither can they inherit it. Deprived from inheriting land, and frequently rejected as a consequence of polygamy, they can be thrown out of a house without maintenance. Large numbers of Santhal women lead unimaginably hard lives with few resources.

Agriculture, along with the sale of forest products is the traditional mainstay of the Santhal economy, but the gradual decline in forest cover and lack of improvements in agriculture means that Santhals have been forced into wage labour, both local and migrant. Livelihoods today often comprise a mixture of all three.

The study looked at three villages where the forest economy played the major role. This means the collection of fuel-wood, poles for the construction industry, food items such as roots, berries, mangoes etc, medici-

nal herbs and other products such as leaves which are made into leaf plates. Shifting cultivation is also practiced under the forest canopy.

The forest economy is primarily a female one, with women responsible for the collection, processing and sale of produce. As forests dwindle they have to walk further and carry the produce home as headloads. Heavier products such as jackfruits and firewood are carried by men who take them to market.

A few villages have a single bus service each day, taking them one way to the market. Often these are crowded and refuse to carry women with large and heavy loads. Most of the villages are hilly and inaccessible to buses, or even bullock carts. Motorbikes are rare, and there are only a few cycles in the villages, entirely under the control and use of men. The roads, which have not been maintained by the state since being built in the 1940s or 1950s are in a dreadful state. People prefer to walk in the fields next to them as they are safer on the feet. The limited focus of transport provision by the state has been to link villages with towns to meet the needs of the market, rather than the needs of the village women.

Jadopani village is an interior tribal village of two hamlets, one high up in the jungle near the slopes and the lower down the slopes. The study demonstrates the intensity of the women's daily transport burden - almost six to eight hours is spent daily for the collection of water and firewood and other forest products, in addition to their work in the fields.

There is clear gender division of tasks, with all household maintenance falling into the women's domain. This includes housework and earning income for buying food such as oils and spices. The men are responsible for the supply of grains to the family, ie for the household agriculture, in which they are assisted by women. Men also engage in wage labour and the higher value forest products. They also have heavy transport burdens as they must travel further to market, carrying heavier loads, but this is not a daily trip.

The scope of non-transport interventions in reducing women's transport burdens can be seen when comparing the collection of drinking water in the upper and lower hamlets. In the lower one, this is a relatively easy task because there is a hand-pump near the houses and a stream is close by. For women in the upper hamlet, the stream is about one kilometre away and often dries up, so they must walk further on rocky ground, carrying pots of water on their heads.

In Maholo, the second village studied, the gender division of labour was similar, but the terrain meant that men have recently begun to cycle to the more distant market at Pakuria and get a better price for their fuel wood, which both they and the women collect. Men are supporting the women to some extent by taking on some cooking and childcare responsibilities. Consequently women have had their transport burden eased to a degree by not going to market. Men also spend the money earned on household necessities. However, women have no access to the cash because the men do the marketing and they spend any surplus on themselves.

Collecting water, fuelwood and forest products similarly takes many hours in the third study village of Pandhini Duma. The forest lies 8km away, so journeys start very early in the morning for women and men and they may not go every day. There is some migration for wage labour to West Bengal, and men with cycles collect coal from the open-cast mines which can be sold for a relatively good return locally or in the market centres. The cycles are again found to be an exclusively male asset. Because the women do not have transport, they collect fuelwood for domestic use and do not sell other forest products at the markets. Use of bicycles would help them but has not even been discussed. A reliable source of drinking water within the village would again be of invaluable assistance.

As in other agricultural societies, transport needs vary with the seasons, particularly between local transport needed for the collection of forest products, water etc and the need to travel greater distances for wage-labour in the off-season.



Larger families with more women actually helped ease women's burden of transporting and other tasks. Because there is a clear demarcation between men's and women's duties, more women in the household can spread the load. Women in nuclear-type households carried the heaviest burdens of work.

Transport interventions have been few and the state has limited itself to the construction of roads and setting up of bus routes, neither of which has helped the tribal women much. Informal interventions such as the introduction of bicycles have not helped either, as they are under men's ownership and control.

Although men with cycles have taken over taking forest produce to market, and they spend the income on household needs, women lose direct control of the income and so are unable to save or utilise any of it for emergencies or use it for personal expenses. They still have to collect products from the forest where using a bicycle is impossible.

On the policy intervention level, it may not be possible to address many of the women's transport needs with transport interventions alone. Non-transport interventions, such as a reliable source of drinking water in the village would help, as would longer-term projects of protecting and regenerating the forests to prevent further receding.

Access to markets is a serious problem for women. They have to headload their produce to the nearest markets and return as soon as possible. Access to better (further) markets and safe ways of returning would mean the women could get better prices for their produce. One suggestion is to have special buses for women carrying loads on market days.

In conclusion, '...a combination of non-transport interventions for providing basic services such as water, health and education facilities in the villages themselves, with innovative transport and organisational interventions to ease the transport burdens on the tribal populations, especially women, without adversely affecting gender relations, are urgently required.'

## Trees

Men may do deadly evil unto them;  
The wise will yet exert to save these  
men  
Have you seen men aim deadly blows  
With axes at the stately tree?  
Until the end when the noble tree  
falls down  
It throws its hospitable shade  
On the axe-men, and protects them  
from the sun.

Avvaiyar



# Daily migration to and from Calcutta

Malma Mukherjee

This paper examines the lot of rural women who take the train each day from a collection of rural villages outside Calcutta to undertake mostly informal sector work in the city. The economic disparity between rural and urban areas, coupled with other disadvantages has led to this daily migration between rural and urban areas.

Both men and women are part of this massive movement of people on overcrowded trains, but a large proportion are women who are compelled to commute in search of income to support their families.

With little existing information about the women commuters, I had to start from scratch. I found that a large and growing number of women travel daily into the city at considerable mental and physical cost. There is also evidence that the women's families are also suffering associated ill effects.

The methodology used in the study includes secondary research, observation and discussion, and primary research. The area under study, District South 24 Parganas, has a high number of men and women commuting to Calcutta, as it supplies vegetables, fish, flowers and milk to Calcutta. Also travelling were workers for the leather, plastics and building industries, untrained workers for hospitals and care home and a few formal sector (office staff). In the group of women studied, most were employed as 'maid-servants' (domestic help).



The aim of the study was to determine:

- Who the commuters are and their means of transport
- The problems they face and to what extent they are gender-related
- How their choice and use of public transport affects, or is affected by their roles and responsibilities in their homes and communities
- What ideas the women have about improving transport facilities

Girls under age 20 years were commuting for education rather than a job. For those commuting in their 20s, 30s and 40s, selling produce of various kinds and working as a domestic servant were the main occupations. Depending on their age and state of health, the women may fulfil the role of domestic servant at more than one household. Only six per cent of respondents were engaged in the formal sector. These workers felt they could pay more for transportation but in exchange would want a relatively comfortable journey, which is impossible under present circumstances.

Most women in the informal sector do not pay for their tickets, as there is no systematic checking of tickets. Railway staff are corrupt and accept bribes. The government is running this part of the train line in South 24 Parganas with a subsidy, and is considering closing it down because of the losses, in lieu of further development or expansion.

The women also have to manage their own housework as well as their outside jobs. Their lives are marked by severe poverty and a lack of access to water and sanitation. There is physical strain on many family members - asthma and tuberculosis are common afflictions. There is also evidence of breakdown in the traditional extended family through the women having to work away from home. For 54 per cent of women respondents, twelve hours is spent outside their homes each day. Only five per cent stay away for less than eight hours. On average, travelling takes 90 minutes but many

respondents spend three hours or more travelling. An average 55 minutes per day is wasted waiting to change from one mode of transport to another. In every case, the women walk for part of their journey on average 90 minutes but in some cases 150-180 minutes.

The opportunities for earning an income in the villages of the district are extremely limited, which is what drives the women to make the difficult and unsafe journey in crowded and late trains to Calcutta. In one village of the district, however, the picture is brighter in some ways. Most of the women who live in that district work in the local prawn processing industry, nearer to their homes. They are able to earn a livelihood close to home, sparing both them and their families great hardship and strain. Their energies are not wasted on difficult travelling.

The study found that:

- Economic reasons are the driving force behind the mass daily commuting
- The women usually have to keep their own houses as well as earn an income
- Time away from home is long (about 12 hours) and wasting time between journeys is about one hour on average
- Regarding the journey itself, discomfort is the main problem. It is too hot in summer, too cold in the early morning in winter and there is no lighting when walking home in the dark
- Other passengers resent the large loads carried by the vendors
- Roads used for walking are muddy during the rainy season
- There are no toilet facilities at the road side and inadequate facilities for women on the train
- Trains are cancelled and run late without warning
- Pickpocketing and bribery are rife on the trains



The long days away mean the women interact less with their families, and the author mentions a 'trend of negligence' towards the women from other family members who are themselves struggling with poor nutrition and hygiene facilities. In many families, the husband is too ill to work and the strain of housework, commuting and time away from home is taking a toll on the women and their families.

## Solutions

The rural women's suggestions to improve their situation included:

- increasing the number of trains and buses
- introducing a double-decker train, electric streetlights and a cemented walkway
- providing toilet facilities by the road side
- providing more women - only compartments on trains
- not cancelling trains without prior notice
- clamping down on corruption among railway staff and police

The most far-reaching solution offered by the women was for alternative income generation activities nearer to their villages. It is the lack of alternatives which influences these women to make their choices, and their health, education, housing conditions and family life all suffer as a result.

While the women were willing to discuss their lives and problems, they did not feel they could play any role - even a minor one - in improving their situations. Their self confidence and self esteem were very low.

## From A Hospital Bench

Seated on a hospital bench  
I was waiting for my turn  
to see the doctor.

Parents, relatives, rushing, rushing  
some running.  
The shrieks of a woman in labour  
rent the air.

A young child doubled up  
screams in pain.

A tottering old man  
is helped into a wheel chair.

Sudden wailing of voices in unison  
"Mother, Oh mother,  
Why did you leave us."

Birth, sickness,  
old age, death,  
The fountain head of all suffering  
lies in the womb of woman.

Eileen Siriwardhana



## Issues for Community Organisations

1. Community organisations should allocate resources to collect and analyse information on gender relationships and family dynamics (ie household decision-making) before taking actions to meet gender and transport needs.

2. For the provision of transport services and infrastructure development, community participation and co-operative approaches should be ensured. To this end, existing community co-operative approaches could be adapted accordingly and where necessary, new approaches devised.

3. It is important to raise awareness within the community, especially among women, on their right to mobility and the way in which cultural practices restrict this right. Also communities could be informed about alternative means of transport.

4. Community organisations should identify culturally appropriate designs of transport modes, taking into consideration gender and location. Communities may want to consider already available alternative modes of transport. Once they have decided on a suitable design this information can be shared with technology providers.

5. All development initiatives should take into consideration the gender and transport dimension. Community organisations should raise the issue and provide information on gender and transport needs, which would arise as a result of such an initiative.

6. Community development organisations should look at non-transport interventions that enhance access to services, as a result reducing the need to travel long distances. If necessary, relevant training and skills should be provided.

## Recommendations to Policymakers

1. All the agencies dealing with the subject of transport should collect and analyse gender-disaggregated data in formulating plans and policies, and develop gender-sensitive monitoring and evaluation.

2. Review existing policies, laws and standards relating to transport from a gender perspective.

3. Recognize and document women's full economic and social contribution to each sector of the economy and estimate how much this could be enhanced by developing gender responsive transport policies and programs.

4. Recognize the importance of non-motorized means of transport as a transport option and provide a policy support for developing infrastructure and credit facilities for them.

5. Compare transport v non-transport interventions as a way of improving women's access to services and reducing women's transport burdens.

6. Establish a multi-sectoral policy forum to exchange information and agree to appropriate policies at the highest level.



# Cycling into the future

Nitya Rao

The story of the introduction of bicycles and bicycle riding skills as part of a literacy campaign (by the National Literacy Mission) in the early 1990s in Pudukkottai region, Tamil Nadu, is a well-known example of women's increased mobility, independence and empowerment through a successful intervention: cycling.

This study aimed to see how circumstances had evolved more than five years 'down the road' and whether the movement in women riding bicycles had been sustained and would remain sustainable.

The initial campaign enlisted the help of men to teach women how to cycle. Loans were made available for women to buy cycles and those with a regular income (such as NGO extension workers, childcare workers) were quick to take these up. As more women were seen regularly cycling, the opposition and male jokes 'died away'. It became acceptable through the sense of it being a widespread movement.

Three questions were asked:

1. Though cycles were introduced from the perspective of empowering women rather than meeting their transport needs, have they been able to meet those needs, both for their productive and reproductive activities. Are women able to access bicycles to meet those needs?
2. What has been the impact of women's increased mobility on their self esteem and confidence, on gender relations in the community?
3. Has providing cycles to women been a sustainable intervention? In particular has women's investment in cycles continued and do they have control over the use of these cycles?

Key informant interviews, a focus group discussion and a village survey were the tools employed to find answers to these questions. Forty-nine women were interviewed in 12 villages.

Out of these 49, only three did not know how to ride a bicycle. Most of these 'sample' women were Scheduled and Backward caste women, half of them barely literate and the others educated up to middle school. They earn their living through their labour. They are mostly in the 20-30 years age group and most of them have children and families to care for, in addition to their income earning activities. Their workload is therefore heavy.

Other women reported how taking a sick relative or child to hospital themselves on the bicycle gave them a feeling of independence and usefulness; of being a 'useful member of society'. The motivation to learn among the women who do not yet know how to cycle is still high today.

While access to cycles for women now seems widespread, what is more problematic is the issue of control. Very few women still actually own cycles, hence they are dependent on the cycles of others, and they have to adjust their work according to the needs of the owners. For instance, if a husband owns the bike and has to leave for work at 8am, then the woman has to get up extra early to try to finish as much of her work (water collecting etc) before this time. The men in the households generally own the bicycles and so they get priority in its use.

Only 12 of the 49 women interviewed had easy access to cycles, and another 10 reported that they usually had access to a bicycle when they needed it. The distance of the cycle hire shop was quoted as a problem for the



women, reconfirming that the utility of cycles is no longer an issue of debate for the women, but seen as an accepted requirement to meet their needs.

There are still however some social restrictions that prevent some women from cycling. Husbands say they worry about their wives or daughters being injured, but in many cases women's work is just not a priority for men. Cycles greatly reduce the time and labour inputs for women in several drudgery-ridden tasks that are essential for household maintenance, but as these are unpaid tasks and have no cash value, the owners of the cycles, mostly men, do not see cycles as critical for women in the performance of their tasks.

Cycling for women does not seem to have changed gender relations (for more than two thirds of the sample) in the household significantly. Major decision-making (on expenditure etc) continues to be vested in the men.

With the greater acceptance of cycling in the district, the profitability of cycle shops as an income earning enterprise has seen their numbers increase steadily. A cycle shop is now seen as a facility that should be available in a village. With changes in employment patterns and lifestyles, the isolated and self-sufficient village economy is a thing of the past. Mobility and transportation are integral parts of people's lives. Large numbers of girls are cycling to school every day in Pudokottai; this is indicative of even higher bicycle use in the next generation.

In concluding the comment on the evidence of survey and interviews, the primary impact of learning to cycle on women's lives is their perception of independence in terms of their roles in the household and community; productive, reproductive and community managing roles. The second and related impact has been in terms of improvement in both their self confidence and self esteem.

Looking at gender relations the picture is now more complicated. On the positive side, women cycling has come to be accepted as a normal phenomenon, and rural girls now learn to cycle alongside boys.

An activity and time profile conducted with eight couples revealed that while men and women spent 6-8 hours per day on paid work, the women spent a similar amount of time on household maintenance and childcare tasks, whereas men spent less than two hours on these. Women's working day could stretch to between 12-18 hours per day.

All women who had access to bicycles, whether their own or someone else's, used them for a range of tasks, related to all areas of their responsibilities. The most common uses were fetching water from the well or tank,



taking paddy to the rice mill, collecting fuel and fodder, going to the hospital in an emergency and going to school (younger girls). A few use the bicycle for their productive work such as selling flowers in the market, purchasing and selling gems to and from the contractor and maintenance of plants in a government nursery.

In most rural homes of the district, a cycle is now common property. In a door-to-door survey covering 50 households, it was found that 32 of them (64 per cent) owned a bicycle. Eighty-three out of 91 men asked knew how to cycle, and 34 out of 100 women. There might perhaps have been three or four prior to the literacy campaign.

Only four out of the sample 49 women actually owned their bicycle, however. Women seemed willing to use hired cycles not only in emergencies, but also for use in paid work or when they were able to plan several household tasks together that are located at a distance. Hiring every day would be too expensive, but now they know how to cycle they can also borrow from neighbours or use one belonging to another member of their own household.

Cycling is generally viewed as a cheap and efficient means of transport and definitely contributes to meeting the transport needs of women particularly those in 'low access' villages (distant from essential services). The pattern of use and ownership of cycles bears out that better provision of services such as drinking water, food shops and health and education facilities can lead to substantially reducing women's transport burden and needs.

An interesting issue is that while 30-50 per cent of people hiring cycles in the District are women, ladies' cycles can rarely be found in the shops. The women have in fact got used to riding gents' cycles and feel it gives them better balance when carrying loads. Even

riding a gent's bicycle in a sari doesn't bother the women anymore, the convenience of the mode of transport outweighing all other considerations.

Some case studies reveal how cycling has helped women. A common theme is that they can be more involved with social, development and community tasks because they can confidently and independently cycle from village to village. On the other hand, almost 40 per cent of the women reported that their workloads had actually increased. Tasks that the men would do before, such as marketing, taking the children to school or whatever involved travelling distances, have all now shifted to women. Cycles do however help them to complete their jobs faster and more easily. Despite their extra burdens, they report having more leisure time.

On a broader front, the Pudukkottai program has demonstrated that cycling can be one very effective strategy for empowering women. The women themselves have found an efficient, cheap and easy way of meeting their transport needs, which has also empowered them. The signs are that use of cycles by women in Pudukkottai is a sustained and sustainable phenomenon, an integral and necessary part of their lives.

## Ride the Cycle

Learn to ride the cycle sister  
Set in motion the wheel of life sister  
See the little boy riding high  
You too can learn and ride by  
Cars, ships and planes are now piloted by women  
So learn to ride the bicycle quickly  
And begin a new story

(this is how the women of Pudukkottai popularized  
the cycle)

Within a few months the song changed:

We have learnt to ride the bicycle brother, and rotate the wheel of our life.

# Linkage in Mobility

Nilufer Matin, Mahjabeen Chowdury,  
Hasina Begum and Delwara Khanam

It is asserted that there is a known linkage between spatial mobility and the social and economic empowerment of women. This study explores these linkages, and analyses the gender aspects of transport in the context of rural Bangladesh, where the limitations on women's mobility are entrenched and where gender issues in transport are an under-explored area of research.

Two geographical areas of the country were selected, Faridpur and Netrokona. Villages within 2km of a paved road were termed 'easy access'. These villages have access to motorised transport. Villages further from the paved road which can only be reached via earthen tracks and using non-motorised transport are termed 'remote'.

The existing pattern of transport in Bangladesh is determined by the dominant topography. Therefore most modes of transport are non-motorised and pedestrian traffic still dominates. In 1986 non-motorised transport accounted for 94 per cent of commercially operated vehicles and two-thirds of carrying capacity. The other district feature is the regular flooding experienced during the monsoon in large areas of the country. The earthen roads, which are the majority, are flooded during the monsoon and remain muddy for much of the year. Country boats are much used.

In 'easy access' rural areas, the available modes of transport are bus, rickshaw, tempo, rickshaw van and during monsoon, country boat.

Women in rural Bangladesh face a rigid division of labour in the composition of work being done by women and men. Rural men spend 5.97 hours daily on work and rural women spend 7.57 hours. Of this, 5.57 hours are spent by women on subsistence activities and housework, men devote little more than half an hour to such work.

The gender division of labour has been on the one hand induced by the traditional cultural restrictions on women's mobility, and on the other hand has reinforced the restrictions. There is a strict code regarding when and for what reasons women may leave their homes. Women have broken out of seclusion to some extent, but the 'social psychology is reproduced in the present day policies for women's development': development agencies design most of their activities for women in the field of subsistence home-based activities which do not require much mobility. This, though it has helped women to participate in income-generating activities, in turn also contributed to the perpetuation and reinforcement of traditional restrictions on women's mobility outside the home.



Data was gathered in Faridpur and Netrokona in easy access villages and remote villages. Participatory tech-

niques were used and some of the findings and variations are summarised below:

- Women are greatly assisted in their duties by the presence of clean water in or near their village (eg tube well)
- If there is no school in the village, then boys and girls have to walk for perhaps 25 minutes.
- Some schoolgirls are starting to ride bikes, and those who can afford it pay for a rickshaw or tempo.
- Schools located in villages save much time and expense. Likewise healthcare facilities.

A paved road is a great help to all transportation needs in a village, and working on road construction can bring in income for men and women where such projects have been instigated. In remote villages there can be great hardship during the monsoon flooding; men cannot get to work or children to school; health workers do not come to the village and women hardly go out at all. NGOs are reluctant to run credit programme in the villages because they are in isolation for half of the year. As such, women have almost no employment and income earning opportunities and no way of attending training programmes. Women also do not attend markets or travel to gather firewood, using dried leaves or dung available domestically. Where social restrictions are very tight in such remote villages, women express a wish for better jobs for the men in their families, not themselves, despite abject poverty.

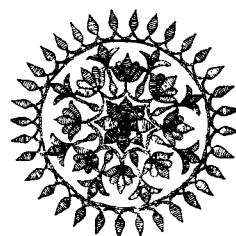
In the easy access villages of Netrokona in the drier part of the country, women enjoy much more freedom to move about. They can access credit and training and go to the market to trade. Poorer women have to walk if they cannot afford a rickshaw, but still enjoy greater mobility than their counterparts above. Even in the remote villages of this region women have greater mobility. They are free to work outside the home and have access to the family land to raise an income. This means

that they are often carrying loads, on heads for the poorest, but the well-off can hire rickshaws. They also have to cover some distance to collect firewood. Only men use bicycles.

The report encompasses considerable variation, but it is noted how women from many different locations and backgrounds have been able to break through barriers, and have established examples of increased spatial mobility as a means to empowerment with minimum aid from outside institutions. Class, wealth and caste have complex effects on women's mobility, but generally the poor and destitute have fewer restrictions than the well-off. Women-only buses or the availability of rickshaws help women to move around in a restrictive society.

Other recommendations to increase women's mobility include:

- well-maintained earthen roads
- increased availability to women of non-motorized means of transport (credit programmes)
- Bicycle incentives for schoolgirls to ride to school
- women-friendly bus services





# Gender powered Transport

David Seddon and Ava Shrestha

The paper uses two approaches to present a picture of gender and rural transport in Nepal. The first reviews the recent history of Nepal's national policies on both transport and gender, and tries to track changes in their intentions before offering an analysis of how well these intentions have been met. The second approach is to narrow down on one specific community to describe the impact of recent transport initiatives on the social and economic dynamic of the community.

Nepal is a landlocked country where as late as 1990, one third of the population still lived in hills and mountain regions inaccessible by a road. Six years later, 18 per cent of households still had to travel half an hour to get to their nearest road, and 35 per cent had to travel three hours before reaching a road. For the vast majority of the population, major trails are of very great significance for rural transport over longer distances, and foot and mule trails form the main means of access into the non-road served areas in the hills and mountains as within these districts, linking villages both to local resources (fuelwood, water, fodder etc) and to the 'outside world'. Suspension bridges and ropeways are also important elements of the transport network of minor trails (and major trails) in the hill and mountain regions, often cutting effective walking distances dramatically.

The issue of appropriate transport systems is a crucial one for women and girls because the collection of fuelwood, fodder and water is their responsibility and they therefore have a keen interest in the time and effort taken to undertake

these activities. In 1983, a woman's average work burden was officially 10.8 hours each day, compared to men's 7.5 hour day, although information from Women's Development Officers suggested that the real length of the working day was more like 17 hours. Any initiatives to 'save' time is therefore to be encouraged for this half of the population who have no spare time.

The paper looks at the Government's promotion of 'Green Roads' as a concept within a broader transport policy. Green roads are earthen, single-lane roads which use



local labour and appropriate technologies in their construction; are seen to be environmentally friendly and involved the community in all aspects of their planning and construction. Through fieldwork undertaken in the village of Chattra Deurali, Dhading District, about two hours drive from the capital Kathmandu along the Bhimdhunga-Lamindanda road, not all of these claims are borne out. The Local Roads Programme, which has been responsible for the construction of some 100km green roads 'generated few employment opportunities for local women'. As wages were paid according to the nature of the work involved, and there was a distinction made between tasks assigned to men and women, there was effective wage discrimination with women being paid lower wages. In addition, road camps were often organised which brought in labour recruited from other communities. Where local labour was supplied, the first quarter of each person's wage was deducted as 'the people's contribution'.

The roads brought a number of changes to the village, including a vast increase in the numbers of people travelling; decreased costs for transporting goods to markets compared to headloading; and a reduction in time taken to transport goods to major markets. The four-hour walk to Kathmandu takes only 30 minutes by vehicle. Increased social mobility has resulted in villagers being much more willing to make long journeys (this within a national context of only one per cent household income/expenditure being spent on transport). Reasons for travelling by vehicle vary; 37 per cent of women canvassed on one occasion said they were going to take agricultural products to market; 25 per cent were going to school or college in Kathmandu; 18 per cent were travelling to visit relatives;

13 per cent were going shopping in the capital city and only two per cent were travelling for government service or health reasons.

Economic benefits brought by the road include gains for people who live alongside the road, traders, vehicle owners and people providing services to travellers. Signs of increased wealth are evident in the houses alongside the road, where metal and tile roofs have replaced traditional thatch. A total of 14 shops have been estab-

lished in Chattra Deurali, which are mainly the responsibility of women and which are frequented by women shoppers. The most dramatic growth is of tea shops, small lodges and restaurants catering for travellers, and these too are run mainly by women. An increase in the 'quiet flesh trade' - ie commercial sex - is a general trend along major highways and has been noted to attract women particularly from economically marginalised families, but is not so prolific along minor routes such as BLR. There is evidence that men and women involved in economic activities alongside the old trails and routes have suffered as result of traffic now moving along the new road and associated trails.

Increased motorised traffic has brought with it a decline in demand for porters and mule trains, to the disadvantage of the 10 per cent of people living in Chattra Deurali who used to find employment in carrying loads for others in 1993. A small minority of these were women. This decline is seen as a particular hardship for the low-caste families who relied upon employment as porters in the non-agricultural season, because finding work as wage labourers for them is difficult. However, in other parts of Nepal an increase in the flow of goods has come with the road, bringing with it increased opportunities for 'short-haul' porters who move the goods from these new roadheads to off-road locations.

Significant changes in agricultural production has been noted in Chattra Deurali since the introduction of the new road. In particular, food sufficiency has increased, and people now eat rice instead of maize and millet partly because of increased yields brought about by more intensive fertiliser use; partly because of its increased availability in local shops; and partly because of a rise in household income. Farmers have switched to growing the finer variety of rice which is in high demand in Kathmandu, and buying the coarser variety of rice for home consumption from shops in the capital city. Vegetable and fruit cultivation has also increased, encouraged by the Small Farmers' Development Programme which provided low interest loans to farmers. Both women and men still transport produce on their backs in bamboo baskets to market, particularly in the monsoon months when the road is closed to traffic.

social behaviour has changed too. The road has stimulated an increase in agricultural activity and therefore the creation of jobs, which has implications for how the men of the village spend their leisure time. 'While a great deal of time was spent in sitting around drinking and gambling before the road was constructed, now nearly everybody is active in farming activities'. Men used to migrate to find jobs in Kathmandu during agriculturally idle periods, leaving women to look after the homes and families. Literacy is higher along the road corridor too, with more students attending schools than in off-road areas possibly because of the increase in number of primary schools built along the road. But female literacy is still low in Chattra Deurali, with roughly half as many

women as men able to read and write, and girls' attendance at both primary and secondary schools lower than their male counterparts (41 per cent and 39 per cent respectively). However these figures are higher than the national average and for off-road areas. The merits of pursuing education when there are very few jobs at the end of it was discussed actively by both men and women, and the paper cites evidence of students from low-income families dropping out of school to work on the construction of a link road in the area. The paper concludes that developments in the village over the last decade cannot be attributed to the road in any direct way, but rather that the road may have contributed indirectly to some of the economic and social changes observed.

## Guidelines for Transport Practitioners

1. Practitioners should generate and use qualitative and quantitative, gender disaggregated information to provide analytical evidence to policymakers when designing transport interventions.
2. Problems of accessibility are not necessarily solved by transport interventions. Therefore practitioners should ensure that their work is cross-sectorial.
3. Maintenance of infrastructure is particularly crucial to women's accessibility. Practitioners should actively involve both men and women in the maintenance, and delegate the control over this process where appropriate. (And should be aware that in some countries, there may be social and cultural reasons why women cannot easily be involved in these tasks).
4. There is a need for advocacy strategies at all levels of gender and transport interventions (ie policy, practitioner, community) which are currently largely gender-blind.
5. Transport interventions need to respond directly to the needs of women. Often, women are more likely to discuss freely their problems and transport aspirations with other women so women should be utilised in helping to gain their views.

# Cycles are for Men Only

Anna Dizon

Barangay Handumon is located on the north-western section from the mainland province of Bohol. A barangay is a district encompassing a number of villages. Barangay Handumon is part of the small chain of islands which belongs to the municipality of Getafe and is one of the three Barangays located in Jandayan island. It is divided into seven sitios: Sentro, Panhuliran, Libaong, Handumon, Kolo, Naga and Gol-onon.

The entire barangay has a total population of 790 where 54.7 per cent are male and 45.3 per cent are female. There are approximately 158 families out of the 148 households with an average of 5.3 members per family.

Fishing is the main source of income in the barangay. The catch consists of a variety of marine fishes, crabs, squids, univalve molluscs, seaweeds and sea horses. But the barangay is more well-known for seahorse fishing and trading among Chinese buyers from mainland Cebu. This is also one of the regular sources of cash in the community.

A secondary source of livelihood is farming. There are small rainfed rice paddy and swidden farms where they grow sweet potatoes and other root crops. A large number of men and women also go out of the community, mostly younger ones to seek work outside the island. Most of the men engage in construction work while most women are employed as domestic workers. They also earn a living by selling fresh water firewood to the neighboring barangays. Many women also raise animals, specifically pigs and poultry, which they fatten and sell outside the island barangay.

There are a number of stores within the community which serves as the residents' regular source of credit and food supply when sailing to the main island becomes difficult because of harsh weather. The residents source

their everyday household supplies from these small stores.

Handumon has an elementary school. They also have a day-care facility for small children. There is no health post in the barangay and a midwife only visits them twice a week. They have five health workers who record common diseases experienced in the community, especially children's diseases. There are no hospitals even within the main town center in Getafe, the nearest one is located in Talibon which is an hour bus ride from the centre of Getafe or a one and a half hour boat ride from Handumon. The next hospital is already in Tagbilaran, the provincial centre, which is three hours by bus from Getafe.

Barangay Handumon can still be considered lucky because despite being located on an island, they have an abundant supply of fresh water. They have dug 52 wells: three have dried up and have since been turned into garbage pits, two are no longer in use because they have dried up, 17 are a source of drinking water and the rest are sources of washing and bathing water.

The men do water procurement work as an occupation and sell to neighboring islands. Others allow their wives to help them in drawing water from the wells while they do the delivery to other island communities using their bancas. However, the men do not fetch water for their own homes, it was observed that only the women do this task. Women and children are the ones who fetch water for the household, water for drinking and for domestic activities like cleaning and laundering. When asked why this is, one mother replied that the men do not fetch water for the household because "they are already too tired fetching and delivering water, so they deserve to take a rest from work."

The residents use wood for fuel which is in abundant supply in the community. Aside from the



*ipil ipil* tree, they also use coconut fronds for fuel. The women are also the ones who collect firewood because according to them "we are the one who do the cooking anyway". And for a number of families, selling firewood to other islands is a source of cash. For these families, the women are still the ones who gather, dry and pack the wood in bundles while the men deliver them to the islands to turn into cash.

Passenger boats dock at Jandayan Sur and from there motorcycles bring passengers to Handumon. The ride home to Handumon covers 3km of narrow carabao road (uneven earth) from Jandayan Sur, or 1.5km from Jandayan Norte. The motorcycle loading and unloading area is limited to the centre of the barangay, from there residents have to walk to their houses with distances ranging from .5km to 5km passing along narrow foot-paths. The path is also accessible to motorcycles if passengers would like to rent the vehicle to deliver purchased housing materials.

The sea is considered as the community's main thoroughfare and motor boats are their chief transportation vehicle. Usually people measure distance by their travel time and the amount of gasoline consumed in going to their destination.

The barangay has no transportation organisation except for a newly formed organisation of fishermen facilitated by a local environmental group HARIBON. Everybody was encouraged to join but they have an assumption that only men work as fishermen, this explains why the majority are male except for seven women who are members of the core group. Women were not listed as members, except for widows, but women are allowed to attend meetings to represent their men. Even in the barangay local government sponsored organisations only men are listed as members and invited to attend meetings even when they always bring with them their wives or when only the women attend.

## Women and Rural transport

There are seven transportation modes in the barangay which are regularly used by residents both to pursue



their livelihoods and for public transport: 40 are motorized bancas and 107 (based from the number of fishers in the area) are non-motorized; four ferry boats and five motorcycles are for public transport; ten motorcycles in the barangay are used by their owners for personal mobility; six push carts were used by their owners to deliver water and firewood while the rest of the community walk in the performance of their daily tasks and activities.

Men used motorized bancas in delivering water and firewood in the neighboring islands while others use them to ferry passengers from Handumon to Getafe like Grade 5 and 6 students and those attending high school. Women whose source of income is vending regularly use this transportation mode when purchasing products from town to be sold in the island. Women doing their weekly marketing also take the public motor boat to go to the town market to buy their family's weekly provisions. Transporting passengers from Handumon is an occupation held by men who also own motorized boats.

Non motorized boats are allotted for use in fishing. The men are the principal fishers although some women also go with their husbands and sons. In some cases, the women themselves lead in the fishing activity. This mode of transportation is not often used as a service vessel by the households because of the labour intensive method of mechanical rowing, it is entirely up to the men if they are still willing to row during the day after working the previous night.

Ferryboats are used basically as a commercial passenger vessel from Getafe to the island province of Cebu. Two families who are based in Cebu own and operate them. When asked who owns the ferryboats, people would immediately volunteer male names. It is also interesting to note that the majority of passengers are also males who are on their way to Cebu to sell their wives' fattened animals. A sprinkling of women among the passengers, some of the big store owners in the centre of Getafe, have children in tow. Frequent passengers of this mode of transport from Handumon are young, single men and women who work in Cebu as domestic workers or sales employees in the big malls of the city, and as construction workers.

On ordinary days, Mondays to Fridays, the motorcycles' regular passengers are fifth and sixth graders and high school students who need to travel from Handumon to Getafe in order to attend school. A number of women vendors can be seen taking motorcycles to move from one part of the community to the next selling cooked food or bread. Busy days for motorcycle drivers are Wednesdays, during market day, and when there are scheduled cockfights which are usually held twice a week, one in Handumon and one in a nearby barangay. Only men aged 25-35 own and operate motorcycles in Handumon.

Bicycles are usually for the exclusive use of men. They use them in going to work in the neighboring barangay, in sending their children to school or in hauling merchandise bought from town to be sold in Handumon. Bicycles are usually for the exclusive use of men. They use them to go to work in the neighbouring barangay, to send their children to school or to haul merchandise bought from town to be sold in Handumon.

Women can be regularly seen walking. They walk to other neighbours to sell their husband's catch when it is too few to sell to commercial buyers. They walk to fetch water, especially those who are located far from the wells, for the drinking and washing needs of their household. They walk to gather firewood and sell food like bread and viands. The men, upon returning from their sea or their work, are not expected to work in the house. They will sleep and rest during the day because everybody believes they are too tired from their work the previous night.

Pushcarts are also owned by the men. They are both for their personal use and for rent together with their labour. Its main purpose is for hauling water containers from the well to the shore where they will be loaded to waiting motorized boats to deliver to customers in the island barangays. They are also used to haul firewood which is also sold like fresh water to other islanders. They are also rented to deliver merchandise from the shore to the doorsteps of storeowners in the barangay.

The type of transportation modes used are based on the type and condition of thoroughfares in Handumon. Consideration to the type of activities, occupation and needs of women were not factors in the determination of these transportation modes.

Travel by motorboat takes some time because even if the actual ride only takes less than an hour, the waiting time is long. This is especially difficult for women because of the many concerns and chores they have to attend to. While the banca is covered, it can only provide shade for 10 people. Also, because of the inconvenience of the boat ride, women cannot dress appropriately for fear that it may cause them greater inconvenience and embarrassment in getting in and out of the vessel.

Women would prefer to stay home if there were no motor boat available and non-motorized bancas are the only option. This is because use of the latter sometimes causes quarrel among husbands and wives especially if when the man does not want to do the rowing. Women would be forced to row and because they are not practised in this type of activity, an argument may follow.

A non-motorized banca is three times slower than a motorized boat because it is very much dependent on wind resistance and the power of the person who handles the paddle.

Long travelling times are not the only inconvenience being avoided by mothers when taking the ferry but also the long waiting time in between trips. Any mother who expects to accomplish all her household chores would try to avoid as much as possible taking this ride to go to other places since only the operators determine whose time is more important because of a lack of consideration of their passenger's time. Due to this, many Handumon residents, especially women, always reconsider the relative importance of certain activities just to avoid taking this mode of transport. An example is one of the mothers who refused to travel to Cebu to market her pig which was ready for selling because she thought that 'my husband should be the one to go there because there will be nobody to look after the children especially since it takes an entire day just to go back and forth.'

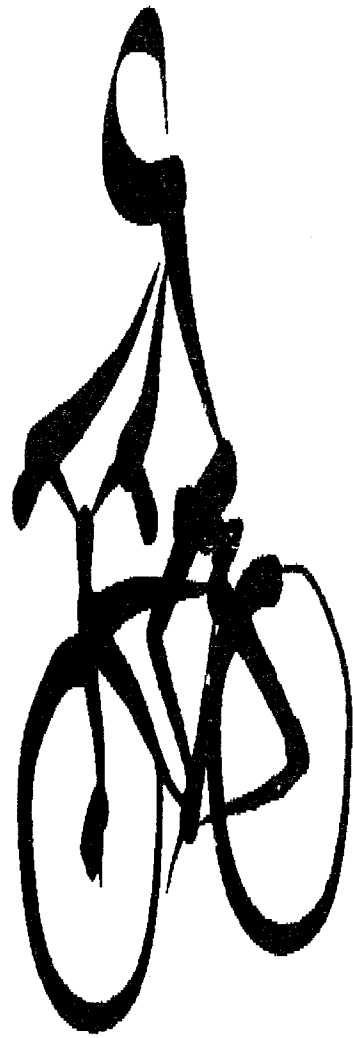
Men use the motorcycle when buying housing materials but women cannot use them when purchasing household provisions, except during market day. Cement, sand, wood lumber and nipa shingles are considered heavy and they need the motorcycle to haul them (men's work). Household necessities like condiments, water and firewood considered lightweight and therefore, do not need the motorcycle to bring them home (women's work). Housing materials need hauling; water from the well only needs fetching; condiments are brought from the store; and firewood are easily gathered. The money spent to pay for hauling housing materials is not an extra cost 'because it is a one-time expense. But small purchases are done regularly, so it would be unnecessarily expensive' like the routine fetching of water and everyday gathering of firewood if they would also entail the use of motorcycles, because they are unending activities.

For the men, transportation is a source of livelihood. They are the owners of the boats, motorcycle and bicycles which they use for personal mobility and leisure. Transportation also responds to the livelihood demands of some women, like the purchase of merchandise from town to be sold in the barrio; and the domestic require-

ments of women who need to buy food and other supplies during market day.

Women are the main disseminators of news in the barangay. They all have time for rest and recreation where they gather together to talk and to gamble. They usually meet from 3pm to 5pm to talk and play. The men bring them news from outside the community since they are the one who usually go out and hold leadership positions in the barangay.

People believe that the sea belongs to fishers and to whoever can brave it. Since they have always believed that description applies only to men, despite the active role of number of women in fishing, women are never encouraged to run boats and have developed a fear of the sea because they are not taught how to swim.



# For Hilly Areas - A Trolley

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Availability of suitable modes of transport and roads are essential infrastructural requirements for economic development. This is equally true for rural areas. Accordingly, strategies are developed to provide these facilities in the under-developed areas in the shortest time. But despite the government's efforts to connect all the 0.6 million villages in the country, the initiative has not been successful.

## Common non-motorized transportation systems

### Human Portage - Head, Shoulder and Back loading

This mode of transport is the simplest possible, requiring no capital expenditure. It is used extensively for transport of water, fodder, fuel wood, etc which is usually under 40kg.



It is estimated that all-weather roads connect only 35% of these villages. The rest of the villages have no all-weather roads and in remote areas there are trails only. In these areas, the public transport system is virtually non-existent. As a result, the availability of proper road transport is almost non-existent and villagers have to tolerate transport which is not only slow but also uneconomical.

In hilly regions, back loading of about 30kg is common. Shoulder loading though prevalent in plains is not common in hilly terrain.

### Handcarts

Handcarts are used in rural as well as urban areas for short distance transport. These are usually of traditional design. Some improvements have been introduced in the carts de-



pending on the area of their use. These carts can carry a maximum load of about 1 tonne on good roads.

### Pedal Powered Equipment

Various forms of pedal powered equipment for road transport consists of bicycles, bicycles with trailers and cycle rickshaws. Of these, bicycles are very common in urban and rural areas. They are primarily used to transport people and light goods. The cycle rickshaw, although commonly used in semi-urban and urban situations has limited use in rural areas because of its incompatibility with the rural roads. Their use in hilly areas is almost non-existent.

### Animal drawn vehicles

Due to the availability of millions of draught animals and large human resources in the country, the animal drawn vehicles are used very widely for transporting people and goods. Though motorized vehicles are now on the rural scene, haulage of small loads for small distances (when unloading, unloading and idling time is generally high compared to travel time) can be done more economically by animal drawn vehicles. Undoubtedly this system will play an important role for many years to come as a major mode of transport in rural areas of the country. Over the years, efforts have been made to improve the design of the carts resulting in:

- use of alternative materials for construction of bodies of carts
- replacing the wooden or steel wheel with pneumatic tyres
- reducing friction at the wheel-axle contact by providing bushes/bearing etc

Central Road Research Institute, New Delhi, has undertaken many studies to suggest modifications in the existing animal drawn vehicle. One important development from these studies was the design of the wheel axle contact. The solid wheel-axle assembly results in reduced damage to the pavement caused by the solid

wheels of animal drawn vehicles by providing floating-like action and providing maximum contact area of the solid wheel with the pavement even in turning as well as in inclined and uneven surfaces.

### Animal Transport

Animals used for rural transport purposes include the horse, mule, donkey, camel etc. Pack animals are particularly used in hilly areas for carrying heavy loads. The disadvantage of their use is their initial and maintenance cost.

### Transportation in Rural Hilly Areas

Although a number of activities can be identified with the rural hilly areas transport of fuel, water and goods of subsistence are a priority and women provide most of these services for their transport and delivery. Some villages in hilly, tribal and far-flung areas have no transport facility. Even if some facility is available, it is primitive. Also, poverty among rural people makes walking the most common mode of travel and carrying goods. The women usually carry the load on their head or back. They walk long distances in search of



fodder for their domestic animals to meet not only their immediate needs, but also for winter when the availability of fodder is reduced. A shortage of fodder and wood means that most of the day is spent collecting 20-30kg of fodder or wood, which the women carry on their head or their back. Sometimes young girls in the family help their elders in these daily chores.

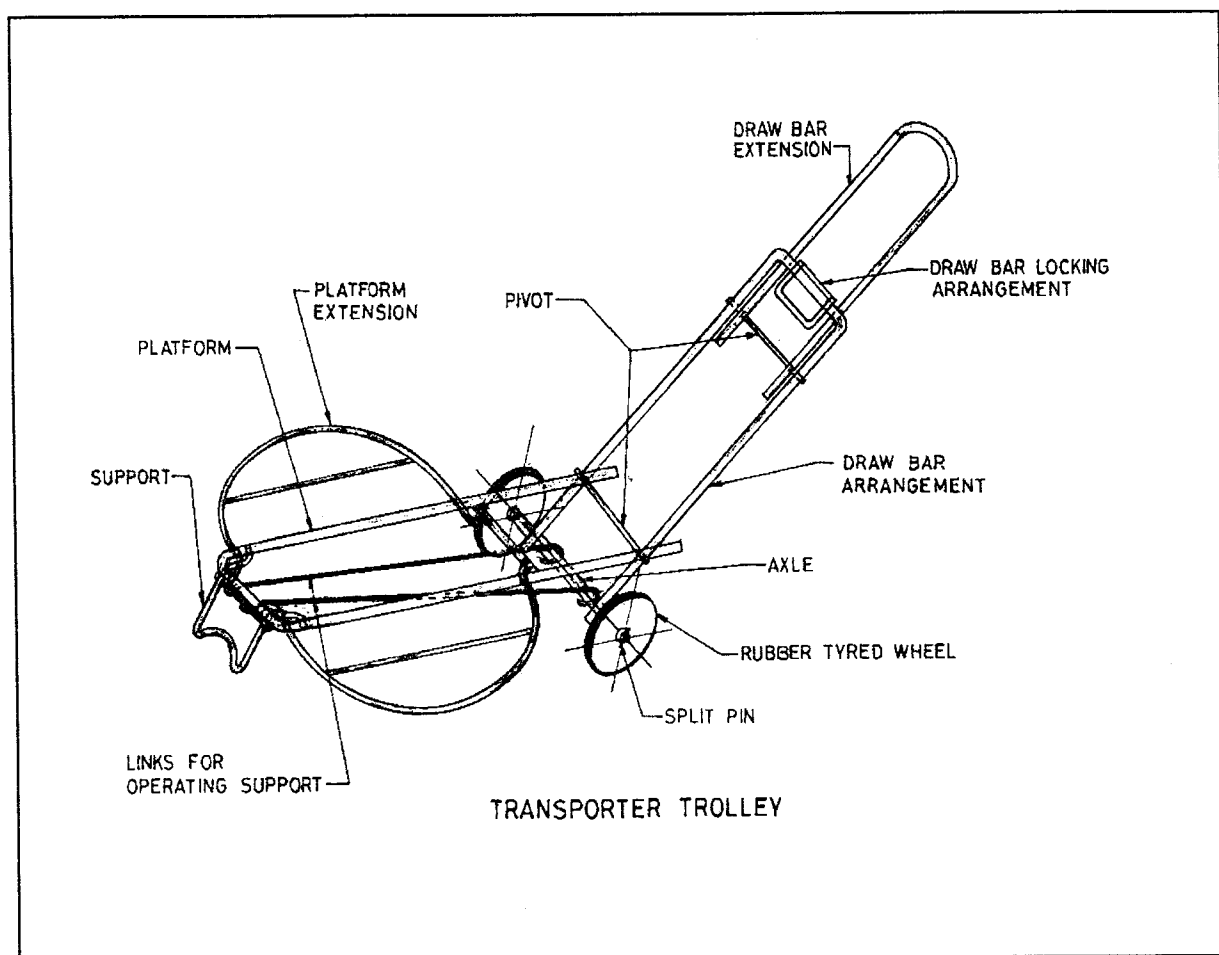
### A proposed design

Taking into consideration the specified design requirements, a hand-pulled wheeled trolley was designed. The base of the trolley has been so designed that a bundle of about 30kg fodder can be accommodated and securely tied with vertical bars.

The trolley can be easily pulled while on the roads. When not in use, the trolley can be folded for easy carrying. The dead weight of the trolley has been kept to a minimum by using lightweight aluminium alloy sections. It is hoped that the rural people will be able to afford such a trolley, which would also be socially acceptable.

### Conclusion

It can be concluded that in rural hilly areas suitable means of transporters are hardly available and the bare necessities of life are carried by the rural people on their head or back for long distances. These load-carrying methods are strenuous and health hazards. However it is possible to design a transporter, which would help them in carrying their daily necessities with ease.









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## Noonkenbah

My mother's breast  
that nourished me  
with legends and with songs  
gives out a milk as black as I  
so from her heart it comes.  
Now in their trucks the whiteman comes  
to squeeze my mother dry.  
They take our laws.  
They take our lives.  
and now they take her too .....  
The earth heaves. The skies' rain falls down.  
The old men sing their songs  
but my mother weeps rich black tears

Archie Weller

Archie Weller was born in Subiaco, Western Australia in 1957. As one of the younger Aboriginal writers, he has made a name as a novelist, short-story writer and has co-edited an anthology of Aboriginal writings.

