



# Transport

The road out of poverty.

**PRACTICAL ACTION**  
Technology challenging poverty



## The road out of poverty

Cut off. That's the situation for many of the world's poorest women, men and children. They can't just leap in the car and get to where they want to go.

A mother such as Julita Npoto, who looks after her young, hungry and often poorly children, can only reach the outside world by walking long distances over tough terrain. She has nothing to help her carry life-saving supplies of food or medicine, so she has to bear the burden on her head or back.

Julita's village is miles away from the nearest market and from the vital services, such as health and education, that people in the developed world simply take for granted. Julita lives in Kenya and her situation is all too common across the developing world.

No proper roads or vehicles mean women and children are forced to spend many hours each day attending to their most basic needs, such as collecting water and firewood. This valuable time could be spent on activities to help them out of poverty, such as farming, studying or running money-making enterprises.

Governments in developing countries recognise that better transport will benefit the population, but priority is usually given to building main roads that only serve the better-off. People in the poorest rural communities rarely benefit.



*Piyasena sells gram from his cycle trailer which he uses as a mobile store/kitchen.*

### Inadequate transport causes

- **illness and death, as hospitals cannot be reached quickly**
- **illiteracy and innumeracy, as children find it difficult to attend school**
- **poverty, as long distances to markets make starting businesses very difficult**
- **powerlessness, as rural people are so removed from centres of political control.**

## Practical Action's road map

Bike or bus? Donkey or ox? For more than 40 years, we have helped poor communities identify the types of transport that work best for them. With our technical and practical support, isolated rural communities can design, build and maintain village roads and bridges using local materials, tools and labour.

Animals, bicycles and motor vehicles are all potential ways to carry people and their goods. In Kenya, for example, Julita Npoto no longer has to face the daily drudgery of collecting water and firewood, because Practical Action has worked closely with her community of Massai women to introduce a specially designed donkey pannier.

Julita says: 'I now collect enough water to last me for more than three days. I use the time saved to work on my business, which brings me more income and a better life.' All Practical Action's projects are developed with the active participation of local people so they are right for their culture, needs and skills. All our solutions are sustainable.

## Breaking the cycle of poverty

The wheel revolutionised the history of the world – and it continues to transform people's lives today. Practical Action makes a real impact on poverty by helping local communities develop different kinds of cycle-based transport. Cycle ambulances, for instance, have helped save lives in Sri Lanka, Sudan, Nepal and Kenya. Quick and efficient, they provide a way of getting sick people to clinics and hospitals.

Cycle trailers have a practical use too, helping people carry their goods, such as vegetables and charcoal, to markets for sale. Making and maintaining bicycle taxis is another invaluable way for people to earn a decent income.

In Zimbabwe, improved wheels and axles have helped make traditional ox-carts cheaper and more efficient. This means people can transport more food, more quickly, to and from local markets.

With Practical Action's know-how, Sri Lankan communities have been able to start a bus service and maintain the roads along which it travels. The impact has been remarkable. At a stroke, this service has put an end to rural people's social isolation. Quick and affordable, it gives them a reliable way to travel to their nearest town; and now their children can make it to school on time! Equipped with an education, today's younger generation is far more likely to find a path out of poverty.

## Driving forward new ideas

Practical Action and the communities we work with are constantly crafting and honing new ideas to help poor people.

### Recent developments include

- **new equipment and training to make affordable, durable wheels and brakes**
- **bicycles that can carry bigger loads**
- **ropeways to transport farm produce across hillsides and rivers to local markets**
- **boats to transport people and goods in areas prone to flash flooding**

These practical, effective and easy-to-use forms of transport can prove life-changing. Aizul Pradesh, who runs his own boat service in Bangladesh, is proud of what he has achieved with our help. He says, 'During severe flooding I can now save families from my community by taking them to higher ground.'



*Water Transport. Boat Taxis at the pier*

## Bringing people on board

Working with local communities Practical Action campaigns for government policies that will give poor people better, more affordable transport and better lives. In Kenya and Sri Lanka we are working with town planners to ensure that the needs of cyclists are considered, vehicle pollution is reduced and good transport is available to even the poorest people. Furthermore, in Kenya we have helped local communities influence the government to abolish bicycle tax. And in Sri Lanka, lobbying from poor people encouraged the government to invest money in locally-made transport.

As a founder member of the International Forum on Rural Transport and Development, Practical Action is at the heart of a global network that shares life-changing information about transport among individuals and organisations in nearly 100 countries.

We are one of the leading publishers of technical manuals on low-cost vehicle manufacture and repair. We also provide information on village road construction and maintenance. Such practical advice helps rural people transform their lives.

## Project in Action



*Women spreading a fine gravel as the surface layer of a community road, which will be rolled in later.*

## New roads, new lives

In Sri Lanka it's a sobering fact that, in one district alone, up to 2,000 kilometres of roads can be washed away in a few weeks by heavy rain. It's therefore vital that Practical Action helps communities make, maintain and repair their own earth roads even in the face of floods.

Mr Dissanayake, who attended one of our training courses on how to build earth roads, said, 'Practical Action's approach is ideal for remote communities. We can make use of it to help more people have better roads. The Kiriwatte-Angulgamuwa road built using these methods has withstood heavy spells of rain and has proved it really works!'

With new roads being built between communities, a life-changing network of possibilities is being created – one that connects previously isolated people to schools, clinics and markets. They're no longer alone. With their confidence given a much-needed boost, people can take charge of their lives, dare to believe in a more prosperous future, and make themselves heard by the people in power.

The expertise we have gained in Sri Lanka is now being shared with communities in Peru and Kenya. As a result, they can construct and maintain new earth roads and paths, now and for generations to come.



Transporting goods using a gravity ropeway.

## Project in Action

### Nothing more than gravity

More than half the Nepalese population lives in the rugged hills and mountains that cover over three-quarters of the country. The main mode of transport is on foot, with people carrying heavy loads across the harsh, unfriendly landscape.

In the Mustang district, people used to carry goods to market on foot or with pack animals. Exhausting and slow, this often meant their precious farm produce would be damaged or even rot on the journey.

All this has now changed. How? Because of a simple, practical ropeway that uses nothing more than gravity to transport goods in a matter of moments. Chandra Man Lalchan, who helped install this innovative technology with the help of Practical Action says, 'It used to take two hours to transport 70 kgs of apples downhill, but with the Gravity Ropeway, it takes less than two minutes. It's amazing!'

Gravity ropeways are a cheap, safe and efficient method of getting goods to market. The simple ropeway consists of two trolleys attached to separate cables. When one goes up the other comes down – it's as simple as that.

The weight of the trolley at the top pulls the trolley from the bottom while the speed is controlled by an easy-to-use braking system. A local committee collects a small service charge to manage and maintain the ropeway and ensure the service is sustained into the future.

By saving time, effort and money, this simple intervention has transformed the lives of women and men who previously struggled for hours with heavy loads on their shoulders.

Source of statistical information: Human Development Report 2003, World Factbook 2003  
Photography: Annie Bungeroth, Ranjith de Silva, Zul, Rachel Berger, Practical Action/Nepal

## Future directions

We at Practical Action are proud of what we have achieved so far, but we know it's only the beginning. We look forward to working alongside poor communities the world over, to improve even more lives using better transport.

### Future plans include

- **tackling the transport needs of children, disabled and elderly people**
- **linking transport initiatives with other projects that reduce poverty, such as energy, shelter, water and sanitation services**
- **highlighting the problems of projects, such as highways and flyovers, which take land from communities without giving back any benefits.**

We hope that you share our vision of a world where better transport means better lives for everyone.

## Further information

If you would like to know more about transport and development, or Practical Action's work in general, please contact:

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