



Cycling-Inclusive Policy Development: A Handbook

April 2009



gtz Transport Policy
Advisory Services



On behalf of
Federal Ministry
for Economic Cooperation
and Development

14. Education, awareness building and advocacy

Roelof Wittink

For related subjects

See **Chapter 4** on How to organize the policy making process.

See **Chapters 6 and 7** for sample check-lists and facility audits.

See **Chapter 12** on Social marketing and citizen participation.

See **Glossary** on civil society and non-governmental organisations, advocacy, education.

14.1 People are what make systems fail — or work as planned

This chapter focuses on three instruments that target the active involvement of people. These are different, therefore, from measures that primarily involve vehicles, infrastructure or other technical devices.

Education refers to systems that teach people to use their bicycles and the relevant infrastructure in the best possible way.

Awareness building refers to ways by which we teach people about the benefits of cycling.

Advocacy refers to the way individuals and particularly groups participate to promote cycling and move cycling up personal, private sector and governmental agendas.

Each approach involves different actors. Education requires primarily teachers and instructors, along with students, and in some cases, parents. Awareness building involves primarily marketing and communications techniques, while advocacy is usually driven by user representatives, that is, civil society organisations. Notwithstanding, the line between each can blur. Advocacy and awareness-building combine well. Many campaigns involve civil society organisations building awareness and advocating in favour of a new policy or initiative. Often advocacy groups also drive awareness building processes or start up educational activities that may later be taken over by the formal education system or the municipality. In the case of all three approaches, however, activities yield more when they are geared to specific target groups, identified in advance.

14.2 Education

Teaching people to use a bicycle well and safely in a wide range of traffic condition requires a great deal of learning by doing, combined with good preparation, knowledge of basic skills and education to reduce risks to a minimum.

This means that in the context of cycling, education must:

- Teach the skills necessary to ride a bicycle;
- Teach cyclists how to cope with traffic;
- Teach other road users how to cope with cyclists.

14.2.1 The function of education

Education's added value compared to planning or design measures is highly significant and, at the same time, relative. It is significant since it teaches people about safe, efficient and comfortable behaviour. Education also stimulates self-awareness, self-confidence and self-respect. Since traffic planners and designers use to give priority to the needs of motorized vehicles and since cyclists are more vulnerable when it comes to an accident, many drivers tend to act as kings of the road. Cyclists have to learn how to cope with this, handle frustration and to persist in cycling.

The significance of cycling education is relative in the sense that both road and vehicle design can have more influence when it comes to preventing serious accidents. Education and regulations alone cannot control traffic behaviour. For this, road and intersection designs are vital allies.

Education adds value to road design, because the latter does not explain precisely what behaviour is most appropriate. In urban areas in particular, traffic situations vary enormously and there is no set standard that applies everywhere, every time. Road users have to be flexible to cope with each other. Education can help.

Education adds value to regulations, because the latter don't always explain precisely what behaviour is appropriate. Like road design, rules help, but do not hold in every circumstance. They often do not differentiate between rain and sun; icy, wet and dry road surfaces; heavily congested or empty roads; simple and complex situations. Traffic functions according to a blend of formal and informal rules

Road design, regulations and education together should help all road users cope with each other according to the circumstances and conditions. Where cyclists, pedestrians and drivers share the same space, road design should enforce lower speeds. Design should strive to ensure that any mistakes, such as an

incorrect interpretation of traffic situations, will be “forgivable”.

Thus, technical provisions and education complement each other. Road design should evoke safe behaviour and education should teach defensive behaviour under varying circumstances. Technical measures can never make traffic 100% safe; education must provide support. People have to learn skills, rules, how to respond differently to different road conditions, and how they can make good use of facilities.

One example of this complementary strategy was the Kids Safer to School, or KISS,

Guidelines, developed as part of the LOCO-MOTIVES program.

14.2.2 Different target groups

Who are the main target groups for education and who should be involved in the education process?

Education plays an important role with regard to all novice cyclists. People have to learn skills such as controlling their bicycles and then know how to behave in traffic. When people’s basic skills change due to a handicap, behavioural options may also have to change.

Box 33: Cycling education around the world

In cities and countries, such as the Netherlands, with a significant cycling culture, most children learn when they are young. Parents typically start teaching their children when they are still small, but do not allow them to ride in traffic. By age four, a significant number ride on certain urban streets, guided by an adult, usually a parent. At school they receive instruction to improve their skills. At eleven, they do both a theoretical and practical exam. They are also taught to ride the route to their secondary school, which is often further from their home and requires facing more complex situations.

For immigrants, training programs introduce adults who did not grow up with bicycles to important skills and knowledge. Most are women. Theory and practice are well integrated. Lessons are for groups, which enhances motivation. In Tilburg, for example, each year 70–90 women participate. The city supports women, particularly when cycling will facilitate their opportunities for income generation. These courses also result in promotion activities, such as tours for “cycling women friends”.¹⁾

Elderly people, even those with extensive experience, may ask for additional training when they notice that their physical functions and skills are not as good as they were. They can compensate for this by more defensive behaviour. Many like to learn new behavioural patterns. Some additional organisations run adult training programs. The Dutch cyclists’ union, for example, recently started up the “Fietsschool” (the Bicycle

School), a network of trainers teaching different target groups at different levels.

Elsewhere around the world, a wide range of initiatives seek to bring cycling skills to those interested in making the bicycle part of their daily transport habits. In many cities, municipal or other levels of government offer courses to anyone interested, either as part of cycling promotion programs or as part of general recreational services. In Canada, the Canadian Cycling Association has developed CanBike, a comprehensive course that includes preparing and certifying cycling instructors (<http://canadian-cycling.com/cca/education/canbike.shtml>) who often work for city governments and other institutions (see for example, the Toronto program, <http://www.toronto.ca/cycling/canbike/index.htm>). In the US, many practitioners offer the Effective Cycling program developed by John Forester (<http://www.johnforester.com>).

In Latin America, the GEF cycling promotion project in Lima (<http://www.proyectozoom.org>) has studied European methods and adapted them to the local school system, training hundreds of school children to ride bicycles more safely. In Brazil, the Escola de la Bicicleta (<http://www.escoladebicicleta.com.br/>) has developed a comprehensive program for individuals, groups, companies and other instances interested in developing these skills. In Chile, meanwhile, the women’s cyclists organisation, Macletas (<http://www.macleto.org>), CicloRecreoVía, Bicultura and Ciudad Viva started Escuela Bici Mujer, a two-month weekly course for beginners (women who had never ridden a bike before) in 2008, with plans for an intermediate course to encourage cyclists to get off sidewalks and take to the roads – safely, as did the women’s cycling group in Quito (Ecuador).

¹ <http://www.steunpuntfiets.nl/English.html>

Education to cope with traffic takes place after having acquired basic skills and knowledge. The process might have to be repeated in new situations and when rules and traffic situations change. Education to cope with other traffic also is a must for all other riders and drivers. Therefore, education on understanding the needs and problems of cyclists is a must for driver training. Driver instruction should incorporate information on cyclists' right to share the road, on the problems they face, and on the different problems experienced by different groups of cyclists.

Learning how to cope with each other can be helped along by involving cyclists and drivers in courses together. Typically, a dangerous hazard arises at an intersection when cyclists need to carry on straight ahead, but a car or truck wishes to make a right turn. Cyclists normally have the right of way in this situation and it should be respected. But often truck drivers in particular can't see them, so it is important for cyclists to take this into account. In the Netherlands, there are special education programs for children on this topic, where children can take a seat in a truck and experience what a driver can observe. Then there are instructions for defensive behaviour.

Who to involve?

When it comes to educating children, parents and other care takers, as well as school teachers, play the main role in their education for cycling. Teaching adults to ride well usually involves specific training courses, offered by municipalities, civil society organisations or other bodies. To ensure drivers are familiar with cyclists, driver schools and licensing bodies have to get involved. Often police, especially traffic police, are also important actors.

Apart from these forms of interactive training, information campaigns in journals, on television, radio and other mass media, can also contribute significantly to better practices on the road. Again, choosing the media according to the target group or groups is usually more efficient.

14.2.3 Primary and secondary learning processes

The art of learning starts with acquiring basic skills, knowledge about the rules of the game and how to predict what might happen in

different traffic situations. In practice, users must keep their bicycle under control, be able to anticipate potential hazards, and remain predictable in the eyes of other road users. Having control means behaving defensively, foreseeing hazards, and matching skills and knowledge to the traffic environment and conditions.

Cycling education typically follows this sequence:

- Achieving the skills necessary to control a bicycle enough to pay full attention to the traffic environment;
- Learning basic knowledge, such as how to use the road, how personal conditions and external circumstances affect skills, and traffic-related tasks;
- Understanding the need to act defensively in different situations and circumstances;
- Developing the best fit between efficient and safe behaviour.

It follows that the learning process must start in a relatively quiet area, such as a park, before facing more complex conditions. Led by visionary mayors in Bogotá, Latin America has pioneered a particularly potent way of educating drivers, current and potential cyclists alike on the joys of cycling and ways of making cycling safer (<http://cicloviasunidas.org>). In 1974, Bogotá introduced Ciclovía, a recreational cycling event. Every Sunday morning, 120 km of roads are closed to motorized traffic for seven hours, so that they can be used for cycling, skating, jogging and getting together.

Cycle Sundays have been copied in many cities around Latin America (see <http://cicloviasunidas.org> for information in Spanish on activities in different cities). It is a way for people to ride safely and freely while they exercise and have fun. Behavioural studies teach us that people are more likely to change their behaviour after a concrete experience, than simply through the receipt of information. Attitudes tend to follow, rather than lead, behaviour.

Today, in many cities, through initiatives such as Quito's Ciclopaseo (<http://www.biciaccion.org>), Bogotá's Ciclovía (<http://www.inbogota.com/transporte/ciclovía.htm>), Guadalajara (Mexico, <http://www.viarecreactiva.com.mx>) and the La Reina and other areas of Santiago CicloRecreoVía, (<http://www.ciclocreovia.org>), local authorities or civil society organisations organize car-free road networks on Sundays.

These offer ideal conditions for teaching basic cycling skills, since they permit practice on real roads and the gradual accumulation of the necessary practical and theoretical knowledge for safe cycling. These initiatives are particularly useful and combine well with the implementation of new cycling facilities, because they encourage everyone, drivers, pedestrians, cyclists and public transport users, to try out life on the back of a bike, at least once a week, create safe practice areas and encourage better relations between cyclists and other road users.

It is easy to underestimate how long it will take to reach peak skills. Knowing how to ride, start and stop unaided is not enough to ensure riders can pay sufficient attention to the traffic environment. Children in the Netherlands, who ride from four years of age onward, still need to pay attention to their bicycle when they are 10 years old. This comes at the expense of paying full attention to other traffic. Accident analysis has taught us that novice road users (whether drivers, motor cycle riders or cyclists) need at least three years' experience to reach their personal highest possible expert level. They go through a learning process that typically involves many mistakes. As a result, their risk of serious injury per km travelled is two to four times higher than it will be once they have acquired the necessary experience. Only after considerable practice in traffic, do road users reach the best fit between efficient and safe behaviour.

That is why many parents in the Netherlands guide their children to school for a number of years. This might easily result in 50–100 hours lessons per year. Young people and particularly young men face a much higher risk of serious injuries than adults, because they overestimate their own skills and underestimate the range of situations they may run into. Their risk of serious injury is four to eight times higher than when they are experienced and mature.

This all means that most learning occurs once people are actually practicing these new skills, learning to cope with traffic, supported by rules and road design. Education aims to provide them with basic skills and basic information (primary process), to enable people to learn in practice (secondary process). Instructions and the right information at the right time can help people to better understand and estimate

potential events, to perceive danger, to direct attention, to behave predictably to others.

Besides stressing the need for defensive behaviour, there is also a need to be clearly present in traffic. There is no general rule to define the right balance. For example, when riding on a narrow road where a car hardly can pass a cyclist, some cyclists prefer to keep on taking space from the edge and forcing a car to stay behind, which a driver may be willing to do over short distances.

There are many, mostly local, handbooks for teaching cyclists how to ride safely and efficiently, whatever the particular conditions in their cities. One particularly good one, itself based on similar efforts in Oregon, Toronto, British Columbia and Calgary, is the British Columbia bicycle operator's manual, *Bikesense* (<http://www.bikesense.bc.ca/manual.htm>). Brief, clear and well-illustrated, it offers a good starting point for cyclists' groups anxious to get a similar initiative off the ground in their own cities. The 200-page booklet that accompanies Living City's Santiago Green Map also includes a useful mini-manual, in Spanish (for more information, info@ciudadviva.cl).

14.3 Awareness building

Awareness building teaches people the benefits of cycling.

Who are the actors involved in awareness building? Although school teachers can contribute to knowledge about the benefits of cycling (and are important actors in this sense) awareness building usually takes the form of campaigns through the mass media, and does not typically involve feedback from an instructor. The advantage is that these reach a much larger target group. The disadvantage is that people are often distracted or very selective in terms of the information that they absorb, since they tend to seek confirmation of their existing beliefs.

For many years and issues, governments, marketers and others assumed that mass marketing or informational campaigns would be enough to change people's behaviour regarding smoking, sexual behaviour relating to HIV-AIDS, cycling, walking or whatever. The pitfall, of course, is that simply providing people with information is not enough to change how they act. Information may change perceptions and

perceptions can change behaviour, but often further steps, involving, for example, leadership friendly to certain changes among specific peer groups, or hands-on experience, are essential. This has made many events, such as the cycle-Sundays described above, and cycling-friendly events listed below, crucial to encouraging people to try cycling. Furthermore, awareness building efforts can sometimes backfire, for example when drivers contest information regarding how they contribute to air pollution, to avoid the idea of changing transport modes.

Thus, it is very important to consider what drives and motivates people to act the way they do, and based on this knowledge, analyse the best entry point for a change. We recommend combinations of interventions which guide people to new behaviour and confirm its benefits.

14.4 Advocacy

Advocacy involves arguing and campaigning in favour of something, such as a cause, idea, or policy. For advocacy on cycling, target groups include politicians, traffic planners, the business community, schools, supporters or members, and so on. Each target group requires its own specific approach. It is no use to bury superficially interested groups with detailed stacks of information. To experts it is important to recognize their skills. Politicians should not be bothered with technical discussions, but with political choices. Civil servants, on the other hand, need guidelines and are not responsible for political matters, although they can be very influential in this respect.

A useful tool for analysing conditions is an actors analysis (see Chapter 4). Each actor/stakeholder/target group is identified according to their primary and derived interests. Who are potential allies, supporters or opponents? And how influential are they with regard to the issues you want to address? It is a good idea to make a diagram with all target groups and their position. Depending on the level of influence and their positive or negative attitudes, actors can be identified as partners, opponents, fans and outsiders. Of course these are only rough categories, but they help decide on how to approach them. It is a good idea to carry out two versions of the actors' analysis: an initial one mapping the starting point or current

conditions, and a second one, charting where actors could be re-positioned, within a reasonable period of time, usually the duration of a specific campaign or on-going working group. This analysis also helps set priorities, since it also helps to clarify what each group can contribute to a more cycling-inclusive city. In any case, it is important to ask why a specific target group should be addressed and how best to communicate with each one. On the basis of a real understanding of their interests and position this will become much easier.⁵⁹⁾

14.5 Examples of awareness building and advocacy

Some examples of awareness building and advocacy tools are now explored, followed by some conclusions regarding the creation of support for policies and measures.⁶⁰⁾

14.5.1 Audio-visual materials

For changing perceptions, videos, films and other audio-visual materials can have a huge impact, since they present not only information, but practice, highlighting visions and underlining the applicability of ideas.

An excellent film is *Cycling Friendly Cities*, initiated by Enrique Peñalosa, the former mayor of Bogotá. Peñalosa wanted to underline the benefits of the cycling network he had created and the principles behind it. For him, Denmark and the Netherlands were the key examples to learn from when it came to urban design, pedestrian facilities and cycling-inclusive planning. This film shows how cities in Denmark, the Netherlands and Colombia have become better places for people. The main target group are politicians, but the film has been welcomed by a wide range of cycling, professional and other interested groups.

14.5.2 Car-Free Days

Well planned and organized, Car-Free Days combine awareness building and advocacy.

⁵⁹⁾ ICE, Locomotives: Full Steam Ahead; Low Cost Mobility Initiatives Support Program 2003–2006; Volume 1: Cycling Planning and Promotion; ISBN/EAN 978-90-79002-01-6.

⁶⁰⁾ Most examples can be found in: ICE, Locomotives: Full Steam Ahead; Low Cost Mobility Initiatives Support Program 2003–2006; Volume 1: Cycling Planning and Promotion; ISBN/EAN 978-90-79002-01-6.

They show how people can enjoy the streets in their city when cars give way to people-powered modes of transport. They also offer excellent opportunities to practice cycling and showcase alternatives to the automobile. They increase commitment and encourage behavioural change, and they can also create a sense of belonging.

The World Carfree Network (<http://www.world-carfreeday.net>) invites activists and citizens to organize World Carfree Day events, usually some time in the month of September. These help bring the issue of non-motorized transport to politicians' and the public's attention. Often they trigger new policies more favourable to non-motorized transport in general.

14.5.3 Street play days, bike weeks or months



Figure 196
Street Play Days in the Netherlands.

Street Play Days may be organized with car-free days or as stand-alone activities. Every year the Dutch Road Safety organisation (VVN), coordinates a street play day in many cities in the Netherlands.

On that day, some streets are closed to motorized traffic. Children can play there and often this use brings demands for permanent traffic

calming measures, which enhance safety and allows them more freedom.

Schools, parents, residents, and city governments participate and help take care of children. VVN develops and distributes posters and other materials.

Many cities also organize bike weeks or even months, often launching important new programs such as bikes-on-buses or new bike facilities during the festivities. See, for example, information from the League of American Cyclists (<http://www.bikeleague.org/programs/bikemonth>), Toronto's bike month (<http://www.toronto.ca/cycling/events/index.htm>), the UK's Cycle Campaign network (<http://www.cyclenet-work.org.uk>).

14.5.4 Advocacy to claim cyclists' rights

Many campaigns aim to highlight cyclists' and pedestrians' rights to safe and efficient mobility. In many developing countries, cycling plays a significant role in the economy, particularly in the informal sector. The civil society organisation, Institute for Democracy and Sustainability (IDS) in Delhi, developed an advocacy campaign on Urban Governance and the Right of Cycle Rickshaws and Cycle Rickshaw Pullers. IDS advocates for the rights of cyclists, rickshaw operators and pedestrians. In this case, it studied the differential ownership, use patterns and widely prevalent attitudes towards cyclists and cycle rickshaw pullers to ensure that social activists, environmentalists, planners and governmental agencies became more sensitive to their problems and possible solutions.

14.5.5 Inspection, checklists, community audits

To convince politicians, planners, designers and other stakeholders of the problems and obstacles cyclists and pedestrians face every day, advocates can invite them for a joint inspection of walking and/or cycling facilities. If some of these stakeholders are not skilled enough to use bicycles for this purpose, they can be offered rides on tandems or tricycles, or the inspection can be conducted on foot. Key to success is that participants experience in their own flesh the problems of pedestrians and cyclists. This helps to commit them to finding easy, safe, efficient solutions.

14.5.6 *Bike to work campaigns*

“Bike to Work” campaigns aim to involve companies and their employees in the promotion of cycling. There is an international Bike to Work campaign, in which organisations invite workers to cycle to work on specific dates. When companies show significant interest, the accent of the activity shifts from a one-off promotional activity toward ongoing initiatives to create good conditions for bicycle use. In Cape Town, the civil society organisation, BEN, informed employees about the benefits of cycling to work and trained them to maintain and repair their bicycles, as part of employee bicycle purchase programs. In some cases, employees have been offered bicycles instead of a transport allowance.

In South Africa, 1% of company payrolls goes to skills development and training, and they are keen to train employees in bicycle use and maintenance. BEN is encouraging employers to purchase bicycles for employees.

In the Netherlands, the civil society organisation, COS, has run a *Fietsen scoort* (Cycling pays) campaign. As part of this campaign, COS invites companies to sponsor employees to accumulate cycling kilometres. It teaches them the benefits of increased cycling to individuals and the company (health, savings on parking space, etc.) and to society in general (fewer emissions, CO₂ reduction, and so on). Part of the fund thus created is going to cycling projects in developing countries (carried out by I-CE partners within the Locomotives program, 2003–2006, or the Bicycle Partnership Program, since 2007). This way, companies consider their participation a contribution to Corporate Social Responsibility policies.

14.6 Final remarks on awareness building and advocacy

Awareness building and advocacy are never-ending stories. To change the mind set of people and policies, advocates face many frustrations, but there is also much room for optimism.

The main theme in discussions with people responsible for policies and measurements, is achieving society-wide support. Do people prefer a car parked in front of their home or children playing? It is interesting to see the difference

between what politicians think citizens think and what citizens think. Often, citizens have to mobilize their fellows or collect information to demonstrate willingness to change.

People can find it hard to put change in perspective. Demonstration projects help, to make visions tangible. Retailers, for example, often oppose measures that control car use and favour walking and cycling. But all over the world, expanding pedestrian facilities has led to more and better retail opportunities, turning opponents into supporters.

People are also reluctant to change. A survey in a Dutch city showed that although about 70% of residents in a specific area favoured reducing speeds to 30 km/h, 70% opposed the city’s measures in this sense! Usually it is better to involve citizens in developing measures. There is a risk that debate will focus on pro’s and con’s of different measures, making agreement difficult. To prevent an endless debate, facilitators skilled in participatory methods should manage these exchanges so that they lead to agreements. It helps to guide the process toward solutions, based on a shared view of problems’ causes. Then common targets can be defined, and criteria for solutions developed. Sometimes it is easier to leave concrete proposals to professionals, but these should always be brought back and reconfirmed by the representative groups that began the process. This is the best way to build consensus and reduce the complexity of public acceptance of changes, large and small.