

What will really make a difference for cycling?

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ABSTRACT

This paper identifies actions that will help to increase the number of people using a bike as a means of transport on a regular basis. Cycling fits well with the NZ Transport Strategy objectives, and can also contribute significantly to other government aims in areas such as health, environmental effects, climate change measures and sustainable communities. However, it is unlikely to achieve its potential unless there is a serious commitment to encouraging people to use their bikes. A half-hearted commitment may make conditions better for existing cyclists, but will not attract new cyclists.

Using the Cycling Advocates Network's New Zealand-wide communication network, both cyclists and non-cyclists were asked to identify what needs to change in NZ make a noticeable difference for cycling. The emphasis was put on quick and simple solutions.

Data was gathered from the responses received, and grouped into categories, reflecting four aspects of a cycle-friendly environment: making cycling easy to do, enabling people to feel safe doing it, giving it official support and recognition, and providing incentives for those participating.

The responses indicate that achieving those states involves (in descending order of priority):

- providing supportive infrastructure, including cycle lanes and good surfaces for riding
- reducing the level of intimidation (real and perceived) from other road users, including speed and traffic management
- undertaking official awareness and marketing campaigns, to provide valuable psychological acknowledgment that cyclists exist and have rights
- demonstrating greater commitment at both the local and national government level to providing a legislative framework that promotes the needs of cyclists
- building incentive programmes - both private and public
- enabling better integration with public transport, including carriage of bikes on suburban buses

From the expressed desires of respondents, it is obvious that meaningful interventions need not be costly or complicated. The experiences of cyclists are used to suggest a list of interventions that should be undertaken easily and quickly, for both short-term and long-term gain.

1. SETTING THE SCENE

The aim of this paper is to identify actions that would help to increase the number of people using a bike as a means of transport on a regular basis. Since there is a huge amount of literature available about how to encourage people to cycle, how to engineer our urban landscapes, and how to develop supportive policy, this paper will narrow its focus down to actions that can be done now, quickly and easily, if the will is there.

The paper will not address the question of why we should encourage more trips by bike. Again, this issue has been explored extensively elsewhere. Suffice to say that in amongst the articles with titles such as 'The Benefits of Cycling', I have never seen one that suggested that cycling should be discouraged.

Two challenges to start with:

- Who are the people that should be targeted?
- What is 'cycle-friendly'?

1.1 WHICH CYCLISTS?

Cyclists can broadly be put into three categories, with varying needs.

Regular cyclists see cycling as an integral part of their life, whether as a fitness activity or as one of their transport choices. In general, they would like to see better conditions. They are likely to continue cycling anyway, but there are some in this group that get fed up and stop. Providing a few improvements can make a significant difference to these people, and providing support programmes can encourage them to use their bikes for more trips, e.g. sports riders riding to work.

Occasional cyclists are the ones who don't consider themselves as cyclists, but who find it quite fun when they do it. They might have a go at the local mountain bike trails, or use the old bike at the crib to go to the dairy for milk. They might not ride much at home because they see it as too difficult, too dangerous, too impractical or because it has never occurred to them. Some of them don't have a bike of their own, which limits their participation. This group is a prime target for behaviour change programmes. They need incentives, and they need promotional campaigns, but the potential for them using their bikes for transport is high.

The third broad category are the 'never' cyclists. They may never have learned to ride, or might "never be seen dead on a bike". For the purposes of this paper, this group is in the 'too hard' basket. Of course there are programmes that would work with them, but they are not on the 'quick and easy' list. However, it is vital to minimise the number of people who are in this category, e.g. by ensuring that high quality cycle training is given to all children and any adults who are willing, and by creating a 'cycle-friendly' environment.

1.2 WHAT IS CYCLE-FRIENDLY?

The cycle-friendliness of an environment needs to be assessed against the categories of cyclists using it.

Some regular cyclists are assertive and experienced, and can mix with normal urban traffic relatively comfortably. They cannot ride in amongst higher-speed vehicles e.g. above 50 km/hr, and in those circumstances need a space to ride in which gives

them some lateral distance from the passing motor vehicles, e.g. wider lanes, hard shoulders. Because they generally cycle fast and often use bikes built for speed rather than comfort (e.g. with skinny tyres), uneven surfaces can make their journey at best uncomfortable and at worst fatal. Like most commuters, these cyclists want the most direct routes possible, with a minimum of delays.

Some other regular cyclists are perfectly confident on most urban roads but can feel intimidated on busy or multi-lane roads where the traffic is flowing freely. They generally want direct routes, but can be prepared to deviate slightly for the sake of a pleasanter trip.

These categories of cyclist are not 'either/or': someone who can happily claim their place on a busy arterial one day might find it just too much another time, after a busy day at work or when their cat has just been run over.

Some occasional cyclists are happy enough mixing with light-to-moderate levels of motor vehicle traffic, but if they stop enjoying it they won't do it any more. Their seemingly good level of confidence can hide a lack of experience, and that naivety can place them in some danger. They generally don't want to feel that they are expending more energy than necessary, so are not keen on routes that take them around three sides of a square, though they may be happy to take routes other than the main roads if the alternatives seem fairly direct and do not involve extra delays, e.g. more STOP signs to negotiate.

Other occasional cyclists are overly sensitive to potential danger and won't ride unless they feel fully protected. Their assessment of where the danger might come from, though, is sometimes mistaken, e.g. they may feel safer biking on the footpath without realising that they are more at risk from cars exiting from driveways than if they were in the carriageway.

There are some general requirements, however, that all cyclists share [see for example Cyclists' Touring Club 1996, p.9; McClintock 2002, p.29; Austroads 1999, p.14; C.R.O.W. 1996, p.24]. They need routes that are coherent (take you from A to D, without leaving you in limbo between B and C). They need to feel safe using them, in terms of both personal security and danger imposed by other road users. And the route needs to be rideable, i.e. it shouldn't have sections where they are expected to get off and push their vehicle, or have connecting paths that are surfaced with coarse gravel.

In essence, a cycle-friendly environment is one in which

- cycling is the obvious choice for getting about
- people feel safe doing it
- it is officially supported and recognised as 'good for society'
- incentives and associated support facilities are available.

2. WHAT DO CYCLISTS WANT?

2.1 INFORMATION GATHERING

The starting action for this paper was to ask for feedback from cyclists and non-cyclists on the question: "What are the top three things that would make the difference for you?". The request went out via the Cycling Advocates Network newsletters: ChainLinks and e.CAN. The latter goes to interested non-members and

officials around the country as well as members, and people were asked to forward it on to anyone else they thought might reply. From some responses, it is obvious that the request did get forwarded. It also went out to a more general audience in the Wellington region via the monthly BikeNews page in the free weekly local papers, and several responses are identifiable from that.

Written responses were received from 43 cyclists from around the country (both regular and occasional), but given the process used there was inevitably little response from non-cyclists. However I was able to draw on the views of non-cyclists that I have either solicited or had proffered to me over a number of years. The information collected in this process was added to from existing studies, e.g. travel behaviour change programmes and 'attitudes to cycling' research [see for example ADONIS 1998; Mathew 1995, p.54; Forward 1998; Davies 2001], as well as a survey of CAN's members in 2003 [Chainlinks 2003, p.34].

Asking cyclists for feedback had the predictable problem of information overload - about five times as many suggestions as people responding. Many of the suggestions involved quite small-scale, site-specific solutions that could be broadened into something more universally applicable. But even grouping the suggestions into similar categories resulted in a list that was longer than most NZ cycle paths.

So I attempted to deconstruct the expressed desires of cyclists, to discover what they are really saying about their needs. For example, when someone says that they want cycle lanes everywhere, what they often mean is that they want to feel 'safe' and not hassled by other traffic.

This process reduced the expressed needs of cyclists to a few simple categories, which were then matched with other research [see for example summaries in Wharton 2003; Cleland 2004] and found to correlate well. This suggests that the use of anecdotal information can approximate more formal research methods, and that organisations such as Road Controlling Authorities could use similar methods to identify problems and gauge the views of cyclists.

Many of the comments may seem fairly trivial, but that's precisely the point - it's often the little details that make the difference for cyclists. Transport planners, road engineers and politicians often seem to be more enamoured of large-scale transport projects like motorways or light rail schemes. Yet if greater efforts were put into making sure that the much smaller sums spent on cycling were used for projects that were done correctly, the community would probably get much better value for their money.

2.2 THE BIG ISSUES

The issues raised by respondents centred around the missing - and desired - elements of a cycle-friendly environment, i.e. making it easy to do, making it feel like a safe choice, giving it status and support, and providing incentives and rewards.

Within each category, issues are discussed in descending order of prominence according to the responses received.

2.2.1 'Easy as!'

Any perceived barriers can be enough to put someone off making a trip by bike, so a critical action is to identify and remedy particular pinch points or gaps in service. This action is a high priority, since it provides a good basis from which to work on promotion campaigns.

One wry comment received during research reinforced the idea that removing even small difficulties can be enough to persuade people to have a go:

"I'm not sure if I really want them to put a link in between x and y [across a trenched motorway], 'cos that would take away my excuse for not cycling!"

Pleasantness of travel was important to many, with segregated cycle lanes the measure most frequently mentioned.

"More cycle lanes, preferably separate & protected from traffic, e.g. the cycle lane along the motorway to Te Atatu is a joy to use and I would definitely be more likely to choose to live in suburbs that have such paths."

Quality of surfacing received a lot of comment, with the discomfort of rough chip seal and the hazard created by loose chips being the main complaints, as well as the cost of bike damage.

"Coarse chip seal. This may be cheap to lay, but the added friction means that I have to change down about 2 gears compared to when riding on smooth seal. Not to mention the rough ride, resulting in reduced tire and component life (and discomfort), and the stones piled up on the verge/edge of the road (especially dangerous at night)."

"The stones are especially a problem if coarse chip sealing work has been carried out within a 2 km radius. Cars carry them for long distances in their tread and distribute them far and wide. Bike tires are expensive. At one point after 2 ripped tires and 3 ruined inner tubes in 2 months (glass and bits of wire the identifiable culprits for the punctures), I figured out that it wasn't much more expensive taking the bus. Solution: More regular road sweeping done, especially including the bike lanes."

Pinch points, e.g. kerb build-outs at pedestrian crossings, attracted negative comments, and there were predictably negative comments about roundabouts.

"Just wondered if any one else thinks that putting loads of roundabouts may be dangerous for bike riders of all ages. A few roundabouts have been built in Lyall Bay. I notice trucks speeding along and almost drive over them - there is not much room for bikes and buses etc. to share."

The ease of connecting with public transport services was mentioned as a limiting factor in the use of bikes.

"I don't use public transport a lot but have tried to train-and-cycle a few times. It's not that friendly a concept. If trains and bus services were more cyclist friendly, with respect to physical access, security and fares, then I'd be inclined to try longer distance sojourns without using the car."

2.2.2 'No worries!'

Two main issues influence cyclists' perception of their safety (or the safety of their children): how much they have to mix with (higher speed) motor vehicles, and the level of personal security (e.g. well-lit routes). Safety was seen by many as being tied in with a view of cycling as a worthy activity - if the profile is raised and cycling is portrayed as something to be encouraged, drivers are more likely to take care.

The leading request among all respondents was for segregated cycle paths, with better driver awareness a close second.

"The feel I get from most non cyclists is that they are scared to cycle in Wellington. It's not the weather or the hills (modern gears take care of that) but just the threat of narrow roads and cars. Cycle lanes must be the answer to that. Give the cyclists more room! I know this is technically difficult to achieve but even riding in the bus lanes on Lambton Quay makes a huge difference to how safe I feel."

"A difference for me would be one less fright per day (which equates with lower adrenalin levels and greater levels of enjoyment)."

A couple of other comments related to the visibility of cyclists, both metaphorically and in a practical sense.

"Radically improve the signage used to denote 'Cyclists'. Get rid of that 1950's vintage bike and show the cyclist. It is the cyclist that is most visible to other road users, not the bike. Run a competition for the new sign. This is one suggestion for a quick simple thing that can be done now. It could also focus wider public attention on the issue of cyclists being noticed."

"Remove angle parking - how can a reversing car possibly see an approaching cyclist??"

2.2.3 'Way to go!'

Building up driver awareness is one of the main issues highlighted in responses, along with an acceptance that cyclists need priority at certain points for reasons of safety and convenience. In the background, there is a wish for a serious commitment by official agencies (particularly central government, but also local government) to implement supportive policies.

Many suggestions refer to the need for national education campaigns as a means of building awareness among drivers and a culture of sharing amongst all road users. There was a distinct thread of anger and frustration in many of these comments - unsurprisingly, since people clearly felt that their physical well-being was threatened by current attitudes.

"I am also a driver and I understand that, if you don't do the other, it's hard to see it from their point of view. However, we need television advertisements to educate drivers to look for cyclists before opening their car door and also to leave enough room for us to carry on cycling on the left of their car when they pass us."

"All motorists have to be educated that cyclists have a 'legal right' to the roadway. I long ago lost track of the number of times I've been abused by motorists who think cyclists shouldn't be 'on the road'. I think many of them perceive that if you're on a bike you're one of these wallies that eat sprouts and cycle everywhere, when not using public transport. My personal experience is that most cyclists like myself (still dreaming of a yellow jersey or a stage win) have far more money tied up in cars and pay far more tax/ petrol tax / ACC levies etc than most of the arrogant losers who have a problem with being courteous to cyclists. So tell them - cyclists are motorists and taxpayers too."

Some suggestions relate to local government (or Transit NZ) processes, such as setting up systems that automatically look for opportunities to enhance the cycling environment.

"On quite a number of occasions round my place recently roads have been widened and no thought has been given to a cycle lane when it wouldn't have taken much more to do in the way of expense. Given that people also walk and run along these roads a cycle lane would offer space to a range of users."

Other comments suggested that the law needs to be changed, in order to send a strong signal to motorists that it is not OK to impose risks on more vulnerable road users, and to put the onus on drivers to be aware of cyclists.

"Many European countries have laws that place total responsibility for cyclists' safety upon all other road users - cyclists are blame free. While I attempt to be a responsible cyclist, I often feel at risk in the Kapiti area. However, I have found that other road users in Belgium gave me total confidence - because of their legislation, they gave me every opportunity and I felt totally safe. That is NEVER the case here."

"It should be illegal for a driver, who has inflated his size with 1300 kg of machine, to excuse his crime by saying that humans are small. This is stunningly unjust. Life for New Zealand cyclists would actually be, and would be seen to be, far safer if the courts held motorists fully accountable for the far-from-safe vision-reducing aspects of cars - vehicles which they choose to use."

Commercial and heavy transport drivers came in for particular criticism. Sadly, given the potential synergies between public transport and cycling, bus drivers attracted the most negative comments.

"Asking trucks that tow trailers to take their turns a bit wider, because they might go around a corner with the truck part fine, but then the trailer that comes behind usually cuts the corner."

"Bus driver education. The bigger they are, the scarier they are. Some of these guys are great, but some are truly awful. One driver who missed me by less than a metre at full speed on Great North Rd said she couldn't see me against the green of the cycle lane (!) when I knocked on her window and informed her politely that she nearly ended my life, at the next light where she was waiting."

"I have been yelled at by bus drivers who don't know the law, and I've complained to the bus company about this - bus drivers are 'reminded' regularly, they say."

Most comments received were based on experiences in urban or semi-urban areas, but over the past couple of years CAN has also fielded complaints about open road driver behaviour, which is rapidly giving NZ a bad name internationally amongst cycle tourists. The following comment is from a hostel owner, and relates to guest comments in one period of three weeks.

“One Dutch couple (in their 60's) experienced a lot of abuse and not only by motorcar drivers but even more by certain bus drivers who seemed very unfriendly when they took their bikes on the bus. Another couple (Germans) gave up cycling because of car driver behaviour and decided to eventually rent a car. One guest from Spain was shocked to experience the traffic behaviour and decided to bring back the bike after 250 km, rent a car and take a mountain bike along to do off-road tracks. He is very disappointed in NZ cycling.”

2.2.4 'Support services'

Many respondents raised the need to provide support and incentives, to send a message to cyclists that they are valued part of the transport system. These are the 'rewards', the little extras that can make a significant difference - often out of proportion to the cost of providing the service.

Well-designed cycle lanes (including Advanced Stop Lines and waiting boxes) and cycle paths were the most frequently mentioned facilities which would 'make a difference', but almost as important were good surfaces for biking on. The usual bugbear of cyclists - the drain grating - made its appearance here, as did badly fitted and slippery service covers. One person suggested that service covers should be shifted into the middle of the road, since they are less of a hazard to motorists than to cyclists.

“The 1 metre strip at the edge of the road [could be] sealed smooth rather than with the coarse chip. Generally cars wear the coarse chip down and it is more comfortable to ride in this area. The smooth strip would encourage cyclists to stay to the left and form a natural cycle lane. I wouldn't expect it to be too expensive. The starting point would be popular cycle access roads.”

“Make drains cut back into the footpaths, not into the road.”

Lack of maintenance and sweeping of the left hand side of the carriageway (including hard shoulders) as well as off-road paths was the next most mentioned issue.

“The excessive amount of glass and other debris which litters the cycle paths, causing punctures and continually raising the spectre of a front wheel puncture while descending the Ngauranga Gorge in the morning traffic. I have raised the issue with the council in the past but there has never been any apparent action so I have given up raising it as a waste of my time. Centennial Drive - the same glass has been there since I started commuting 2.5 years ago. I will only use this stretch in gale force wind conditions, preferring to mix it with the traffic.”

Next in prominence was the need for good quality bike parking, in appropriate places and preferably under cover.

"Many more places to securely lock up bikes. They should be in prominent, well-lit places so that anyone trying to steal or tamper with bikes will be seen straight away. For example, my bike was stolen from outside the Auckland Central City Library. It has great thick bars to chain to but it's in a dark corner away from windows and most passing people, so thieves can take as long as they like cutting through locks."

Signage of good biking routes and provision of cycling maps were requested, both as a useful tool for cyclists and for their value in raising awareness amongst other road users.

"I think a lot could be achieved if [signage] was increased. It would also serve as a small safety measure for cyclists by increasing this awareness amongst motorists. When the shoulder runs out, as often happens, I feel motorists would then be more understanding of the fact that cyclists have to be on the road with them because there is nowhere else for them to go at that point."

"The routes would have to be set up so that e.g. a cycle newbie can be confident there is a signposted, easy and safe way from, say, Island Bay via the city to Wadestown. The cycling network would be documented on a purpose made map, showing the major routes and alternatives, colour coded for steepness and difficulty."

A significant level of frustration was expressed by those who mentioned enforcement issues. Some needed better information about how to report an incident, and several clearly felt that the Police were less than responsive to their complaints.

"[It is] difficult to know who to contact if a motorist nearly kills me."

"Access to prompt enforcement and follow up on cycle-vehicle accidents and near misses. I was forced to ground two months ago when an airport shuttle van ran a give way in front of Northland tunnel. I filed a Community Roadwatch Report which has not been actioned despite me following it up twice. I smashed my helmet and bent the back wheel."

On a more positive note, there were comments on the value of training for cyclists, both in order to give new cyclists more confidence, and to improve the behaviour of some cyclists on the road.

"As a fairly new cyclist, the thing that got me cycling and kept me cycling was that an experienced road/city cyclist showed me the ropes to begin with: the best/safest routes, road position, where to wait at traffic lights and intersections etc. Road confidence is very important to make sure you keep cycling."

Other significant issues mentioned were the need to reduce speed limits to create a speed environment more consistent with the needs of local users (including lower speed school zones), and the need for infrastructure to be responsive to cyclists (e.g. signals which detect cyclists).

"I go along Tory St in the mornings, because it's supposed to be an approved route. But the lights won't change for me, meaning I often have to cross against the lights."

3. ACTION STATIONS

The remainder of this paper draws on the responses received to put forward some immediate actions that can help to alleviate the underlying problems, and make a real difference for cyclists. It is worth reiterating that many of these changes will benefit all road users, not just cyclists. The focus here is particularly on 'quick and easy' actions that will make a difference, but mention will be made of longer term, fundamental changes - at both the local and national level - that are needed as well.

Improvements to driver attitudes, land use planning, and cyclist training, for example, are unlikely to happen quickly, but moves to set them in place need to be made now. Without these issues being addressed adequately, the effectiveness of other cycle-friendly actions will be reduced in the long run.

Availability of funding is often cited as a problem when cycling is discussed. However, the funding is there - it's just that the priorities for using it are currently skewed towards the desires of motorists. In any case, many of the actions that would really make a difference for cyclists can be done at low (or even no) cost, e.g. marking a cycle lane when a road is re-surfaced.

Funding could also be used more effectively as a tool to ensure that developments to the transport system are consistent with the spirit of the NZTS. However, this assumes a level of understanding amongst planners, designers, decision-makers and auditors which is sadly not much in evidence at the moment in New Zealand. In the current funding system, it is probably the auditing function that is the first priority to get right, since that will send a signal back down the line, saying that projects which make the situation worse for cyclists are not acceptable [see IHT 1998].

Many of the actions identified will help achieve more than one of the criteria for a cycle-friendly environment, so the list is actually less daunting than it looks. Actions have been grouped into the four categories:

1. quick and easy; do now
2. will take a bit longer to achieve, but needs to be started now
3. a harder issue, but fundamental; addressing it demonstrates serious intentions
4. plan to do in the near future; build into work programmes now, so people can see a solution in sight.

3.1 QUICK & EASY

These items are easy and generally cheap to provide. They should become standard practice.

- Audit all roading projects for their effect on cyclists before they are built. At the very least, projects should not make conditions worse for cyclists, and to comply with the objectives of the NZTS they should actually improve conditions. Auditing need not be complicated - sometimes all that is needed is a bike and a bit of imagination to see, for example, that squeezing in an extra (narrow) lane to "ease traffic flows" will force cyclists into the lane with motorists who are travelling at higher speeds. Many of the other actions mentioned below will follow naturally from a robust and comprehensive cycle auditing process [see Austroads 2001].
- Advance Stop Lines and 'waiting boxes' (ASLs), and associated approach cycle lanes. ASLs send a very clear reminder to all road users that cyclists are part of

the system. They also enable cyclists to be very visible, and to position themselves well for a right hand turn. Approach lanes are a necessary adjunct to ASLs, as they enable cyclists to reach the waiting area while the signals are red. ASLs have the added advantage of being extremely cheap to instal, so there is no reason why we shouldn't see them popping up all over towns. Several cities in NZ now have a few examples of ASLs in place, but none have installed them at all major intersections as a matter of course.

- Cycle detection at signals is another small and low-cost action that can make a cyclist's journey easier and that should be applied as a matter of course, starting with the routes most used by cyclists (and particular intersections that are identified by cyclists as a problem). Adjusting the sensitivity of the detector loops is not hard, but it needs to be accompanied by road markings (small diamonds, with a mini-cycle stencil) to show cyclists where to ride to best activate the lights.
- Restoring the road surface promptly after road works is a particular bug-bear of cyclists, and has safety implications as well as comfort value. Leaving a mostly-filled hole with a 1 cm sharp lip or a not-yet-lifted service cover for a few days may not make much difference to motorists, but it can throw a cyclist off their vehicle, particularly at night when such hazards are hard to see. Contractors must be required to either restore surfaces immediately, or adequately cone off or sign rough patches.
- Sweeping debris off the left hand edge of the carriageway, and maintenance (particularly of left hand edge/hard shoulder) needs to be done regularly so that surfaces are good enough to ride on. Care needs to be taken to ensure that sweeping the carriageway does not just push that debris onto an off-road path.
- For off-road paths, good lighting and maintenance (e.g. removal & trimming of vegetation) are needed. Regular sweeping is important for off-road paths, too.
- Signed routes (including information about time/distance/destination) and maps. Free cycling maps often get snapped up by motorists as a convenient glove-box map, thus providing some subtle marketing to drivers that there are good cycling routes out there.
- Promote 'Share the Road' messages, and explain specifically how to share in different circumstances. This can be done through normal agency communication channels (e.g. newsletters, 'ads' in printed documents), by signage ('share with care'; 'Warning: cyclists merging'), and by reiterating the message in press releases.
- At the local authority level, better parking enforcement is important for both comfort and safety reasons, particularly on cycle lanes/paths but also in places where an illegally parked vehicle can force a cyclist to divert out into a stream of traffic.
- Include more cyclists in questions and diagrams in the Road Code and in driver testing. Since intersections (including roundabouts) are a particular danger point for cyclists, a cyclist should be present in all diagrams. And since one of the main complaints from cyclists is that they are squeezed into the kerb/parked cars by passing motorists, there should also be examples of how to behave around cyclists in the section on passing manoeuvres.
- National governmental agencies and local authorities should set an example by becoming Cycle Friendly Employers [see SPARC 2003] and promoting Bike To

Work Days in their workforce. Supporting cycling should fall into the same category as being fiscally responsible.

- Good quality cycle parking, sited in places that are in view of the public (to ensure both personal and vehicle security), and preferably under cover, should be provided both by local authorities and by public agencies such as hospitals. Start with schools, public buildings, retail areas, gyms, recreation centres. Making contestable funding available would encourage private organisations/businesses to follow the local authority's lead and provide parking at their buildings for both public and employee use.

3.2 START THE BALL ROLLING

The following actions should also become standard practice. They will take longer to implement, but should be started now.

- Reduce motor vehicle speeds, and the expectations of drivers. This issue is behind most of the fears expressed about cycling. Review the speed setting rules to find out whether their use is meeting the needs of all road users. Ensure that cycling groups are consulted as part of the speed setting process. Use traffic management and calming to discourage through traffic from local streets, and to remind drivers that they are sharing the road space with a variety of other users. Lower speed school zones should become the norm.
- Good quality travel surfaces: use smooth seal in place where cyclists are likely to be, i.e. in residential and shopping areas (also reduces noise nuisance), on off-road paths, and on the sides (including hard shoulders) of open roads that are used by cyclists. This not only makes for a more pleasant, less rough ride, it makes cycling easier because of the reduction in effort needed.
- 'Safe Routes to School' programmes (SRTS). The intent behind the SRTS concept is not just to increase safety, but also to improve transport choices, so funding should be made available to all schools & local authorities to develop SRTS programmes.
- Bring the rights of cyclists to use the road to the forefront of drivers' attention by setting a minimum clearance when passing a cyclist. Guidance is already given in the Road Code ("... give cyclists plenty of room when passing them. Ideally, allow at least 1.5 metres between you and the cyclist"). Certainly this would be hard to prove (and therefore enforce), but so is the current passing rule, although the intent is clear. ["A driver must not pass or attempt to pass another vehicle moving in the same direction unless sufficient clear road is visible to the driver for the passing movement to be completed without impeding or being likely to impede any possible opposing traffic."]
- Amend the traffic rules to allow bike racks on the front of buses, and establish a programme of installing them, beginning with hill routes and routes where there is no real alternative to cycling on a busy road. Many other countries (e.g. some states in the USA) have bike racks on buses as a matter of course, with no adverse effects, so there is no reason why NZ should not allow them also. Being able to take your bike on the bus, because you are too tired to bike back up the hill or because it snowed while you were at work, gives an added incentive to the hesitant cyclist.

3.3 FUNDAMENTAL CHANGES

It is not only the agencies that provide facilities and services which need to upgrade their cycle-friendliness index. There are still a number of key impediments to progress that need to be fixed, and there are many opportunities that could be taken to support and encourage improvements.

Again, these are things that should be started now, since it will take a while for some of them to have an effect on the ground.

- Develop solid implementation plans for the NZTS. Without serious commitment by official agencies (particularly central government, but also local government and Crown entities) to implement supportive policies, progress will always be patchy. The National Walking & Cycling Strategy will be a good start, but it will need a monitoring body to become more than just a nice idea. Implementation plans need to be a priority, because they set the scene for other agencies. They do not have to be perfect at the start - it is more important to get them in place, and refine them as progress is made.
- Promote good design of facilities (both general and cyclist-specific). There are two elements to this: better training of both designers and decision-makers is needed, and standards/guidelines need to be set and complied with (unless a very good case is made for not using them). It is also essential that a senior government agency (the Ministry of Transport is the obvious body) takes on the role of ensuring that both training and standards compliance are happening.
- Build a legal framework that makes it clear that all road users have a 'duty of care' if they could potentially harm other road users. Establish the principle that motorists have responsibility not to damage less protected species, and cyclists and pedestrians have responsibility not to cause crashes by doing something unexpected or illegal. Examples of revisions that would make a difference for cyclists are banning window tinting, and setting a rule for minimum lateral space when passing.
- A slightly longer-term action is to introduce legislation that puts the onus of proof on drivers if there is a conflict. Such laws are in place in other countries, notably the Netherlands, so it should not be hard to draft them. While in practice they are unlikely to be used very often, they establish the principle that those who have the greater capacity to cause harm should bear greater responsibility for avoiding collisions.
- Build driver awareness and an acceptance that cyclists need priority at certain points for reasons of safety and convenience. In part, this will happen as a result of installing facilities, but cycle-specific facilities will always form a minor part of any trip by bike, so there also need to be 'Share The Road' information campaigns at a national level.
- Raise awareness of the possibilities and benefits of cycling in the community. This type of promotional role has in the past fallen to organisations which have (in theory, at least) a more specific focus than encouraging cycling, e.g. the Health Sponsorship Council's excellent BikeWise unit. This has left them vulnerable to falling between the cracks of government funding streams, as each agency in turn says "not my primary responsibility". At the time of writing, BikeWise is being shut down for precisely this reason.

- Take cyclist crashes seriously. One of the more unexpected themes to come from feedback was the need for better follow-up by Police of crashes or near-misses when they are reported. The level of reporting is already low [see Wood 1999, Munster 2001, Langley 2003] and is unlikely to rise if cyclists feel they are a low priority when they do report an incident.
- Encourage private organisations to support cycling. Make contestable funding available for facilities: the UK's Cycling Projects Fund, administered by their Department for Transport, provides a model that NZ could usefully follow. Give incentives for participation (e.g. the 'BikeWise Business Battle'). Encourage local authorities to set benchmarks, so that e.g. including cycle parking in any developments becomes inevitable.

3.4 FUTURE WORK PROGRAMME

Cyclists are generally not unreasonable, and will accept that improvements are not going to happen immediately if they can see that problems are scheduled to be fixed in the relatively near future. Local authorities and Transit NZ should commit to a realistic programme of cycle-related projects in their 10-year plans, and deliver on it. Cyclists are not stupid - they do notice when promises are not kept!

- Cycle lanes or paths. These should be installed where possible and useful, but must connect up with other cycle facilities or destinations [see LTSA 2004]. Routes should normally be in view of populated buildings/areas. As well as being the most asked-for amenity by cyclists and potential cyclists alike, they have a significant role in promoting cycling to the wider public. Shared bus/bike lanes can be included in this category, but need to be properly sign-posted so everyone (including bus drivers) knows who can use them.
- Small cycle facilities. There are often small connections that can make a big difference to cyclists, making travel easier, safer or more attractive. These include: providing for and signing cycle access through road closures and traffic calming islands; contra-flow lanes, particularly when they provide a short-cut or avoid a busy stretch of road; and waiting bays protected by kerbing, to provide safe crossing points for intersecting paths and exposed right hand turns.
- Elimination of identified hazards. Remove pinch points (e.g. overly-large kerb build-outs at pedestrian crossing points), remove angle parking (or make it 'back in' only), remove parking to provide wider kerbside lanes, avoid roundabouts unless they have a 20 km/hr design speed, avoid 'free left turns', provide good hard shoulders (particularly on busy and higher speed roads), re-site service covers (a longer term action, but should be kept in mind when road maintenance is done), fix drain gratings (can be done progressively, using local cyclists to identify the ones that they see as the biggest problems - set aside a certain budget per year, but do them properly so they don't have to be re-done in a couple of years).
- Low-speed traffic zones. Cyclists don't always need specific cycle facilities, just a nice environment for cycling in. There are lots of non-cycling benefits from low-speed zones too, e.g. reduced crashes, a more attractive shopping environment.
- Improved access to public transport. Provide easy access to trains: instal flip-up bench seats or bike hooks, and mark the doors where cyclists should enter). Develop good routes for biking to stations/stops. Ensure that bike parking and lockers are available at major stations/stops, in well-lit public areas.

4. GETTING MOVING

As outlined above, there are many simple things that can be done right now to make cycling more attractive. With many local authorities now having cycling strategies in place [see www.can.org.nz/technical/tech-rcas.htm for links to local strategies], and a national strategy imminent (hopefully), cyclists have high hopes that they will see real improvements to the conditions they experience.

Keeping that positive energy going is important, to avoid deep cynicism (and therefore negative feelings towards transport agencies) setting in. Cyclists want to see action: changes need to be noticeable in their daily journey.

Even just fixing a particularly hazardous pot hole can make a regular bike trip more pleasant. Adding a few improvements is encouraging. Those same improvements can also make the difference to someone who is tossing up whether to ride or not.

Developing a cycling strategy to schedule work on the more major projects makes good sense, but may not be necessary or desirable for the simple, low-cost improvements. Prioritising those can absorb staff time that would better be spent doing the actual work. So do the easiest bits first - the ones that occupy little staff time, the ones that are non-controversial, the ones that cost little or nothing. But don't stop there! Ask local cyclists - both regular and occasional - what they see are the biggest disincentives, and work out a plan to fix them.

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