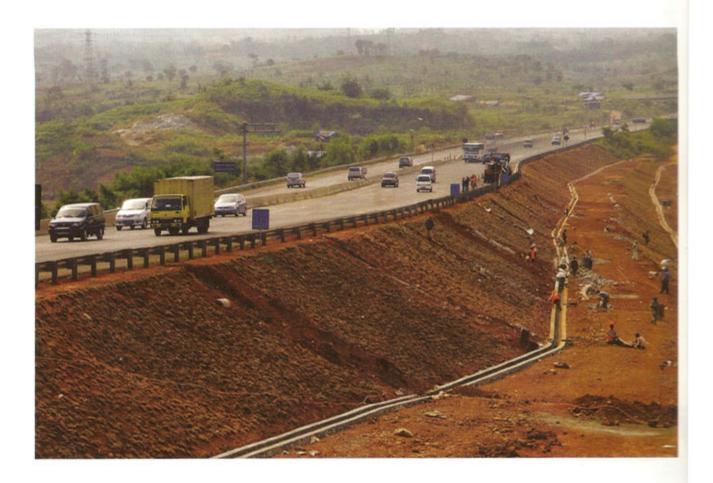
Infrastructure

by Scott Younger





Key issues behind the proposed new traffic bill

HE NEW TRAFFIC BILL, THE DRAFT OF WHICH WAS recently announced, indicates that the government will become liable for road damage and any consequent injuries and fatal accidents unless due warning is provided that a driver be aware that there is road damage ahead.

The bill applies to national highways, which are the responsibility of central government. These highways, comprising 35,000 km across the archipelago, make up some 10% of the whole network, the other 90% falling under the jurisdiction of provinces and regencies and lesser levels, such as districts (kecamatan).

Despite this apparently impressive length of network the nation still needs some further 1 million km of roads of all sizes, particularly at district level, to provide market access to underperforming rural communities.

The draft bill sets out chapters on settling traffic accidents; special treatment for the disabled and pregnant women, the elderly and children; traffic information systems; human

Axle load survey on nine routes in Indonesia

No		1950	1960	1970	1980	1990	2000
1	Bulukuma - Makassar	9	7	72%	26	12	46%
2	Pare Pare - Makassar	11	4	33%	33	13	39%
3	Palopo - Pare Pare	8	7	84%	35	30	86%
4	Mamuju - Pare Pare	7	3	37%	30	12	40%
5	Marisa - Gorontalo	7	3	50%	36	7	19%
6	Kotamobagu - Manado	6	2	32%	30	16	53%
7	Sumbawa Besar - Mataram	7	2	26%	35	18	51%
8	Malang - Surabaya	6	2	37%	35	28	80%
9	Rantau Parapat - Medan	13	4	33%	33	17	52%
		8	4	45%	293	153	52%

Source: Asia Foundation (2008)

resources; traffic safety and security; issues of overloading and payments; and clarifies the inter-jurisdictional responsibilities between the National Police, the Ministries of Transportation and Public Works, and local government administrations. Apparently the ojek has escaped mention!

All good stuff! But why is there such a major problem with the road network in the first place? Why are there so many damaged sections of road - according to the Ministry of Transport 65% of national routes - leading to the high accident level?

In addition, the cost of road transport in Indonesia, not just due to road condition, is the highest in Asia, and significantly higher than in many countries, as pointed out in a seminal report produced last year by the Asia Foundation.

The result of high transport costs means that drivers/ owners have to overload their trucks to offset them and make an acceptable return.

Hauliers are faced, in many parts of the country, with conflicting legal fees due to lack of clarity between central and local government rules, but furthermore have to deal with a variety of illegal payments in the more remote areas of the country.

Second, while there are weigh stations at various locations along main highways, these are too few in number, often have operational problems and, in some cases, can be bypassed through mutually suitable but illegal payments. This important critical function obviously needs attention!

Destroying roads

THE IMPACT OF OVERLOADING ON ROAD SURFACES CAN BE devastating, leading to early break up. The table below shows the average overloading measured on nine major highways; the one markedly lower value in Gorontalo reflects the impact of hillier topography as well as a measure of success in rationalizing transport charges by the local administration.

The impact of overloading on standard pavements, something that is very prevalent across the main routes of the north Java plain, is considerable, although the table shows that the problem

is common to other parts of Indonesia as well.

The rear axle load of the truck shown in the attached figure approaches three times the load that has been accepted as a world standard for design of pavements, and this load has an impact of over 100 times against standard in terms of contribution towards reducing potential pavement life.

Should a given road pavement, in addition, have some weak points, either through poor design or construction, or provisions for

drainage are poor, all too commonly found in many countries, then the pavement will be highly susceptible to cracking, which will then quickly show up, followed by potholing.

If no remedial action is taken the road will soon thereafter break up. In short, lack of control of overloading is a serious problem, and a major contributor through damage to traffic accidents.

For the truck shown, so heavily loaded was the back end that the front wheels were partially uplifted, providing little traction for the driver in steering, and therefore the vehicle was a hazard to other drivers on the road.

I have been involved in building, inspecting and dealing with failed roads in several Asian countries over the past 30 years. While all countries have a problem with overloading, the level of overloading taking place in Indonesia ranks with the worst.

Much of the onus of responding to repairs falls directly on the Ministry of Public Works and its decentralized offices, or on regional public works offices, as appropriate. The extent of damage manifest reflects on poorly administered maintenance policies, largely reactive rather than preventive.

Some of this problem can be directed towards the considerable amount of funding that would be needed from the annual budget in order to start catching up on a backlog that has been growing over the years, against a budget which has been well below requirement over the past decade, albeit for reasons well understood.

While the condition of the network is a reflection of the administration's response to incipient and real damage, it is also a function of the staffing and skills available to carry out effective maintenance programs to minimize cost before complete failure takes place.

There remains a continuing serious problem of shortage of capacity, both in number and appropriate skills. GA

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