

ECONOMIC RISKS OF ROADS

OL ROT KAMAPIM PLANTI HEVI LONG MONI

1. Road construction and maintenance costs are higher in steep terrain-

Wokim na stretim rot long ples maunten, kostim bikpela moni.

- ◆ Roads in steep terrain require more cut-and-fill operations, ditches, bridges, and tunnels, which can be very expensive
Wokim rot long maunten sait kamapim planti wok, bikpela moni tu. Kain wok olsem katim graun long narapela hap go pulapim, mekim baret, wokim bris, na digim hul igo insait long maunten.
- ◆ It can be very expensive to limit or pay for landslides, soil erosion, stream siltation, reduced water quality, and other impacts of roads
kostim bikpela moni moa long givim compensation long graun bruk, wara/wini karim graun wokabaut, wara bilong drin ibagarap, ol narapela hevi rot isave kamapim.



2. Road costs are higher in wet regions

2. Bikpela moni go long wokim rot long ples tais.

- ◆ Roads in wet areas, such as swamps and wetlands, require heavy subgrading and expensive drainage and earthworks
Rot kamap long ples igat wara, na tais i needim bikpela moni moa long katim graun, pulapim graun long tais, na mekim ol bikpela baret. Ol dispela kain wok i usim bikpela moni moa.
- ◆ Potholes in roads form quickly in wet environments: each decade, repair costs can exceed US\$11,000 per kilometer.
Ol liklik raun hul kamap hariap long ol rot istap long ples igat wara. Moni mak bilong stretim ol kain liklik hul iwinim 11,000 US Dollar, long wan wan 100mita. Long moni bilong yumi em wankain olsem 34,000 Kina.
- ◆ The usable lifetime of a road can be cut by more than 90% by heavy rainfall and flooding
Rot ino inap stap longpela taim, bikpela ren na bruk wara bai bagarapim rot hariap inap 90%.

3. Road investments are hugely eroded by poor governance

3. Moni blo wokim rot pinis hariap long pasin faul.

- ◆ Political instability, corruption, conflict, and nepotism can all sharply increase road-construction costs
Gavman ino wok gut, stil pasin, birua, na bihainim wantok pasin save hapim moni mak bilong wokim rot igo antap moa yet.
- ◆ Bribes to government officials in exchange for awarding a road contract can approach 15% of the contract's value.
Givim hait moni long gavman lain long kisim rot kontrak ihapim moni igo antap mak olsem 15%.
- ◆ Political conflicts can increase road-building costs by 30% or more
Birua pasin namel long ol gavman lain save putim moni mak bilong wokim rot igo antap moa olsem 30%.
- ◆ Up to 20% of a project's budget can be consumed by fraudulent costs
Ol giaman pasin tu bai pinisim moni bilong project olsem 20%

- ◆ Cartel demands can increase costs by 8-60%
Planti lain bai askim long kisim moni na em bai go antap long 8-60%.

4. Road impacts are high in wet tropical regions

4. Rot save givim bikpela hevi long ol kantri istap long ples hot.

- ◆ Roads built in inappropriate locations, such as floodplains or steep mountains, can cost governments and investors billions of dollars
Ol rot we ol imekim long ples wara save tait, or sait maunten, gaveman save westim million kina.
- ◆ Downstream fisheries, agriculture, recreation, and aesthetics can be severely damaged by poor road building
Liklik wok bisnis olsem piseris, didiman, pilai na amamas, na ol gutpela ples ikisim bikpela bagarap taim rot ol ino wokim gut.
- ◆ In sensitive ecosystems such as peat swamps, the costs of repairing road damage can be greater than the economic benefits generated by the road
Long ples nogut we igat planti wara, long stretim ol rot bai kostim bikpela moni moa.na long kisim sevis em bai liklik.
- ◆ Reduced water quality and flooding can cost local governments up to US\$15 million per year
Long wanwan yia, gavman bai usim moni mak olsem US15million long stretim wara i bagarap na wara bruk.

5. Most road-risk assessments are inadequate, creating big risks for investors

Planti wok painaut long ol hevi ol rot bai kamapim ino stret.

Dispela ino gutpela long ol lain igat moni long wokim rot.

- ◆ Many risks are not apparent or explained clearly by road proponents
Ripot ino save tok kilia long ol hevi rot bai kamapim
- ◆ Environmental and social protections are often poorly assessed in large road projects
Ripot bilong ol bikpela rot projek, ino save lukluk long ol hevi bai kamap long bus, graun, wara na ol man.
- ◆ The high mitigation costs of poor road building can greatly increase economic risks for investors
Long stretim ol bagarap kamap long ol rot we ol ino wokim gut save pinisim olgeta moni
- ◆ Investors are often reluctant to fund mitigation or offset measures
Ol moni lain i les long givim moni long stretim ol hevi or stretim ol man.

THE GREATEST ECONOMIC RISKS COME FROM BUILDING ROADS IN INTACT FOREST TRACTS, IN AREAS WITH WET OR STEEP TERRAIN

WOKIM ROT INSAIT LONG BIKPELA BUS,O GRAUN IGAT WARA, NA SAIT MAUNTEN INO INAP BRINGIM GUTPELA SEVIS.