



Motumate Stream, Kaitangata Station area, looking south west towards Te Karaka on the Waipaoa River. In those few areas where forest remains the slopes are relatively stable. Photo: Lloyd Homer, Geological Survey

problems and solutions?

The seeds of destruction were laid in our pioneer culture which assigned too freely individual rights with property ownership. Today these rights are infringing the wider rights of the East Cape community.

It is not as if we have not known what we have been doing – today or in the past. In 1896 Sir James Hector, founder of the New Zealand Institute, warned that the elimination of the East Cape forest cover would result in widespread erosion. His warning, like dozens since, went unheeded. The land was privately owned and common sense could only stand aside as property rights were exercised and the bush felled.

Today the East Cape waits exposed and unprepared for the next cyclone. Inadequate

measures have been adopted to reduce the area's vulnerability to further disaster. A study by the Ministry of Agriculture and Fisheries has this to say:

"The region is now more vulnerable to a Bola type disaster than at any time in the past;" and:

"There is no strategy in place which is effectively diminishing the region's susceptibility to a repeat of the Bola disaster."

Existing strategies

This does not mean that there are no strategies in place. What it does mean is that the existing strategies are too small in scope, too slow and poorly directed. However the East Cape has a number of peculiarities that make it difficult to arrive at an effective solution.

The region has about 240,000 ha of hill country in a variety of unstable sandstones

and mudstones. Of this, 140,000 ha is zoned as erosion category 2 land, having "moderate to severe" erosion. It is on this category 2 land that the Bola-induced surface slipping looks so appalling and has destroyed so much grazing. A further 100,000 ha is zoned category 3 erosion land, having "extreme" erosion. These predominately mudstone hills are collapsing and it is this major structural collapse that provides the most serious challenge and threat.

Paradoxically it is the unstable mudstones that are the most fertile, and in their short history between forest and slump, have provided some of the most productive hill country grazing in New Zealand.

It is from these more fertile and erosion-prone mudstone hills of both the north and south that stock and farmers should be most urgently removed, but it is precisely from this land that farmers will not shift. The reason is the unusual fertility of the soil. Even after Bola, many of these farms have a superficially