

Sri Lanka: Meeriyabedda landslide tragedy

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This is not the time to say, “We told you so.” But when is it not the time to warn of potential but preventable disasters, such as floods and landslides? We mourn the dead at the Meeriyabedda estate and feel the pain of those who have lost their parents, siblings and spouses. We must also raise the alarm that more flooding and landslide disasters are in the offing if preventative actions are not taken, and not taken promptly. Preventing disasters, epidemics, and human violence, and taking proactive steps to minimize their impacts, must be the first order of political business. Everything else must rank lower, if sustaining and improving human life is the main purpose of politics. And politics is most needed for the protection of the most vulnerable in society. The hundreds of estate workers who perished under a mountain of mud in Meeriyabedda were among the most vulnerable in Sri Lankan society. We failed them. We failed them because we did not light fire crackers under the backsides of our politicians and force them to do something worthy of their office, perks and power. All the more so when they have no fire in their bellies for positive self-propulsion.

Friday’s Island reported a statement by Prof. Athula Senaratne, Geologist and Peradeniya University Vice Chancellor, that the plantation authorities have been warned for years that the Haldumulla area is prone to landslides and that people in the area should be relocated to safer areas. But no action has been taken. Prof. Senaratne went on to warn that areas in Kandy including the Hantana hill are prone to landslides. More than three years ago Engineer Mahinda Samarasinghe wrote articles making similar warnings about the potential for landslides in Kandy. I echoed those warnings in this column (*Sunday Island*, March 19, 2011) and suggested a systematic involvement of the military in disaster prevention measures rather than using post-war soldiers to fill potholes, sweep streets, sell vegetables, act as airline agents, or go bullying in Jaffna.

Technically speaking, landslides have many causes, including geological, physical and human factors, which make a certain area vulnerable and ‘ripe’ for sliding, and disaster happens as a result of one trigger mechanism. In Sri Lanka and countries with similar climate and terrain conditions, heavy rainfall is the common culprit triggering landslides. Too much water is doubly dangerous because it builds pressure on the slope forcing it to slide, while softening the surface resistance of the soil against sliding. In May 2003, one heavy rainfall triggered hundreds of landslides leaving 266 people dead, 15,000 homes destroyed and 26,000 damaged, and nearly a million people temporarily homeless. All the havoc was in five southern districts, Ratnapura, Kalutara, Galle, Matara and Hambantota, with Ratnapura suffering the worst from landslides. Last week, one heavy rainfall was enough to trigger the landslide at Meeriyabedda burying over hundred lives. How many more landslides and how many more deaths will there be, before the current rainy season is over?

Prof. Senaratne has made a plea to the residents of the hill country to take utmost care in the disposal of water from their properties to safeguard not only their properties but also their neighbours’ properties, especially those downhill. While individual household efforts in managing rainwater runoff are necessary, they are not sufficient because the problem is much larger. With 20 million people in 25,000 square miles, the settlement areas in Sri Lanka have irretrievably altered the island’s drainage patterns, reducing infiltration and increasing runoff. The absence of storm water management to deal with increased runoff has made matters even worse. Lack of proper road drainage is another serious problem. The upshot is floods in the low country, and both floods and landslides in the upcountry. Add to this the changing global weather pattern: whether due to global

warming or not, recent years have seen the incidence of very localized (only in parts of a city), high intensity (even equalling the intensity of 100-year rainfall) rainfalls of short duration (about an hour), that cause maximum damage. Even the best planned drainage systems take a beating from such downpours, and what happens where there is no drainage system whatsoever – as has been Sri Lanka's recent experience.

The answer, therefore, requires a great deal more than individual household efforts to manage drainage. And the problem cannot be solved magically in a hurry by sending soldiers to clean drains. The long term answer requires concerted efforts at the institutional, technical and behavioural (individual property) levels. Drainage and storm water management must be part of the design of every property development and the abutting road system, and then the onus will be on the property owners to maintain drainage system on their land while local authorities take care of roads and public areas. In places like the estates, the plantation management must take responsibility for providing and maintaining a proper drainage system. Technically, there is enough expertise in the country to develop design criteria, standards and guidelines for establishing drainage systems everywhere. What is lacking is the institutional arrangement at every level of government to establish, regulate, enforce and maintain them.

Even with a proper drainage system in place, there will be areas in the up country which are vulnerable to landslides because of soil and subterranean conditions and human activities. Apart from building, deforesting, quarrying, mining, and total absence of erosion and sediment control contributing to increased runoff and flooding, they make areas vulnerable to landslides. It is about these areas that geologists and engineering professionals have been raising alarm from time to time, but receiving little attention from those in power. As a more systematic approach, if such information is not already available, all of upcountry areas could be mapped to identify areas of vulnerability according to their risk of occurrence. Based on this information, pro-active engineering measures could be undertaken to reduce the risk of vulnerability. Where the risk cannot be significantly reduced, steps must be taken to relocate people from highly vulnerable areas to safer places. Mapping, identifying, and risk assessment of vulnerable areas should be the task of the central government, while implementing drainage systems and land restorative measures, and maintaining them should be undertaken by the provincial and local governments. The resources of the military, as I suggested in my article three years ago, could be better deployed in undertaking major drainage and land restorative works than being wasted on city pavements.

The Meeriyabedda tragedy could have been avoided if successive governments after 2003 had taken proper preventative measures. At least part of the huge investments in the so called infrastructure development projects could have been diverted to preventing floods and landslides. The tragedy of Meeriyabedda is more pointedly the tragedy of misallocation of resources in the Uva Province itself. Just a few months ago the drier part of the Province, the District of Monaragala, was afflicted by a severe drought due to lack of rain, and the government was forced to bring water bowsers to provide water on the eve of an election. Now too much rain is unleashing landslides in the abutting wet zone of the Badulla District. While the government is conveniently blaming estate managements for the Meeriyabedda tragedy, the missing story of resource misallocation in the resource-starved province is the investment on diverting Uma Oya down south primarily to meet the water requirements of the Hambantota harbour and the airport!

While Prof. Senaratne was raising alarm about impending landslide disasters, another Peradeniya don was interviewed last week to sing the praise of Executive Presidency. His main point: it gets things done! Such as diverting water, the wag will add, to feed white elephant infrastructure, disregarding all the hydrological, cost-benefit and environmental questions that have been raised by people long familiar with government files and reports over several decades, on in-basin and trans-basin development projects. The main rationale for the project seems to be that it is sponsored by

Iranian money and expertise. My diversion to berating Executive Presidency has given me a convenient segue to finish this piece by connecting with the point about politics and disaster prevention I made at the outset. The origins of the Sri Lankan Left movement were in the trenches of the fight against the Malaria epidemic. Political programs and theories later grew out of the selfless experience of dedicated, highly motivated, and extraordinarily qualified individuals. The final burial of their legacy, as reported last week, came with the resolution of the Central Committee of Lanka's oldest political party to support Mahinda Rajapaksa in the anticipated presidential election, even though Mr. Rajapaksa has not formally declared his candidacy. Sadly, the resolution coincided with the Meeriyabedda tragedy. With such resolutions to support him, why does President Rajapaksa need Pope Francis to bless his re-election?

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*http://www.island.lk/index.php?page_cat=article-details&page=article-details&code_title=113333