

Rural development in eastern Indonesia

In recent days, along with colleagues, I have had the opportunity to look at potential projects in the micro/mini hydro area in eastern Indonesia. It was instructive to get well away from Jakarta to see what is or should be happening for the development of eastern Indonesia.

Some good developments have taken place since I was last in the area four years ago, but much remains to be done. There are still many small rural communities without access to off-grid electricity.

While eastern Indonesia, excluding the major gateway city of Makassar, has some significant towns like Ambon, Kupang and Jayapura, most towns, which are generally coastally located, are small and a focal point for many small hinterland communities.

While micro hydro can provide a

solution to locations with a reliable, albeit small flow of water supply, and in some cases this can be an adjunct to an irrigation scheme, there are still many villages that could be served with solar panel solutions.

My East Bali Poverty Project has had the benefit of solar power at its six schools for more than a decade and these are functioning well and are easily maintained by the communities where the schools have been located.

However, that is not too often the experience where solar panels have been issued to villages in eastern Indonesia. Panels lie misused and disused; in one case a panel was put to a different use, i.e. a table-tennis table!

This obviously relates to a serious breakdown in communication between the installer and the community, assuming that the

installation was properly implemented in the first place. There is no rocket science in taking care of a solar panel set-up.

Another positive use of a larger array is the added possibility of collecting evaporation water from the underside of the panel array, thus providing a small but significant source of clean water for a village. This is being done in the Indian sub-continent.

During a recent visit, British Prime Minister David Cameron announced the offer of a £1 billion loan for Indonesian projects. This has been followed up with a focus on financial assistance with solar power development, perhaps with recognition that eastern Indonesia sits in one of the sunniest areas of the world, with a healthy daily number of sunshine hours.

It is very clear that there needs to be a much bigger focus on using this clean renewable resource for providing electricity to the communities of eastern Indonesia, something identified by the previous





government but not followed through.

Looking at eastern Indonesian electricity requirements as a whole, it is evident that renewable solutions should be prioritized when seeking to resolve the need of a given community or wider district.

Connecting remote communities

Transport connectivity is also vital for small, off-the-beaten-track communities and, in eastern Indonesia, this applies to road and sea links in particular. The president's support for the development of good sea links across the archipelago through the Maritime Highway is especially important for the heart of eastern Indonesia.

The population of about 10.8 million is well scattered over a wide range of islands that comprise West and East Nusa Tenggara and Maluku, with the larger land masses of Papua with a population of 3.5 million and Sulawesi with a population of over 12 million providing eastern and western boundaries, respectively, to this area.

Port and shipping links have needed improvement for many years and attention to this, which is high on the agenda, is expected to significantly improve the foundation of growth in these eastern islands and what could be closer working links to Papua and Sulawesi.

Obviously, with such a scattered population, there is also a need for strategically placed small airports, apart from the larger domestic links that are obviously required to serve the main centers such as Ambon (population 330,000), Kupang (350,000), and Jayapura (256,000). It is understood that these improvements will take place systematically by way of the government budget.

The key population centers and port cities of Ambon, Jayapura and Kupang will also be the focus of regional



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urbanization in line with the national urbanization trend, and encourage the development of good service industries to support the traditional industries.

Both ports and airports need good on-land connections and within all of this area there is much to do to not only improve the existing road network but also add to it. On the positive side, following the opening of a new airport, some important road improvement projects have been carried out in Lombok in recent times and the impact

on the bustle of business is clear as it starts to emerge as a serious tourist destination.

Indonesia's road network is 90% the responsibility of regional jurisdictions and, as a result of having the lowest road density across the countries of Asia, the area bears very high land connectivity costs. Too much of the existing network is in poor condition. Combined with poor shipping connectivity the logistics costs for the movements of goods in the area are some of the highest in the world.

In summary, eastern Indonesia requires investment in all areas of infrastructure in order to achieve an acceptable and sustainable growth rate, albeit in total terms the amount is considerably less than that required for Java.

There is a wide range of valuable agricultural products that grow well in eastern Indonesia and the seas are rich in fish, as well as providing a spawning ground for the Pacific Ocean. There is no doubt that all of this would hugely benefit from better infrastructure connectivity and people would be better off. Lombok, as mentioned, is a good case where improving the ability of people to connect is already showing benefit.