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# Productive Land and Water Resources Utilisation

***By: Ir. Ayob bin Katimon***

Naturally, Malaysia is endowed with ample productive land and fresh water supplies. Gifted with very fertile soil, supported by more than 2,500 mm of annual rainfall (three to four times higher than the United Kingdom, the Netherlands, USA, France, and double that of Japan, Australia, Korea and Taiwan) and a dense network of rivers and streams (about 150 major river basins), Malaysia can become a leading country in terms of land and water resource-based products such as agriculture, eco-tourism and the like. Though distinct droughts are observed in certain parts of the year, in simple logic, the term "water shortage" should be a "non-issue", if proper land and water management is practised.

Let us look at some statistics which benchmarks Malaysia against other industrial countries, in terms of productive land and water utilisation. How could US farmers be so successful in producing grain, fruit and dairy products while having poor soil fertility (shallow top soil, rocky, desert and swampy) and little rainfall (an average of 500 mm per year)? How could Japan be self-sufficient in rice and food while having small-sized farms (averaging 3.25 acres per farmer)? How could Holland become one of the world's largest exporters in flowers and food products while having a small land mass (as big as Pahang State) and having problematic land resources (mostly coastal land and reclaimed areas)?. How do we explain millions of sheeps and cows grazing peacefully in New Zealand when it has so little flatland (mountain ranges and hill country dominate New Zealand's landscape) and has extreme rainfall patterns (range from 400mm to 12,000mm annually)? And how could the United Kingdom manage to devote approximately 75% of its total land area to all forms of agricultural use and around 11% of the same to forestry and woodland reservations and yet, still manages to be widely recognised as an industrialised nation? In Europe, one would wonder how the 1,320 km Rhine River that passes through 6 heavy industrial countries such as Switzerland, Luxembourg, Austria, Germany, France and the Netherlands, is still highly sustainable for all sorts of aquatic life (over 60 species of fish are present in the Rhine river basin.)

In short, while having little in terms of land and water resources, these countries still manage to be productive in various aspects of agriculture and wildlife. The environment of these industrial countries is kept preserved and under control, the river water is healthy and well-protected, and the rural landscape is beautifully and properly arranged, so much so that they still manage to attract tourists from all over the world. From a natural resource management point of view, the answer is quite simple. The availability of land and water resources in these countries are managed and utilised precisely through a combination of scientific innovation and proper planning strategies. In addition, besides stringent regulatory procedures, the planning and management of land and water resources in these countries are well-structured and keenly integrated through significant involvement from various levels of society (from the legislation to the public). In short, proper land use and water resource management are being practised and clearly spelled out in every planning stage of a particular land area.

What about our country's land and water resources? Can we really be satisfied with the current scenario? Do our local land development activities align with the welfare and protection of the respective watersheds and the river basins? Have our local institutional parties (Federal and States Departments, private sectors and individual landlords) been coordinating and cooperating for the common goal of "sustainable land and water resources utilisation and management"? The Water Resources Technical Division of IEM plays a major role in championing this issue. In a particular technical session, I suggested the possibility of employing a qualified water resource engineer to be in charge of the welfare of land and water resources of a district (or a river basin). This person can act as a "land and water steward" of a particular district or river basin and he/she can work closely with the District or Land Office. By having this resource in place, I believe that any land and water activities taking place within a district or river basin will be more carefully planned and coordinated. ■