

Honoring a Down to Earth King on World Soil Day

He sat at the pinnacle of His society, but constitutional ruler King Bhumibol Adulyadej of Thailand was a monarch and a man who was down to earth. For much of His 70 years on the throne – the longest reign of any monarch at the time of His passing – King Bhumibol traveled to the poorest and most remote corners of His Kingdom, sitting on the ground with farmers and villagers, listening to their problems and responding with over 4,000 sustainable development projects to better their lives. Many dealt with improving water, agriculture, livelihoods and health. As one of His closest aides said, however, “we were always confronted with soil issues.”

Those issues could be vexing. But the late King’s innovative solutions to soil problems earned him the first Humanitarian Soil Scientist award from the International Union of Soil Science in 2012. In 2014 the United Nations designated His Majesty’s birthday on December 5th as the annual World Soil Day and the year 2015 as the International Year of Soils, with events held in New York, Rome, Bangkok and cities around the world. In a message to the UN, the late King said that in order to ensure “viable, long-term food security and a sustainable ecosystem, [soil] issues must be addressed as an urgent priority.”

Most people take soils for granted. Soils, however, are as essential to life as the air and water. Healthy soils support food production. The forests and fields they nourish host one quarter of the world’s species, and are a source of fuels, medicines, fibers and animal feed. Soils store and filter water, and play a crucial role in preventing and mitigating climate change by absorbing and storing massive amounts of carbon. Healthy soils are essential for a sustainable future.

But soils are a finite resource. Just 22 percent of the earth’s land surface can be used for producing 95 percent of our food. One third of that has been degraded by erosion, contamination and desertification, with much of it damaged in the last half century. “The world status of soils is quite scary,” said Claire Chenu, a soil scientist at AgroParisTech. As Jose Graziano da Silva, Director-General of the Food and Agriculture Organization noted, it can take up to one thousand years to form one centimeter of soil. “And this same centimeter can be destroyed in only a few minutes.”

That type of destruction was evident to King Bhumibol when He visited the community of Huai Sai in the province of Petchaburi in 1983. The late King looked out at a former forest reserve and saw a dry and barren landscape – except for rows of pineapple plants. “This place will become a desert,” He predicted. In their desire to earn more income, farmers had plunged into monocropping – planting a single crop while eliminating all other vegetation and

upsetting the natural balance of the ecosystem. The soil had been sapped of its vital nutrients, and chemical fertilizers could restore them for only a limited period. It was a problem plaguing farmers in many parts of the world.

King Bhumibol initiated a holistic program to restore the area. Today, Huai Sai is a mixture of thick forests with abundant wildlife, family farms and gardens, along with agricultural, environmental and community projects. The late King's approach encompassed principles He would later crystalize in His theory of Sufficiency Economy in 1998. Rooted in the Buddhist ethos of moderation and balance, the Sufficiency Economy is a set of principles designed to minimize risk and build resilience to internal and external shocks. Its principles can be applied not only to family farms, but also to national economies and other professions.

In 2007, the United Nations Development Programme wrote the "Sufficiency Economy has great global relevance during these times of economic uncertainties, global warming and unsustainable use of natural resources. It places humanity at the center, focuses on well-being rather than wealth, makes sustainability the very core of the thinking."

The approach advocates diversification. Farmers are urged to build ponds for fish breeding and irrigation. Instead of one cash crop, they grow and rotate several using natural, organic fertilizers and pest management. Diversification protects against fickle markets, and sustains soil health. "He always says 'use nature to restore nature,' " said Sumet Tantivejkul, who oversees the King's projects at the Chaipattana Foundation, a non-governmental organization implementing developmental projects that are in line with royal initiatives.

In northern Thailand the late King planted rows of vetiver grass – dismissed by some as a weed – to prevent the erosion destroying vital watersheds. He would use it in the Northeast where vetiver's deep roots and ability to draw nitrogen into the earth would hold the dry, sandy soil in place and enrich it, increasing yields for poor farmers. In the Deep South, He would use other innovative methods to turn tens of thousands of hectares of peat swamp into productive farmland.

Even though King Bhumibol is no longer with us on this December 5th, millions of Thais and others who appreciate His legacy turned out to honor and show their love for him at home and abroad. Many will commemorate His achievements in sustainable development, science and even the arts. And many will also realize the day is World Soil Day, when environmentalists and soil scientists in every corner of the earth pay tribute to the late King whose name, Bhumibol, means "Strength of the Land."

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