



## Nature:

### *Forests, Farms, and Water*

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You can't just demolish everything.

—JAKARTA GOVERNOR JOKO WIDODO

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Indonesia's President Susilo Bambang Yudhoyono is dressed informally—slacks and an open-necked shirt—and pointing off-camera. Beside him is Foreign Minister Marty Natalegawa, more formally dressed—dark suit, white shirt, and striped tie—and wearing a slightly bewildered expression.

The foreign minister's strained look is understandable. For all their seeming normality from the waist up, in this extraordinary photo the then-president and the foreign minister of the world's fourth most populous country are standing in calf-deep water, their trousers rolled up past their knees, in the presidential palace in downtown Jakarta. Floodwaters had rolled through the city, and on the streets outside the palace, cars were stranded. More than two dozen people were killed in these January 2013 floods after a mere one hundred millimeters, or four inches, of rain fell on the city.

This sort of occurrence is all too frequent in Jakarta and many other Asian cities. In 2007, guests had to be ferried out of one of Jakarta's posh Four Seasons hotels in plastic laundry tubs, part of an evacuation effort that affected more than 300,000 people.<sup>1</sup> As metropolitan Jakarta, home to more than twenty-eight million people, destroys mangrove swamps and other water absorbers, flooding will be more and more frequent. After the 2013 floods, Jakarta Governor Joko Widodo (who in October 2014 succeeded



Indonesian President Susilo Bambang Yudhoyono (second from left) and Indonesian Foreign Minister Marty Natalegawa (left) inspect the flooded Presidential Palace in Jakarta, Indonesia, on January 17, 2013. Photo credit: © Xinhua/Dudi Anung/Corbis

Yudhoyono as president) noted ruefully: “The Dutch built 300 dams and lakes, but there are only 50 left. The wetlands, woods and other green spaces north of the city have been taken over by housing complexes and malls. You can’t just demolish everything.”<sup>22</sup>

The environmental challenges posed in the wider natural world are some of the most difficult. First, by definition, these areas are the largest. They encompass forests, farms and plantations, rivers, and oceans. Loggers, farmers, and fishermen—the people who exploit forests and oceans for their living—are literally living on the margin of the human world. Many—and in Asia certainly most—of the people who work the fields, forests, and oceans are poor, more concerned with scraping out a daily living than with worrying about climate change or biodiversity or sustainable development.

Water is a particularly challenging issue. Water covers three quarters of the planet and makes our Earth unique in our solar system. It is a basic need, something we require for survival; none of us can live more than a few days without water.

Still, we often treat our water sources as a sewer. The situation in much of Asia is alarming. The Asian Development Bank says pollution levels in Asia's rivers are four times the global average and twenty times levels set by the Organisation for Economic Co-operation and Development. Fecal waste averages fifty times World Health Organization guidelines. Water shortages are likely to be exacerbated by climate change, especially in China and India, as drought follows the melting of Himalayan glaciers.

Water is mostly used in agriculture. There is not very much good news. National policies have rarely treated water as a scarce commodity. In India, free electricity supplied to farmers allows them to run ever-deeper pumps that deplete water sources. It is left to forward-looking parties to fight this trend—for instance, Esquel, a Hong Kong-based textile company, has helped cotton farmers in the arid western Chinese province of Xinjiang finance the installation of water-saving drip irrigation systems in an effort to mitigate the impact of cotton growing, the most water-intensive part of its shirt manufacturing business. Esquel and other companies and governments that are encouraging innovation in water use are the focus of chapter 6.

Consumers can play an important role in sparking change. This is a significant difference between agricultural and marine products, especially food and other consumer goods, and the areas of energy and the urban world discussed in the first two parts of this book. Consumers cannot stop China from building more coal plants and have at best an indirect effect in promoting green buildings and more energy-efficient cities. Even the relative popularity of fuel-efficient vehicles and gas guzzlers to date owes as much to government policy and the relative availability of subsidies and charging stations as to consumer choice. But consumers can have a significant impact when it comes to natural resources like water, forests, and the biodiversity they promote.

The importance of Western consumers was dramatically shown in the reaction to a 2010 Greenpeace spoof advertisement savaging Nestlé for its contribution to tropical rain forest deforestation. That attack ad, discussed at greater length in chapter 7, prompted an overhaul of Nestlé's palm-oil procurement policies. In timber, too, major wood buyers are insisting that Asian suppliers hew to Western standards. Ikea's furniture-buying strictures are helping to reform forestry practices from Borneo to Siberia. Indonesian forestry giant Sinar Mas in early 2013 announced sweeping changes to its forestry practices in response to supplier pressure. Palm-trading colossus Wilmar did the same later that year, for the same reason. Whether it is to

stop the felling of old-growth forest for logs used to make tissue paper or furniture or the purchase of agricultural commodities such as palm oil and coffee that are being grown using environmentally unsustainable methods, the most effective way to effect change has been through image-conscious multinationals.

Forests, farms, and water: both figuratively and literally, these areas comprise a vast amount of territory. The following two chapters, comprising the last of the book's three main parts, examine the major challenges, the opportunities for change, and some of the companies that are doing the most innovative and promising sustainability work.