With regular earthquakes, volcanic eruptions, tsunamis, floods, forest and land fires, Indonesia is more vulnerable to natural disasters than most other countries. Over the last 30 years, Indonesia experienced 289 significant natural disasters per year, with an average annual death toll of approximately 8,000. The period between 2004 and 2010 was especially calamitous, beginning with the Indian Ocean earthquake and tsunami, which claimed almost a quarter million lives and left half a million homeless. After a series of earthquakes and tsunamis in Sumatra and Java in the following years, 2010 brought a volcanic eruption in Java, which destroyed almost 3,000 homes and displaced 350,000 people.

In 2007, the Indonesian government enacted the Disaster Risk Management Law, authorizing the creation of a National Disaster Management Agency (BNPB) whose broad mandate includes overseeing the development and application of disaster management and disaster risk reduction plans at national and subnational levels. Subsequent national development plans (2010-2014, 2015-2019) have included disaster management priorities and policy aims, and have provided BNPB with a 500 percent budget increase. Still, disaster management funds remain below one percent of the total national budget, and the capacity of BNPB to produce and use risk data and information, especially geospatial data, needs to be further strengthened. These constraints and capacity limitations are also a challenge for local level disaster management agencies across Indonesia.

Meanwhile, rising sea levels and changing weather patterns associated with climate change pose grave threats to Indonesia, which has the world’s second longest coastline and large coastal populations, and some of the highest rainfall rates. Rapid urbanization exacerbates the effects of climate change due to infrastructure deficiencies. Pervasive trash and debris, and high volumes of storm water runoff from increasing built-up areas and impervious pavements worsen flood damage. With 40 percent of Jakarta below sea level and sinking an average of 3 inches per year, the growing frequency and severity of annual floods compelled the president to spearhead a $40 billion investment in a 15 mile outer seawall and 17 artificial islands in order to buffer Jakarta’s bay. Meanwhile, the city’s flood management system, including the drainage system, needs large scale rehabilitation, which requires systemic, network-wide intervention. Low income communities are disproportionately impacted by natural and man-made disasters. Such communities often sit in riverbeds, lowlands, and other flood-prone areas. In Jakarta, centrally located riverbanks are popular settlement areas among poor households which are drawn to the cheap (or free) land prices and easy access to employment, retail services, and other urban amenities.

Given the scale and complexity of disaster risk in Indonesia, government agencies have been working with international organizations and local civil society to nurture community resilience as a scalable and efficient approach to disaster risk management. Because most households have recently experienced natural disasters and are acutely aware of their negative impacts, they are willing to undertake tangible action at the community level to reduce disaster vulnerability. For example, in the aftermath of disasters in Aceh and Java, community-led approaches to reconstruction have empowered local groups to co-design and construct their homes, villages, and local infrastructure. Aside from reducing reconstruction costs, such efforts can promote better planning, skills training, and income generation thereby enhancing disaster readiness and resilience.

The rapid expansion of the physical assets of cities requires both a credible regulatory framework and a healthy market that can translate this growth potential into preventive and risk management investments. Several concrete policy options can be considered to enable Indonesia to reap the full benefits from urbanization, while leveraging growth to build more resilience.

A national program on hazard micro-zoning providing detailed instruments for incorporating resilience into site design and construction standards; Financing framework for both urban, housing and property development that incentivizes investment with built-in resilience linked to disaster insurance; and

A national program on urban upgrading and ecosystem rehabilitation to increase the resilience of existing settlements and urban infrastructure as part of the greening of Indonesia’s future growth.


Dalam mengatasi masalah ini, pemerintah telah membuat Program nasional mengenai perbaikan perkotaan dan rehabilitasi daerah rawan bencana, yang menjadi dasar hukum pembangunan Indonesia kedepan yang ramah lingkungan.


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Air pollution from both traffic and regular forest fires pose a significant hazard to public health in Indonesian cities. The PSI index during the time this photo was taken in Medan, on the island of Sumatra where large forest fires occur every summer, was above 400.

Polusi udara, baik dari lalu lintas maupun kebakaran hutan yang rutin terjadi, menimbulkan bahaya besar terhadap kesehatan masyarakat di kota-kota Indonesia. Indeks Standar Polutan Udara (PSI) ketika foto ini diambil di Medan, yang berada di Pulau Sumatra tempat kebakaran hutan besar terjadi sepanjang setiap tahun, mencapai lebih dari 400.
In 2008, the service sector overtook agriculture as the sector accounting for the largest proportion of jobs in the Indonesian economy, excluding transport, communication and financial services. However, labor productivity for these new jobs is rather low: workers living in cities have not had access to productivity-enhancing infrastructure, grown internet connectivity, and efficient mass rapid transport, while facing elevated prices due to transport and logistical inefficiencies.

THE SERVICE SECTOR IS THE LARGEST/FASTEST GROWING BUT LEAST PRODUCTIVE SECTOR OF THE INDONESIAN ECONOMY

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The service sector is the largest/fastest growing but least productive sector of the Indonesian economy.
From 1970 to 2012, every 1% increase in urban population correlated with an average per capita GDP percentage increase of 13% for India, 10% for China, 8% for Vietnam, and 7% for Thailand. On the other hand, the multiplier effect of urbanization for Indonesia has been less strong, as a 1% increase in urbanization has only resulted in a 4% increase in per capita GDP. It is likely that this lagging multiplier effect is related to challenges in urban planning, management and investment, explored throughout this exhibit.

Every 1% increase in urbanization has only resulted in a 4% increase in per capita GDP in Indonesia.

Lack of drainage and road infrastructure reduce the day to day mobility of the urban population and put people in direct contact with unfiltered runoff water that can carry diseases and pollutants.

Karenanya kurangnya drainase dan infrastruktur jalan membuat orang-orang langsung berkontak dengan air tidak terbasahi yang mengandung bakteri dan kotoran.