

## Environment

### PROMOTING GREEN GROWTH FOR SUSTAINABLE RESOURCE USE

- ▶ Indonesia is a resource-rich and biodiverse country. Economic prospects are favourable, but realising them will require placing Indonesia's development trajectory on a more environmentally sustainable path.
- ▶ Meeting the country's climate change goals as articulated in its Intended Nationally Determined Contribution (INDC) requires a fundamental change in its subsidy, investment and energy policies.
- ▶ Outdoor air quality is bad with coal-fired power generation, forest fires and unsustainable urbanisation patterns, which are causing premature deaths, illness and loss of agricultural yields.
- ▶ Ineffective issuance of permits by local governments for forestry and mining, coupled with inconsistent enforcement of permit legislation, has led to unauthorised deforestation and illegal mining activities undertaken without environmental oversight.

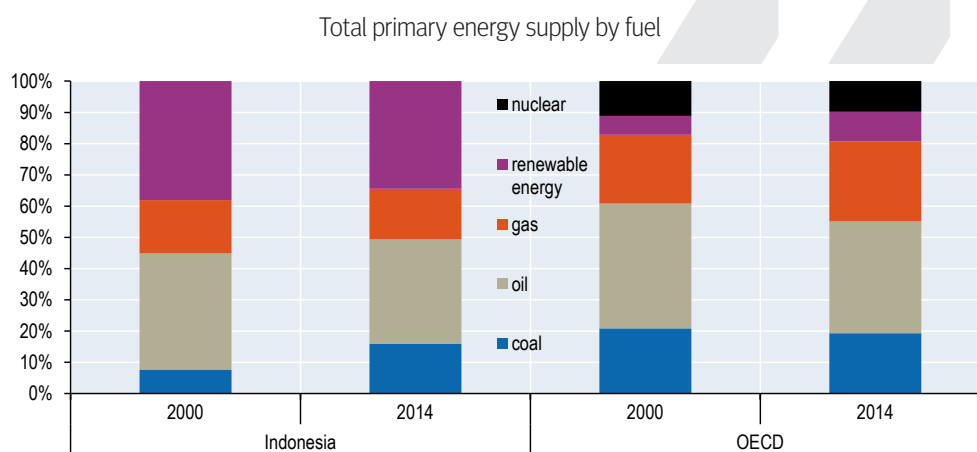
#### What's the issue?

Indonesia has a rich natural asset base that has underpinned economic growth and contributed to the country's export revenues. But rapid economic and population growth, together with rising urbanisation, are also having negative side effects, of which uncontrolled forest and peat fires are only the most visible symptoms (even though in 2016, forest fires have largely been contained).

Fuel subsidies have been reduced from 14% of total public expenditures before the 2014 election to about 3% in 2015, but remaining energy subsidies still represented about 7% of public spending in 2015. Indonesia has also

provided incentives to attract inbound investments for specific industries, although many of these were greenhouse gas (GHG)-intensive. These policies would need to be better aligned with Indonesia's commitment to reduce GHG emissions by 29% (and by 41% if international support is provided through bilateral cooperation) compared to the business-as-usual projections by 2030. Another factor that counteracts climate change efforts is the continued reliance on coal in the energy mix, which is projected to increase from 2011 levels of 24% to 30% by 2025 to become the largest portion of the energy mix. Renewable energy expansion has been eclipsed by growing use of fossil fuels (see

#### Indonesia needs to reverse the rise in the share of coal in its energy mix



Source: IEA (2016), "World energy balances", IEA World Energy Statistics and Balances (database), <http://dx.doi.org/10.1787/data-00512-en>.

Figure) despite considerable potential for renewable energy sources. For example, Indonesia currently exploits only 5% of its nearly 30GW geothermal energy potential (estimated at approximately 40% of world capacity) and 4% of its 75GW hydroelectricity potential.

Outdoor air quality has worsened, particularly in Jakarta, due to electricity generation by underperforming coal-fired plants and transport-related emissions. As Indonesia continues to urbanise, airborne pollutants will affect a larger proportion of the population leading to increased morbidity and mortality linked to respiratory illnesses. Large-scale forest fires, like those in large swathes of southern Kalimantan and western Sumatra in 2015, contribute acutely to air pollution and GHG emissions while destroying forest stock, biodiversity and other natural assets.

Since fires remain a relatively cheap method of clearing land, intentional deforestation often occurs to replace forested areas with commercially lucrative crops like palm oil and timber. Although increased palm oil production benefits rural regions and stimulates economic growth, its exploitation has been a major factor in deforestation and biodiversity loss due to ineffective and unenforced regulatory and licensing systems. A similar lack of regulatory enforcement is widespread in the mining sector, often due to underperforming local government regulators. An estimated 40% of mining facilities have not received a CnC (clean and clear) certificate, the criteria of which include fulfilment of environmental commitments and the proper acquisition of forestry permits.

### Why is this important for Indonesia?

Indonesia needs to ensure that its economic growth does not deplete the country's significant natural asset base. If Indonesian growth relies on unregulated deforestation and a growing reliance on fossil fuels, its economic success will prove unsustainable and prevent the country from achieving its international commitment to reduce GHG emissions. The rapid urbanisation of the country has implications for land use and transportation, as well as urban services such as waste management, which could "lock-in" its cities to an unsustainable and costly path. Moreover, current policies will significantly reduce quality of life due to worsening air, water and soil quality. Indonesia stands to benefit greatly by harnessing OECD green growth expertise early on to plan for and avoid negative externalities and improve the wellbeing of its citizens.

### What should policy makers do?

- ▶ Identify and resolve the misalignments between economic incentives, such as electricity, liquefied petroleum gas and the remaining diesel subsidies, and environmental targets.
- ▶ Encourage greater investment in renewable and geothermal sources rather than building new coal-fired generating capacity.
- ▶ Harness urbanisation to drive growth by investing in high quality infrastructure for long-term growth and competitiveness.
- ▶ Improve the regulation of forest clearing and ensure effective enforcement to combat deforestation.
- ▶ Strengthen the management of local-level permits and enforcement in the mining sector to reduce illegal mining.



### Further reading

OECD (2016), *OECD Economic Surveys: Indonesia*, OECD Publishing, forthcoming.

OECD (2016), *Urban Green Growth in Bandung, Indonesia*, OECD Publishing, forthcoming.

OECD (2015), *Climate Change Mitigation: Policies and Progress*, OECD Publishing. <http://dx.doi.org/10.1787/9789264238787-en>

OECD (2015), *Towards Green Growth? Tracking Progress*, OECD Publishing. <http://dx.doi.org/10.1787/9789264234437-en>

OECD/IEA/NEA/ITF (2015), *Aligning Policies for a Low-carbon Economy*, OECD Publishing. <http://dx.doi.org/10.1787/9789264233294-en>

OECD (2014), *Green Growth Indicators 2014*, OECD Green Growth Studies, OECD Publishing. <http://dx.doi.org/10.1787/9789264202030-en>