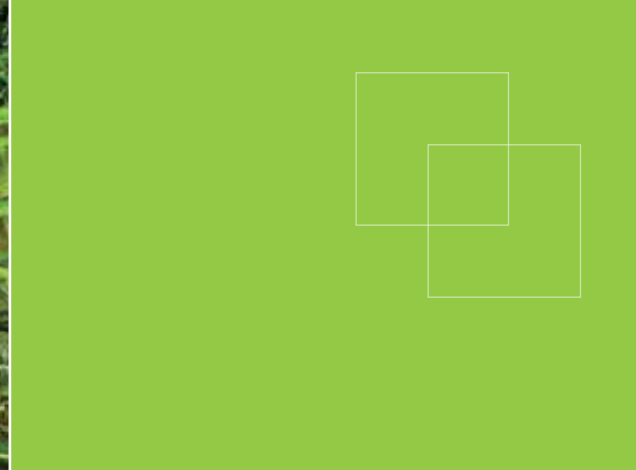


Towards Green Growth in Southeast Asia

Solutions for Policy Makers





“Despite the recent headway that my country has gained economically, and despite our efforts to ensure that such gains are inclusive, many of my people remain vulnerable to disaster brought about by climate change. The rise of water levels and the loss of islands, and the growing frequency and intensity of tropical storms and typhoons, present a real challenge to every country, especially those in the developing world such as ours.”

– President Benigno Aquino, Philippines, UN Climate Summit,
23 September 2014

“Recognizing the importance of creating harmony and balance between economic development and environmental sustainability, we are integrating environmental considerations into the economic development planning process.”

– Wunno Maung Lwin, Union Minister for Foreign Affairs of the
Republic of the Union of Myanmar, UN Climate Summit,
23 September 2014

“Malaysia, a fast-developing Asian nation, shows that economic growth need not depend on emissions. We stand ready to work with other fast-developing nations to argue for greater ambition in 2015; and to show that economic development and climate action are not competing goals, but common ambitions.”

– Prime Minister Mohd Najib Tun Abdul Razak, Malaysia, UN Climate Summit,
23 September 2014

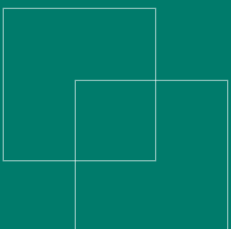




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Why does green growth matter to Southeast Asia?

The global economy's relationship with the environment is in the throes of a fundamental realignment. Green growth could be a central factor in Southeast Asia's continued rise as an economic power in the 21st century.

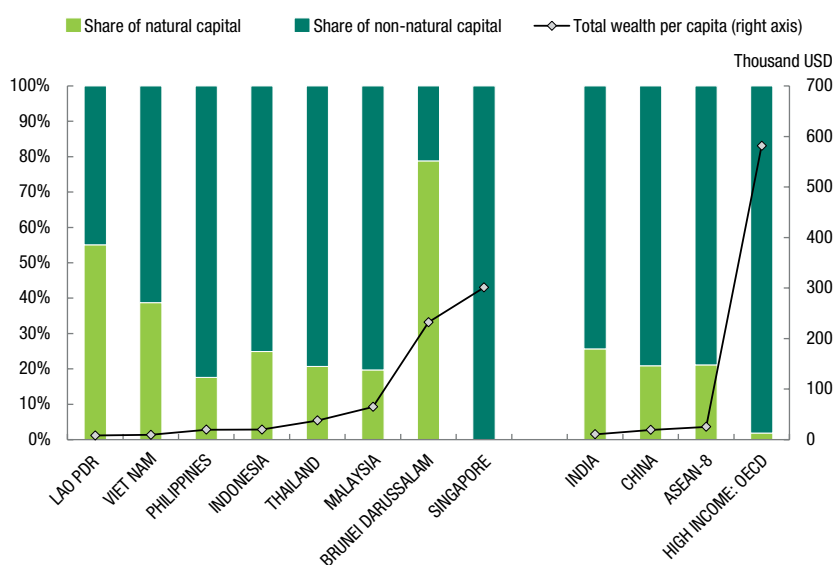
Southeast Asia is at a crossroads, and has difficult but clear choices to make. The region has enjoyed strong economic growth, but – as elsewhere in the world – this growth model relies on unsustainable natural resource exploitation and leads to severe environmental degradation. This costs real money and causes real human suffering – and could permanently limit countries' growth and earnings potential. A strategy for green growth offers an alternative way forward.

Towards Green Growth in Southeast Asia provides insights for leaders to design their own solutions to move their countries towards green growth. Carried out in consultation with officials and researchers from across the ten member countries of the Association of Southeast Asian Nations (ASEAN, also referred

to here as Southeast Asia), the report presents a broad and deep understanding of the costs, risks and consequences of the region's booming economy, and offers solutions that are in play in the region and elsewhere. This summary and the more detailed evidence found in the full report should be viewed as a starting point for visionary leaders who want to put Southeast Asia onto a green growth path now.

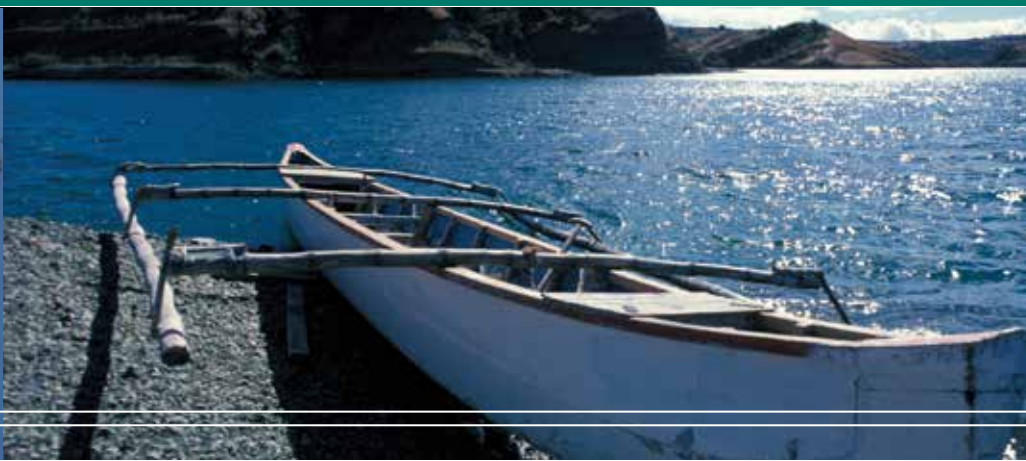
Many developing regions would benefit from pursuing green growth, but the combination of challenges and opportunities that characterises Southeast Asia make it a prime candidate to do so. The region is experiencing rapid but ultimately unsustainable growth. Its growth largely depends on the exploitation of its natural wealth, which is extraordinarily large (Figure 1). Furthermore, it is highly vulnerable to climate change, which will particularly hurt farmers and people in coastal cities (Figure 2). Throughout the region, infrastructure needs are acute.

FIGURE 1. NATURAL CAPITAL CONTRIBUTES GREATLY TO THE TOTAL WEALTH OF SOUTHEAST ASIA COUNTRIES 2005



Note: Total wealth per capita (right-hand axis) is in thousands of 2005 USD; non-natural capital includes net foreign assets and intangible (i.e. social) and produced capital; Myanmar and Cambodia are excluded because of lack of data; natural capital comprises crop, pasture land, timber, non-timber forest, protected areas, oil, natural gas, coal, and minerals.

Source: World Bank, The Wealth of Nations dataset, <http://data.worldbank.org/data-catalog/wealth-of-nations>, accessed March 2014.



At the same time, Southeast Asia has a golden opportunity to leapfrog over the low-performing, polluting, resource-inefficient technologies and practices of more-developed countries. Large swathes of the region's infrastructure and industrial models are still being developed. This, combined with the region's relative stability and rapid economic growth, will help it attract investment that ties environmental performance to economic growth.

The region's leaders face a choice: continue to pursue a short-sighted, "grow-now-clean-up-later" model that has proven costly and risky, or adopt a far-sighted green growth strategy that can sustain long-term growth and the well-being of current and future generations. Adopting a 20th century economic growth model in the face of today's 21st century challenges raises the risk of dire environmental and social consequences. For example, dirty air and shortages of clean water or productive land cause human suffering, with the poor amongst the hardest hit. Business will also suffer as the economic productivity of their operations decline.

Many governments and global businesses are aware of this and are rapidly adopting new sustainability requirements for production processes. Whether Walmart changes its supply chain

standards, Apple or Toyota their manufacturing requirements, or China its water and carbon policies, only those governments and businesses that are ahead of the curve will be ready to attract investment and claim market share over the long term.

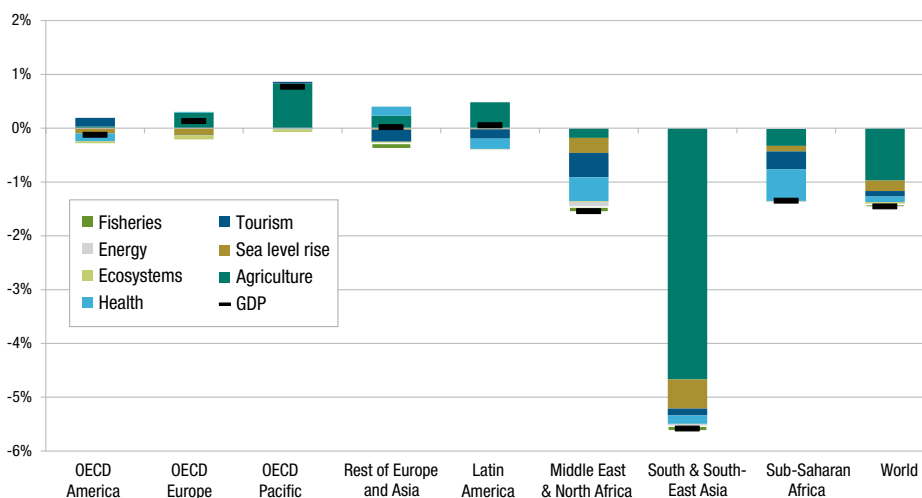
Towards Green Growth in Southeast Asia demonstrates that green growth will lay the foundation for stronger, cleaner and fairer economies and societies across the ASEAN. This advice builds on the experience of many OECD countries and other emerging regions: growth strategies that ignore environmental performance eventually result in expensive clean-up and mitigation measures, as well as large social welfare losses.

Three key messages emerge from the report:

1. Green growth is not a separate strategy from economic development
2. The time for action in Southeast Asia is now
3. Political leadership is the key to putting the right policies and institutions in place

This policy summary explains the problems and offers solutions related to all three messages.

FIGURE 2. CLIMATE CHANGE COULD HAVE A LARGE IMPACT ON GDP IN SOUTHEAST ASIA IN 2060
Percent change in GDP compared to baseline



Note: The category "South and Southeast Asia" includes ASEAN countries plus India and other developing Asian countries; "OECD America" includes United States, Canada, Mexico and Chile; "OECD Europe" includes France, Germany, Italy, United Kingdom, other OECD EU countries, plus Iceland, Norway, Switzerland, Turkey and Israel; "OECD Pacific" includes Japan, Korea, Australia and New Zealand; "Rest of Europe and Asia" includes non-OECD EU countries, Russia, non-EU European countries, Caspian countries and China; "Latin America" includes Brazil and other Latin American countries; "sub-Saharan Africa" includes South Africa and other African countries.

Source: Dellink, R., E. Lanzi, J. Chateau, F. Bosello, R. Parrado and K. de Bruin (2014), "Consequences of Climate Change Damages for Economic Growth: A Dynamic Quantitative Assessment", OECD Economics Department Working Papers, No. 1135, OECD, Paris.

Message 1: Green growth is not a separate strategy from economic development

Economic growth, human well-being and environmental performance are inseparable. The future of the region's population and the profitability of its economic activities will depend on policy makers and businesses accepting and acting on this. Evidence from around the region shows that environmental degradation is already undermining human well-being and economic growth.

There is a choice: economic and environmental performance can be mutually beneficial or mutually destructive. This report provides Southeast Asia's leadership with the data and evidence to choose mutually beneficial pathways and solutions. For example:

- Outdoor air pollution resulted in nearly 200 000 deaths in the region in 2010 and cost over USD 280 billion, based on the OECD's methodology for calculating the value of a statistical life (Figure 3).
✓ **SOLUTION:** Increasing use of public transport can reduce these costs, and benefit the economy by easing congestion and increasing productivity.

“Indonesian Chamber of Commerce and Industry (Kadin) played a key role in strengthening the commitment on zero deforestation from the world's largest palm oil producers. At the UN headquarters [on 24 September 2014], the leaders of GAR, Wilmar International, Asian Agri, Cargill and Kadin signed an Indonesian Palm Oil Pledge (IPOP), a promise to make palm oil more sustainable in Indonesia. Globally, the commitment means approximately 60 percent of global palm oil supply will be deforestation-free. [...]

Indonesia can show the world how a country can create green and inclusive development and at the same time conserve their valuable forests. With the private sector willing and committed, and the government ready to take the challenge, Indonesia's road to green inclusive growth is now more viable than ever.”

– Stig Traavik, Ambassador of Norway to Indonesia, Jakarta Post opinion piece, 15 October 2014.

- Shrimp farming in Thailand has helped destroy 50-60% of the mangroves that were providing coastal protection (Barbier, 2007), especially essential now that climate change is exacerbating flood risk.
✓ **SOLUTION:** Sustainable fisheries management can protect coasts while safeguarding an industry on which 20% of Southeast Asia's livelihoods directly depend.
- Coastal flooding in Southeast Asian cities cost an estimated USD 300 million in average annual losses in 2005; even with significant investment in adaptation the price tag could climb to USD 6 billion a year by 2050.
✓ **SOLUTION:** Putting in place climate-resilient infrastructure and land-use patterns now and being much more ambitious in adaptation and disaster risk management efforts could limit the damage and attract businesses to make long-lasting, resilient investments.
- Deforestation and the destruction of topsoil have led to costly, catastrophic flooding – witness the 2011 floods in Thailand.
✓ **SOLUTION:** Sustainably managing natural forests has multiple benefits – from water and air filtration to flood prevention. Well-designed payment for ecosystem services, as in Viet Nam, can help to conserve forests and the services they provide, while also benefitting local livelihoods and communities.
- Fossil fuel subsidies, which promote polluting technologies and inefficient energy use, cost the region about USD 51 billion in 2012, equivalent to roughly 11% of all general government spending. Indonesia has the region's largest fossil fuel subsidy programme, amounting in 2012 to about 15% of general government expenditures and 60% of its public expenditures on education and health (IEA, 2013).
✓ **SOLUTION:** Reforming these subsidies can improve the environment, set countries on a more sustainable path, and free up spending for education, health and other poverty reduction measures.



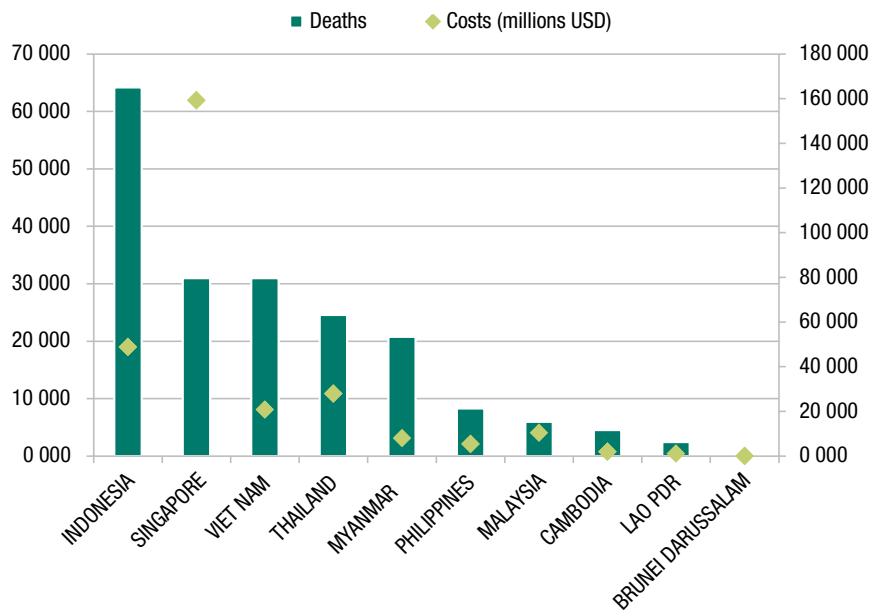
Green growth is not just the way forward for long-term economic growth. By putting countries on sustainable footing, it is also the key for reducing poverty. There are important complementarities between the two, as pursuing green growth can: 1) increase access to clean energy, water and transport services, and more efficient infrastructure; 2) alleviate poor health associated with air and water pollution; and 3) introduce resource-efficient technologies and practices that can reduce costs and increase productivity while easing environmental pressures (OECD, 2013).

It is critical for governments to keep the poor in mind when managing the transition to green growth. Accounting for gender inequality is also important, because women constitute the majority of the world's poor and are more dependent on natural resources for their livelihoods.

In the short term, cash transfer programmes may be useful to compensate poor households for any loss in purchasing power that a green growth transition might entail. In the long term, Southeast Asian countries, especially the least developed ones, will benefit from continued efforts to build effective social protection systems encompassing education, health and other social services. This will help shield the poor from both environmentally and non-environmentally related income shocks. Providing the social safety nets needed to promote entrepreneurship and labour mobility will facilitate the transition to green growth (Bene et al., 2014; Davies et al., 2009; OECD, 2009; Holzmann, 2001).

FIGURE 3. AIR POLLUTION COSTS ARE HIGH IN THE REGION

Deaths from outdoor pollution and associated costs, 2010



Note: Pollution includes ambient PM10 pollution and ambient ozone pollution; costs based on a methodology to adapt “value of a statistical life” calculations to different economies, used in OECD (2014), *The Cost of Air Pollution: Health Impacts of Road Transport*, OECD Publishing, <http://dx.doi.org/10.1787/9789264210448-en>.

Source: Author's calculations based on data extracted from Institute for Health Metrics and Evaluation (2013), *The Global Burden of Disease (GBD) Visualizations: GBD compare*. Institute for Health Metrics and Evaluation, Seattle. <http://viz.healthmetricsandevaluation.org/gbd-compare/>, last accessed 17 June 2014.





Message 2: The time for action in Southeast Asia is now

Southeast Asia is at a turning point. The region is undergoing deep transformation and modernisation underpinned by strong – but unsustainable – economic growth. Today’s decisions by policy makers and business and community leaders will determine the sustainability of the region’s development path for decades, and potentially centuries, to come.

Delayed action risks missing three golden opportunities:

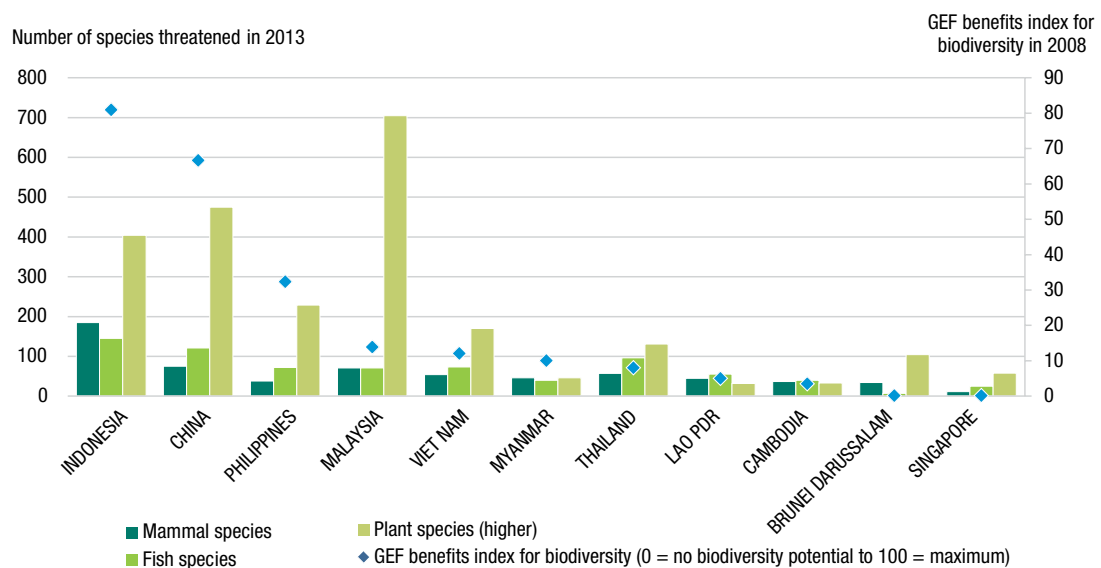
1. **To sustain the region’s natural wealth.** Southeast Asia’s natural resources – its forests, water, soils and biodiversity – provide essential services, but they must be sustainably managed or they will be lost forever. Natural resources underpin key economic activities such as agriculture, forestry and mining. Ecosystem services – such as air and water filtration and pollination, among many others – are essential to human well-being and cannot be fully replaced by man-made capital. Their loss will have significant consequences for future prosperity.

DID YOU KNOW?

Southeast Asian countries are particularly at risk of large biodiversity losses (Figure 4). Some estimate that between 13% and 42% of species will be lost in Southeast Asia by 2100, at least half of which could represent global extinctions (Sodhi et al., 2010). Between 1990 and 2010, the region’s forest loss equalled an area greater than Viet Nam. The last decade (2000 to 2011) has seen forest loss slow down somewhat across the region.

The Southeast Asian and Pacific region is home to the largest share of marine biodiversity in the world (Roberts et al. 2002). The Coral Triangle, located in parts of Indonesia, Malaysia and the Philippines (in addition to Papua New Guinea, Solomon Islands, and Timor Leste), is home to 76% of the world’s coral species, and is one of the most biologically diverse and economically productive marine regions in the world (Suuronen et al., 2013).

FIGURE 4. BIODIVERSITY IS UNDER THREAT IN SOUTHEAST ASIA



Note: The Global Environment Facility (GEF) benefits index for biodiversity is a composite index of relative biodiversity potential for each country based on the species represented in each country, their threat status, and the diversity of habitat types in each country. The index has been normalised so that values run from 0 (no biodiversity potential) to 100 (maximum biodiversity potential). Higher plant species are native vascular plant species.

Source: World Bank World Development Indicators, <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed July 2014.

2. To lock in clean and resilient infrastructure. By 2050, 65% of the region's population are expected to live in urban areas (UNDESA, 2014a). Cities and their land-use patterns and infrastructure are being shaped now, and will determine energy consumption, pollution levels and resilience for decades to come. Southeast Asia can still leapfrog 20th century technologies, land-use choices and infrastructure to adopt clean, viable and economical alternatives – if the region's leaders act now.

The world's leading economic centres – including some of Southeast Asia's largest cities – are increasingly making environmental performance a basic element of their growth strategies. Several participate in global networks, such as the C40 Cities Climate Leadership Group (e.g. Bangkok, Hanoi, Ho Chi Minh City and Jakarta are members, and Singapore is an observer) and the 100 Resilient Cities programme (Bangkok, Da Nang, Mandalay, Semarang and are in the first round of pilot cities). At the regional level, 18 cities in Indonesia, the Philippines, Thailand and Viet Nam are part of the Asian Cities Climate Change Resilience Network (ACCCRN).

3. To become a hub for green investment. Providers of finance – public and private, domestic and international – increasingly seek investments whose profits go hand-in-hand with environmental performance. The regions with policies favouring environmental performance will be able to benefit from an increase in green investment. Southeast Asia's rapid industrialisation and modernisation, coupled with its extraordinary natural resource wealth, mean that the region could be a big player in this global shift – if the right policies are in place.

Some trends are promising. The share of official development assistance (ODA) committed to green objectives is larger on average in Southeast Asia than the global average, though the share varies widely among individual countries

(Figure 5). Leadership by partner countries is an essential starting point to better integrate environmental performance objectives into national development planning. ODA and other forms of development finance are also being used as a means to mobilise and shift private-sector investment to support green growth (Box 1).

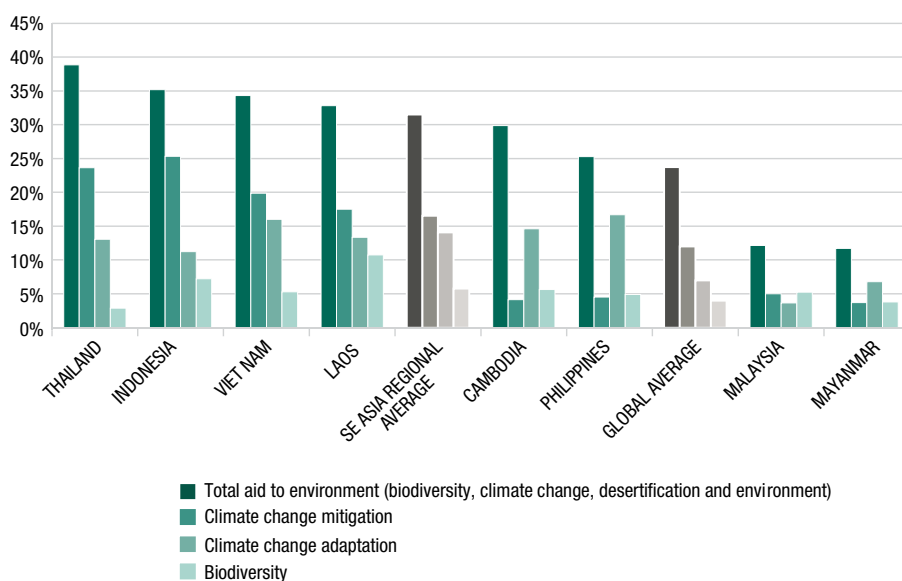
Many of the world's largest corporations have also begun measuring the carbon and water footprints of their products and processes, as well as other environmental impacts. Many global investors, both public and private, are also demanding similar performance metrics.

Unfortunately, Southeast Asian countries are not yet systematically implementing the policies that will support green investment. For example, current policies provide insufficient and unsteady support for renewable energy, and subsidies unduly favour fossil fuels. This is one reason the share of renewable energy sources actually decreased between 2000 and 2011 (Figure 6).

“Forests are essential to our future. More than 1.6 billion people depend on them for food, water, fuel, medicines, traditional cultures and livelihoods.”

– The New York Declaration on Forests, UN Climate Summit, 23 September 2014; signed by 27 nations, including Indonesia, the Philippines and Viet Nam.

FIGURE 5. OFFICIAL DEVELOPMENT ASSISTANCE TO SOUTHEAST ASIA IS ON AVERAGE GREENER THAN ELSEWHERE
2010-2012 average, constant 2012 USD, share of total ODA



Note: Development co-operation activities can target more than one environmental policy objective simultaneously; to reflect this, the OECD DAC CRS allows activities to be tagged with more than one environmental policy marker, allowing multiple objectives to be tracked, while identifying overlaps to ensure that development co-operation is not counted twice. The “total environmental aid” column is the sum of the development co-operation targeting biodiversity, climate change adaptation, climate change mitigation, desertification, and local environmental objectives, netting out any overlaps. For more information, see www.oecd.org/dac/stats/rioconventions.htm

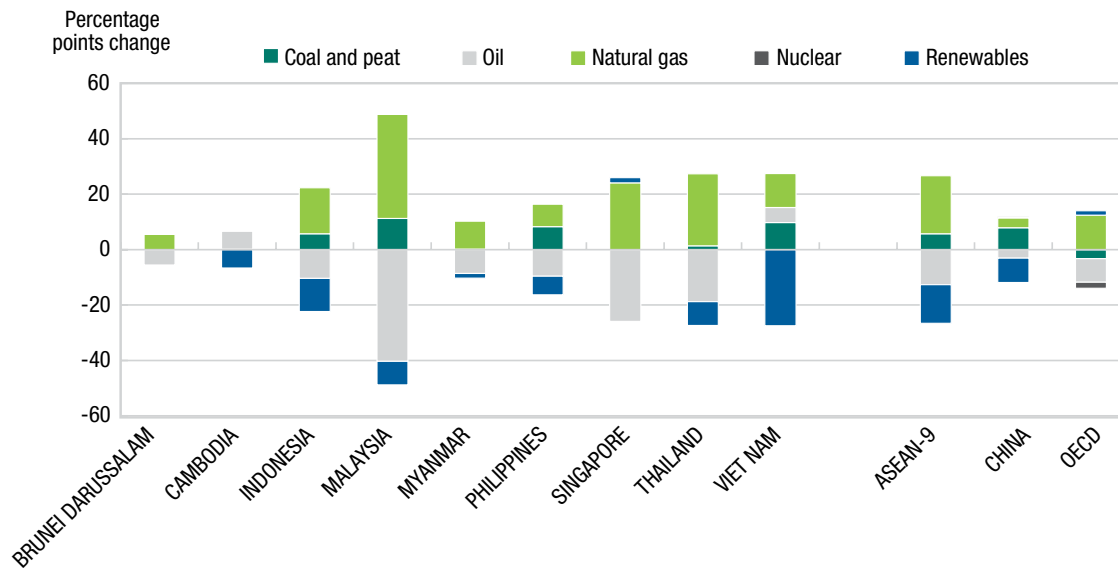
Source: OECD Development Assistance Committee Creditor Reporting System Rio Marker data

BOX 1. DEVELOPMENT ASSISTANCE CAN CATALYSE GREEN INVESTMENT

Official development assistance (ODA) can strengthen the enabling environment for private investment for green technologies and business practices. Development co-operation efforts targeting clean energy are increasingly blending innovative forms of development finance (e.g. guarantees), with ODA and domestic funding sources both public and private (Trabacchi et al., 2012; Falconer and Frisari, 2012; Mirabile et al., 2013). For example, in Thailand a blending of ODA and non-concessional ODF is successfully leveraging private sector investment in renewable energy and energy efficiency. This is serving national objectives to avoid locking the country into a carbon-intensive and polluting development path (OECD, 2012b).

Loan guarantees, issued by providers of development finance, have also been shown to be effective to mobilise private investment in developing countries (Mirabile et al., 2013). The use of innovative finance instruments in development finance more generally can mobilise private infrastructure investment in partner countries (Miyamoto and Biousse, 2014). Attention is turning to these instruments as a key means to use limited public resources in a smart way, to help fill the well-recognised financing gap for infrastructure and to deliver on green growth objectives (Kennedy and Corfee-Morlot, 2014; Global Commission on Economy and Climate, 2014).

FIGURE 6. THE SHARE OF RENEWABLES HAS FALLEN IN MOST SOUTHEAST ASIAN COUNTRIES
Change between 2000 and 2011



Source: IEA World Energy Statistics and Balances, www.oecd-ilibrary.org/energy/data/iea-world-energy-statistics-and-balances_enestats-data-en, accessed May 2014.



Message 3: Political leadership is the key to putting the right policies and institutions in place

Governments are only as strong as they are courageous. Southeast Asia's leaders must move beyond today's incremental and isolated progress to instead embrace a different kind of economy. The policies detailed in the next few pages can deliver the economic and environmental benefits on which Southeast Asian countries' prosperity – and businesses' profitability – will depend.

SOLUTIONS TO STRENGTHEN GOVERNANCE AND REFORM ECONOMIC STRUCTURES

Good governance (e.g. consistent rule of law, a tough stance on corruption, well-enforced property rights) is the bedrock of sound economic, social and environmental policies. Consistent and credible policy signals grounded in robust governance will reduce uncertainty and encourage green and climate-resilient investment. The following will enable the transition to green growth:

- **A stable and transparent institutional framework** that will boost economic growth while at the same time facilitating the design and implementation of green growth strategies. Southeast Asian leaders can – and should – create the clear and predictable policies and regulations that will mobilise public and private funds for green investment projects. These include putting in place social protections for the poor, as discussed on page 7.

Strengthening regional coordination in this area through the ASEAN could help send the right signals to investors and attract more green investment to the region. The ASEAN Economic Community Blueprint (ASEAN, 2008) mandates the establishment of the ASEAN Economic Community by 2015, but it makes scant reference to the environment. Future updates of this plan could better integrate environmental performance and the sustainable exploitation of natural capital with the region's wider development goals. This would further strengthen the ASEAN Economic Community and growth prospects in the region.

- **Tax systems that ensure the price of goods and services reflect their social and environmental value.** Across Southeast Asia, tax systems could be improved by environmental tax reforms that shift taxation away from labour, income and capital onto pollution and resource use (Box 2). This helps align the prices of goods and services with their actual social and ecological value. By making the tax system less distortive, environmental tax reforms can promote economic growth, thus helping Southeast Asian countries escape the “middle income trap” while conserving their rich natural resource asset base.
- **The phasing out of fossil fuel and agriculture subsidies,** which would help tackle inefficient natural resource use and rising pollution levels. Indonesia, Thailand and Malaysia have the largest fossil fuel subsidy programmes in the region, with fossil fuel consumption subsidies in 2012 amounting to about USD 25 billion, USD 10 billion and USD 7 billion respectively (IEA, 2013).

The vast amount of money spent on fossil fuel subsidies can be redirected instead to support social programmes for the poor and mechanisms for clean investments. This will greatly increase social welfare and environmental performance without hampering economic growth. For instance, OECD analysis indicates that in Indonesia the removal of energy subsidies would generate a permanent real GDP gain of between 0.4% and 0.7% in the year 2020, when implemented alongside a cash transfer programme to compensate the poor (Durand-Lasserre et al., forthcoming).

- **Competition policies and laws that level the playing field for green innovation and the deployment of green technologies.** Such policies will need to be introduced in those ASEAN countries where they are still lacking, and be accompanied by the right incentives to spur green innovation and the deployment of green technologies (OECD, 2014 forthcoming). Regional collaboration under



BOX 2. UNLOCKING GREEN GROWTH THROUGH ENVIRONMENTAL TAX REFORM

Traditional economic growth models are not only inadequate for sustaining the natural wealth of emerging countries, but they also do not offer any guarantee of higher levels of income. Under their existing growth model, emerging Southeast Asia countries, like many other emerging economies around the world, face the “middle income trap”, or the risk of being unable to reach the income levels of developed countries. Indeed, in the past 50 years, only thirteen out of 100 middle income countries have achieved high-income status (Agenor et al. 2012).

Well-designed tax reforms, in conjunction with other structural policies to boost competition and innovation, could help. They would allow emerging Southeast Asian countries to conserve their extraordinary natural capital wealth while shifting them away from a growth path characterised by inefficient tax systems and the risk of stagnating income levels.

Model simulations by the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) for three ASEAN countries (plus China, India, Japan and Korea) suggest that environmental tax reforms could lead to substantially lower carbon dioxide (CO₂) emissions, with only a small impact on GDP and employment (Table 1).

Importantly, the introduction of a carbon tax of USD 10 per tonne of CO₂ could actually boost the economy if revenues were used to reduce other taxes, especially corporate income taxes (best-case scenario in the table). Even if environmental tax revenues were not used to reduce other taxes (the worst-case scenarios in the table), the carbon tax would result in only a slight contraction of GDP and employment.

TABLE 1. WELL-DESIGNED ENVIRONMENTAL TAX REFORMS CAN HAVE POSITIVE IMPACTS

	CO ₂ reduction (%)	GDP impacts (%)	Employment (%)
	<i>worst case; best case</i>	<i>worst case; best case</i>	<i>worst case; best case</i>
CAMBODIA	-10.86; -8.60	-0.39; +1.01	-0.27; +0.26
MALAYSIA	-9.36; -7.24	-0.82; +1.45	-0.52; +0.42
THAILAND	-6.79; -3.81	-0.81; +1.57	-0.37; +0.54
CHINA	-21.11; -15.59	-1.85; +1.90	-0.44; +0.67
INDIA	-17.77; -15.04	-0.94; +0.62	-0.32; +0.32
JAPAN	-3.01; -2.78	+0.03; +0.21	-0.03; +0.04
REPUBLIC OF KOREA	-8.64; -7.30	-0.22; +0.73	-0.13; +0.08

Note: Values range from worst-case scenario to best-case scenario (except for CO₂ emission reductions where the inverse is presented), based on how the revenues from the tax are used.

Source: Park, S.-J., M. Yamazaki and S. Takeda (2012), “Environmental tax reform for low carbon green growth: major findings and policy implications from a multi-regional economic simulation analysis”, presentation at the *East Asia Low Carbon Green Growth Roadmap Forum*, 25-26 April 2012, Seoul, Republic of Korea.

In the least developed ASEAN countries, a share of the proceeds from environmental taxes could be allocated to environmentally related monitoring and enforcement activities. While earmarking tax revenues to specific purposes is generally not advisable, where environmental agencies are poorly resourced or heavily dependent on development co-operation assistance, as in many developing Southeast Asian countries, earmarking can provide a predictable source of funding for environmental monitoring and enforcement. This in turn strengthens the contribution of environmental tax reform to the green growth transition (OECD, 2005; OECD, 2006), as well as to the social and political acceptability of the tax reform.

Some Southeast Asian countries have already introduced, or are considering, some comprehensive environmental tax reforms (UNESCAP, 2012). For example:

- Thailand’s Economic Instruments for Environmental Management Act considers a range of economic instruments, including environmental taxes, user fees and charges for pollution management, product surcharges, performance bonds, tradable permits, subsidies and other support mechanisms. It allows product prices to include end of life management fees. The Pollution Management Plan (2012-2016) also aims at applying the “polluter pays” principle widely (Nuntapotidech, 2012). However, most of the laws and regulations to implement these instruments still need to be passed.
- Viet Nam’s Environmental Protection Tax Law entered into force in 2012. The law targets a diverse list of pollutants including fossil fuels, hydrochlorofluorocarbons, plastic bags, and harmful herbicides, pesticides and forest products whose use is restricted. Importantly, taxes are applied at the source – those organisations and individuals producing or importing the goods. Tax rates vary according to the goods taxed and the environmental damage they cause.

While these are steps in the right direction, their scope is still limited and tax rates are sometimes too low. Their success also depends on effective tax collection agencies capable of collecting taxes and enforcing laws and regulations. Raising the tax revenue-to-GDP ratio would allow Southeast Asian governments to expand the social safety net and increase investment in infrastructure, thus helping to compensate for any unequal effects green growth policies might have on firms and households.

Ideally, countries in Southeast Asia will pursue these reforms in a coordinated fashion. This will increase peer pressure for reform and help manage competitiveness issues across the region. The *OECD’s Environmental Fiscal Reform for Poverty Reduction* (OECD, 2005) provides guidance on the role of international development co-operation agencies in supporting environmental tax reforms in developing countries.



the ASEAN Economic Community – scheduled to be established in 2015 – will be paramount for an effective competition framework.

- **An education system that creates the skills required for a green growth model.** This will be essential, especially in the region's least developed countries. Reducing informality and ensuring a flexible formal labour market will help shift workers to greener sectors and firms.
- **Better access to financial and banking services backed by well-designed financial regulations.** This will allow private financing sources for green investment to emerge to complement and eventually replace public sources of funding.
- **A monitoring system that tracks progress along economic, social and environmental indicators.** This will enable each country to measure progress towards green growth, alongside the achievement of other important national milestones, such as poverty reduction. The Towards Green Growth in Southeast Asia project has developed a data set of green growth indicators tailored to Southeast Asian countries (Box 3). While these indicators will need to be refined and revised according to individual country needs, monitoring systems will be an integral part of any green growth strategy and can help raise the profile of green growth among policy makers and the public at large.

BOX 3. GREEN GROWTH REQUIRES GOOD DATA

To understand whether efforts to manage natural resources sustainably are working, countries need a set of indicators that monitor the quantity, quality and value of natural resources, including (OECD, 2014):

- The availability and quality of renewable natural resource stocks, including fresh water, forests and fish
- The availability and accessibility of non-renewable natural resource stocks, particularly metals, industrial minerals and fossil energy sources
- The biological diversity and ecosystems, including species and habitat diversity and the productivity of land and soil resources.

The OECD has been developing a set of green growth indicators to monitor the natural asset base (OECD, 2011; OECD, 2014). This study has extended these indicators to Southeast Asian countries (see Table 1.6 in Chapter 1 of full report). The further development of these indicators will eventually help countries to assess whether the natural asset base is being kept intact, or at least within sustainable thresholds in terms of quantity and quality. Ideally, they should help identify risks to future growth arising from a declining or degraded natural asset base.





SOLUTIONS TO MAINSTREAM GREEN GROWTH INTO NATIONAL DEVELOPMENT PLANS AND GOVERNMENT PROCESSES

Development planning is a central function of national government in ASEAN countries. A key sign of progress is how national development plans deal with “green” issues. Most countries have already created national climate change strategies, but only Cambodia and Viet Nam have established green growth strategies. At the same time, other countries are pursuing individual green growth objectives.

While national green growth or climate strategies are important, they must be integrated into national development plans to bring about real change. This can create synergies between green growth objectives and other national priorities, such as energy security and poverty reduction.

Southeast Asian countries have started mainstreaming various climate change and green growth priorities into their national development plans, but progress has been rather asymmetric. Countries tend to focus on climate change adaptation, forestry and land management, and reducing pollution. Less attention is paid to climate change mitigation (Table 2).

This is changing however, especially as support increases around the world for a price on carbon (World Bank, 2014). An important first step is to develop coherent national policies to address the major causes of climate change. Ideally, this would be done in co-ordination with neighbouring countries and regional partners, which could model the regional co-ordination already underway to tackle deforestation and forest degradation.

Some Southeast Asian countries have already established institutions for the design and management of green growth strategies. But more could be done to improve co-ordination among sectors, with sub-national authorities, and across the region, especially within the new ASEAN Economic Community.

To better mainstream and co-ordinate green growth, the report recommends that Southeast Asian countries:

- Develop an overarching strategy for green growth and ensure it is well-integrated within current national development plans.

- Prioritise climate change adaptation policies and low emission development paths in addition to improving energy and resource-efficiency. This will ensure that economic growth is decoupled from pollution and greenhouse gas emissions while also adapting to the inevitable impacts of climate change and building resilient economies.
- Seek complementarities and synergies among national priorities; for example, pursuing energy security by developing the renewable energy sector also promotes new economic opportunities through green growth (Box 4).
- Do more to enable joined-up government whereby all relevant departments and government employees have clear objectives and responsibilities for green growth and are working towards the same ends.

BOX 4. ENERGY SECURITY AND GREEN GROWTH GO TOGETHER

Certain countries’ energy security policies highlight the dangers of pursuing environmental and economic performance separately. Relying on fossil fuels to meet rising energy demands will degrade the environment and undermine energy security through growing import dependence, volatile international prices, and high and rising air pollution costs.

In contrast, doing more to exploit the region’s abundant renewable energy sources will improve energy security and protect the environment at the same time. Exploiting synergies such as these will require new and better co-ordination mechanisms across ministries and among national, provincial and municipal governments.



TABLE 2. GREEN GROWTH OBJECTIVES IN SOUTHEAST ASIAN COUNTRIES' NATIONAL DEVELOPMENT PLANS

	CAMBODIA	INDONESIA	LAO PDR	MALAYSIA	MYANMAR	PHILIPPINES	SINGAPORE	THAILAND	VIET NAM
Resilience to natural disasters/ adaptation to climate change	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sustainable forest and land management	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Renewable energy	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Air pollution, water pollution and waste	Water only	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Energy security	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Food security	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Sustainable fossil fuel and minerals extraction	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Green technology	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Energy efficiency	No	Marginal	Marginal	Yes	No	Yes	Yes	Yes	Yes
Climate change mitigation	No	Yes	No	Yes	No	No	No	No	Yes

Notes: A “no” indicates that the objective did not appear in the plan – although it may have been listed as a challenge (but with no details on how to address it) – or may appear in a stand alone sectoral strategy. A “yes” indicates that the objective appeared in the plans and is thus considered mainstreamed.

While other documents in Singapore consider climate change mitigation as a key priority, Singapore’s *Sustainable Development Blueprint* (reviewed here) includes no specific objectives or strategies for reducing greenhouse gas emissions.

Source: The most recent medium-term development plan for each country was reviewed. In addition to medium-term national development plans, two green growth plans led by Ministries of Planning were reviewed: Singapore Sustainable Development Blueprint (2009); Viet Nam National Green Growth Strategy for the period 2011-2020 with a vision to 2050. The medium-term development plan for Brunei Darussalam was not available online.

SOLUTIONS TO ACCOUNT FOR THE ESSENTIAL ECOSYSTEM SERVICES PROVIDED BY NATURAL RESOURCES

Southeast Asia is richly endowed with natural resources, from oil, gas and minerals to forests, fisheries and an astonishing wealth of biodiversity. Natural resources already contribute greatly to the wealth and growth of the region's countries. Protecting these natural assets is essential for a stable and thriving economy.

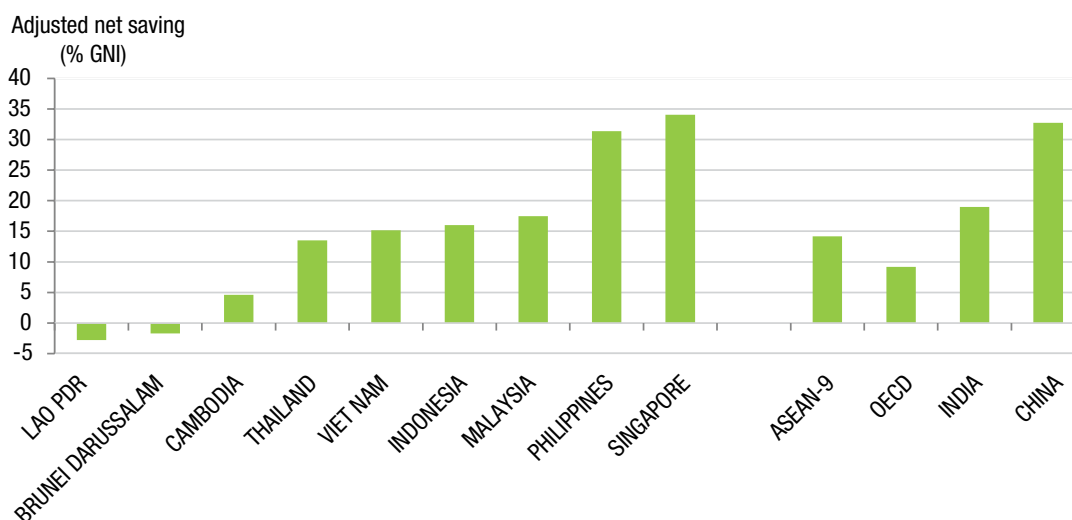
Most ASEAN countries appear to be on a “weakly” sustainable development path, if at all. Measured as adjusted net savings, the assumption is that natural and other forms of capital are perfect substitutes: the depletion of natural resources can be

fully compensated by growth in other forms of capital. The average adjusted net saving rates between 1999 and 2012 were positive for seven Southeast Asian countries (Figure 7). These positive savings were driven largely by the accumulation of man made capital.

However, green growth builds on the concept of strong sustainability, which recognises that some aspects of natural capital are essential to human welfare and are not substitutable with man-made capital.

FIGURE 7. GROWTH IS ONLY WEAKLY SUSTAINABLE IN MOST COUNTRIES

Yearly average, 2001-2012 (or latest available year)



Note: The bars show adjusted net savings - a sustainability indicator that takes into account net national savings along with investments in human capital, depletion of natural resources and damage caused by pollution. They are computed by (1) deducting capital consumption from gross national savings - to obtain net national savings; then (2) adding current expenditures on education - as a proxy for human capital accumulation; and then (3) subtracting estimates of the depletion of different kinds natural resources - to reflect the decline in the value of the natural asset base; and finally (4) estimates of pollution damage in the form of health costs due to particulate emissions are also deducted. Adjusted net savings are measured as a percentage of gross national income (GNI); ASEAN-9 is the arithmetic average of the nine ASEAN countries in the figure; data for Myanmar not available.

Source: World Bank World Development Indicators, <http://data.worldbank.org/data-catalog/world-development-indicators>, September 2014.

We have shown through our own zero deforestation policies that ambitious targets to protect the world's remaining forests can be agreed, implemented and achieved by companies operating in emerging economies. [...] Our view is that wherever a company is involved in the forest supply chain, they should be implementing these policies immediately. There is no time to waste.

– Aida Greenbury, Asia Pulp & Paper's managing director of sustainability, September 23, 2014

BOX 5. NATURAL CAPITAL ACCOUNTING IS ESSENTIAL TO MANAGING NATURAL RESOURCES

Natural capital accounting can provide statistical data and evidence to underpin the better management of natural resources and the economy. Ecosystem accounts can be instrumental in the design of development strategies that take into account the trade-offs among agriculture, subsistence livelihoods, eco-tourism and ecosystem services.

For instance, land and water accounts can help countries to assess the value of competing land uses. Ecosystems accounting can also help to identify who benefits and who bears the cost of ecosystem changes, thus helping governments to take into account distributional aspects when designing green growth policies, such as payments for ecosystem services.

The UN Statistical Commission has developed the System for Environmental Economic Accounts (SEEA) as an internationally agreed method, on par with the current System of National Accounts, to account for material natural resources such as minerals, timber and fisheries. Putting SEEA in place in national statistical agencies would provide a backbone of information to support green growth strategies.

The Wealth Accounting and Valuation of Ecosystem Services (WAVES) is a global partnership launched by the World Bank in 2010. It has been supporting a number of countries as they prepare to implement natural capital accounting based on the SEEA. Among the eight core implementing countries of the WAVES partnership, two are from Southeast Asia: the Philippines and Indonesia. In the Philippines, work has begun on ecosystem accounting in two pilot sites (Laguna Lake Basin and Southern Palawan). Mineral accounts in the Philippines are also being developed with an emphasis on the sharing of benefits from mineral resource exploitation and its impacts on local communities. Mangrove accounts are also planned for 2015, following increased interest in protection of coastal areas from cyclones following the catastrophic Typhoon Haiyan in 2013 (WAVES, 2014).

The widespread development and implementation of natural capital accounting in Southeast Asia, along with green growth indicators, would be a step towards sustainable management of natural resources. Many issues in natural resource management span national borders and can be best dealt with in a regional context, such as forest and biodiversity protection in the Greater Mekong Subregion, and the management of fisheries. Collecting data and reliable scientific information on the state of national resources under a unified framework will facilitate the design and implementation of green growth policies that take into account the transboundary effects of natural resource use.

If Southeast Asia's emerging middle class is to continue to experience durable gains in living standards and well-being, and if the poor are to rise to middle-class living standards, they will require policies that sustain key aspects of natural capital and that pursue strong sustainability. If new-found wealth is to be spread even more broadly and social welfare increased, economic growth and the protection of natural wealth along with long-term growth prospects must become important goals over and above short-term economic benefits and profits. Only strong sustainability through sustainable management of natural resources will deliver this path. This will require:

- An ecosystem approach that accounts for the value of the broad range of ecosystem services that natural resources provide to society and the economy (Box 5).
- Appropriate property rights regimes and management practices that empower local communities and allow them to benefit from the sustainable use of natural resources (Box 6).
- Greater use of payments for ecosystem services to provide adequate incentives and compensation for natural resource conservation (Box 7).
- Effective policies to contain the environmental impact of non renewable resource exploitation, such as minerals (Box 8), and clear and transparent tax systems that enable the accumulation of human and physical capital so as to compensate for the depletion of the non-renewable natural asset base.





BOX 6. GREENING GROWTH FROM THE BOTTOM-UP: COMMUNITY-BASED RESOURCES MANAGEMENT

Devolving responsibility for resources management to local communities is now widely regarded as good practice for sustainable development. In principle, empowering communities enables natural resource policies to be better tailored to local needs. If locally shared property rights are monitored and properly enforced, communities have fewer incentives to exploit forest resources unsustainably (e.g. Ostrom, 1990).

Community based management of natural resources – particularly forests and fisheries – has started to be adopted by Southeast Asian countries in the last two decades. However, effective implementation has been slow, uncoordinated and hindered by a variety of governance challenges, including local lack of capacity, corruption and weak legal and enforcement frameworks (Poffenberger, 2006; Dahal and Adhikar, 2008; Asia Forest Network, 2014). For example, when community based forestry management laws give only limited stewardship rights to local people, they have less of an incentive to manage forests sustainably (Pulhin and Dressler, 2009; Poffenberger, 2006). Similarly, poorly defined rights to fishery resources and weak enforcement lead to open access exploitation. The individual “race for fish” will eventually result in the ecological and economic collapse of fisheries.

The Philippines has had success with community-based fisheries management. Case studies show that well-defined and secure fisher rights are bringing a lasting shift in behaviour and attitudes towards resource conservation. Other important factors are the early and continuing involvement of local communities and active support by the government through sound legislation enshrining user rights, funding, training and enforcement (Pomeroy et al., 1996). This experience is echoed in other ASEAN countries. Statistical evidence from fisheries in Indonesia, the Philippines, Thailand and Viet Nam shows that community-based fisheries management reduces the probability of conflicts over marine resources (Pomeroy et al., 2007). Malaysia’s experience with locally based coastal resource management in Langkawi is also positive, especially for promoting the active participation of community members in the management and conservation of marine resources and for enforcing rules and regulations (Saleh, 2008).

Overall, successful community-based resources management is typically accompanied by national government support mechanisms, ranging from conflict resolution, education and training to credit support for commercial production and marketing mechanisms. Such mechanisms aim to involve and benefit the poorest members of the population (Dahal and Adhikar, 2008).

BOX 7. HARNESSING THE VALUE OF NATURAL RESOURCES THROUGH PAYMENTS FOR ECOSYSTEM SERVICES

Payments for ecosystem services (PES) are voluntary payment mechanisms that aim to halt the depletion of natural resources and environmental degradation. In such programmes, the beneficiary of a specific, well-defined ecosystem service (such as end-consumers of water benefitting from groundwater protection) pays the individual or community responsible for ensuring that the service is provided. PES have been used for various purposes, from carbon sequestration and watershed services to biodiversity and the conservation of scenic landscapes for eco-tourism (Ingram et al., 2014; OECD, 2010).

To date the Reduction in Emissions from Deforestation and forest Degradation (REDD and REDD+) is the most prominent PES programme worldwide. It is based on the global ecosystem services, which forests provide in the form of carbon sequestration. However, implementation of REDD mechanisms has stagnated because institutional investments have not been forthcoming, and local scientific capacity to monitor and use global observational records is lacking, among other operational obstacles (Hansen et al., 2013).

National REDD programmes are being established in Cambodia, Indonesia, the Philippines and Viet Nam. For instance, in Viet Nam the REDD+ programme forms a major pillar of the country’s efforts to meet its 2020 mitigation target of reducing greenhouse gas emissions by 20% through reducing emissions from the agriculture and rural development sector. Activities under the programme include estimating the baseline carbon stock, and establishing a monitoring system and benefit sharing.

Overall, the lessons learned from these initiatives include the need to develop a clear national-level mandate, institutional guidelines and a clear legal basis for such systems. Assessing the value of forests’ ecosystem services is the first step in establishing PES for forests. Payments need to be based on the economic value of the ecosystem services to be protected. When the true value of ecosystem services is properly taken into account, the cost of acting to sustain biodiversity and ecosystem services can be significantly lower than the cost of inaction.



BOX 8. EXTRACTIVE INDUSTRIES AND GREEN GROWTH

Extractive industries can be an important driver of economic growth in many emerging economies, but they also generate large social costs attributable to various factors, such as deforestation, pollution and displacement of local people. The following three elements can contribute to aligning extractive industries with green growth:

1. A strict evaluation of the environmental risks of mining activities.

Extractive industries can be the cause of serious environmental and human health problems. Throughout its different stages (prospecting, exploration, mine development, exploitation and reclamation), an extractive industry can have several impacts on the environment, ranging from deforestation and landscape changes to water and soil contamination (Voulvoulis et al., 2013). This compounds the impact of extractive industries on natural capital depletion: in addition to exhausting the non-renewable resource being extracted, they also damage other forms of natural capital, possibly irreversibly.

2. Efficient forms of taxation, so the government can use revenues from extractive industries to build a broader base for sustainable economic growth.

Taxing the large rents many extractive industries generate could provide substantial revenue, especially in Brunei Darussalam, Malaysia, Viet Nam, Lao PDR and Indonesia. Using this revenue to fund investment in other sectors of the economy could help put the region on a more sustainable development path. However, some countries in the region, such as the Philippines and Thailand, have experienced surging energy and mineral depletion rates without a corresponding increase in physical and human capital accumulation. This bodes ill for sustainability.

No Southeast Asian country has yet introduced a resource rent tax. In order to maximise tax receipts from extractive industries and collect tax revenues in the early stages of mining projects, Southeast Asian governments could consider a fiscal regime based on an ad valorem royalty (a royalty set as a percentage of the value of production), a corporate income tax and a resource rent. Royalties would ensure that revenues accrue to the government at an early stage – as soon as production starts – while the corporate income tax would make sure the normal rate of return to equity is taxed as in any other sector. The resource rent will ensure that any excess profits of extractive industries are taxed.

3. A high degree of transparency to ensure non-renewable resources are exploited for the public good.

Making extractive industries more transparent will allow the authorities to design efficient forms of taxation based on information on the private and social costs of mining activities. One way in which the region can increase its transparency would be to participate in the Extractive Industry Transparency Initiative (EITI). The EITI is a voluntary initiative launched in 2002 at the World Summit for Sustainable Development in Johannesburg. Its main aim is to ensure the transparency of payments from natural resources exploitation. To date, Indonesia and the Philippines are the only Southeast Asian countries who are EITI Candidates, and there are no EITI Compliant countries from the region. Participation in the EITI by all ASEAN countries would help to create a level playing field for the extractive industries sector across the region.





SOLUTIONS TO BUILD SUSTAINABLE CITIES

In most Southeast Asian countries, urban activities have the potential either to undermine, or contribute to, national green growth. Over half of the countries in Southeast Asia have a pronounced urban character, and the urban population across the region is growing rapidly. The region is likely to add over 100 million new urban residents between 2010 and 2025, and by 2050 the urban population will reach over 500 million, close to double its 2010 size (UN DESA, 2014b).

Poorly managed and unsustainable urban development – characterised in part by high air pollution levels, low access to basic services, and high vulnerability to climate change – is undermining growth and well-being. The window of opportunity is open now for countries to lock in urban development patterns that contribute to sustainable development and prosperity over the long term.

To be sustainable and improve well-being, urban development will need new approaches to managing urban economies and communities, even as urban populations grow. Successful approaches will likely integrate land use, disaster risk management and infrastructure planning; prioritise energy and resource-efficiency; provide basic services to all; reduce reliance on personal motorised vehicles; and reduce air and water pollution. This will require municipalities in the same metropolitan area to find new ways of working together.

National and local leadership is needed to make sure urban action is effective and contributes to national green growth objectives. While urban green growth takes place in cities,

national frameworks and laws determine the actions cities can take. National governments can use a range of policy levers to support cities in pursuing green growth (Table 3):

- Incorporating cities into national climate change and green growth strategies to make it easier for local leaders to attract political and financial support to develop sustainably (Box 8).
- Reviewing national tax and zoning policies to ensure that they favour sustainable growth patterns, especially development on the urban fringe, and to enable cities to collect fees from developers for essential infrastructure services.
- Clearly defining national and local roles and increasing capacity at the local level to initiate and sustain a shift towards green growth.
- Providing incentives to municipalities in the same urban area to work together to pursue compact urban growth and ensure low-carbon, climate-resilient services for everyone.

Southeast Asian countries are heading in the right direction, and have started to include urban activities in their green growth, climate change and sustainable development plans. The Philippines and Viet Nam stand out for making urban sustainability a key goal in their national plans (Box 9).

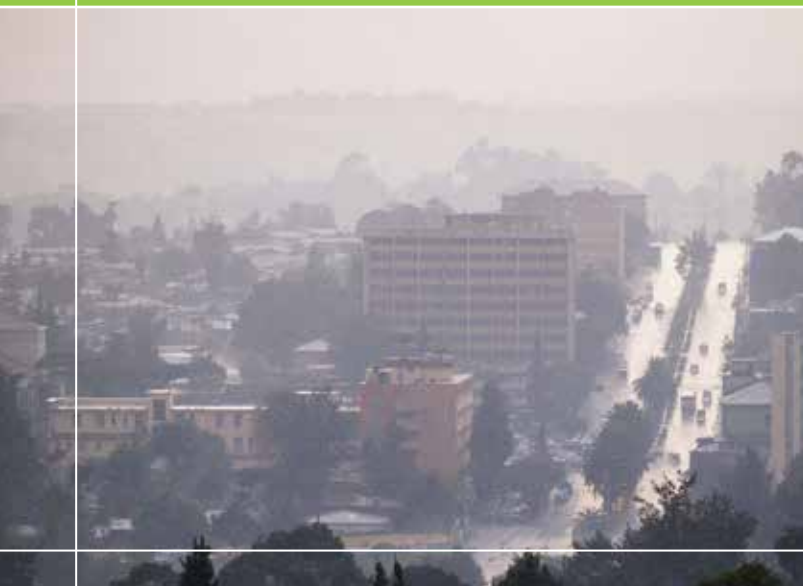




TABLE 3. NATIONAL POLICY LEVERS TO MANAGE URBAN GREEN GROWTH IN SOUTHEAST ASIA

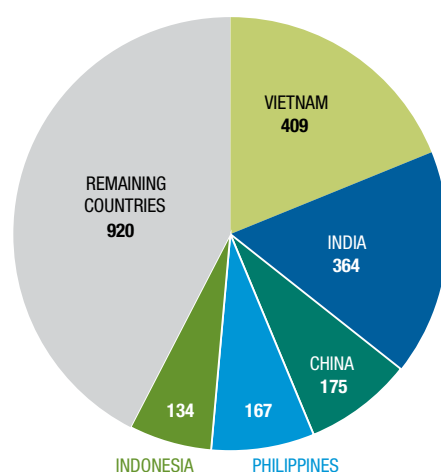
POLICY GOAL	Manage urban expansion	Reduce air pollution from urban transport	Adapt and increase resilience to climate change	Increase access to basic services and upgrade informal settlements
Leadership, visioning and planning	<ul style="list-style-type: none"> • Incorporate urban development into green growth plans and incorporate green growth into urban development plans and urban infrastructure planning • Support urban planning and land-use permitting decisions at the scale of metro-regions. • Plan ahead for infrastructure in areas where urban development is likely 	<ul style="list-style-type: none"> • Create a strategy for air quality and sustainable urban transport, and a framework for national-local co-ordination • Require or provide incentives for inter-municipal co-ordination on air quality at the metropolitan regional level • Emphasise the link between local air pollution, land use and transport in national development plans 	<ul style="list-style-type: none"> • Express political commitment to urban adaptation, and include urban activities in national adaptation plans • Incorporate climate change adaptation into urban planning and urban infrastructure planning and investments • Support national-local and inter-municipal co-ordination for adaptation 	<ul style="list-style-type: none"> • Express long-term national political commitment to slum upgrading
Designing, reforming and implementing policies	<ul style="list-style-type: none"> • Enable and encourage municipalities to collect fees for development • Review and reform hidden incentives in property taxes and local revenue mechanisms to encourage managed development near infrastructure • Set and enforce standards for building energy efficiency • Increase support for urban police forces to improve personal security in central urban areas as a means to control sprawl 	<ul style="list-style-type: none"> • Enable international and private investment in urban public transport, including from ODA and climate finance; enact relevant urban policy reform • Remove barriers and incentivise local funding mechanisms, including value-capture and transport-oriented development • Set stringent national fuel emissions standards and remove national fossil fuel subsidies 	<ul style="list-style-type: none"> • Set climate-resilient building and infrastructure standards • Establish urban disaster risk management and response policies • Establish disaster risk transfer and risk-sharing policies • Regulate infrastructure siting and zoning to preserve land for urban and peri-urban ecosystems that contribute to resilience 	<ul style="list-style-type: none"> • Regularise land tenure • Enable international and private investment in water and sanitation services, including ODA and climate finance
Governing, learning and developing capacity and resources	<ul style="list-style-type: none"> • Build capacity for land-use planning and development permitting • Apply risk screening to new urban developments to prevent and manage climate-related risks 	<ul style="list-style-type: none"> • Build capacity in public transport planning and air quality management, including research and data collection, air pollution modelling, and risk assessments 	<ul style="list-style-type: none"> • Channel climate-related aid and climate finance to regional and municipal governments • Provide information, data and locally relevant and timely risk mapping of vulnerable areas • Build capacity for local-level risk assessments and adaptation efforts • Enforce building codes and prohibitions on building in at-risk zones • Create mechanisms for engaging civil society organisations and businesses 	<ul style="list-style-type: none"> • Monitor and evaluate slum upgrading activities • Create mechanisms to engage slum dwellers and local community leaders to improve services • Scale up successful slum upgrading projects

BOX 8. ENABLING URBAN GREEN INVESTMENT

National governments can help cities tap into financial sources specifically targeting green growth by:

1. *Helping to channel official development assistance (ODA) and international climate finance* towards urban-relevant activities, such as adaptation to climate change, air pollution reduction, the provision of basic services and the mitigation of greenhouse gas emissions. Some evidence suggests this is already starting to happen. Nearly 40% of all bilateral urban adaptation-related aid in 2010-12 targets countries in Southeast Asia – and Viet Nam, the Philippines and Indonesia are top recipients (Figure 8).
2. *Providing national budget transfers to align green growth activities at the local level with national objectives.* For example, Indonesia's highly decentralised national government has limited influence over urban policy. However, it still provides financial incentives through the Specific Allocation Fund (DAK) of the national Balancing Fund. These funds can be used to encourage urban investment in air pollution control, the improvement of basic services, climate change adaptation and other activities that contribute to green growth.
3. *Building local-level capacity* to gain better access to funding (whether national or international funding); to reform policies to raise local revenues and incentivise private investment; to use debt instruments (such as bonds); to manage local expenditures to support green growth; and to monitor and evaluate for continuous learning.

FIGURE 8. ASEAN COUNTRIES ARE AMONG THE LARGEST RECIPIENTS OF ADAPTATION-RELATED ODA IN URBAN AREAS
2010-12 total bilateral commitments, USD million, constant 2012 prices



Source: Authors' calculations based on OECD Development Assistance Committee Creditor Reporting System data, July 2014, available at www.oecd.org/dac/stats/rioconventions.htm.

BOX 9. VIET NAM IS INCORPORATING URBAN POLICIES INTO ITS GREEN GROWTH AND CLIMATE CHANGE STRATEGIES

Two recent policy decisions in Viet Nam have addressed the role that urban activities should play in national climate change and green growth policies.

The Approval of Scheme of Urban Development of Viet Nam Responding to Climate Change for the Period of 2013-2020 by the Prime Minister on 31 December 2013 includes provisions to evaluate the impact of climate change on urban systems; to minimise the risk of climate change and sea level rise on construction and urban development; and to fund and assign ministries, sectors and localities to co-ordinate implementation.

The Approval of National Action Plan on Green Growth for the Period of 2014-2020 by the Prime Minister on 20 March 2014 sets out action plans for connecting every sector, including the urban sector, with the national green growth strategy. Urban development is also considered one of the implementation goals of the action plans.



The road ahead

Every government faces the challenge of balancing short-term economic benefits with long-term prosperity, well-being and security. By tying environmental performance to economic growth, green growth offers an alternative to Southeast Asia's currently unsustainable growth path. Given the region's rich natural asset base and its ability to attract green investment opportunities, leaders in the Southeast Asia have a unique opportunity to reap early and lasting benefits by "going green". The time is now to pursue green growth.

This report can guide Southeast Asian policy makers and other leaders to make the shift to green growth. Many initiatives are already underway in the region. The report presents evidence and ideas that draw on experience to date, and provides elements of a targeted policy framework to support green growth.

Realising green growth will take courage and commitment from the region's political, business and civil society leaders. Each country will need to identify its own solutions and to find its own growth path. Engagement with local communities, urban governments and business partners will deliver stronger outcomes. Seizing the opportunities offered by green growth will position Southeast Asian countries to be the economic winners of the 21st century.



Setting Southeast Asian economies on a green growth path will require policy and institutional reforms, but most of all it will require leadership. The OECD stands ready to support the region in seizing the opportunities that green growth offers to advance sustainable, inclusive development.

– OECD Secretary-General Angel Gurría

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