

**NTS Bulletin November 2015****Energy Sustainability in Southeast Asia: Towards the Achievement of the Sustainable Development Goals**

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In Southeast Asia, primary energy demand is projected to increase from 554.8 Mtoe in 2010 to 1,110.2 Mtoe in 2035. Oil will continue to dominate the energy mix with coal share growing at the fastest annual rate of 4.8%. Increasing energy demand, continuing reliance on oil, and expanding coal usage require regional efforts to ensure the access to affordable and reliable energy while further developing sustainable and modern energy. Energy is central to development as it provides the engine for growth and drives industry, transport, power, residential, commercial and other sectors. The Sustainable Development Goals (SDGs) acknowledge the critical role of energy in human development as a means for poverty reduction, social progress, equity, enhanced resilience, economic growth and environmental sustainability. This emphasis is reflected in Goal 7: Ensure Access to Affordable, Reliable, Sustainable and Modern Energy. It sets five energy-related targets by 2030 including energy efficiency, clean energy research and technology, and energy infrastructure and technology upgrade.

**Energy Security Landscape in Southeast Asia**

The status of energy security in Southeast Asia differs across countries. Energy access as reflected in the rate of electrification stood at 96 per cent in Indonesia, 88 per cent in the Philippines, 76 per cent in Brunei Darussalam, 70 per cent in Lao PDR, 52 per cent in Myanmar, and 31 per cent in Cambodia in 2012. In the same year, 140 million people in the region live without electricity. To increase the electrification rate, infrastructure developments in Cambodia and Myanmar are highly needed. In Indonesia, coal-fired power plants will make the most contributions to new electricity generation capacity followed by geothermal power plants, combined-cycle gas-powered plants, and hydropower plants. As coal usage poses environmental concerns, it is important that clean coal technologies are deployed.

Between 1990 and 2012, energy efficiency measured in terms of energy intensity has shown some improvements with the figures moving down from positive to negative scales. Energy efficiency, which essentially reduces energy demand, has indeed become part of the overarching energy policies in many Southeast Asian countries. Further efforts including technology research, technology transfer, and the incorporation of energy-efficient technologies in energy-consuming sectors are needed to intensify energy efficiency measures.

The share of renewable energy in the primary energy supply also varies. In 2012, the Philippines registered the highest share of renewable energy at 23.5 per cent, with Indonesia, Viet Nam, Myanmar, Singapore, Thailand and Malaysia trailing behind at 8.3 per cent, 7.1 per cent, 4.4 per cent, 2.4 per cent, 1.9 per cent and 1.1 per cent respectively. Large hydropower has ranked Lao PDR, Myanmar, Viet Nam, and Cambodia among the top countries having the highest share of renewable energy in electricity generation. Renewable energy is a potential area for greater energy security. High capital costs, unreliability, and grid connection challenges however are often cited as the reasons for a relatively slow progress in renewable energy

development. Further technology research and cooperation, coupled with the right policies and initiatives, would enable countries in the region to rise above the challenges and increase the share of renewable energy in their primary energy supply. Furthermore, nuclear energy remains an option in Vietnam, Indonesia, and Malaysia as part of their efforts towards securing the necessary energy to develop.

### **Reducing Dependence on Oil for Greater Energy Security**

The emphasis on energy efficiency and diversification is key to greater energy security as continued dependence on oil would only make the region more susceptible to stagnating or declining oil production and fluctuating oil prices. While ensuring adequate energy supply is critical, measures to ensure that energy pricing is affordable for the population and profitable for power companies are equally important. While most efforts are done at national level, regional cooperation in areas such as technology research, sharing of best practices, infrastructure connectivity and standard harmonisation could help countries to achieve greater energy security and get closer to the energy-related targets of the SDGs by 2030.

### **Recommended Readings**

- The ASEAN Centre for Energy, 2015, The 4<sup>th</sup> energy outlook, Kuala Lumpur.
- Asian Development Bank, 2015, Sustainable energy for all – Tracking progress in Asia and the Pacific: A summary report, Manila.
- International Energy Agency (IEA) and the World Bank, 2015, Sustainable energy for all 2015 – Progress toward sustainable energy, Washington DC.
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## **CLIMATE CHANGE, ENVIRONMENTAL SECURITY AND NATURAL DISASTERS**

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- Joe Sutton, 2015 might have seen hottest summer in 4000 years, CNN, 22 October 2015.
- Matt McGrath, Copenhagen ghosts haunt climate talks, BBC News, 23 October 2015
- Damian Carrington, Extreme heatwaves could push Gulf climate beyond human endurance, study shows, The Guardian, 26 October 2015.
- Francis Chan, ANN, Indonesia's President Joko Widodo cuts short US visit due to worsening haze, The Jakarta Post, 27 October 2015.
- Margareth Sembiring, Forest fires: Breakthroughs possible under ASEAN agreement, The Jakarta Post, 31 October 2015.
- Prime Sarimento, Worst haze for 20 years hit the Philippines, Science and Development Network, 2 November 2015.
- Mekong dams 'a grave threat to river', The Nation, 2 November 2015.

### **Selected Publications**

- Tonya Rawe et al. 2015. Cultivating Equality: Delivering just and sustainable food systems in a changing climate, CARE USA and Food Tank.
- John Costenbader et al. 2015. Drivers Affecting Forest Change in the Greater Mekong Subregion (GMS): An Overview, Policy Brief. USAID, LEAF and FAO.
- Thomas Damassa and Katherine Ross, Assessing The Post-2020 Clean Energy Landscape, Technical Note, World Resources Institute, November.

## **Events & Announcements**

- 2015 United Nations Climate Change Conference, COP21 CMP11, 30 November–11 December, Paris, France.
- 2016 Berlin Conference on Global Environmental Change, 23–24 May 2016, Berlin, Germany.

## **ENERGY SECURITY**

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- Fatih Birol, Energy demand in region seen jumping 80% by 2040, The Straits Times, 22 October 2015.
- Jane Nakano and Michelle Melton, The UK-China civilian nuclear agreement, Center for Strategic & International Studies, 23 October 2015.
- Office of the Press Secretary, Fact sheet: U.S.-Indonesia energy cooperation, The White House, 26 October 2015.
- Amos J. Hochstein, Regional natural gas market hub: Singapore leads the way, The Straits Times, 27 October 2015.
- Seow Bei Yi, Singapore boosting efforts to develop clean energy, The Straits Times, 28 October 2015.
- The future of nuclear energy: Half-death, The Economist, 31 October 2015.

### **Selected Publications**

- John Krige, 2015, Euratom and the IAEA: The problem of self-inspection, Cold War History, Vol. 15, No. 3, pp. 341–352.
- Carlo Patti, 2015, The origins of the Brazilian nuclear programme, 1951-1955, Cold War History, Vol. 15, No. 3, pp. 353–373.

## **Events & Announcements**

- Solar & Off-grid Renewables Southeast Asia, 25–26 November 2015, Bangkok, Thailand.
- Clean Air Through Energy Efficiency Conference 2015, 1–3 December 2015, Texas, USA.

## **FOOD SECURITY**

### **News & Commentaries**

- Damage to farms and crops hampers typhoon recovery in Philippines, Channel News Asia, 26 October 2015.
- Climate change poses ‘major threat to food security’, UN News Centre, 3 November 2015.
- 14 steps to eradicating malnutrition in 15 years, The Guardian, 3 November 2015.
- Mark Leon Goldberg, “Epic drought” hits South Africa, UN Dispatch, 5 November 2015.

- Lara Lloyd, Importance of agriculture to national security scrutinized, Food Business News, 5 November 2015.
- Global food demand scenarios for the 21st century: new online tool, Potsdam Institute for Climate Impact Research, 5 November 2015.
- Moly Walker, Unexpected hunger may explain kids' behavioral problems, MedPage Today, 5 November 2015.

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- Keith D. Shepherd, Gemma Shepherd and Markus G. Walsh, 2015, Land health surveillance and response: A framework for evidence-informed land management, Agricultural Systems, Volume 132, January 2015, Pages 93–106.

### **Events & Announcements**

- IFPRI 40<sup>th</sup> Anniversary Program, Washington D.C., 18<sup>th</sup> November 2015.
- Call for expressions of interest, Policy Lab for Early Career Researchers on Sustainable Nutrition, Deadline: 1 December 2015.
- Chatham House Conference: A Sustainable Food Future: Production, Supply and Consumption 7–8 December 2015.

## **HEALTH SECURITY**

### **News & Commentaries**

- 4th wave of H7N9 avian influenza has begun, Outbreak News Today, 18 October 2015.
- Dengue epidemic linked to El Niño effect, Asian Scientist Magazine, 20 October 2015.
- Mark Leberfinger, Southeast Asia may see rise in dengue fever cases as strong El Niño unfolds, AccuWeather.com, 25 October 2015.
- Annabel Tan, Dengue on the way to becoming endemic in China, Asian Scientist Magazine, 27 October 2015.
- PTI, IPC to become first WHO Collaborating Centre in SE Asia, The Economic Times, 4 November 2015.
- Matthew Perrone, Senate committee seeks information on price hikes from Valeant, Turing, 2 other drug companies, Associated Press, 4 November 2015.
- Bobby Ramakant, Malaria, dengue and leishmaniasis, Asian Tribune, 5 November 2015.  
Jessica Firger, New HIV drug injection could revolutionize treatment, Newsweek, 6 November 2015.

### **Selected Publications**

- Meaghann S Weaver et al, Interventions to improve adherence to treatment for paediatric tuberculosis in low- and middle-income countries: a systematic review and meta-analysis, World Health Organization.
- World Health Organization, 2015, Pandemic Influenza Preparedness Plan: Report of a regional workshop - Kathmandu, Nepal, 23–25 September 2014.

## **Events & Announcements**

- National Healthcare Coalition Preparedness Conference, 1–4 December 2015, San Diego, California.
- Call for Papers - Surveillance and Health Security: Building the New Systems We Need to Detect and Manage Health Threats, Deadline: 31 December 2015, Health Security.

## **PEACE, HUMAN SECURITY AND DEVELOPMENT**

### **News & Commentaries**

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- Antoni Slodkowski, Myanmar signs ceasefire with eight armed groups, Reuters, 15 October 2015.
- Tolulope Ola-David, Migrant cost Africa billions in lost human capital, Global Risk Insights, 19 October 2015.
- V. Arianti and Jasminder Singh, ISIS' Southeast Asia unit: Raising the security threat, RSIS, 19 October 2015.
- Yemen conflict: sick and wounded left to suffer as health system buckles, The Guardian, 23 October 2015.
- Rodrigo Papaleo Fermann, Brazil: Amicable conflict resolution, Mondaq, 28 October 2015.
- Kasita Rochanakorn, Ongoing Myanmar conflict traps villagers in crossfire, UNHCR, 28 October 2015.
- Neil Quilliam, Syria: The rise of the Assads, BBC News, 4 November 2015.
- Halimatou Ceesay, Africa: 57<sup>th</sup> session of African commission harps on coups, other conflicts in Africa, All Africa, 5 November 2015.

### **Selected Publications**

- Soo-Am Kim, 2015, Developments in North Korea's Human Rights Issues and South Korea's Strategy, The East Asia Institute, South Korea.
- International Crisis Group, 2015, Central African Republic: The Roots of Violence, International Crisis Group, Brussels, Belgium.

## **Events & Announcements**

- Beyond Comprehension? Cruelty & Violence in the Sierra Leonean Civil War, 25 November 2015, King's College London, United Kingdom.
- Call for proposals – Facing a violent past dealing with history and memory in conflict resolution, 4 December 2015, School for Conflict Analysis & Resolution, George Mason University, Virginia, United States.

## **TRANSNATIONAL CRIME**

### **News & Commentaries**

- INTERPOL creates specialist network to combat people smuggling, Euronews, 16 October 2015.

- Danny Yadron, Reports Warns of Chinese Hacking, The Wall Street Journal, 19 October 2015.
- Evan Perez & Catherine Shoichet, Hacker who allegedly passed U.S. military data to ISIS arrested in Malaysia, CNN Politics, 20 October 2015.
- Marguerite Afra, ASEAN to enhance border security along with EU, Interpol, The Jakarta Post, 21 October 2015.
- Andy Greenberg, WikiLeaks is publishing the CIA Director's Hacked Emails, Wired Magazine, 21 October, 2015.
- Michael Pizzi, Facebook warns users of "state-sponsored" hacking, Al Jazeera America, 21 October 2015.

### **Selected Publications**

- United Nations Office on Drugs and Crime, October 2015, Afghanistan Opium Survey 2015.
- RAND Corporation, October 2015, The Islamic State We Knew: Insights Before the Resurgence and Their Implications.
- Amnesty International, October 2015, Deadly Journeys: The refugee and trafficking crisis in Southeast Asia.

### **Events & Announcements**

- Together Let's Stop Traffick: "Breaking the Chains", 9–11 November 2015, Los Angeles, USA.
- Sixth Session of the Working Group on Trafficking in Persons, 16–18 November, 2015, Vienna, Austria.
- 2015 U.S. Cyber Crime Conference, 18–20 November 2015, National Harbor, USA.

## **HUMANITARIAN ASSISTANCE AND DISASTER RESPONSE**

### **News & Commentaries**

- Jim Gomez, Typhoon Lando leaves 2 dead, 16,000 displaced, Philippine Star, 18 October 2015.
- Half million die in decade of disasters in Asia Pacific: United Nations, Today Online, 27 October 2015.
- Asia and the Pacific, the most disaster-prone region of the world, needs to mitigate risks posed by disasters, according to a new United Nations report, NEWEUROPE, 28 October 2015.
- 13.5 mln people need protection, humanitarian assistance in Syria: OCHA, Xinhua, 30 October 2015.
- ASEAN has made 'decent progress in disaster management, emergency response: Shanmugam, Today Online, 2 November 2015.
- Alice Chia, Alliance of Singapore firms, ASEAN ink landmark deal on disaster management, Channel News Asia, 2 November 2015.
- P15-B disaster fund still unspent, AsiaOne, 3 November 2015.

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- International Federation of the Red Cross and Red Crescent Societies, 2015, World Disasters Report 2015: Focus on local actors, the key to humanitarian effectiveness, Geneva.

## **Events & Announcements**

- International Conference on Disaster Risk Reduction, Response and Sustainable Reconstruction: Capacity Building for Equitable Planning and Development, 23–24 June 2016, Boston, Massachusetts, US.
- Call for Papers: ICRCRC 2016 : 18th International Conference on the Red Cross and Red Crescent, 24–25 November 2016, London, United Kingdom.

## **WATER SECURITY**

### **News & Commentaries**

- Mehmet Celik, Experts: Transboundary water a tool for cooperation in Middle East, Daily Sabah, 11 October 2015.
- Nayantara Narayanan, Is a water security bill the remedy for India's water deprivation?, Scroll.in, 14 October 2015.
- In Huntington Beach, a desalination plant that makes sense, Los Angeles Times, 19 October 2015.
- Thalif Deen, Water remains largely marginalized in climate talks, Inter Press Service, 20 October 2015.
- Tess Riley, From New York to Seoul: 10 of the best designs for water-stressed cities – in pictures, The Guardian, 21 October 2015.
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- Tony Arnel, Australia's future cities: water-scarce or water secure?, Sourceable, 28 October 2015.
- Sebastian Smith, Brazil, land of water, goes thirsty, AFP, 30 October 2015.
- Naseer Memon, Water insecurity: Pakistan's future, The News, 1 November 2015.
- Craig Miller, Californians take drought lessons from Down Under, KQED, 2 November 2015.
- Israel: The world's water superpower, CBN News, 2 November 2015.
- Liu Hongqiao, China's bottled water industry is set to exploit Asia's water tower, Scroll.in, 3 November 2015.
- Amanda Silverman, Global thinkers: why water is a fundamental national security issue, Foreign Policy, 3 November 2015.
- Michael Klare, The water wars are coming: civilization will never survive climate calamity, Salon, 5 November 2015.

### **Selected Publications**

- Federica Chiappe et al, 2015, Climate finance and water security: Inception report, Oxford Policy Management, Oxford.
- CDP, 2015, Accelerating action: CDP Global Water Report 2015, London.

### **Events & Announcements**

- Water Security 2015, 9–11 December 2015, University of Oxford, UK.
- International Water Summit, 18–21 January 2016, Abu Dhabi, United Arab Emirates.