

### ***Session 5: Non-Traditional Dimensions of Energy Security (I)***

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(L-R: Mr Wibisono, Prof Yuxin and Prof Han Feng)

### **Environmental Impact in Southeast Asia**

*Mr Iwan Wibisono*

*Coordinator for Forest Carbon Policy*

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Energy demand, in particular for the generation of electricity and fuel for transportation, will increase in line with regional economic development and population growth. Consequently, the state is expected to provide energy supplies to avoid energy insecurity issues. However, the soaring price of oil has dealt a terrible blow to countries that rely on oil imports to fuel their economies and the situation is similar for Indonesia which has recently become a net oil-importing country, according to Mr Wibisono.

Indonesia and other developing countries are adversely affected by the soaring price of oil due to the problems with energy provision and poverty alleviation. Consequently, efforts are made to search and refer to alternative sources of energy – mostly coal and bio-fuels.

The use of coals and bio-fuels, however, may create additional problems if certain parameters are overlooked. For instance, in 2004, only 53 per cent of Indonesia's population have access to electricity, yet the emission generated from electricity has reach more than 21 per cent of total national emissions. Heavier emissions can be expected if the scheme to build 10,000 megawatts coal-power plants go ahead.

The increase in emissions will exacerbate climate change and this will only worsen the situation in Indonesia where the impact of climate change is being felt. This includes damage to assets from extreme weather, loss of agricultural outputs due to droughts, flooding, trans-boundary haze and unseasonal weather and disruption to business from infrastructure damage or disruption.

The development of bio-fuels, in particular palm oil, if done irresponsibly, is leading towards the rapid clearing of the most bio-diverse tropical forests in the world, putting pressure on forest-dependent people as well as the wildlife. The prevalence of forest fires to clear land for plantations is a regular source of haze in Southeast Asia and this poses serious health problems. In addition, the disregard for the rights and interests of local communities by some players within the industry has created tensions and conflicts with local communities.

There are options available to meet the soaring demand for energy while negating the negative environmental impacts. Indonesia is rich with natural resources, such as the potential for river-

run hydro power, geo-thermal, solar and biomass power. In addition, bio-fuel development can also contribute positively towards climate change and economic development. These options need to be explored and impediments (i.e. energy pricing, investment, etc.) need to be addressed so that renewable, clean and sustainable energy can be adopted as concrete solutions for Indonesia.