

Energy issues: Think outside the box



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MS TRI Mumpuni Iskandar, an agricultural engineer and director of the Ibeka Foundation in Indonesia, is campaigning to replace diesel power generation with renewable energy among her country's most remote communities.

She has developed micro hydel energy for villages on Indonesia's remote islands. She showed pictures of these islands rising deep green above roiling tropical seas at the recent Asia-Europe Environmental Forum's 6th Roundtable in Dublin, which focused on energy issues to be tabled at a major Asia-Europe meeting in Beijing today.



A group of Greenpeace activists holding a giant power cable mock-up during a protest over Indonesia's energy crisis and renewable energy programmes in Jakarta in August. The banner reads "renewable energy now". PHOTO: REUTERS

Ibeka, like Sunlabob in Laos and Geres (Renewable Energy Solutions for Development) in Cambodia, is applying technology in poor communities in Asia. But one fact that emerged from the Dublin conference is that though the renewable energy sector is growing in Asia, there needs to be more technology transfer from Europe to Asia.

That should be good news, for the sector is growing in Europe too. Germany alone has created over 300,000 jobs in the renewable energy sector in recent years. By 2010, the European Union will have created 700,000 jobs in renewable energy.

But though alternative pathways to our energy requirements do exist, they are as yet rudimentary. Our energy system remains entrenched in fossil fuels, which contribute to global warming. The fossil fuel-based energy needed to run all Coca-Cola vending machines in Japan would be enough to power the entire country of Bangladesh.

Industrial-scale biofuel exists, but only to sustain the conventional automotive and transport industry as we know it. Moreover, biofuel production has contributed to a global shortage of grain used as food.

Mr Nobuo Tanaka, executive director of the International Energy Agency, was at the Dublin conference and delivered a sober reality check: In order to meet the world's energy needs, we must consider the nuclear option.

"To achieve 50 per cent reduction of CO2 by 2050, the whole electric power sector would have to be de-carbonised," he pointed out.

"Half of that would come from renewable energy. But we need base-load generation, which can be from either nuclear or coal and gas with carbon capturing and storage. So at least quarter of electricity generation should come from nuclear."

To make that possible, we have to build 32 nuclear reactors every year, from now to 2050, Mr Tanaka said. Somewhat superfluously, he added: "It is a huge challenge."

Given that, the only answer to our rapidly warming planet may be deep change in the way our economic system is structured. As Mr Tanaka admitted, "it is very difficult to assimilate this (required) lifestyle change".

"A really significant change is necessary in how we produce and how we use energy. A lifestyle change is necessary."

"Decarbonising" our economic system - which means decarbonising our daily lives - is not necessarily incompatible with our survival. Decades ago, Mr Herman Daly advocated an alternative model of growth in his celebrated paper on "steady state economics", in which he wrote:

"If you have eaten poison, it is not enough to simply resume eating healthful foods. You must get rid of the specific substances that are making you ill. Let us...apply the stomach pump to the doctrines of economic growth that we have been force-fed for the past four decades."

Strategies like Clean Development Mechanisms (CDM) - trading carbon emissions to offset pollution - are unwieldy and complicated processes that have not done anything to restrain the growth of greenhouse gas emissions.

Mr Ismid Hadad, chair of the governing body of Kehati - the Indonesian Biodiversity Foundation - said at the Dublin conference that CDM is a valid instrument, but it is "insufficient for the magnitude of the problem" that we face.

Dr Leena Srivastava of India's Energy and Resources Institute summed up the views of the Asians at the conference, many of whom work at the grassroots level, when she said: "The bottom line is CDM is not enough; it is not adequate from the climate change of view."

"CDM needs to promote transformational change, not just incremental change. Today, the pressure...to change the development pathway is much more urgent."

The Dublin roundtable provided input for the seventh Asia-Europe Meeting of 45 countries in Beijing, which begins today. Climate change is on the agenda.

China, which now is the world's largest CO2 emitter, may be able to show the way with its ambitious CO2 reduction plan. But the problem may be so great that even a large country like China may be unable to cope by merely fiddling with technology.

The thawing Arctic ice mass is now releasing more methane - a gas many times more powerful a driver of climate change than CO2. Leaders need to think outside the box of conventional energy- and consumption-driven economic growth.

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