

Dr. Abdul Hamid Zakri is a prominent Malaysian biologist who was named on 26 January 2013 as the first Chair of the Intergovernmental Platform on Biodiversity and Ecosystem Services, or IPBES. Educated in Malaysia and the United States, where he specialised in plant genetics, Dr. Zakri has long experience of negotiations in international biodiversity governance. He has served with the UN Environment Programme (UNEP) and the UN Convention on Biological Diversity (CBD). He is currently science advisor to Malaysian Prime Minister Najib Razak and

Kristine: From your long years of relevant and fruitful experience, what do you think are the key challenges and issues that limit our transition to low-carbon society?

Prof. Zakri: I will focus my response in Asia, being from this region. Asia must prepare itself for green development, that is economic development that underpins environmental safeguards. Because of the rate that some Asians consume energy, green technology is no longer an option, rather it is imperative. We need to diversify our energy sources and invest in renewable energy development.

I also observed that some Asia countries are not learning from the mistakes that developed countries have committed in the past like unsustainable resource use consumption and lifestyle. We need not to copy those experiences by developed countries but rather use those as opportunities to avoid the same mistakes. Each country should also re-evaluate some of their development policies and see how they can contribute to achieving Millennium Development Goals and Sustainable Development Goals that are keys to low-carbon transition.

Kristine: To overcome those challenges, what do you think are the important elements to further us to achieve a low-carbon society?

Prof. Zakri: We need to take holistic approach that enhances green technology. We should foster green values that promote environmental sustainability like inculcating the mindset of civil society, NGOs, and business sector that earth resources are finite. Because of the heterogeneity of the Asia-Pacific, we can find many good practices like the 3R and 'mottainai' system of Japan and learn from them. I believe that it is also essential to look back at traditional and local indigenous knowledge, and reflect on the way they co-existed with nature harmoniously

chairman of the National Professors Council. He was previously the Director of the Institute of Advanced Studies of the United Nations University in Yokohama, Japan. Other positions have included Co-Chair of the Millennium Ecosystem Assessment Board (2001 – 2005), a UN undertaking to assess the state-of-health of the world's ecosystems, Vice-President of the Third World Academy of Sciences, and member of the Board of Trustees of the Institute for Global Environmental Strategies (IGES).

Kristine: You sound so passionate on inculcating traditional values, which, personally I truly agree with. In addition to this aspect, could you identify other key issues to discuss amongst researchers and between researchers and policymakers on low carbon society?

Prof. Zakri: Transition to low-carbon society is a tool to achieving green economy, and eventually leading to sustainable development. Researchers and policy-makers should consider the local and indigenous knowledge that can be used in realising a low-carbon society. They should continually discuss issues on efficient technology. In addition to this, they should also value the role of social science in holistically realising low-carbon development.

Kristine: You have been a member, chair, leader of various groups. What do you think is special and what are the key roles of a network like Low Carbon Research Network (LoCARNet) to help the low-carbon transition process?

Prof. Zakri: LoCARNet as a network of dedicated researchers in Asia-Pacific can really facilitate formulation and implementation of science-based policies in Asian region towards the realisation of low-carbon society. This could mobilise the participation of relevant stakeholders in the region to join the effort.

Notes: The eight Millennium Development Goals (MDGs) – which range from halving extreme poverty rates to halting the spread of HIV/AIDS and providing universal primary education, all by the target date of 2015 – form a blueprint agreed to by all the world's countries and all the world's leading development institutions. One of the main outcomes of the Rio+20 Conference was the agreement by member States to launch a process to develop a set of Sustainable Development Goals (SDGs), which will build upon the Millennium Development Goals and converge with the post 2015 development agenda.



International Research Network for Low-Carbon Societies

- Scientific Research Contributing to Low Carbon Policy-making Process -

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Interview to low carbon researchers and policymakers

Young Asian researchers conducted interviews with highly-respected researchers, practitioners and policymakers who work at the forefront of climate change and environmental issues. As one of the activities of LoCARNet, the secretariat initiated a capacity development and networking

programme for young Asian researchers. They were nominated by senior researchers in Asia as special correspondents of LoCARNet to compile and update low-carbon related news and information in their countries.

Interview: P1. DECC, P2-3. UNESCAP, P4. IPBES

Mr. David Warrilow, UK's Department of Energy and Climate Change (DECC), United Kingdom

Mr. David Warrilow is Head of Science in the UK's Department of Energy and Climate Change (DECC). He leads DECC's Science team providing scientific and analytical advice on DECC's policies on climate change and energy and promoting the use of evidence in DECC. He heads the UK's delegation to the Intergovernmental Panel on Climate Change (IPCC) and leads on the technical

matters as part of the UK's negotiation team to the UN Framework Convention on Climate Change. He has engaged in climate matters for much of his career. After conducting research into Climate Modeling at the UK Met Office, he moved to Central Government, initially as an advisor on air pollution and ozone layer issues, but later dealing with climate change.

Duc Canh: What are the key roles of a network like Low Carbon Research Network (LoCARNet) in helping the low-carbon transition process?

Mr. Warrilow: I think one of the most important roles of the LoCARNet is to raise the awareness of how different societies may practically develop in a way which is consistent with low emissions, and if carbon emissions are already at a high level, to find solutions to reduce them to much lower levels.

Duc Canh: What are the key issues to discuss among researchers and between researchers and policy-makers?

Mr. Warrilow: In my opinion, there are several issues that are of high importance. Firstly we should invest much more money and time into understanding the causes and potential solution to the problem of climate change. Secondly we should increase support for innovation, which might for example find new ways of developing more efficient, less polluting means of transport, new energy technologies etc. The last one is essential for increasing the speed of change which will be necessary to achieve the goal of a stable climate.

Duc Canh: Which methods do the government and local authorities around the world need to conduct to ensure that the target is reached in reducing emissions in carbon budget periods? For example, the target from the UK Government is to reach 80% in 2050 compared with levels in 1990.

Mr. Warrilow: I think the key thing is to assess the options available to reduce emissions, set goals with support from their publics and implement policies to make these reductions. And there are wide range of policies including deployment of renewable energy, energy efficiency measures, and developing approaches such as carbon capture and storage.

Duc Canh: What are the challenges for both developed and developing countries to transition to low-carbon societies?

Mr. Warrilow: I think some of the major challenges are having enough human capacity to ensure planning for and implementation of a low-carbon transition and also raising investment to implement low-carbon policies.

Mr. Rae Kwong Chung, United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

Mr Rae Kwong Chung is currently serving as a director in the environment and development division of United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).

Teh: What is green growth?

Mr. Chung: Green growth is a new paradigm of investing in natural capital to improve resource efficiency and aims to bring “Green” as a driver of economic growth. . It is different from the conventional paradigm of exploiting natural capital. Natural capital consists of various resources from our biodiversity (energy, water, minerals, land, forest and food) and has a clear planetary boundary. Current economic system characterized by high resource intensity is accelerating the rate of resource depletion and raises resource price which can lead to low economic dynamism. Rising resource price are limiting economic growth in many countries. For example, India recently experienced weak economic growth due to rising energy prices. . Therefore, to sustain continuous economic growth, the system has to be resource efficient. A paradigm shift from the high resource consumption pattern of the present state of economic development into a more effective and efficient way is important for ensuring green growth.

Teh: Any difference between green economy, green growth and green business?

Mr. Chung: Green economy is static, and it is a destination (goal) that we are targeted to achieve. In the meanwhile, green growth can be perceived as a process. By promoting green growth, it can help us to realise a green economy. Furthermore, green business refers to; (i) companies that provides environment friendly goods and services (e.g. photovoltaic panel) and (ii) companies promoting constant environmental improvement of their business operations. Green business is one of the components of green growth. Green business alone is inadequate to promote green growth. A partnership between government, private sectors (businesses and industries) and civil society is the key for success of green growth. The role of government is to provide enabling environment (policies, incentives, and regulations) to stimulate business sectors and communities towards green growth. With the appropriate incentives provided by government (e.g. green procurement - consumer market creation for environmental friendly products), green business is given a boost to expand.

Teh: What will be the challenges of green growth for developed and developing nations?

Mr. Chung: Developed and developing countries share a different set of challenges in addressing green growth. For developed nations, investments have been made in a number of inefficient infrastructures over the past decades. For instance, the highways, low density suburbs and coal power plants in the United States. To restructure these inefficient infrastructures towards more efficient versions would involve higher cost, consume additional resources (energy, water and raw material) and take a great deal of time. Yet, the strength of these developed nations lies in their capacity. They are strong in finance, rich of talent with know-how knowledge and cutting-edge technology to redevelop the entire system. On the other hand, developing nations are poor in the capacity to promote green growth. They have limited capital, little knowledge and obsolete technology for new infrastructure improvement. Mainly, these resource efficient infrastructures are usually novel, expensive and require new knowledge to operate. However, developing nations who are presently undergoing rapid progress with lots of new investment opportunities possess good leapfrogging opportunities to avoid the mistakes from developed countries. Developing nations should learn on valuable lessons from the past experience of developed nations and begin to invest on resource efficient infrastructures.

Teh: What are the responses from developing nations in Asia-Pacific region towards green growth?

Mr. Chung: UNESCAP receives both positive and negative feedback from the Asia-Pacific developing countries. A few countries are feeling reluctant to the idea of green growth. It does not attract their interest. They strongly believe that the issue of poverty should be their key priority. They are suspicious about the green growth agenda as being imposed by developed nations. Instead of green economy, they prefer to continue the existing ‘brown’ economy. Such perception is big mistake. Brown growth cannot continue due to rising resource prices. Green growth is a strategy of sustaining economic growth necessary to reduce poverty. It can sustain economy growth and generate jobs. The good news is there are a good number of developing nations who are already interested in giving their commitments to green growth. They are working closely with UNESCAP.

many of them do not have enough capacity in this area, UNESCAP is keen to assist these countries by providing advice and support for them to attain green growth. This is why ESCAP has published a report that contains policy options and success cases of green growth last year in 2012. A Report titled “Low Carbon Green Growth Roadmap” contains more than 100 case studies and policy options for green growth.

Teh: Do you have any important messages for developing nations in particular within Asia-Pacific region to promote green growth?

Mr. Chung: I think developing countries in Asia and the Pacific should try to turn climate crisis into economic growth opportunities. . Green growth policies and strategies designed in developing nations should be localised to fit into their individual context. Learning valuable lessons from developed nations is vital, as it helps to avoid the mistakes that developed nations experienced in the past. In promoting

green growth, finance and technology are considered to be important elements, yet these are not enough by themselves. We must not forget about the fact that without appropriate price signal finance and technology cannot flow for investment for green growth. Economic system change with strong political will and positive support from business and civil society is critical.

Teh: From the perspective of your view, what can Low Carbon Asia Research Network (LoCARNet) assists in promoting green growth in Asia region?

Mr. Chung: Since the concept of green growth is rather new, not every member from the public at large, policymakers and businesses are feeling confident enough about the importance and viability of green growth. Hence, LoCARNet could help to identify, demonstrate and disseminate more success case studies of low-carbon practices to further strengthen the influence of green growth in Asia region.

Interviewers:

Mr. Duc Canh Vu , Vietnam: Interview with Mr. David Warrilow:

He is a researcher at the Institute of Environmental Science and Engineering (IESE) for 2 years, shortly after graduating from the National University of Civil Engineering. He has joined several studies with lecturers in IESE, for example: Research of wastewater treatment by MBR technology for purpose of reuse; Study of AnMBR technology development for domestic wastewater treatment in Vietnam. For the time being, he is a team member of research project “Simulation of dynamic relationship of surface-subsurface-groundwater system for appropriate urban water use and development:

Mr. Teh Bor Tsong, Malaysia: Interview with Mr. Rae Kwong Chung

He is a postgraduate research assistant at the Universiti in Teknologi Malaysia/ UTM-Low Carbon Asia Research Center. He is one of the counterpart researchers (under core group – scenario integration and land use planning) in the project of *Development of Low Carbon Society Scenarios for Asian Regions* to design climate change mitigation plan for Iskandar Malaysia, a fast growing metropolis in Malaysia. Further, his present postgraduate research is reviewing the growth of industrial symbiosis for transforming the green Pasir Gudang industrial park.

Ms. Kristine Bernardino Garcia, Philippines: Interview with Dr. Abdul Hamid Zakri

She is a researcher at the World Agroforestry Centre-Philippines. Her current research interests are on global environmental change research including climate change impacts and adaptation, natural resources management, species distribution modelling, capacity building and outreach, science-policy, and knowledge and management. She is assisting on a research project on Linking geothermal with bioenergy and agroforestry in the Philippines.

