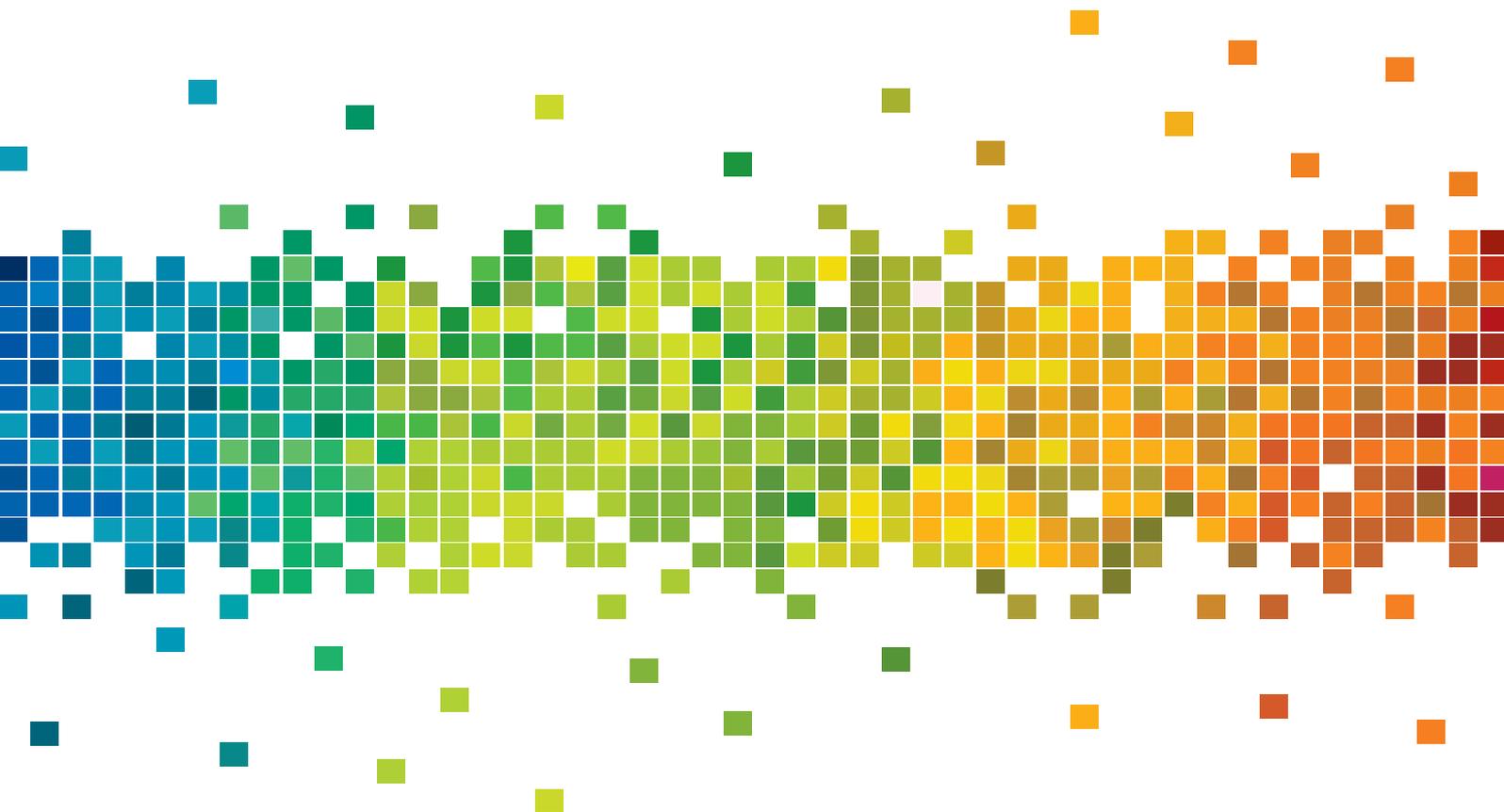




**Green Industry**  
for Global Recovery  
and Growth

**GENERAL CONFERENCE Thirteenth Session**  
8 December 2009, Vienna International Centre

**REGIONAL PROGRAMME FOR ASIA AND THE PACIFIC**



## **Round Table**

**Is Green Industry the next engine of  
growth for Asia and the Pacific?**

**Briefing note**



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



## Is Green Industry the next engine of growth for Asia and the Pacific?

### I. Introduction

The combined challenges of the global economic and environmental crisis could well present a new array of opportunities for entrepreneurs in the area of green goods and services, thereby creating jobs, contributing to economic growth and mitigating climate change and environmental degradation. In particular, the green stimulus packages of some Asian countries, which rest heavily on the creation of jobs through investment in environmentally friendly industries, could achieve the two-pronged objective of reviving the economy and, simultaneously, averting environmental and climate change disasters. This regional round table will highlight the opportunities and challenges in creating green businesses and green jobs and will discuss the associated implications for the economic recovery path of countries in Asia and the Pacific. The expected output of the round-table debate is a set of policy recommendations on the requirements and prerequisites for (a) building sustainable productive capacities; and (b) establishing an enabling policy framework for growing green businesses and jobs.

### II. Background

As economic development in general and industrialization in particular have gathered significant momentum in Asia and the Pacific, there has been an impressive reduction in the region's poverty level. Between the mid-1970s and 2004, poverty in Asia fell from more than 50 per cent to 18 per cent. However, an important side effect has been the unrestrained growth in consumption of resources, which raises serious concerns about the sustainability of development patterns in the region. This resource consumption has also led to the generation of significantly more pollution and waste, which has taken a heavy toll on the environment of the region and had a negative effect on the quality of life of its people.

Against this backdrop of long-term concerns, the global financial and economic crisis also poses some significant challenges. The crisis, which is thought to be the most detrimental global economic recession since the Great Depression of the 1930s, has led to a significant slowdown in economic activity in Asia and the Pacific. Trade and industrial output have fallen drastically, resulting in pervasive job cuts and a sharp rise in unemployment rates.

Coming on the heels of the energy and food crises, the continuing efforts of the region to lift more than 600 million of its people out of extreme poverty will surely be hampered by the economic slump. According to the Asian Development Bank, it is expected that more than 60 million people in developing Asia—including 14 million in China and 24 million in India—will remain below the absolute poverty line of US\$1.25 a day in 2009 as a result of the economic slowdown in the region. These people would have risen out of poverty had economic growth continued at its pre-crisis levels.

Thus, the region faces significant challenges in ensuring sustainable development, and there is an urgent need for appropriate action to be taken.

### III. Issues

#### Issue 1:

#### **Can green stimulus packages provide a basis for green industries to become the new engine of growth for the region?**

As a response to the global economic crisis, governments around the world have committed over US\$512 billion in economic stimulus packages to jump-start their economies. In Asia, the largest packages are in China and Japan, which have respectively announced support of US\$649 billion (or more than 15 per cent of the gross domestic product (GDP) of China) and US\$640 billion. Six other developing Asian economies have launched stimulus packages for amounts over 5 per cent of their GDP; eight are allocating between 2 and 5 per cent of their GDP, while four will add between 0.5 and 2 per cent of GDP.

An important element of these stimulus packages is that a large part of them will be allocated to “green projects” that could create new jobs in green industries and help to create a more efficient, low-carbon future. Green projects account for 81 per cent of the US\$76 billion economic stimulus package of the Republic of Korea and 38 per cent of China’s package, compared with just 12 per cent and 6 per cent in the United States of America and Japan, respectively.

Thus, the global financial crisis could well provide an opportunity to stimulate the development of green industries in Asia and the Pacific, but to what extent is the green industry concept<sup>1</sup> a viable strategy that can ensure rapid and sustainable economic growth with more widespread benefits?

#### Issue 2:

#### **What is the competitive environment of green industry in the region? Can Asia lead the innovation of green technologies?**

The global market for clean or green technologies has grown substantially over the past five years. This growth is being driven by rising energy and water costs, concern about climate change and public demand for environmental protection. According to the United Nations Environment Programme (UNEP), the world market for environmental goods and services had reached US\$1.3 trillion in 2008 and was expected to double over the next 12 years, even on present trends. Recycling and waste management today employ an estimated 10 million people in China and 500,000 in Brazil.

In tandem with increased demand, global investment in clean technologies is also rising rapidly and is the fastest growing area of venture capital investment. In Asia, investment in the clean energy sector grew at a compounded annual rate of 40 per cent between 2006 and 2008. With demand growing both within and outside the region, Asia and the Pacific is becoming a major manufacturer of green products for the solar and wind energy sectors.

Although most investment has gone into the established markets of the European Union and North America, growth in Asia is expanding rapidly. China has become a green economic giant in Asia and is leading the region’s

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<sup>1</sup>UNIDO defines green industry as any industry that commits to reducing various environmental impacts of its processes and products, and is actually doing so on a continuous basis.

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alternative energy investment trend. It invested more than US\$15 billion in green energy in 2008. That was an increase of 18 per cent over 2007. Wind power and biofuels received the most investment in China. The country has now become the world's second largest wind power market and the world's biggest photovoltaic manufacturer.

Currently, Japan leads the United States in hybrid-car technology. It strives to develop sustainable manufacturing, green information and communications technologies, innovative energy-saving methods, rare metal recycling technology and innovative building energy management systems. China is emerging as a leader in electric cars, solar power and wind power. The Government of the Republic of Korea is spending US\$31 billion to fund research in 27 green technologies, including non-silicon-based solar cells, biomass fuels, fuel cell power generation systems, and carbon collection, storage and processing. So, the basis for the powerful development of green and clean technologies is already apparent in Asia. But the issue is: can Asia lead in this area?

### **Issue 3:**

#### **What are the innovative financing instruments for green technology and green industry?**

Many green technologies currently have higher development costs than the technologies they would replace. It is only through technological learning from research, development, demonstration and deployment that these costs can be reduced and technologies can become more economical. Growing demand will also provide the economies of scale for sustainable, profitable development.

Financing is crucial in promoting green technology and green industry in developing countries in Asia and the Pacific. Green finance has been growing rapidly in the developed countries, with the United States and Europe driving the growth of carbon markets through emission trading, carbon funds and other mechanisms. These countries have also developed diverse carbon asset management, emission trading insurance and carbon banks.

For Asia to spearhead the transformation of its economy, adequate financial resources must be secured for developing new green technologies and green industries. This would require a change in the way investments in the region are financed. More money should be channelled into green businesses rather than into those that are not environmentally friendly. New and innovative green financing mechanisms should also be developed.

### **Issue 4:**

#### **What are the national and regional policy options for the development of green industries? What roles can international organizations play?**

The promotion of green technology and green industry as a way to overcome global environmental problems and attain sustainable development requires focused national and regional efforts. At the national level, it is essential to identify the kind of green technologies and green industries that are helpful in spearheading a country's efforts towards green industrial development and green growth.

Fundamentally, the development of green technologies should be led by the private sector, with appropriate government policy and institutional support, and transmitted by using market instruments. Therefore, building a partnership with the private sector is necessary for a green industry policy to become a feasible policy approach. One of the many ways to attain this could be to launch a private-public partnership initiative on green industry in Asia and the Pacific.

Green growth and green industrial development could be more effectively achieved if the potential and capacity of the entire region were harnessed in a coherent manner. A regional approach is essential, and international organizations have an important role in supporting government efforts towards the formulation, negotiation and implementation of regional strategies. In this regard, many United Nations entities have already launched their own supporting green initiatives. The Green Industry initiative of UNIDO is aimed at promoting resource-efficient and low-carbon industrial development. The Green Growth strategy of the Economic and Social Commission for Asia and the Pacific (ESCAP) has the objective of promoting sustainable green development and poverty reduction in Asia and the Pacific. The Green Economy initiative of UNEP and the Green Jobs initiative of the International Labour Organization (ILO) have similar aims, though at the global level.

These initiatives need to be implemented in a complementary and coherent manner, and in the spirit of “delivering as one United Nations”. In this regard, the Manila Declaration on Green Industry in Asia<sup>2</sup> provides a useful framework for joint follow-up by the core United Nations entities working in this area, namely, UNIDO, UNEP, ESCAP and ILO, in consultation with their member States.

## IV. Questions to panellists

- **Context:** What does “green industry” mean? How does it differ from “greening industry”? What are the theoretical and on-the-ground experiences globally in terms of its potential to address the environmental, social and economic problems of Asia and the Pacific? What lessons are there to be learned?

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- **Regional capacity:** What green technologies and green industries are already available and can serve as a basis for growing domestic and global markets? What are the key sectors and players in the region? Where do the comparative advantages lie?

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- **Scaling up and speeding up:** What have been the experiences in developing green industry in the region? What have been the lessons learned, particularly from successful experiences? What can be done to overcome the differences in implementing a green industry strategy among countries in Asia and the Pacific? How can areas of synergy be built upon and strengths shared?

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- **Enabling environment:** What kind of practices, policies and institutions need to be in place at the national and regional levels in order to grow a “green industrial revolution” in the region as a whole?

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- **International cooperation:** What can international assistance do to help implement the objectives of the Manila Declaration and Framework of Action?

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<sup>2</sup>The Manila Declaration and its Framework of Action are a key output of the International Conference on Green Industry in Asia, held in Manila from 9 to 11 September 2009. The Conference was organized jointly by UNIDO, UNEP, ESCAP and ILO in cooperation with the Government of the Philippines. The Declaration was endorsed by the representatives of 21 participating States on 9 September 2009.



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## V. Agenda

1. Welcome address and introduction: Paul Hohnen (moderator), International Expert on Sustainability Strategies
2. Keynote speech: Murali Sivaraman, Chief Executive Officer, Philips Electronics India Limited
3. Panel discussion (moderated by Paul Hohnen)

Panellists:

- Edward A. Corcoran, President and Chief Operating Officer, Waste Management Siam Ltd.
- Jifan Gao, Chairman and Chief Executive Officer, Trina Solar
- Taeil Kang, Vice-President, KC Cottrell Co. Ltd.
- Mukhriz Mahathir, Deputy Minister, Ministry of International Trade and Industry, Malaysia
- Rajiv Mittal, Chief Executive Officer, VA Tech Wabag

4. Open-floor discussion
5. Concluding remarks by the moderator

The Director-General will participate in the discussion.

## VI. Biographies

### **Paul Hohnen**

#### **International Expert on Sustainability Strategies**

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Mr. Hohnen has worked intensively since 1975 on a range of global economic, development and environmental issues as a diplomat, international civil servant, Director of Greenpeace International, and Strategic Director of the Global Reporting Initiative. He is now an independent consultant, and his clients include governments, intergovernmental agencies, businesses and non-profit organizations.

### **Murali Sivaraman**

#### **Chief Executive Officer, Philips Electronics India Limited**

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Mr. Sivaraman has worked in Singapore, Hong Kong, China, Canada, the United Kingdom and India. He is a qualified accountant and holds a Master of Business Administration degree. During his time in China, he was invited by the House of Commons of the United Kingdom to deliver an address entitled "Doing business in China".

**Edward A. Corcoran**

**Founder, Waste Management Siam Ltd. and Modern Asia Environmental**

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Mr. Corcoran holds a Bachelor of Science degree in civil engineering and a master degree in marketing and finance from Northwestern University in Evanston, Illinois, United States. He has served as a governor of the American Chamber of Commerce and is active in corporate social responsibility and environmental issues. Mr. Corcoran has been in Thailand for over 10 years and has experience working with several shareholder groups and lending institutions.

**Jifan Gao**

**Chairman and Chief Executive Officer, Trina Solar Company**

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Prior to founding Trina Solar, Mr. Gao established and managed the Wujin Xiehe Fine Chemical Factory and the Guangdong Shunde Fuyou Detergent Plant. He is vice-chairman of the China Renewable Energy Society Solar Power Construction Committee and standing vice-chairman of the New Energy Chamber of Commerce of the All-China Federation of Industry and Commerce. Mr. Gao graduated from Jilin University with a Master of Science degree in physical chemistry and received his Bachelor of Science degree in chemistry from Nanjing University.

**Taeil Kang**

**Vice-President, KC Cottrell Co. Ltd.**

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Mr. Kang is the head of the renewable energy business division at KC Cottrell Co. Ltd., a company that engages in the manufacture and sale of air pollution control systems. The renewable energy business division provides technology consulting services consisting of inspection, diagnosis and analysis of system efficiency.

**Mukhriz Mahathir**

**Deputy Minister of International Trade and Industry of Malaysia**

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Mr. Mukhriz Mahathir has worked for Opcom Holdings, Kosmo Tech and the Malaysian Franchise Association. He is also Executive Director of Perdana Peace Global Organization and serves as Chairman of the Board of Directors of the Malaysian cancer vaccine company, Bioven.

**Rajiv D. Mittal**

**Chief Executive Officer, VA Tech Wabag Ltd.**

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Mr. Mittal works in the area of municipal and industrial waste and wastewater treatment. He has also worked for water engineering companies such as Hindustan Dorr-Oliver and John Brown, in the United Kingdom.



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