

## The Clean Technology Revolution, China and Australia Victoria University 8 September 2011

### Green Economy Pathways

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#### Introduction

I was pleased to be co-editor of a recent book: *The Green Economy and its Implementation in China* (Enrich Professional Publishing), launched in Hong Kong in May.

[http://www.enrichprofessional.com/home/?mod=shop&\\_com=product&task=detail&id=6](http://www.enrichprofessional.com/home/?mod=shop&_com=product&task=detail&id=6)

Green Economy, as defined by UNEP, results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities

I also draw your attention to a recent UNEP Report: *Towards a Green Economy - Pathways to Sustainable Development and Poverty Alleviation*, especially the emphasis on 'poverty alleviation' [http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER\\_synthesis\\_en.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_en.pdf)

So my key message is that when we talk about Low Carbon, Clean Technology and Green, let's not forget the human well-being, equity and poverty alleviation dimensions. This is especially important as the principal objectives of China's 12<sup>th</sup> Five Year Plan are to address rising inequality in China and create conditions for more equitable wealth distribution, in addition to combating urban/rural disparities and providing more service employment for agricultural labourers in areas close to their current residence.

I will firstly address this challenge from a structural and policy perspective and, secondly, comment on how the clean tech revolution should be more broadly framed and considered.

#### 1) Structural rebalancing

I understand that China is pursuing a slightly slower but better quality growth rate of about 7%.

Victoria University is pursuing, with its China partners, structural rebalancing towards less energy intensive industries, such as knowledge intensive industries and key service sectors such as health, education, finance, communication and community services. Service-oriented growth of 7% pa, versus 9-10% pa growth driven by industry, is expected to result in more jobs, improved welfare, less pollution and emissions and better quality GDP.

In that regard, at the launch of our 'Green Economy' book in HK in May, Prof Mao Yushi, of Unirule Institute of Economics, Beijing <http://english.unirule.org.cn/> argued for Green Economy with Social Justice, a shift to better quality growth and better quality GDP, with additional indicators including:

- 1) How wealth is distributed? Reducing gap between rich and the poor
- 2) How the environment is protected
- 3) Whether an 'economic bubble' is created
- 4) Whether employment is increased.

As Prof Peter Sheehan said earlier, Green Growth involves increasing per capita welfare.

So let us cooperate with China so that local governments and their communities can achieve better quality growth/GDP and more socio-economic value by spending limited funds on improving human services, rather than pursuing large industrial projects that are currently more profitable.

A carefully planned clean tech revolution, with projects designed to achieve environmental, economic and social benefits simultaneously, can play a substantial role in this structural rebalancing.

## **2) A clean tech revolution should improve livelihoods, equity and achieve momentous change through a multitude of joined up, local, hands-on actions**

We must embed human well-being, equity and social justice considerations in clean tech solutions led by local communities.

Let's not just develop renewable energy technologies, for example, but do this in such a way that they improve the lives of the poor; are affordable; workable; use local materials; involve local training and skills development, including technical and business skills; generate local employment; and have ownership by local communities.

As former Japan PM Naoto Kan said on June 12: "Renewables are truly a participatory kind of energy. Renewable energy is generated on a small scale in many places. For example, we could have many sites generating five to 1000 megawatts of electricity..."

Distributed, small scale technologies are most suited to this.

### **'Hands on' Research**

I am currently involved in a research project, with Prof Ying Zhu, Director, Centre for Asian Business, University of South Australia, to 'transform the competitiveness, livelihoods and sustainability of small regional communities in Australia and China by means of workable, affordable, technological and system innovations'".

This will be hands-on, bottom up, applied research.

It will involve low carbon, smart and caring solutions with high, multiple socio-economic benefits; 'doing more with less'.

The 'Green Economy Pathway' must start at the grass roots with local communities at the forefront, with a multitude of joined up, small scale projects leading to momentous change. THAT is the clean tech revolution that is required!

Improving the well-being and equity of local communities must be the focus.

Governments, industry and academia should support these local initiatives, by all working together. This is the model favoured by UN Habitat and others.

One good example is 'Sunlabob', which provides pro-poor, affordable and reliable energy services for communities in developing world, with innovative business models

<http://www.sunlabob.com/>

<http://www.sunlabob.com/who-we-are.html>

Some others include:

- China Rural Energy Enterprise Development <http://www.c-reed.org/EN/index.htm>
- UN Habitat <http://www.bestpractices.org/>
- Asia Pacific Forum for Environment and Development <http://www.apfedshowcase.net/>
- Kitakyushu Initiative for Clean Environment & Network <http://kitakyushu.iges.or.jp/>

### **Carbon economics with social benefits**

I am also pursuing another project with colleagues, concerning the purchase of carbon credits by Australia from planting trees in China. This also has a social focus: we will be examining how tree planting may involve and benefit local communities in China, as well as improve the environment and reduce carbon.

Such opportunities emerge by pricing of carbon, and international offsets.

The World Bank's Community Development Carbon Fund is an example of carbon finance being used for projects in poorer areas of the developing world.

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTCARBONFINANCE/0,,contentMDK:21631530~menuPK:5216145~pagePK:64168445~piPK:64168309~theSitePK:4125853,00.html>

### **In summary**

When pursuing low carbon and clean tech initiatives, please consider the social and equity dimensions; not only in relation to large projects, but also to community based projects that involve small scale, affordable and innovative technologies and systems that may deliver multiple community benefits. The clean tech revolution, and the 'Green Economy Pathway', should begin at the grass roots community level.

Thank you

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