

# **Strategic Transformation and Green Development**

## **A CRITICAL DECADE**

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### **SLIDE 1**

- This is a critical decade for China and the world.
- If China fails to cut air, water and land pollution it will condemn another generation to chronic health problems and reduce its capacity to feed itself.
- Environmental degradation is already a large drag on China's national GDP and a threat to social harmony.
- If we fail to move toward a low carbon economy, very soon,, in China and abroad it will be very difficult to keep within the agreed 2 degree C guideline on global warming;
- Investments in the next decade must be able to survive a low carbon future or run the risk of being made redundant long before the end of their engineering life. This would be a great economic waste.

### **SLIDE 2**

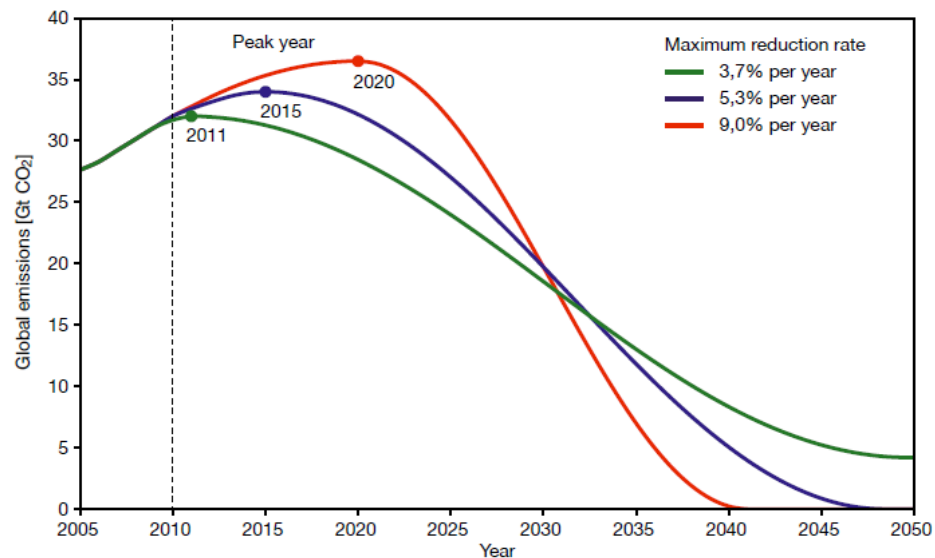
- Achieving a moderately well off condition for China's population by 2020 and through to the 2030s will depend on green development. This is vital to sustain improvement in well being.

- The good news is that the 12thFYP lifts the ambition in tackling these problems. But it is important to embed Green Development into a longer time horizon looking forward into the 2020s and 2030s
- The critical challenge for this decade is to embed institutional change to ensure that these policy objectives are delivered efficiently and we enter the next decade on a trend of accelerating environmental improvement.
- The key strategic transformation is to mainstream green growth into the economy, the bureaucracy at all levels and the culture so that it becomes a natural part of growth and improved living standards.
- I will focus on climate change as an example to bring out the key themes.

### **SLIDE 3 Critical Decade for Climate**

- Because we have delayed action so long, the world has a limited time to reduce emissions if we are to keep within a 2 degree Celsius temperature guardrail. Emissions are currently growing at 3% per annum with China responsible for 80% of the growth.
- If this remains unchanged the world is heading for 4 to 6 degrees Celsius warming by 2100.
- There is general scientific acceptance that beyond two degrees there is a sharply increased risk of dangerous climate change.

- Current trends would put large areas of China at risk – particularly the great cities of the coast which will be subject to sea level rise, agriculture and forestry, water supplies in the north and severe weather and flooding risks.
- To have a reasonable chance (67%) of staying within the 2 degree guideline there is a fixed global budget of emissions we can add to the atmosphere over the next century.



**Figure 3.2-1**  
 Examples of global emission pathways for the period 2010–2050 with global CO<sub>2</sub> emissions capped at 750 Gt during this period. At this level, there is a 67% probability of achieving compliance with the 2°C guard rail (Chapter 5). The figure shows variants of a global emissions trend with different peak years: 2011 (green), 2015 (blue) and 2020 (red). In order to achieve compliance with these curves, annual reduction rates of 3.7% (green), 5.3% (blue) or 9.0% (red) would be required in the early 2030s (relative to 2008).

Source: WGBU 2009

- Globally we will have to start to reduce total emissions rapidly from 2020 on. While the initial absolute reductions will focus on developed countries, sometime in the decade starting in 2020 it is important that China’s total emissions also peak and then start to decline in absolute

terms. By 2040 we will have to move to essentially zero net emissions across the globe.

- So investments China makes during the 12<sup>th</sup> and 13<sup>th</sup> FYP will need to be able to operate in an environment of significant carbon constraint.
- This is particularly important for long lived assets in the power, transport and infrastructure sectors.
- If these assets are heavy greenhouse polluters they are likely to suffer early closure or severe restrictions. This should be thought about as investments are made.
- Institutional arrangements – planning decisions, regulatory requirements, market signals and above all a consistency and sustainability of policy direction – are essential if wasted investments are to be avoided.

## SLIDE 4 China and global climate negotiations

- And it is great to see that China is already not just thinking but acting on low emissions investments.
- The great thing about China's domestic climate action is that it supports and encourages others who are acting.
- I know it is very important in my own country, as a member of our Climate Commission, to be able to tell the public what China is doing and I know this is true around the world.
- China is not acting alone but it is becoming a very important power in renewable energy.



- This makes a lot of commercial sense. The countries that act and invest now in clean energy and transport will inherit the future.
- But it also has a global impact – the cost of solar PV panels has fallen by 75% over the past four years, and 45% in the last two – and much of that is due to China’s success in reducing manufacturing costs much more rapidly with the effects of scale and learning.
- China might play a similar role in wind as it builds under licence. And, providing that its rigorous safety standards are maintained, it might similarly be able to reduce the costs of nuclear power as it builds the newest and biggest fleet.
- This isn’t good just for China, the reduced costs of renewable energy has helped around the world to meet their renewable energy targets and absolute emissions, and action feeds back into to global negotiations.
- We will only build an agreement on the back of broad scale domestic action across the world.
- Action builds trust and domestic confidence that goals can be achieved. Trust and confidence underpin productive negotiations.
- We simply cannot wait for an agreement in 2015 or 2020, we must all act now to build the base for lifting the ambition of those future agreements.

## **SLIDE 6: Delivering China's Green Development Climate Goals**

- China has a good mix of policies but I will use the Australian experience to suggest some key factors.

### ***Policy coordination***

- Climate must be integrated with the other arms of Green Economy – economic growth, the restructuring of the economy away from export oriented high polluting industries toward consumption, energy policy, efficient energy supply markets with effective price signals, support for vulnerable people and regional areas and urban planning – are all vital to reducing China's carbon footprint while boosting economic efficiency and social harmony.
- This should include clear relationships between climate policies and other policies – for example policies using carbon prices, trading or taxes will only work if price changes are allowed to flow right through the supply chain to end users.
- Within climate policy a consistency of measures is important. Overlapping, duplicating or competing policies will lead to excess costs and poor performance.
- Clear agreements about responsibilities for measures between the centre, regions and cities – to minimize complexity, administrative costs and risks of conflicting requirements.

### ***The Right Policy Instruments***

- All successful policies have blended **regulatory requirements** (eg an enforceable renewable energy target, building energy

efficiency standards, urban planning requirements, minimum energy performance standards for energy intensive machines and appliances; greenhouse emission standards for vehicles), **Government subsidies and investments** (eg research and development; investment in 'greener' infrastructure; assistance to individuals, regions and sectors undergoing adjustment) and **market signals** (carbon prices through taxes, cap and trade schemes or government competitive purchase of emissions reductions; incentives for reforestation etc).

- Integration of climate adaptation policies into broader policies to deal with or avoid natural disasters including planning, infrastructure investment and the development of adaptive markets such as water trading and insurance.

#### *Program consistency over time*

- Private and state businesses will only invest in lower emission technologies if they believe that policies will be maintained – this is particularly important for investments with a long expected life.
- Households will only change behaviour if they receive consistent advice and incentives.
- It is important to develop and publicize goals for longer time horizons so that businesses, governments and households can plan ahead.

#### *A comprehensive and reliable information base*

- This is particularly important for trading or taxing schemes – there must be reliable, auditable, up to date information on all



major point sources of emissions to establish liabilities and entitlements.

- Scientific and technical information – including for example on geology relevant to geo-thermal power or carbon sequestration – which is widely and freely distributed but with proper protections for Intellectual Property is also critical.
- Adaptation is assisted by good regional information widely distributed (recognizing uncertainties) about plausible future climate impacts.

*An effective, skilled and honest regulatory system*

- Regulatory requirements and market incentives will only work effectively and safely if there are adequate numbers of well trained, skilled and honest regulators with appropriate powers.

**Conclusion**

- Over the twenty years I have been involved in climate policy in Australia we have learned many of these lessons the hard way – by making costly mistakes.
- The broad principles are as relevant to other aspects of Green Development as they are to climate change.
- I will leave it to you to judge where China might best strengthen its effort and governance systems.

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