Economic Transformation and Poverty Reduction

How it happened in China, helping it happen in Africa

Volume 2
Synthesis Reports

China-DAC Study Group
Economic Transformation and Poverty Reduction:

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Volume Two:
Synthesis Reports

China-DAC Study Group
Foreword

Economic Transformation and Poverty Reduction:
How it Happened in China, Helping it Happen in Africa
Foreword co-signed by Zheng Wenkai and Brian Atwood

Over the last 30 years, China has undergone a profound economic transformation and lifted hundreds of millions of people from poverty. This process has reshaped the global economy and changed the economic context for nations and people all around the world.

This report by the China-DAC Study Group gathers together the fruits of an extraordinary discussion over the last two years among experts and officials from China, Africa and OECD/DAC countries on the ways in which Africa, and its development partners, might draw on China’s development experience.

The China-DAC Study Group was formed in 2009 as a joint venture between the International Poverty Reduction Centre in China (IPRCC) and the OECD’s Development Assistance Committee (DAC). The establishment of the IPRCC in 2005 serves as an important platform to assemble and share the story of China’s admirable poverty reduction record. The DAC Network on Poverty Reduction, with its focus on the development of productive capacity and the transformation of the lives and welfare of the poor, provided the initial interface with the IPRCC. From this the China-DAC Study Group emerged.

The Study Group launched a programme of four major events: on development partnerships; agriculture; infrastructure; and enterprise development. All were, aimed at sharing experiences and deepening understanding. The discussions during these events, among Chinese, African, DAC and other international participants, were dynamic, future-oriented, often revealing and always passionate. Despite great achievements, China still faces many challenges. We have confidence that Africans will learn from Chinese experiences, but based on their own reality. There was no attempt in this series to derive a new consensus.

Two key points did emerge from these discussions that we would like to highlight:

- The first is how much China’s economic transformation has contributed to its poverty reduction. The process of reform and opening-up was based on experimentation, monitoring and the scaling up of successful models. It is this continual process of learning and innovation, including the explicit effort to draw from advanced international practice, that has driven China’s transformation. This involved positioning the roles of government and market, and absorbing lessons by promoting learning institutions and incentivising human talent. China continually identifies and confronts weaknesses and emerging new challenges, such as the major rebalancing of its economy, unsustainable development and the challenges of globalisation, environmental issues and climate change. This is reflected in its 12th five-year plan which makes these key public policy reference points.

- The second is that there is a common interest among Africans, Chinese and OECD/DAC
countries in the emergence of well-functioning economies and states in Africa that encourage the participation of people in the development process. Rapid poverty reduction and rising middle classes will furnish the essential human capital for fast, learning-based development in the 21st century. This is the basic project of African nations and people themselves, through the African Union and through the whole range of African institutions and processes. This and the evolution of accountable governments are steadily constructing the policy basis for economic transformation across the continent.

This report is in two volumes. The first captures the essential points emerging from discussions at the four events and presents the main findings. The synthesis reports in the second volume place the issues in the context of the on-going research on China and the development process more generally.

The China-DAC Study Group will now move on from these big themes to engage, with African institutions, in joint learning processes on development co-operation in specific contexts. The objective is to create opportunities to learn together and from each other, to improve the collective impact of development efforts and to enlarge the scope for development co-operation.

We believe that this kind of pragmatic interaction can contribute much to the building of the mutual understanding and confidence among African, Chinese and OECD/DAC actors necessary to support a dynamic and sustainable development path for Africa in the context of a rapidly reconfiguring global economy.

Zheng Wenkai
Deputy Director
The State Council Leading Group Office of Poverty Alleviation and Development, China

Brian Atwood
Chair
OECD Development Assistance Committee
Acknowledgements

A series of five events constituted the China-DAC Study Group’s work programme from 2009 to early 2011 and generated this report. These events involved the engagement and support of many people from China, OECD countries and Africa.

The programmes and the speakers and participants, over 500 people in all, are listed in the Annexes to this report. Their active contributions made this experience a continual learning process with wide perspectives, drawing on the knowledge, research work and perspectives of all those involved.

Behind the scenes, the members of the China-DAC Study Group contributed the time and ideas that were crucial to conceptualising and implementing this programme. Their governments and organisations contributed to budgetary costs and to providing logistical support on a broadly shared and flexible basis.

<table>
<thead>
<tr>
<th>The China-DAC Study Group</th>
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<td><strong>Joint Secretariat:</strong></td>
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<td><strong>OECD:</strong> Jon Lomoy, Bill Nicol, Karen Jorgensen, Michael Laird, Angela Stuart and Cindy Ross</td>
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The China-DAC Study Group is grateful to all the participants for their time, their readiness to travel long distances and their passionate engagement in what became an enlightening process of peer learning on the key frontiers of development and globalisation in China and in Africa. Special thanks are due to a number of people in particular.

The inspiration for the Study Group came from The State Council Leading Group Office of Poverty Alleviation and Development (LGOP), particularly its Deputy Director, Wang Guoliang, and from the International Poverty Reduction Centre in China (IPRCC), particularly its Director-General, Wu Zhong, and Deputy Director, Huang Chengwei. The process was sparked by a workshop, organised at the OECD in February 2008 by Solveig Buhl, to share lessons from China’s poverty reduction experience.

The Chair of the OECD Development Assistance Committee (DAC), Echhard Deutscher, facilitated founding of the Study Group at discussions with the LGOP and the Ministry of Commerce (MOFCOM) during a visit to Beijing in July 2008. The World Bank Country Director in Beijing at the time, David Dollar, expressed immediate support for the concept.
In the implementation phase, Zheng Wenkai, who succeeded Wang Guoliang at the LGOP, participated actively in the events, as well as LGOP’s Directors-General for International Co-operation, initially Zhang Lei and then subsequently Li Chunguang.

Professor Li Xiaoyun, Dean of the Centre for Integrated Agricultural Development of the College of Humanities and Development Studies, China Agricultural University, has been an instrumental intellectual and organisational leader at all stages, and in particular in his role as Director of the Study Group. The Study Group’s Co-ordinator, Wang Yan, was the main author of the synthesis reports.

For the event in Bamako on Agriculture, Rural Development and Food Security, co-sponsored by the Government of Mali, special thanks are due to the Prime Minister, Modibo Sidibe for opening the event and to the Minister of Agriculture, Alassane Ag Agathane, and the Minister of Livestock and Fisheries, Madeleine Diallo Ba, for their contributions. The French Development Agency took on the local co-ordination tasks with major contributions from Hervé Bougault and Jean-François Cavana. The Chinese Ambassador to Mali, Zhang Guoqing, gave substantial support.

For the event in Addis Ababa on the Enabling Environment for Enterprise Development, special thanks are due to the Commission of the African Union for hosting the opening morning and notably to its Chairman, Jean Ping, and to its Commissioner for Economic Affairs, Maxwell Mkwezalamba, for their active participation. Thanks are also due to the United Nations Economic Commission for Africa (UNECA) for their support, specifically to Josué Dionê, Director for Food Security and Sustainable Development, and Emmanuel Nnadozie, Director for Economic Development. For the Government of Ethiopia, Tadesse Haile, State Minister for Industry, gave a keynote speech. USAID took the lead in local organisation of the event, with John Edgar taking on the key co-ordinating role. The Norwegian Embassy also assisted with local inputs, managed by Rolf Ree. The US Ambassador to the African Union, Michael Battle, provided opening remarks.

For the events held in Beijing, the IPRCC provided facilities, administrative support and accommodation and meals for invited participants. The first event, on Development Partnerships, benefited from specific support from Germany provided by Robert Haas and Michael Stirmweiss. The event was opened by Fred Omah, Uganda’s Minister of State for Finance. For the event on Infrastructure, the European Union provided particular support, under the leadership of Peter Craig-Mcquaid and with assistance from Nicholas Costello, Simon Sharpe and Juergen Ritter.

For each event, the World Bank commissioned the African Centre for Economic Transformation in Ghana to conduct consultations, via the Global Development Learning Network, among African experts and officials. These were moderated, summarised and fed into discussions by Ed Brown.

Thanks are also due to the Chinese officials who attended the events and followed the activities of the Study Group, in particular, from the Ministry of Commerce, Gao Yuan yuan, Deputy Director-General of the Department of Aid to Foreign Countries, Lu Feng, Kang Bingjian and Cai Fang; and from the Chinese Academy of International Trade and Economic Co-operation (CAITEC), its President, Huo Jianguo, and Professor Xue Hong, Director of its Department of Development Assistance. From the African Department of the Ministry of Foreign Affairs, Qiu Bohua, Ambassador for FOCAC Affairs, and Counsellor Wang Xinmin also participated.

In succeeding Eckhard Deutscher as DAC Chair, Brian Atwood actively supported the Study Group and participated in the Policy Symposium in Beijing in June 2011, to take stock of the results of the work programme from 2009-11 and to help launch a new phase of work.
# Acronyms

<table>
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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACET</td>
<td>African Center for Economic Transformation</td>
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<tr>
<td>AERC</td>
<td>African Economic Research Consortium</td>
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<td>AfD</td>
<td>French Development Agency</td>
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<td>AfDB</td>
<td>African Development Bank</td>
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<td>AFR</td>
<td>Africa Region</td>
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<td>AGOA</td>
<td>African Growth and Opportunity Act</td>
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<td>AsDB</td>
<td>African Development Bank</td>
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<tr>
<td>AU</td>
<td>African Union</td>
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<td>AUC</td>
<td>African Union Commission</td>
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<tr>
<td>BMZ</td>
<td>Federal Ministry for Economic Cooperation and Development, Germany</td>
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<tr>
<td>CAADP</td>
<td>Comprehensive Africa Agriculture Development Programme</td>
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<tr>
<td>CAITEC</td>
<td>Chinese Academy of International Trade and Economic Cooperation</td>
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<tr>
<td>CSR</td>
<td>Corporate Social Responsibilities</td>
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<td>CDB</td>
<td>China Development Bank</td>
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<tr>
<td>CEIC</td>
<td>Economic Databases for China and Emerging Markets</td>
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<td>DFID</td>
<td>Department for International Development</td>
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<tr>
<td>EAP</td>
<td>East Asia and the Pacific Region</td>
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<td>EC</td>
<td>European Commission</td>
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<td>EITI</td>
<td>Extractive Industries Transparency Initiative</td>
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<td>EU</td>
<td>European Union</td>
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<td>EXIMBank</td>
<td>Export and Import Bank of China</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>FIEs</td>
<td>Foreign Invested Enterprises</td>
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<td>FOCAC</td>
<td>Forum on China-Africa Cooperation</td>
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<tr>
<td>G20</td>
<td>The Group of Twenty Finance Ministers and Central Bank Governors</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>IBRD</td>
<td>International Bank for Reconstruction and Development</td>
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<td>ICA</td>
<td>Infrastructure Consortium for Africa</td>
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<td>ICB</td>
<td>International Competitive Bidding</td>
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<td>IDA</td>
<td>International Development Association</td>
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<td>ILO</td>
<td>International Labor Organization</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IPRCC</td>
<td>International Poverty Reduction Center in China</td>
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<td>JICA</td>
<td>Japan International Cooperation Agency</td>
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<td>KOICA</td>
<td>Korea International Cooperation Agency</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MOF</td>
<td>Ministry of Finance</td>
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<td>MOFA</td>
<td>Ministry of Foreign Affairs</td>
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<td>MOFCOM</td>
<td>Ministry of Commerce</td>
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<td>NDRC</td>
<td>National Development and Reform Commission</td>
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<td>NEPAD</td>
<td>New Partnership for African Development</td>
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<td>NGO</td>
<td>Non-governmental Organization</td>
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<td>NHO</td>
<td>Confederation of Norwegian Enterprises</td>
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<td>Acronym</td>
<td>Full Form</td>
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<td>ODA</td>
<td>Official Development Aid</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>OECD-DAC</td>
<td>OECD’s Development Assistance Committee</td>
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<td>OFDI</td>
<td>Outward Foreign Direct Investment</td>
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<td>OOF</td>
<td>Other Official Flows</td>
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<td>PIDA</td>
<td>Programme for Infrastructure Development in Africa</td>
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<td>PPP</td>
<td>Public-Private Partnership</td>
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<td>PPPI</td>
<td>Public-Private Partnership for Infrastructure</td>
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<td>PSDSAP</td>
<td>Private Sector Development Strategy and Action Plan</td>
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<td>SEZs</td>
<td>Special Economic Zones</td>
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<td>SOEs</td>
<td>State Owned Enterprises</td>
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<td>SSATP</td>
<td>Sub-Saharan Africa Transport Policy Programme</td>
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<td>TVEs</td>
<td>Township and Village Enterprises</td>
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<td>UK</td>
<td>United Kingdom</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNCTAD</td>
<td>United Nation Conference on Trade and Development</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNECA</td>
<td>Economic Commission of Africa, United Nations</td>
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<tr>
<td>US</td>
<td>United States of America</td>
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<tr>
<td>US$</td>
<td>United States Dollar</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WBG</td>
<td>World Bank Group</td>
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<tr>
<td>WBI</td>
<td>World Bank Institute</td>
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<td>WFP</td>
<td>World Food Programme</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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Chapter 1

Development Partnerships for Growth and Poverty Reduction: A Synthesis
Executive Summary

As awareness has increased of the importance of development partnerships for improving the effectiveness of aid, interest has also increased in knowing more about the experiences and lessons learnt from the partnerships that China has developed with its donors. An issue of particular interest is how China has been able to absorb external support and advice without losing independence in selecting its unique development path. Another issue is how international support has been integrated socially, culturally and politically into China’s internal agenda. These are critical issues for African countries that depend heavily on international assistance.

Despite significant differences in ethnicity, geography, socio-economic and geo-political conditions at present, China and Africa bear some resemblances historically. In 1978 when it started its reforms, China was a low-income country with agriculture as its largest sector accounting for 71% of total employment. Now after 30 years of learning and transformation, China has grown to be the largest exporter of labor-intensive manufactured goods, showing that development is achievable. This provides an inspiring example for African countries.

Looking back over 30 years of development in China and in African countries, participants at an event on Development Partnerships for Growth and Poverty Reduction agreed that China’s development experience is credible and there is much to learn through an exchange of experiences. Development, and economic transformation in particular, is a process full of uncertainties and should be pursued through an approach based on learning, selective adaption and innovation.

Three lessons from China’s experience can be highlighted for African countries:

- China’s approach is an ownership model where a country and people take development in their own hands and control the development agenda. China has a “responsible developmental state” where political leaders and the government put top priority on economic development, and implement what has been promised. Internal accountability systems help ensure that the government delivers results. The rapid and broad-based growth witnessed in China has been mostly internally driven. International development partners and foreign investors helped to accelerate this process by sharing knowledge, approaches, skills and experience.

- China’s approach is also a learning and innovation model. China adopted a home-driven, pragmatic approach based on learning by doing and trial and error. Following the logic of learning, China started with easy reforms and then moved to more complex ones. Identifying various growth bottlenecks along the way, successful experiences were scaled up while unsuccessful pilots were abandoned. Development partners were crucial in supporting China’s learning and transformation process.

- China’s development path is unique, but its sequencing may hold lessons for others. Reforms started with agriculture and village enterprises and then moved on to labor-intensive light manufacturing and exports. Progressive opening up to trade and foreign investment allowed China to build on its comparative advantage at each stage of its development. However, China’s development process is still not complete and the country now needs to rebalance its growth, shifting from relying on exports to expanding domestic consumption.
and people-centered, harmonious and sustainable growth.

China’s deepening economic engagement in Africa was generally welcomed by many African participants at the Development Partnerships event held in October 2009. They noted that China’s approach to aid, trade and investment was helping to promote growth and reduce poverty in Africa. However, China could probably do a better job in learning from its own rich experience in managing development partnerships to inform its engagement in African countries.

It is in everyone’s interest to improve the effectiveness of aid and avoid repeating past mistakes. Current reforms embodied in the Paris Declaration and the Accra Agenda for Action aim to improve aid effectiveness, including by improving co-ordination and increasing transparency, predictability and joint accountability. There is a potential complementarity between established donors’ “software” and China’s “hardware”, a potential win-win-win solution. Greater engagement by China in international efforts to harmonise development co-operation activities and reform multilateral aid institutions would be welcome by the international community and demonstrate China’s readiness to be a responsible global partner.

A partnership requires an open mind to new thinking and alternative approaches. Established donors can learn from China and vice versa. For example, the proliferation of parallel Project Implementation Units has undermined national public administrative systems in many parts of Africa, a practice that was never allowed to develop in China. Established donors can learn from China in terms of speed and efficiency of project implementation, and effective integration of aid, trade and investment. For its part, China can strengthen its monitoring and evaluation and impact assessment to facilitate learning from past successes and failures. The relationship between conditionality and country ownership merits greater reflection.

For African countries to be more fully in the driver’s seat, as China was, a higher level of ownership and accountability is needed. To achieve this, Africans need to develop their human and institutional capacities to define, lead and implement their own development process. In addition, so that African countries can more effectively take control of their development path and guide donors, it would be helpful if they had more complete information about levels and conditions of China’s development co-operation and the terms of the various government-backed commercial deals that Chinese and other multinational companies are entering into in African countries.

Increased economic integration is also important for promoting development on the African continent. Greater leadership could help African countries to flesh out a regional strategy on infrastructure development that would better utilise the opportunities that China and established donors can provide.

People living in hunger cannot afford to suffer the consequences of ineffective aid. Concerted actions globally are needed to meet the huge challenges of promoting growth and reducing poverty and hunger, challenges made more difficult by issues associated with climate change and pandemics. The lesson from China’s development experience is that Africa’s own talented people can do more to take their destiny in their own hands. The international community would welcome and support stronger African leadership and ownership of the development process. The result would be stronger development partnerships for growth and poverty reduction and a more peaceful and prosperous world.
1. Introduction: Development as a Process of Learning and Transformation

As is well recognized, development is a process that is full of uncertainties, and even more so is the process of transition. Because of this uncertainty, development itself should be pursued through an approach based on **learning, selective adaptation and innovation**. When China started the reform 30 years ago it faced tremendous uncertainty, there was no blueprint. No one knew the specific path to the “end model”. No one had expected that in the three decades following the initiation of pro-market reforms in 1978, China has sparked and maintained a rapid economic growth and achieved the most rapid poverty reduction in human history. Using the new international poverty line of $1.25/day (in 2005 PPP), it is estimated that in the 24 years after 1981 over 517 million people in China were lifted out of poverty and the proportion of the population living in poverty fell from 84% to 16% (Chen and Ravallion 2008). (Figure 1.1)

**Figure 1.1. Incidence of Poverty for China and Africa, 1981 – 2005**

( % living under the international poverty line of $1.25/day in 2005 PPP)

Note: China’s data after rural/urban price adjustment.
Source: Chen and Ravallion (2008a, 2008b)

Thirty years ago, China was a low-income country with agriculture as its largest sector accounting for 71% of total employment. Similar to many African countries, China was relative abundant in terms of natural resources and unskilled labour and was lacking human and physical capital. To earn foreign exchange China had to export raw materials such as crude coal, crude oil, minerals and agricultural products. As late as 1985, crude oil accounted for 20 percent of total exports. In 30 years, China has nearly accomplished at least three significant transformations, in particular, a) a transformation from a planned economy to a market economy; b) a transformation from an agrarian society to an industrialized society; and c) a transformation from a closed economy to a largely open economy integrated with the world. This historical transformation can be reflected in the following figure on the employment structure by sectors. (Figure 1.2)

China’s achievements in promoting rapid economic growth, reducing poverty and coping with this crisis have naturally drawn attention by the international community. In this broad context, the first event of the China-DAC Study Group on “Development Partnerships for Growth and Poverty Reduction” was timely. Due to space limit, this synthesis report is not intended to be comprehensive but focuses on three key issues that were discussed at the first event:
Figure 1.2. China’s dramatic transformation from an agrarian to an industrial economy: Composition of employment by three sectors

Source: Justin Yifu Lin and Yan Wang 2008 and updated by Yan Wang.

- What strategies and approaches have allowed China to achieve rapid growth and poverty reduction, and how has China learned from development co-operation and utilized it to promote this growth and poverty reduction? To what extent are these experiences and lessons relevant to Africa? (Section 2)
- What types of development partnerships have worked in Africa? What partnership approaches have been used by emerging donors such as China? (Section 3)
- How can Africa, China and established donors work together to build development partnerships in Africa? (Section 4)
2. Development Partnerships and China’s Growth and Poverty Reduction

2.1 China’s Home-grown Strategies for Broad-based Growth and Poverty Reduction

China’s reform agenda was generated internally by the strong desire to catch up and reach the development goals set forth by Deng Xiaoping. Due to path-dependence, China’s objective was to build a “socialist market economy with Chinese characteristics” through an experimental approach. This independence in ideology has established China’s leading role and deciding voice in its own development agenda. As a transition economy faced with tremendous uncertainty, China has developed its own unique path for the transformation from a planned economy to a market-orientated economy, where poor people have been able to participate in, contribute to and benefit from growth. Although the “end model” may be similar to a market economy, from the Chinese perspective this unique path has allowed China to maintain social stability, national security, self-confidence and favorable investment climate for attracting foreign aid and direct investment. In a way, social stability and national security become the pre-conditions for economic development.

China started with the “easier” reforms, relying on home-grown and second-best institutions - the household responsibility system (HRS) - followed by an expansion of township and village enterprises (TVEs), a gradual liberalisation of trade regimes via special economic zones (SEZs), using dual-track prices at an earlier stage, and liberalising prices at the margin and opening up to the global economy. The more complex reforms started relatively late in the process: fiscal reforms (1994) and financial reforms (after 2000). “Crossing the river by groping the stones beneath the surface” became the hallmark of China’s economic reform. This incremental, learning-by-doing and innovative approach has also helped firms and institutions to adjust and new entrepreneurship to develop, so that the private sector and out-grow the state sector (Figure 1.3). In accordance with this learning and innovation process, China’s development can be divided into three periods.

- The first period (1980s) was a phase of home-grown reform and economic liberalisation, with the introduction of the Household Responsibility System in the countryside, price reforms and the rapid development of township and village enterprises (TVEs) and special economic zones (SEZs).

- The second period (1990s) was a phase of economic growth, institutional transformation and the externalisation of costs (social and environmental) of this development, mainly benefiting the urban areas and producing a rising income gap.

- The third period (the first decade of the 21st century) was characterised by enhancing efforts to modernizing institutions making laws and regulations conform with the WTO and other international standards, and to “rebalancing” the growth pattern and to address the social and environmental consequences of China’s rapid growth. (Gransow and Zhou 2009).

**Strategy 1: Household responsibility system and its tremendous impact on poverty reduction.** The replacement of collective farming with a household-based system, later known as Household Responsibility System (HRS), started spontaneously in Fengyang County, in Anhui province in late
1978. Seeking to end their food shortage, peasants had started to implement a policy of contracting collective land to families (Du 2006). First an illegal practice, up to 1980, the HRS was scaled up to 45 percent and to 98 percent in 1983 (Lin and Wang 2008). The most important implication here is that the policies accommodated the spontaneous actions on the ground. The adoption of the HRS, together with agricultural product price increases were key elements of the rural reform in 1978-84, which unleashed farmers’ incentive and led to rapid agricultural productivity growth and poverty reduction. Nearly a half of the total rural poverty reduction happened in this early stage of reforms (Lin, 1987, 1992, and Ravallion and Chen 2007).

**Strategy 2: Township and village enterprises: leaving agriculture but not the countryside.** As the agricultural sector developed rapidly after 1980, it created a surplus of labour as well of savings which greatly expanded the opportunities for township and village enterprises (TVEs). They came into existence under the People’s Communes system in 1971. Fiscal decentralization started in 1979 provided incentives for local governments to develop their local economies through supporting TVEs. Employment in TVEs increased from 28 Million in 1978 to 95 Million in 1988 at the peak (SSB 2007). This development had led to a rising rural incomes and a labour reallocation from agricultural to non-agricultural sectors. The dynamism of TVEs and other nonstate enterprises exerted a pressure on the SOEs and triggered the restructuring of the SOEs. The increase in competition among the enterprises and between the state and non-state enterprises also increased the productivity of the SOEs. The development of nonstate enterprises significantly rectified the misallocation of resources. The technological structure of nonstate enterprises was more in line with China’s comparative advantages.

**Strategy 3:** Setting up Special Economic Zones- Attracting Foreign Direct Investment for job creation. In establishing Special Economic Zones (SEZs) in 1979 China broke sharply with socialist orthodoxy and allowed China to gradually open its trade and investment regimes and follow its comparative advantages. It was only after Deng Xiaoping’s “Southern Tour” in spring 1992 that a flood of FDI into China was unleashed. With the establishment of Pudong special zone in East Shanghai at the beginning of the 1990s and 18 other new zones approved in 1992/93 and Foreign Direct Investment from Europe and North America rose dramatically. China has become the second
largest destination of FDI since 2003. Over 150 million to 200 million rural migrant workers are employed in the coastal regions while policy restrictions for rural-urban migration have been gradually loosened. Increased labour mobility has allowed more efficient resource allocation leading to productivity growth, inclusive growth and poverty reduction and welfare improvements (Lin and Wang 2008).

**Strategy 4: Investing in Infrastructure and regional development.** Since the 1990s, China has been pursuing a policy of economic expansion with extensive investment in the country’s infrastructure, particularly in the transport, traffic, energy, telecommunications and water supply sectors. The financial crisis in Asia in 1997/98 has lead to intensive efforts to build infrastructure through fiscal stimulus and a strategy of “Going West”, aiming at accelerating the development of the Western and central provinces of China. In 10 years China’s highway grew from 4700 km in 1998 to 50,000 km and large container ports expanded. Additional large-scale projects include the railroad line from Golmud to Lhasa, which like the dam is part of the Western Region Development Strategy; a water supply project to pump water from the south of the country to the north; and high-speed rail lines from Beijing to Tianjin, and from Beijing to Shanghai. Physical infrastructure has lowered the trading cost and greatly facilitated a rapid trade expansion. (Gransow and Zhou 2009 and Chapter 3 below).

**Strategy 5: Striving for a harmonious society inside and outside China.** The unintended impacts of economic growth such as a growing income disparity, environmental degradation and external imbalances became pressing concerns. The fourth generation of political leadership in China proposed a new approach to development called the “scientific development concept”. The concept of “building a harmonious society” was proposed in 2004, including a series of new policy measures to remove some urban-biased policies. Examples include a) phased out agriculture taxes; b) increased government expenditure on agriculture, rural residents and rural areas; c) improving rural social services and low-income guarantee; and d) lifting restrictions on rural – urban migration further, and provided social services to migrant workers and their families. Meanwhile, a White Paper on China’s peaceful development was published in December 2005 which can be seen as a complementary part of the harmonious society concept. The White Paper presents China’s development as a contribution to world peace and as a strategy to realize a peaceful world with common prosperity, stressing the principle of mutual benefits with other countries. The concept of a harmonious China in a harmonious world has emerged. (Gransow and Zhou 2009).

In sum, China’s broad – based growth and development may be attributable to (1) a strong leadership and commitment for development (2) a preference for experimentation, including piloting and the scaling up of successful experiments and (3) an open-minded learning spirit: first through learning from Chinese people’s ingenuity and innovation on the ground, and then a nationwide collective learning from development partners and foreign investors. Realizing China’s reform and development process is still not complete, several Chinese officials indicated that “China is successful because it has been a good student”, implying there is a lot to learn to meet the current challenges.

### 2.2 Partnerships as sources of capital and knowledge for poverty reduction

Drawing on lessons from its past (with the former Soviet Union), China insisted on “self-reliance” as the main principle for its development. And for 18 years in the 1960-1978 China did not have domestic debt or foreign debt. In 1979, China started to approach international organisations such as
UNDP and the World Bank for development assistance. The guiding principle seems to be what Deng Xiaoping said to Robert McNamara, that China can develop with or without the foreign development assistance, but China can develop faster with foreign aid (World Bank 2008). It was with this self-confidence that China started to actively seek and receive both multilateral and bilateral assistance, the latter starting with a loan from the Japanese government in 1979.

During the last 30 years, external economic and development co-operation played significant roles in promoting growth and poverty reduction, directly as a source of capital and indirectly through facilitating economic transformation and social development, as well as through enhancing capacity to adopt international best practices. In more recent years, the policy advice and knowledge services are appreciated more than the amount of capital provided. “The most important benefit China received from foreign aid is the introduction of new ideas, the opening of mindset and the dissemination of knowledge.” (Kang Binjian, MOFCOM). International development partners were considered “teachers” and they played an irreplaceable role in China’s development effort.” (Zhou Hong, CASS)

In particular, China’s poverty reduction strategy was heavily influenced by international best practises shifting from targeting poor areas to targeting poor households. Periods of rapid poverty reduction were those where the focus was on rural reform and strong policy support to agriculture, such as 1979-84 and 1994-96. When this rural emphasis was lacking, poverty reduction slowed, in particular in 1985-1993 and 1997 – 2002. International donors have contributed to growth and poverty reduction in different ways in the following 4 periods.

1. Phase 1979 – 1985, a period of rural reforms simblized by the introduction of home-grown institutions such as HRS, TVEs and SEZs, which unleashed the productive capacity of rural households. A lack of foreign exchange constrained China’s development. International donors contributed mainly to the development of China’s economic infrastructure by providing capital and modern technologies. Multilateral donors and Japan invested in China’s infrastructure and energy as well as agriculture. International competitive bidding (ICB) were introduced in 1984 in a hydropower project located in Luggage, Yunnan province, creating a “Luggage shock” (Lu and Wang 2004).

2. Phase 1986 – 1993, development--oriented poverty reduction policies were targeting at poor regions, not at poor households. Poverty alleviation funds were offered as loans rather than grants to build on productive capacities. Institutions such as the State Council Leading Group for Poverty Reduction was established.

3. Phase 1994 –2000 (8/7 plan): The aim of the 8/7 plan was to lift 80 million people out of absolute poverty within seven years (1994 – 00). Food and clothing shortages for the rural needy were to be essentially eliminated by the year 2000. This co-incides with a period of rapid institutional transformation in preparation for the WTO accession. International donors have provided technical assistance and investment in poverty reduction, environment and social development. Between 1995 and 2000, China’s LGOP invested around 5.27 billion Yuan in poverty reduction, with a significant share coming from development partners (Wang Guoliang 2005).

4. Phase 2001 – 2010 (10-year program): The government continued its efforts to combat rural poverty by concentrating its focus on poor areas. However, after extensive South-South exchange of experiences which began in 2004 via the Global Conference on Scaling Up Poverty Reduction

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held in Shanghai, more attention has been shifted to poor households. In 2009, a new anti-poverty standard has been implemented benefiting low-income people in the rural area. Meanwhile, to “rebalance growth”, more foreign aid (60 to 70 percent of total) went into environmental protection, pollution control, clean energy, renewable energy, resource conservation, health, culture and education, climate change, public goods and high-level policy consultancy. (Details were presented by representatives from BMZ, DFID, EU, JICA, etc).

Box 1.1. Volume and Distribution of Official Development Aid in China

What is aid? According to the OECD definition, official development aid includes grants and concessional loans (with a grant element of at least 25 percent) that are used for development purpose. Based on this definition and OECD statistics, the total sum of net disbursements (grants plus loans minus loan repayments) of official development assistance (ODA) to China during the period 1979 – 2007 was US$ 49 billion. Of this, US$ 20.5 billion was in grant form and US$ 28.5 billion in (net) loans. The first half of the 1990s saw a steady rise in ODA; during the second half of the 1990s ODA contributions to China fell and rose again during the first years of the 21st century.

Box Figure 1. ODA to China by Bilateral and Multilateral Donors (1979 – 2007)

Source: Compiled from OECD/DAC data, which exclude those were not concessional enough to qualify for recording as ODA.

According to statistics compiled by China’s National Development and Reform Commission (NDRC), disbursements of bilateral and multilateral loans (some of which were not concessional enough to qualify for recording as ODA) to China between 1979 and 2005 totalled US$ 83 billion. By far the largest bilateral donor to China has been Japan with more than US$ 20 billion in loans and more than US$ 6 billion in grants. It was also one of the first bilateral donors to China. The second largest donor has been Germany with US$ 4.2 billion in loans and US$ 3.44 billion in grants between 1985 and 2007. Other donors included France, Spain, Italy, United Kingdom, Switzerland, Austria, Netherlands, Belgium, Canada, Australia, Sweden, Finland, Denmark, Norway, Korea, Israel, Saudi Arabia, Kuwait, Russia, Poland and Luxembourg and others (NDRC 2009).

Sectoral composition: More than half of these investments went into the transport and energy sector. Indeed, for the AsDB and Japan, about two thirds of lending was directed into these sectors. Grant funding, which according to MOFCOM amounted to no more than US$ 6.6 billion over the last thirty years, mainly went into the following sectors: education, environment, rural development and poverty alleviation, health, public policy and institutional reform and others. (MOFCOM 2009:8).
Over time, the allocation of foreign aid to China has shifted from “hardware” to “software”, the geographical allocation has moved from the east to the west and the form has gradually shifted from grants to more concessional and non-concessional loans. The partners have also changed from the “government-to-government” model to a “many-to-many” model where the private sector and NGOs play significant roles. For example, USAID has been working mainly with the private sector and NGOs.


2.3 Key Elements for China’s success in managing and utilising development aid

Strategies and principles. In receiving and managing foreign aid, China has insisted on the principle of “Self-Reliance: Utilise other’s experience to achieve one’s own objectives”. Chinese leaders firmly believed that “no one knows the country better” – that donors do not have the full information needed to “run the country”. For any development aid project, the government is the initiator, information provider, the co-financier, the guarantor, the negotiator, and the implementer (Zhou Hong, CASS). “China has also managed ideas” and selected those ideas that were considered suitable to local conditions (I. Ohno, JICA). During many negotiations, the Chinese government insisted on the principle that “Foreign advice and technology must adapt to local conditions”. Over the years, China has become an equal partner with foreign donors, and during a negotiation, “both sides have veto power.” (N. Hope, WB) In a few cases, where the project was rejected by the multilateral or bilateral donors, the Chinese government found alternative fiscal resource to finance the project in question. This strong leadership and ownership of the development agenda is an experience that is relevant to African countries.

Utilizing foreign aid for China’s overall development. A condition for effective aid programmes in China is the effectiveness of the long-term development plan, and the consultation process around it. Starting with the earliest stages of reforms, China established a set of institutional arrangements for managing foreign aid. However, the most important aspect is to incorporate foreign aid and concessional loans in to the consultations around the 5-year development plan. The following policy was written in the 8th 5-year plan “we have to actively and effectively utilise foreign capital, try to obtain more multilateral and bilateral government loans, especially those loans with more favorable conditions.” In particular, lists of priority sectors and projects were usually provided to multilateral and bilateral governments in order to guide the work of foreign donor agencies in a direction that is consistent with the 5-year plan. There are three criteria for selection of donor projects, a) they must be consistent with China’s long-term development plan, b) they must be consistent with China’s poverty alleviation plan, and c) they must be consistent with local conditions. In this way, foreign aid programmes and projects have been fully integrated into China’s own development plan and its implementation.

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1. Asymmetric information is prevalent in the area of development aid and cooperation. Examples include the principal and agent problems and broken feedback loops. For details see Martens, B. et al. 2002, Svenson 2006 and Stiglitz 1989, among others.
**Donor Coordination**. In China, the government takes the lead in coordinating donors. The aid co-ordination problem was solved by the active management of the process by the Chinese state; there was no donor group in China. Starting from the beginning of the reform process, China established a management system for foreign development assistance led by the Ministry of Commerce (formerly, MOFTEC). During the preparation of the five-year development plan, the planning agency takes the lead in a consultation with ministries and localities regarding their development needs, and then reconciles with the national development plan. “Priority sectors” to be supported are provided to donors and investors. Then the MOFCOM initiates the discussion with bilateral and multilateral donors. The Ministry of Finance serves as the window agency for the World Bank, ADB, other multilateral financial facilities and bilateral donors (JICA). This approach can be characterized as “centralised co-ordination by government agencies, and localised implementation by provincial and local governments”. From the Chinese perspective, this counterpart agency or “window agency” system may have improved information flows, reduced the transaction cost of coordinating donor agencies and relieved capacity constraints. However, from the donors’ perspective, co-ordination amongst donors through these window agencies has sometimes been difficult and transaction costs high for various reasons including high institutional boundaries, vested interest groups and capacity constraints within some ministries (K. Leitner, UNDP; and R. Haas, BMZ).

**Institutions for learning and capacity building**. China developed institutions\(^1\) to enhance human capacity for implementation: new departments and centers were established at the NDRC, MOFCOM, MOF, and LGOP to specialize in coordinating donors and managing joint projects. China’s learning was selective: “China did nothing but what they really wanted to do” (N. Hope). Project Implementation Units (PIUs, or Project Management Offices in China) and project managers have played significant roles as bridges between donors and clients. Realising the gaps in capacity, the government established “project committees” and PIUs at provincial and county levels, in an attempt to bring together the human resources needed for implementation. Coming from different backgrounds such as teachers or technicians, the project officers were trained annually off-the-job\(^2\) and on-the-job, and had a deeper understanding of the new ideas and international practices (R. Haas, BMZ). Many of the trained project managers in the PIUs were promoted to director-generals in government agencies such as the LGOP and MOF. In addition, they were paid the same salaries as their co-workers and they remained internal to the “system”, not external as hired by donor agencies. \(^3\) This arrangement ensured stability and encouraged trained project managers to remain in the country system for a long period, get promoted and thus reducing brain-drain as has happened in African countries.

**Co-funding mechanism and accountability system**. For each development project, the government of China has provided co-finance, albeit at different proportions, and by different levels. In the recently

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1. China has two sets of institutions: the government/administrative institutions which have thousand years of history, and the Chinese Communist Party (CCP) system which also runs through central, provincial and local levels. See Kenneth Lieberthal 2003 “Governing China” for details. In this report, we focus only on those institutions relevant to developing countries.

2. Chinese government and CCP allocate substantial budget for training officials. There are two sets of training schools or centers for the central, provincial and county officials and those in the line ministries and high level officials in the CCP. For example, the 11th 5- year plan stipulated that each year, 500 provincial officials, 8800 director generals and 10,000 county/division chiefs to be trained.

3. This arrangement reduced the “principal-agent problem”, as the project officials remain responsible and accountable to the principal of the country.
years, project proposals generally come from the provincial governments which committed to provide co-financing and to be responsible for repayment of the loan. Then the central government (NDRC) approves the projects according to the three criteria and the national priorities, before sending to the donor agencies. As such, this mechanism shows the provincial government’s ownership and commitment for such projects, and they are also held accountable for the implementation of the projects as well as the evaluation, repayment and follow-up work. Provincial officials are often promoted if the projects were implemented well and demoted if the local economic growth fell or graft is found. This mechanism has also made clear that a specific level of the government (or ministry) is responsible for the management and maintenance of the project in question.

In sum, development assistance has played a significant role in China’s growth and poverty reduction. The Chinese government and people appreciate it because it opens windows to new ideas, new approaches, new knowledge and experiences, and it facilitates the needed institutional reforms that may otherwise be blocked by interest groups. However, learning is neither costless nor painless. China has paid “tuition” for learning – by establishing the needed institutions, offering profitable opportunities to foreign invested enterprises (FIEs) and joint ventures, as well as accepting conditions such as “tied aid”. Over 50% of bilateral aid to China in the 1980s and early 1990s was tied aid (NDRC, 2009). Still China has learned from tied aid in the early stage of its development because turn-key projects, for example, provided the much needed capital and advanced technology. China has also learned specific knowledge, managerial know-how, techniques and systems from tied aid through technical cooperation. Development assistance also helps with training and capacity building through development projects and through training of PIU officials. The knowledge transfer and capacity development is actually embodied in the growing cadre of development practitioners who were project managers.

2.4 What is relevant to Africa and other developing countries?

Despite significant differences, China and Africa bear some resemblances historically. Participants seem to agree that China’s development experience is credible and there is much to be learned. First, China’s approach is a learning model which follows a pragmatic (rather than ideological) approach, allowing policy space for experimentation and learning – both from successes and from mistakes. All countries are free to select their own development models and paths, but they need to learn from each other, and they need to explore and discover their own potentials. Since “learning is neither costless nor painless”, this “willingness to pay and work for learning” is what African countries can import from China.

Second, China’s approach may be characterized as an ownership model where a country and people take development in their own hands. There is no “China model” that could be replicated easily, but the development path China selected has unique features and implications. Some pointed out that China has a “developmental state”, where the central government takes the leading role in providing the vision, the roadmap (development plan) and the incentives for growth and poverty reduction, and local governments take the initiatives to implement, with the support of the population. The rapid growth was mostly internally driven, and the government is held accountable to deliver what was promised. External forces played an important catalysing role.

Third, China got the sequencing right: they developed agriculture first, and then infrastructure and the manufacturing sector, before moving onto social protection, education and health reforms and the
environment (D. Brautigam 2009). China’s approach is from the bottom up; often, the government provided the policy space for experiments and accommodated successful approaches initiated by people on the ground (J. Wuttke, BMZ). In the earliest stages of reform, successful local initiatives on the ground were adopted nationwide and scaled up, such as the HRS, TVEs and the ZhuCheng model of privatizing State Owned Enterprises (SOEs). Fiscal decentralisation has provided incentives for provincial and local governments to develop the local economy. China’s pragmatism has allowed it to draw on international experiences while always being mindful to adapt them to the specific Chinese situation. After testing a new model’s applicability, China is able to “roll it out and scale it up” nationwide.

**China is not alone in successful learning.** In the past, Japan, Korea, Singapore and Malaysia were recipients of foreign assistance. These countries have shared information and learned initially from Japan and other development partners, and then learned from each other, and eventually graduated from aid. One of the important features of the East Asian experiences, including that of China, is that they managed aid very well, using it as a vehicle to acquire knowledge and skill necessary for their development. Furthermore through aid, trade and investment, East Asian countries have accelerated their regional integration, developed production networks, and all benefited from this partnership. (I. Ohno, JICA)
3. Development Partnerships and Africa’s Growth and Poverty Reduction

Since 1960, nearly US$ 600 billion (in 2007 prices) of ODA has been provided to sub-Saharan African (SSA) countries by the OECD Development Assistance Committee (DAC) countries. There has been a heated debate on the effectiveness of this aid. Several speakers discussed development partnerships between DAC, EU, US and African countries. For example, the partnership between EC and Africa started in 1959 and the EDF agreement is renewed every 5 years. Development aid to Africa has increased over time and played a significant role in restoring law and order, respecting human rights and improving governance (Cauwenburgh, EU). Not all donors and recipient countries are satisfied with the current status of partnership in Africa (R. Haas, BMZ). Therefore, internationally, there are clearly efforts underway to improve the effectiveness of aid, as demonstrated by the broad support received for the Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008) (OECD).

Seeing Africa as a continent of potential opportunities, China has intensified its development co-operation and broader economic engagement in Africa. According to the State Council White Paper on Foreign Aid, “China’s financial resource for foreign aid has increased rapidly, averaging 29.4% from 2004 to 2009” (State Council 2011, p. 5). In terms of trade, China-Africa trade has registered an average annual growth rate of over 30% in the past eight years, and exceeded US$ 114 billion in 2010. Chinese investment in Africa has expanded steadily as direct investment in the continent amounted to US$ 12 billion by the end of 2010 (MOFCOM).

This section discusses various development partnerships established in Africa, what approaches have been used, and what China and established donors can learn from each other in their engagement in Africa.

3.1 What kind of development partnership has worked in Africa?

Africans showed great ingenuity in the creation of ancient civilization and national independence. In the recent years, more than 15 African countries have achieved significant growth and poverty reduction – an African model is emerging (Li Anshan, 2009). Several speakers summarised the experiences and lessons. In Uganda, after the introduction of the poverty eradication strategy in 1993, the poverty incidence declined from 56% in 1992 to 30% in 2007. This achievement in 15 years was tremendous. There were five pillars in supporting this strategy – making economic development the priority, good governance, human development and improving the investment climate for private sector development. These policies were effective and helped pave the way for greater trade and investment with development partners, including China (Fred Omuch, Uganda).

Managing donors, case 1. In South Africa – a middle-income country that has overcome aid dependency, ODA accounts only for 1% of the government’s budget. The government considers aid as a vehicle to bring innovative ideas and to enhance capacities on macro and risk management. The government takes control and decides on the priorities, and manages, through IDC of the Treasury, 30 active development donors/partners. An information system for development co-operation (DCMS) was developed to increase the transparency of development co-operation. South Africa participates
actively in the global effort to improve aid effectiveness, in the monitoring of the results of Paris Declaration, and played an important role in the formulation of the Accra Agenda for Action. (Mokgadi Tena, South Africa)

**Managing donors, case 2.** Similarly, Ethiopia has gained policy ownership with a clear leadership vision, and established a new framework of working with development partners “to use aid for graduation”. Ethiopia’s leadership has adopted “Agriculture Development Led Industrialization” and approached donors individually, requesting industrial support from each donor according to their comparative advantages. The government has been leading development partnerships, managing not only aid relations but also policy content. Ethiopia and China have established a long-standing bilateral relationship and “China is acting as a strategic co-operation partner, rather than a donor, by bringing in a new culture of work and ethics” (Izumi Ohno, JICA).

**Coordinating donors.** Tanzania is one of five East African countries that have built financing partnerships quite successfully. Development partners provide over 30 to 40% of the government budget. In the last few years, the government has started to co-ordinate the activities from different donors and established a database. Among donor support, around 37% is budget support, 45% supports various projects and 15% as multi-donor basket programmes. For Tanzania, managing and coordinating a total of US$ 0.7 to 1.9 billion in aid placed a heavy pressure on its administrative capacity. In previous years, there were over 900-1400 projects and it was very difficult to co-ordinate. Tanzania would prefer to receive more budget support – currently 11 bilateral and 3 multilateral partners coordinate and provide budget support. This model allows the country to take ownership and allocate funds effectively. (Judica Omari, Tanzania)

### 3. 2 China’s Strategy for its Development Co-operation in Africa

China is still a developing country with much lower per capita income than all of the OECD-DAC countries. Historically, China’s co-operation activities in Africa are different in nature from those provided by OECD-DAC donors. China considers development co-operation with Africa as fraternal help “between the poor brothers and sisters in a family”. Africa and China after 1840 share the same colonial past, but China has not colonised any country. China follows the “five principle of peaceful co-existence” and “Eight principles of foreign aid” that were made by the late Chinese Premier Zhou Enlai in the 1950s and 1960s, respectively. Those principles stress mutual respect, reciprocity, mutual benefit, and noninterference of domestic affairs. Aside from adherence to the “One China” principle, no political strings are attached to China’s co-operation.

China started to provide aid to other developing countries earlier in its stage of development, since the 1950s. Some participants felt that the general principles that guide China’s foreign aid practice have seldom changed. An example is the TaZaRa Railway built in 1970-75 linking Zambia’s rich copper belt to the costal port of Dar es Salaam (He Wenping, 2009). However, the motivation behind China’s co-operation with Africa has shifted from being driven by mutual (political) support in the 1960s and 1970s to one that focuses on mutual (economic) benefit based on complementarities of the two sides. This transformation of foreign aid strategies have seen the contributions from all four generations of leaders, based on their different experiences and priorities at the time. Early generations
of leaders were focused on breaking the political isolation through gaining African support at the United Nations for the resumption of China’s seat. In the recent years, as China has become a market economy, this focus on mutual support has given way to economic complementarity based on market principles.

Second, China’s development co-operation aims to help African countries build their productive capacity for self-reliance and **self-development**. Drawing from its own experience of self-reliance in domestic poverty reduction programmes, China has placed greater importance on enhancing poor people’s productive capacity than on cash transfers. This philosophy follows the thousand year-old traditions of not only “offering fish” but also “teaching how to fish.” Thus, China’s development co-operation programmes in Africa have a strong focus on building, for example, small farms, and agro-business processing plants, and agricultural demonstration centers. More recently, over 85 percent of its concessional loans is concentrated in sectors such as economic infrastructure, energy and manufacturing sectors (see Figure 1.5).

Third, much of China’s rapid growth was attributable to its openness to international trade. Drawing on this experience, China combines aid with trade, believing that trade based on comparative advantages can be mutual beneficial. On the one hand, China’s factor endowment has been changing, and one of its recently acquired comparative advantages is in building large infrastructural projects at a low cost. Some African countries are rich in natural resources but poor in capital and skilled labor. In these cases the two sides have different natural and factor endowments, and may be complementary to each other. On the other hand, in cases where the comparative advantage of the two sides clashes (such as in textile and apparel), free trade alone may not benefit both sides equally. Development cooperation should then focus more on technological transfers through direct investment, training and capacity building.

Fourth, the official definition of China’s foreign aid remains opaque and there is no foreign aid law, but the government has recently made an effort to improve transparency by publishing the “White Paper on China’s Foreign Aid” in April 2011. Moving closer to the OECD definition, China’s foreign aid includes grant aid, interest-free loans and concessional loans. The first two components come from China’s national budget, while concessional loans are provided by the Export-Import Bank of China (Eximbank). “By the end of 2009, China had provided a total of 256.29 billion yuan in aid to foreign countries, including 106.2 billion yuan in grants, 76.54 billion yuan in interest-free loans and 73.55 billion yuan in concessional loans.”① (State Council, 2011, p. 6 and figure 1.4). “China offers foreign aid in eight forms: complete (turn-key) projects, goods and materials, technical cooperation, human resource development cooperation, medical teams sent abroad, emergency humanitarian aid, volunteer programs in foreign countries and debt relief.” (p. 8)

Grants are mainly used to help build hospitals, schools, low-cost housing, water and other projects for social welfare, as well as support technical cooperation and humanitarian aid. **Interest-free loans** are mainly used to help construct public facilities and launch projects for improving people’s livelihood. The tenure of such loans is usually 20 years. **Concessional loans** are mainly used to help undertake productive projects generating both economic and social benefits, including infrastructure, complete plants and other equipment and materials. “At present, the annual interest rate of China’s concessional loans is between 2% and 3%, and the period of repayment is usually 15 to 20 years”. “By the end of

① These are however cumulative amounts. Annual aid flows have not been published in the White Paper.
Figure 1.4. Composition of China’s Foreign Aid, by the end of 2009

(Cumulative total: 256.29 billion yuan)


2009, China had provided concessional loans to 76 foreign countries, supporting 325 projects, of which 142 had been completed. Of those loans “61% are used to help building transportation, communications and electricity infrastructure, and 8.9% are used to support the development of energy and resources such as oil and minerals.” (p.8)

Figure 1.5. Sectoral Distribution of Concessional Loans from China, by the end of 2009

(Cumulative total: 73.55 billion yuan)


Development cooperation, however, is a broader concept with a broader range of measures than foreign aid. When the government of China makes announcements at FOCAC meetings, for example, it includes a wide range of measures combining aid, trade and investment to leverage on the developmental impact. In many cases, Other Official Flows (including preferential export buyer’s credit, etc) have been used to support Chinese companies “going global” and become globally competitive. The China-Africa Development Fund (CAD Fund) has been established by China Development Bank to use government funds to invest in the equity stock of Chinese companies operating in Africa (Using Government funding, but operating on market principles”). However, these are excluded from the statistics of foreign aid (Mao Xiaojing, CAITEC).

Fifth, China has several aid delivery mechanisms which are different from that of the established donors, one of the reasons being the scarcity of foreign exchange in the 1960s, 1970s, 1980s and early 1990s, and another reason being the lack of a web of NGOs, churches, and private consultants and specified implementation agencies. Another feature is the heavy use of “complete projects” or turn-key projects as in-kind assistance based on African countries’ request. After receiving a request for a construction project, a need assessment is conducted, followed by a domestic bidding process. After a contractor is selected, it is fully responsible to complete the project within the budget and
time frame, be paid by the Chinese ministries in Chinese currency, renminbi (RMB), and turn the keys to the African government for operation. Admittedly this is a form of tied aid. But this contractual arrangement helped alleviate China’s foreign exchange constraints prevailed in the 1960s to early 1990s, other transaction cost, and the potential of leakage or misuse of funds (Li Xiaoyun, 2009).

Sixth, there are many types of players in China’s engagement in Africa, including policy banks, provincial governments, large state owned companies and commercial banks, and privately owned small and medium-sized enterprises (SMEs). In a sense, China’s partnership in Africa is also a “many-to-many” model of partnership. Each partner’s behavior is very different. African participants noted that large state owned companies’ behavior is much better (in terms of law abiding) than those of the small and medium sized private enterprises. Both Chinese government and African governments need to strengthen the regulations of contractors of aid projects. In the recent FOCAC Chinese government promised to require Chinese companies to “shoulder more social responsibilities and live in amity with the local people.” However, it remains to be seen what concrete steps are taken to achieve this.

Seventh, China has started to contribute to building six joint industrial zones in Africa, as part of developmental cooperation. For example, the Chambishi zone in Zambia, the Jinfei (Terre Riche) zone in Mauritius, and the Lekki Zone in Nigeria (see Chapter 4). These zones are intended to attract clusters of industries from China and elsewhere, following the pattern of the “flying geese” phenomenon. Japan initially played a crucial role in intra-regional integration by leading the industrial transfer to East Asian countries. After the 1985 Plaza Accord, Japanese firms started to relocate abroad. East Asian Newly Industrialised Economies followed this pattern of “Flying Geese” (Akamatsu 1962, Kojima 2000). Production networks first developed between Japan, Korea, Taiwan (China), and then gradually moved to Malaysia, Thailand, and later to China and Vietnam. However, it is unrealistic to assume that production cost of goods produced in those zones will necessarily be lower than those produced in Asia. A policy and regulatory framework must be in place to encourage firms to transfer technology, provide training and help build local capacity.

Certainly China did not do everything right in growth and development, and both positive and negative lessons should be learned: China’s strong drive for industrialization is associated with widening rural-urban income disparities and a degrading environment. In March 2007, the Chinese Premier Wen Jiabao pointed out that China’s growth was “imbalanced, inequitable and unsustainable”. Currently, a new transformation is taking place: The government has stressed the need to build a people-centered and harmonious society, moving from a strong drive for industrialization to paying more attention to the service sector, from a single-minded focus on the speed of growth to an approach oriented more towards the quality of growth. During the global financial crisis in 2008-09, export demand declined drastically and China was forced to “rebalance” its growth to reduce its dependence on exports and investment, and focus more on domestic consumption, social services and environmental sustainability. This trend will influence the sectoral composition of China’s development co-operation activities, as shown by new measures dealing with climate change which were included in the eight measures China offered to Africa in November 2009. Feedbacks from Africans and established donors are discussed in the next section.
Box 1.2. China’s Development Cooperation with Africa: Estimated Official Development Aid and Other Official Flows

This box shows that China is indeed playing a growing role in development cooperation with Africa, although the magnitude of this cooperation is not as huge as some media reports have indicated. However, if Other Official Flows (OOF) are included, China is becoming a partner of roughly the same importance as established donors like the United States and Germany.

**Definition issues.** The State Council White Paper (2011) represents a progress in China’s aid policy towards clearer definition and more transparency. Nonetheless, there remain some differences between the Chinese definition of foreign aid and those used by OECD. According to the OECD definition, ODA includes grants or loans which are a) undertaken by the official sector; b) with promotion of economic development and welfare as the main objective; and c) at concessional financial terms (if a loan, having a grant element of at least 25 percent). Technical cooperation is included in aid. But grants loans and credits for military purposes are excluded. Other official flows (OOF) include those loans that have a grant element of less than 25 percent as well as preferential export credits. (On OECD definitions see http://www.oecd.org/document/32/)

In a path-breaking book, The Dragon’s Gift, Professor Deborah Brautigam provided a useful method to estimate China’s development aid. The author based her estimate on three pieces of information: Ministry of Finance external assistance expenditure, China EximBank’s concessional loans and debt relief. The first part came from China Statistical Yearbook. The concessional loans were based on China EximBank’s annual reports until 2001 and used a growth rate of 35% to extrapolate onward. Using this methodology and extrapolate, it would make China’s official aid in 2009 approximately $4.9 billion in total (excluding debt relief to avoid double counting) (Christinsen Dec 2010).

**Box Figure 1. China’s Annual Official Aid, estimated for 2001–2009 (million USD)**

![Graph showing China’s Annual Official Aid from 2001 to 2009](image)

Source: Based on data from Christinsen December 2010, Table 4.

**How much of this aid is going to Africa?** Based on various interviews with Chinese officials, in step two Deborah Brautigam assumed that from 30 to 44 percent of China’s total aid is allocated to Africa – leading to an estimated $309 million in 2006. She assumed that 50 percent of EximBank’s concessional loans go to Africa. Finally, Chinese cancelled $3 billion in debt for Africa between 2001 and 2008 with

1. China has rightly excluded preferential export buyer’s credit from the official aid, while military aid remains in the expenditure for general foreign aid.
2. OOF includes government loans with a grant element of less than 25 percent, or it could be “official bilateral transactions, whatever their grant element, that are primarily export facilitating in purpose. This category includes by definition export credits.” Source: OECD, “Glossary”.

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more promised, implying an average of $375 million per year (80 percent of China’s debt relief goes to Africa). In step three, she assumed various growth rates for different parts of China’s development aid to Africa. First, she assumed that China would deliver its promise to double official aid (MOF budget) to Africa between 2006 and 2009, reaching $600 million. Second, Chinese government pledged to commit $3 billion in concessional loans to Africa between 2007 and 2009. She assumed that this will be allocated across three years. Box Figures 2 below shows the results of her estimation, however we excluded debt relief to avoid double counting.

Box Figure 2. China’s Annual Aid to Africa (estimated, in US$ millions)


How does China’s aid compare with those of the traditional donors? Africa probably received ODA commitment of about $2.1 billion from China in 2009, which is smaller than established donors such as the United States ($7.6 billion), EC ($5.4 billion), France ($4.9 billion), UK ($2.8 billion), Japan ($2.7 billion), and Germany ($2.5 billion). Although China’s aid is likely to have doubled by 2009, and Chinese leaders have promised more in the next three years (committed in the 4th FOCAC meeting held in Nov 2009), it is likely to still be relatively small compared with the traditional donors (page 172, Brautigam 2009).

In consistent with China’s approach of combining aid, trade and investment, Brautigam went further to compare “apples with apples” by showing commitments for ODA plus OOF (official export credit and other official flows), and private bank loans and non-bank export credits. She confirms that “China is a formidable financier for Africa, even without including estimates from loans extended by China Development Bank. On a bilateral basis, China comes third behind the US and Germany”. (page 183)

* * * * *

Cross country comparison: In April 2011 OECD-DAC published the following figure which helps to make a comparison across all established and emerging donors for 2009. However, there is at least one additional perspective to make this comparison, and that is, taking into consideration of different developmental stages and different per capita income levels.

Comparison with two dimensions: A dataset was compiled for this synthesis chapter showing China’s ODA as a percent of GNI, as compared to those for OECD-DAC countries. According to the next figure, it is found that China’s aid to other developing countries started from a relatively low per capita income level. Using Braudigam’s estimate of $2.5 billion as total ODA in 2007, China’s development aid accounted for 0.09 percent of GNI, which is lower than all OECD member countries, as expected. However, if one draws a linear regression line on this scatter chart, China is located well above the regression line,
Box Figure 3. Gross Official Development Aid of all Donors in 2009 (Current USD billion)

indicating that China is contributing a relatively significant proportion to development cooperation as compared to its per capita income level. If, however, total official flow (ODA + OOF) is used, this ratio would have increased to over 0.18 percent of China’s GNI in 2007.

Box Figure 4. A comparison of ODA, considering developmental stages

Note: X-axis denotes GNI per capita (US dollar); Y-axis denotes ODA as a percentage of GNI (%). For OECD DAC members, the source of data comes from the OECD-DAC database, and it is based on 2007 data, which can be accessible from http://www.oecd.org/dac/stats/idosonline. For China, data on GNI and population comes from China Statistical Yearbook 2008. The source of China’s total official development flow (ODA) volume is from Brautigam 2009, page 168. Source: based on Yan Wang (forthcoming).
3.3 Perspectives of Africans and donors: What types of partnership have worked, what not?

African perspectives are based on the four-country consultation organized on October 20, 2009. Participants highlighted the importance of China’s engagement in Africa, including by providing Africans with new leverage on other donors. They welcomed China’s continuing support for Africa’s development, noting that its trade and investment had significantly contributed to Africa’s growth. Participants appreciated China’s focus on infrastructure and investment, which was helping to build longer-term growth in Africa. Commentators also suggested that China’s approach “engendering ownership and self-reliance” (Manji 2009, page 7). Many participants felt that China should also consider investment at the regional and the sub-regional levels (ACET 2009).

Participants welcomed the continued exchanges of knowledge and learning between Africa and China, in particular in the areas of technology transfer. However, many participants expressed frustration over a lack of transparency on the terms of Government-sponsored commercial deals and on China’s development co-operation activities, and demanded more donor co-ordination, predictability and stability of aid. They raised issues related to tied aid and local employment generation, hoping that Chinese companies could employ more local firms and workers and help enhance their capacities. They raised issues regarding the quality of goods and services, environmental standards and market access. But they also recognised that language barriers and the need to balance local employment objectives with the imperative to finish contracts on time and within budget were real difficulties that needed to be surmounted (ACET 2009).

In sum, participants felt that China-Africa was a key strategic relationship for both Africa and China, and that there was much to learn through an exchange of knowledge. However, the amount of China’s aid is still small as compared to that of OECD-DAC donors. There is a danger of unrealistically high expectations due in part to the non-transparency in China’s aid activities. But ultimately the responsibility of development rests on the shoulders of African themselves. Several commentators suggested that “Africans must take control of our own destiny”.

The established donor community in general welcomes China’s emergence as a donor. They acknowledged and appreciated the difference in the approaches adopted by China and other emerging donors on partnership. However, they also acknowledged that China’s activities in Africa are leading to adjustments by all stakeholders. And they raised concerns over several issues.

Over the years, established donors have made many efforts to harmonise their aid through greater transparency, better information sharing and increased co-ordination. For example, an international consensus has been reached on the concept of official development assistance (OECD-DAC, 1969). Furthermore, through their membership of the DAC, donors agree to share internationally comparable data in a timely fashion on their development co-operation activities. Evidence also shows that co-ordination and harmonisation are achievable and are taking place in many developing countries, including Africa. (Jacquet, AfD and OECD). To the extent possible, China and other donors not in the DAC can help reduce transaction costs, alleviate the risks of misunderstanding and competition and increase development effectiveness by participating in donor co-ordination fora in the specific countries they are engaged in.

Second, from an international perspective, China is operating outside many existing norms and rules.
Most of its aid is bilateral, and most appears to be tied. According to the Eximbank, “at least 50 percent of the loan must be used for the purchase of Chinese goods and services” (Brautigam, 2009, p. 174). But tied aid reduces the value to recipient countries by 10-15%, and it runs the risk of aid policy being “captured” by big corporate interests (Cauwenbergh, EU). In addition, China has often approached African governments at the central levels only with limited channels to interact with the local community. Over the past decades some DAC countries have built up a multilevel approach with contacts from the central level down to the grass-root level. China could learn from established donors in this aspect and there could be a complementarity between China and donors here.

Third, China’s development co-operation has been using the modality of project support with pros and cons. On the one hand, project support is related to China’s comparative advantage, as China has acquired rich experience in designing and implementing large infrastructure projects such as railways, roads, bridges and harbors. But this approach of financing hardware is not sufficient to meet the needs of African people who need both the “hardware” as well as the “software”, a point increasingly recognised by Chinese investors in Africa. Budgetary support may be more conducive to fostering ownership in the client countries, and reduces aid fragmentation. On the other hand, project support has the advantage of linking development aid with a concrete outcome which is easier to monitor and evaluate. JICA in particular has financed many projects on infrastructure – major economic corridors, and energy sectors in Africa, as well as poverty reduction and humanitarian aid projects, and the EU has financed infrastructure projects as well (Peter Craig-McQuaid, EU). In these projects, the respective roles of the principal and agents are clear -- the government of the recipient country is the principal and the donor/contractor is the agent. The risk of confusing roles between the principal and the agent is lessened.

Fourth, a new type of partnership is needed for China, established donors and African countries where all stakeholders are equal, and each partner should be open minded about each other on the objectives, ideas and approaches. Admittedly, each country has its geopolitical interest, and aid is one of the tools to achieve that objective. For instance, DAC countries want alliances and stable countries; China is looking for economic mutual development and a peaceful external environment; Africa would like to find the best use of its own resources for growth and poverty reduction (P. White, USAID) and eventually become self-sufficient. Thus, development partnership should be based on the principle of “diversity and complementarity” (I. Ohno, JICA). If all donors’ advice is the same, how can partner countries choose and combine ideas? Thus, a new type of partnership should be more tolerant of alternative ideas and approaches so that client countries can select and combine these ideas.
4. Policy Options

China’s deepening economic engagement in Africa was generally welcomed by many African participants at the Development Partnerships event. They noted that China’s approach to aid, trade and investment was helping to promote growth and reduce poverty in Africa. Moreover, the emergence of China as a major player in African development offered African countries a choice. However, China could probably do a better job in learning from its own rich experience in managing development partnerships to inform its engagement in African countries (Phil Karp, World Bank).

As a responsible global partner, China is willing, and has started, to engage actively with existing international aid community through dialogue, knowledge exchange, and co-operation (as shown by several trilateral co-operations involving AsDB, FAO, World Bank Group, UNDP, UK on agriculture, and USAID in Liberia where a university is being built with the Chinese building the labs on the campus). It is in everyone’s interest to improve the effectiveness of aid and avoid repeating past mistakes. Current reforms embodied in the Paris Declaration and the Accra Agenda for Action aim to improve aid effectiveness, including by improving co-ordination and increasing transparency and predictability. China already endorses the Paris Declaration and accepts its principles. China may consider follow through on this and join OECD-DAC as an observer and participate in regular meetings, so that China can share its development experience, and have more opportunities to influence debates and share information and data. Eventually, African stakeholders, China and other emerging countries should also participate in the rule-making process. And the upcoming Busan High Level Forum for Aid Effectiveness is a good opportunity.

Therefore, the following discussion on policy options is based on China’s experiences in the last 30 years which are largely consistent with the 5-pillars in the Paris Declaration but go much beyond.

1. Country Leadership/Ownership for Development

- **African leadership is key for an effective development partnership in Africa.** For African countries to be more fully in the driver’s seat, as China was, a higher level of ownership and accountability is needed. To achieve this, Africans need to develop their human and institutional capacities to define, lead and implement their own development process. A higher degree of ownership encompasses not only the commitment for development (promises), providing the roadmap (poverty reduction strategies or development plans) but also guiding donors and implementing what was promised (results). When the government takes control of the development agenda, donor co-ordination is improved.

- In order for African countries to be fully in the driver’s seat in their relations with development partners, it will be important for them to have more complete information about levels and conditions of assistance, and on the real terms of the various commercial deals that partners are bringing to the table (Phil Karp, World Bank). “To drive requires a map and a clear goal and necessary driving skills and experiences.” China and other emerging donors will need to be more forthcoming about their aid programmes, amounts and allocation, terms and conditions, evaluation results, experiences and lessons learned from the many years engagement in Africa, so that no one will repeat past mistakes.
For established donors, keep an open mind as China and other emerging donors offer some alternative approaches. Based on donors’ experience in China, India and other developing countries, development is largely internally driven. Conditionality did not work well in China. Should “selectivity” be used to replace excessive conditionality to ensure country ownership? This is a topic that merits more research and rethinking.

2. Alignment and Harmonization

- **Donor countries have different comparative advantages and are committed to work together in a complementary manner** (Paris Declaration article 33, 34, 35). African countries may consider select donors according to their comparative advantages and assign tasks with a clear division of labour. In this way, donors can work in a complementary manner. This will create a win-win situation where all three parties will benefit.

- Based on China’s experience, **governments should take the lead in coordinating and managing donors** by holding frequent consultation meetings with all partners. This will facilitate information sharing and exchange of experiences among all development partners. In this regard, China is moving to the right direction by participating in some of these donor group meetings.

- **Both the “hardware” and “software” are needed by African countries** and this is where coordination between established and emerging donors has a high payoff. China’s market institutions are fairly young and the enforcement of laws and regulations weak. After China’s accession to WTO in 2001, over a thousand laws and regulations were rewritten to make China’s legal system conform to the WTO principles. As a result, Chinese economy grew faster after these legal and institutional reforms. Therefore, the same degree of commitment and effort should be carried out by China on establishing the legal framework for foreign aid. On the other hand, although China is learning the international rules of the game, those rules and regulations related to development aid also need modernisation. Exchanging knowledge and experiences with established donors can facilitate the trilateral learning and transformation process.

3. Implementing and Managing for Results

- **Established donors can learn from China in terms of speed and efficiency** of project implementation, and effective integration of aid, trade and investment. The amount of aid is small as compared to direct investment. The Public-Private Partnership in combining trade, aid and investment merits some re-examination. For its part, China can strengthen its monitoring and evaluation and impact assessment to facilitate learning from past successes and failures.

- In earlier years, international donors have invested heavily in China’s agriculture, energy and infrastructure and other productive sectors (Box 1.1 and Chapters 2, 3 and 4). Similar support to Africa in productive sectors is much needed, but it has been declining in the recent years. Going forward, all donors may need to work together to strengthen aid to infrastructure and productive sectors to Africa.

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1. There is a new literature in preparation for the Busan HLF4 for aid effectiveness. See for example Homi Kharas, Koji Makino, and Woojin Jung 2011 on “Overview, An Agenda for the Busan High Level Forum on Aid Effectiveness”.

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China is a beneficiary of untying aid, as multilateral development agencies have never used tied aid and nearly all bilateral donors have reduced the shares of tied aid or abandoned it after 2000. In 1984 it was the World Bank who introduced the international competitive bidding into large projects in China and later Chinese government adopted the ICB and other procurement rules as the national standard. As called by the Accra Agenda for Action (2008), there is clear international trend that the share of tied aid is declining. Emerging donors may consider also following this international trend.

4. Evaluation and Mutual Accountability

The ultimate responsibility for Africa’s development rests on the shoulder of Africans themselves, who need to take control of their own destiny. Increased economic integration is also important for promoting development on the African continent. Greater leadership could help African countries to flesh out a regional strategy on infrastructure development that would better utilise the opportunities that China and established donors can provide.

Learning needs to be based on solid information and evaluation. Mutual accountability also needs evaluation and impact assessment. There is, however, inadequate number of evaluation studies and impact assessment done by established and emerging donors on what worked and what did not, and why. This information would be invaluable for improving partnerships and accountability for growth and poverty reduction in Africa. Incentives need to be provided to good performance by sharing this evaluation data among all development partners.

Specifically, the following table shows some options and examples for transforming development partnerships, to be considered by all partners (Exhibit 1.1).

**Exhibit 1.1. Options for Learning and Transformation in Development Partnership**

<table>
<thead>
<tr>
<th>Learning from the past 30 years of experience in China</th>
<th>Consistent with the Paris Declaration and the Accra Agenda for Action 2008?</th>
<th>Implications to partners in Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>China’s approach is a ownership model where the country selects its own development path and takes the lead and final responsibility for development. The Five-year plan process serves a nationwide consultation process across all ministries and localities including development partners.</td>
<td>Consistent with pillar I on Country Ownership</td>
<td>African countries need to take a higher level of ownership. Development partners may participate in African countries’ poverty reduction strategy (PRS) or development plan process and provide data, information and advice so that African countries are fully in the driver’s seats with full information on the amount, terms and allocation of aid.</td>
</tr>
<tr>
<td>China’s approach is a learning and innovation model, – learning from development partners and insisting on “adapting to local conditions”.</td>
<td>Consistent with Pillar II, Alignment with the country’s development strategy</td>
<td>Integrate aid projects with the country’s development plan /poverty reduction strategy</td>
</tr>
<tr>
<td>Chinese government takes the lead in coordinating donors by holding regular consultation meetings with multilateral and bilateral donors.</td>
<td>Consistent with Pillar III, Harmonization and avoid duplication</td>
<td>Jointly hold regular consultation meeting with all stakeholders including multilateral and bilateral donors in a country.</td>
</tr>
</tbody>
</table>
## Learning from the past 30 years of experience in China

<table>
<thead>
<tr>
<th>Learning from the past 30 years of experience in China</th>
<th>Consistent with the Paris Declaration and the Accra Agenda for Action 2008?</th>
<th>Implications to partners in Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>China had insisted on donors /investor working with local partners and PMO officers for learning and capacity building.</td>
<td>Consistent with Pillar IV, Managing for results</td>
<td>Work closely with local governments, PMOs, and local partners; transfer technology and build local capacity. Eventually use the country systems.</td>
</tr>
<tr>
<td>China has benefited from International competitive bidding (thanks to multilateral agencies), and from reduced share of tied aid (thanks to bilateral donors).</td>
<td>Accra Agenda for Action called for Uniting aid. This is consistent with Pillar IV.</td>
<td>All development partners reduce the share of tied aid, and international competitive bidding should be used, especially in extractive industries.</td>
</tr>
<tr>
<td>China has used experiment-evaluation in own development, and avoided mistakes by “scaling-it-up only if proven successful”.</td>
<td>Pillar V, Mutual accountability</td>
<td>Conduct more and better monitoring and evaluation and impact assessment to provide information for learning by all partners</td>
</tr>
</tbody>
</table>

Source: Author.

And going forward, a mechanism should be established for regular dialogue, exchange, cooperation between China and international aid community. More inclusive international discussion is needed for making new rules and standards, and reforming the development aid architecture. China and all emerging donors, and all development partners should participate in the rules-making process. More opportunities for mutual learning between traditional and emerging donors should be created such as the China-DAC Study Group and a joint evaluation process. Mutual learning also means listening to each other, adjustment, transformation and modernisation by both established and emerging donors - new rules of the game will be made and new standards be adopted. All partners should participate in this modernisation process.

People living in hunger cannot afford to suffer the consequences of ineffective aid. Concerted actions globally are needed to meet the huge challenges of promoting growth and reducing poverty and hunger, challenges made more difficult by issues associated with epidemics and climate change. A lesson from China’s development experience is that Africa’s own talented people can do more to take their destiny in their own hands. The international community would welcome and support stronger African leadership and ownership of the development process. The result would be stronger development partnerships for growth and poverty reduction and a more peaceful and prosperous world.

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*Note: unpublished papers and presentations were acknowledged by citing the speakers’ names in parentheses in the text of this report.*


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Chapter 2

Agriculture, Food Security and Rural Development: A Synthesis
Executive Summary

The multiple crises of food, climate change, and finance that have been recently confronting the world have highlighted the crucial importance of agriculture for developing countries. During the past two decades there was inadequate attention and investment in rural development and agriculture by the international donor community, with only 4% of total ODA directed to the agricultural sector in 2008 as compared with 14% in 1980.

China’s experience in development shows that effective policies and strategies targeted at the agricultural sector and rural development can greatly assist poverty reduction efforts. In this context, the second event of the China-DAC Study Group on ‘Agriculture, Food Security, and Rural Development for Growth and Poverty Reduction’ addressed three core issues: (i) the key elements of China’s success in agricultural growth, food security and rural development, and to what extent these experiences and lessons are relevant to Africa; (ii) the experience of African countries in these areas, and the approaches of different development partners; and (iii) the future implications and opportunities for all stakeholders to work together more effectively to improve agriculture and rural development in Africa.

Recognizing that agriculture is a powerful engine of growth, the Chinese government initiated a major shift in development strategies in the post-1978 reform period, establishing agriculture as the priority of economic development. Agricultural growth and rural diversification was driven by home-grown institutions such as the household responsibility system (HRS), and township and village enterprises (TVEs); and the ‘organic combination’ of three forces, the state, the market and farmers, and involved a strategy that can be best summarized as “first relying on government policies and second on science and technology”.

Although China’s experience and situation may not be directly replicable in Africa, some aspects are relevant and useful. In particular, first, even though the main drivers of economic growth may lie in labor-intensive manufacturing sectors, agriculture is fundamental to broad-based and pro-poor growth and should thus be given priority. Second, China’s approach also facilitates experimentation at the smallholder level, encouraging a process of self-discovery and self-development. Third, African countries can also draw lessons from some of the problems that currently exist in China’s agricultural sector, such as widening rural-urban income disparities, structural inequalities, and issues regarding land-use rights, environmental pollution and ecological degradation.

In Africa, despite a recent acceleration in agricultural growth, a number of significant challenges are facing the agricultural sector. There is an urgent need to address the under-capitalization, low productivity, and competitiveness of the sector, improve the connection between input and product markets, and develop intra-regional trade. After realizing that private sector-led agricultural development was not sufficient to generate growth, international development partners are embracing several innovative approaches to assist agricultural development in African countries. The Comprehensive African Agricultural Development Program (CAADP) is also considered a promising continental-wide framework.

Although China has identified the agricultural sector as an important area for trade and assistance to Africa, there are concerns that Sino-Africa trade patterns have not directly benefited African agricultural and rural development. Based on re-thinking the past experiences, China’s approach to
agricultural development assistance is making a transition to a model that will be led by (public or private) enterprises and facilitated by the government through R&D and technological demonstration centers. This could be considered an innovative mechanism for supporting self-discovery in these sectors. Participants in the event felt that there is a real scope for mutual learning especially as it relates to smallholder development, food security, intensification, and adapting market mechanisms to support agriculture.

A number of key challenges and opportunities have been identified for future engagement and the development of the agricultural sector in Africa. In recent years, established donors have made efforts to harmonize their aid through greater transparency, better information sharing and increased coordination, and African countries have started to take leadership in developing and managing their rural development strategies.

It is hoped that all development partners, including China, will support CAADP. The common objective is to ensure that China’s agricultural involvement in Africa takes place within a policy framework that maximizes a long-term ‘win-win’ approach including technology transfer, infrastructure investment, and increased food security and sustainability for both parties. Participants have indicated that China’s agricultural cooperation, if fine-tuned, could bring tremendous benefits. China’s approach at home of learning from experiments and facilitating self-discovery may have valuable lessons for all.

All stakeholders, Africans, Chinese and established donors, are facing huge challenges. It is thus in everyone’s interest to improve the effectiveness of aid and avoid repeating past mistakes. The key message is therefore to join hands in a long journey of discovery together with all the stakeholders, and scale up in some cases of success, in a concerted effort to help African countries improve their food security and agricultural and rural development to reduce poverty and improve the lives of all of their citizens.
1. Introduction: Divergent Performance

Africa’s 53 countries and China are vastly diverse in terms of their natural endowments, and demographic, geographic, socio-economic, ethnic, political, historical and cultural conditions. They also exhibit divergent patterns in agricultural growth, food security, and poverty reduction. Starting from a GDP level slightly lower than that of Sub-Saharan Africa, China’s economic output surpassed output in Africa in 1983, and ten years later, in 1993, its GDP per capita surpassed African GDP per capita. The annual growth rate in agriculture averaged 4.4 per cent from 1979 – 2008, four times the population growth. Thus, China’s agricultural sector is able to feed 20 per cent of world’s population with 8 per cent of the world’s arable land. In contrast, Sub-Saharan Africa stagnated throughout the 1980s and early 1990s. Since the mid-1990s, however, Africa has seen a turn-around with rising GDP growth rates, remaining at 5 per cent per year since 2004. Agricultural growth has also accelerated (Figure 2.1) (Fan et al, 2010).

**Figure 2.1. Annual GDP and Agricultural GDP Growth, percent**

![Graph showing annual GDP and agricultural GDP growth for China and Sub-Saharan Africa.](image)


In terms of food security, there has been a sharp contrast in performances: In China, grain output per capita reached 381kg in 2007 and food security at the national level has been achieved but disparity still exists among different regions, especially in the 271 poor counties in the western region (Xiao and Nie 2009, ix). The number of undernourished people decreased from 178 million in 1990 – 92 to 127 million in 2004-06, and the share of undernourished people decreased from 12 to 10 per cent of the population in this period (FAO 2009). In Africa, however, average yield per hectare remained stagnated at 1 ton/ha for main cereal staples, and the number of undernourished people in Sub-Saharan Africa actually increased from 169 million in 1990 – 92 to 265 million in 2009, accounting for more than one-third of the total population (Josue Dione, UNECA; FAO 2009).

After three decades of reform, opening-up and broad-based economic growth, China has achieved the most rapid poverty reduction in human history: Using the new international poverty line of $1.25/day (in 2005 PPP), it is estimated that in the 24 years after 1981 over 635 million people in China were lifted out of poverty and the proportion of the population living in poverty fell from 84 per cent to 16 per cent (Chen and Ravallion 2008). In Sub-Saharan Africa, however, the share of people in...
the population living below $1.25 a day remained virtually unchanged—51 per cent in 1981 and 50 per cent in 2005. Moreover, the number of poor people almost doubled from 202 million to 384 million in the same period (Fan et al 2010).

China’s achievements in agricultural growth, food security and rural development have naturally drawn attention from the international community. How could China grow enough food on 8 per cent of the world’s land to feed over 20 per cent of the world’s population? In this broad context, the second event of the China-DAC Study Group on “Agriculture, Food Security, and Rural Development for Growth and Poverty Reduction” was timely. This synthesis report focuses on the following three key issues that were discussed at the second event; it is not intended to be comprehensive.

- Key elements for China’s success in agricultural growth, food security and rural development. To what extent are these experiences and lessons relevant to Africa? (Section II)

- What has been the experience of African countries in these aspects: what has worked and what not? What are development partners’ experiences? What has been China’s approach in its engagement in Africa’s agriculture? (Section III)

- Going forward, what are the implications for African countries, China and established donors? How can Africa, China and established donors work together more effectively in improving Africa’s agriculture? (Section IV)
2. Agriculture and China’s Growth and Poverty Reduction

A country possesses given natural endowments consisting of land (and natural resources), labor (and human capital), and capital (both physical and financial), which are the total resources available to be allocated to primary (including agriculture), secondary, and tertiary sectors. The endowments in a country are exogenously given at any specific time but they are changeable over time. Empirical evidence shows that a country’s development strategy and priorities are crucially dependent on the country’s composition of and total endowments at the specific development stage. In addition, natural endowments are directly linked with a country’s comparative advantage - an old concept with increasing importance in explaining growth and development in a globalized world.

2.1 Agriculture before and after reforms: what policy reforms have been implemented?

Agriculture is a matter of life and death for China, as a large country with a population of 1.3 billion and scarce land and water resources. In the long feudalist history, agriculture was considered the key for national security and social stability. However, China was a net grain importer for about a century according to the customs records dating back to 1863 (Zhong 2010). Food security was a remote and distant dream before the economic reforms initiated in 1978.

Past mistakes led to reforms. Why did China fail to achieve food security before the economic reforms? One of the reasons was the adoption of a strategy to promote heavy-industry development in a capital-scarce country. In 1949, the government inherited a war-torn agrarian economy in which 89.4 per cent of the population resided in rural areas. At that time, industrialization as represented by heavy-industries was considered the symbol of a nation’s power. However, the “forced industrialization strategy” was mismatched with China’s natural endowments at that time. The Chinese economy then had limited capital, high interest rates, and scarce foreign exchange because exportable goods were limited. Agricultural products alone made up over 40 per cent of all exports in the 1950s. In order to accumulate the needed capital for industrialization, land was collectivised and the state monopolized the grain procurement. In addition, agriculture was heavily taxed and prices of agricultural products were depressed, so that savings from the agricultural sector were used for industrialization (Justin Lin and Yan Wang 2008). This system damaged farmers’ incentive for production, and as a result China remained a “shortage economy” from the 1950s to the 1970s; poverty was pervasive and large famines occurred in the early 1960s. The stagnation in productivity in part had prompted the economic reform in 1978.

Realizing the past mistakes, policy makers in China made a major transition to establish agriculture as the priority for reforms in 1978. Confronted with tremendous risk and uncertainty at the beginning of the reforms, China adopted a pragmatic, incremental and experimentation-based approach to reforms. Experimentation helped reduce risks and facilitated self-discovery and a collective learning process to be carried out from the top to the bottom. As a result of these experiments, China developed many home-grown, unorthodox and practical policy measures. After 30 years of reform and opening-up, China has achieved three major structural transformations in agriculture:
• Collective farming was transformed to small-holder private farming;

• The share of agriculture in GDP has declined from 28 per cent in 1978 to 10.6 per cent in 2009, with the decline in employment share from 71 per cent to 39.6 per cent (NBS, 2010, WTO, 2010)—which marked the beginning of an industrialized economy;

• The Chinese economy is integrated with the global economy, and its export structure is now in line with China’s comparative advantages. In the 1980s agriculture accounted for one quarter of Chinese exports and its share has declined to 2.5 percent in 2009, whereas labour-intensive manufactured goods account for a larger share in China’s exports (Figure 2.2).

Figure 2.2. China has been following its Comparative Advantage: From Raw Materials in the 1980s, to Labor Intensive Manufacturing Products in the middle 1990s

Composition Change of China’s Gross Export (1984-2006)

Source: Justin Lin and Yan Wang (2008) based on UN COMTRADE data.

Agricultural-related institutional and policy reforms can be divided into four periods, with different strategies and policies used in different stages. The first stage (1978-1984) was the adoption of a home-grown Household Responsibility System (HRS) for securing equitable land user rights, which tremendously improved smallholder incentives for production. Originally collective-owned land was distributed equally to villagers. In addition, a new pricing policy was launched which involved increased procurement prices. The introduction of the HRS is estimated to have contributed to 60 per cent of the growth in the early 1980s (Lin 1992). Moreover, investment in the development and large-scale adoption of improved seed varieties, such as hybrid rice, also boosted agricultural growth and food security. As a result, rural income doubled from 1978 to 1984 and poverty rapidly reduced.

The second stage (1985 – 1993) focused on domestic agricultural marketing reforms such as fertilizer market liberalization and procurement system transformation from a mandatory quota system to a contract system. Initially, the “dual price” system was pervasive in the economy and farmers were guided by both market and planning price signals. In most cases market prices were higher than the procurement prices, and thus, reduction of quotas benefited farmers.
• The government played a crucial role in building a futures market for food grains including corn, wheat, soybeans, pork and cotton. In order to reduce the price fluctuation for agricultural products, with the support of top leaders Development Research Center started a research project on futures market in 1988. In October 1990, China’s Zhengzhou Grain Wholesale Market was established with the support of the government. It marked the beginning of the development of a nationwide wholesale (both spot and futures) market for foodgrains. In March 1993, China Zhengzhou Commodity Exchange got its new name and in May 1993 the futures contacts started to be traded. Since then, the futures markets in China have grown tremendously and provided clear market signals for agriculture production (Liao Yingmin 1999, page 341 – 344). Zhengzhou Commodity Exchange is now the world’s 12th largest commodity exchanges in volume.

• Between 1985 and the early 2000s, agricultural markets were gradually liberalized with grain procurement quotas reduced. Domestic markets for foodgrain became more integrated. As a consequence, the prices of agricultural outputs rose in China during first 10 years of reform, and all farmers benefited (Li Guo et al).

The third stage of reform (1994 – 2001), focused on connecting farmers to markets by further opening up to international markets prior to China’s accession to the WTO, unification of the exchange rate, ending the monopoly of state trading in agricultural commodities as well as infrastructural development. These reforms resulted in increased market access and a decrease of domestic grain prices. In particular, China gradually reduced average tariffs for agricultural products from 42 per cent to 21 per cent in the period from 1992 to 2001. Furthermore, the country has implemented its commitment in WTO accession and reduced the tariffs from 21 percent to 11 percent in the period between 2001 and 2005. By the 2000s, domestic prices of most of agricultural commodities were close to those on the world market (Guo LI et al 2010). Complementary investments were taken to protect the rural poor.

Throughout the entire reform era, the government has intensified its investment in public goods, supporting agriculture and rural development, and later complemented by co-financing from all levels of the government, public service units and farmers themselves. Farmers’ contributions in the forms of voluntary labor and cash have been quite significant: In the period of 1980 – 2006, the proportion of self-financing by farmers themselves reached 34% in fixed asset investment, whereas investment from aid and FDI accounted for less than 4 percent (Yang Qiulin 2010). In the period from 1989 to 2000, annual inputs of rural labor to various projects were 7.22 billion workdays (Li Xiaoyun 2010). Most projects in rural China now focus on the provision of public goods. According to a survey of 9138 projects (in 2459 sample villages), 87 percent was investment in public goods such as rural roads, irrigation, schools, and drinking water. About two thirds of public goods investments were into five types of projects: rural roads 21 percent, schools 14 percent, irrigation 14 percent, drinking water 12 percent, clinics 3 percent, and other public goods 37 percent (Li Guo et al 2010).

Meanwhile, the government has consistently played a critical role in agricultural research and development and rural extension services over the last thirty years. After China’s WTO accession, the government has intensified its investment in agricultural research and development. Since 2000, the

1 This was according to government data. However, according to WTO definition, the average applied MFN tariff on agricultural products in 2009 was at 15.2%, largely unchanged since 2007 (WTO 2010).
rise in research investment is higher in China than any other country in the world. A system of Chinese Academy of Agricultural Sciences (CAAS) was established in all provinces with 39 institutions, as well as a system of agricultural universities. Overall there are about 2000 institutes and universities engaging in agriculture research and development. A nationwide system of agricultural extension services was also established even before the reforms. They have played a crucial role in disseminating agricultural techniques to the farmers (Zhang Lubiao).

**Current stage (2002 – present)**: China became a net importer of agricultural product in 2004 although the volume of trade continued to grow. Confronted with stagnating labor productivity in agriculture and widening rural-urban income disparities, **raising farmers’ incomes has become the primary objective in the new era**. The government has been implementing agricultural reform to improve farmers’ welfare, and mitigate rural-urban disparities, and more recently to stimulate domestic demand. In particular,

- The first policy is to protect farmers’ land-use rights. The new land reform was implemented to address the drawbacks of the household responsibility system, which is turned to an open ended-contract. So far, about 90% of farmers have received their operation certificates. Since October 2008, farmers are allowed to transfer their land user rights through various forms, including subcontracting, and lease swapping (WTO 2010).

- Second, to reduce and eliminate agricultural taxation (2004 – 2006), which marked the ending of a 2,600-year tradition of taxing agriculture. The tax burden was 8.1 percent of the total output in agriculture in 2003, and it was eliminated to zero in 2007. Because of the reform, the financial burden of farmers has reduced by RMB 125 billion annually. (Tang Min)

- Third, to provide incentives for farmers to grow food grains. In the face of WTO accession foodgrain markets were liberalized, but other support measures including a minimum procurement price scheme in rice and wheat and direct subsidies were adopted. In 2008 the direct subsidies to agriculture reached over RMB 100 billion, accounting for 3.1 per cent of agricultural GDP (Li Guo et al 2010, page 24).

**Rural water resources management** encompasses both drinking water and irrigation, both considered the responsibility of the government and requiring intensive investment. In 2000, 379 million rural people were without safe drinking water supply. During 2001 – 2009, after the government’s investment of about USD 7 billion, an additional 195 million people were provided with safe drinking water. Secondly, irrigation is considered the basis for agricultural productivity and poverty reduction. Between 1979 and 2007, irrigated area was increased by more than 25% (Zhong 2010). A case study about Water User Association (WUA) shows it is an effective institutional design to improve farm-level irrigation management. Started in early 1990s, the Ministry of Water Resources (MWR) selected 20 large irrigation districts to experiment with WUA, accompanied with water saving projects. After 2002, MWR and Ministry of Civil Affairs fully implemented WUA development in China, with about 200,000 WUAs established at present (Shen Dajun, MWR).

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(1) Although China is the world’s top producer of agricultural products by value, labor productivity in agriculture remained low, which is one fifth of the level in the rest of the economy. As a result, the average rural incomes fell further behind the urban average, thus contributing to a widening rural – urban income gap (page 70, WTO 2010).
2.2 China’s Experience in Poverty Reduction and Rural Development

Agriculture serves multiple functions—it contributes to overall economic growth by providing food, labor and savings to non-agricultural sectors, but also provides employment and a social safety net for rural residents. On the one hand, agricultural growth has a far-reaching impact on food security, farmers’ income, overall growth and poverty reduction. In fact, growth in agriculture in China is estimated to have contributed four times more to poverty reduction compared to both growth in manufacturing and growth in services (Ravallion and Chen 2007). On the other hand, China’s main driver of economic growth is outside agriculture, in the labor intensive manufacturing and export sectors. Thanks to increased regional and global integration, productivity growth was mainly driven by the economy of scale and specialization in the coastal and urban centres. Thus, this section goes beyond agriculture to discuss nation-wide policies related to rural development and poverty reduction.

Diversification through the township and village enterprises (TVEs) was a significant institutional innovation with long term implications to rural development and poverty reduction. Despite their collective and public nature, TVEs provided production incentives to rural entrepreneurs and reduced their risks. Employment in TVEs increased from 28 million in 1978 to 95 million in 1988 at the peak (NSB 2007).

- First, the development of TVEs led to rising rural incomes and labour reallocation from agricultural to non-agricultural sectors. As a share of total national income, rural non-farm income in China rose from 4 percent in 1978 – 80 to 28 percent in 1997, and to over 50 percent in 2007.

- Second, TVEs allowed room for experiments and self-discovery, as farmers experimented on various subsectors such as food processing, handicrafts, shoes, clothing and toys, and in the process some local comparative advantages were found. Many TVEs later were restructured into private partnerships, joint ventures or shareholding companies. This process marked the beginning of a rapidly growing private sector.

Move farmers out of agriculture. Thanks to the opening to international trade and investment through Special Economic Zones, China’s growth centre moved to coastal regions and urban centers from the mid 1980s. Millions of jobs were created in the coastal regions in the labor intensive and export sectors, attracting an increasing number of rural migrant workers. The government has been gradually relaxing the restrictions for rural-urban migration and “labor exchange centers” were set up in coastal cities to help rural laborers to find jobs in urban areas. About 200 million rural laborers found jobs in urban areas with their annual income increased by 3 or 4 times (Tang Min). The average number of migrant workers increased from 100 million in the 1990s to 200 million in recent years. This large scale rural-urban migration and related policy changes have had a great impact on poverty reduction and rural development (Wang Sanqui et al. 2010).

Since the mid 1980s, China started to design and implemented programs specifically targeted at the poor. In fact China’s poverty reduction process is a learning process, with the strategy heavily influenced by international best practices, shifting from targeting the poor areas to targeting the poor villages and households. Officially, the post-reform poverty reduction in rural China has been divided into the following four stages:
• 1978 – 1985: poverty reduction was brought about by rural institutional reforms. Nearly half of the total rural poverty reduction happened in this early stage of reforms (Lin, 1987, 1992, and Ravallion and Chen 2007).

• 1986 – 1993: a large-scale poverty reduction campaign but with unclear targeting;

• 1993 – 2000: The 8/7 Poverty Reduction Plan aimed to lift 80 million people out of poverty in seven years, setting the “development oriented” strategy and targeting poor regions and counties;

• 2000 – 2010: the new Poverty Reduction Program (LGOP 2003). Agricultural tax was phased out in 2004 – 06 and the strategy of “whole village development” is implemented. Since 2007, a two legged strategy is being implemented including the “development oriented poverty reduction” and a social safety-net (Huang Chengwei 2010).

Leadership and institutions matter for poverty reduction. The government’s strong leadership and commitment for poverty reduction was secured by establishing the following institutions: On May 16 1986, the Central Government created a high level coordinating agency, later renamed as “State Council’s Leading Group for Development Oriented Poverty Alleviation” in December 1993 (LGOP 2003). The group has been headed by a Vice Premier and consists of leaders from 27 major ministries including the National Development and Reform Commission (NDRC), Ministry of Agriculture (MOA), and Ministry of Finance (MOF). The Leading Group has been responsible for setting the national policies, strategies and plans for poverty alleviation, and the Leading Group Office has been created at the four levels - central, province, prefecture and county – of government in China. (Liu Jian 2009).

Capacity development through implementing projects. To implement targeted programs and projects, two centers were created under LGOP: the Foreign Capital and Project Management Centre (FPMC) was created in 1995 to implement the World Bank and other internationally financed poverty projects in China. The Training Center was created in February 1990 to provide trainings to officials from China’s poor areas. FPMC and the Training Center were also created at the provincial levels under the respective provincial LGOP. Capacity building activities through training and “learning by doing” made sure that central government policies and projects could be implemented at the county and village levels. These institutions were able to mobilize large amounts of resources, allocate the resources to the designated poor areas, and implement large scale projects. The LGOP system has also provided a stable career path and a platform for development practitioners so that they have incentives to perform well and stay in the system and be promoted later. Capacity development in the LGOP system has been sustainable in part because of the opportunities provided by an enabling macro environment provided by a stable and growing economy (He Xiaojun, IPRCC 2010).

Public financing has been complemented by state banks and international donors. The government’s poverty reduction drive is enhanced by poverty reduction funds from both the central and local government. At the central government level, the poverty reduction funds include the poverty loans managed by the Agricultural Bank of China (ABC), funds for “cash for work” programs channeled through NDRC, as well as the direct fiscal input channeled through the Ministry of Finance system. The average annual rate of growth for the total Poverty Alleviation (PA) funds was about 10 per cent from 1986 to 2008, which is slightly higher than the GDP growth rate during the same period (Figure 2.3). The ratio of the combined “cash for work” fund and fiscal funds to total central government budget expenditure between 1986 and 2007 was around 2.5 per cent on average. On
average, two thirds of the PA funds for the poor counties were from the central government; around 10 per cent was from international and domestic donors, and 5 per cent from the provincial governments (Wu Zhong and Cheng Enjiang 2010).

Figure 2.3. Poverty Alleviation funds from the Central Government, 1986 – 2008

Note: Measured at Constant Prices RMB 100 million.

Notes: 1. Poverty loans disbursed by the Agricultural Bank of China (ABC) and Agricultural Development Bank of China (ADBC). From 1998 onwards, the figures are annual disbursement of poverty loans by the ABC. 2. Percent of the total poverty funds from the central government sources. 3. Fiscal funds used for cash for work program channeled through the NDRC system.

Currently, a new comprehensive poverty reduction strategy is combining rural development with social protection, in order to address of rising rural – urban disparity, inequality of opportunities in education, health, employment and rural finance for self-development. These include

- Improving the basic conditions for production and livelihood through the “whole village plan for development”. There are 150,000 poor villages in China, and by the end of 2009, village plans for poverty reduction have been implemented in 108,400 villages.
- Stepping up the financial support through mobilizing social funds and promoting rural- and microfinance. The number of village-level funds for mutual assistance in the poverty-stricken villages increased dramatically from 319 in 2006 to 9,003 in 2009, covering 940 counties.
- Enhancing human capital by training laborers and preparing them for migrating to urban areas. Since 2004, a fiscal fund of RMB 3 billion has been allocated for this purpose and over 4 million laborers have been trained, leading to a higher probability of finding a job and a rising monthly salaries. In addition, 6.2 million poor people were voluntarily moved out of the areas not suitable for human habitation. (Huang Chengwei 2010)
- Promoting rural social development. A rural cooperative health care system was established with more than 90% of farmers now participating in the system. By 2007, 9 – year compulsory education became free, and it is being gradually extended to rural vocational education. Since 2009, the government has started to promote a rural pension system. By the end of 2010, about 30% of farmers will be covered by the rural pension system (Tang Min).
International multilateral and bilateral donors have played an active catalyzing role for poverty reduction and rural development in China. The donor agencies have made particular contributions by introducing new ideas, concepts and methodologies for poverty reduction in China and by experimenting with new concepts and methodologies with donor funded and government implemented poverty projects in China. Since the mid 1980s, the LGOP system has utilized foreign ODA and other assistance for poverty reduction in the amount of USD $1.16 billion, including some USD $460 million since year 2000. (Huang Chengwei 2010)

- In the 1990s, the Chinese Government cooperated with the World Bank and implemented four large scale integrated poverty projects. These projects covered 119 poverty counties in 8 provinces of China and more than 10 million poor population benefited from the projects.

- Since 2000, LGOP has cooperated with various international organizations, bilateral donors and international non-government organizations (INGOs) and introduced a number of new ideas and concepts into China, including participatory poverty planning, community driven development (CDD), government procurement, and provision of support to NGOs in poverty reduction (LGOP 2008, He Xiaojun 2010)

- In the 1990s, the Chinese government imported the Grameen model of microfinance through cooperation with the UNDP Office in China. The World Bank and ADB ran pilot projects relating to community development funds. Rural households receiving poverty reduction credit increased from 1.52 million in 2001 to 1.97 million in 2009 (Huang Chengwei).

**Box 2.1. Development Aid and Foreign Loans in China’s Agriculture**

In the 25 years between 1981 and 2008, international aid towards China’s agricultural sector experienced ups and downs: During the period of 1981-85, the Chinese government just began to accept foreign aid to development agriculture- The volume was USD $395 million in the five year period. In the mid 1980-1990s, the volume of foreign aid in agriculture increased gradually, reaching to a peak of $2 billion between 1991 and 1995, and then declined afterward. As to the regional allocation, the majority has been distributed to the middle and western regions of China. Entering the new century, the amount has been stable at $160 million annually. See Box Figure 1.

**Box figure 1. Composition of Foreign Aid in China’s Agriculture and Infrastructure (2002 – 2008) (USD million)**

![Graph showing composition of foreign aid in China's agriculture and infrastructure from 2002 to 2008.](image)

Source: based on data from OECD-DAC database. Sectoral allocation is not available before 2002.
From 1981 to 2005, the volume of foreign loans into China’s agriculture totaled $6 billion US dollars, which encompassed more than 200 projects. Among them, the foreign loans from World Bank, Asian Development Bank, International Agricultural Development Fund, and foreign governments (including international commercial loans) are respectively $ 4.62 billion, $ 0.35 billion, 0.48 billion, 0.52 billion, accounting for 77%, 6%, 8%, and 9% of the total, respectively (page 48, NDRC 2009).

Impact: A) International aid and loans have broadened the channels of funding in agriculture, enhanced the construction of core projects and improved the production and living standards of farmers. B) It has provided support to solve the urgent problems in agriculture, including food security, diversification, and agricultural commercialization or “industrialization”. C) It has introduced the advanced technology and management ideas and promoted system innovation in agriculture. D) It has strengthened the international exchange and helped to build the institutional capacity in the field of agriculture.

Source: Yan Wang, summarized based on NDRC 2009 on foreign loans.

2.3 Key Elements for China’s success in Agriculture

It is well recognized that agriculture is a powerful engine of growth – it produces food for the rest of the economy, supplies labour and savings to other sectors, supplies low cost food to keep the wages down, and exports commodities to earn foreign exchange. After discussing reform and policy measures in agriculture (section 2.1), and rural development and Poverty reduction (section 2.2), this section focuses on several lessons and remaining challenges.

Learning from past mistakes. Looking back at the pre-reform history policymakers realized that China paid a high price for a strategy attempting to defy its comparative advantage to strive for early industrialization. Despite significant efforts to invest in rural infrastructure for electrification and irrigation systems, agricultural productivity was still low due to distorted prices and incentives. Realizing the past mistakes, a decision was made by the Chinese government to give priority to agriculture, (labour-intensive) light industry and people’s consumption. This shift in strategy led to early gains by a majority of the population and won public support for subsequent reforms in other areas such as trade and investment regimes.

China’s agricultural development has been driven by the “organic combination” of three forces, i.e. the state, the market and farmers. China’s agriculture was transformed into a small-holder farming system which needs support from the government and the market system. Long-term agricultural development strategies coupled with public investment in agriculture have substantially reduced the risk and cost for smallholder farmers. Therefore, China is able to effectively overcome the three major difficulties in technology, market and institutions/systems that most developing countries encounter. Market mechanism alone is not sufficient, it is critical to have the leadership of a visionary, responsible and capable government (Li Xiaoyun). It was the government’s determination and commitment for growth and poverty reduction supported by strong institutions and an increasing amount of resources that let to dramatic reduction in hunger and poverty (Huang Chengwei).

Chinese agricultural strategies can be summarized as “first relying on government policies and second on science and technology”. Apart from the establishment of the land user right and the market reform incentive system, the core strategies also include attaching importance to science and technology and to the promotion of agricultural development through science and education.
Institutional reform has led to a one-time increase in rapid productivity growth, after that agricultural growth has relied on inputs and technical progress. Since 1985, the total factor productivity increase in agriculture could be attributed to technical innovation and dissemination. One analysis shows that the narrowly defined technical progress has led to rising agriculture output, with the rate of contribution rising from 17 percent at the end of 1980s to 41 percent in early 2000s. (Wang Sangui 2008, 2010). The government has played a major role in promoting R&D in agriculture, setting up research institutes, investing in education and research, and supporting agriculture extension systems (Zhang Lubiao). In China’s grain crops and livestock production, the application of improved varieties and new technologies has reached more than 90%, which successfully combines scientific technology with small-scale agricultural economy transformation (Li Xiaoyun).

**Accumulation of human capital, social capital and infrastructure capital** in the pre-reform era had provided important conditions for agricultural growth and rural development and poverty reduction. The primary education enrollment rate was raised from only 20 percent in 1949 to 95 percent in 1978, and the infant and maternal mortality rates declined dramatically. The public investment in education and health has laid the foundation for human capital accumulation in the rural areas. In addition, a significant number of irrigation, rural electrification, and water conservation projects were completed in pre-reform and post-reform eras (Wang Sangui 2008). Chinese farmers have put enormous investment in small water conservancy facilities and water and soil conservation in the community and at the small watershed level, thereby ensuring continuous improvement in agricultural productivity. Thanks to the leadership and social capital in the rural villages, the spirit of “poor helps the poor” has continued until today which greatly facilitated the community-based rural development work and poverty alleviation.

**Learning from international development partners** for China’s development, especially in the areas of capacity development. Since modern agriculture has drawn on the agro-development experience of developed countries, China’s agricultural education and agricultural research are largely dependent on learning and introducing technologies from developed countries. During the learning process, China has followed the principle of introduction, digestion and utilization, and has organically integrated the technologies and management approaches conducive to China’s agricultural development into the system of agricultural technology management (Li Xiaoyun). This spirit of mutual learning, adapting to local conditions and constant innovation is of relevance to African practitioners.

### 2.4 What is relevant to Africa and other developing countries?

China and the 53 African countries have vastly different history, geography and demography – there is a sharp contrast in history of the nation states and its consequences for institutions, cohesion and elites, and there are differences in the natural endowments, size of the domestic markets, demographic patterns, and stage of development (Losch and Li). But there are also similarities in the initial conditions and in the challenges ahead. Participants recognized that even though China’s experience may not be directly replicable in Africa, inspirations could be drawn from China’s experience of a strong public policy backed by investment in human capacity, social capital, infrastructure, and science and technology. Three lessons may be particularly relevant to African countries.

First, a country’s development strategy differs greatly according to the natural endowment of the country, but in the initial stage, agricultural growth and development is always a priority. Some
countries may not have comparative advantage in agriculture (such as China); rapid growth in agriculture is still a necessary condition for the industrialization at a later stage. This is because agriculture can serve multiple functions, a) to provide food, labor and savings for industrialization and urbanization, and b) to provide a social safety net for rural poor. Even though the main propellers of economic growth may lie in other sectors, agriculture is fundamental to a broad-based and pro-poor growth. In the long term, however, a “comparative advantage following” strategy has allowed China to reach where China is today (Justin Lin and Yan Wang 2008).

Second, China’s model facilitates experimentation for self-discovery and self-development by smallholders, and public and private partnership in financing agriculture and rural non-farm sector development. Without waiting for adequate investment from the central government, farmers have contributed to build rural infrastructure through co-financing, “cash for work” program as well as voluntary collective work. Over 34 percent of fixed capital investment in rural areas was financed by farmers themselves. International aid and FDI in agriculture constitute a small percentage of total investment – on average, less than 3 percent between 1981 and 2008 (Yang Qiulin 2010). Farmers participate in the decision on which crops to plant, and which projects or enterprises to select and contribute to, and are held responsible for their profits and losses. This spirit of self-help, commitment, and accountability may be useful for African countries.

Third, government-led and development-oriented poverty programs have been rooted in the thousand year-old traditions of not only “offering fish” but also “teaching how to fish.” The government has been focusing on improving the precondition for self-development in the poor areas of China. The targeted anti-poverty programs have also provided access to education, health services, micro-financing, and trainings to the poor, which tend to improve their capacities for self-development (Wu and Cheng 2010). Among the four pathways out of poverty, agricultural labor productivity emerged as the most important, especially at the early stage of development. Rural – urban migration and rural non-farm sector are also important for the poor in areas with less favorable agricultural endowment (Wang Sangui et al 2010). These philosophies and approaches have implications for China’s engagement in Africa which encourages ownership and self-development.

Some not-so-positive lessons deserve close attention by African countries. A series of problems exist in China’s agricultural development, including for example, a vague land-user right for farmers, a dualistic structure which causes rural urban disparity and inequality, agricultural environmental pollution caused by subsidizing fertilizers and pesticides, and degradation of natural resources resulting from highly intensified investment and development on land (Li Xiaoyun). In the recent years, the consequences from many years of intensive growth in export-oriented sectors and inadequate attention to agriculture, farmers and rural development have surfaced, which led to the call for a more scientific, people centered and harmonious pattern of development. A reciprocal policy of “industries nurturing agriculture” “urban areas nurturing rural areas,” is being designed to promote the equalization of basic public services in the poverty-stricken areas. The minimum livelihood guarantee system was initiated and implemented in rural areas in 2007 (Tang Min). Still, China has a long way to go before achieving a balanced, equitable and sustainable growth pattern and harmonious development.
3. Africa’s Agriculture Development: Challenges and Opportunities

This section discusses agricultural development strategies being implemented in Africa, what approaches have been used by established donors, and what China and established donors can learn from each other in their engagement in Africa.

3.1 What has worked in Africa and what has not?

Over the last 10 years agricultural growth in Africa has accelerated, driven by macro and sector policy changes. A number of significant challenges are facing the agricultural sector in African countries, however. In response to growing demand for food and agricultural goods many countries are increasing their imports, but intra-regional trade remains relatively low. One of the significant challenges is bridging the disconnected between regional supply and demand. At the same time, there is an urgent need to address the under-capitalization, low productivity, and competitiveness of Africa’s agriculture. Other significant challenges identified include addressing African farmers’ disconnection from input and product markets, and addressing the fragmentation of African food and agricultural economy (Josue Dione UNECA). In addition, after a decade of decline, Official Development Aid (ODA) to support Agriculture remains too small and better price incentives for agriculture are needed (Hans Binswanger).

Donors approaches. Since the mid 1980s, aid to agriculture has fallen by 43% but recent data indicate a slowdown in the decline, and the beginning of an upward trend (OECD 2010). The two-decade long decline in agricultural cooperation brought agricultural aid down from around 16% (1977) to around 4% (2004) of total ODA to Africa. (Asche 2010). “It was the expectation that after price reforms and dismantling of public monopolies the private sector would take over. However, in core areas neither foreign nor domestic private capital stepped in” (Asche 2006). The consequence was that average yield per hectare remained stagnated at 1 ton/ha for main cereal staples throughout Africa (with some exceptions). Expansion of African food agriculture thus happened mainly by expansion of cultivated area from 125 Million ha (1960) to 200 Million ha today. (Figure 2.4)

Figure 2.4. Average Cereal Yields (Mt/ha)

![Average Cereal Yields (Mt/ha) diagram](image-url)
Global Value Chains. In contrast to food production, dynamic integration of Africa into global agricultural markets increasingly takes place via global commodity or value chains (GVC). While for some products this is a very old phenomenon (cocoa, coffee, tea, tobacco), entirely new chains have been developed, such as the horticultural and floricultural value chains or fish exports from Lake Victoria. **International aid agencies found GVCs as a promising area of development support.** Aid projects built on two critical observations: (1) farmers should be helped to get a fair(er) share in value chains proceeds; (2) smallholder farmers have typical problems to comply with quality standards. As a result, helping Africa’s agriculture to better compete in global value chains has become an important work area for most international aid agencies (Asche 2010).

**The Comprehensive Africa Agriculture Development Programme (CAADP),** is a framework for policies, strategies and partnerships for agricultural development that was endorsed at the highest political level and includes a commitment of 10 percent budget allocation towards agriculture. The primary objective is to eliminate hunger, reduce poverty and food insecurity, and to expand agricultural exports. It is implemented through four integrated pillars:

1. extending the area under sustainable land management and reliable water control systems;
2. improving rural infrastructure and trade-related capacity for market access;
3. increasing food supply and reducing hunger; and
4. agricultural research, technology dissemination and adoption with cross-cutting capacity strengthening.

**The CAADP targets for 2015.** reflecting the MDGs, are to: improve productivity of agriculture to attain an average annual growth rate of 6 percent, with particular attention to small-scale farmers, especially women; have dynamic agriculture markets within countries and between regions; have integrated farmers into the market economy and have improved access to markets to become a net exporter of agricultural products; achieve more equitable distribution of wealth; be a strategic player in agricultural science and technology development; and practice environmentally sound production methods and have a culture of sustainable management of the natural resource base.

**Innovative approaches.** There are numerous examples, throughout Africa, of smallholders and pastoralists demonstrating remarkable capacity for innovation. For instance, in regards to improving farm productivity, science-based innovations such as tissue culture bananas, NERICA rice varieties and hybrid maize have had a significant impact. There is an urgent need though to accelerate adoption of such technologies by facilitating learning among the different actors. Another key area identified in CAADP is to develop innovative approaches for improving human and institutional capacity, particularly academic and professional training. As an example, FARA is involved in a recent initiative to link university education, agribusiness and research, known as UniBRAIN, with the objective of developing graduates with the entrepreneurial and business skills relevant to the development of Africa’s agricultural productivity (Monty Jones, FARA).

**Donors approach.** In 2007-08, total annual average aid commitment to agriculture amounted to USD 7.2 billion. Among DAC members, the largest donors in 2007-08 were the United States (on average USD 1.4 billion per year), Japan (USD 1 billion) and France (USD 582 million). A large proportion of aid in agriculture has been directed to Sub-Saharan Africa (31%) especially the low-income countries (OECD April 2010). Several new innovative approaches have been developed, including the
Sector-wide approach (SWAs), Coalition for African Rice Development (CARD), Feed the Future initiative, Sectoral Intervention Framework, and so forth (see section 3.4 Donors perspective).

3.2 China’s Aid, Trade and Investment Strategy in Africa: Experiment and Self-Discovery

The shift in Official Development Aid (ODA) from agriculture to the government sector by established donors has opened the way for emerging donors in this sector. These emerging donors and investors bring with them seeds, marketing techniques, jobs, schools, clinics and roads. Since 1959 when China started its agricultural assistance program, more than 44 African countries have hosted Chinese agricultural aid projects, and the Chinese have developed more than 90 farms through their aid and investment projects. Agriculture made up about a fifth of the more than 900 “turn-key” projects constructed by China’s aid program between 1960 and 2006.

At the 2006 Beijing Summit of the Forum on China and Africa Cooperation (FOCAC), China confirmed its long-term commitment to a “new type of strategic partnership” with Africa in the 21st Century, “featuring political equality and mutual trust, economic win-win cooperation” (FOCAC 2006). China’s increased engagement in Africa is unique as it combines trade, aid, investment, and knowledge exchange, including transferring agricultural technology. Drawing on its experience in domestic poverty reduction programs, China has placed greater importance on enhancing poor people’s productive capacity. During the 1990s, the consensus grew among Chinese experts that China’s traditional (large scale) agriculture projects were not sustainable without continued Chinese support. Therefore, 15 new “Agricultural Technology Demonstration Centers” are being constructed to facilitate experimentation. The discussion below follows the sequence of trade, aid and investment.

China-Africa trade in agriculture. Overall trade between China and Sub-Saharan Africa has been growing much faster than overall Chinese trade for the past ten years, reaching over USD $107 billion in 2008. However, trade in food and agricultural raw materials as share of total trade between China and Africa remains small — around 3 percent in 2008 both in exports and in imports (Fan 2010). Some researchers contend that China Africa trade reveals a strong asymmetry. While agricultural exports from Africa to China are dominated by agricultural raw materials, agricultural imports have been focused on food. Most prominent are African exports to China of cotton and tobacco. The general China-Africa trade patterns have not directly benefited African agricultural and rural development (Fan 2010; and Chaponniere, Gabas, Zheng, 2010). On the other hand, Chinese food exports which are competitive on the world market are making inroads into the African market (Rozelle, 2007).

Official development aid from China to Africa is estimated to have almost quadrupled from USD $684 million in 2001 to USD $2.5 billion in 2009, with preferential loans and credits from China’s EximBank (Export-Import Bank) growing the fastest (Brautigam 2009 page 170). As pointed out in chapter 1, no official data is available on the decomposition of China’s aid to Africa. In the area of agriculture, Chinese aid in past decades has moved away from large-scale state-owned farms to support for smallholder farmers in Africa. China has also experimented with new methods of combining aid and economic cooperation such as joint ventures, cooperation contracts, and public-private partnerships (Brautigam and Li 2009). China’s aid in agriculture has gone through three stages.
In 1960s and 1970s China helped build a large number of farms in Africa, totalling 87 projects covering 43,400 hectares. These farm assistance were managed by Chinese experts and financial assistance. However, this kind of aid was considered not sustainable and confronted difficulties when these farms were transferred to the recipient governments (Cohd and Ciad, 2010).

From the mid-1980s onwards, more of these bilateral agricultural projects become joint ventures looking for profit under the “go global” strategies. The Chinese government encouraged and allowed some enterprises, especially state-owned enterprises, to join in foreign aid work. China’s State Farm Group and provincial state farm groups began restructuring farms in Africa. Thus the farm model changed from purely state-owned to government-supported enterprise. These farms are managed by Chinese personnel who hire local farmers as workers to produce agricultural products for the local market (Cohd and Ciad, 2010).

The third period started in 2000, with the creation of the Forum of China-African Cooperation. China is actively applying the South-South Cooperation mechanism and other multilateral mechanisms to extend agricultural assistance to Africa. By the end of 2005, 145 agriculture aid projects have been established in the form of constructing farms, testing stations, technology demonstration centres, and sending agricultural experts. Up to the end of 2008, Chinese companies had invested in Africa in the establishment of 72 agriculture enterprises, with a direct investment of 134 million US dollars coming from the Chinese side.

Box 2.2. China’s Aid in Africa’s Agriculture: Lessons and New Approaches

Lessons from aid projects. China is learning from its own experiences in development cooperation. In particular, a paper by Director Xue Hong (CAITEC, MOFCOM) was informative about various development cooperation approaches in Africa.

Xue first describes the outcomes of five cases of China’s aid projects in Africa, including the Muharali Rice Farm of Tanzania; the Kibimba Rice Scheme, Uganda; the Sugar Conglomerate in Mali; Magbass Sugar Complex, Sierra Leone; and Anie Sugar Refinery (Complexe Sucriere D’Anie), Togo. Most projects were successful in the first stage after completion, but could not remain sustainable after a few years due to numerous difficulties in the recipient countries. He concludes that aid projects can be made sustainable if they can be transformed into commercially viable joint ventures by the two sides, as in the case of Sukala Sugar Conglomerate in Mali.

Xue Hong sees that there is a need to reassess China’s approach of providing development assistance, and shift to a model that is “led by (public or private) enterprises while facilitated by the government through R&D and demonstration centers.” “The government should intensify policy support, enhance information communication and research, create effective coordination system, encourage domestic and competent state-owned or reputable private enterprises to conduct development independently in the form of proprietorship, joint ventures and cooperation, using funds raised through various channels ensuring the

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sustainability of cooperative projects.” (Xue Hong 2010 page 17).

**New Development:** According to a new report on China-Africa Trade and Economic relationship Annual Report 2010, agricultural projects accounted for 16 percent of total number of China-aided complete plant or turnkey projects (142 out of 884) by 2009. However, the monetary amount for these projects is not available.

**Box Figure 2.1. China-Aided Turn-Key Projects in Africa**

![China-Aided Turn-Key Projects in Africa](image)

Source: CAITEC, MOFCOM, October 14, 2010.

In 2009, China’s FDI in Africa’s agricultural sector amounted to about USD $30 million. This includes investments from wholly Chinese-owned companies, joint ventures or cooperative activities, in countries such as D.R. Congo, Sudan, Malawi, and Zambia. One example is that Chinese companies and the China-Africa Development Fund launched a project worth over $20 million for cotton cultivation and processing in Malawi, benefiting 50,000 households in 2009.

In 2009, under the FOCAC framework, the construction of Chinese-aided agricultural technological demonstration centers commenced in Benin, Liberia, Mozambique, Uganda, Ethiopia, Sudan, Cameroon, and Tanzania. Between 2007 and 2009 China sent 104 senior agricultural technology experts to 33 African countries, helped in building agricultural infrastructural facilities such as grain storage, rural roads and water in Zambia (page 15 – 16, CAITEC 2010).

**Direct investments (FDI) and comparative advantages.** In general, foreign direct investment comes naturally to sectors where the country has a comparative advantage. In China, FDI has been concentrated in light manufacturing sectors, where China has a comparative advantage. In 2007, FDI in agriculture accounted for only 1.5 percent of total FDI in China (Brautigam 2009, and Wang Zhile, CAITEC). Some African countries, on the other hand, do have comparative advantage in agriculture, especially in Mali, DRC, Sudan, Tanzania, and Zambia, where Chinese FDI has some potential (Lu Xiaoping 2009). In 2009, China’s outward Foreign Direct Investment (FDI) in Africa’s agricultural sector amounted to about US$ 30 million; however, trend data on the flow of Chinese FDI by sector is not publically available. With high prices of food, foreign investment in land in developing countries has increased. Chinese state-owned enterprises have been involved in discussions about land acquisition in Africa, but the deals have so far not been large. The established “Friendship Farms” in some countries are owned by a Chinese parastatal organization, but are usually below 1,000 hectares (Cotula et al. 2009). The nature of China’s investment activities in Africa is multi-faced: Some are managed by the Central Government with the transfer of technical assistance. A significant number are carried out by provincial level enterprises but with the support of the China Africa
Development Fund or with incentives from host countries as is the case of Zimbabwe and Zambia.

3.3 Perspectives of Africans: Feedback on China’s support to Agriculture

**African perspectives** are based on the five-country consultation organized on April 13, 2010, including representatives from Ghana, Kenya, Liberia, Mali, and members of the China-DAC Study Group. After two presentations provided from the perspectives of China and Africa, participants discussed 3 main topics: What lessons can be learned from China’s experience? What policies and strategies have donors and China been pursuing to promote agricultural growth, food security and rural development in African countries? In view of population growth and climate change, what role can innovation in agriculture play to provide opportunities for job growth and poverty reduction in Africa?

First, participants agreed that China’s experience had a number of lessons for Africa noting especially the **success at intensification and productivity increases by smallholders**. Kenya noted its own experience in the development of the cut flower export industry. Mali noted that they had undertaken many projects aimed at agricultural intensification and a key criteria for success was the integration of domestic and international markets for production. They discussed China’s approach to financing of agricultural inputs, development of infrastructure, rural credit and financing, and management of food crop surpluses.

Second, they also underscored that Africa has the **potential to develop smallholder agriculture as a prelude to larger farm development**. Liberia noted that smallholder agricultural development would necessarily play a central role in reducing poverty in a country where productive capacity had been severely reduced by years of conflict. They cited the importance of the Comprehensive African Agricultural Development Program (CAADP) and suggested that China consider using the CAADP as a channel to support countries through programmatic funding.

Third, participants noted that China was playing an important role in **supporting the development of their technical capacity through training and the establishment of technical centers**, including a planned center in Liberia. They were interested to hear about China’s approach to fertilizer subsidization, which had kept prices stable in real terms as the prices for food crops increased, and resulted in greater on-farm incomes. Complementary measures to absorb market surpluses, including price protection through strategic storage of excess production were also discussed. Participants discussed China’s experience with technical innovation and productivity increases especially to understand how small farmers changed longstanding practices.

Fourth, one of the challenges would be public finance in agriculture. Participants discussed whether the budget allocation goals set out in the CAADP would be attainable given that they were dependent on donor commitments and aid budgets are highly constrained. Experts, however, noted that domestic finance is likely to be more important to continue to support agriculture in Africa, and countries should be cautious in relying on aid pledges to finance the CAADP. Participants also discussed the potential opportunity and challenges for agriculture from **climate change**. The complexity of impacts suggests that there may be cases where climate change could enhance agricultural growth, and that agricultural technology needed to be developed to take advantage of these opportunities where they existed.

In sum, participants from four African countries agreed that “there is real scope for mutual learning especially as it relates to smallholder development, food security, intensification, and adapting market mechanisms to support agriculture.” They provided numerous examples of areas where collaboration...
with China is already underway and where they believe that there is an opportunity to capitalize on a more favorable market environment than in past decades. Participants also believed that there would be gains from having agricultural delegations including farmers visit China (ACET Summary, April 2010).

3.4 Perspectives from the Donors:
New Approaches and the Land Grabbing Issue

The established donor community in general welcomes China’s emergence as a donor. Chinese investment in African agriculture brings capital and technology. For example, the introduction of water-saving technologies and soil-related techniques such as tillage and planting methods are particularly beneficial. However it could be argued that these examples refer to farms established in an earlier phase of China’s engagement (Chaponniere, Gabas, Zheng, 2010). To enhance learning, this section introduces several new innovative approaches.

Over the years, established donors have made many efforts to harmonise their aid through greater transparency, better information sharing, and increased co-ordination. In particular, several innovative programs and modalities have been developed. First, Sector-Wide Approach (SWAp), also increasingly referred to as a program-based approach (PBA) is a specific aspect of budget support. A SWAp is where donors disburse funds to a specific sector within a national budget to directly support a recipient government’s strategy. The government is firstly expected to develop an overall strategy for a particular sector (such as agriculture), which donors will pledge support for, encouraging the government itself to co-finance the programs. Providing aid in the form of SWAs is claimed to be more efficient (less costly) than funding numerous individual projects, although initial concerns highlight that many donors continue to provide funds for specific projects, despite also contributing to the pooled funds, adding to the complexity of the process. Despite mixed results, the approach continues to be utilized in different forms by a range of donors in the agricultural sector (Cabral 2009).

Second, Coalition for African Rice Development (CARD). Initiated at the Yokohama Conference in May 2008 and led by a partnership of Alliance for a Green Revolution in Africa (AGRA), NEPAD and JICA, this project aims to double the rice production in SS Africa within 10 years through supporting smallholders by providing the new resilience rice varieties. Its functions include sharing statistical and technological information, facilitating donor coordination at the project level, increasing investment in rice production, and supporting research and development for new varieties. The funding could also be used for rural infrastructure. This is a part of the Tokyo International Conference on African Development (TICAD IV), supported by many donors and is fully consistent with the CAADP. ❄️

Third, Feed The Future. In response to the commitment at the 2009 G8 Summit of global leaders to “act with the scale and urgency needed to achieve sustainable global food security” the US pledged $3.5 billion over three years to advance action that addresses the needs of small-scale farmers and agribusiness, and harnesses the power of women to drive economic growth. The principles

❄️ CARD is supported by multiple partners include AfDB, AfricaRice, AGRA, FARA, FAO, IFAD, IRRI, JICA, JIRCAS, NEPAD and the World Bank.
underpinning the Feed The Future (FTF) initiative are: comprehensively address the underlying causes of hunger and under-nutrition; invest in country-led plans; strengthen strategic coordination, including with civil society and the private sector; leverage the benefits of multilateral institutions; and make sustained and accountable commitments. The FTF initiative is designed to be flexible and innovative, reflecting ongoing lessons learned - Small case studies will be used to develop sustainable, scalable solutions to food insecurity. One example is the production of shallots along the Dogon Plateau in Mali, where the Integrated Initiative for Economic Growth program (IICEM) provided technical expertise to stakeholders all along the value chain, including production, post-harvest storage, processing and marketing. USAID also initiated a partnership with the World Bank and FAO to reorganise the farmers’ cooperative and improve the transparency of donor aid.

Fourth, Sectoral Intervention Framework – Rural Development. AFD assistance in rural development is directed towards the following priorities: loans to agro-food and agro-industry companies; supporting financial institutions related to agricultural sectors, including innovation; financing infrastructure and strengthening institutional capacities. In Sub-Saharan Africa the focus is more specifically on the food crop production chain, agro-business and smallholder farming (JY Grosclaude, AFD). Fair Trade & Organic Fair Trade Cotton. AFD is also supporting projects that tap into the increasing consumer demand for ‘ethical’ products. One such area is the cotton industry in five West and Central African countries: Benin, Burkina Faso, Cameroon, Mali and Senegal. African cotton already enjoys production methods that fully meet criteria for fair trade. By promoting the sustainable nature of African cotton production, there is a real potential for Africa to benefit from the keen interest in fair trade cotton.

Since the food crisis of 2007, attention has been given to “land grabbing” in Africa and China has been labelled by some as a land grabber pursuing a food security strategy. Although the actual facts have yet to be investigated, information gathered from international organizations and NGOs offer a picture of what is going on. GRAIN, a Spanish-based NGO, has monitored media articles that reported around 180 land deals at varying stages of negotiation. International Food Policy Research Institute (IFPRI) documented reports on 57 land deals. IIED, FAO and IFAD compiled a large database on this issue. The International Institute for Sustainable Development has analyzed the water component of foreign land purchases (Cotula and Vermeulen, 2009; Mann and Smaller, 2010).

Among the 34 large scale projects recorded by IFPRI in Africa from 2006 to 2009, “Chinese investors are involved in only four which are questionable”. The survey of large-scale land appropriation in Africa shows that these interventions are not new and seem to be intensifying in the recent years. It is difficult to appreciate their size and their agricultural practice (labour intensive or not, ecologically intensive or not, etc). Available information shows that Chinese investments are aimed to local or regional market and not to the Chinese market. The exception could be investments in biofuels which may be export oriented and target the European market (Chaponniere, Gabas, Zheng, 2010).
4. Going Forward

Africans have started to take leadership: a continental-wide strategy for agricultural development is clearly embodied in the four pillars of the Comprehensive African Agricultural Development Program (CAADP), as shown above. It also lays out a framework for how all stakeholders including the donor community should coordinate and address the challenges of African agricultural productivity to maximize effectiveness. The changes required to achieve these (and broader MDG) targets, call for revolutionary vision, commitment, investment and action, with many options for mutually beneficial collaboration between African and non-African institutions (Monty Jones, 2010).

- One strategy is to focus on developing regional value chains of strategic agricultural commodities. This includes focusing on filling the regional gaps in production and trade for strategic food and agricultural commodities, and deepening regional integration to promote the development of coordinated value chains of strategic goods and agricultural commodities (Josue Dione UNECA).

- A number of action points for international development assistance have been identified. For example, supporting research and development to increase farm-level productivity; supporting investment in production and market infrastructure, especially irrigation, farm-to-market transportation, sustainable rural energy access and affordable communication technologies; reduce risks and vulnerability; and enhance environmental services and sustainability (World Bank, Agriculture Action Plan 2009).

- Another area is in supporting agro-industry and agri-business development, through joint venture FDI, in areas such as agricultural inputs (i.e. machinery), processing of products, and innovative contractual arrangements (i.e. contract farming). International development assistance could also be utilized to facilitate access to financing and trade in strategic commodity value chains, such as promoting joint agricultural investment forums and enhancing trade through removal of barriers to improved market access (Josue Dione UNECA).

Challenges of investing in agriculture in a changing world. The conditions for the integration of Sub-Saharan African countries into the world economy today are very different from those of both developed and ‘emerging’ economies. The realities of demographics, economic transition and global integration require new strategies and new thinking. Three major challenges have been identified. First, at the macroeconomic level: despite dynamism in recent years most African countries’ economic structure remains agriarian economies with a low level of economic diversification. Second, demography: few countries have initiated demographic transition, i.e. birth rates are still high resulting in rapid population growth. Third, how to absorb the growing working population, and how the agricultural sector will address the food requirements of a growing population (Jean-Jacques Gabus, Cirad). Fourth, the potential impact of climate change will hurt the poorest and most vulnerable countries and groups in the world (World Bank, WDR 2010).

It was in this context that participants at the agriculture event welcomed China’s intensified engagement in Africa’s agriculture and rural development. “For many stakeholders and observers, China’s involvements might bring opportunities to African states and local farmers. Nevertheless one
should pay attention to possible challenges and problems because it is perhaps in agriculture where China may have a significant impact on the continent’s future.” (Chaponniere, Gabas, Zheng, 2010 page). Why?

First, **China’s story is credible** because it achieved three economic transformations and development goals within the timeframe of a generation. China and Africa, both started at low levels in the 1970s, are currently facing tremendous challenges. China is facing tremendous challenges domestically: labor productivity in agriculture is relatively low, decreased slightly in 2007 and remains about one-fifth of the level in other sectors; income inequality is worsening; the poor and vulnerable groups are quite broad; and there is a long way to go to achieve a balanced, equitable and sustainable development. That is, China and Africa are in the same boat.

Second, **China’s approach facilitates experimentation** on different crops and technology and is conducive to self-discovery. China has tried to combine aid, trade and investment which may be helpful to enhance capacity for self-reliance and self-development. This philosophy follows the thousand year-old traditions of not only “offering fish” but also “teaching how to fish.” Moreover, established donors have started to use innovative approaches to provide support along the entire value chain, including production, post-harvest storage, processing and marketing, as in the case of Feed the Future (US).

Third, **China is learning from its own experiences, from African voices, and from established donors.** As a responsible global partner, China is willing, and has started, to engage actively with existing the international aid community through dialogue, understanding, and co-operation (as shown by several trilateral co-operations involving FAO, IFC, WB, UK on agriculture). The multilateral cooperation between China and UNFAO (Food and Agriculture Organization of the United Nations) has achieved good results, laying a good foundation for more extensive bilateral and multilateral cooperation (Li Xiaoyun 2010).

Fourth, it is in agriculture that a continent-wide African strategy is being implemented and supported by all stakeholders. Therefore, **it is hoped that China will coordinate with established donors in contributing to this joint effort to support CAADP.** African officials at the conference asked China to join the efforts to support CAADP, and China is listening. In addition, China could probably do a better job in learning from its own rich experience in managing international development aid, and applying it in its own development aid and investment programs in other developing countries. For example, as both a recipient and as a donor country, China should listen more from client countries, and share more data and information so that recipient countries will be in the driver’s seat. Some commentators at the conference wished that “China would be better advised to listen to and negotiate with the people actually living there. If fine-tuned, China’s agricultural plan could bring tremendous benefits for both sides.” Another commentator believes that it should be in the interests of Africa’s farmers to make common cause with China’s far-sighted policymakers. The common aim must be to ensure that China’s agricultural involvement in Africa takes place within a policy framework that maximises a long-term ‘win-win’ approach including technology transfer, infrastructure investment, and increased food security and sustainability for both parties.

Going forward, **it is in everyone’s interest to improve the effectiveness of aid and avoid repeating past mistakes.** A mechanism should be established for regular dialogue, exchange, and cooperation between China and the international aid community. More inclusive international discussion is needed for making new rules and standards, and reforming the development aid
architecture. More opportunities for mutual learning between traditional and emerging donors should be created such as the China-DAC Study Group, and a joint evaluation process. An important message on monitoring and evaluation is repeated by participants:

- Experiments need to be evaluated regularly, and scaled up if successful, as China did during its reforms. Mutual accountability also needs evaluation and impact assessment. There is, however, an inadequate number of evaluation studies and impact assessment done by established and emerging donors on what worked and what did not, and why. This information would be invaluable for improving partnerships and accountability for growth and poverty reduction in Africa. Incentives need to be provided to good performance by sharing this evaluation data along with the rankings among all development partners.

- The Centre for Chinese Studies conducted an evaluation of China’s FOCAC commitment and concluded that the implementation of the Beijing Action Plan in the five countries is fairly advanced. Six issues were identified as pivotal to whether or not the Sino-African relationship in the post 2009 FOCAC meeting period will be beneficial for African peoples. Among them, the most relevant to agriculture include: first, employment equity in the African countries, labour rights and skills development; second, MSME joint ventures to be established for technical transfer; and third, it is recommended that African civil society be included to a greater extent in consultations between African leaders and Chinese government and company representatives in order to prevent a popular backlash against the Chinese presence in Africa (CCS 2010). Such evaluation is useful and should be done more often, with increasing participation from the Chinese scholars and government officials.

**Remaining Challenges to All**. The past thirty years of history has demonstrated that development is extremely complex – perfectly sound policy packages may or may not work in various country-specific circumstances. There are many unanswered questions in the extremely complex situation in Africa, and China does not have a silver-bullet. All stakeholders; Africans, Chinese and established donors, are all facing huge challenges. So the final message is that, let’s join hands to experiment together in a long journey of discovery and innovation. Let’s share information and share the results of evaluations, and let’s scale up the successful experiments and discard the approaches that have led to disastrous results. No one wants to repeat any mistakes from the past because people living in hunger cannot afford to bear the consequences of ineffective aid – we all live in one world.
Annex 2.1

Table 2.1. Fifteen Agricultural Technology Demonstration Centers in Africa, 2006 – 2009

<table>
<thead>
<tr>
<th>Country</th>
<th>Crop</th>
<th>Implementing province/organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mozambique</td>
<td>Seed-breeding, and livestock</td>
<td>Hubei/Lianfeng Overseas Agricultural Development Co.</td>
</tr>
<tr>
<td>2 Sudan</td>
<td>Corn and wheat</td>
<td>Shandong/Academy of Agricultural Science</td>
</tr>
<tr>
<td>3 Tanzania</td>
<td>Rice</td>
<td>Chongqing Seed Group/Agricultural Tech Co.</td>
</tr>
<tr>
<td>4 Ethiopia</td>
<td>Cash crop</td>
<td>Guangxi/Baguí Agricultural Co.</td>
</tr>
<tr>
<td>5 Cameroon</td>
<td>Rice</td>
<td>Shaanxi/Nongken Agricultural Co. (Completed)</td>
</tr>
<tr>
<td>6 Togo</td>
<td>Rice</td>
<td>Jiangxi/Huachang Infrastructure Construction Co.</td>
</tr>
<tr>
<td>7 Zambia</td>
<td>Corn wheat</td>
<td>Jilin Grain Group/Agricultural University</td>
</tr>
<tr>
<td>8 Liberia</td>
<td>Rice</td>
<td>Hunan/Yuan Longping High-Tech Co.</td>
</tr>
<tr>
<td>9 Benin</td>
<td>Corn and vegetables</td>
<td>China National Agricultural Development Corporation</td>
</tr>
<tr>
<td>10 South Africa</td>
<td>Aquaculture</td>
<td>China National Agricultural Development Corporation</td>
</tr>
<tr>
<td>11 Uganda</td>
<td>Aquaculture</td>
<td>Sichuan/Huaqiao Fenghuang Group (Fisheries)</td>
</tr>
<tr>
<td>12 Rwanda</td>
<td>Paddy and silkworm</td>
<td>Fujian/Agricultural and Forestry Tech. University</td>
</tr>
<tr>
<td>13 Congo (Brazzaville)</td>
<td>Cassava</td>
<td>Academy of Tropical Agricultural Tech.</td>
</tr>
<tr>
<td>14 Zimbabwe</td>
<td>Agricultural machinery and irrigation</td>
<td>Research Institute of China Agricultural Mechanization</td>
</tr>
<tr>
<td>15 Madagascar</td>
<td>Rice</td>
<td>Human Academy of Agricultural Sciences</td>
</tr>
</tbody>
</table>


Table 2.2. Chinese Investment in Agriculture in African Countries

<table>
<thead>
<tr>
<th>Year</th>
<th>Farm or investors</th>
<th>Country</th>
<th>Dimension (ha)</th>
<th>Type of land use</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Sino Cam Iko company</td>
<td>Cameroon</td>
<td>10,000</td>
<td>rice, vegetables and manioc</td>
<td>local</td>
</tr>
<tr>
<td>2007</td>
<td>Shanxi Province Agribusiness Group</td>
<td>Cameroon</td>
<td>5,000</td>
<td>rice, manioc and ostrich</td>
<td>local</td>
</tr>
<tr>
<td>1997</td>
<td>Koba farm</td>
<td>Guinea</td>
<td>1,800</td>
<td>hybrid rice</td>
<td>local</td>
</tr>
<tr>
<td>1967</td>
<td>Mpouri</td>
<td>Mauritania</td>
<td>1,400</td>
<td>rice</td>
<td>local</td>
</tr>
<tr>
<td>1961</td>
<td>Farako</td>
<td>Mali</td>
<td>400</td>
<td>tea</td>
<td>local</td>
</tr>
<tr>
<td>1996</td>
<td>Sukala Sugar Refinery</td>
<td>Mali</td>
<td>6,000</td>
<td>sugar</td>
<td>local</td>
</tr>
<tr>
<td>2008</td>
<td>Sukala Sugar Refinery</td>
<td>Mali</td>
<td>10,000</td>
<td>sugar</td>
<td>local</td>
</tr>
<tr>
<td>2005</td>
<td>Hubei Agribusiness Group</td>
<td>Mozambique</td>
<td>1,000</td>
<td>rice, cotton, soybean and vegetables</td>
<td>local</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>Senegal</td>
<td>35,000</td>
<td>sesame</td>
<td>China</td>
</tr>
</tbody>
</table>
### Background Papers for the 2nd China-DAC event in Mali:


China’s rural development. Conference Paper for the 2nd event.


Selected References

Note: unpublished papers and presentations were acknowledged by citing the speakers’ names in parentheses in the text of this report.


Chapter 3

Infrastructure: The Foundation for Growth and Poverty Reduction: A Synthesis
Executive Summary

In the aftermath of global financial and economic crisis, it seems that the global economy is now supported by multiple growth poles, as developing countries’ shares of global export and FDI have grown rapidly. Investing in bottleneck-releasing infrastructure projects in developing countries is an important way of creating demand for capital goods, which will contribute to the global recovery as well as to sustainable and inclusive global growth. Africa, in particular, could become a growth pole if infrastructure and other constraints can be removed. (G – 20 Summit)

Both China and OECD-DAC members and other development agencies have a long history of supporting Africa’s infrastructure. After years of decline, ODA directed towards infrastructure has rebounded to now accounting for 8 percent of the total for Africa. As China is now the largest external source of infrastructure investment in Africa, it is natural to ask what lessons China can draw from this international experience, especially to accelerate economic growth and poverty reduction in Africa, and how co-operation can be strengthened.

In this sense, the third event of China-DAC Study Group on “Infrastructure: the Foundation for Growth and Poverty Reduction” was timely. This event focused on the role of infrastructure in promoting economic growth and reducing poverty by addressing three key dimensions of infrastructure development: i) ensuring sustainability – including financing, maintenance and environmental impact, ii) achieving efficiency – including planning, resource allocation and public-private partnerships (PPP), and iii) increasing impact on economic growth and poverty reduction.

It is hoped that China can serve as sources of inspiration, financing and know-how in this regard. According to China’s own development experience, infrastructure has played a major role in accelerating growth and poverty reduction. For example, after the beginning of the economic reform and opening up period:

- China’s infrastructure development was initially led by rapid trade expansion, and financed by all levels of government as well as the private sector, with cost recovery principles and practices widely applied.
- The government played a leading role in strategic planning, financing infrastructure development and resolving the bottlenecks for growth, while maintaining fiscal discipline. Commercial loans, infrastructure bonds and urban development funds have been used to enforce market disciplines. National and regional economic integration was a major concern.
- International partners played a catalytic role in China’s process of learning, reforming and innovating, and initially provided substantial funding and management experience.

Infrastructure development and financing is complex and different principles apply. Infrastructure covers multiple sectors ranging from the public goods and semi-public goods, and private goods (such as extractive industries). Thus different types of infrastructure need to be financed in very different ways, sometimes by government budget and Official Development Assistance (ODA), other times by a combination of both public and private (concessional and non-concessional) financing sources. There are different rules for international donors, and those for private sector investors engaging in PPP projects or in purely commercial deals. In particular, there is an expectation now that companies engaged in the extractive industries should follow the five
internationally recognized principles (Box 3.4).

DAC members have moved towards greater co-ordination behind the principles of the “Paris Declaration on Aid Effectiveness” to strengthen country public management and accountability systems. China, to increase sustainability, is basing its co-operation around an enterprise-based approach, using both concessional and non-concessional financing, with significant and sustained involvement in management by Chinese state and private sector enterprises.

There are opportunities to bring these two approaches together in a way that can improve the collective impact of infrastructure development in Africa on growth and poverty reduction. For example, the European Infrastructure Trust Fund in particular has been using a ‘blending mechanism’, mixing grants from donors with long-term investment finance from financiers.

As the experience of China suggests, political leadership and strategic policy and planning capacity combined with pragmatic step by step adjustment to evolving needs and opportunities are important factors in building infrastructure. “Soft infrastructure”, in terms of the capacity to ensure efficiency and poverty impact in project selection, implementation, operation and maintenance is a key part of this.

African officials participating in this event hoped that all international partners, including China, could support PIDA-- the Partnership for Infrastructure Development in Africa led by the AfDB. Participants also noted that governments are increasingly focused on PPPs and are also encouraging greater private sector participation in regional infrastructure development. Participants felt that projects such as the Tanzania-Zambia Railway (TaZaRa) which were developed in conjunction with the Chinese should be replicated given their significant impact on the development of those countries involved. African officials have identified specific actions China can take in supporting the development of regional infrastructure in Africa, in particular, addressing issues related to transparency, international competitive bidding, creation of local jobs, and sustainable development.

Developing countries, China, Africa and international development partners face a host of challenges going forward. First, strengthening state capacity in Africa is the key for the continent’s economic and political renewal. Second, as the public sector faces severe budget constraints, public-private partnerships offer a promising solution to the financing needs. However, there are considerable risks associated with inefficient procurement policies and inadequate contracting arrangements. Furthermore, learning needs to be based on good evaluation on what has worked and what not. All international partners need to provide better financial and technical support on the evaluation of projects as well as assessment of their impacts. Finally, many developing countries would benefit from greater cross-country fertilization of experiences through South-South learning, peer-reviewing, training and capacity development, especially on infrastructure, Corporate Social Responsibility (CSR) and EITI related issues.
1. Introduction: Objectives and A Framework

With 40 percent of the population living in landlocked countries, Africa has a major deficit in infrastructure at both the national and regional levels. Only 29 percent of households in Africa have access to electricity, 31 percent have access to improved sanitation facilities, and 60 percent have access to improved water sources. In rural areas, only 33 percent of the rural population has access to all-weather roads, as compared to 49 percent in other low-income countries (Fay and Toman 2010). Low population density and the extremely low economic density result in high cost and low profitability of infrastructure investment. To accelerate Africa’s growth performance, its investment needs in infrastructure must be addressed: annual infrastructure needs were estimated at USD 93 billion (of which one third is required for maintenance). Annual spending (domestic and foreign, public and private) is now about USD 45 billion and efficiency gains worth USD 17 billion are available. This leaves an annual funding gap of USD 31 billion (or 5 percent of GDP), mainly in the power sector. (Table A3.1 in Annex 3. The Infrastructure Consortium for Africa 2010)

Since the 1960s, China has placed great importance in building infrastructure in its development cooperation with Africa, with 500 out of the 884 ‘turnkey’ projects in Africa being in infrastructure. In the recent years, China has intensified its development cooperation and is helping to fill this infrastructure gap in Africa. While there are inadequate official data available on China’s economic co-operation with Africa, China’s total support for African infrastructure – both concessional and non-concessional – has been estimated to have hovered at around USD 500 million a year in the early 2000s, rising to USD 5 billion in 2007 and USD $9 billion in 2009 (The ICA 2010; Chen 2010).

OECD-DAC members and other development agencies also have a long history of supporting Africa’s infrastructure. After years of decline, ODA directed towards infrastructure has rebounded to now account for 8 percent of the total for Africa. In 2007 and 2008, bilateral and multilateral donors disbursed a total of approximately USD 4 billion of official development assistance (ODA) to support economic infrastructure development in Africa (according to OECD/DAC data). Africa’s infrastructure and its research and development capacity have also been influenced by the donor community.

Given that China is now the largest external source of infrastructure investment in Africa, it is natural to ask what lessons China can draw from this international experience, especially to accelerate economic growth and poverty reduction in Africa, and how co-operation can be strengthened. In this sense, the third event of China-DAC Study Group on “Infrastructure: the Foundation for Growth and Poverty Reduction” was timely. This event focused on the role of infrastructure in promoting economic growth and reducing poverty by addressing three key dimensions of infrastructure development: i) ensuring sustainability – including financing, maintenance and environmental impact, ii) achieving efficiency – including planning, resource allocation and public-private partnerships (PPP), and iii) increasing impact on economic growth and poverty reduction – including procurement approaches, linkages into the local economy and involving poor people in decision-making processes.

More specifically, the event on Infrastructure has:

- Reviewed the development strategies, policies and instruments used in the three dimensions of infrastructure – ensuring sustainability, achieving efficiency and increasing impact;
focusing on the practices that are most relevant for countries in Africa.

- Examined the increasing role of China’s engagement in Africa’s infrastructure and its potential impact and compared this with the lessons learnt by international donors.
- Explored the opportunities, means and benefits from better co-operation on support to infrastructure between China, DAC donors and African countries.

**A Framework**

**Defining infrastructure**. In this report, infrastructure covers social sector infrastructure such as schools and health facilities, as well as economic infrastructure such as transport, irrigation, drinking water and sanitation, and to a lesser extent, energy, and information and communication technology (ICT). Infrastructure also involves both physical facilities (roads, water connections, and health clinics) and services (transport services, energy and water supply) and involves investment, management, maintenance, capacity building, regulations and policy making, which is usually referred to as “soft infrastructure”. In addition, it can span countries, borders and regions which, in this report, will be referred to as “cross border infrastructure” (OECD 2006).

**A framework for analysis**. The China-DAC Study Group focuses mainly on those infrastructural sectors that belong to the category of public- and semi-public goods, i.e., those that cannot be supplied by the private sector using purely market instruments. In a sense our scope encompasses both social and economic infrastructure, as well as the hardware and software aspects. Energy and mining and ICT sectors are not our main focus, as they are generally regarded as goods and services that can be provided, mostly, by the private sector.

**Modalities for infrastructure financing**. Infrastructure investments are generally lumpy and costly and thus require significant finance. What is not clear, however, is how to link the types of infrastructure with the financing modalities. Exhibit 3.1 below illustrates that there is a relationship between the types of social or economic infrastructure, and the financing options. Specifically,

- Most social infrastructures such as sanitation and preventive health facilities, being public goods, have higher positive externality but low private return, and may have to be financed by the government fiscal budget, official development assistance (ODA) such as grants and no-interest long-term loans and concessional loans. They will be undersupplied if not financed by the governments or ODA.
- Many economic infrastructure, such as highways, rail and power generation, is within the category of semi-public goods, and they have a higher probability of cost-recovery. The “users pay” principle can be applied for cost-recovery, and thus they can be financed by mixtures of concessional and non-concessional loans, Other Official Flows (OOF), and

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1 In economics, a public good is a good that is non-rivalrous and non-excludable. Non-rivalry means that consumption of the good by one individual does not reduce availability of the good for consumption by others; and non-excludability that no one can be effectively excluded from using the good. Examples of pure public goods include national defense, law enforcement and clean air. Market failures are associated with public goods to different degrees. Many forms of infrastructure such as roads and Information-communication technology (ICT) are considered semi-public goods because they are not completely non-rivalrous and non-excludable, and they can be provided by public-private partnerships (PPP).
Public-Private Partnership (PPP) approaches.

- On the other hand, energy, mining and telecommunication sectors are commercially viable with high rates of return, and thus can be financed by commercial loans, FDI, equity investment, commodity-backed loans and other market instruments.

This framework is useful to help understand the current practices of combining trade, aid and (public and private) investment in infrastructural development. Indeed, all three approaches-trade, aid and investment- and many instruments are needed for meeting Africa’s urgent need for infrastructure.

**Exhibit 3.1. Modalities for Infrastructural Financing and the Nature of Infrastructure:**

**public or semi-public goods?**

2. Infrastructure in China’s growth and poverty reduction

Numerous studies have shown that infrastructure provides the basic foundation for economic growth through propelling productivity, facilitating trade and reducing transaction costs. Careful review of the literature found broad agreement with the idea that infrastructure generally matters for growth and productivity, and some analysts suggest its impact seems higher at lower levels of income. Increased infrastructure is estimated to have contributed an additional 2 – 2.5 percentage points to per capita income growth during the early 2000s in Latin America (Calderon and Serven, 2010). Good infrastructure is also found to facilitate international integration (Dollar et al. 2006).

Infrastructure appears to be particularly important for poor developing countries. In a sample of poor countries (Bangladesh, China, Ethiopia, and Pakistan), infrastructure has positive effects for productivity, factor returns, and international integration. According to Antonio Estache, the rates of return from Infrastructure could range from 20 percent to 200 percent (Estache, 2006). A recent study found that in China the aggregate rate of return to capital averaged 25 percent during 1978-1993, fell during 1993-1998, and has become flat at roughly 20 percent since 1998 (Bai, Hseih and Qian 2006) (see Figure A3.1 in Annex). This point is particularly relevant to Africa where the infrastructure gaps are bigger and potential shadow prices are higher. Or in other words, infrastructure investment seems to have higher returns in countries with poorer infrastructure (Collin L. Xu 2010).

2.1 Infrastructure: tackling the growth bottlenecks in five stages

Infrastructure provides the foundation for economic and productivity growth, as well as the basic conditions for reducing the non-income side of poverty, through providing water, sanitation, shelter and health and education services. The Chinese Government has always given priority to infrastructure development, which was motivated, first by the strong desire for industrialization in the pre-reform era, and then, propelled by the export-promotion strategy in the post-reform era.

Stage 1 between 1954 and 1977, China concentrated the bulk of its industrialization effort on heavy industries, promoting rapid growth in industries such as coal, oil and power. At the end of 1970s, over 50 percent of its exports were in the primary sectors including crude oil, crude coal, and agricultural products. Many rural water and infrastructure projects were built at low cost with significant rural labor contribution through “work for food” programs. In the transportation sector, the national highway construction and administration authority was released to local government agencies from the late 1950s, while the Central Government focused on railway construction. Although the state investment in highway was small during the period, local government was eager to construct rural and urban roads. From 1958 to 1980, the length of roads increased 2.5 times, and the contribution of local labor was quite significant at early stages, but declining from around 60 percent in the 1950s to 30 percent in the 1980s (Table A3.2, Annex 3). This shows that China was forced to use cheap labor in building infrastructure due to inadequate financial resource. This strategy can be summarized as “using labor substituting for capital” (Li Xiaoyun).

In Stage 2, from 1978 to 1989, China started the reform and opening up process, particularly through

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establishing Special Economic Zones in the coastal areas. Trade started to expand, and infrastructure building was financed by international partners and foreign investment in building ports and roads to facilitate exports. International competitive bidding was introduced to China in 1984 through the World Bank’s Lubuge hydropower project, creating a “Lubuge shock” (People’s Daily 1984, Lu and Wang 2004). State-owned companies were separated from the government ministries and had to compete with international market participants. In addition, an initial wave of fiscal decentralization provided local governments with incentives to develop local infrastructure.

Stage 3 from 1990 to 2002 was a period of addressing growth bottlenecks. Rapid trade expansion led to bottlenecks in power and transportation in the coastal areas. Traffic congestion and power shortage frequently occurred. Government financing of basic infrastructure rose rapidly in such sectors as water supply, power generation, energy, transport, post and telecommunication as well as raw materials. In particular, public investment in transport infrastructure grew at a rate of 25 to 30 percent in the 1990s, reaching a new peak after the 1997 Asian financial crisis (See Figure 3.2). Foreign investment and BOT were introduced to infrastructure, as in the cases of Laibin B Power project and several toll roads and toll bridges (see Box 2). A modern construction sector emerged and grew to be competitive through learning by doing and international competitive bidding, first in China and later, elsewhere.

**Figure 3.2. Investment in Fixed Assets in Transportation Sector (1953 – 2010): Amount and Growth Rate**

![Investment in Fixed Assets in Transportation Sector](image)

Source: Guo Xiaobei, 2010.

Stage 4, from 2003 to 2008, was one of rapid and comprehensive development in rural and urban infrastructure in China. After the Asian Financial crisis, the government launched the strategy of “Go West”, and enhanced infrastructure development in the western regions. The development of expressways has been particularly remarkable (figure3.3), with the total length increasing from 147 kilometers in 1988 to over 60,000 kilometers in 2008 (Guo 2009). The rural highway network also expanded considerably. By 2009, over 98 percent of the villages could be reached by roads, an increase from 80 percent in 1995 (Zheng Wenkai; Zhang Lixiu) (Figure 3.4).

Stage 5 is associated with the government’s strategy to intensify both domestic and overseas investment in the pre- and post-crisis era. Between 2006 – 2009, China doubled its development cooperation in Africa. Meanwhile, Chinese parastatal companies have become internationally competitive with the government’s support to “Go global”. In 2009, China’s outward direct investment in Africa reached

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$1.44 billion USD, in which non-financial direct investment increased by 55.4 percent as compared to 2008. In addition, the value of China’s new project contracts in Africa reached $43.6 billion, an 11 percent increase over 2008. (CAITEC 2010, page 10). Domestically, China implemented a RMB 4 trillion stimulus package after the global financial crisis, of which RMB 1000 billion was used for post-disaster reconstruction and RMB 1500 billion for infrastructure investment in such sectors as general transport, urban transport and high-speed rail.

**Figure 3.3. China’s Road Transportation**

Source: Guo Xiaobei (2009).

**Figure 3.4. Growth of township roads in China, 1995 – 2002 (km)**

Source: Dong and Fan (2004).

### 2.2 Infrastructural Financing:

Fiscal Resources and the Role of Donors

There are two major channels for infrastructure financing: **(i) direct budget investment from fiscal resources,** **(ii) market-based financing including borrowing and PPPI.** On the first aspect, the Chinese Government’s prudent and proactive fiscal policy played an important role in infrastructure development. China’s fiscal system in the last thirty years has been in the process of transition from the planning model of “financing industrialization” to the market model of providing public goods and services.

First, the government has been maintaining a prudent fiscal policy and following the principle of “planning projects according to affordability” (“liangli exing”). Prior to 1978, China practiced a “unified collection and allocation of funds by the state (tongshou tongzhi)” in which fiscal power was highly concentrated in the center and there was no foreign debt. From 1978, the government started to borrow from foreign governments and investors but followed a strict fiscal discipline, and never borrowed heavily for infrastructure investment (total foreign aid has never exceeded 3 percent of GDP).

Second, fiscal decentralization since 1980s played a critical role in providing incentives for provincial and local government for promoting growth. Decentralization proceeded in two waves:

- From 1980 to 1993, China implemented the “fiscal decentralization-Chinese style” method/process, which was essentially a fiscal contracting system where provincial governments began to retain a share of revenue for the development of local economies. The Central
Government’s share of fiscal revenues fell from 34.8 percent in the 1980s to 22 percent in 1992.

- The second wave started in 1994 when a/the tax assignment system was introduced, and further enhanced incentives for local governments to promote growth by investing in infrastructure. The overall fiscal stance has improved since 1994, with the overall fiscal envelop reaching nearly 25 percent of GDP. Interestingly, the taxes assigned to sub-national government account for part of the fastest-growing major revenue sources: i.e. 100 percent of the personal income tax, most of the company income tax, and 25 percent of value-added tax. Thus, the local government’s fiscal autonomy has been enhanced over the years (Su and Zhao 2006).

In the area of expenditure policy, several noteworthy features are evident: First, the share of capital construction fell from more than 12.5 percent of GDP in 1978 to 2.5 percent in 2004 (or, from 40 percent of total government expenditure to 12 percent in 2004) (Hussain and Stern 2007). Second, the share of culture, education, and health expenditure rose steadily in the 1980s but declined in the mid-1990s. Third, there is a clear division of labor between the central and local governments on who finances what, and who has the ownership and responsibility for completing the projects and for post-completion maintenance. For example, provincial highways are financed mainly by the provincial governments, county roads mainly by county governments, and village roads by the communities and through participatory approaches (CDD projects, or targeted poverty projects) (Zhang Lixiu).

Specifically, in highway construction, the share of state financing from the fiscal budget has been declining, with a large proportion financed by loans from the state owned banks and enterprise raised funds (including those from income streams). Rural road improvements were also integrated with major highway projects, and implemented with external development assistance. In 2007, national highway construction was financed from three major sources: 14 percent from the state budget (including revenues from the vehicle tax), 40 percent from commercial loans, and the rest, from funds raised locally and by enterprises including user fees (Table A3.3, Guo 2009).

Urban infrastructure has been financed from multiple sources. Since urban capital construction is a local (sub-provincial) government responsibility, the majority of spending is done by local governments. Before 1990, the main funding sources for urban infrastructure construction came from the local urban maintenance and construction tax and from public utility surcharges. From 1991 to 2001, the proportion of total urban infrastructure construction financed by budgetary funds decreased from 50 percent to 29 percent, and the decline continued thereafter. By 2001, more than 60 percent of the cities in China had infrastructure loans from the state owned banks, accounting for 30 percent of the total (Su and Zhao 2006, p38-39). The proportion of enterprise funding including user fees rose in recent years.

Roles of International Partners. Among multilateral and bilateral donors, the World Bank, Asian Development Bank, and Japan have contributed the largest shares in infrastructure, and all international partners served as important catalysts for reform and capacity development.

- The World Bank has introduced international best practices in project management and

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1 However, there is a mismatch between the responsibilities of local governments and the fiscal resources available, leading to inadequate public services in poor regions. This however is beyond the scope of this report.
supported infrastructure with both lending projects and capacity building programs. The 88 transport project portfolio accounts for 33% of total WB lending in the last thirty years (Ministry of Finance 2010). The Bank has also supported a training network of project management which was scaled up by national learning program of over 100 universities with trainees working in many construction companies which have grown to become competitive (Lu and Wang 2004). Knowledge combined with projects has supported China’s modernization as well as growth and poverty reduction (Liu Zhi, WB).

- The ADB has been working in the areas of regional cooperation frameworks, such as the Greater Mekong River Sub-regional program (GMC), and Central Asia Regional Economic Cooperation (CAREC) economic corridors. In addition, ADB has also worked in highways and rural roads in China’s western regions as well as Technical Assistance (Solbel, AsDB).

- Japan has shared its own development experiences on comprehensive national development plans, sustainable urban transport development, and the concept of “megalopolis”. This includes both providing aid (grant and concessional loans) and knowledge and advice (Kitano, JICA).

- The EU started to provide support to China in 1984, first focusing on agriculture and poverty reduction prior to 1995. Later it is expanded to strengthening dialogue and cooperation with relevant ministries to provide aid and intelligence transfer to China. So far, EU’s aid to China has reached 700 million Euros in total and supported some 70 projects in agriculture, energy, education, health, trade, environment protection, justice and government administration. (EU 2010)

China has also benefited from large amount of international loans (both concessional and non-concessional) in infrastructure. According to the NDRC, these foreign loans have, in general, i) alleviated growth bottlenecks in energy, transportation, and urban infrastructure at a time when China faced large financing gaps; ii) introduced international best practices and approaches in energy, urban and transport planning, investment and project management; and iii) promoted market oriented reforms in each sector, improved investment climate, and facilitated productivity growth and efficiency. (NDRC 2009)

Box 3.1. Official Development Aid (ODA) and Foreign Loans in China’s Infrastructure

<table>
<thead>
<tr>
<th>Data on government spending, aid and investment in infrastructure is inadequate and incomplete, due in part to unclear definitions of infrastructure. Even in the most authoritative government financial statistics published by the IMF there is no clear definition on infrastructure. “What gets measured gets done”. International organizations and donor agencies should indeed facilitate a clear definition and measurement of infrastructural spending and investment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the most recent AidFlow Database published by the OECD and the World Bank, we found that official development aid (ODA) on economic infrastructure and services accounted for an average of 21.4 percent of total ODA that China received in the last five years. This gross ODA disbursement however does not include social infrastructure such as schools and health facilities (See Box figure 1). However, using a broader definition including both social sector and economic infrastructure, we found that ODA on infrastructure accounted for over 40 percent of total ODA in China between 2002 and 2008 (Box 2.1 Figure 1).</td>
</tr>
</tbody>
</table>


Box Figure 1. Composition of ODA received by China in the last five years (2003–08)


According to the National Development and Reform Commission (NDRC 2009), China has benefited from large amount of foreign loans in infrastructure (both concessional loans and commercial loans) accounting for 56% of total amount of international loans borrowed from 1979 to 2005 (142 billion out of $252 billion).

(i) Total amount of borrowing in transportation and telecom reached $64.4 billion with World Bank, ADB and Japan the largest lenders in highway, waterway and railways.

(ii) Borrowing for urban development started in 1986, with total amount of $17.8 billion in which Japan accounting for 33%.

(iii) In energy, China started borrowing in 1979 in crude oil, coal, electricity and gas sub-sectors with the total amount reached $60 billion. In electricity over 65% of the loans were from international commercial loans. And in oil and gas, 53% of the loans were from Japan’s EXIM Bank and over 40% from international commercial loans.


2.3 Debt and Market-Based Financing of Infrastructure

Over the thirty years of market-oriented reforms, China has gained considerable experience and learned lessons in building sustainable infrastructure using debt instruments, commercial approaches and active private sector participation (PPI), in part, through learning from international partners and investors.

First, as a national policy, the government has encouraged the banking sector to finance infrastructure investment, especially in highway construction and urban infrastructure. In this way, the government has hoped to impose market discipline since the bank loans must be repaid (after the banking sector reforms). Second, the Central Government has also issued infrastructure bonds and passed the proceeds to provincial and local governments as a blend of on-lending and grants. From 1998 to 2004, China issued long-term construction national debt of RMB 910 billion, of which RMB131.7 billion (roughly US$ 16 billion) was for urban infrastructure financing (Su and Zhao 2006). All of these...
loans and bonds are partially backed by the income streams generated by infrastructural services (such as toll fees from highways and tariff revenue from electricity). Local governments often need to provide guarantee for the funding gaps during the operation and for the maintenance of the infrastructure. There is however, always clear ownership of the specific infrastructure as well as those who are responsible for the maintenance and sustainability.

Third, the “users pay” principle is well applied in China and “cost recovery” can reach as high as 30 – 40 percent of total cost in some subsectors. The cost recovery approach means that prices of infrastructure services must be allowed to be market determined or set at levels sufficient to finance the capital cost as well as operations and maintenance, which is critical for efficiency and sustainability. This approach has imposed market disciplines to the owners/contractors, allowed private participation, and enhanced efficiency. New evidence shows that in 2008, roughly 40 percent of the urban infrastructure came from fiscal sources (including land revenue), 30 percent from bank loans, and 29 percent from the enterprises (based on income streams such as fees and charges). Only 1 percent was from foreign investment and bonds. (Qin Hong, Center for Urban and Rural Development, 2010).

Fourth, private sector participation in infrastructure (PPI) in China has taken various forms and stages. Rapid economic growth in the 1980s led to an immense demand for basic infrastructure like roads, ports and power generation in the early 1990s. Road and power commanded the top priority. The Chinese Government was eager to grant favorable concessions to attract foreign investment and piloted build-operate-transfer (BOT) projects since 1996. Many different varieties of BOT approaches were invented and applied in China (see Box 2 for examples). In the period between 1998 and 2004, BOT or PPI projects declined in part due to large issues of infrastructure bond, the rising land – lease revenues, as well as the rising Urban Development and Investment Companies (UDICs). Recently, as the Central Government is tightening the control of local investment platforms leading to mounting debt, the BOT approach has been on the rise.

Box 3.2. China: Cases of Private Sector Participation in Infrastructure (PPI)

In the early 1990s, rapid trade expansion and growth created growth bottlenecks in roads and power, especially in the coastal regions next to the special economic zones. The potential rates of return in infrastructure were high. At the proposal of famous Hong Kong engineer and developer Gordon Wu, the first PPI project was approved in time.

The first joint venture project with the private sector: Guangdong Highway Construction Company cooperated with Hong Kong Hopewell Holdings Limited to jointly finance the Guangzhou-Shenzhen-Zhuhai Expressway. The expressway was designed and built by the Hong Kong engineer and property developer Gordon Wu, which was opened in July 1994. With the rapid economic and trade development, the expressway becomes one of the busiest expressways in China. Although not a standard PPI project, the toll road is successful with daily traffic and revenue increased 10 fold since its operation started in 1994. The joint venture is profitable, and this approach has been replicated elsewhere.


CitongBridge of Quanzhou, Fujian: This project was the first large transport infrastructure project initiated by private enterprises with the total investment of 250 million RMB. In the BOT process, fifteen private enterprises jointly established a Celebrities Company. The company then cooperated with Quanzhou Government to establish a joint venture company of Quanzhou Citong Bridge Development Co Ltd with
registered capital of 60 million RMB, among which the Celebrities Company held 60 percent shares and the Quanzhou Government 40 percent shares. Thus, an investor consortium of transport infrastructure construction companies was formed based on the agreement between government and private enterprises. The bridge was completed and put into operation in December 1996. The “Citong mode” can be regarded as a “model work” of domestic private investors participating in the infrastructure construction. (Guo 2009)

The first state-approved international BOT project in China: Laibin B Power project is located in one of the poorest regions in China- Laibin County, Guangxi. It involved design, financing, construction, procurement, operation, maintenance and transfer of a 2x360MW coal-fired power plant and an estimated cost of US$ 600 million. After an international competitive bidding, Electricité de France (EDF) and GEC Alstom consortium, which tendered under the name of the Consortium, finally won the concession in 1996 (among five other short listed competitive tenderers) with the strong backing of France’s export-credit agency, COFACE. Laibin B is underpinned by three main contracts: the Concession Agreement, Power Purchase Agreement, and Fuel Supply & Transportation Agreement. The government provided a letter of comfort rather than a guaranteed rate of return, thus shared risks with the private sector. These documents absorbed the experiences of BOT contracts from other countries and took into account the current situation in China. The project is running smoothly with stable electricity supply, and the Guangxi government is satisfied. (Wang Shouqing 2008)

Other cases of PPI include the Xiamen Airport, Beijing Airport Expressway, Jing-Tong Expressway, Hangzhou Bay Sea-Crossing Bridge and most recently, Beijing Subway Line 4 (a case study is available).


2.4 Key Elements that are most relevant to Africa

Since most African countries are market economies, the most relevant features of China’s experiences are those related to market-based principles and instruments for infrastructure development, but not those with special features of a transitional economy. In addition, private participation in infrastructure has increased steadily since the 1990s, at an average of 13 percent a year. After the financial crisis however, PPI has become more important in Sub-Saharan Africa, and South Asia, reaching to over 2 percent of GDP (Fay and Foam 2010, page 349).

1. Infrastructure has been the foundation for China’s rapid growth and poverty reduction, especially after the economic reforms and opening up. Before the reforms the government invested heavily in infrastructure and there was welfare improvement for citizens. However, the most rapid poverty impact was seen after the economic reforms since 1978. Since China was a capital scarce country at that time, the financing mechanism was one of “using cheap labor to substitute for capital”.

2. Economic infrastructure development should be driven by demand from trade, the private sector and the market. In China, large investment occurred in the mid-1990s after the expansion of trade that exerted pressure on power and transport infrastructure. The government then invested to overcome the growth bottlenecks. It was openness in trade leading to infrastructure investment, not vice versa. National and regional economic integration was a major concern which motivated the investment.
3. The government has played a leading role in strategic planning, financing infrastructure development and resolving the bottlenecks for growth, while maintaining fiscal discipline. The government did not borrow from external partners heavily for infrastructure, but encouraged FDI and domestic (state and private) enterprises to participate. Investment climate was improved; laws and regulations were put in place so that debt financing and PPI was possible. Government spending on public goods such as rural water, sanitation, preventive health, primary education, and disaster prevention has been increasing in recent years- strengthening the impact on the poor.

4. Economic infrastructure in China has been financed by fiscal resources and user fees, as well as private sector participation (PPI). User fees and cost recovery principles are widely applied. Efficiency is improved and market disciplines imposed because of reforms to separate enterprises with government functions, having clear ownership and division of labor, and enforcing hard budget constraints. The impact on the poor is enhanced through support to rural infrastructure via targeted and participatory community driven development programs.

5. International partners served a catalytic role in China’s process of learning, reforming and innovating, and initially provided substantial funding and management experience. Through mutual learning and experience sharing, China has gained access to advanced knowledge about project financing, managing, international competitive bidding, and social and environment assessments, as well as other procurement regulations. However, there is a need to build capacity on bundling green technology with infrastructure, conducting better social and environmental assessment, and better evaluation and impact assessment.

No-so-positive Lessons

On the other hand, China was not successful in weeding out “white elephant” projects, and some investments were wasteful with low efficiency and environmentally unsustainable. There is heated debate on whether China has overinvested in some type of infrastructure and underinvested in social and environmental infrastructure. Some studies have shown that in recent years, the efficiency or rates of return from infrastructure has been declining (Li Zhigang 2010). Although there are mechanisms to weed out bad projects - including feasibility studies, project appraisal and approval processes, due-diligence and fiduciary reviews by banks, “white elephant” projects have appeared in many sectors and places. Other studies (i.e. Fan and Chan-Kang 2005) also find China gave too much priority to high-quality roads such as expressways, though the benefit – cost ratios for lower-quality roads (mostly rural) could be four times higher than those for high-quality roads. In October 2010, a report by Chinese Academy of Sciences warned against “the danger of over-investing in certain type of transport infrastructure which is ‘ahead of its time’” (CAS 2010).

Land based financing and sub-national debt issues

After years of market reform in China, the economic value of land is widely understood, and the conversion of land-leasing rights or land development right into infrastructure financing is widely practiced. First, it is well established in theory that land-leasing rights can be separated from land ownership rights. However, as the land tenure system in China is not clearly defined and land market is not well developed, laws and regulations are not sufficiently clear to guide land transfer and price
determination. Farmers are not always sufficiently compensated, and the risk of corruption is high.¹ This is an area where African countries need to be cautious, as good governance and transparency is critical for any development. Second, many Urban Development and Investment Companies (UDICs) were established in China at the end of 1990s or later. Profitable and nonprofitable urban infrastructures in a city are bundled to be managed by one single state owned enterprise whose roles are heatedly debated. Some of the local financing platforms have behaved irregularly and led to huge sub-national debt. The State Council has recently put a hold on some of these illegal behaviors of the UDICs.

¹ Land-based financing offers powerful tools that can help pay for urban infrastructure investment. For an urban region considering this strategy, a logical place to start is with an inventory of land assets owned by government agencies. For legal and typical land-asset based infrastructure financing, see policy note by Peterson, George E. 2008. “Unlocking Land Values to Finance Urban Infrastructure: Land-based financing options for cities”. Trends and Policy Options Series. Washington, DC: PPIAF.
3. Infrastructure and development partnerships in Africa

Infrastructure has contributed to over half of Africa’s improved growth performance, but still African countries lag behind their peers in the developing world. The differences are particularly large for paved roads, telephone main lines, and power generation (Foster 2010). In all three areas, China has been helping to fill in the significant gaps.

3. 1 Strategies and Initiatives being Implemented

The issue of continental infrastructure development has regularly featured in the annual deliberations of the Organization of African Unity (now the African Union Commission). As a result of these continental wide deliberations, several initiatives have been carried out. Among them:

- **NEPAD:** One of NEPAD’s objectives is to promote infrastructure development as a driving force for Africa’s regional integration. Thus in 2002, NEPAD formulated a ‘Short-Term Action Plan’ (STAP) in the area of infrastructure. The initiatives of the RECs and sector organizations constitute the basis of this Action Plan. The Action Plan was soon followed by the formulation of a ‘Medium to Long-term Strategic Framework’ to articulate policies and strategies.

- **African Union Initiatives:** The AU Commission, the AfDB and the NEPAD Secretariat established a coordination mechanism for the development of infrastructure in Africa. During the last annual meeting of the African Union Commission, which took place last July 2010 in Kampala, the AU unveiled the **Programme for Infrastructure Development in Africa (PIDA).** The PIDA program is designed as a successor to the NEPAD Medium to Long Term Strategic Framework. It brings together and merges various continental infrastructure initiatives, such as the NEPAD Short Term Action Plan and the Medium to Long Term Strategic Framework, as well as the AU Infrastructure Master Plans into one coherent program for the entire continent, covering all four key sectors: Transport, Energy, Trans-boundary Water, and ICT. It will also provide the much-needed framework for engagement with Africa’s development partners interested in supporting regional and continental infrastructure (Cheru 2010).

3. 2 China’s Aid, Trade and Investment Strategy in Africa’s Infrastructure: Different Modalities

China’s engagement in Africa’s infrastructure is multi-faced, with several modalities serving different needs in different sectors. Chinese government agencies and parastatal companies serve mostly as investors, financiers, service providers and suppliers, and engineering and construction contractors, and to a lesser extent, as development partners/donors. This is because the extent of concession in their infrastructure projects is nontransparent, and perhaps lower than that required by the OECD-DAC standard (requiring a grant element of 25 percent).

By the end of 2009, China had provided assistance for the construction of over 500 infrastructure projects in Africa, including the 1,860-km-long Tanzania-Zambia railway, the Belet Uen-Burao
Highway in Somalia, the Friendship Harbor in Mauritania, the Mashta al Anad-Ben Jarw Canal in Tunisia, and The Convention Center of the African Union (State Council White Paper 2010).

**Total commitment in infrastructure.** Through grants, concessional loans, export credit, the ‘Angola mode’, and foreign direct investment (FDI), Chinese infrastructure financing commitment in Africa has been increasing exponentially during the past decade. The confirmed amount reached 6 billion US dollars in 2009. The total Chinese financing commitment in African infrastructure development between 2001 and 2009 is in the order of US$ 14 billion (Chen 2010). According to the State Council White Paper, “From 2007 to 2009, China provided US$ 5 billion of preferential loans and preferential export buyer’s credit to Africa. It has also promised to provide US$ 10 billion of preferential loans to Africa from 2010 to 2012. These loans are to be used to finance some of the big projects under construction, such as an airport in Mauritius, housing in Malabo, Equatorial Guinea and the Bui Hydropower Station in Ghana” (State Council 2010, part III, page 5).

**Allocation of the investment**: During the same period, most Chinese financing commitment went to the electricity, ICT and transport sectors. Electricity projects alone account for 30 percent of Chinese financed projects by number, and 50 percent by value, effectively meeting the urgent demand for electricity in Africa. Chinese financing commitment in this sector has been steadily increasing. Around 36 percent of Chinese financing commitment went to 11 out of the 16 landlocked African countries and about 64 percent went to low income economies. Rehabilitation projects account for 18 percent of the Chinese financed projects. Quite a few rural and regional infrastructure projects were financed and constructed by Chinese parties. Chinese construction companies and infrastructure developers’ entry into the equity project market of Africa is still at its initial stage, but they consider it to be a high-potential market (Chen 2010).

**Trade in Services- Chinese companies as contractors.** With the management and engineering capacities to deliver and building infrastructure projects at low cost, Chinese AEC contractors have started to dominate the African markets in certain sectors. They are supported by the strong equipment and material production industries in China and win most of their jobs in Africa through competitive bidding. It is noteworthy that Chinese AEC contractors are taking more ‘permanent’ market entry modes in Africa, seeking a long term presence and opportunities for development. This long term perspective is also reflected in three aspects: 1) increasing localization level; 2) more investment in training local employees; and 3) improved awareness of their social responsibilities, which to some extent mitigate the effects of inequality in infrastructure implementation processes (Chen 2010). In 2009, “the value of China’s new project contracts in Africa reached $43.6 billion, an 11 percent increase over 2008. Those projects achieved a business turnover of $28.1 billion, up 42% year-on-year” (CAITEC 2010, page 10).

**Box 3.3. China’s Engagement in Africa’s Infrastructure: Commitment and Composition**

> According to the World Bank-PPIAF Chinese projects database (2010), the total Chinese financing commitment in African infrastructure development between 2001 and 2009 is in the order of US$ 14.2 billion. The confirmed amount was estimated at 6 billion US dollars in 2009. This is however a conservative estimate, because of the limitation of the methodology to develop the Database. Given that the annual number of projects fluctuated during the past four years, the average size of Chinese financing commitment per project has been skyrocketing, indicating Chinese financiers’ interest and capacity in financing larger projects. See Box Figure 1.
Box Figure 1. Chinese financing commitment in Africa 2001 – 2009 (million USD)

Source: Chen Chuan, 2010 based on World Bank-PPAF Chinese Projects Database.

Sectoral Composition. During the period from 2001 to 2009, most of the Chinese financing commitment went to the electricity, ICT and transport sectors in Africa. Electricity projects alone account for 30 percent of the Database by number, and 50 percent by value. In contrast, 10 percent of the commitments in the Database are water projects, but they only account for 4 percent of the Database by value. It can be seen that like other donors, China’s commitment to the water sector is relatively limited. See Box Figure 2.

Box Figure 2. Confirmed Chinese infrastructure finance commitments in Sub-Saharan Africa by Sector 2001 – 2009

Source: Chen Chuan, 2010 based on World Bank-PPAF Chinese Projects Database.

In particular in the electricity sector, China’s financing commitment is dominated by hydroelectric power plants and associated transformer substations and transmission lines. Most of these hydroelectric power plant projects were carried out by Sinohydro Corporation, a Chinese SOE. Chinese financing commitment in this sector had been steadily increasing between 2001 – 2007 either by number or by value. A temporary drop in 2008 was followed by a sharp bounce-back in 2009 when 14 new electricity projects were signed off.

The approaches China has been using in development cooperation have expanded over the years, in an effort of meeting the needs of African countries. In addition to grants, non-interest loans and turnkey projects, China has added the following instruments: concessional loans by China EXIM Bank, concessional export (buyer and seller) credit; nonconcessional loans, and equity investment by China-Africa Development Fund (CAD Fund), and outward direct investment. Most recently, the EXIM Bank has used the commodity – based loans, or natural resource-backed loans and credit as in the “Angola mode”. For details see Chen 2010 and D. Brautigam 2010. On a summary of case studies on DR Congo and Zambia, see Petersen and van de lught (background study commissioned by the EU).

Source: Chen 2010: Background paper commissioned by the EU for the China-DAC Study Group’s third event on infrastructure.
**China’s Outward Direct Investment in Africa.** Since 2000, China’s direct investment in Africa has been growing exponentially, increasing from a few hundred million to a cumulated amount of US$ 9.33 billion by the end of 2009. The investment is allocated to 49 African countries and most of which is in South Africa, Nigeria, Zambia, Sudan, Algeria, and Egypt, covering mining, financing, manufacturing, construction, tourism, agriculture, forestry, animal husbandry and fisheries. The forms of investment are diverse, including sole proprietorship, and joint ventures, as well as merger and acquisition, and joint venture with third-country enterprises for resource development. And investors range from the State-owned large and medium-sized enterprises, private enterprises and individuals. Figure 6 in Annex 1 shows the composition of China’s direct investment in Africa by sector.

**Special Economic and Trade Zones and FDI.** China has been using a strategy of building overseas economic and trade cooperation zones to facilitate Chinese enterprises “going abroad”. Six economic and trade cooperation zones are being built in Zambia, Mauritius, Nigeria, Egypt and Ethiopia, with US$ 250 million in infrastructure construction. It is worth noting that investment in infrastructure in the zones is closely related to enterprise /cluster development in manufacturing sectors. The Special Economic Zone represents a “hundling” of public goods including policies, regulations, public services such as one-stop-shop, as well as roads, electricity, water and sewage, and physical plants and housing to facilitate trade and private investment. In Chinese idioms, this is called “building the nest and the phoenix will come” (zhuchao yinfeng). Eventually, it is hoped that clusters of enterprises will be formed in certain industries where the country has a comparative advantage. This hope is not entirely unfounded based on China’s own experiences in Yiwu, Zhejiang and other SEZs. (See Chapter 4, and Lin 2011)

### 3.3 Perspectives of Africans: Feedback on China’s Support to Infrastructure

African feedback is based on the GDLN consultation which included representatives from China, Ghana, Kenya, Liberia, Mali, Zambia, South Africa, and the World Bank. It was held on September 7, 2010 through video conference links with each country. High level government officials who attended the consultation were generally optimistic about China’s role in infrastructure development in Africa, and felt that the challenges were well articulated and were not beyond the scope of governments and private sector to address (ACET 2010b).

Overall, African officials welcome Chinese engagement in African infrastructure development both as an example of good practice and a source of financing and capacity building. They highlighted 3 areas where Africa could particularly leverage assistance from China for a win-win partnership: a) cost recovery and private sector participation – learning from the experience of Chinese government funding at different levels coupled with project finance from private entities. b) regional integration – with clearly articulated priorities from the Regional Economic Communities (RECs) and NEPAD, China can focus its investment, development and private sector involvement in Africa towards supporting regionally integrated infrastructure development. c) modalities of channeling Chinese funds and aid effectiveness – improve transparency, competitiveness, sustainability and harmonization of aid.

**Key obstacles for investment in African infrastructure** were identified by participants, including: i) a perception that there is too much risk in the African infrastructure development space to encourage
participation; ii) a perception that African indigenous entrepreneurs lack the capacity or credibility to execute large scale infrastructure projects; and iii) the lack of a strong government role and long term planning is a drawback. Governments need to play a more central role by providing seed capital for infrastructure projects and by undertaking long-term planning of infrastructure development. China’s central government has been critical in the development of infrastructure for growth and poverty alleviation; the same approach will need to be applied in African countries. The lack of a well developed fiscal and monetary system in African countries restricts the ability to launch national borrowing. Thus, for small scale community based infrastructure development, one of the approaches could be to fully utilize local labor as partial substitutes for capital.

Participants of the GDLN consultation expressed concern about the effectiveness of aid from China and how to ensure that viability of projects is thoroughly assessed prior to their implementation. It is realized that African countries themselves must analyze the economic benefits of projects prior to implementation. Host countries must engage in cost-benefit analysis and robust planning, with adequate consultation and participation of stakeholders to ensure sustainability. In particular there were concerns over:

- Limited participation of Chinese firms in Public Private Partnerships. On issues of bidding for contracts and financing of Chinese infrastructure investments, participants expressed concern about the lack of transparency in bidding: project costs are defined by Chinese terms, and bidding processes are always limited to Chinese companies. Participants expressed concern about risk guarantees in order to encourage greater private sector partnership. The discussant indicated that The World Bank, through its affiliate MIGA provides risk guarantees to firms operating in high risk countries.

- The relative concentration of China’s projects in four large countries, and selection of sectors – whether these projects are in line with the country’s priority for growth and poverty reduction (Onjala, Kenya), whether there are some “white elephant” projects, and whether these projects have impact on efficiency, sustainability and poverty reduction (Maswana, JICA Institute).

- The poor quality of performance of some Chinese contractors. They noted, however, the competitive pressures introduced into African local markets are improving local work ethics and increasing entrepreneurship. Nonetheless, strengthening and tightening regulations to ensure that contractors adhere to certain labor, quality and environmental standards will have a marked impact on the sustainability of infrastructure development on the continent.

- Participants agreed that increasing the amount of un-tied support from China and the liberalization of Chinese contracts/tender offers would also go a long way in increasing the development benefits from Chinese projects.

**Regional infrastructure development.** Participants expressed concern about the limited interest of Chinese firms in regional projects. Some suggested that this might be due to lack of coherence and harmonization among the individual countries involved. Participants indicated that it is incumbent upon the individual countries involved to take the lead role in managing and harmonizing their systems and procedures to attract greater Chinese participation. In addition, the need for regional projects was strongly emphasized by participants. They indicated that governments, Regional Economic Communities (RECs) and NEPAD need to focus more on attracting financing for regional projects.
African participants agreed that China has a significant role to play in increasing regional infrastructure development in Africa, but that this must be undertaken with consideration for the existing challenges to cross-border infrastructure development, such as, limited bankable projects; capacity constraints, over-emphasis on national programs, and fragmentation of donor financing. In particular, the absence of harmonized procedures and regulations is a key challenge. Customs, tax procedures and obligations across borders vary significantly and they limit the development of regional infrastructure projects. This is complicated by the fact that many countries belong to multiple regional bodies often constraining full integration due to bureaucratic roadblocks (Muradzikwa, DBSA).

3.4 Approaches by Established Donors

Following the Gleneagles Summit, OECD development assistance placed greater emphasis on supporting African infrastructure. Official Development Assistance (ODA) flows almost doubled from $4.1 billion in 2004 to $8.1 billion in 2007. Private investment flows to Sub-Saharan Africa infrastructure almost tripled, going from about $3 billion in 1997 to $9.4 billion in 2006/07. (Figure 3.5) In addition, non-OECD countries, notably China and India, began to take a growing role – their commitments rose from low levels to finance about $2.6 billion of African infrastructure annually between 2001 and 2006 (Foster and Briceno-Garmendia, 2010).

Figure 3.5. Infrastructure as a percentage of Official Development Aid for Sub-Saharan Africa, 2002 – 2008

Source: Yan Wang’s calculation based on a broad definition including all ODA in social and economic infrastructure by both bilateral and multilateral organizations as a percentage of total ODA, extracted from the OECD-DAC database. The time series shows a slight upward trend except for 2006 due to debt relief efforts.

The OECD-DAC members have a long history of engaging in Africa’s infrastructure. In the recent years, DAC members have moved towards greater co-ordination behind the principles of the “Paris Declaration on Aid Effectiveness” and “Accra Agenda for Action” to strengthen country public management and accountability systems. There are three channels through which infrastructure could affect growth and poverty reduction: a) promote economic activity and growth, and reducing transaction cost; b) alleviate the growth bottlenecks which prevent the poor to participate in the market; and c) allowing the poor to benefit from economic growth by creating job opportunities and reducing risks. Four principles can be derived: a) use country-led framework for coordination; b) enhance the infrastructures impact on the poor; c) improve management to achieve sustainability; and d) increase infrastructure financing and use them efficiently (Shoji. POVNET).
Over the years, the traditional approach of “project support” has given way to “sector-wide approach” where government and development partners are jointly involved in implementing the sector strategy, policy and development program. Infrastructure delivery requires policy dialogue and donor coordination, transparency and accountability, as well as good governance and sustainability. Major initiatives include EU-Africa Partnership on Infrastructure, Infrastructureal Consortium for Africa (ICA), Africa Infrastructure Country Diagnostics and North-South Corridors, and West Africa Power Pools. In particular, Infrastructure Consortium for Africa is encouraging, supporting and promoting increased investment in infrastructure in Africa, aimed to enhance and accelerate the development of Africa’s infrastructure (Kettner, EU).

EU-Africa Partnership on Infrastructure established in 2007 is a partnership working in three levels, continental, regional and country and plays a key role in planning and implementing the joint EU-Africa Strategy. It finances infrastructure and support regulatory framework that facilitates trade and services. Interestingly, the Infrastructure Trust Fund is an innovative example of cooperation among European development institutions including bilateral agencies, the EC, member states and the European Investment Bank (EIB) to promote financing for regional infrastructure projects in Africa. Launched in 2006, The Fund subsidises the financing of infrastructure projects, through a ‘blending mechanism’, mixing grants from donors with long-term investment finance from financiers. According to the 2009 Annual Report: ‘this blending acts as a catalyst for investment, mitigating the risks taken by the promoters and financiers and providing an incentive to consider investment in projects with substantial development impact but low financial return that could not otherwise be envisaged’. Eligible projects must be based on African priorities and be trans-border projects or national projects with a regional impact on two or more countries(1) (Kettner, EU).

Africa Infrastructure Program (USAID) is a three-year program, which began in September 2008, to provide capacity building and late-stage transactional support services on clean and conventional energy projects in sub-Saharan Africa. AIP is funded principally under the African Global Competitiveness Initiative, operated in conjunction with USAID African regional and bilateral missions, providing support to host country governments, regional economic communities and private project developers. It recently completed activities in Nigeria and Kenya and is currently providing services to several renewable and conventional energy projects in Ghana, Nigeria, Mozambique, Namibia, Kenya and South Africa. ②

Programme for Infrastructure Development in Africa (PIDA) is a joint initiative of the African Union Commission (AUC), the New Partnership for Africa’s Development (NEPAD) Secretariat, and the African Development Bank (AfDB) Group. Launched in July 2010, ‘PIDA’s objective is to merge all continental infrastructure initiatives into a single coherent programme for the entire continent’. To do this, it will merge the NEPAD Short-Term Action Plan, the NEPAD Medium-to-Long Term Strategic Framework and the African Union Infrastructure Master Plan Initiative, thus providing an important framework for the delivery of trans-boundary infrastructure, and establishing a clear ‘roadmap’ for Africa's infrastructure development. Its activities will focus on the development of transportation, energy, information and communication technologies, as well as trans-boundary

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1 Source: AFD Case Study; EU-Africa Infrastructure Trust Fund Annual Report 2009.
water basins. ¹

The Sub-Saharan Africa Transport Policy Program (SSATP) is an international partnership of 35 SSA countries, all SSA Regional Economic Communities, more than 12 multilateral and bilateral institutions and NGOs whose purpose is to promote the formulation and implementation of sound transport policies, leading to safe, reliable, and cost-effective transport, freeing people to lift themselves out of poverty, and helping countries to compete internationally. Currently, SSATP is preparing for a mid-term review of its Second Development Plan, and is considering increasing synergies with initiatives such as ICA and PIDA (Koumare, SSATP).

4. Going Forward: Opportunities and Challenges

The G–20 Summit held in Seoul, Korea, highlighted that the global economy is now supported by multiple growth poles. “Developing countries in Africa could become growth poles if infrastructure and other constraints can be removed” (Lin 2010). Developing countries’ share of global export and FDI has also grown quickly. In terms of exports, developing countries’ share in global exports rose from 22 percent in 1980 to 31 percent in 2008. In terms of FDI, developing countries’ share in global FDI was 7 percent in 1980, rising to 32 percent in 2008 (with 21 percent coming from the developing-country members of the G–20 (Fardoust 2010)).

Investing in bottleneck-releasing infrastructure projects in developing countries is an important way of creating demand for capital goods, which will contribute to the global recovery as well as to a sustainable and inclusive global growth. External assistance could be channeled to economically profitable investments in African countries. Discussions at this China-DAC Study Group event about infrastructure showed that although China and DAC members represent two different, but equally long, traditions of providing aid to foreign countries, they face similar challenges (e.g. in terms of country ownership and sustainability and poverty impact) and can learn from how each is responding.

DAC members have moved towards greater co-ordination behind the principles of the “Paris Declaration on Aid Effectiveness” to strengthen country public management and accountability systems. China, to increase sustainability, is basing its co-operation around an enterprise-based approach, using both concessional and non-concessional financing, with significant and sustained involvement in management by Chinese state and private sector enterprises.

There are opportunities to bring these two approaches together in a way that can improve the collective impact of infrastructure development in Africa on growth and poverty reduction. In particular, the European Infrastructure Trust Fund in particular has been using a ‘blending mechanism’, mixing grants from donors with long-term investment finance from financiers.

As the experience of China suggests, political leadership and strategic policy and planning capacity combined with pragmatic step by step adjustment to evolving needs and opportunities are important factors in building infrastructure. “Soft infrastructure”, in terms of the capacity to ensure efficiency and poverty impact in project selection and implementation/operation/maintenance is a key part of this (Carey, OECD-DAC).

Infrastructure is complex and different principles apply. Infrastructure covers multiple sectors ranging from those in the categories of the public goods and semi-public goods, and the private goods (such as the extractive industries). Thus different types of infrastructure need to be financed by very different ways, sometimes by government budget and ODA, other times by a combination of both public and private (concessional and non-concessional) financing sources. This is as shown by the conceptual framework in Section 1. There are clearly different rules for international donors, those for private sector investors engaging in PPI projects, and those which are purely commercial deals.

More inclusiveness for diversified approaches seems to be needed in infrastructure financing. “An ambitious and comprehensive approach is needed to tackle the interlocking problems impending Africa’s growth and development. This must involve the diversification of products and markets, development of skills and human resources, modernization of technology and infrastructure,
re-engineering of business processes, creation of incentives for small and medium enterprises to grow and export improvement of country investment climate, and cultivation foreign direct investment. Enhancing the investment climate entails government involvement within a wide area of governance—providing security, collecting taxes, instituting sound economic policies into law, and delivering adequate public services.” (Cheru 2010, speech at the Opening Ceremony)

**Box 3.4. For Investors in the Extractive Industries: Five Principles**

*Companies in extractive industries should commit to Smart and Responsible Investment*. Investment in natural resources is a peculiar kind of investment as it is closely related to a country’s core interest. In extractive industries such as crude oil and mining, several common principles should be applied to every investor working not only in Africa but also anywhere in the world. (Ngozi 2010)

1. **Align investments with countries’ development priorities**. This means to think smart and think of the country’s overall development agenda, and this also means to create jobs locally. For this to happen, the host countries need to have development plans, and to identify “bankable” opportunities consistent with the needs and priorities of the country.

2. **Practice transparency**. The best way to secure a stable environment for investment is to enter into arrangement with host governments and local communities in a transparent and legally sound manner consistent with international norms. This is also the best way to manage risks, as the sunk costs in these sectors are high. Companies have to operate within local communities, as discontent from communities or policy reversals by governments are highly costly.

3. **Support the development of a value chain**. Mining companies should establish some degree of processing – adding value to the raw materials extracted. Development in the mining sector also provide growth opportunities for other linked sectors such as food, uniforms and consumer goods and services, this will create more jobs and a multiplier effect.

4. **Pay what is due and do what is right**. All investors must pay taxes and avoid falling into well known tax evasion techniques such as transfer pricing or bribes to a few high level officials. International partners are encouraging countries to sign on to the Extractive Industry Transparency Initiative (EITI) principles. This requires they publish revenues from mining resources and agree to use these resources efficiently for the benefit of the people. Today, 20 African countries have signed on to these principles. And more Chinese companies have signed up EITI principles too.

5. **Engage with local communities and communicate your values**. Many of the companies are building roads, schools and hospitals as part of their investment plans. But this will need to be communicated in the context of Corporate Social Responsibilities (CSR). For mining industries, ensuring workers and community safety is an important part of this agenda. Indeed, more and more countries and companies have realized that multi-stakeholder cooperation is needed to achieve smart and responsible investment.

Source: Ngozi Okonjo-Iweala, Speech on “Promoting Smart and Responsible Investment in Africa” China Mining Congress and Expo, Tianjin, Nov 2010.

African officials noted that the Programme for Infrastructure Development in Africa (PIDA) led by the AfDB is a major way forward and all international partners, including China, should support it. Participants of the GDLN consultation also noted that governments are increasingly focused on cross-border regional infrastructure and are also encouraging greater private sector participation in regional infrastructure development. Participants felt that projects such as the Tanzania Zambia Railway
(TaZaRa) which were developed in conjunction with the Chinese should be replicated given its trans-border nature and its significant impact on the development of those countries involved (ACET 2010).

**Concrete actions for China as a development partner.** African officials have identified specific actions China can take in supporting the development of regional infrastructure in Africa, in particular, addressing issues related to transparency, international competitive bidding, creation of local jobs, and sustainable development. More specifically, These include: a) Provision of concessionary financing targeted to specific sectors; b) Provision of credit enhancement mechanisms (e.g. guarantees) to decrease perceived risk and jump start specific projects that encourage cross border integration. c) Provision of project preparation facilities to assist small countries to participate. d) Focus on strengthening managerial and financial capacity in both public and private sectors; e) Engage as a co-financing partner with financial institutions involved in African infrastructure development (such as the AfDB, Development Bank of Southern Africa, World Bank, , EU and others). “Participants agreed that if China could take on a greater role in African infrastructure development through the above mentioned actions, both China and African countries would stand to benefit significantly from both economic growth and in welfare gains for millions of impoverished people.” (ACET 2010)

**Remaining Challenges to All.** Developing countries, China, Africa and international development partners face a host of challenges going forward. First, strengthening state capacity in Africa is the key for the continent’s economic and political renewal. “Of course, the concern with institutions is justified, but perhaps institutional innovation used in China in the earlier stage of development can offer useful lessons” (Cheru 2010). Second, as the public sector faces severe budget constraints, public-private partnerships offer a promising solution to the financing needs. However, there are considerable risks associated with inefficient procurement policies and inadequate contracting arrangements. Sound legal frameworks are vital, especially if countries wish to attract foreign investment (Henckel, and McKibbin. 2010).

**Measurement and Evaluation.** To improve efficiency and sustainability, a variety of issues in developed and developing economies need to be addressed, including: a clear definition of infrastructure in the IMF’s Government Finance Statistics (GFS), improved measurement of the returns to infrastructure; improved methods for project evaluation; the delivery mechanisms, and the ongoing regulatory environment. Rigorous measurement and analysis around all aspects of infrastructure spending is needed to improve the disappointing performance to date. Furthermore, **learning needs to be based on good evaluation.** International partners need to provide better financial and technical support for evaluating projects as well as for assessing their impacts. Finally, many developing countries would benefit from greater cross-country fertilization of experiences through South-South learning, peer-reviewing, training and capacity development, especially on infrastructure development, Corporate Social Responsibility (CSR) and EITI related issues.
Annex 3

Table A3.1. Africa’s Infrastructure Investment Needs and Funding Gaps

This table below shows Africa’s investment needs and funding gap in infrastructure. Indeed, Africa’s infrastructure investment needs relative to GDP are particularly large, at 15 percent of GDP. After considering efficiency gains from improvements in soft infrastructure (such as improvements in governance, regulation and cost recovery, the region’s annual funding gap would remain sizable at about 5 percent of GDP, or about $31 billion.

<table>
<thead>
<tr>
<th>Infrastructure Investment and Maintenance (% of GDP)</th>
<th>Needs</th>
<th>Spending</th>
<th>Efficiency gap</th>
<th>Funding gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle income</td>
<td>10</td>
<td>6</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Resource rich</td>
<td>12</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Low income</td>
<td>22</td>
<td>10</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Fragile states</td>
<td>36</td>
<td>6</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>All of Africa</td>
<td>15</td>
<td>7</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>in Dollars ( billions)</td>
<td>93</td>
<td>43</td>
<td>19</td>
<td>31</td>
</tr>
</tbody>
</table>


Figure A3.1. China: Before- and After-Tax Return to Capital, Excluding Residential Housing and Including Inventories, 1978–2005

Sources: NBS and authors’ calculations.

a. Dashed extensions to lines indicate preliminary results.
b. Data on enterprise income tax is unavailable before 1985.

Source. Bai, Hsieh and Qian 2006. Figure 9.
Table A3. 2. Sources of financing for highway construction from 1950 to 1980 (%)

<table>
<thead>
<tr>
<th>Period</th>
<th>Total (Mil. yuan)</th>
<th>Central govt’ finance</th>
<th>Local govt’ finance</th>
<th>Maintenance Fee</th>
<th>Labor input</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950 – 1952</td>
<td>1682</td>
<td>17.5%</td>
<td>---</td>
<td>1.5%</td>
<td>80.9%</td>
</tr>
<tr>
<td>1953 – 1957</td>
<td>3837</td>
<td>28.8%</td>
<td>3.9</td>
<td>4.4</td>
<td>62.9</td>
</tr>
<tr>
<td>1958 – 1962</td>
<td>4776</td>
<td>29.5%</td>
<td>6.8</td>
<td>11.7</td>
<td>52.0</td>
</tr>
<tr>
<td>1963 – 1965</td>
<td>3045</td>
<td>28.2%</td>
<td>3.9</td>
<td>15.6</td>
<td>52.3</td>
</tr>
<tr>
<td>1966 – 1970</td>
<td>5716</td>
<td>22.2%</td>
<td>6.1</td>
<td>20.1</td>
<td>51.7</td>
</tr>
<tr>
<td>1971 – 1975</td>
<td>7657</td>
<td>16.7%</td>
<td>8.7</td>
<td>30.7</td>
<td>43.9</td>
</tr>
<tr>
<td>1976 – 1980</td>
<td>10631</td>
<td>13.4%</td>
<td>7.9</td>
<td>44.9</td>
<td>33.8</td>
</tr>
<tr>
<td>Total</td>
<td>37344</td>
<td>20.5%</td>
<td>6.6</td>
<td>25.5</td>
<td>47.5</td>
</tr>
</tbody>
</table>


Table A3. 3. Investment structure of highway construction in China (2000 –2007)

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>2007</th>
<th>2005</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Investment</td>
<td>Bil. Yuan</td>
<td>552.3</td>
<td>465.0</td>
<td>213.7</td>
</tr>
<tr>
<td>National finance</td>
<td>%</td>
<td>1.46</td>
<td>2.54</td>
<td>5.78</td>
</tr>
<tr>
<td>Vehicle Purchase Tax</td>
<td>%</td>
<td>12.55</td>
<td>10.79</td>
<td>7.80</td>
</tr>
<tr>
<td>Domestic loans</td>
<td>%</td>
<td>39.54</td>
<td>40.06</td>
<td>38.10</td>
</tr>
<tr>
<td>Foreign loans</td>
<td>%</td>
<td>0.83</td>
<td>1.40</td>
<td>3.85</td>
</tr>
<tr>
<td>Funds raised locally</td>
<td>%</td>
<td>35.58</td>
<td>33.50</td>
<td>36.35</td>
</tr>
<tr>
<td>Funds raised by various units</td>
<td>%</td>
<td>7.85</td>
<td>9.06</td>
<td>3.80</td>
</tr>
<tr>
<td>Others</td>
<td>%</td>
<td>2.19</td>
<td>2.64</td>
<td>4.32</td>
</tr>
</tbody>
</table>


References:
Background papers for the Infrastructure event

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Chapter 4

Enterprise Development and Economic Transformation: A Synthesis
Executive Summary

Major political, economic and social transformations are happening in Africa in conjunction with transformations in the world. Brazil, China, India, Russia, South Africa (BRICS) and other emerging economies are playing an increasingly important part in this transformation. Since the crisis, there is a marked rise in foreign direct investment among developing countries (South-South FDI), reaching an estimated US$ 210 billion in 2010, and accounting for an estimated 34 percent of total FDI as compared to 25 percent in 2007.

Collectively, OECD countries are the largest investors in Africa, but the emerging economies are likely to be the most dynamic players in Africa’s development in the next decade. The OECD countries will need to adapt their roles in the new global context (Carey, OECD-DAC). The China-DAC Study Group events can benefit all sides, and bring various approaches together in a way that can improve the collective impact of aid and investment in Africa for growth and poverty reduction.

Peace and security are vital to advancing regional integration. Participants see that conflict resolution, peace building, regional integration, infrastructure and enterprise development are converging agendas, in which all those involved in development cooperation share common interests (Carey). Creating an enabling business environment is complex, involving a broad range of issues affecting policy, legal, institutional and regulatory conditions that govern business activities. Enhancing dialogue and knowledge exchange could benefit all sides. “It is in this regard that the Commission, with the guidance of Member States, continues to engage China with a view to strengthening the Sino-Africa relations. Fora such as the Forum on China-Africa Cooperation (FOCAC) and this conference held in Addis have been critical in sharing experiences.” (Jean Ping, African Union)

The economic ties between Africa and China have been strengthening in recent years and this trend is likely to continue. In 2010, China-Africa trade volume reached US$ 114.8 billion, representing a 44 percent increase from 2009. Since 2000, the composition of trade has also been changing: machinery and electronic now account for more than 50 percent of China’s export to Africa. By the end of 2010, China’s cumulative outward FDI invested in Africa was US$ 12 billion. Although the amount is not large when compared to total FDI in Africa, the composition holds promise: 22 percent of it focuses on the manufacturing sector, second only to the 29.2 percent for the mining sector. The underlying factor is the rising labor cost in China and the need for industrial upgrading and relocation. In other words, “China is on the verge of graduating from low skilled manufacturing sectors and becoming a leading dragon”. This upgrading and relocation may hold potentials for other developing countries (Justin Lin 2011).

China’s own transformation from a planned economy to a market economy, where 70 percent of GDP is produced by the private sector, is attributable to a strong political commitment for reform combined with pragmatic step by step adjustment to market opportunities. In particular:

- Both the state and the market forces are important in China’s development process. In particular, the government played a leading role in providing a strategic vision and development plans to guide domestic and foreign investment. Decentralized reforms through experimentation have unleashed home-grown initiatives from, and competition amongst, private and public enterprises.
- Agricultural productivity was the foundation for rural enterprises that mushroomed nationwide, and the Special Economic Zones (SEZs) provided testing ground for reforms which attracted FDI and allowed the self-discovery of comparative advantage at various locations.

- Creating an enabling business environment is a learning process, some local experiments have failed and abandoned, others have worked and scaled up nationwide. International development partners played a catalyst role in the learning process.

Countries at different levels of development have different firm sizes, industrial structures, and institutions. The private sector in Africa is largely informal, being active only in the “Shadow economy”. Home-grown clusters have emerged in many countries, such as the cut flower cluster in Kenya, The Suame manufacturing cluster in Ghana, furniture in Tanzania, textile and clothing in Mauritius and South Africa, and computer villages in Nigeria. However, the private sector development is still lagging, with the biggest obstacles being infrastructure bottlenecks and burdensome regulations. Participants hope that international partners could join hands and support home-grown enterprises and clusters, and enhance the linkage between foreign and local businesses.

Overall, African officials agreed that Chinese FDI, if properly structured, could potentially have significant welfare gains and highlighted the importance of sharing experiences between China and African countries for enterprise development. But they also expressed concerns, including issues related to information sharing, labor and environmental standards, governance and corporate social responsibilities (CSR). Concrete actions may include greater coordination among enforcing agencies, open and transparent investor agreements to allow for greater public scrutiny to minimize corruption; better aligning SEZs with the host country’s development strategy, stronger actions enhancing local absorptive capacity, helping informal sectors, and supporting local and regional value chains (ACET 2011).

Africa’s transformation requires African leadership, and it also requires the building of trust, legitimacy, credibility, and the accumulation of social and organizational capital in all partners. Capacity can be developed through a “dynamic capacity development” process in which a country starts from wherever it is, finds opportunities at hand based on identifying strengths, without waiting to fix binding constraints which will be resolved over years. Countries should focus on making some success in local experimentations (“get the low-hanging fruit”) which can be replicated and scaled up nationwide.

Developing countries, China, Africa and international development partners face a host of challenges going forward, and all stakeholders may have to adjust and modernize their established approaches. Many would benefit from greater cross-country fertilization of experiences through South-North-South learning, peer-reviewing, training and capacity development, especially on enterprise development, labor and environmental standards, Corporate Social Responsibility (CSR) and EITI related issues.
1. Introduction: Economic Transformation in the World

After the global economic crisis, Africa is rebounding and on its way to a historical transformation: it is estimated that Sub-Saharan Africa will grow from 4.7 to 5.5 percent in 2010 – 2012 period, still a notch below its performance in 2006-08 at the on-set of the crisis. Having the highest rate of return of foreign direct investment (FDI) globally, Africa has become one of the most favored destinations for FDI – annual FDI to Africa rose from $11 billion in 2004 to $32 billion in 2010 (World Bank, Global Economic Prospect 2011). However, the private sector continues to face persistent development challenges, with the biggest obstacles being infrastructure bottlenecks, and burdensome regulations. Power outages, crumbling roads, weak governance, and stiffening tax and regulatory burdens are impeding the emergence of a vibrant entrepreneurial class.

Meanwhile, another historical transformation is happening. In the past thirty years, China has experienced major transformations from a low income, agrarian economy to a middle income, industrialized economy; from a poverty-stricken and “shortage economy”, where over 40 percent of the exports were crude oil, crude coal and agricultural products, to a “factory of the world” with manufactured goods being 93 percent of its exports. China is now making another transformation from “imbalanced, inequitable and unsustainable” growth to a new pattern of growth that is more efficient, equitable with high quality, paying special attention to people’s welfare and to environmental sustainability. Low-end manufacturers may need to move elsewhere, away from China (Ma Xiaohe, NDRC).

Based on its own development experience, China’s engagement in Africa has concentrated on energy, agriculture, infrastructure and manufacturing sectors. By the end of 2010, China’s cumulative outward FDI invested in Africa is estimated to have reached US$12 billion, accounting for only 3.8 percent of its outward FDI. (However, the composition holds promises: 22 percent of it focuses on manufacturing such as textile, garment, light manufacturing and automobile sectors. Mining (29.2 percent) and construction (15.8 percent) accounted for a lion’s share of 45 percent of China’s FDI in Africa (State Council, December 2010).

Given China’s remarkable economic transformation with a dynamic non-state sector producing 70 percent of the GDP, it is natural to ask what lessons China can draw from its economic transformation, especially to accelerate enterprise development and transformation in Africa, and how co-operation can be strengthened. In this sense, the fourth event of China-DAC Study Group on “Enterprise Development and Economic Transformation: Creating the Enabling Environment ” was timely. The two-day event aimed to promote learning and experience sharing between China, African countries and OECD-DAC members, covering a number of topics under two key themes:

- **Day One: The Strategic Role of Enterprise Development in the Transformation Process.** What strategies and policies have made China successful in creating jobs through rural and micro enterprises, learning and utilizing FDI and encouraging transfers of

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1. It is well known that the final destination of FDI is difficult to trace as FDI through Hong Kong and Cayman Islands may have been re-routed elsewhere, or, there may be round tripping. Other datasets show however, over 13.8 percent of China’s Outward FDI goes to Africa in 2005 – 2010 after re-routing is taken into account. (Source: Heritage Foundation Data).
technology and skills? What approaches, such as Special Economic Zones (SEZs), and small and medium-sized enterprises (SMEs) and cluster development are relevant to Africa?

- **Day Two: Developing Basic Capacities: People, Institutions and Regulations.** What technological catch-up processes and knowledge platforms are emerging in Africa and how can development assistance providers help? How can the understanding of the importance of corporate social responsibility be enhanced, but continue to support labour and environmental standards and anti-corruption efforts? How can Africa make the most of green growth opportunities?

**A Framework**

In 1978 when China started its reforms, no one knew for sure what was China’s comparative advantage and what specific development path should be taken. In general, it is a daunting task for all developing countries to understand how to identify a growth strategy which leads to successful job creation and industrial diversification. Learning from other East Asian tigers and experimentation through SEZs allowed China to discover and identify a growth strategy.

**A framework for analysis.** A country’s industrial structure is dependent on the country’s structure of endowment (capital, labor, and land/natural resources) at the specific development stage. Following comparative advantage determined by the endowment structure seems to be the best way to upgrading and sustaining development but countries do not know ex ante their true comparative advantage. Therefore, the country’s strategy can be informed by looking at (a) what this country is producing and exporting, and (b) what other similar countries are exporting (Justin Lin 2011, Lin and Monga 2011, Chenery 1961).

Based on above, at least 4 sets of conditions matter for private sector development and industrial upgrading:

- Endowment structure and the government’s ability to provide public goods in the form of hard infrastructure, such as power, water and transport;
- the government’s ability to provide soft infrastructure, such as laws and regulations, good governance, social stability and national security;
- private sector’s willingness to invest in the country including the country’s ability to attract foreign direct investment.
- In the end, success in this self-discovery process is a low probability event: it requires not only the coincidence of all above but also learning channels among clusters, networks and value chains, home and abroad.

Exhibit 4.1 below shows that an enabling environment for enterprise development requires the intersection of all three dimensions: natural endowment, hard and soft infrastructure, and private sector investment. In addition, open and conducive learning channels are critical for successful discovery of new growth poles/sectors/products in any country.
Exhibit 4.1. Enabling Environment for Enterprise Development: Intersection of All Four Dimensions

Source: Author.

The rest of this paper follows this framework:

1. In the 1980s and 90s, China focused on the first round of reform and transition, but in terms of private sector development China and Africa grew more or less independently (section 2);

2. Entering the 21st century, China and Africa become more integrated as trade and investment grow rapidly. As Chinese enterprises start “going out”, the rippling effect will be felt: Impact on the African economy and feedback from the Africans will be discussed (section 3).

3. How will Africans transform themselves from the low income to middle income status by working together with emerging economies and established donors? The final section will discuss the options to move forward (section 4).

Countries at different levels of development have different firm sizes, industrial structure, capital requirements and nature of risks, and therefore, variations in institutional setup and policies. This institutional diversity can be easily seen between the 53 countries in Africa and China.

The private sector in Africa is largely informal. It is estimated that 61 percent of urban employment in SSA is in the informal economy, as much as 93 percent of new jobs are created in the informal economy. The ILO estimates that 80 percent of the non-agricultural work force in SSA is active in the informal economy. Of this, the informal sector represents 92 percent of total non-agricultural job opportunities for women in SSA. (Cheru, Nordic Africa Institute)

Thirty years ago, nearly all enterprises in China were controlled by central or local government in one way or another, now the share of GDP produced by non-state entities (not majority-owned by the state) has reached to over 70 percent (Figure 4.1). Since 1984 many “waves” of enterprise reform strategies were tested; some succeeded and others failed. In the end, what China did can be summarized into a unique “three-pronged” strategy for enterprise development, combining top-down and bottom-up approaches:

1. Unleash the initiatives of rural enterprises and SMEs through market access, and encourage the indigenous private sector to grow in a dual economy;
2. Establish SEZs for local experimentations to create an enabling environment for attracting FDI and generating jobs;
3. Introduce competition before restructuring the State Owned Enterprises (SOEs). Competition from Foreign Invested Enterprises (FIEs) and SMEs force SOEs to streamline, and restructuring comes later. Some of them become publicly listed corporations and are able to “go global”. The discussion below follows this sequence.

Figure 4.1. Transformation of Ownership Structure: Industrial Value Added in China, 1987 and 2007

![Pie chart showing ownership structure in 1987 and 2007]

Source: Yan WANG based on data from the CEIC.
2.1 Fostering Rural Enterprises, SMEs and Clusters

**Agricultural reform provided the foundation for rural enterprises in China.** As the agricultural productivity improved after 1980s, it created surpluses in labour and savings which greatly expanded the opportunities for township and village enterprises (TVEs). Although they came into existence under the People’s Communes system in 1971, fiscal decentralization started in 1979 provided incentives for local governments to develop their local economies through supporting TVEs. Employment in TVEs increased from 28 million in 1978 to 135 million in 1996 at the peak (NBS 2009). “The dual-track price system” gave TVEs a chance to get access to markets and inputs and allowed TVEs to flourish rapidly. This development had led to a rising rural incomes and a labour reallocation from agricultural to non-agricultural sectors. The dynamism of TVEs and other non-state enterprises triggered the restructuring of the SOEs.

**Legal and policy environment.** The central government allowed the free entry of enterprises in all labor intensive light-manufacturing industries, thereby, provided market access and introduced competition. As a transitional institution, TVEs could multiply and prosper because private property rights were not clearly defined and protected by law during the initial stage of transition. Only later was the property right issue resolved and most TVEs were transformed to private enterprises. Two laws were particularly important: (1) The Regulation on Several Issues on Promotion of TVEs was issued in 1979, after which the Law of the PRC on TVEs was promulgated in 1996. (2) Similarly, after the State Council document on Several Policies and Suggestions on Encouraging and Promoting the Development of SMEs in August 2000, The Law of PRC on SMEs Promotion came into effect on January 1, 2003. (Wang, Wang and Li, Background paper) Finally in 2004, Chinese constitution was amended to protect individual’s private property.

**Local governments supported rural- and industrial- clusters and linked them with the global market.** In general, clusters can be simply defined by “geographic and sectoral agglomeration of enterprises” (Schmitz 1992). With support by local governments which provided infrastructure, rural micro clusters and SMEs contributed to local economic growth but were also linked with global value chains. Such clusters include fruits, potato and vegetable growing and processing, meat processing, high value-added crops, herbal tea, textile, and toys, etc, all in different locations. A good example is the Footwear Industry in Wenzhou, in which the government of Wenzhou played an important facilitating role.

**Box 4.1. Cluster Development: the Footwear Industry in Wenzhou**

The city of Wenzhou has had a shoe manufacturing industry for hundreds of years, providing a fertile ground for new entrepreneurs rising and clustering. Since the reform and opening up in 1978, the shoemaking industry in Wenzhou has experienced rapid growth in clustering, a process that can be divided into three stages:

- **The “family workshop” stage, from the 1970s to the 1980s.**

- **The clustering stage, from the late 1980s to the late 1990s.** The spontaneous clustering was complemented by the government-induced clustering, in order to regulate and put pressure for quality improvement and upgrading.

- **The relocation and expansion stage, from the late 1990s to the present.** Due to the high cost of land and the shortage of skilled labor, some footwear companies have expanded and moved to nearby areas in Zhejiang province, or ventured to western China.
In 2005, Wenzhou had more than 4000 shoemaking firms, accommodating more than 400,000 workers, and producing more than 1 billion pairs of shoes in that year. The value added of the industry was valued at US$3.8 billion, and the value of exports reached US$837 million (Wang Jici 2010, p. 156).

The local government of Wenzhou has played a facilitating role in the development of this cluster. It constituted the industry’s development strategy and planning, improved the local infrastructure (hardware), set regulations on quality, promoted a standardized shoe product market, and provided other incentives for learning and innovation. (p. 170)


**African Entrepreneurship** is developed under less favored conditions, being largely informal and active only in the “Shadow economy”. Despite challenges and obstacles in investment climate, home-grown clusters have emerged in many countries, such as the cut flower cluster in Kenya, furniture in Tanzania, fishing in Uganda, textile and clothing in Mauritius and South Africa.

The Suame manufacturing cluster in Ghana is one of the biggest clusters in Africa with a long history of craftsmanship and entrepreneurship. It is dominated by micro and small enterprises (MSEs) with 5 to 10 employees. Researchers reported that in the 1990s the cluster had approximately 9,000 engineering enterprises (4,000 in metal product and 5,000 in vehicle repair) (McCormick 1998), but majority of workers completed either only the primary school (69 percent) or secondary education (23 percent). It is found that formal and informal associations have been important to the sustainability of these clusters including the Magazine Mechanical Association, and Ghana National Association of Garages. A number of government policies could be used to promote the private sector expansion, including setting up information and training service centers, providing basic internet services and infrastructure, as well as subsidizing new machinery and innovations to help the MSEs. (Adeya 2008)

In this earlier period, however, Chinese and African clusters were growing more or less independently. Not anymore.

### 2.2 Special Economic Zones in China and Africa

Export Processing Zones (EPZs) and other types of commercial zones started in 1960 when Ireland established the first free trade zone, and were widely used during the process of industrialization of advance countries. Special Economic Zone (SEZ) is a concept that covers several variants of the traditional commercial zones, with the following characteristics: a) it is a geographically delimited area, usually physically secured; b) it has a single administration; c) it offers benefits based on physical location within the zone, and d) it has a separate customs area and streamlined procedures. In fact, SEZs can provide direct and indirect economic benefits which were documented in the literature.

**Theoretical Foundation**. Recently, the economic profession recognized that SEZ represents a type of horizontal industrial strategy where the government provides **a bundle of public goods including both hard and soft infrastructure to a delimited area**. This is appropriate policy for developing countries as they face severe budgetary and financial constraints. It is feasible to concentrate limited national resources to provide hard infrastructure to a limited area closer to a sea port. Second, due to political economy and capacity constraints, it also makes sense for governments to experiment on reducing regulatory burdens in one small part of the country to attract foreign investors. Third, it also facilitates...
**Industrial Agglomeration** which is a well-documented historical trend in the development of all advanced countries, along with economies of scale. SEZs, if well selected and designed, could encourage industrial agglomeration and facilitate the economy of scale.

How did China move from being a poor agrarian economy to become the “factory of the world”? SEZs played a key role as a testing ground for economic reforms, for attracting foreign direct investment, for catalyzing industrial clusters, and for learning new technologies and incubating new management practices. Even though their importance has declined over time, a recent World Bank study estimated that as of 2007, **SEZs still accounted for about 22 percent of national GDP, about 46 percent of FDI, and about 60 percent of exports, and generated in excess of 30 million jobs** (Zeng 2010, p. 14).

Key factors for SEZ’s success were reforms and experiments rather than government financing. When market institutions were not fully in place, SEZs were used to build broad support for reforms through demonstration and controlled experimentation. First, **SEZ’s success was not a result of large amount of public investment.** Before the establishment of China’s first SEZ in Shenzhen in April 1979, central government fiscal deficit was as high as 3.33 percent of GDP in 1979 and there was no “fiscal space” for increasing the budget allocation to SEZs. Deng Xiaoping told Shenzhen mayor then, “the central government does not have money to give you. You have to experiment to try to find your own way” (page 24, Tao and Lu 2008). The following reforms provided basic incentives for the SEZs:

- **Fiscal Decentralization.** In February 1980, the State Council promulgated the provisional regulations on intergovernmental fiscal relationship—“dividing revenues and expenditures between central and local governments while holding the latter responsible for their own finances at different levels”. Later in 1994 after the tax assignment reform, the local government ended up with 46 percent of the total government revenue (higher than some of the federalist countries). Fiscal decentralization played a critical role in providing incentives for local government to promote economic growth in the localities.

- **Taxation System Reform 1978 – 1982:** China promulgated three tax laws in 1980 – 1981: “Enterprise Income Tax Law for Sino-Foreign Equity Joint Ventures”, “Individual Income Tax Law” and “Foreign Enterprise Income Tax Law”. These laws formed a basic tax system for foreign-owned firms and joint-ventures. After China joined WTO in 2001, the enterprise income tax was unified and the tax privileges granted to foreign enterprises were eliminated.

- The following new market reforms were first experimented in Shenzhen: a) started a land market (to transfer urban land-using right through auctions) in 1980 along with commercialized housing, financially supporting infrastructure construction in Shenzhen. b) Allowed the entry of the first foreign bank in 1982 and set up the foreign exchange transaction center in 1985; c) Experimented on “duty-drawback” and duty free imports in the Free-trade zone; d) Experimented on a new labor contract system and wage /price liberalization; and e) Started shareholding companies and later established the first stock exchange in 1990. (Yuan Yimin et al 2010)

Through trade- and investment-led growth, Shenzhen has been transformed from a fishing village to a modern metropolis with per capita income rising from $122 in 1980 to $14,600 per year in 2010 (Table 4.1). The local government has played a critical facilitating role in guiding and supporting the enterprise development by:
• Providing and continuously improving the infrastructure;
• Cultivating a sound investment climate; and a one-stop-service center was established with several hundred public services provided;
• Strengthening the legal system, and creating an orderly market and
• Encouraging industrial upgrading through fostering innovation in industrial parks within the zone. Several innovative multinational companies grew up there and become internationally competitive, such as Huawei, ZTE (telecom), and BYD Auto companies (electric cars).

Using a unique dataset on Chinese municipalities from 1978 to 2007, a researcher estimated the effect of SEZs on attracting foreign direct investment. The policy package, including private property right protection, tax breaks and land use policy, increases per capital municipal FDI by 58 percent in the form of foreign-invested and export oriented industrial enterprises. SEZ’s experiments have also promoted productivity growth: Total Factor Productivity (TFP) growth is 0.6 percentage point higher for cities with SEZs, implying that SEZs could bring more advance technology and encourage technology transfers (Jin Wang 2010).

More broadly, inbound FDI has played an important role in China’s economic development and export success. **Foreign invested enterprises (FIEs) in China created about 30 percent of the total annual industrial output, 20 percent of tax revenue, 55 percent of imports and exports, and over 80 percent of high-tech products export** (MOFCOM 2010). Employment in FIEs rose from 13 million in 1986 to 134 million in 2006, and have also lead to more employment in upstream and downstream industries. Moreover, the average wages of FIEs were 30 percent higher than the average national wage level, contributing to poverty reduction and higher living standards (Lu Bo, CAITEC).

**SEZs in Africa.** Initiated in the mid 1990s, African countries adopted SEZ policies relatively late. A recent World Bank study found that many African zones have confronted with challenges. In general, African zones are surprisingly capital intensive compared to the highly labor intensive zones in Asia and Latin America, however, the relative contribution of SEZs in national investment and exports is in line with global experiences in SEZs (Farole 2010).

**Mauritius.** An Export Processing Zones (EPZs) was established in Mauritius in the 1970s and went through 2 phases. After the first period of stagnation, the textile and clothing industry started booming in the 1980s and 90s with the number of firms rose from 74 in 1983 to 435 in 1988 and they became competitive. However, after the phasing out of Multifiber Agreement (MFA) in 2005, the value of Mauritius garment export declined by 10 percent, and the number of firms decreased from 420 in 2000 to 260 in 2005 with the number of employees falling from 82,000 to 56,000 in the same period (Sawkut 2008 p 98). The conditions that led to the success of Mauritius textile and clothing sector have changed due to global integration. As Mauritius has become a middle income country with more educated labor force and higher labor cost, the challenge now is to diversify and upgrade from the current industrial structure, perhaps searching to find a new growth pole in tourism, ICT and financial services (Seewraj Nundlall, BOI, Mauritius). And Mauritius is not alone, as many countries are searching to find latent comparative advantages in a new global landscape.
2.3 State Enterprises: Putting Competition First, Home and Abroad

China’s approach to state-owned enterprise reform can be summarized as “competition first, restructuring later”. Since the urban reform began in 1984, several steps were taken to change the SOE landscape.

- Initially, urban reforms were focused on “marketization” and competition. State monopolies in several industries were broken up (e.g. the sole airline CAAC was broken into 7 airlines in 1987), and competition was allowed. SOEs were allowed to separate from the respected ministries and operate under “management contractual responsibility system”.

- From 1993 to 2003: The capital market (including two stock exchanges) was developed and privatization of SOEs was implemented. In 1995, the central government issued the policy of “keeping the large ones and letting the small ones go”. The state decided to keep 500 to 1000 large state firms and allow smaller firms to be leased or sold to the private sector. By the end of 1998, more than 80 percent of state and collective firms at or below the county level had gone through restructuring (gaizhi) which involved direct privatization in most cases (Zhao, 1999). By 2005, 76.7 percent of all industrial SOEs existed in 1995 had either been privatized or gone bankrupt (Yao Yang, 2008, P 18).

- Labor retrenchment followed the privatization. The largest labor retrenchment happened in 1998 when 20 million people lost their jobs in SOEs. By 2004, the SOE sector lost 40 percent of its jobs that it had in 1995. (Figure 4.2)

Figure 4.2. China: Transformation of Urban Employment Structure, 1980 – 2009

Source: Yan WANG based on data from the National Bureau of Statistics, China Statistical Yearbooks.

- 2003 until present: The capital market has been developing with high speed and modern corporate governance system introduced to large corporations (formerly SOEs). The numbers of listed companies increased from 323 in 1995 to 2000 in 2010. (Chen Xiaohong, DRC)

Some researchers view that the above story shows that Chinese government may be characterized as a “disinterested government”: As the top leaders realized the need for reform, they envisioned “putting

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1 The rich experiences of corporatizing and privatizing the State Owned Enterprises along with the rapid capital (equity and debt) market development are not introduced in detail because they are less relevant to African countries.
development first. "The SOE reform shows that ‘[the government] could resist populist pressures in adopting a more efficient ownership structure than the state ownership of firms even if this meant to rip off the privileges of some of its own members’ (Yao Yang 2008 p. 20).

Accumulating the Social and Organizational Capital. The labor retrenchment in 1998 was less painful since the private sector was more developed after 18 years of reform. Some managers were able to buy off the SOEs they worked for through “management buy-out”, other businesses were spin-offs from SOEs. Workers were more likely to be redeployed through re-training and self-employment, as a large number of “labor re-deployment” centers were established. Thus, the “social and organizational capital” was kept in the economic system rather than lost (Stiglitz 2001).

Capacity enhancement in Chinese enterprises is a process of learning-by-doing and innovation. For the SOEs, breaking up monopoly and introducing competition were crucial, while for non-state enterprises, access to market, finance, technologies and learning networks were important. Foreign investors served as partners for learning and capacity development. Early on the government negotiated with the large multinationals that wanted access to the Chinese market to enter into joint ventures (JVs) with domestic firms and restructure them. They also negotiated local content and training requirements. These requirements greatly helped the Chinese firms develop technological and management capacity (Dahlman 2008). Examples include the joint ventures between GM, Nissan, Toyota, Volkswagen and their local partners, BYD, ChangAn, Chery, Dongfeng, FAW, Geely, and SAIC, which have developed the capacity to compete in the global market.

Roles of International Partners. International partners have played an important role in reforming Chinese SOEs (Box 4.2). In the construction sector in particular, old state companies were separated from the state ministries, and become financially independent. In part through learning-by-doing in the process of implementing international projects and through training provided by international partners, these companies have enhanced their capacity for project management, and become internationally competitive.

Box 4.2. Official Development Aid (ODA) and Foreign Loans in China’s Manufacturing and Other Productive Sectors

Official development aid to China has been falling in the recent years, with the average amount of US$1.2 billion per year. Using the most recent AidFlow Database published by the OECD and the World Bank, we found that official development aid (ODA) on “productive sectors” accounted for an average of 7.8 percent of total ODA that disbursed to China in the last five years. However, detailed allocation by subsector is not available.

Box Figure 1. Composition of ODA Disbursement to China in the Last Five Years

Source: AidFlows database, accessed on April 18, 2011.
Since 1979, China has benefited from large amount of foreign loans (including both concessional loans and commercial loans) in manufacturing sectors accounting for 16.4 percent of total amount of international loans borrowed from 1979 to 2005 ($41.4 billion out of $252 billion). Overall, 75 percent of the foreign loans were allocated to the “hardware”, i.e. energy, infrastructure and manufacturing.

- Total amount of borrowing in the raw material sector (steel, chemical and construction materials) reached $28.33 billion, accounting for 11.2 percent of the total borrowing. Japan was the largest lender accounting for 12 percent of the total borrowing in this sector. Over 68 percent of the total was international commercial loans. Sectoral allocation was 70 percent in petrochemicals, and 20 percent in the steel industry and 5 percent in construction materials.

- Borrowing for the machinery and electronics sector reached $5.66 billion in which World Bank, AsDB and European Investment Bank were among the large lenders. Commercial loans accounted for 34.6 percent of the total in this sector.

- In textile and light manufacturing, total borrowing reached $7.41 billion. International commercial loans accounted for 67 percent of the total. In the textile sector, the World Bank ($1.3 billion) and AsDB ($0.35 billion) and Japan ($0.49 billion) were among the large lenders.

Box Figure 2. Composition of International Loans to China, 1979 – 2005 (%)

Source: based on data from NDRC 2009.

According to the National Development and Reform Commission (NDRC), these foreign loans have, in general, i) alleviated growth bottlenecks in these sectors in a period when China faced large financing gaps (1979 – 1995); ii) introduced international best practices in restructuring the SOEs, and helped develop capacity for corporate governance and competitiveness; and iii) promoted market oriented reforms in each sector, improved investment climate, and facilitated technical innovation, productivity growth and efficiency (NDRC 2009).


2.4 Key Lessons Relevant for Africa

The most relevant features of China’s experiences to the largely informal private sector of African countries are those related to agricultural-based and small and medium sized enterprises (SMEs), but not those related to state owned enterprises (SOEs).

1. Intense competition amongst all types of enterprises, SMEs, FIEs, SOEs and various localities
have driven the rapid industrial growth and transformation in China. Some enterprises first started small on the basis of rural productivity growth and savings, others were unleashed during the reform and the opening process of SEZs and coastal regions (as the cases of Wenzhou and Shenzhen), and still others were restructured or privatized former state enterprises. The stiff competition has driven the profit margins down and pushed China to the technology frontier of labor-intensive manufactured products.

2. **The central government has played a leading role** in guiding the private investment according to long-term development plans, releasing growth bottlenecks by providing the needed infrastructure, while maintaining the fiscal sustainability and macroeconomic stability. Fiscal decentralization created incentives for local governments to develop the local economies through opening to foreign trade and investment (FDI). SEZs were seen as a mechanism to attract FDI not only for export purposes but for technology transfers and for spillover effects and backward linkages through joint ownership with local corporations (Ohno, JICA).

3. **Entrepreneurs are the true drivers for diversification and transformation**, and local governments facilitated the creation of input and output markets around which value chains and clusters developed. The traditional “industrial policy” is not the main feature of China’s experience: local governments tailored the local policies to foster local industries. Currently as the labor cost is rising, local governments continue to encourage innovation and industrial upgrading using new measures such as incubators and high-tech industrial parks (as in Shenzhen and Suzhou).

4. **International partners (donors and investors) have been serving a catalytic role** in China’s process of learning and transformation, and initially provided substantial funding and management experience in “hardware”, e.g., energy, infrastructure and manufacturing sectors. In the 1980s and 1990s, through working with partners China gained access to knowledge and practices on corporate governance, management, regulatory reforms, as well as restructuring/privatizing state enterprises and banks. Entering the 21st century, Investment Climate Assessment (ICA), Doing Business Indicators, and other benchmarks were introduced as useful tools for comparing investment climate across various localities within China and create a virtuous competition amongst localities.

**Not-so-positive Lessons**

China’s experimental approach comes with a cost: the legal framework lagged behind the needs of the reforms, especially in the areas of private sector development. Individual property right was not consistently protected until recently when the constitution was amended in March 2004. The legal limbo created some scope for abuse: Due to unclearly defined land rights, farmers were sometimes inadequately compensated when their land was auctioned, and there was inadequate protection of rural workers’ rights. Weak implementation and enforcement of laws had exacerbated the lack of respect by some entrepreneurs and managers to laws and regulations protecting labor, the environment and the

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1. Constitution of the P. R. China: “**Article 13** (1) Citizens’ lawful private property is inviolable. (2) The State, in accordance with law, protects the rights of citizens to private property and to its inheritance. (3) The State may, in the public interest and in accordance with law, expropriate or requisition private property for its use and shall make compensation for the private property expropriated or requisitioned.” (Amendment, 14 March 2004)
intellectual property right. Regrettably, some of these practices have been taken to Africa where these enterprises invest, causing tension in some countries, damaging the reputation of, and hurting the objective of China’s development cooperation. (See Section 3.3)

The legal uncertainty creates difficulties for SMEs to borrow from the banks, as they do not own sufficient amount of assets which can serve as collaterals for bank lending. China’s financial system was dominated by a few large, previously state owned banks which favored the large and state-owned enterprises. SMEs were often forced to borrow from the informal sector or money lenders at higher rate. Micro-finance was not well developed in China, but the situation is improving rapidly. This is an area that China should learn from Africa and other developing countries.

The environmental degradation in China is severe. This is in part due to the strong pursuit to accelerate growth rather than paying adequate attention to the quality and sustainability of this growth. Although progress has been made in the recent years from 2003 – 2009, enforcement of Environmental Protection (EP) laws and regulations has been weak and incomplete. This has led to inconsistent environmental standards in some banks and enterprises, and the alleged infringement by these institutions, home and abroad.
3. Enterprise Development and Transformation in Africa: Current Issues

The African Union has placed enterprise development high on its integration and development agenda. The landmark decision on this was taken in January 2005 in Abuja, Nigeria, when the African Union Assembly of Heads of State and Government institutionalized the organization of the African Union Private Sector Forum among other things. In addition, the African Union Commission continues to pursue initiatives aimed at creating an enabling environment for enterprise development. Key measures include the drafting of a Private Sector Development Strategy and Action Plan (PSDSAP); a Micro-Finance Policy Framework and Action Plan, supported by the creation of an African Investment Bank and the development and implementation of the Minimum Integration Programme (MIP). (Jean Ping, Chairman, African Union Commission).

Meanwhile, another transformation is underway: as China moves up the global value chains, its relatively lower value-added production could be relocated to lower-income developing economies. Surveys have shown that China’s labor cost is ranked number three in Asia, following Malaysia and Thailand (Table A4.2). Research reports show that China is losing export shares in 16 labor intensive subsectors (Box Figure 4.1) (Maswana 2011). The question is whether African countries are able to take advantage of this structural transformation, diversifying and upgrading on the basis of the current existing industrial structure, and becoming the destination of global FDI in labor intensive manufacturing industries.

3.1 Challenges Facing the African Private Sector

While macroeconomic situation has improved in many African countries, there is still a gap in long term growth, industrial diversification and enterprise development. Small-scale and home-grown clusters have emerged, such as the cut flower cluster in Kenya, computer village in Nigeria, manufacturing in Ghana, furniture in Tanzania, fishing in Uganda, textile and clothing in Mauritius and South Africa, etc. (See Box 4.3 for details). There are natural, economic and historical factors for the emergence of these clusters including:

- Location: natural endowments, climate, and infrastructure;
- Sufficient knowledge base, financial and human resources;
- Market identification by firms, and a sufficient number and variety of actors;
- Networks among various types of actors and
- Supporting institutions.

1 From 2003 to 2008 the wage rates were growing at an annual average rate of 10.5% in manufacturing, 9.8% in construction and 10.2% for rural migrant workers (Cai, Fang 2010, page 91). China Briefing found that “since the introduction of the revised labor law in 2008, China’s workers are now amongst some of the best paid in Asia. The minimum labor cost is around 2,250 international dollars per year, including the legal minimum wage plus the pertinent mandatory welfare payment.” (Chris Devonshire-Ellis, January 19, 2011)
Box 4.3. Successful cases of Cluster Development in Africa

Kenya’s cut flower industry has grown steadily in acres, volume, and value over the last 10 years. Industry exports increased from 29.373 tons (worth KSh 3.6 billion) in 1995 to 91,193 tons (worth KSh 29.7 billion) in 2007. The success of the cut flower industry in Kenya has been attributed to a combination of factors—among them Kenya’s agro-climate conditions (natural-endowment), the active participation of a robust private sector, and favorable government policies (Bolo 2008). This case demonstrates the usefulness of clustering in providing opportunities for interactions and networking which promotes horizontal knowledge flows (from large to small growers), technological learning, innovation, and competitiveness.

In general, sectoral specialization and geographic proximity result in the creation of a community of practice within a cluster. These communities have taken the form of strong industrial associations such as the KFC and FPEAK, which tackle joint problems in markets, infrastructure, regulation, quality control, and lobby (Bolo 2008).

The Otigba Computer Village Cluster in Nigeria. Initially set up in the early 1990s in a residential area with a handful of shops along Otigba and Pepple street trading imported ICT equipment, components and products, it grew to become a beehive of computer hardware and software trade and production. Now more than 3,500 enterprises are registered with the Computer and Allied Products Association of Nigeria (CAPDAN), plus over 1,500 street operators. The rapid development was driven mostly by strong demand from the Lagos city. This activity offers a low-risk approach to rapid technological advance for two reasons. First, it thrives on incremental innovation, and second, the technological infrastructure required is established and can support greater autonomous domestic innovation efforts.

Key factors for success include the strong, cooperative entrepreneurial culture that enables the cluster to grow despite weak or nonexistent institutional support, poor infrastructure, and a shortage of long-term project financing. Cooperative competition and a relatively strong skill base are also important factors. Policy and institutional barriers against small firms was listed as the main obstacle. The role of collective actions has been a major source of supporting, overcoming the policies favoring large state-owned enterprises and the bias against small firms. (Abiola 2008 p. 65-76)


Recent studies, however, found that enterprise development in Africa is still lagging, and China’s decline in market share of its top sixteen faster declining commodities has not yet been taken up by the labor-intensive African economies. China’s labor cost is rising rapidly and its share of exports in the 16 selected commodities has fallen steadily since 1995. Africa is facing stiff competition from Southeast Asia in trying to diversify from their traditional industrial structure. (Maswana 2011)

Why is business performance lagging in Africa? Using Enterprise survey method, researchers found that interaction of several factors formed big obstacles:

- Exogenous factors. These include the small size of markets and overall economic sparseness, which together discourage competition and innovation, reduce the entry of new firms and increase the demands for infrastructure.

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1. Between 2003 – 2008, Chinese workers monthly wages increased at annual rates of 10.5% for manufacturing workers, 9.8% for construction, and 10.2% for rural migrant workers (Cai, Fang 2010 page 91). See also Figure 4.3.
• Infrastructure. The lack of reliable sources of power is found to be a huge constraint on private sector activity. Firms that are able to compensate for lack of electricity by using generators are able to survive better than firms without one (Ghrib, AU).

• Burdensome regulations. The overall fragility of the business environment reduced the productivity of African firms vis-à-vis firms in other parts of the world. Indirect costs are higher in the forms of delays, licensing fees, and bribes (Ramachandran, Gelb and Shah 2009).

**Figure 4.3. China’s Average Wages are Rising Fast, 1999 – 2008**

![Graph showing average wages in China from 1999 to 2008 for Agriculture, Construction, and Manufacturing.]

Source: based on ILO database, accessed on March 6 2011.

### 3.2 Chinese Entrepreneurs and Investment in Africa

According to recent surveys, **Chinese enterprises do not seem have overly high expectations for Africa’s investment.** Many small and private manufacturing firms from China are heading to Africa quite independently of the Chinese government, pushed by intense competition within China, and pulled by new opportunities in Africa. They grasp this opportunity in a “three jump” pattern: first, jump from doing business within China to exporting to Africa; and second, from exporting to Africa to investing in production in Africa. The third jump is less familiar: to clustering investments in industrial parks in Africa, providing mutual support through informal and formal networks. (Jing Gu, 2011). In their view:

“**Despite the strong wind and wild waves, the deepwater still has fish to be found**”. (Feng Da Lang Ji, Shui Shen You Yu)

**Jing Gu, 2011**

**Chinese entrepreneurs are willing to take on more risks and working in poorer investment conditions, based on survey work by Jing Gu, Brautigam and others. This explains why South-South Cooperation may be effective. Chinese entrepreneurs are characterized by a strong entrepreneurial spirit and are generally more optimistic about local conditions. Having to survive in the fiercest competitive domestic and export market, they are engaging in risk-taking ventures with optimism, “can do” attitude, and high flexibility to adapt to local conditions. In a Chinese proverb:**

‘**If we have a little rain, then the seeds become shoots; a little bit of sunshine then the shoots grow robustly!’**

**Jing Gu, 2011**
China’s Outward Direct Investment.

China’s net outward Foreign Direct Investment was modest but rising rapidly, reaching $68 billion in 2010, surpassing Japan and the U.K. as a major source of FDI (UNCTAD, 2011). Much of this OFDI flows to developed countries. After addressing the re-routing issue, about 13% of it flows to Africa. Chinese enterprises have set up 16,000 enterprises in 178 countries/economies with cumulative investment of $317.2 billion, by the end of 2010 (MOFCOM 2011). Driven largely by the entrepreneurs, China’s direct investment in Africa has been growing from a few hundred million in 2002 to a cumulated amount of US$12 billion by the end of 2010. Since 2003, the annual growth rate of China’s direct investment in Africa has exceeded 60 percent. In 2010 alone, China’s direct investment in Africa was US$2.7 billion. The forms of investment are diverse, including sole proprietorship, mergers and acquisitions, joint ventures with locals, as well as joint ventures with third-country enterprises for resource development.

Figure 4.4a China’s Net FDI Outflow, 1998 – 2010 (Million USD)

Figure 4.5. China’s FDI Outflow to Africa, 2003 – 2010 (millions of USD)

Box 4.4. China’s Outward FDI in Africa: Multi-players and Fuzzy Boundaries

Economic ties between Sub-Saharan Africa and China have been strengthening in recent years, however the boundary between the private FDI and Other Official Flows (OOF) is murky. China has established more than 2,000 foreign enterprises in Africa, although this number includes only those enterprises who registered with the government. The overall statistics on FDI are difficult to collect and are not entirely accurate (especially if re-routing is considered). “Calculated by the number of businesses, over 70 percent of the enterprises are private businesses. However, based on the amount of direct investment, more than 70 percent of the investment came from state-owned enterprises.” (Xue Hong, CAITEC)

China uses a unique approach of combining aid, trade and investment in its development cooperation. When it comes to infrastructure projects it is not entirely clear how much is financed by concessional loans/credit, how much is financed by commercially loan or Public-Private Partnership or outward FDI. About 15 percent by value of these projects have been completed to date, including a 1,250 mega-watt Merowe Dam in Sudan and some 700 mega-watt of gas-fired generating plant in Nigeria (Foster et al., 2011). The FOCAC reports that since the year 2000 Chinese companies have built 60,000 km of road and 3.5 million kw in generating capacity of power plants in S. S Africa.

Although the amount is not large, over 13 percent of China’s total OFDI has been invested in Africa (if re-routing is addressed) and the composition holds promises: 22 percent of it focusing on the manufacturing
sector such as light manufacturing, textile, household appliances, and automobiles. In 2009, direct investment in the African manufacturing sector was $300 million supporting pharmaceuticals, paper, textile, home appliances, and automobiles.

Box Figure 4.1. Composition of China’s outward direct investment in Africa by sector (by the end of 2009)

![Pie chart showing the composition of China’s outward direct investment in Africa by sector](image)


Box Figure 4.2. China’s Outward FDI in Africa, shares in 2003 – 2009, %

![Pie chart showing China’s Outward FDI in Africa, shares in 2003 – 2009](image)


The investment is allocated to 49 African countries and most of which is in South Africa, Nigeria, Algeria, Zambia, DRC, Sudan, and Egypt, covering mining, financing, manufacturing, construction, tourism, agriculture, forestry, animal husbandry and fisheries. (See Box Figure 4.2)

For example in Malawi, Chinese companies invested in cotton processing through the “company plus farmers” approach with the total investment of US$ 20 million, employed 300 local workers and raised income for 100,000 rural households. Several China’s auto companies (FAW, BYD Auto, Chery) have set up factories and expanded production lines in Africa. Hisense, Haier, and other well-known Chinese home appliance manufacturer have established their own industrial parks in Africa to facilitate production and trade. Other Chinese firms have also established industrial parks or textile parks in Mozambique, South Africa, and Nigeria which are completely enterprise-funded. (CAITEC 2010)

Source for the Box: Yan Wang based on various datasets.

Trade and Economic Cooperation Zones. Chinese government has started to support developing overseas economic and trade cooperation zones to facilitate Chinese enterprises “going out”. Overall 19 zones covering all regions were selected through two rounds of auctions. Six economic and trade cooperation zones are being constructed in Zambia, Mauritius, Nigeria, Egypt and Ethiopia, with
US$ 250 million in infrastructure construction. The Zambia-China Trade and Economic Cooperation Zone is the first of this kind China has set up in Africa. Started in September 2008 with an initial investment of US$ 400 million, 12 companies have invested $ 578 million in the zone by the end of 2009, and created 6,000 jobs. Empirical studies have found that market-seeking is the most important motivation (Ramasamy 2011), while China would be able to move up the value chain at home through these economic cooperation zones. These zones also create economies of scale for overseas investment, and serve as the knowledge base for other developing countries (Brautigam and Tang 2010).

**Box 4.5. China-Supported Economic Cooperation Zones in Africa**

*It is worth noting that investment in infrastructure in the zones is closely related to enterprise /cluster development in the manufacturing sectors.*

**An Enterprise-led Zone with strong local linkage:** Yuemei Group, a private textile firm from China, invested in Nigeria and helped the value chain development locally. As a result of their approach of “rural households plus company”, over 4,000 weaving machines were installed among local households and increased household income. In 2008, the Yuemei Group invested in the construction of a Textile Industrial Zone in Nigeria. After the first phase, in 2009, it had attracted 5 enterprises, and created 1,000 jobs. This zone however has not been put on MOFCOM’s list and it is entirely enterprise-led. And there are many such enterprise-led industrial zones in Asia and Africa. (Wu Fang, CAITEC)

**Ethiopia: The Oriental Industrial Park, a MOFCOM approved zone.** The Jiangsu Yongyuan Group is the founder and investor for the Zone, and is discussing with China-Africa Development Fund about co-financing. Since it started construction two years ago, a 50,000 m² standard plant with water, roads and power supply facilities has been completed. Eleven Chinese enterprises with US$ 91 million total investment have signed letters of intent to move in - covering industries such as construction materials, steel products (plates and pipes), home appliances, garments, leather processing, and automobile assembly (Jinlong Bus Company). One of the companies, the Zhongshun Cement Factory has started production, created 100 + jobs and tax revenue of 30 million birr. The Zone has gained strong support from the Government of Ethiopia but there are many challenges, including the unstable supply of electricity, slow customs clearance in the two ports (Djibouti and Addis) for importing equipments, issues related to roads and water, and other infrastructure around the zone.

However, African feedback shows that there is still a weak linkage between Chinese and local firms, and opportunities exist for deepening understanding and mutual learning through knowledge exchange, dialogue and joint ventures.

*Source: Author.*

**Combining “Aid – Contracted Projects – Trade – Investment”, from the Chinese Perspective.**

It is noteworthy that Xue Hong argued in his paper that, “aid, contracted projects, trade and investment should be combined together, reinforcing each other and developing in an orderly fashion. Enterprises should be encouraged to start from undertaking high quality aid projects and gradually establish their own brands and strengths in African countries. Then the enterprises could set foot in trade, investment and other cooperation areas. Infrastructure and public facility construction projects are areas of strength for Chinese companies. From 2000 to 2010, the annual growth rate of the turnover of the contracted projects by Chinese enterprises in Africa exceeded 40 percent.” (Xue Hong, CAITEC, MOFCOM)
In his view several ways to improve China’s approach included: Firstly, “China should try to optimize the aid structure and innovate the types of assistance. The Angola model is taking repayment capacity into first consideration in risk management. The government should adjust the size and proportions of grant, interest-free loans and concessional loans, improve the overall effectiveness, consolidate traditional areas of strength and actively promote cooperation between enterprises. Secondly, improve project quality and build high-quality projects. Thirdly, enrich aid content and improve the capacity for self-development in African countries.” (Xue Hong CAITEC). Instruments to support enterprise development were introduced, including the China-Africa Development Fund which was established in 2007 and committed $1 billion in 30 projects; and China Development Bank’s new microcredit program supporting African SMEs, announced in 2009.

3.3 Perspectives of Africans: Feedback on China’s Support to the Enterprise Development

African feedback is based on a GDLN consultation which included representatives from China, Ghana, Kenya, Mauritius, Nigeria, Zambia, and the World Bank. It was held on February 9, 2011 through videoconference links with each country. High level government officials who attended the consultation discussed four main topics (ACET 2011).

Overall, African officials agreed that Chinese FDI, if properly structured, could potentially have significant welfare gains and highlighted the importance of sharing experiences between China and African countries for enterprise development. But they also expressed concerns, and provided constructive suggestions on issues that would be useful for the conference in Addis Ababa. Four factors are particularly important for drawing Chinese FDI: a) Stable investor-friendly and transparent policies and regulatory framework; b) Clear market opportunities for domestic or export – e.g. AGOA that made investment an attractive option; c) Abundance of skilled and relatively low cost labor; and d) other attractions for FDI include raw materials, such as in Nigeria, but attention is needed to ensure such investment must create meaningful employment and protect the environment.

Participants noted that although China is facing a rising domestic labor cost and the need for upgrading, Africa is not necessarily the next destination of these labor-intensive enterprises as it has two main competitors: a) the inland provinces that provide a cheap option as well as good infrastructure; b) Southeast Asian countries intend on building their own private sector. Therefore, it is crucial to have good policy in place and regulatory reforms to improve the ease of doing business. Enhancing agglomeration through infrastructure development and regional market integration is another key factor.

On alignment of SEZs to regional /national development objectives, some participants felt that SEZs should be at the heart of regional strategies, believing that adopting a regional approach to establish cross-border SEZs would enhance the competitiveness of regions in international trade and leverage their comparative advantage. Beijing participants noted that when SEZs were first established in the early 1980s, China’s comparative advantage was not known. Through experimentation and flexible policies, China was able to identify and develop its comparative advantage in labor-intensive industries.

All participants stressed the importance of linking SEZs to the local economy especially the local private sector. One participant highlighted the need for phasing in local control- that foreign groups
should not control SEZs indefinitely. They felt strongly that programs should be designed to encourage and enhance local development capacity such as building the local manufacturing capacity. Participants offered a number of recommendations that would improve the developmental impact of SEZs. They suggested that governments should:

- Facilitate local private sector participation through improvements in the business environment;
- Promote Joint Ventures with local enterprises, with special considerations to support the local enterprises and when local capacity is poor, there should be capacity building programs to upgrade skills;
- Increase public awareness to allay public misconceptions and distrust towards Chinese investment in SEZs and other FDI.

Some stressed the issue of enhancing understanding by Chinese enterprise of fighting corruption, corporate social responsibility (CSR) and labor and environmental law compliance, and provided several examples of ongoing efforts to ensure compliance by investors. They noted that governments must have in place the necessary laws, policies and legislations as well as the institutions such as environmental protection agencies to enforce these rules.

- “Despite the relevant laws and regulatory bodies in place, participants expressed concern that there were several incidences of legal infringements – especially labor law infringements - by the Chinese and other foreign investors.” (ACET 2011, page 8)
- They pointed out “serious health and safety violations within the working environment of Chinese factories and quoted ILO reports on the poor conditions of service and pay by Chinese investors. Corruption is also prevalent and difficult to combat. Such unlawful practices undermine the benefit derived from Chinese investment” (p. 8, ACET 2011)

On the general issue of Corporate Social Responsibility (CSR), Mauritius has a “solidarity levy” of 2 percent, which makes it mandatory for all companies to contribute to a fund that supports the local community. In other countries, investors make a contribution to infrastructure, schools, hospitals and employment in the local communities within which they operate. Participants suggested the following measures to improve CSR and compliance of to prevailing laws:

- Greater coordination between the enforcing institutions and implementing agencies in the host countries;
- Open and transparent investor agreements to allow for greater public scrutiny to minimize corruption;
- Explore opportunities to have the African countries’ laws disseminated in China for companies before they come to invest; and conduct environmental impact assessment prior to commencement of companies’ operations to demonstrate their ability to comply with the laws and standards;
- Better enforcement and monitoring of investor operations and compliance with the laws; and
- Broader and more capacity building efforts to improve local participation in the economy. (p. 8, ACET 2011)
3.4 Current issues on Institution and Capacity Development

How will Africans transform themselves from the low income to middle income status by working together with emerging economies and established donors? The conference addressed several institutional, political, and capacity development issues that go beyond enterprise development.

First, Syndrome-Free growth, “disinterested government”, legitimacy and good governance. Before the global financial crisis, the top 26 Sub-Saharan African performers’ growth averaged 6.9 percent a year in 1995 – 2006, comparable to India’s 6.7 percent. The terms of trade (TOT) appeared to have explained only 25 percent of the SSA cross country growth rates during the period, post-1995. So one could define Syndrome-free (SF) growth as “Political stability with reasonably market-friendly policies” (Ndulu et al, 2008, Fosu 2009). As to the role of good governance, experts see a similarity between their analysis of Syndrome-Free growth and the “disinterested government” in China. Is a “disinterested government” a way of building legitimacy, as in the case of China during the reform period (Yao, 2009)? It seems that control of government executive power including political term limit is promising (Fosu, 2009, CSAFE).

Second, dynamic capacity development is key for African countries, according to Professor Ohno. This implies to have a learning mindset in the process of making a country’s industrial strategy, always on the look-out for experiences and lessons that can be drawn from other countries. Without waiting for the capacity to be developed, a country can still start at zero capacity and learn by doing. It seems that African countries would need to:

- Have a clear “industrial strategy” which identifies the long-term vision of economic development, and positioning in global value chain;
- Have a learning mindset, and a methodology of designing and implementing industrial strategies, and enterprise development measures which are consistent with the country’s institutional capacity;
- When learning from East Asia, do not copy from specific policies but focus on having diversified development strategies and a self-owned process. China has been using an “ownership, learning and innovation” approach, based on the 1st China-DAC conference. A goal – oriented approach and experiments are important (Ohno, GRIPS, Japan).

The case of Ethiopia. The government of Ethiopia, for instance, has been interested in East Asian experiences. It has strong ownership and commitment to developmental state, and agricultural-led industrialization (ADLI). It has adopted the Industrial Development Strategy (IDS, 2002) with reasonably clear policy orientation and goals, and the dynamic capacity development approach.

- Around 2003, with the PASDEP¹, the government initiated serious development effort with limited policy capacity, promoted a few export sectors (e.g. leather, garment, flowers) with incentives and policy attention, and mobilized donor support.
- The Growth and Transformation Plan (GTP) for 2010 – 2015 represents an expansion of policy scope – import substitution (e.g. metals, chemicals) institutionalizing of kaizen,

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¹ Plan for Accelerated and Sustained Development to End Poverty (PASDEP).
revising MSE policy, industrial cluster strategy.

- Japan has been providing industrial cooperation to assist GoE in GTP formulation and implementation (Ohno, GRIPS, Japan).

Overall, the OECD-DAC members have a long history of investing in Africa, through commercial loans, public-private partnerships, and direct investment (FDI). From 1985 – 2000, OECD outward FDI flows to Africa accounted for 0.7 percent of the OECD total, but the amount is increasing from 2000 to 2008, reaching $33 billion a year in 2008. European firms represent roughly two-thirds of total FDI in Africa, with over half of European investment emanating from the UK and France. In 2009, for example, the US’s direct investment flow to Africa was $5.73 billion, and that of France was 5.03 billion Euros (Goldstein, OECD).

US Aid, for example, has been supporting the private sector development in Ethiopia through technical assistance and other approaches. On February 18, the conference participants visited NOVOSTAR, a Garment factory with Ethiopian/American owners and preferential import treatment from The African Growth and Opportunity Act (AGOA). It has grown from 200 employees in 2006 to 500 employees today, with 95 percent of products exported to the US market. In particular, the wage rate in this factory is about 500-700 birr/month, which is about 1/10th of the wage rate in the coastal region of China, but the labor productivity seems to be lower than that of China. The managers face challenges of inadequate local suppliers of accessories, infrastructure problems and inadequate training of workers.

**Education, training and skill building systems**. Enterprise development must be informed by analytical and policymaking skills and feedback mechanisms that are the basis of strategies and policies. Education systems and life-long learning systems must be put in place to encourage learning-by-doing, learning from development partners and investors. In China, incentives have been provided to attract talented overseas Chinese back to China and to bring talented experts from around the world to China (Yu Xin). Recently similar systems have been put in place to tap African diasporas - an example is the special ID card for diasporas from Ethiopia along with some privileges.

**International partners played a key role in capacity development in both China and Africa**. One example is the African Economic Research Consortium (AERC), established in 1988, aims to strengthen local capacity for evidence based policy making in Sub-Saharan Africa. Supported by donor governments, AERC has helped to improve the technical skills of local researchers, strengthen national institutions and facilitate closer ties between researchers and policy makers. A recent research program includes case studies on the impact of China-Africa aid relations (Lyakurwa, AERC). Another case is the Tsinghua-World Bank Training Network on Project Management. After introduced International Competitive Bidding in 1984 and other project management practices in 1995, this training network trained thousands of certified project managers, and contributed to improved competitiveness of those Chinese companies entering the global market for construction (Wang and Li 2011).

**The issue of environment sustainability in China and Africa.** One in every five Chinese cities suffers from serious air pollution; two thirds of the cities lack safe drinking water; one third of the land area experiences acid rain; one third of land areas face desertification and surface erosion; the general biodiversity is under stress, and the number of environmental related disputes is on the rise. ①

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This is partially due to the pursuit of rapid growth over the 1980-1990s and inadequate attention to the quality and sustainability of this growth, and partially related to China’s stage of development.

- After a long period of ignorance on environmental issues, 1973-early 1980s was the age of awareness;
- Mid-1980s – 1990s marked the start of environmental protection institution development. The basic Chinese laws on Environmental Protection were promulgated in 1989.
- After 2000, the government moved from direct control to a greater reliance on the market incentives, and stressed public participation in environmental governance. There is a mindset change in environmental policy-making: a) “polluter pays” principle is well accepted, and b) policy focus moved from ex post abatement to ex ante prevention and production process management (Liu Minquan, Peking University).
- Are Chinese firms abiding environmental laws and regulations in Africa? Concerns however were raised by African officials when Chinese companies explored oil in a National Park or started a project without proper environmental assessment. There is huge potential in China-Africa cooperation for green growth, as China is the second largest producer of wind power and the biggest exporter of Photovoltaics (PV) in the world (Bounda, UNECA).

**Corporate Social Responsibility.** Chinese companies have “gone global” at an earlier stage in their home country’s economic and institutional development and face a steep learning curve on how to manage performance in relation to different operating environments in Africa. They are working to build up capacity for environmental and social assessment and performance management, and evaluation (Forstater et al 2010). “Chinese companies should participate and learn from international rules and norms. China needs to open further. We need to participate in the drafting of international rules and norms, and be responsible for the rules-making process and for promotion so that others understand the CSR practiced by Chinese companies.” (Chen Xiaohong, DRC)

Many Chinese companies aim to stay in Africa for a long time and have started to implement a few programs of CSRs, but they face a steep learning curve (Yu Wu, CEC). Some suggested that Chinese SOEs should carry out pilot projects in cooperation with companies with CSR experience in Africa in order to gain experience (Zhou, BSR). In Uganda, for example, China has invested in 206 projects since the 1990s with investment of $462 million and employment of 22,369 local workers. The FUE reached 1,000 Chinese SMEs and 28 large SOEs. The cooperation project between Norway, China and Uganda was created in 2007, assisting companies in addressing challenges related to labor relations, decent work, corporate social responsibility, occupational health and safety as well as sustainable development. Through the sharing of experiences, the project facilitated the mutual understanding of guidelines for doing responsible business in Africa (Martin, Uganda).
4. Going Forward: Issues, Opportunities and Challenges

Having recovered from the impact of global economic crisis, Sub-Saharan Africa could be on the right course for an economic take-off, much like China 30 years ago. FDI is the most important source of private capital flows to the Sub-Saharan Africa: After declining by 12.3 percent in 2009, FDI flow recovered by 6 percent to $32 billion in 2010. UNCTAD estimates that the rate of return of FDI in Africa is the highest globally. It is forecasted that FDI flows to S. Africa will increase rapidly to over $40 billion in 2011. (World Bank, 2011) Among all investors, China’s total OFDI to Africa was modest, at around $2.7 billion in 2010, accounting for 8 percent of total FDI inflows to Africa.

In general, FDI inflows are positively correlated with the total factor productivity growth in Sub-Saharan Africa. In terms of the composition, the manufacturing sector accounted for 41 percent of the total number of green field investment during 2003 – 2009, although most of the dollar value of FDI goes to the extractive sector (UNCTAD). The service sector is another large recipient. Collectively, OECD countries are the largest aid donors and investors in Africa, but the emerging economies are likely to be the most dynamic players in Africa’s development in the next decade. The OECD countries will need to adapt their roles in the new global context (Carey, OECD-DAC).

The emergence of large middle income countries such as China, India and Brazil and their industrial upgrading offer a historic opportunity to all developing countries including those in Sub-Saharan Africa. According to Justin Lin, “China is on the verge of graduating from low-skilled manufacturing jobs and becoming a ‘leading dragon’. The relocation of 50 to 85 million labor-intensive manufacturing jobs creates an unprecedented opportunity in the next ten years”(Lin 2011, page 30). After looking at composition of Chinese OFDI, there seems no evidence to show that the pattern is significantly different from those of other FDI investors, except that the heavy concentration of China’s OFDI in manufacturing is most promising. A similar conclusion was also found by a study conducted by the Centre for China Studies (2010).

One of the biggest issues is to provide a vision for “joining up the African continent”. Peace and security are vital to advancing regional integration. Participants see that conflict resolution in Africa, peace building, regional integration and enterprise development are converging agendas, in which all those involved in development cooperation for growth and poverty share common interests. African growth requires a continent-wide architecture for conflict resolution and good governance, and the AU’s efforts in this domain must be supported (Carey, OECD-DAC).

Africa’s transformation requires African leadership and a huge accumulation in social and organizational capital in both the state and the private sector. This is because “Social and organizational capital cannot be handed over to a country from the outside. It must be developed from within, even if knowledge from outside about key ingredients can facilitate the creation of this social/ organizational capital.” (Stiglitz 2001) Capacity can be developed through a “dynamic capacity

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1 Not all the manufacturing jobs will relocate overseas. Some will relocate to the western region of China, others to Southeast Asia or wherever the investment climate is favorable. In this sense, African countries need to do more to seize this opportunity. Nonetheless, “the relocation of even a small share of China’s 85 million labor intensive manufacturing jobs would go a long way toward creating new opportunities for employment and sustained growth in Africa” (page 31, Lin 2011).
development” process, in which a country finds opportunities at hand based on identifying strengths without waiting for fixing binding constraints (Ohno, Japan).

The role of a “developmental state” in enterprise development seems to be critical, but governments in developing countries perform vastly different functions. The government can provide more information and analysis on the country’s comparative advantage and industrial strategies, to guide the private sector investment, and facilitate joint actions by key stakeholders in the delivery of financial and business development services.

Industrial diversification and competitiveness takes time and they come from proactive Learning and Experimentation in the host country. It seems that China is committed to transfer some manufacturing to Africa and rely on enterprises to lead the way. The six economic zones serve as testing ground for identifying a country’s competitive sectors and will contribute to job creation and diversification. In order to fulfill this potential however, (i) high level commitment from the host government is indispensable; (ii) phased in local control seems to be useful; (iii) host governments need to ensure the provision of hard infrastructure off zone, and enforce labor and environmental standards; (iv) they also need to encourage joint ventures and measures to enhance transparency and community relations. In the case of Lekki, Nigeria, 5 percent of the shares are allocated to the local community, which is one way of addressing some of these concerns. (Brautigam and Tang, 2010)

Despite the issues of business environment and “informality” in Africa, home-grown rural and industrial clusters have emerged, and some of them are expanding and prospering. They have become growth pillars in these countries, leading to job creation and poverty reduction. It is hoped that all development partners support these home-grown clusters and do not crowd them out. To achieve the desired “win-win” cooperation, Africa must endeavor to pursue enterprise development in parallel with policies that promote economic integration of the continent.

Overall, African officials agreed that Chinese FDI, if properly structured, could potentially have significant welfare gains. But they also expressed concerns, including issues related to transparency on aid and investment flows, information sharing on official and commercial deals, labor and environmental standards, and corporate social responsibilities (CSR). Concrete actions include, for instance, open and transparent investor agreements to allow for greater public scrutiny to minimize corruption; better aligning SEZs with the host country’s development strategy, and enhancing local absorptive capacity, helping informal sectors and supporting local and regional value chains (ACET 2011).

Developing countries, China, Africa and international development partners face a host of challenges going forward, and all stakeholders have to adjust and modernize their established approaches. Many would benefit from greater cross-country fertilization of experiences through South-North-South learning, peer-reviewing, training and capacity development, especially on enterprise development, labor and environmental standards, CSR and EITI related issues.

The challenge of development is daunting. Yet the last thirty years of history shows that rapid and sustained development in the time span of a generation is possible— as shown by the example of China. Development is essentially a process of learning, emulation, experimentation and transformation. China’s approach is unique because common people on the ground have been learning humbly and selectively, and learning with a determination to change their own ways—and that is the true meaning of transformation. For a country with four thousand years of history, that is not easy.
There are many unanswered questions in the extremely complex situations in Africa- a vast continent with over 50 countries, and China does not have silver-bullets. All stakeholders; Africans, Chinese, emerging and established donors, are all facing huge challenges. So the final message is that, let’s join hands as partners to experiment together in a long journey of discovery and innovation. Let’s share information and share the results of evaluations, and let’s scale up the successful experiments and discard the approaches that have led to disastrous results. Let’s work together and “a world free of poverty” may finally come true.
Annex 4

**Table A4.1. The Shenzhen Miracle: GDP and per capita GDP from 1980 to 2010**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP in billions</td>
<td>0.04</td>
<td>0.5</td>
<td>2.5</td>
<td>12.4</td>
<td>32.1</td>
<td>72.6</td>
<td>99.7</td>
<td>114.5</td>
<td>144.38</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>122</td>
<td>705</td>
<td>1279</td>
<td>2866</td>
<td>4809</td>
<td>8915</td>
<td>11678</td>
<td>13169</td>
<td>14600</td>
</tr>
</tbody>
</table>

Source: Yuan Yimin’s paper, based on Shenzhen Statistical Yearbook, various years, and National Economic and Social Development Statistical Bulletin.

**Table A4.2. Rising Labor Cost: China ranked number 3 in Asia**

<table>
<thead>
<tr>
<th>Country</th>
<th>Ave. min annual salary (worker, Intl dollars)</th>
<th>Ave. mandatory welfare (% of ave. salary)</th>
<th>Total labor cost (Intl dollar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>798</td>
<td>n/a</td>
<td>798</td>
</tr>
<tr>
<td>Cambodia</td>
<td>672</td>
<td>n/a</td>
<td>672</td>
</tr>
<tr>
<td>China</td>
<td>1500</td>
<td>50</td>
<td>2250</td>
</tr>
<tr>
<td>India</td>
<td>857</td>
<td>10</td>
<td>943</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1027</td>
<td>6</td>
<td>1089</td>
</tr>
<tr>
<td>Laos</td>
<td>1057</td>
<td>9.5</td>
<td>1157</td>
</tr>
<tr>
<td>Malaysia</td>
<td>4735</td>
<td>23</td>
<td>5824</td>
</tr>
<tr>
<td>Pakistan</td>
<td>984</td>
<td>7</td>
<td>1052</td>
</tr>
<tr>
<td>Thailand</td>
<td>2293</td>
<td>6.9</td>
<td>2451</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1002</td>
<td>15</td>
<td>1152</td>
</tr>
</tbody>
</table>

Note: In 2010 – 2011, China’s minimum wage for 30 municipalities rose by 25% or more.

**Table A4.3. Overview of 11 Enterprise Clusters in Africa**

<table>
<thead>
<tr>
<th>Cluster</th>
<th>No. of firms</th>
<th>Avg. no. of employees</th>
<th>Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Suame Manufacturing Cluster in Ghana</td>
<td>&gt; 9,000</td>
<td>5 – 10</td>
<td>Domestic and limited export</td>
</tr>
<tr>
<td>The Kamukunji Metalwork Cluster in Kenya</td>
<td>&gt; 2,000</td>
<td>1 – 3</td>
<td>Domestic</td>
</tr>
<tr>
<td>The Lake Naivasha Cut Flower Cluster in Kenya</td>
<td>24 (large firms)</td>
<td>250 – 6000</td>
<td>Domestic &amp; export (Europe)</td>
</tr>
<tr>
<td>The Nnewi Automotive Components Cluster in Nigeria</td>
<td>85</td>
<td>&lt;12</td>
<td>Domestic and limited export</td>
</tr>
<tr>
<td>The Otigba Computer Village Cluster in Nigeria</td>
<td>&gt; 5,000</td>
<td>8</td>
<td>Domestic and limited export (West Africa)</td>
</tr>
<tr>
<td>The Mwenge Handicrafts Cluster in Tanzania</td>
<td>2,200</td>
<td>15 – 20</td>
<td>Domestic and limited export</td>
</tr>
<tr>
<td>The Keko Furniture Cluster in Tanzania</td>
<td>n. a.</td>
<td>2 – 130</td>
<td>Domestic and limited export</td>
</tr>
<tr>
<td>Cluster</td>
<td>No. of firms</td>
<td>Avg. no. of employees</td>
<td>Markets</td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
<td>--------------</td>
<td>-----------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>The Lake Victoria Fishing Cluster in Uganda</td>
<td>17 (fishing plants)</td>
<td>35 – 200 +</td>
<td>Domestic and export</td>
</tr>
<tr>
<td>The Textile and Clothing Cluster in Mauritius</td>
<td>260</td>
<td>170</td>
<td>Domestic and International</td>
</tr>
<tr>
<td>The Wine Cluster in South Africa</td>
<td>&gt;340 wine farms</td>
<td>n. a.</td>
<td>Domestic and international</td>
</tr>
<tr>
<td>The Western Cape Textile and Clothing Cluster in South Africa</td>
<td>327</td>
<td>103</td>
<td>Domestic and international</td>
</tr>
</tbody>
</table>


**Table A4.4. China’s Official Trade and Economic Cooperation Zones in Africa**

<table>
<thead>
<tr>
<th>Country</th>
<th>Size and status</th>
<th>Developers</th>
<th>Industry Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt Suez</td>
<td>5.08km², start up 1.07km², started in 1994, in operation and under construction</td>
<td>Tianjin TEDA, CADF, Egypt-China Corp for Investment (ECCI), Tianjin Suez Int’l Coop.</td>
<td>Textiles &amp; garments, petroleum equipment, auto assembly, electronic assembly</td>
</tr>
<tr>
<td>Zambia Chambishi (and Lusaka subzone)</td>
<td>11.58km², start up 2km², Started in 2003; In operation and under construction; (Lusaka: 5km²)</td>
<td>China Nonferrous Mining Group (CNMC Group)</td>
<td>Copper and cobalt processing; (Lusaka: garments, food, appliances, tobacco, electronics)</td>
</tr>
<tr>
<td>Nigeria, Lekki</td>
<td>30km²; Phase I 10km², Start-up 3.5km² under construction</td>
<td>China Civil Eng Construction, Jiangning Dev. Nanjing Beyond, China Railway, Lagos State (20%): Lekki Worldwide Inv Ltd</td>
<td>Transportation equipment, textile &amp; light industries, home appliances &amp; telecom, possible oil refinery</td>
</tr>
<tr>
<td>Nigeria, Ogun</td>
<td>100km², 1st phase 20km², startup 2.5km², 2004, under construction</td>
<td>Guangdong Xinguang, South China Dev Group, Ogun State Gov’t</td>
<td>Construction materials &amp; ceramics, ironware, furniture, wood processing, medicine, computers, lighting</td>
</tr>
<tr>
<td>Mauritius, Jinfei</td>
<td>2.11km², startup 0.75km², 2006 – 07, under construction</td>
<td>Shaxi-Tianli Group, Shaxi Coking Coal Group, Taiyuan Iron &amp; Steel Company</td>
<td>Manufacturing (textile, garments, machinery, hi-tech), trade, services (tourism, finance, education)</td>
</tr>
<tr>
<td>Ethiopia, Oriental (East)</td>
<td>2km², startup 1km², with 10km² reservation area, 2006 – 07, under construction</td>
<td>Qiyan Group, Jianglan Int’l trade, Yangyang Asset mgmt and Zhangjiagang Free Trade Zone</td>
<td>Electronic machinery, steel &amp; metallurgy and construction materials.</td>
</tr>
<tr>
<td>Algeria, Jiangling</td>
<td>Approved but suspended</td>
<td>Jianglin Automobile, Zhongding International</td>
<td>Automobile assembly, construction materials</td>
</tr>
</tbody>
</table>

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The experiences and lessons from China’s economic transformation and poverty reduction have been attracting much interest from both African countries and the international development community. To respond to this interest for an exchange of perspectives and experience, the China-DAC Study Group was jointly set up by the International Poverty Reduction Center in China (IPRCC) and OECD’s Development Assistance Committee (DAC). The Study Group is supported by leading Chinese development research institutions, several DAC members and observers and African experts and institutions.

Through a series of international conferences involving participants from China, Africa and the donor community, the China-DAC Study Group has focused this exchange and learning on four important topics related to promoting growth and reducing poverty, including how international assistance can be effective in supporting this objective. These topics are: i) development partnerships; ii) agriculture, food security and rural development; iii) infrastructure; and iv) the enabling environment for enterprise development.

This volume places these topics in the context of the ongoing research on China and the development process more generally.

Further information on the China-DAC Study Group and its activities is available on the Internet at: www.iprcc.org or www.oecd.org/dac/cds