

# EAST ASIA DEPARTMENT 2013

**Knowledge Management Initiatives** 



ASIAN DEVELOPMENT BANK

# EAST ASIA DEPARTMENT 2013

# **Knowledge Management Initiatives**



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EAOD					
EAPF EASS EATC	<ul> <li>Public Management, Financial Sector and Regional Cooperation Di</li> <li>Urban and Social Sectors Division</li> <li>Transport Division</li> </ul>	IV1S10N			
	= Transport Division				

- EATC=Iransport DivisionMNRM=Mongolia Resident MissionPRCM=People's Republic of China Resident Mission

## Foreword

This annual publication of the Asian Development Bank (ADB), now in its 7th year, is a compendium of abstracts from strategic knowledge products and services (KPS) prepared by ADB's East Asia Department (EARD) in 2013, with web links to select full reports. It serves to showcase EARD's knowledge work for the year.

Knowledge and innovation underpin ADB's cooperation with Mongolia and the People's Republic of China (PRC), as well as with the East Asia region in general, with knowledge solutions being one of ADB's five drivers of change. ADB knowledge support is produced in response to country demand and is highly valued by Mongolia and the PRC in priority areas of inclusive economic growth—poverty reduction, increased productivity, and enhanced food security for Mongolia; and macroeconomic management, energy efficiency, environmental protection, poverty reduction, and interprovincial cooperation for the PRC.

The sharing of knowledge is a particularly important element of ADB's support for the PRC as it addresses the challenge of transforming to a high-income country from a middle-income one. In Mongolia, much knowledge sharing is aimed at helping the country effectively manage its natural resources. In 2013, EARD produced 59 KPS and initiated 59 knowledge-sharing activities in Mongolia and the PRC.

A flagship publication in 2013, *Economics of Climate Change in East Asia*, examines how climate change adaptation strategies can be combined with measures to reduce greenhouse gas emissions in the PRC, Japan, the Republic of Korea, and Mongolia. The book was launched in Beijing, Seoul, Tokyo, and Ulaanbaatar; and was presented at a United Nations conference on climate change in Warsaw.

Key KPS for the PRC in 2013 included reports on 3 decades of fiscal decentralization, monetary and fiscal operations, trade and employment in Asia, anticompetitive behavior in the finance sector, strategic options for urbanization, public–private partnerships for urbanization, adaptation to rising coastal water levels, low carbon development in small and medium-sized cities, road safety, and sustainable inland waterway transport. Observations and Suggestions, brief policy notes on economic issues facing PRC policymakers, covered air pollution, wages and competitiveness, farmer cooperatives, and the reduction of inequality. A knowledge brief on housing issues was also prepared.

KPS for Mongolia in 2013 included a policy brief on climate mitigation actions and sectoral papers on sustainable grasslands, industry clusters, public administration, and the rural cooperative medical payment scheme. ADB continued its cooperation with Mongolia's Ministry of Economic Development by supporting the policy research advisory team with its studies on small and medium enterprise development, tax policy, air quality monitoring, labor force and employment, social indicators, the informal sector, and training on macro-modelling.

The Regional Knowledge Sharing Initiative, launched in 2012 by ADB and the PRC's Ministry of Finance, played a major role in disseminating development experience among ADB's developing member countries (DMCs). At the fifth PRC–ADB Knowledge Sharing Platform on Technical and Vocational Education held in Beijing in 2013, more than 80 participants from 10 DMCs shared their experiences on matching skills with jobs to generate employment for the disadvantaged.

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Other key knowledge-sharing events focused on fiscal and taxation policy, urban poverty and inclusive cities, urban expansion, and wind power.

In August 2013, ADB President Takehiko Nakao launched the "One ADB" Knowledge Partnership with the PRC, a pioneering initiative aimed at better coordination of knowledge work and increased knowledge dialogue between ADB and the PRC. A Working Group on Knowledge Partnerships with the PRC was also established, which compiled all past ADB knowledge work relevant to the PRC and prepared ADB's 2014 PRC knowledge plan. Policy work support for the PRC's 13th Five-Year Plan preparation is the top priority of the 2014 work program.

ADB knowledge support in Mongolia and the PRC is expected to increase as the two countries adapt to shifts in development approaches and as ADB pursues realignment with a transforming Asia and Pacific region through the implementation of Action Plans being prepared based on the Mid-Term Review of ADB's corporate-level long term strategy, Strategy 2020.

Áyumi Konishi Director General East Asia Department

# **Policy Notes Series**



### Low-Carbon Development in Small and Medium-Sized Cities in the People's Republic of China: Challenges and Opportunities (ADB Brief No. 14)

http://www.adb.org/publications/low-carbon-development-small-and-medium-sized-cities-china

In rapidly growing countries like the People's Republic of China, urbanization rates and new small and medium-sized cities (SMCs) are rising at an unprecedented pace. SMCs—limited by financial and human resources and opportunities for growth—face unique expectations and challenges, making low-carbon development more complex than in megacities.

This policy brief presents the challenges and opportunities of SMCs to foster an enabling environment for low-carbon development parallel to their socioeconomic growth. Complexity of identifying a low-carbon path for each SMC is mainly attributed to its uniqueness and vulnerability to external factors. However, a typology of SMCs shows several common characteristics in pursuit of low-carbon paths:

- local meteorology and climatic condition (e.g., hot summer, cold winter, wet or dry seasons);
- (ii) population distribution and density (e.g., densely or sparsely populated); and
- (iii) a city's economic structure (e.g., industry-based, agriculturebased, or its supporting role to adjacent megacities). SMCs with similar characteristics can learn from each other. To convert opportunities into actual practices and address lowcarbon and socioeconomic development challenges of SMCs, multidisciplinary thinking across key urban sectors and support from stakeholders is required, involving interplay of factors and key stakeholder dynamics. Moreover, it is necessary to engage and gain more support from stakeholders in the private and public sector since SMCs are limited in their capacities compared to larger cities.

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# Addressing Beijing Air Pollution Problem (Observations & Suggestions)

http://www.adb.org/publications/addressing-beijing-air-pollution

Recent episodes of severe air pollution as winter smog in Beijing have led to heightened concerns over the implications of air pollution on public health and environmental sustainability. Severe episodes—in the form of smog—arise when air pollutants and weather conditions interact.

The main sources of air pollution in Beijing are motor vehicle emissions, emissions from coal-fired heat and power generation, construction dust, and air pollution carried by wind from neighboring provinces.

Based on successful experiences in other countries, efforts to control air pollution in major cities should be centered on the protection of public health. In this process, comprehensive data is critical to understanding air pollution's effects on human mortality and morbidity, and formulating effective interventions.

This policy note identifies measures to curtail air pollution in Beijing. Policy recommendations are grouped into two categories. First, short-term actions that prevent further air pollution episodes, which threaten human health. Second, longer term measures, including suitable investments and policy changes, which ensure air quality on a sustainable basis.

Short-term policy actions include:

- (i) documenting the impact of air pollution on public health;
- (ii) strengthening institutional coordination to fight air pollution;
- (iii) developing an early warning system and emergency response actions;
- (iv) improving urban transport;
- (v) encouraging passengers to switch to lower emission transport modes; and
- (vi) minimizing the impact of heating, industrial emissions, and construction dust.

Long-term policy actions include:

- (i) enhancing institutional capacity for the control of air pollution;
- (ii) strengthening environmental compliance and enforcement;
- (iii) reflecting full economic cost in pricing;
- (iv) aligning urban planning with environmental targets;
- (v) supporting comprehensive and sustainable transport projects; and
- (vi) improving energy sources, vehicle standards, and enforcement.



# Shanxi Farmers Embrace Modern Irrigation Methods to Adapt to Climate Change (Knowledge Showcase)

http://www.adb.org/publications/shanxi-farmers-embrace-modernirrigation-methods-adapt-climate-change

Climate change and declining water resources threaten food production systems worldwide, increasing the need for more efficient agricultural processes.

Four counties in Shanxi Province of the People's Republic of China were selected as pilot areas where traditional farmers learned modern methods of irrigation with groundwater use and management under an ADB assistance program. This resulted in the introduction of more efficient and sustainable use of groundwater, while crop yields increased.

The Asian Development Bank's support for agricultural modernization resulted in savings in water, energy, fertilizers, and pesticides. The methods also required less labor, benefiting many farmers in Shanxi—a significant number of whom are elderly. Gradual replication of the program in various stages is currently underway, financed by counterpart funds from the Shanxi government. Despite climate change's adverse impact on water resources and food production, this program demonstrated opportunities for traditional farmers to adapt to these changes and make agricultural production more sustainable.



### **Public-Private Partnerships for Urbanization**

Urbanization is creating large additional demands for public services in the People's Republic of China (PRC). While some of this demand is being met, there are many gaps. In particular, services for disadvantaged groups such as migrant and low-income workers and services offering high environmental benefits are under-supplied.

Public–private partnerships (PPPs) can provide additional public services by mobilizing additional financing from the private sector and enhancing efficiency incentives that drive costs down and make projects affordable.

Alternative PPP approaches include:

- (i) facility-only PPPs;
- (ii) service PPPs; and
- (iii) voucher-type PPPs. Facility-only PPPs are relatively simple the private partner provides buildings and equipment only, which the government uses to deliver services rather than entering into complex service contracts with the private partner. The private partner earns all its revenue as payments from the public agency user.

Service PPPs provide services only or both facilities and services. For example, governments use PPPs in education to enter into contracts with private schools for the delivery of teaching and ancillary services and the management of public schools. Under a service PPP, the private partner earns revenue from availability payments and possible user fees. Because the services provided and service quality are hard to define, service PPPs can be complex.

Voucher-type PPPs have emerged in education based on voucher systems. Vouchers are issued to users, entitling them to access a predefined service from approved service providers. The voucher entitles service providers payment from the government. The PPP agreement between the government and private partners is replaced by an undertaking to deliver the services attached to the voucher.

A key factor in choosing the best PPP approach is the availability and quality of service providers. In the PRC, local governments can be confident that there are private sector partners for facility-only PPPs. However, a facility-type PPP only makes sense when there is an efficient public operator that can use the facilities well and have the recurrent funding required to deliver services effectively.

If potential public sector users of a facility are unsatisfactory, a PPP inclusive of services may be more appealing. The suitability of the public provider is best studied prior to project preparation.

An understanding of the public and private sector capacities is an important precursor of decisions on a new generation of PPPs. If the private sector exists and is likely to be a better performer, there is a case for a PPP. A larger gap between public and private sector performance makes a stronger case to introduce a private sector provider.



### Toward Sustainable Inclusive Growth in the PRC (Policy Brief)

More than 3 decades of successful reform have transformed the People's Republic of China (PRC) into the world's second largest economy. Through its rapid growth, the PRC has swiftly transitioned to a middleincome country from a low-income country. The challenge now lies in advancing to higher income status and balancing income distribution. Drawing from successful experiences in other countries, this policy note provides recommendations for the PRC to address the challenge. The policy recommendations are grouped into three main reform areas—restructuring the economy, improving living standards, and protecting the environment—which are in line with the focus on quality and sustainability of growth of the country's new leadership. Policy recommendations include ways to

- (i) restructure the economy by
  - promoting innovation-driven growth;
  - developing human capital;
  - fostering consumption as a driver of growth;
  - developing services; and
  - promoting private sector participation;
- (ii) improve living standards by
  - strengthening social protection; and
  - · overhauling taxation to balance income distribution; and

- (iii) protect the environment by
  - introducing tighter energy efficiency regulations at a benchmark on current best practice level;
  - establishing penalties (i.e., \$20 per ton of carbon dioxide) for plants and industries who fail to meet the benchmark;
  - removing administrative controls on the price of water and electricity to rationalize its use and consumption and increase revenue at both the central and local levels;
  - increasing current government targets of energy and carbon intensity reduction to 20% from 17% and 16% per unit of gross domestic product, respectively; and
  - improving water and land management to support sustainable urbanization.

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### Three Decades of Fiscal Decentralization in China: Taking Stock and Performance (Working Paper)

The system of intergovernmental fiscal relations of the People's Republic of China (PRC) has experienced considerable progress over the past 3 decades. This paper reports the significant challenges that still remain. Fundamental reform in intergovernmental fiscal relations has not been easy. The central government of the PRC undertook two major reforms in intergovernmental relations in 1979 and 1994, which were mainly focused on the revenue side of budge—revenue assignments and tax policy and administration reform. In both cases, the reforms took place under a state of fiscal crisis. Since 1994, there has not been the same amount of pressure to fundamentally reform other aspects of the system, particularly expenditure assignments. The central government has instead adeptly addressed problems and pressures ad hoc and piecemeal, mostly by introducing a long list of targeted type transfers.

This working paper examines the following important steps to accomplishing fundamental reform:

- (i) Appointment of a high-level intergovernmental reform commission charged with mapping out the main issues with the current de facto intergovernmental fiscal relations system and providing a blueprint for reform options; and
- (i) Reforming the pillars of intergovernmental fiscal relations, including
  - fundamental reform of expenditure assignments;
  - short-term piecemeal reform of expenditure assignments such as unemployment insurance and other basic social services at the subprovincial level;
  - fundamental reform of revenue assignments, i.e., increasing subnational government revenue autonomy;
  - short-term piecemeal reform of revenue assignments;
  - fundamental reform of the transfer system;
  - establishment of a subnational debt management framework; and
  - improvement of the accountability of subnational governments and the quality of local expenditure management.

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### Transiting to High Income Status (Policy Note)

International experience is useful in designing a strategy for long-term sustainable growth in the People's Republic of China. Most of the reforms needed have already been identified and prioritized in the government's economic reform agenda, which focuses on the quality and sustainability of growth. Moving forward, reforms will require a comprehensive set of mutually supportive and consistent policies rather than a single policy pursued in isolation. Against this background, the recommendations of this policy note are grouped into five major areas:

- (i) Rebalance the sources of growth
  - Foster consumption.
- (ii) Diversify the sources of growth
  - Develop services; and
  - Support urbanization.
- (iii) Promote innovation-driven growth
  - Increase research and development allocations; and
  - Reform education.
- (iv) Reduce income inequality
  - Strengthen social protection;
  - Implement overall taxation; and
  - Increase fiscal transfers to local governments.
- (v) Address population aging
  - Accelerate economic restructuring.



Monetary and Fiscal Operations in the People's Republic of China: An Alternative View of the Options Available (ADB Economics Working Paper Series)

http://www.adb.org/publications/monetary-and-fiscal-operationspeoples-republic-china-alternative-view-options-available

This paper examines the fiscal and monetary policy options available to the People's Republic of China (PRC) as a sovereign currency-issuing nation operating in a dollar standard world. It summarizes a number of issues facing the PRC, including domestic imbalances and possible slower growth. It also analyzes current monetary and fiscal policy formation and examines policy recommendations dealing with current areas of concern. The paper outlines the sovereign currency approach and uses it to analyze those concerns. Against this background, it is recommended that the central government's fiscal stance be gradually relaxed so that local government and corporate budgets can be tightened. By loosening the central government's budget and tightening local government and corporate budgets at a measured pace, the PRC can avoid depressing growth or sparking excessive inflation.



### Wages and Competitiveness in the People's Republic of China (Observations & Suggestions)

http://www.adb.org/publications/wages-and-competitiveness-peoples-republic-china

The People's Republic of China (PRC) has been facing increasing pressure to update wages, with average real wages for urban workers tripling in less than a decade. Minimum wages grew even faster than average wages, increasing on average by 17% across the PRC in 2011 alone.

Given the ongoing decline in the size of the country's potential labor force, wage pressures are expected to continue. More disconcertingly, wage increases have outpaced growth in labor productivity in recent years. If wage increases are not accompanied by corresponding increases in labor productivity, the country's competitiveness will be adversely affected.

While higher wages are important in creating a middle class in the PRC, enforcing steep hikes in minimum wages is not the only approach. Complementary productivity-increasing policies such as a comprehensive skill development strategy—increasing human capital and appropriate fiscal policies that support a more flexible labor market—are more important.



# Gender and the 3Es (Education, Employment, and Entrepreneurship)—Country Report

Since 1995, the People's Republic of China (PRC) has implemented three of the Outlines for the Development of Chinese Women. The most recent outline covers the decade 2011–2020 and is consistent with PRC's National Plan for Medium and Long-term Education Reform and Development. The strategy outlines 10 clear objectives with welldefined, measurable indicators and aims to achieve gender equality in education. For example, the target for gross enrollment rate of a 3-year preschool education for girls is 70%, while the target enrollment rate of higher education for girls is 40%. The strategy calls for an increase in the average years of education of the working-age female population to 11.2 years and the virtual elimination of illiteracy.

The Government of the PRC has adopted a gradual approach in achieving equal educational outcomes. First, it has been gradually implementing 9-year compulsory education in rural and urban areas since 2006, aiming to standardize the system. Second, it expanded access to senior secondary education and higher education. Lastly, the government increased access to preschool education.

PRC policy also calls for equal—not preferential—treatment for girls. Hence, financial intervention measures from the government emphasize the overall education target and do not include specific grants targeting girls.

This strategy needs to be reevaluated in the future, particularly in the context of a widening gap between men and women's incomes and an overall rise in inequality in the society. This is partly because many girls opt to study humanities after junior high school. Another contributing factor is increased measured job market discrimination against women in the PRC. Recent research points to higher wages for men in the job market despite similar levels of education between male and female candidates. Women with less education face even more discrimination.



### Fostering Farmer Cooperatives in Poor Western Communities of the People's Republic of China (Observations & Suggestions)

http://www.adb.org/publications/fostering-farmer-cooperatives-poor-western-communities-peoples-republic-china

The United Nations designated 2012 as the International Year of Cooperatives to raise public awareness about the invaluable contributions of cooperative enterprises to poverty reduction, employment generation, and social integration. This policy note reviews the status, challenges, and opportunities for developing pro-poor farmer cooperatives in the People's Republic of China (PRC).

Farmer cooperatives have increased rapidly since the PRC promulgated its Law on Specialized Farmer Cooperatives in 2006. However, the number of cooperatives has grown more rapidly in the eastern PRC, while government-designated poor areas are mainly concentrated in the western PRC–a region with very different geographical, ecological, and ethnic characteristics.

The new national rural poverty reduction plan, the Outline for Development-oriented Poverty Reduction in China's Rural Areas (2011–2020), includes farmer cooperatives as an institutional innovation to boost the incomes and self-development capacity of poorer farmers and farming communities. This requires the introduction of new measures and funding mechanisms. Detailed poverty reduction plans are being developed for 14 designated regional poverty blocks and their constituent counties.

This policy note recommends that these measures include (i) broad social sector involvement in strengthening cooperative management and governance, (ii) provision of improved market information and marketing skills through vocational education and training, (iii) establishment of a government rural poverty reduction fund to provide subsidized poverty loans to selected and monitored poor area farmer cooperatives, and (iv) the development of criteria to screen and monitor farmer cooperative eligibility for pro-poor financial and policy benefits under the national rural poverty reduction plan.



### Sustaining Village Poverty Reduction with Environmental Community Development Funds in the People's Republic of China

In late 2011, the People's Republic of China (PRC) launched a new rural poverty reduction strategy, the Outline for Development-oriented Poverty Reduction in China's Rural Areas (2011–2020). The outline calls for the development of "bottom–up" village poverty reduction plans that increase collective income and boost the capacity of impoverished communities to contribute to their own development. For the first time, the outline also proposes to use community development funds to help achieve this goal.

This is a significant innovation. Earlier participatory rural poverty reduction plans encouraged villagers to participate in project activity selection but did not build ownership of externally funded plan activities and outcomes. As a result, villagers were quick to rely on external groups for solutions when problems occurred. More importantly, village communities lost the opportunity to strengthen their collective decisionmaking capacity, resources, and confidence through fund management and activity implementation. This is particularly important in the western PRC, where rural poverty and natural resource degradation in villages are closely linked. The declining quality of environmental public goods often reflects concomitant loss of villager capacity for community management and negotiation with external groups. Rebuilding this capacity is a key element in village poverty reduction and selfdevelopment.

This paper explores two tested mechanisms that have strengthened community capacity and addressed natural resource degradation in remote rural areas: (i) transfer of ownership over funding and decision making; and (ii) provision of external facilitation, technical information, and support. In rural Australia, the Landcare movement has worked to strengthen community capacity to restore and protect environmental resources. In the western PRC, Environmental Community Development Funds (ECDF) has piloted operations in poor rural communities since 2006.

ECDF pilots have been particularly effective in addressing poverty reduction and capacity building at the community level through improved management of the community's natural resources. First, funds ownership is transferred via households to a community-elected management group at the onset of the activity, instilling a strong sense of ownership over future activities. Second, external facilitators from the government and research and civil society groups collaborate with communities, enhancing synergistic strengths. Third, communities create, maintain, and monitor their own social agreements for improved natural resource use and fund management. Consequently, ECDF is not a goal in itself but a tool for greater community cohesion and resource sustainability. This transcends the traditional project mode of benefit delivery.

To incorporate pilot ECDF experience in the outline's village poverty reduction plans, it is recommended to:

- (i) undertake a paced roll-out that allows time for adaptive learning;
- (ii) formalize the funding and training of ECDF facilitator groups;

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- (iii) train county, township, and village leaders in ECDF practice;
- (iv) remove administrative impediments to the operation of ECDFs within the national rural poverty reduction program; and
- (v) develop village natural disaster preparedness plans within the village poverty reduction plans.



### Reducing Inequality in the People's Republic of China through Fiscal Reform (Observations & Suggestions)

http://www.adb.org/publications/reducing-inequality-peoples-republic-china-through-fiscal-reform

Inequality in the People's Republic of China (PRC) has increased significantly over time. After almost a decade of silence, the Government of the PRC recently reported the Gini coefficients over the past decade. From the relatively equal level of 0.32 in 1990, the Gini coefficient reached a peak of 0.491 in 2008, and moderated to 0.47 in 2012. High and increasing income inequality is detrimental to creating a harmonious society and promoting long-term economic growth.

In February 2013, the State Council released guidelines to reform the system of income distribution and narrow the income gap. Central to the guidelines is a comprehensive set of policy actions, which tackle income inequality through a combination of fiscal and legislative reforms that balance income distribution.

Without comprehensive policy adjustments, inequality is unlikely to moderate. This policy note highlights fiscal policy's crucial role in reducing income inequality—both directly and indirectly—through the raising of revenues for progressive programs. Reforms in taxation and fiscal expenditure will be vital to effectively reducing inequality.



### Housing the People (Knowledge Brief)

http://www.adb.org/publications/housing-people

Housing supply in the People's Republic of China (PRC) has increased tremendously in recent years to meet demand, but affordability is increasingly an issue. A State Council document mandates the provision of 36 million new affordable homes under the 12th Five-Year Plan for 2011–2015. This note provides an overview of the PRC housing situation based on Census 2010 data.

Home ownership in the PRC is very high compared to other countries. As of 2010, home ownership was nearly universal. Living space increased 4.5 times more in rural areas and ninefold in urban areas in the past 3 decades. Effectively two-thirds of all housing was built after 1990. This rapid expansion in housing has been an important contributor to growth of the gross domestic product. The private housing market is developing rapidly—both for rental and sales—especially in urban areas. Within 3 decades of privatization reforms, the real estate market in the PRC is now one of the largest in the world. Market patterns are geographical—rentals and private commercial housing are most prevalent in the bigger cities such as Shanghai, Beijing, and Guangdong.

However, over 35% of all housing did not have access to tap water and 28% did not have toilets as of 2010. In some provinces, more than 55% of houses are without toilets and over 62% are without tap water. This is not just an issue for self-built houses in rural areas. Two-thirds of renters in Beijing and Shanghai—mostly migrant workers, fresh college graduates, and low-income families—also do not have toilets or kitchens in their housing units. A well-rounded affordable housing policy should include provisions to upgrade existing housing and increase the supply of higher quality, affordable rental units with adequate sanitation, water, and basic amenities.

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### Trade and Employment in Asia (Journal Article)

### http://www.worldfinancialreview.com/?p=3817

There are several challenges ahead for Asia. While exports remain vital to the region in the next two decades, slower global economic growth is expected, leading to decelerating or reduced exports. Demographic changes also indicate that in the future, there will be fewer workers in some Asian countries, increasing costs for labor-intensive sectors. Lastly, environmental constraints will be more serious in the future.

The right policy mix and emphasis on inclusive growth is essential to ensure all segments of society share the gains from trade. Workers will not simultaneously reap benefits as trade expands. Workers in sectors with rising profits will be the first to see increased wages. Others in declining industries might see their wages declining, or even jobs disappearing. However, this inequality does not have to be permanent if there are policies to increase worker productivity, mobility, and skills.

Rather than creating mandates to increase wages, workers can be better prepared and inclusiveness can be accomplished through better schooling and training for workers, leading to increased human capital; and the creation of company policies that encourage innovation. Furthermore, Asian countries need to continue to improve their productivity in manufacturing.

Policies that encourage research and development (R&D) and innovation help countries move up the global value chain, upgrading employment quality and increasing wages through improvements in productivity. There is sufficient company-level evidence showing Asian wages as strongly driven by capital and intensity of a company's R&D, after controlling for other key variables such as industry, geography, export orientation, and workers' education levels.

Increasing labor productivity in services is important. Services currently account for the largest share of gross domestic product in 32 out of 40 economies in Asia, and exports of services are increasing. Further improvements in logistics and financial services will lower the costs of doing business, boosting exports and domestic productivity and eventually creating more jobs throughout the economy. This has the added benefit of limiting carbon growth.

While trade is good for growth, it is also good for both employment and its quality, provided the right kind of complementary domestic policies are in place. In the presence of such policies, trade should lead to inclusive growth that will benefit workers.



# Nationally Appropriate Mitigation Actions (NAMA) (ADB Policy Brief No. 13)

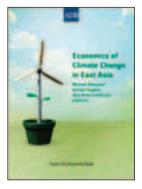
http://www.adb.org/publications/nationally-appropriate-mitigation-actions-grassland-and-livestock-management-mongolia

Mongolia's total greenhouse gas emissions—produced primarily by the energy and agriculture sectors—are low, but its emissions per capita are relatively high and rising. Nationally appropriate mitigation actions (NAMAs) provide a framework for identifying and implementing mitigation actions for sustainable low-carbon development.

NAMAs for the management of Mongolia's grassland and livestock sectors should be based on the country's National Livestock Program and implemented in phases, with three categories of activities—quick wins, fast-tracked actions, and key medium-term actions. Mongolia needs to develop a credible measurement, reporting, and verification system; strengthen its legal regulations, policies, and institutional coordination; and consult with stakeholders to finalize its draft NAMAs.

NAMAs for Mongolia's grassland and livestock sector will help to combat desertification and to assist Mongolia in achieving its green development goals.

# **Special Publications**



### Economics of Climate Change in East Asia

http://www.adb.org/publications/economics-climate-change-east-asia

The global concentration of carbon dioxide  $(CO_2)$  in the atmosphere recently surpassed the 400 parts per million threshold. Over the last 20 years, energy-related greenhouse gas emissions have tracked or exceeded the A2 high emissions scenario for high emissions of the Intergovernmental Panel on Climate Change—and the pattern seems likely to continue for a decade or more. New power plants and invested capital in energy-using equipment mean that it may take many years to slow down the growth in global  $CO_2$  emissions. As a consequence, the average global temperature will almost inevitably increase to 2° Celsius by 2050.

This regional study, which includes the People's Republic of China, Japan, the Republic of Korea, and Mongolia, examines how climate change adaptation strategies until 2050 can be combined with measures to reduce greenhouse gas emissions in East Asia. Besides discussing climate model results for costs of adaptation in infrastructure, coastal protection, and agriculture, the study estimates costs for sector-specific mitigation options and the total abatement potential for 2020 and 2030. If the concentration of greenhouse gases continues to increase, the rate of climate change—and, thus, its costs—can be expected to accelerate after 2050. Therefore, adaptation cannot be the only response. The costs of reducing CO<sub>2</sub> emissions in East Asia can be controlled by focusing on the most efficient abatement options, particularly those which overlap with measures designed to improve local environmental conditions. This study explores long-term strategies for addressing the impacts of climate change in East Asia, focusing on linkages between adaptation and mitigation and taking key climate variable uncertainties into account. Finally, it discusses opportunities to enhance the effectiveness of critical climate change policies such as regional carbon markets.



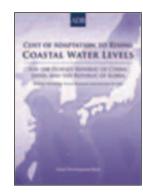
### PRC Country Report on the Economics of Climate Change

Climate change is a global concern and as a developing country, the People's Republic of China (PRC) considers the next decade essential in achieving its goal of becoming a moderately prosperous society. However, with its basic national conditions and current stage of development, the PRC is faced with challenges in dealing with climate change, including arduous adaptation tasks and increasingly demanding greenhouse gas emission control. In this context, it is necessary to consider and strike a proper balance among the following elements: a climate change response program, a prosperous society, and a socialist modernization drive.

The country's climate change response will be strategically mainstreamed into national economic and social development, creating an opportunity to shift or restructure the economic development paradigm. Coupled with a sustainable development strategy, this is expected to make the PRC more resource-efficient, environment-friendly, and innovation-oriented. In this process, energy conservation and efficiency, non-fossil energy, energy mix, ecology, and forest-based carbon sinks will be prioritized and supported with further research and adequate technology. Main targets to be reached by 2020 include that (i) carbon dioxide (CO<sub>2</sub>) emission per unit gross domestic product (GDP) shall fall by 40% to 45% as compared with that in 2005; (ii) non-fossil energy will account for about 15% of primary energy; (iii) forest cover will be 40 million hectares larger than that in 2005; and (iv) forest stock will be 1.3 billion cubic meters (m<sup>3</sup>) more than that in 2005.

The report discusses PRC's climate change vulnerability and adaptation regarding (i) water resources, (ii) agriculture, (iii) grassland, (iv) forestry, (v) coastal zone, and (vi) health. Climate change mitigation is being discussed regarding (i) adjustments of industrial policies, (ii) energy conservation and energy efficiency improvement, (iii) development of new and renewable energy structure, (iv) forest carbon sink, and (v) agricultural greenhouse gas emissions control.

The final chapter of the report highlights goals and tasks under the 12th Five Year Plan (2011–2015) on how to reduce the impacts of climate change.



### Costs of Adaptation to Rising Coastal Water Levels for People's Republic of China, Japan and the Republic of Korea

http://www.adb.org/publications/cost-adaptation-rising-coastal-water-levels-prc-japan-and-republic-of-korea

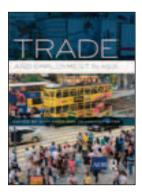
This report explores the potential costs for coastal adaptation in East Asia from 2010 to 2050 due to climate-induced sea-level rise and possibly more intense tropical cyclones and examines the adaptation costs of three important coastal countries: the People's Republic of China (PRC), Japan, and the Republic of Korea. The results are estimates of adaptation needs, which illustrate the possible magnitude of adapting to the future impacts of climate change on the coastal areas of these countries.

The analysis uses the framework of the Dynamic Interactive Vulnerability Assessment (DIVA) model to explore the costs of three main protection responses to the impacts of climate change. These responses are

- (i) construction and upgrades of sea dikes with associated maintenance costs for sea-flood impacts;
- (ii) beach nourishment for beach erosion impacts; and
- (iii) raising of port areas to maintain effective operation.

There is a long history in the region of hard protection and land claim using sea dikes, which supports the continued extension and upgrade of dikes and other defenses for sea-level rise. The analysis also considers a range of impacts and costs, including dryland and wetland loss, associated forced migration, and sea-flood costs with and without upgraded protection. The adaptation methods are applied through a standard methodology using criteria that select optimum or quasioptimum rule-based adaptation strategies. Using DIVA, actual damages associated with sea-level rise and storm intensification will be much lower than potential damages without protection.

This report suggests that without adaptation measures, there will be widespread impacts in the PRC, Japan, and the Republic of Korea. However, these growing economies can manage the risks at reasonable costs using adaptation options consistent with their current practices. The report essentially analyzes protection as an adaptation option. In practice, a wider range of adaptation options should also be considered. Climate change is only one driver of coastal management—the total costs of coastal management will exceed those presented in this report. Therefore, it would be useful to have national and subnational plans that prepare for climate change in the broader context of all coastal change.



### **Trade and Employment in Asia**

http://www.adb.org/publications/trade-and-employment-asia

This research publication investigates the links between employment, trade, and structural transformation. It analyzes the connections between trade openness and employment trends and quality in the context of global rebalancing and the inevitable changes in trade patterns between Asia and the rest of the world. This publication uses analytical and econometric Asian case studies to specifically examine how trade and export-led growth models have led to specialization and evolving demands on various types of labor.

Unemployment resulting from adverse macroeconomic shocks is often blamed on trade reforms and openness, often leading to trade protection in place of corrective domestic policy measures. Domestic policy failures and institutional breakdowns could be disastrous, especially for the poor and vulnerable. Additionally, globalization affects employment in interaction with institutions—especially labor market institutions—as flexibility in the labor market is important in determining allocative efficiency. This publication contains two sections. The first section includes multicountry chapters that analyze how structural changes in employment and quality of employment are related to the extent of a country's engagement in international trade, and looks at causation running in both directions. The section also looks at foreign direct investment (FDI), another aspect of globalization. The resulting analysis captures a number of employment characteristics such as wage rate, job security, working conditions, and other non-wage benefits

Some of the insights in the first section are that the People's Republic of China (PRC) and India will continue to lead in regional and world trade expansion for the next 20 years, with a gradual reduction of the skilled– unskilled wage gap. The gap reduction is largely driven by the more rapid expansion of skilled labor than unskilled labor. Second, after holding constant market size and investment risk—the dominant factors affecting the destination of FDI—there is no apparent evidence that countries with poor labor conditions attract FDI. Rather, FDI is linked to better labor conditions. Third, Asian countries have continued to gain competitiveness in the world market. Despite the relatively labor-intensive exports of these countries, the rising labor costs have not been a source of declining competitiveness. Fourth, exporting companies in Asia report a relatively higher perceived level of labor regulation than other firms.

The second section in the publication examines how openness to trade has led to specialization and evolving demands on various types of labor, given that Asian economies heavily rely on exports as a driver of their impressive growth. This is elaborated through five Asian studies, using empirical evidence to document the experiences of economies primarily reliant on manufacturing and those shifting to the service sector to drive employment growth. The economies covered are the PRC; Hong Kong, China; Indonesia; the Republic of Korea; and Malaysia.

In this era of globalization, the rapidly changing contours of labor markets in Asian developing countries combined with the constant stream of new results from theoretical literature has resulted in the need for extensive research in trade and labor and broad country coverage. Analytical and econometric country case studies are required. The global financial crisis of 2008 has rapidly changed the context in which the relationship between trade and labor needs to be evaluated. This volume helps fill the gap in literature.



### Why Should the People's Republic of China Unlock Services? (ADB Blog Article)

http://blogs.adb.org/blog/why-should-people%E2%80%99s-republicchina-unlock-services

This article, which appeared on the Asian Development Bank blog on 31 January 2013, discusses the importance of a well-developed service sector in improving production efficiency and promoting technical progress and innovation in the People's Republic of China (PRC). Wide-ranging reforms in the PRC are needed to turn services into an efficient and competitive sector that would strengthen domestic sources of growth and support government efforts to rebalance the economy. Increased openness to foreign participation—particularly in banking, telecommunications, and professional services—will foster liberalization efforts. A reliable intellectual property rights regime is crucial in developing services where copyrights are important, and would attract more overseas direct investment into the service sector and encourage innovation in domestic companies.

It is also important to deepen finance sector reform to improve capital allocation and move toward an innovation-based economy with wider access to finance. Given the superior performance of private companies in the PRC, increased efficiency in capital allocation would translate into higher gross domestic product growth. More sophisticated capital markets will bring benefits to self-employed entrepreneurs and small and medium-sized enterprises, which are critical players in a vibrant service sector-based economy.

A larger service sector that is underpinned by supportive policy measures, including investments in education and vocational training, will absorb surplus labor from manufacturing and agriculture, foster employment generation, and level out income distribution. Greater urbanization will also develop services.



# Reforms High on Agenda of the People's Republic of China's New Leaders (ADB Blog Article)

http://blogs.adb.org/blog/reforms-high-agenda-people%E2%80%99s-republic-china%E2%80%99s-new-leaders

This article, which appeared on the Asian Development Bank blog on 31 January 2013, proposes areas for reform for the new leadership of the People's Republic of China (PRC) to consider in anticipation of their appointment in March 2013 and given the high expectations and challenges they face.

Addressing the PRC's glaring income disparities is high on the wish list of many Chinese. The gap between the rich and poor has grown fast and poses a threat to social stability. The international community is looking to the leaders for comprehensive economic reforms that would ensure sustainable growth and help stabilize the global economy. The open style adopted by the new leaders signals their willingness to reform. They are already speaking about three priorities:

- (i) carrying out economic reforms;
- (ii) addressing inequality; and
- (iii) addressing corruption.

The leadership faces enormous challenges. By far, the biggest challenges relate to the role of the state in the economy. Rebalancing the economy, reforming state-owned enterprises, revamping taxes, and ramping up social

expenditure are each a huge challenge in their own right. Furthermore, the new leaders will need to secure broad support for their reforms.



# Avoiding the Middle Income Trap in the People's Republic of China (ADB Blog Article)

http://blogs.adb.org/blog/avoiding-middle-income-trap-people-s-republic-china

This article, which appeared on the Asian Development Bank blog on 11 June 2013, states that the People's Republic of China (PRC) is not trapped after its swift transition from low-income country to middleincome country. The challenge for the world's second largest economy lies in moving up to a higher income status. This article proposes how the PRC can avoid the middle-income trap.

The Chinese economy is resourceful and has untapped potential, despite slowing growth. Under the right policy mix, the economy of the PRC could grow by 7% in the next 2 decades, making it likely to reach high-income level by 2030. What then has to be done to ignite the economy's ascent?

One of the main tasks for policy makers under the new leadership is to strengthen domestic demand and mitigate the historical dominance of investment by fostering consumption as a driver of growth. This will rebalance the sources of growth while shielding the economy from external demand shocks. Chinese consumption—about 36% of the gross domestic product (GDP)—stands well below international standards, constrained by high precautionary savings in the absence of safety nets, shrinking wages over GDP, poor redistributive mechanisms, limited access to financial services, and shortage of affordable housing.

Policy makers also need to search for new sources of growth. Options include boosting the service sector and increasing urbanization. Services play a major role in improving production efficiency and promoting technical progress and innovation. However, the service sector in the PRC remains below potential. Its expansion is constrained by excessive market concentration, insurmountable entry barriers, labor market rigidities, and skill mismatches.

The greatest challenge is income inequality, which hinders growth and therefore, needs to be reduced. It undermines consumption, constrains development in poorer regions, and generates social tensions. Income redistribution policies and social safety nets need to be strengthened through increased budget support and improved government transfers to poorer provinces and households.

The new leadership is tasked with designing a comprehensive reform package of mutually supportive and consistent policies for sustainable and inclusive growth. Further reform of the finance sector and fiscal and taxation policies is crucial in successfully avoiding the middle income trap.



# Aging-A Threat to People's Republic of China's Growth (ADB Blog Article)

http://blogs.adb.org/blog/aging-threat-people-s-republic-china-s-growth

This article, which appeared on the Asian Development Bank blog on 11 June 2013, examines the aging population problem in the People's Republic of China (PRC). In 2012, the labor force of the PRC declined for the first time, demonstrating the impacts of population aging. However, the policy agenda of the PRC does not include aging, though it should—and soon. Its adverse effects on economic performance demand changes in social and economic policies to address the challenges of an aging population. While the best-known dimension of aging relates to fiscal sustainability from spiraling health care and pension costs, the repercussions are wider and worrisome. Since labor supply shortages result in lower gross domestic product growth in the absence of increases in total factor productivity, aging will ultimately constrain economic growth

Aging in the PRC is particularly complex because the population is aging quickly, but at a relatively low level of per capita income. The labor market is imperfect and its development is hindered by a shortage of qualified workers due to the scarcity of new skills needed for economic modernization and restructuring. Structural constraints early in development—limited access to financial products and services, restricted labor mobility, and a weak safety net—compound the difficulties of population aging.

Deficits in the labor force due to aging and shortage of skills will erode the PRC's competitiveness, reducing the country's exports and economic growth. Substantial investments in research and development and a twist in education policies toward student-centered education will be vital to supporting innovation-driven growth and fostering labor productivity.

Addressing the need of a graying society in the PRC requires largescale reforms to upgrade old-age support. This implies significantly increasing budget resources and developing a tax revenue-financed program for old-age income and health care support.



### Should China Charge Tolls on Expressways? (Op-Ed Article)

This opinion–editorial article, which was published in China Communication News on 28 May 2013, examines the advantages and disadvantages of charging tolls on expressways. These include rapid development, users pay, private sector participation, multimodal considerations, collection costs, perceived unfairness, tolls after debt is paid off, and geographical differences.

The article concludes that while there is no perfect solution for financing roads, toll-backed debt financing in the People's Republic of China (PRC) has allowed extremely rapid development of the national expressway network, mobilized private sector resources for infrastructure development, and ensured that the costs of construction and maintenance are largely borne by the users. In fact, expressways in the PRC are some of the best-maintained roads in the country, largely because there is a dedicated funding source to pay expressway operating companies for road maintenance. Alternative funding sources such as fuel tax are available but would need a substantial increase in tax rates. Furthermore, the long-term viability of fuel tax is questionable. The PRC should correct problems in the current system without throwing out a financing model that has served the country well.

Treating each expressway as a stand-alone financial entity—a very useful tool during the initial stage of developing the expressway network is a limited approach and causes problems. It can produce distortions and imbalances, including high toll rates, debt service problems, and geographical disparities. It may be time for the PRC to consider a more sophisticated system involving partial or fully pooled tolls and expressway costs, which would permit cross-subsidy between more and less profitable parts of the network. This would eventually reduce toll levels as debt is progressively repaid, while continuing to ensure strong incentives for expressway authorities to exercise financial prudence.



### The Challenge of a Graying China (Op-Ed Article)

http://europe.chinadaily.com.cn/opinion/2013-03/06/ content\_16281463.htm

This opinion–editorial article, which appeared in China Daily on 11 March 2013, tackles the problem of population aging in the People's Republic of China (PRC) and suggests policy measures to address it.

Population aging in the PRC is particularly complex because it occurs at a low-income level. Social safety nets are weak, with most of the elderly depending on family support. Declining family size and the erosion of traditional values magnify the challenge and place a heavy burden on small households.

The problem of population aging demands specific policy measures. First, support systems for the elderly require comprehensive reforms. A program for old-age income support and health care is needed and can be financed through tax revenue. Strengthening pensions also requires financial liberalization. A more sophisticated financial system, including a wider range of investment options and an open regulatory framework, would lay the foundation for the establishment of private pension funds to complement government efforts.

Second, labor markets need to be opened and the workforce must be expanded. The household registration (hukou) system and restrictions on the portability of social benefits hinder migration, geographical mobility, and ultimately, urbanization. Compounded by skill shortages, these issues impede the PRC's movement up the value chain. In line with high-income countries, the PRC should consider raising the retirement age and exploring other measures that increase labor supply such as reviewing immigration policies.

Third, workers' skills need to be strengthened and productivity and innovation need to be enhanced. Otherwise, deficits in the labor force will erode the country's competitiveness, reducing exports and economic growth. Substantial investments in research and development and a shift toward student-centered education are essential to increase labor productivity and support innovation.



### Fiscal Reforms Adapt to China's Condition (Op-Ed Article)

### http://www.globaltimes.cn/content/770236.shtml#.UU\_8X2P-FtY

This opinion–editorial article, which appeared in China Daily on 11 March 2013, examines recent fiscal reforms in the People's Republic of China (PRC) and identifies policy areas for further reform to ensure that the fiscal system supports inclusive growth and rebalancing of the economy.

The PRC's fiscal revenues are still relatively low compared to member countries of the Organisation for Economic Co-operation and Development (OECD), making it difficult to allocate adequate public resources for social development. Only about 35% of government revenue is spent on social security, education, and health care, compared with an average of 52% in other middle-income countries.

The introduction of measures like property tax on luxury housing in Shanghai and Chongqing is a step in the right direction, but the ultimate goal must be genuine property tax that is based on home values and is universally imposed on all urban homes.

Introducing value-added tax (VAT) on services in selected cities and subsectors has also proved to be highly successful, but the introduction should be expanded beyond the current 12 cities and municipalities. The PRC's tax base must be broadened. Recent reforms have reduced the number of personal income taxpayers to less than 3% of the population. In 2012, the share of personal income tax in total fiscal revenues of the PRC was less than 6%, far below the OECD average of 24%. Tax evasion is high, and collection and enforcement are low. More importantly, the narrow base does not leave policymakers with powerful tools for income distribution.

Revenues from improved tax collection should be earmarked for higher spending on social services. International experience indicates that increased public spending on health care directly increases private consumption, which, in turn, supports government efforts to rebalance the sources of growth in the economy.

Similarly, increased spending on education and pensions will reduce life cycle savings, free up household resources for consumption, increase living standards, and help balance income distribution. As revenue increases, the authorities of the PRC could gradually increase public spending on education and health—which currently amounts to 5.6% of the gross domestic product (GDP)—to about 12.5% of the GDP, a level closer to the OECD average.

Finally, it is essential to overhaul the tax revenue sharing system between central and local governments. Increasing existing transfers from the central government and the accrued share of VAT revenue of local governments would help ensure adequate provision of social services at local levels. Without such reforms, large disparities in public social spending per person will emerge, perpetuating inequality.



### Public Finance Reform Vital (Op-Ed Article)

http://usa.chinadaily.com.cn/epaper/2013-11/04/content\_17078801.htm

This opinion–editorial article, which appeared in China Daily on 4 November 2013, was published in anticipation of the reform program announced at the Third Plenary Session of the 18<sup>th</sup> Communist Party of China's Central Committee (Third Plenum) in November 2013. The Third Plenum is a historically significant as the leadership of the People's Republic of China (PRC) presents its strategic vision for the country's socioeconomic reform for the next decade and the Chinese Dream.of establishing a moderately prosperous society by 2020.

In the country's pursuit of the Chinese Dream, its reform initiatives will be challenged by the global economic slowdown, which could exacerbate the PRC's domestic imbalances. The Chinese leadership is thus under greater pressure to implement comprehensive reforms to ensure sustainable growth amid the volatile international environment.

The leadership has already taken some important decisions to deepen the structural transformation of the country's economy. Chief among them is the recent establishment of a pilot free-trade zone in Shanghai.

But more far-reaching reforms, especially in the fiscal and finance sectors, are expected to be presented and discussed at the Third Plenum. A greater role for the market in the economy is also likely to be taken up.

The article advocates robust fiscal reforms to finance the Chinese Dream. Fiscal policy plays a key role in narrowing the income gap and supporting economic restructuring toward a more balanced pattern of growth. The ongoing pilot reforms—replacement of business tax with value-added tax on selected services and introduction of property tax in Shanghai and Chongqing—are important initiatives that need to be further developed. However, more needs to be done:

- (i) broadening of the tax base and making it more progressive;
- (ii) introducing green taxation;
- (iii) realigning revenue allocation to local levels with expenditure responsibilities; and
- (iv) increasing expenditures on health, education, and pension to reduce pressure on household budgets and encourage consumption.



### Green Dream for China's Reforms (Op-Ed Article)

http://usa.chinadaily.com.cn/epaper/2013-11/26/content\_17132641.htm

This opinion–editorial article was published in China Daily on 26 November 2013 after the announcement of a comprehensive package of reforms for the People's Republic of China (PRC) at the Third Plenary Session of the 18th Communist Party of China Central Committee (Third Plenum).

The Third Plenum reaffirmed the commitment of Chinese leadership to balanced and sustainable economic growth in order to build a moderately prosperous society by 2020. The outcome of the Third Plenum indicates that the central objective of the PRC continues to be economic development, which is vital to its national development and social stability. The country's leadership pledged to embark on reforms to develop a modern taxation system, assign a decisive role for markets in the economy, narrow income inequality, establish a unified land market to narrow the rural–urban divide, foster urbanization, introduce a sustainable social security system, and liberalize the finance sector.

The article welcomes the Third Plenum's commitment to economic restructuring, inclusive growth, and environmental protection. The article suggests that the direction of the PRC's urbanization and environmental management will have a wide global impact. Greater urbanization should be undertaken under the framework of a lowcarbon economy to ensure environmental sustainability.

A larger service sector will support economic restructuring and will have a significantly smaller carbon footprint than manufacturing. It will also help absorb the increased rural–urban migration.



# Inclusive Growth and Innovation-led will be the New Approach of Future of Trade in Asia (Op-Ed Article)

This opinion–editorial article, which was published in People's Daily in October 2013, illustrates how trade is good for growth and how it could lead to greener, sustainable, and inclusive growth that benefits all workers.

Government policies that emphasize inclusive growth are critical to ensure that the benefits of trade are distributed across society. As trade expands, workers will not simultaneously see the benefits. Workers in growing sectors with rising profits will be the first to see increased wages, while those in declining industries might see their wages decreasing or even jobs disappearing. However, this inequality does not have to be permanent if there are policies in place to increase workers' productivity, mobility, and re-skilling.

Rather than creating mandates to increase wages, inclusiveness could also be accomplished through policies that increase innovation of the firms and improve its human capital through training and better schooling for workers. The future demand for labor in Asia is moving towards skilled labor. Demand for unskilled labor in the region is projected to decrease beginning 2030. In the PRC, demand will shift to skilled labor even earlier—by 2020. Stronger social safety nets, higher quality basic education, retraining, and vocational education and training programs could help workers switch to expanding industries.

Asia needs to continue to improve its competitiveness and productivity. Productivity of manufacturing in Asia is still much lower than in developed regions. Furthermore, productivity in services and agriculture is much lower than in manufacturing. It is therefore crucial to increase innovation and move further up the value chain. In some middle-income countries such as the PRC, export-related jobs are no longer the best quality jobs for wages, hours of work, and conditions.

Lastly, increasing productivity of services—both export- and inwardoriented—would improve overall trade competitiveness of Asia. Services currently account for the largest share of gross domestic product in 32 out of 40 economies in Asia. This has the added benefit of contributing towards greener growth. Given the rising environmental constraints, growth of the service sector and service-related jobs are indispensable to sustainable economic growth.



### Working Together to Address Development Challenges (Op-Ed Article)

This opinion–editorial article, which was published in the Mongolian Economy March 2013 issue, illustrates the partnership of Mongolia and the Asian Development Bank (ADB). Both Mongolia and ADB have jointly confronted many challenges in their efforts towards the country's economic development:

- (i) difficult transition to a market economy;
- (ii) a series of harsh winters; and
- (iii) the recent global economic and financial crisis.

ADB has provided Mongolia with over \$1 billion in grants and concessional loans, and has been the country's largest source of multilateral development finance.

ADB has helped in the country's remarkable turnaround, working closely with the Government of Mongolia to support the country's transition to a market economy, strengthen transport infrastructure, and reform the provision of education and health services. Practical programs and projects have made a difference in the lives of ordinary people—pupils studying at primary schools, businesspeople traveling through the international airport in Ulaanbaatar, patients using a clinic in one of the vast ger districts, and urban residents enjoying secure heat supply in the world's coldest capital.

Today, Mongolia's economy is growing rapidly, its poverty is on the decline, and its citizens maintain a high level of education. Mongolia has recently joined the ranks of other fast-growing economies in the Asia and Pacific region and is currently considered a lower middle-income country.

Challenges remain and ADB continues to provide Mongolia with financial, technical and knowledge support in urban infrastructure, *ger* area development, technical and vocational education, and finance sector development.

# Sector and Thematic Paper Series



### Raising Awareness of Anticompetitive Behavior in the Financial Sector of the People's Republic of China

http://www.adb.org/publications/raising-awareness-anticompetitive-behavior-financial-sector-peoples-republic-china

This study examines the Anti-Monopoly Law (competition law) in the People's Republic of China (PRC) and addresses its challenges. The law, which has been in effect since 1 August 2008, seeks to encourage competition, maintain orderly markets, and facilitate the allocation of the country's resources. State agencies have a dominant role in the PRC's financial industry, which covers the banking, insurance, trust, and securities sectors.

As prescribed by law, the banking and trust industry in the PRC is supervised and regulated by the China Banking Regulatory Commission, the insurance industry by the China Insurance Regulatory Commission, and the securities industry by the China Securities Regulatory Commission.

There are three anti-monopoly enforcement authorities in the PRC: the Ministry of Commerce, the National Development and Reform Commission, and the State Administration for Industry and Commerce.

This study addresses the following as it examines challenges to the competition law:

- (i) investigating impediments in competition law implementation in the finance sector;
- (ii) examining implications of limited competition in the finance sector for actual economic activity in the PRC; and
- (iii) providing recommendations for policy makers and practitioners to improve the situation.

There have been no anti-monopoly cases filed in the PRC's financial industry. One plausible reason is that anti-monopoly enforcement is relatively new. Another is that enforcement bodies do not seriously regard the anti-monopoly issues in the finance sector.

Since the implementation of the competition law in the PRC, there have been conflicts between the anti-monopoly enforcement authorities

and financial watchdogs concerning the law's scope of enforcement, policy targets, work methods, and work emphasis. However, a more serious problem in the PRC's anti-monopoly enforcement is the evidently weak coordination between the anti-monopoly enforcement authorities and industry regulators.

This study reveals an increased need to exercise the competition law in order to deliver a well-functioning market mechanism for the financial industry. First, leadership of giant state-owned enterprises should be better convinced of the competition law and its goals. Respectively, industry regulators should apply competition law in the PRC to all domestic industries. Second, stronger efforts should be made in anti-monopoly enforcement to establish more efficient and effective negotiation and coordination mechanisms between anti-monopoly enforcement authorities and industry regulators. Finally, the Anti-Monopoly Commission of the State Council, according to the ninth clause of the competition law, should perform a decisive coordinating role when conflicts arise between the anti-monopoly enforcement authorities and industry regulators.



### Modern Agriculture Demonstration District and the New Priority for China's Modern Agriculture Development

The People's Republic of China (PRC) has entered a critical period for accelerating the reform of traditional agriculture, developing modern agriculture, and pursuing agricultural modernization. To integrate resources and establish focus, the PRC's Ministry of Agriculture approved a batch of 51 national modern agriculture districts in August 2010, with a succeeding batch of 52 national modern agriculture districts.

The demonstration districts provide examples of implementing new development concepts, strengthening the quality of equipment, raising scientific and technological levels, improving the degree of industrialization, introducing innovative business models, and training the farmers. The districts aim to achieve the following goals:

- (i) Set new models to guarantee the effective supply of grain and other main agricultural products;
- (ii) Explore and identify new approaches to promote the transformation of agricultural development;
- Establish new platforms to discover and establish new methods and organizations for the enhancement of agricultural production;
- (iv) Facilitate an effective connection between farmers and the market;
- (v) Forge new bases to improve the farmers' capacity for increasing income and wealth; and
- (vi) Find new channels to stimulate synergy in agriculture.

The demonstration districts target to become the pioneer regions for the PRC's modern agricultural development, showing the improvement and advancement of traditional agricultural production, cultivating and expanding emerging modern agricultural production, and accelerating and promoting an agriculture modernization process with Chinese characteristics across the PRC.

A workshop was conducted in November 2011 with around 200 participants from the pilot districts, and other practitioners. Discussion focused on issues around modernization of agriculture in the PRC and international good practices on value chain development and cooperatives.



### Increasing Climate Change Resilience of Urban Water Infrastructure: Based on a Case Study from Wuhan City, People's Republic of China

http://www.adb.org/publications/guidebook-increasing-climatechange-resilience-urban-water-infrastructure

This guidebook reports the findings of a study funded by the Asian Development Bank on the effects of climate change on the water sector—particularly water supply and drainage—of Wuhan City, Hubei Province, a major urban center in the eastern part of the People's Republic of China. The solutions proposed are presented as a program of investment options, which the city government and utility planners and managers could consider to increase the city's resilience to the effects of climate change.

The investment decisions and assessment of impacts leading up to them were developed through a "bottom–up" approach involving Wuhan City staff and stakeholders. The framework for identifying and ranking impacts and vulnerabilities was derived from widely accepted international methodologies, which were tailored to suit local conditions.

This guidebook describes a practical approach to bridge the gap between theoretical analyses of climate change impacts and the planning decisions that need to be made by city authorities and utility managers to increase climate change resilience in the city's water sector. It focuses on answering the following questions, which are currently being asked by city planners and managers all over the world:

- (i) What changes might be caused by climate change?
- (ii) How will these affect services and utilities?
- (iii) What can we do now to prepare for them?

The long lead time required to plan, finance, build, and commission city infrastructure facilities means that decision makers cannot wait for more detailed data on the effects of future climate change, especially those relating to local circumstances. Instead, they must make investment decisions based on what is known now and what can be readily predicted. An important principle in this kind of "robust" decision making is provided by a tenet of the Intergovernmental Panel on Climate Change stating that adaptation investments, which move a city's infrastructure toward sustainable development such as providing safe drinking water and better sanitary conditions, are justifiable even without climate change. This guide is arranged in clear steps to provide direction and information for similar exercises in other areas. Having grown out of a specific locality and considered its needs, the principles and solutions developed in this guide are founded on real world situations and problems.



# Strategic Options for Urbanization in the People's Republic of China: Key Findings

http://www.adb.org/publications/strategic-options-urbanization-china-key-findings

Urbanization is a driving force in the development of the People's Republic of China (PRC). In the last 30 years, economic growth largely based in cities has lifted hundreds of millions of people out of poverty. Having sharply risen year after year, the PRC's level of national economic output is now the highest in Asia and second worldwide to that of the United States. The development of cities—closely associated with industrialization in the past decades—is critical to meeting major government policy objectives such as increasing the domestic demand, facilitating the emergence of the service sector, and promoting balanced development and social harmony.

The PRC is experiencing urbanization on an unprecedented scale, and with it, significant changes are necessary to basic urban and environmental management policies to ensure the future liveability of cities. While the scale and PRC's governance framework make it a unique case, many of the policies put forth are relevant to other rapidly industrializing countries.

This report is based on a study which provided input to the PRC's most recent national urbanization plan that sets out the urban development policies and guidelines over the coming decade. It examines the PRC's urbanization challenges and suggests actions for improving the urban environment through changes in the design, financing, administration, and social integration of cities.



### International Lessons for Road Safety in the People's Republic of China (ADB East Asia Working Paper Series)

http://www.adb.org/publications/international-lessons-road-safety-peoples-republic-china

The World Health Organization estimates that around 1.2 million deaths and between 20 million and 50 million injuries occur on the world's roads each year. These road traffic collisions are a serious constraint to development and a burden to many low and middle-income countries. Acknowledging the global importance of road safety as a development issue, this Asian Development Bank staff working paper considers approaches and good practices for road safety, which have been adopted in the best performing countries in recent decades. Drawing in part on the findings of a technical assistance project on Improving Road Safety through the Application of Intelligent Transport Systems in the People's Republic of China (PRC), this paper suggests how these practices can reduce road traffic deaths and injuries in the PRC. Key lessons learned are:

- (i) Lessons regarding policies and institutions
  - Political commitment and leadership is essential to demonstrate support;
  - An action plan with qualified targets gives focus and momentum to the implementation of road safety policies;
  - Reliable crash data and analysis serves as a foundation for formulating road safety policies and actions; and
  - Professional staff with responsibilities for road safety need to be trained and recruited at all levels of government.
- (ii) Lessons regarding drivers and road users
  - Education and enforcement should be linked; and
  - Most successful countries have adopted a safe system approach.
- (iii) Lessons regarding vehicles
  - Passive safety measures for vehicles are important; and
  - Preventive safety measures for vehicles using Intelligent Transport Systems (ITS) are being adopted in the best performing countries.
- (iv) Lessons regarding infrastructure and technology
  - Safety-conscious road design supports improved road safety; and
  - There is great promise for ITS in the future.



### Workshop Proceedings: Second High Level Workshop on Inland Waterway Transport

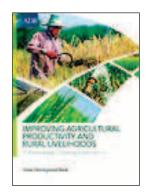
http://www.adb.org/news/events/adb-inland-waterway-transport-workshop

Inland waterway transport (IWT) is a low-cost and environmentfriendly way of transporting people and goods. However, countries in Asia and the Pacific region have yet to realize its full potential. Noting the large opportunity for work in this area, the Asian Development Bank (ADB) organized an international workshop in Chongqing, People's Republic of China in September 2012 to provide a forum for ADB developing member countries to share experiences on how to realize the potential of IWT.

Senior government officials actively participated in the workshop, leading to very good insights into the present situation, its obstacles and hindrances, and possibilities for improving transport by inland waterways. There was general appreciation of the need for a wellfunctioning inland waterways transport (IWT) system to support transport demands of industry and agriculture, aid in tourism development, and improve passenger transport. Because IWT is part of a larger multimodal transport system and is an element in logistics chains, IWT development and projects need to be considered for the integrated and balanced strategic planning of the transport sector. IWT is often also an important element in regional cooperation between countries.

In most of the countries represented at the workshop, IWT does not fulfill its potential role. Alongside the need for IWT promotion and awareness at a political decision-making level, several other physical and non-physical barriers were identified. The main challenge is the availability of adequate navigable waterways. This problem can be solved only by raising investment levels in waterway channelization, navigational aids, dredging, docking, and port and terminal facilities. The condition of vessel fleets is also a big issue, with a general need for fleet modernization to better levels of environmental performance and efficiency. Additionally, IWT suffers from being developed as a standalone transport mode, with little interconnectivity to other modes such as roads and railways; and a low level of logistics integration. In some countries, regulatory arrangements are inadequate and institutional and organizational changes are needed. There is also a need to upgrade levels of workers' skills.

Country representatives at the workshop acknowledged that IWT can play a key role, being the cleanest, safest, and most energy-friendly mode of transport for certain kinds of cargoes; and recognized that it can offer significant logistical and cost advantages. IWT also plays a role in connecting remote areas, and can support poverty reduction by creating new sources of income and making goods and services more accessible and affordable.



### Improving Agricultural Productivity and Rural Livelihoods: A Knowledge Sharing Experience

http://www.adb.org/documents/improving-agricultural-productivityand-rural-livelihoods-knowledge-sharing-experience

This publication documents the knowledge and experiences shared on agricultural development and rural livelihood improvement during the Knowledge Sharing Platform held in Beijing and Henan Province of the People's Republic of China (PRC) in November 2011. Participants from the PRC and 12 other developing member countries of the Asian Development Bank discussed topics that included policies and institutional mechanisms to promote modern agriculture, agricultural value chain and logistics system development, the bridging of agricultural research with practice, rural infrastructure and green development, and financial development in rural areas.



# New Waterbird Count Data from the Heihe River in Gansu province, western China (Op-ed Article)

This peer-reviewed journal article published in Forktail (Journal of Asian Ornithology) assesses the importance of the Heihe River in Gansu Province of the People's Republic of China to waterbirds using international conservation criteria. Comparison of new survey data with criteria of the Ramsar Convention indicates the Heihe is a wetland of international importance for at least four waterbird species. Loss and degradation of wetlands are key threats to waterbirds along the Heihe. Intensive industrial and agricultural development has resulted in declining water tables, vegetation dieback, pollution, and salinization. Conservation priorities for waterbirds include wetland restoration and surveys of the middle and lower Heihe to determine seasonal waterbird numbers and identify key conservation sites. The procedure applied in this article to assess wetland importance is simple and rapid. It may be useful for ADB projects involving wetlands, to help assess the significance of existing values and the scope of potential project impacts and mitigation.



### Modernizing Sanitary and Phytosanitary Measures to Facilitate Trade in Agricultural and Food Products

http://www.adb.org/publications/modernizing-sps-measures-facilitate-trade-agricultural-and-food-products

This study was initiated by the Asian Development Bank as part of the Central Asia Regional Economic Cooperation (CAREC) Transport and Trade Facilitation Strategy. It identifies areas for improvement in the administration and application of sanitary and phytosanitary (SPS) regulations, procedures, and standards in the CAREC region. It also recommends a set of concerted and coordinated measures designed to (i) improve and reduce delays in handling perishable goods in transit, particularly at border crossing points; (ii) ensure that food is safe for consumers; and (iii) prevent the spread of pests and diseases among animals and plants. This study is based on an examination of SPS measures applied in the People's Republic of China, Kazakhstan, the Kyrgyz Republic, Mongolia, and Uzbekistan. It involves a wideranging assessment of current procedures for animal and plant quarantine, veterinary inspection, food safety inspection, and risk analysis and assessment; and reviews conformity with internationally accepted standards.

A number of issues emerged during the study and the SPS workshop. First, a major obstacle to implementing smoothly functioning SPS systems in the CAREC countries is the continued use of the State Standards (GOST) inherited from the former Soviet Union. Because such standards are not compliant with the World Trade Organization (WTO), they are not recognized by most trading countries. Therefore, many CAREC countries cannot easily access markets beyond those of the former Soviet Union.

Second, the country-level assessment underscored the benefits of adopting WTO-compliant SPS standards, regardless of a country's current or impending membership status.

Third, addressing the slow pace of reform of primary laws relating to SPS standards will require either passing new laws that adhere to SPS principles or amending existing laws.

Fourth, transitioning to smoothly functioning SPS systems in the CAREC countries will require streamlining the day-to-day administration of SPS controls at international entry and exit points.

Fifth, the border controls currently in place for ensuring the safety of food of either plant or animal origin in the CAREC countries are generally not based on risk avoidance and are thus inefficient in ensure food safety.

Legal reforms in SPS measures will require raising awareness of SPS issues in all related administering government sectors and among parliamentarians and private sector entities affected by safety measures for food and agricultural products. Direct assistance is likewise required in amending or replacing outdated laws and regulations. Similarly, regional cooperation—and therefore coordination—in administering internationally recognized SPS standards for food safety and agricultural health is important.

Finally, in identifying the SPS investments required to facilitate trade, priority must be given to:

- (i) integrating risk-based SPS controls with customs-related risk management systems;
- (ii) introducing a single window import and export customs processing facility in each country;
- (iii) modernizing laboratory infrastructure;
- (iv) designating and upgrading specialized border crossing points for priority handling of perishable commodities; and
- (v) building institutional capacity through training and stakeholder engagement.



#### Functional Analysis of Ministries and Agencies in Mongolia

This functional review of ministries and agencies in Mongolia aims to develop policy recommendations for building a sustainable structure for the country's ministries and agencies, defining an optimal number of civil servants per 1,000 of the population, and increasing the effectiveness and efficiency of administrative organizations. For these objectives, this study compares the current state of Mongolia's functional assignment with best practices of other countries, develops a general model for functional classification, and issues recommendations on the optimal assignment of functions.

The current report consists of two parts: functional assignment system and functional implementation instruments.

There is no universally recognized definition of functions. Function is a broad notion and its scope and meaning constantly change. This review examines functions, functional assignment, and implementation tools of the Government of Mongolia within the scope of the currently enforced legislative documents.

Functions are distributed across all levels of the government, ministries, agencies, and local administrative organizations. This report describes ways of assigning functions accordingly. In the Law on the Government of Mongolia and other relevant laws, government functions are classified as permissive (comprehensive) and obligatory (sectoral). Permissive or comprehensive functions are those that may electively be borne by the government, while obligatory or sectoral functions are those that require government undertaking. There are no reference books or handbooks for functions except for legal provisions. The government distributes its functions to ministries and agencies and the ministries carry out their functions by dividing them between departments and divisions. Depending on the assigned functions, the number and internal structure of ministries and agencies are different.

In addition to properly distributing functions to ministries, agencies, and local administrative organizations, functions need to be provided with favorable conditions and proper instruments in order to be implemented effectively and efficiently. Functional implementation and its instruments are multifaceted. Within the framework of this study, instruments such as management, standardization, tools, division of labor, performance management, management information system, and human resource management are reviewed.



### Research Study on Opportunities to Develop 4 Clusters: Meat, Wool-Cashmere, Tourism, Sea-Buckthorn—aimed at Improving National Competitiveness of Mongolia

The cluster approach is globally considered a key tool to strengthen competitiveness, implement innovation policies, enhanc national export capacities, and promot economic development. It is also regarded as a powerful mechanism for regional development. Countries are choosing this approach to support national companies and strengthen their positions in the global market place. Cluster approach-based regional development models are now believed to be optimal for economic integration—regional clusters are fast becoming champions of economic development in their respective countries. Mongolia's neighbors, the Russian Federation and the People's Republic of China, are undertaking active measures to develop their own clusters. International experience shows that clusters create conditions favorable for developing small and medium sized production and service enterprises, generating employment and reducing poverty.

Mongolia faces an urgent need to enhance its economic competitiveness, modernize the structure of the economy, implement innovation policies, strengthen public–private collaboration, develop appropriate national and regional-level production and service industries, and create employment and reduce poverty. In order to implement these vital goals, it is important to include the cluster approach in the economic development policy as an effective model for cooperation. The following are general results from this assessment:

- (i) The study analyzes the cluster theory, methodology, and international experience, leading to the conclusion that building and developing industrial and service clusters in Mongolia in the near future will strengthen the country's competitiveness and support the development of modern, technology-based, high value-added production and service industries.
- (ii) The study analyzes the need to develop regional clusters based on a quantitative or index-based assessment of Mongolia's regional (Western, Khangai, Central, and Eastern regions) development to identify constraints and opportunities. The assessment provides the basis for detailed identification of competitive advantages and available resources in the regions.
- (iii) The study assesses the competitive advantages for Mongolia's proposed meat, wool and cashmere, sea buckthorn, and tourism clusters using the diamond model from *The Competitive Advantage of Nations* (Porter 1990). The assessment includes factor conditions; demand conditions; related and support industries; and firm's strategy, structure, and rivalry as determining features for cluster development potential. The analysis identified a number of competitive advantages supporting the suitability of cluster initiatives for Mongolia.
- (iv) The major contribution of the study is to carry out a thorough value chain analysis and cluster mapping for the meat, wool and cashmere, sea buckthorn, and tourism industries, based on surveys and interviews. The analysis identifies the value added at each production chain in these industries. The value chain analysis provides the empirical basis to conduct full cluster mapping for the four industries at national and regional levels by identifying the weakest parts of the respective value chains. The study recommends as next steps to carry out clusterspecific feasibility studies.
- (v) The study identified the potential impacts of meat, wool and cashmere, sea buckthorn, and tourism clusters on regional economies. The authors concluded that cluster development will increase gross domestic product in the western region by 17%, eastern region by 11%, central region by 9%, and Khangai region by 8%.

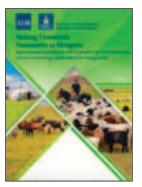


### Making Grasslands Sustainable in Mongolia: Grassland Management-Adapting to Climate and Environmental Change

http://www.adb.org/publications/making-grasslands-sustainablemongolia-adapting-climate-and-environmental-change

Climate change threatens grassland ecosystems and the livelihoods of herders in Mongolia. Herders depend on pasture and water resources for their livestock, and are thus among the most vulnerable groups to climate change impacts. Although the impacts on grassland ecosystems are measurable, the implementation of climate change adaptation practices is limited by current institutional capacity and financial resources. This publication reviews local grassland management and traditional nomadic pastoralism in Mongolia, and identifies potential adaptation strategies and practices such as rotation and resting of pasture, long-distance migration of animals in fall and/or winter, and the reduction of livestock stocking rates.

Mongolia faces numerous threats and challenges from climate change, and its herder population is highly vulnerable. More than 2 decades after its transition to a market economy, the loss of mobility as a grassland management strategy and the weakening of institutions for the management of pastoral resources remain key issues for the country. The Government of Mongolia has already identified many of the threats and is proactively tackling them. Implementation of the country's national livestock program and new land use legislation will address many of the existing and potential issues. Planned increases in funding from central government will enhance opportunities for cofinanced adaptation measures in pasture and livestock management using climate financing. The government is exploring opportunities through the Special Climate Change Fund of the Global Environment Facility, the Green Climate Fund, and potential carbon markets in grasslands. The adaptation actions and practices suggested in this study are only a modest beginning.



### Making Grasslands Sustainable in Mongolia: International Experiences with Payments for Environmental Services in Grazing Lands and Other Rangelands

http://www.adb.org/publications/making-grasslands-sustainablemongolia-international-experiences-payments-environmental

Payments for environmental services (PES) are a potential mechanism to provide incentives for sustainable management of grasslands and reduction of greenhouse gas emissions. Although not widely practiced in Mongolia, PES has been included in the government's Green Development Strategy. This paper reviews 50 PES schemes operating in grasslands and other grazing lands globally, including Mongolia. It discusses key issues related to the design of PES schemes in Mongolian grasslands, including potential benefits, risks, constraints, and trade-offs.

There has been considerable interest in the potential of economic incentive schemes to support stakeholders in the conservation of forests and biodiversity and provision of watershed services. However, much less attention has been paid to the potential of economic incentive schemes to deliver improved environmental services—also called ecosystem services—in grasslands and other grazing lands. Environmental services may be categorized as provisioning services, regulating services, or cultural services. Grasslands and other grazing lands store up to 30% of the world's soil carbon and provide a range of other use and non-use values, including biodiversity and soil conservation, water supply and retention, recreation, and spiritual significance. The primary use of grasslands by herders is for the grazing of livestock. The production of livestock products is the basis of herders' livelihoods.

PES is a potential mechanism to provide land users in grasslands with incentives to increase the supply of positive externalities of grassland utilization (e.g., biodiversity) and decrease the supply of negative externalities (e.g., soil erosion or carbon emissions). The main distinction between PES and other forms of incentives or support is that payments for PES schemes are conditional upon performance of improved management or delivery of environmental services. Evidence suggests that PES schemes can result in an increase in the supply of environmental services, though some schemes have not seen any increases. There have been few rigorous evaluations on the schemes' impacts. One general reason for the limited environmental impact is that market-based instruments may be less effective in contexts where other markets are missing or inefficient, thereby constraining opportunities for land users to pursue more profitable livelihood options. Schemes that increase the supply of one environmental service may consequently require trade-offs with other environmental services. Similarly, not all PES schemes have improved incomes for the poor or addressed equity concerns. Careful design and a thorough assessment of these issues can improve PES implementation.



### Scaling Up of Sustainable Land Management in the Western People's Republic of China: Evaluation of a 10-Year Parntership

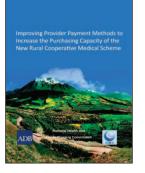
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The People's Republic of China (PRC)–Global Environment Facility Partnership to Combat Land Degradation in Dryland Ecosystems promotes an integrated ecosystem management (IEM) approach to restore, sustain, and enhance the productive capacity of dryland ecosystems. This journal article, published in *Land Degradation and Development* in December 2013, provides an analysis and synthesis of the funding strategies, methods, and approaches that have been applied and tested under the partnership during 2003–2012 to pilot and scale up IEM and sustainable land management (SLM) practices in the western PRC. Based on a mix of methods such as literature reviews, data collection at selected pilot sites through household questionnaire surveys, stakeholder workshops, and field sampling, the following lessons were generated:

- The most effective way of mobilizing funding for scaling up of SLM is through mainstreaming IEM into relevant policy and development frameworks;
- (ii) Best practices in SLM need to be combined with economic incentives for land users. Pilot demonstrations of SLM need

to be integrated into larger investment programs to achieve impacts and economies of scale;

- (iii) Market-based approaches to scaling up of SLM such as payment for ecosystem services and public-private partnerships have a role to play, but cost-benefit analysis needs to be better integrated into payment schemes;
- (iv) The economic benefits of carbon sequestration alone are too low to fund eco-compensation schemes but can provide supplementary funding; and
- (v) Land degradation and SLM monitoring and assessment systems should be multiscale to support decision making on SLM and monitor impact from the local to the national level.



### Improving Provider Payment Methods to Increase the Purchasing Capacity of the New Rural Cooperative Medical Scheme

The New Rural Cooperative Medical Scheme of the People's Republic of China (PRC) has provided and maintained health coverage for more than 95% of its rural residents since 2008. However, financial protection is low. At a per capita premium of CNY113, only 41.5% of individuals' medical expenses were reimbursed by the scheme in 2009. Additionally, the growth in total health expenditure has exceeded the growth in gross domestic product (GDP). During the 11th Five-Year Plan period (2006– 2010), total national medical services and expenditure rose to 13.5% per year, and was higher than the GDP growth of 9.7%.

In the health sector of the PRC, a payment method—fee for services (FFS)—has been used since the 1950s. Its disadvantages have taken a toll on the sector. Although there have been many experiments across the PRC to reform payment methods, only a few models have had a positive impact on providers' behavior through the improvement of medical resource utilization.

A payment method is essentially an economic incentive and is designed to mitigate cost growth by improving resource utilization. However, cost maintenance should not be the only objective, and quality and accessibility issues should not be ignored. Not one payment method is perfect; a mix of multiple methods is often adopted. Yet no matter how complicated the method mix is in practice, the provider payment method can only lessen over- or under-service costs. Choosing a reform scheme will depend on a local situation. The PRC is now faced with the important task of changing the FFS method and pursuing the use of a matrix of bundled and prospective methods.

Payment method reform has been implemented nationwide in the PRC. This is the first step in a long process. There are a lot of challenges, which include difficulties in achieving a consensus in theory or scientific perception, problems with designing and implementing a reform according to specific local conditions in practice, and overgeneralizations drawn from pilot studies. The payment reform has yet to prove its impact and success.

#### EARD 2013 Knowledge Management Initiatives



#### Policy Study on Urban Modern Agriculture in Tianjin

Tianjin City of the People's Republic of China (PRC) is at the threshold of rapid rural urbanization and industrialization. The development of urban agriculture faces severe challenges and needs strategic guidance from the Government of the PRC. Strategies should focus on achieving the multifunction values of agriculture in future integration of urban and rural development.

Challenges arise mainly from the gaps between current development levels and expectations, and potentials and requirements of the many stakeholders. The gaps are obstacles to integrated and harmonious development, and arise from the following four key issues:

- Low and inadequately assured economic benefits and farm incomes, and inadequate farmer capabilities to meet the requirements of urban modern agriculture;
- (ii) Limited availability of investment capital;
- (iii) Delayed development in organization and scale of production and marketing systems; and
- (iv) Lag of institutional reform and innovation behind development requirements.

Tianjin City's development of urban modern agriculture over the next 10 to 20 years should focus on the following three points:

- (i) Cultivate and develop diversified agricultural enterprises;
- (ii) Expand the multiple functions of agriculture and integrate urban and rural development for coordinated advancement; and
- (iii) Integrate biotechnology, information technology, and cultural creation in modern agriculture development.

The following proposals were put forward for sustainable development of urban modern agriculture in Tianjin:

- (i) Promote rural–urban integration;
- (ii) Advance industrial agriculture and ecological civilization;
- (iii) Improve science and technology support for urban modern agriculture;
- (iv) Develop human capital and new professional farmers;
- (v) Develop new agricultural entities and enterprises;
- (vi) Enhance the production scale system for local agricultural products;
- (vii) Establish fiscal, financial, and insurance linkages to support agriculture; and
- (viii) Improve agricultural product quality and safety management.



## Research on Consulting Service in Industrial Transition and Upgrading in Anhui

This report examines the importance of consulting services as a source of intelligent and innovative solutions to industrial challenges in the province of Anhui, the People's Republic of China (PRC). The report demonstrates how innovative consulting services has affected industrial upgrading in Guangdong Province of the PRC, Japan, and the United States by helping them adapt to changes and cope with the challenges of development.

This report provides empirical case study analyses of consulting models, an analysis of the constraints, and the following policy recommendations applicable in the case of Anhui Province:

- (i) Creating a positive environment for local innovative consulting services;
- (ii) Scientific, rational, effective, and forward-thinking development plans;
- (iii) Strengthened policy guidance and driven leading industries;
- (iv) Talent campaign to attract the best human resources to the industry;
- (v) Open policies to encourage foreign investment and global alliances; and
- (vi) Systematic operations that promote active and safe development.



#### Research on Mechanism of Economic Compensation for Farmland Protection

The current measures for protection of farmland in the People's Republic of China (PRC) largely comprise land use planning and land use controls, with an emphasis on the responsibilities of farmland protection bodies. However, these measures tend to overlook basic long-term rights and interests. Farmland protection bodies thus miss out on profit opportunities from land redevelopment, and positive externalities generated by farmland protection are inadequately compensated. This results in fewer incentives for farmland protection bodies, affecting their effectiveness at farmland protection and holding back agricultural production, the growth of farmers' incomes, and sustainable rural development.

At present, the PRC has entered an entirely new stage of industrialized agriculture. The Government of the PRC has allocated a reasonable compensatory budget for farmland protection. The Ministry of Land and Resources has already begun compensating farmland protection through the constructive subsidy of basic farmland consolidation costs. However, economic compensation for income opportunity losses involving cultivated farmland has yet to be initiated at a national level. The local governments have respectively launched pilot programs for various forms of economic compensation for farmland protection in cities such as Foshan, Guangdong Province and Chengdu, Sichuan Province in accordance with local conditions, providing a wealth of valuable lessons.

This study has been carried out on the basis of related theoretical studies and national and international practices relating to systemic and implementable economic compensation mechanisms for farmland protection. This study also examines immediate approaches and longterm objectives, providing theoretical and policy support to establish nationwide economic compensation mechanisms for farmland protection in the PRC. It comprises four research components:

- (i) Review of policies and implementation of domestic farmland protection;
- (ii) Analysis of international development rights systems and farmland protection compensation policies and the corresponding lessons learned;
- (iii) Overall analysis of farmland protection in typical domestic areas; and
- (iv) Structure and policy recommendations for overall national economic compensation mechanisms for farmland protection.



### Improving Performance Management in Agricultural Construction Projects

In recent years, the Government of the People's Republic of China (PRC) increased its investment in agriculture, leading to growth in both the number and scale of agricultural projects. Therefore, there is an urgent demand for improved cost-effectiveness and outcomes. In order to meet these demands and desired objectives, the current performance management system needs to be improved and efficient management methods need to be adopted. It is advisable to draw on the experience of international financial institutions and adapt their performance management to local conditions by integrating their practices with management requirements and government-funded project systems, and applying them to agricultural performance management. This will greatly contribute to boosting investment returns and achieving project objectives. After examining the performance management of the Asian Development Bank and World Bank loans for agricultural projects, along with the current management and priorities of agricultural projects in the PRC, a set of policy recommendations was put forward:

- (i) Integrate and strengthen the agricultural project management system;
- (ii) Lay down the technical specifications for agricultural construction project performance management;
- (iii) Improve agricultural construction project performance management and evaluation mechanisms;
- (iv) Ensure the allotment of resources for agricultural construction project performance management;
- (v) Utilize agricultural construction project performance evaluation results;

- (vi) Strengthen the development of the performance evaluation indicator system; and
- (vii) Conduct agricultural construction project performance evaluations.



## Study on the Innovation Mechanisms for the Green Lighting Project in Hebei Province

Hebei is a large energy-consuming province in the People's Republic of China (PRC). Lighting accounts for about 13% of its total electricity consumption. In recent years, Hebei has focused on promoting its Green Lighting Project, which has seen remarkable economic, environmental, and social benefits. However, there are still pressing problems in the establishment an effective lighting appliance market and service system that are self-developing, self-improving, and self-managed; and longterm development mechanisms for the project. In particular, promotion mechanisms need innovation.

This study involves an analysis of policies in the PRC and abroad for the long-term development of the Hebei Green Lighting Project. It recommends strengthening of funds for the promotion of new green lighting products. It also carries out field research and case analyses to investigate key linkages—taking into account electricity saving and other technical features of green lighting—while overseeing demonstration projects and presenting feasible advice for the support and promotion of funds for new products, with an emphasis on market orientation. This study is a practical investigation into the actual conditions of the project. Its resulting suggestions and policy recommendations, which are based on an analysis of existing policies and modes of implementation, focus on the establishment of a long-term Green Lighting Project for Hebei Province.

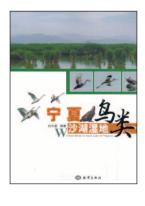


### Research Report on Wastewater Treatment Market in Henan Province

This report provides an analysis of the development and existing problems of the wastewater treatment market in Henan Province of the People's Republic of China. It presents systematic and applicable solutions in the wastewater treatment market:

- (i) selection of wastewater treatment technologies;
- (ii) discharge standards;
- (iii) marketization;
- (iv) investment and fund sources; and
- (v) wastewater treatment fees.

This report summarizes research results and gives an overall evaluation on the wastewater treatment market in Henan Province. It studies its current problems and difficulties, including sludge treatment, pipeline construction, upgrade and reconstruction of wastewater treatment plants, wastewater treatment fees, and professional operation. The report provides applicable and comprehensive solutions on financing sources, cost control, fee collection, investment and financing modes, and professional operation.



#### Wetland Birds in Sand Lake, Ningxia

This report covers the Sand Lake Natural Reserve in Ningxia Hui Autonomous Region, People's Republic of China (PRC) and its inhabitant birds as an important component of the wetland ecosystem. The Sand Lake Natural Reserve provides a research place for the study of the dialectic relations between the area's tourist developments and environmental conditions, particularly the protection, development, and sustainable use of its natural resources. The reserve also serves as a model for wetland ecosystem protection in areas affected by desertification.

This study aims to ensure the protection of Sand Lake Nature Reserve, achieve sustainable utilization and further sound development of tourism resources, improve public awareness and knowledge of bird biodiversity in the Sand Lake, and provide references for those interested in observing, appreciating, and learning about the birds. The study is based on a large amount of data acquired from an 8-year field survey, results from a comprehensive scientific study in the Sand Lake wetland in 2011, and other previous experience. It provides reliable references for scientific research, biodiversity protection, and management of wetland natural reserves. Additionally, the study serves as an excellent reference book for bird classification and identification for photography enthusiasts and bird lovers. It is also valuable as a reference tool for academics on wetland birds and other related resources in Ningxia and the northwestern part of the PRC.

### **Technical Notes Series**



### "Healthy Together—Our Future" Guidebook for HIV/AIDS/STI Prevention in the context of Mining and Transport

With the rapid exploitation of Mongolia's extensive mineral deposits, the country is undergoing an economic transformation. The development of mining is catalyzing major developments in other sectors such as transport and energy. New transport corridors are already being constructed to provide services to mines in southern Mongolia, and a large power transmission line is being built to source electricity from the People's Republic of China. Economic growth will create a demand for new facilities and new towns.

The Government of Mongolia has recognized that alongside the benefits of rapid infrastructural development from mining, there is the potential for negative consequences should health, social, and environmental risks not be addressed in a timely and appropriate manner. For example, the nature of rapid infrastructural development is characterized by high population mobility—particularly among unaccompanied men—and the exposure of previously remote areas to new lifestyles. International experience has shown that this is likely to lead to risky sexual behavior and the threat of HIV/AIDS. Although HIV levels in Mongolia are currently low, the number of cases is increasing. Road and mining developments offer a potential route through which the disease might establish a foothold in the country.

For road and mining companies, measures adopted involve implementing a package of workplace activities to prevent the spread of HIV/AIDS and other sexually transmitted infections. This guidebook provides step-by-step guidance for companies on how to implement the package effectively, drawing on Mongolia's own experience and best international practices. Although much of the work can be undertaken directly and very cost effectively by the companies, this guidebook highlights where the involvement of trained health educators is important. Particular emphasis is placed on building HIV prevention into existing processes and systems.

While it is recognized that HIV prevention is also needed in the informal mining sector (unauthorized mining), this guidebook is specifically tailored to the formal sector. At the same time, the recommended package of activities and associated materials, which focuses primarily on the road transport and mining sectors, is also relevant to other large construction projects such as building and improving airports, railways, and ports; and power generation projects.

### **Good Practice Series**



### Integrated Wetlands Management—Proceedings of International Workshop on Integrated Wetlands Management

This report covers the knowledge exchange from the International Workshop on Integrated Wetland Management held in the People's Republic of China (PRC). It presents the good practices of wetlands management culled from knowledge provided by the Asian Development Bank and from international experience on integrated ecosystem management. The report addresses how wetlands management can be improved, how to align the management structure with best practices to safeguard the conservation of primary resources (i.e., water and biodiversity), and how to ensure environmental and economic sustainability.

Despite the Ramsar Convention on Wetlands, an international treaty adopted in 1971 that has helped 144 nations protect the most significant remaining wetlands, about half of the earth's wetland area has been lost over the last 50 years. The remaining wetland area is estimated at 5.3 million to 12.8 million square kilometers. Although remaining wetlands occupy less than 10% of the earth's land area, they make a significant annual contribution to renewable ecosystem services, including water quality improvement, flood abatement, biodiversity support, and carbon sequestration. These key functions are impaired when wetlands are lost or degraded. Wetlands restoration and construction techniques are improving but the recovery of lost biodiversity remains challenging. Damage to wetlands is not always reversible and restoration cannot always retain native biodiversity and other vital wetland functions.

This report provides adaptive approaches in which alternative techniques are tested at a large scale in actual restoration sites using extensive experience and examples from the PRC and worldwide.

### East Asia Department 2013 Knowledge Management Initiatives

This annual publication showcases the results from knowledge management initiatives of the East Asia Department of the Asian Development Bank. It is a compendium of abstracts from 55 strategic knowledge products and services completed in 2013 and provides URLs to select full reports.

### About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing membercountries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than \$2 a day, with 733 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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