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**Rural-urban migration in China: policy options for economic
growth, environmental sustainability and equity**

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Abstract

In China, as in many other countries undergoing rapid economic growth, increasing socio-economic inequalities and environmental damage are the main threats to sustainable urbanization. Drawing on international experiences, this paper describes the key issues in urban change in China and identifies the types of policy approaches that could support more sustainable urbanization.

Urbanization and urban growth in China are closely linked to economic growth strategies and their uneven spatial dimension. Hence, despite the fact that China is one of the few countries in the world implementing a household registration system with the explicit aim of directly managing population distribution, rural-urban migration, much of it temporary or unregistered, is currently the main factor contributing to urbanization. In the 1980s, small towns in China played a major role in 'in-situ' urbanization and industrialization, developing a relatively balanced distribution of urban centres with strong functional and administrative links with their surrounding rural region. Since the mid-1990s, however, economic liberalisation has exacerbated differences between remote regions and the mainly coastal emerging extended metropolitan regions. Whilst rural poverty has been steadily decreasing since the 1980s, urban poverty is increasing and includes three distinct groups: temporary or unregistered rural migrants, urban residents made redundant from state-owned enterprises following economic reform, and residents of peri-urban areas who have lost their land to urban expansion.

The paper presents a number of policy options, the first of which would bring economic benefits, the second environmental benefits and the last three equity benefits. None of these options involve prohibiting or promoting migration; rather, they aim to improve the quality of migration for the migrants themselves, their home areas, the environment and the economy.

Table of Contents

Introduction.....	1
1. Defining urban	7
1.1. International conventions and their variation	7
1.2. Changing Chinese definitions of urban.....	8
1.3. Key points	11
2. Intervening in rural-urban migration	12
2.1. Is China's rural-urban migration economically excessive or insufficient? ..	13
2.2. Policies aimed at controlling rural-urban migration	14
2.3. Key points	18
3. Migration to metropolitan regions	19
3.1. Experiences of globalisation-led urbanisation	19
3.2. Challenges of globally-driven industrialisation, migration and urbanisation in Southeast Asia.....	20
3.3. China's migrants' mobility and location of employment	21
3.4. Key points	22
4. Migration and labour markets in small and intermediate urban centres	23
4.1. Encouraging China's smaller settlements to urbanize	23
4.2. Economic growth and labour markets in small towns	25
4.3. Developing small and micro-enterprises through clustering	26
4.4. Challenges of small town-based economic growth	27
4.5. Key points	28
5. Migrants' contribution to the development of their home areas.....	29
5.1. The reasons for maintaining links with home areas.....	29
5.2. Migrants' contributions at the household level.....	30
5.3. Contributions at the community level.....	31
5.4. Key points	31
6. Rural-urban migration and addressing urban poverty	32
6.1. The relevance of the hukou system to urban income poverty	32
6.2. Housing and services: the spatial concentration of urban poverty	34
6.3. Addressing urban poverty: key lessons from international experiences.....	35
6.4. Key points	36
7. Rural-urban migration and preventing environmentally adverse settlement patterns.....	38
7.1. Introduction.....	38
7.2. Ecologically relevant land-systems and China's urban settlement patterns	41
7.3. Interprovincial migration and increasing pressures in the coastal zone	42
7.4. Geographical and policy drivers of migration to the coastal areas	45
7.5. Key points	46
8. Migration policy options for economic growth, environmental sustainability, and equity.....	47
8.1. Securing economic growth (1): reforming registration-based barriers to mobility	47
8.2. Achieving environmental sustainability (1): reducing rural-urban migration to environmentally costly sites.....	48
8.3. Addressing equity (1): Reducing inequities between migrants and longstanding urban residents.....	49
8.4. Addressing equity (2): pro-active anti-poverty measures in urban areas, complementing social welfare systems.....	50
8.5. Addressing equity (3): Enhancing migrants' support to home areas	51

List of Tables

Table 1: Chinese and International Rates of Urbanization and Urban Population Growth	1
Table 2 – Rural and urban land areas and population densities for coastal zones and all land areas in China and the world.....	40
Table 3 Chinese and global statistics on urban population, land percentages and densities in Millennium Ecosystem Assessment zones - 2000.....	41
Table 4 Annual percentage change in population, urban population and urbanization level – China 1990-2000, by Millennium Ecosystem Assessment zone	44

List of Figures

Figure 1: Urban Extents in China circa 1995.....	39
Figure 2 Interprovincial migration within and among the three principal regions of China.....	43
Figure 3 – The 30 largest interprovincial migration flows in China, 1995–2000.....	44

Introduction

In China, as one might expect of a country undergoing rapid market-driven economic growth and urbanization, two of the major threats to sustainable urbanization are increasing socio-economic inequalities and environmental damage. Rural-urban migration can help mitigate some of the inequalities resulting from uneven economic growth, but can also create new social, economic and environmental problems. Not only can China learn from international experience in this area, but China's experience is increasingly represented in international research on economic change and rural-urban migration.

In absolute terms, China is undergoing the largest rural-urban transition any country has ever experienced. For over a decade, both China's rate of economic growth and its rate of urbanization have been well above international averages (for a comparison of urbanization and urban population growth rates in different parts of the world, see Table 1). But what makes China's rural-urban transition exceptional is that China is the world's largest country, and these high rates imply unprecedented numbers of people moving from rural to urban areas.

Table 1: Chinese and International Rates of Urbanization and Urban Population Growth

Major area, region and country	Urbanization Rates	Urban Population Growth Rates
	1995-2000	1995-2000
China	2.64	3.53
World	0.87	2.22
More developed regions	0.26	0.60
Less developed regions	1.38	2.99
Least developed countries	1.82	4.25
Africa	1.41	3.76
Asia	1.50	2.90
Europe	0.14	0.15
Latin America and the Caribbean	0.60	2.16
Northern America	0.47	1.54
Oceania	0.35	1.77

Source: United Nations (2004), *World Urbanization Prospects: The 2003 Revision*, United Nations, New York.

China's current urbanization trends reflect its national economic strategy more than any urbanization strategy.¹ There have been policies to encourage urban economic activities in smaller towns, and to discourage excessive rural-urban migration, to large urban centres in particular. These policies have had an effect on how urban areas are designated and on who is registered as an urban dweller. For a number of years, small towns industrialized rapidly in response to government urbanization policies. But in recent years urban policies have had considerably less impact on where economic growth has concentrated and on the rate of rural-urban migration. Increasing economic liberalism, integration into the global economy and the policies designed to

¹ An urbanization strategy is a set of national government policies designed to influence the spatial and sectoral distribution of the country's population and its economic activities. It includes, but is not limited to, urban administration systems and policies (such as reclassification of settlements from rural to urban, redrawing of the boundaries of urban centres, infrastructure provision, etc) as well as household registration systems (hukou).

support these economic goals have favoured rapid urbanization and economic growth in the coastal regions, and these have become the dominant trends. In order to mitigate against the increasing inequality and environmental degradation which this economic strategy will otherwise bring, China will need to engage far more vigorously in adaptive urban management.

Inequalities between rural and urban incomes and areas are acknowledged as severe and potentially damaging for the country's continued growth and social stability. On average, rural residents earn less than a third of urban residents, and the gap may be larger when urban health and education benefits are factored in. The increase in the number of uprisings caused by seizures of farmland without reasonable compensation in rural and peri-urban areas is a key reason for the growth of instances of social unrest in China in the past few years. A partial response to rural frustration is the establishment of a 'new socialist countryside' as one of the primary objectives of the 11th Five Year Plan (2006-10) Guidelines for National Economic and Social Development. The policy was approved in March 2006 by the 10th National People's Congress, with the additional rationale that the slow increase in the incomes of farmers (who make up nearly 60 percent of China's population) is keeping the overall economy from developing any faster.

The new policy will increase rural spending by 14 percent and focus on the construction of rural infrastructure (including roads and irrigation systems), improving rural education, enhancing medical cooperatives and social security systems that will include landless farmers and migrants. The policy is likely to play an important role, provided implementation at the local level is in line with the national guidelines, and local governments, especially in remote rural areas of the poorest provinces, have access to adequate revenue and capacity support. Reducing rural poverty in China is clearly a critical objective for both economic growth and equity. It should not, however, be seen as an alternative to addressing urban poverty and the welfare of migrants.

There are two main reasons for this. First, while in absolute numbers there are far more rural poor people than urban poor people, rural poverty as a proportion of the total number of rural residents has been steadily declining in China since the 1980s, whereas urban poverty as a proportion of the total urban population has been growing since the 1990s. As China becomes increasingly urbanized, the increase in urban poverty is a deeply worrying trend. Second, increasing rural incomes and improving rural living conditions does not necessarily stem rural-urban migration. On the contrary, experience in many low and middle-income countries suggests that better education, better access to information, better transport networks all stimulate rural residents' desire to move and 'see the world'. Mobility is inextricably linked to economic growth, in both destination areas and home places; in the Chinese context, short and long term migration can reasonably be expected to increase, making migrants' welfare a crucial issue.

This paper uses international experience to interpret urban change in China, and to help identify the sort of policy approaches that could help achieve more sustainable urbanization. The focus is on the relationship between rural-urban migration and inequality, with particular attention to the challenges posed by the development of the migrants' home areas on the one hand and urban poverty on the other.

Section 1, which follows this introduction, examines urban definitions, internationally and in China. Monitoring China's rural-urban migration and urbanization is complicated by the lack of uniform international definitions of urban, and the multiple and changing definitions used in China itself. Like many governments, the Chinese government has tried to: 1) discourage the sort of rural-urban migration that can lead concentrations of underemployed people living in deprived urban neighbourhoods, and yet to 2) encourage the sort of urban activities that contribute to economic growth. The administrative systems designed to support these goals have had a distorting effect on China's urbanization statistics. The share of the population registered as urban is far less than the share of the population living in areas designated as urban. The census figures as well as the UN estimates used for 0 place the actual level of urbanization somewhere between the two. Efforts to develop more rigorous distinctions between rural and urban areas are, however, further complicated by new forms of urbanization that are arising in China and elsewhere and do not conform to the traditional urban-rural dichotomy (e.g. the increasing importance of traditionally urban enterprises in areas with rural land use patterns, especially in peri-urban areas and in expanding metropolitan regions).

Section 2 examines attempts to manage rural-urban migration directly. The household registration system (or hukou) that has been used in recent decades to try to control migration in China – and rural-urban migration in particular – has accentuated the growing urban-rural disparities brought on by market led growth. A large 'floating population' has emerged, made up of migrants who do not have a permanent urban registration. The system is undergoing reform. The reforms should help to lessen the inequalities between the long-term residents of economically successful cities, and migrants whose temporary registration status currently deprives them of rights to a range of services. However, the experience of many other countries indicates property and development disputes can also create disadvantaged groups (e.g. squatters, and people dwelling in informal settlements) who, like China's floating population, are not only poor but are not fully recognized citizens and suffer economically, socially and politically as a result. From an international perspective, the challenge for China is not just to reform the hukou system, but to find the means to assimilate rural-urban migrants in an equitable and environmentally sustainable way.

As already indicated, the character of China's recent and rapid urbanization is more a reflection of China's export-oriented economic strategy, and the economics of globalization, than of the hukou system or the changes in the urban administration system. Section 3 looks at the implications of economic concentration for migration, poverty and the environment. Drawing on examples from Southeast Asia, where the spatial concentration of investment and export-oriented manufacturing has spurred the growth of extended metropolitan regions, it discusses the likely consequences of this model of economic development for worker mobility and quality of life in low-income neighbourhoods in China.

Section 4 describes what can be an alternative model of spatial development, where economic growth is more evenly distributed and small and intermediate urban centres play a more important role. China has encouraged urbanisation in these settlements since the early 1980s, but economic liberalisation has amplified differences between remote regions and towns, and towns in the peri-urbanising coastal region. This

makes generalisations misleading, although the international literature offers pointers with regard to institutional support to small and micro-enterprises and the management of 'urbanizing' settlements.

Section 5 builds on the notion of small-town based economic growth to explore the role that migrants can play in the development of their home areas. This includes remittances as well as transfers of skills and access to wider networks. Experiences show that a reliable institutional framework and the provision of infrastructure are essential to attract migrants' investment.

Section 6 explores inequalities between migrants and non-migrants, with a focus on urban poverty, which is likely to become one of the major challenges of the new Chinese economy. Urban poverty has been increasing in the past decade as a consequence of redundancies in the reformed state-owned and cooperative sectors, and the introduction of user fees for most services. Migrants who do not possess permanent urban hukou suffer from a double disadvantage as they tend to concentrate in low-skills, low-wages sectors and, at the same time, are rarely entitled to welfare programmes for the urban poor such as income support and social housing. Lessons from innovative experiences of community-driven initiatives by the urban poor in other countries can contribute to the emerging debate on urban poverty in China.

Section 7 examines some of the environmental aspects of rural-urban migration, with a particular emphasis on the environmental implications of coastward migration. The land in China's narrow coastal zone is already highly urbanized despite very dense settlement patterns. Unless concerted actions are taken, continued migration and urban sprawl will greatly exacerbate the already serious environmental problems in China's coastal areas. Since many inland areas already face severe environmental constraints, this represents a major challenge.

Policy implications

Section 8 provides a series of policy options, the first of which would bring economic benefits, the second environmental benefits, and the last three equity benefits. None of these options involve prohibiting or promoting migration. Rather, they aspire to improve the quality of migration, particularly for the migrants themselves, but also for the environment and the economy.

Economic prerogatives are likely to lead to an increasing reliance on markets, which in the context of migration means less use of household registration and quota-like mechanisms to control people's movements. But this will amplify two of the key challenges to sustainable urbanization already noted: 1) the tendency for poverty to shift towards urban areas; 2) the tendency for rapid urbanization, particularly in coastal zones, to cause environmental problems. An adaptive management approach will clearly be required – learning from successes and failures, and even from experimentation. There is also scope for learning from international experience.

The environmental implications of urbanization, and of removing barriers to mobility, are difficult to predict, but an obvious danger is increasing pressure on the coastal zones, overwhelming existing coastal zone management systems. The first line of defence can be economic instruments, designed to internalize environmental costs, and thereby not only promote more environmentally compact settlement, but also

settlement in less environmentally disadvantageous areas. A second line will also be required, including an effective and integrated coastal management system that can influence urban planning and development processes, through for example land use planning tools. Such environmental measures could have major effects on both economic growth and equity, positive or negative, depending on how they are implemented.

On the equity side, looking to the future a key issue is how to bring the benefits available to migrants more into line with those available to longstanding urban residents. Most of the shifts to date have involved reductions in the rights and benefits of urban registered workers – more than counteracted for some by benefits derived from rapid economic growth. There have also been moves to increase the rights of the ‘migrant’ or ‘floating’ population, and there is debate about how to create a new social welfare system. Judging from the experiences of other countries, and some recent developments in China, a key to success will be to design a system that is capable of being financed and implemented. The alternative is to leave the tension between political rhetoric and reality unresolved, encouraging the creation of comprehensive but under-funded systems. A typical result is that the middle classes get subsidized, while the systems do not actually reach the very poor (e.g. subsidised public services that fall into decline, and are not extended to low income areas). Even if a sound basic system can be implemented, it is unlikely to be able to provide adequate security for everyone.

If, as seems likely, the emerging social welfare programs is insufficient to address urban poverty, the ‘informal’ sector is likely to increase in significance. It will be important, therefore, for China to learn from the experiences of many other countries where urban poverty has emerged as an important issue. One of the key lessons has been the need to recognize the importance of constructive negotiation with urban poor groups – and the need for these groups to organize to articulate their demands. Related to this is the need to build on and learn from the strategies developed by the urban poor and the private enterprises and civil society organizations that work with them. Governments have had a tendency to overestimate the political threats posed by low-income urban settlements, and to underestimate the economic contributions made by these groups and their enterprises. Engaging with these groups, and building on their economic successes, may not be easy, but is generally more productive and more conducive to equity than either trying to keep the very low income migrants (e.g. the ‘rural surplus labour’) out of the urban areas, or leaving it to the public sector or formal private employers to find them places to live and work.

In presenting this sort of political engagement as an option, it is possible to describe the sorts of policy measures and local strategies that have been successful in various places at various times (ranging from microfinance and household savings schemes, to upgrading schemes, and locally driven water and sanitation systems). It is extremely difficult to quantify the effects, however.

The last policy option presented, that of enhancing migrants support to their home areas, touches on a central equity issue: migration alone has an ambiguous impact on rural poverty, and one of the prerequisites of achieving sustainable urbanization is to improve (and certainly not worsen) rural living conditions. Rural poverty cannot be addressed by urban planning, but urban planning does influence rural development,

and migration affects rural poverty. Remittances are a significant source of rural income, and return migrants often invest in and bring their urban skills to enterprises located near their rural home areas. If these positive impacts can be enhanced, and some of the negative impacts (e.g. brain drain) minimized, migration can have far more equitable outcomes. As this example should make clear, the options are interdependent.

1. Defining urban

1.1. International conventions and their variation

In demographic terms, a country's level of urbanization is conventionally defined as the proportion of the total population living in settlements designated as urban. There is no internationally accepted means of identifying urban areas, and even within a country definitions change and there may be more than one definition in use at any given time. The criteria through which people are identified as living in an area also vary, and as described below this can have a major effect on the estimated level of urbanization.

Most governments define urban centres in one of four ways: through population size thresholds; through population size thresholds combined with some other criteria (population density, or the proportion of the population employed in non-farm activities); through administrative or political status; and through lists of settlements named as 'urban' in the national census (Hardoy, Mitlin, and Satterthwaite, 2001). The level of urbanization depends not only on which of these four ways is being used, but the specific criteria applied, which also vary substantially. Minimum population density criteria commonly range between 400 and 1,000 persons per square kilometre; minimum size criteria typically range between 1,000 and 5,000 residents; and maximum agricultural employment is usually in the vicinity of 50–75% (McGranahan, Marcotullio, Bai et al., 2005). In each case, however, cut-off points outside these ranges can easily be found. In the United Nations international listing for 2001, for example, population thresholds for defining urban varied between 200 and 50,000 persons (United Nations, 2002).

Urban definitions and criteria also vary over time. For example, in Nigeria the 1952 census considered as 'urban' all centres with a population over 2,000, but this threshold was increased to 20,000 for the 1963 census, with the result that over 2,350 settlements lost their 'urban' status.

There are related differences in the ways in which the boundaries of urban centres are set. In some nations, urban boundaries correspond to the built-up area, and as the urban centre expands populations clearly associated with the settlement find themselves outside the urban boundaries. In other nations, or even other urban centres in the same country, boundaries are set to include large areas into which urban development is expected to expand or over which urban centres are expected to govern, with the result that largely agricultural populations living at low densities may find themselves within the urban boundaries. Very large urban centres often have different boundaries for the city proper, the metropolitan area and the urban agglomeration, and total population can vary by several million inhabitants depending which boundaries are employed.

Equally important, urbanization can take various different physical forms, and some of these forms do not create a clear rural-urban continuum. Traditionally urban employment (ie in manufacturing and services) is increasingly found in areas with traditionally rural land uses (eg agriculture) and population densities, for example. Many experts argue that planners are being misled by the continued reliance on a somewhat artificial distinction between urban and rural (Champion and Hugo, 2004; Montgomery, Stren, Cohen et al., 2003).

All these variations suggest that great caution is needed in international comparisons of urbanization, and in assessing urbanization trends over time. The basis for a more uniform definition may be emerging from work using remote sensing and geographical information systems. The Global Urban Rural Mapping Project (GRUMP), for example, provides urban populations for urban agglomerations identified spatially (<http://beta.sedac.ciesin.columbia.edu/gpw/>). While the population figures rely on national data, the resulting estimates provide populations and densities for all urban agglomerations, allowing different countries' urban statistics to be organised according to comparable urban population thresholds. This spatially organized data set also allows urban populations to be classified in terms of their location relative to environmental resources. For the foreseeable future, however, the international statistics reported by international agencies such as the United Nations will have to rely on national definitions.

1.2. Changing Chinese definitions of urban

In China, the criteria for urban designation have changed dramatically in response to changing urbanisation policies and economic development strategies. The revisions, and the publication of different trends based on distinct definitions, have created some confusion about Chinese urbanisation levels in the international literature. It has been estimated, for example, that the urbanisation level in 1999 would have been 23.9 percent according to the pre-1982 definition, 73.0 according to the 1982 definition, and 30.9 percent according to the 1990 definition (Liu, Li, and Zhang, 2003). While definitional inconsistencies and changes are common internationally, these are extreme.

A large part of the explanation for these differences lies in the historic use of two different classification systems, one registering a segment of the population as urban and the other designating a selection of places as urban. These classification systems have been employed primarily for administrative purposes, and only secondarily for estimating levels of urbanization. The divergence between the different classification systems reflects a tension in urban planning that is not specific to China: planners are far more positive about economic urbanization (e.g. the development of urban enterprises) than they are about demographic urbanization (e.g. the movement of people from rural to urban areas).

Up until the late 1970s, there was a reasonable degree of consistency between the two in China; people in urban places had urban registration. With liberalization, they have become increasingly divorced both from each other, and from any internationally comparable basis for estimating China's level of urbanization. By the time of the 1990 census, a new approach of estimating urbanization had to be designed, less directly reliant on these administrative classifications. This approach was further revised and developed for the 2000 census. However, the administrative classifications have continued to be used, adding to the confusion.

On the one hand, households have long been classified as either rural (agricultural) or urban (non-agricultural) through the household registration system, or 'hukou' (Wang, 2004; Wang, 2005; and Section 3.2 below). For the 1964 Census, only those households living in (urban) designated towns and cities who had an urban hukou were counted as urban. Changes in household registration were tightly controlled,

however, with the result that as the economy liberalized and the pace of urbanization began to increase in the late 1970s, the number of people with urban hukou did not keep pace with the shift towards urban residence and occupation. By the 1982 census a definition based on the urban hukou was considered too restrictive, and it was decided to devise an estimate including all residents of designated towns and cities as urban, regardless of their hukou (this was in effect a reversion to the definition of the first, 1953, census).

Already in 1982, adding in the residents of designated cities and towns with rural hukou increased the urbanization estimate significantly (Liu, Li, and Zhang, 2003). At the time this was a reasonable adjustment. The 1980s, however, saw an extremely rapid growth in the number and area of designated towns and cities. Urbanization policies encouraged townships to apply for (urban) town designation, and for the spatial extent of designated towns and cities to expand (Ma, 2004, 2005). Especially for migrants, however, the conversion of rural to urban hukou continued to be tightly restricted. In 1989, only 37 percent of people living in (urban) designated towns and cities had urban hukou (see Liu, Li, and Zhang, 2003, page 13). Thus on the one hand many designated towns and cities extended over large and often agricultural areas with low population densities, and on the other hand many people with rural (agricultural) registration lived in high density areas and worked in non-agricultural employment. By the 1990 census, it had become clear that an intermediate approach would have to be found to estimate China's level of urbanisation.

For the 1990 census, a limitation was placed on the areas whose population was considered urban: in cities with urban districts both the agricultural and non-agricultural populations of these urban districts were considered urban, while in other cities and towns only the population of subordinate areas with Residents' Committees were considered urban (Chan and Hu, 2003). Rural-urban migrants, including those with temporary hukou, which had been introduced at a national scale in 1985 (Davín, 1999), were included with these populations provided they had not been living in their home area for at least one year. (The 1990 census was also used to create indicators consistent with the 1982 census for purposes of comparison and trend analysis.)

The 1990 definition is considered to have led to a reasonable overall estimate of urbanization, but to over-counting in large cities and under-counting in many townships. For the 2000 census, an attempt was made to apply more consistent criteria. A density criterion was applied, and only populations in city districts with densities over 1500 persons per square kilometre were defined as urban. In city districts of lower density, in (county) cities without districts and in towns, other criteria were applied to identify which lower-level units were considered to have urban populations. These criteria were based on, for example, the presence of city, county or town government in the area or in contiguous built up areas. The definition of the 2000 census also reduced to six months the period that migrants had to have lived away from their home area to be counted.

This move away from using the administrative boundaries of urban centres to identify urban areas is consistent with changes that have been taking place in other countries. For the 2000 census in the United States, for example, the concept of urban clusters was developed to identify densely settled areas with a population of 2,500 to 49,999, and the boundaries of these clusters, unlike in the 1999 census, were not made to

conform to those of any legal or statistical entities. This definitional change has been estimated to have had the effect of increasing the urban population by 3% and decreasing the urban area by 7%².

The definition of the 2000 census only changed the overall estimate of China's urbanization slightly. According to the 2000 census, the urban share in 2000 was 36.1%, while a re-classification of the 2000 census results using the 1990 definition yielded an almost identical estimate of 36.3% (Chan and Hu, 2003). However, for individual settlements the two provide different estimates, with the 2000 definition reducing the counts for cities with districts, and increasing the counts for other designated cities and for designated towns.

There are still important uncertainties in China's urban population. Even with the 2000 census, one would expect an undercounting of unregistered migrants. As described in section 2.2, a substantial but uncertain share of temporary migrants do not take up a temporary registration for their urban residences, because of the costs involved. Just as in many other countries there is an undercounting of residents of informal settlements, in China one would expect an undercounting of the informal (i.e. unregistered) residents.

Box 1: Some examples of the variations in the definitions of urban centres in different nations³

This list is far from comprehensive, but is intended to give an idea of the wide variations in the definitions used in different parts of the world. Of the 147 nations with more than half a million inhabitants in 2000, 21 percent used population size criteria, 34 percent used population size combined with other criteria (often density and/or sector of employment), 31 percent used administrative or political criteria, and 12 percent simply listed the names of urban centres (Hardoy, Mitlin, and Satterthwaite, 2001).

In the United States, urban areas are defined as densely settled territories that meet minimum population density requirements and a population size of at least 2,500.

In Sweden, urban centres are built-up areas with at least 200 inhabitants and where houses are at most 200 metres from each other.

In the Philippines, urban centres are all cities and municipalities with a density of at least 1,000 persons per square kilometre, *barrios* of at least 2,000 inhabitants and those *barrios* of at least 1,000 inhabitants which are contiguous to the administrative centre, in all cities and municipalities with at a density of at least 500 persons per square kilometre; and all other administrative centres with at least 2,500 inhabitants.

² See <http://www.census.gov/geo/www/tiger/glossary.html#footnote3> (accessed April 13 2006).

³ The definitions in this box are taken from Chapter VII of United Nations (2004) *World Urbanization Prospects: The 2003 Revision*, Population Division, Department of Economic and Social Affairs, United Nations, New York

In Egypt, urban centres include the governorates of Cairo, Alexandria, Port Said, Ismailia and Suez; frontier governorates; and the capitals of other governorates as well as district capitals (*markaz*).

In India, urban centres include towns (places with municipal corporation, municipal area committee, town committee, notified area committee or cantonment board) and all places having 5,000 inhabitants or more, a density over 1,000 persons per square kilometre, pronounced urban characteristics and at least three fourths of the male population in non-agricultural employment.

1.3. Key points

- a) There is no internationally accepted definition of urban – indeed, the validity of the rural-urban dichotomy is questionable, although changing patterns and concentrations of economic activity and human settlement remain critical in China as elsewhere.
- b) China's past urban definitions have been overly influenced by policy aspirations (to achieve economic urbanization without commensurate demographic urbanization), and became bound up with administrative systems whose main purpose was to affect rather than measure urbanization.
- c) The 2000 census has achieved a more balanced definition, but is not readily compared with historic figures, and may still involve an undercounting of unregistered residents.

2. Intervening in rural-urban migration

China does not have a particularly mobile population. The millions of people migrating annually from one part of China to another are only exceptional because of the size of the overall population. Between 1995 and 2000, for example, only about 3% of China's population migrated between provinces, as compared to the 8% of the United States' population that migrated between states over the same period (Fan, 2005). In China, however, there are far larger net migration flows, both from rural to urban areas, and from Western to Eastern parts of the country.

Rural-urban migration is a very simple term often used to describe the complex population movements that accompany economic growth and the transition to a more urban society. Migrants typically move to places that offer economic opportunities, and there are usually more opportunities where the economy is expanding. In a growing economy, employing conventional technologies, most expansion is likely to be in urban areas. But the rural-urban division is only one of many relevant spatial dimensions. Some regions, transport corridors, coastal locations or special economic zones may also fare better than others. Rural-urban migration itself may be seasonal (e.g. rural migrants may go to work in urban areas for the season when there is little agricultural labour demand), circular (e.g.. young migrants may move to an urban area and then return home when they marry) or sequential (e.g. migrants may move first to a small town and later to a large city).

Especially during periods of rapid urbanization, planners often worry that the movement of people to urban centres is outpacing the growth in economic enterprises. In and around urban centres, the presence of low-income settlements lacking even basic services, is often taken to indicate that the rate of rural to urban migration is too high. In response, many countries have tried to curb rural-urban migration directly, and many urban centres and even neighbourhoods have taken indirect measures to discourage migrants from settling.

Large groups of very poor people living in rapidly growing cities can undoubtedly create political and other difficulties for government, and especially for the urban authorities where they concentrate. From an economic perspective, however, there is little to indicate that existing or past rural-urban migration rates have been excessive. Indeed, given the very high rural-urban wage differentials which often prevail during periods of rapid migration, one could argue that rural-urban migration rates tend to be insufficient (Williamson, 1988). Moreover, efforts to curb rural-urban migration can easily amplify the regional inequalities that rapid economic growth and urbanization bring, and these inequalities themselves have political as well as social consequences.

The following sections look, from an international perspective, first at China's level and rate of urbanization in an international context, and then at China's policies regulating rural-urban migration. The indications are that China's level of urbanization is lower than what would be typical for a country with its economic status, and that the low urbanization level probably is constraining economic performance. The comparatively low level of urbanization is perhaps not surprising, since the policies inhibiting rural-urban migration – including the household registration or 'hukou' system – are far stronger than in most other countries. Also, China's economic growth rates since the liberalization of the economy started in the late 1970s have been exceptional, so that even with a comparatively high urbanization

rate it is not surprising that China's economic performance has outpaced its urbanization.

China will not necessarily conform to an internationally conventional relationship between economic growth and urbanization (which has itself displayed considerable variation). There may be environmental, social or political reasons to aspire to a different rate and pattern of urbanization. Using administrative procedures such as the hukou to reduce mobility directly is, however, increasingly at odds with China's liberalizing economy.

The hukou system is already in a process of continuous reform. Through this reform it should be possible to reduce the inequalities between rural-urban migrants and the rest of the urban work force, and indirectly some of the inequality between the urban and rural work forces. It should also be possible to retain benefits that the hukou system has helped foster, including the benefits for the migrants 'home' areas that come from having the migrants retain close ties. As described in more detail in Section 5, circular migration and long term links with home areas often persist in the absence of any registration system whatsoever.

International experience also indicates, however, that even in the absence of registration systems that distinguish migrants from other urban residents, rural-urban migrants and other urban poor groups often encounter difficulties gaining formal status as residents, and as a result migrants often fail to gain access to adequate urban services and other rights. Few countries, except perhaps a small subset of countries that once relied on centrally planned economies, have had such strong restrictions on mobility, and on rural-urban migration in particular. International migrants to urban centres in affluent market economies do often face very severe restrictions, however. Moreover, in countries where incomes are low and rural-urban migration is rapid, migrants are often forced to settle, not where planners or markets dictate, but where open land provides an opportunity for informal settlement.

One of the justifications given for trying to control rural-urban migrants, in China as elsewhere, is to prevent the emergence of the slums and squatter settlements. Although rural-urban migration is usually driven by the relatively greater economic opportunities that urban centres can provide, not everyone moving to urban areas is likely to succeed. Unregulated urbanization is likely to result in the urbanization of poverty as well as of wealth (see Section 6). Even if urban poverty could be reduced by restricting rural to urban migration through the hukou system, overall poverty would be likely to increase as a result. As the hukou system is reformed, however, the Chinese government will have to make difficult decisions about how to handle urban poverty – a topic discussed in more detail in Section 6.

2.1. Is China's rural-urban migration economically excessive or insufficient?

The income differentials between rural and urban areas are very high in China (Yao, Zhang, and Hanmer, 2004). China's recent rate of rural-urban migration has been high by international standards, but so has its economic growth. From an economic perspective, it seem likely that even more of China's rural dwellers would be better off if they were able to pursue work in urban areas.

Less than a decade ago the prevailing view was that China was ‘under-urbanized’ prior to the economic reforms (starting in the late 70s), but was catching up with the reforms. More recent statistical studies comparing China’s level of urbanization with that in other countries indicate that China is currently less urban than one would predict from historical relations between economic growth and urbanization, although this was not the case in the early years of the reform period (Chang and Brada, 2001; Zhang, 2004). In short, the previous view has been reversed.

As described in Section 1, different countries define urban very differently, and definitions in China and elsewhere have changed over time. It is hard to make comparative generalizations with confidence. At least in part owing to definitional differences, the Philippines is reported to have a far higher urbanization level than Thailand (59% as compared to 31%), although Thailand’s per capita income is about twice that of the Philippines (Jones, 2004). Equally important, comparing China’s level of urbanization with that of other countries may be misleading given its very high rate of economic growth in recent years. China’s economic growth (GDP at constant prices) between 1990 and 2003 was 9.6%, as compared to a world average of 2.8% (World Bank, 2005). As indicated in Table 2, UN estimates also put the rate of increase in China’s urbanization well above the world average level at 2.6 percent a year. A high rate of increase in level of urbanization brings its own costs, and even if the level of urbanization is less than optimal for China’s economy, the costs of having an even higher rate of urbanization could already exceed the benefits.

In the face of numerous uncertainties, some policy analysts are nevertheless concerned that China’s urban areas (and particularly the large cities) are growing too fast, while a number of economists are concerned that China is not urban enough (Au and Henderson, 2004; Chang, 2004; Henderson and Au, 2003). Neither set of concerns depend primarily on comparing China’s level of urbanization with that in other countries. They focus instead on mechanisms that are held to result in under or over urbanization.

Market economists focus on restrictions on migration, and how they prevent workers from seeking out productivity gains, and prevent the economic benefits of agglomeration (i.e. the clustering of people and economic activities in spatial proximity to each other) from being fully exploited. Chang estimates a loss of approximately 10% of national GDP, and while Henderson and Au do not provide an estimate of the overall losses, they argue that the losses are large, and that the majority of Chinese cities are undersized.

Those concerned with excessive rural-urban migration often focus on the social, political and environmental costs that migrants impose on other urban dwellers. These are, however, very difficult to measure, and would need to be compared with the social, political and environmental costs of preventing aspiring migrants from moving.

2.2. Policies aimed at controlling rural-urban migration

A recent international review of government policies towards internal migration found that most governmental attempts to intervene directly to stop or redirect migration have, as in China, involved limitations on migration out of rural areas or into urban

areas (Waddington, 2003). Controlling rural-urban migration directly requires registration, identification, and inspection systems that can easily become administratively cumbersome, socially intrusive, and economically inefficient. Where significant controls on migration are instituted, they are almost inevitably part of a broader system of government control, such as those associated with a centrally planned economy or the policing of territorial boundaries.

China's internal controls on rural-urban migration are grounded in the household registration or hukou system. The hukou system has a history that stretches back many centuries, and controlling rural-urban migration has never been its sole or even primary purpose (Wang, 2005). Rather, it is a locational registration system that over time has provided a means to monitor and selectively intervene in a wide range of household activities, of which migration is just one. Starting in the 1950s, the hukou system was adapted to meet the needs of China's central planning system, and a number of these adaptations helped create important administrative distinctions between rural (agricultural) and urban (non-agricultural) populations. Urban registration, for example, entitled holders to centrally administered grain rations and other benefits that rural dwellers were meant to obtain through their communes. This administrative distinction created both a motive and a means for controlling rural-urban migration.

The hukou system that emerged with China's centrally planned economy had more in common with the now defunct internal passport system (*propiska*) of the Soviet Union and Vietnam's household registration system (*ho khau*) than it had with the plaques that the Ming government required residents of fortified cities to hang by their doors, disclosing their hukou information (Wang, 2005, page 41). With the shift towards a market driven economy, the basis and justification for many aspects of this hukou system have also been undermined. Yet in the early 2000s, the system was still backed up by about 300,000 hukou police field officers. It remains a far greater influence on migrants and their movements than registration systems in other countries, and indeed than most other means of intervening directly in the lives of actual or aspiring rural-urban migrants.

International migrants to affluent cities are often subject to very strict controls, including some based on residential registration, even in countries with no restrictions on internal migration (at least for national citizens). The 25 countries of the expanded European Union have a total population of approximately 450 million (well under half of China's) and have historically had tight controls on international migration. Many of the concerns over international migration controls in the more economically successful European countries mirror those in China's more successful provinces: tight regulation, restrictions based on qualifications, and measures restricting benefits to migrants are considered by many to be unfair and economically unwise; on the other hand, loose regulation is considered to be a threat to existing benefit systems and to social harmony.

The potentially negative impact of policies that restrict international migration is illustrated by the case of Italy. Current immigration legislation links residence permits to employment contracts. These, in turn, depend on quotas established by the Ministry of Labour in consultation with employers' associations and trade unions, which determine the maximum number of foreign workers allowed into the country. Quotas

are divided into seasonal and non-seasonal jobs and are allocated on a geographical basis both within Italy (ie the locations of employment) and amongst migrants' countries of origin. This system has been heavily criticised by employers' associations. In the industry sector, the mismatch between employers' demands for migrant workers and the established quotas in 2003 was 79 percent, making it difficult for small and medium sized enterprises, the main source of demand, to survive (Laganà, 2005). In the agricultural sector, migrant workers accounted for 78 percent of seasonal workers in 2004, but lengthy bureaucratic procedures to obtain work permits and low quotas are cited as a severe problem by employers' associations. The result is a large number of migrants without residence permit and working without an employment contract. Illegal work often translates into heavy and underpaid work, in many cases in dangerous conditions. Whilst injuries at work in Italy decreased by 1.6 percent and fatalities fell by 5.1 percent in 2003, migrants' work accidents increased by 16.2 percent and deaths by 30.8 percent (ibid).

Internal migration is only loosely controlled in most countries. The majority of countries have some form of national identification cards issued to all adult persons, but only some can be linked to the holders' place of residence, and comparatively few are linked to migration controls or other restrictions on residential location. Some of the best known examples of targeted registration systems are notorious because they were used for ethnic or racial oppression. For example, in the lead up to the holocaust the Nazis registered Jews, requiring them to carry identification, and often restricting where they could live. Alternatively, the apartheid government of South Africa registered Blacks and restricted people so designated to townships or rural areas. Internationally, these abuses and others have helped give a bad name to registration systems, and particularly those that can be used to identify racial or ethnic groups (Fussell, 2004). More generally, in a number of Western countries national registration systems and identity cards have been resisted on the grounds that they represent an unnecessary and potentially harmful infringement of civil liberties.

The threat of terrorism has changed the nature of the international and national debates, and led to proposals for more extensive use of registration systems and identity cards, including for example the Identity Card Bill put before the UK Parliament in November 2004. A somewhat analogous threat of counter-revolutionary activity was the major justification for creating a strong hukou system in the early years of the Chinese Communist government. Even today, a major function of the hukou system is to manage targeted groups (Wang, 2004).

The country with the registration system closest to China's – and even called *ho khau* – is Vietnam. It too has been used to influence rural-urban migration. Urban-rural and rural-rural migration were encouraged, while rural urban migration, especially to the largest cities, was discouraged so as to avoid over-urbanization, social insecurity and disorder (Dang, 2003). Also as in China, the household registration system was linked to a system of subsidies and rations used in central planning. And not surprisingly, with the market-led urbanization taking place in Vietnam, there has been a growing population of unregistered migrants, who are among the least protected on the urban labour market, despite making a large contribution to economic development (Dang, 2005).

The hukou system in China has served to accentuate the advantages of urban dwellers over rural dwellers, city dwellers over town dwellers, and major city dwellers over minor city dwellers. It has provided the basis for policies favouring local (urban) residents over temporary migrants. With government decentralization, it is local urban governments as much as central authorities that have pursued their goals through the hukou system (although quotas on urban hukou have been set centrally). Local governments in economically successful urban centres have tried to use the hukou system to encourage migrants that will benefit the local economy, and discourage economically or socially undesirable migrants.

The first post-reform relaxations of restrictions on the hukou system were linked to the small town-based national development strategy of the 1980s. Since 1984, rural migrants to small towns who were self-sufficient in grain could obtain urban registration for themselves and their families, although on condition of giving up their contract land in their home area, and without the right to housing, subsidised healthcare and education included in the normal urban hukou. By the late 1980s, about 4.6 million rural migrants had taken up this new small town urban hukou, but thereafter apparently few have taken up the offer (Davin, 1999).

In the 1980s, the demand for unskilled workers in the urban rapidly expanding construction industry and other unskilled and semi-skilled jobs attracted large numbers of migrants, and in 1985 a temporary hukou permit was introduced for 6 months to one year, renewable (Wang, 2005). The temporary hukou legitimised already established practices and its fees provided additional income to local governments. Non-registered migrants could be rounded up, fined and in some cases sent back home. Because migrants are also required to pay for their temporary hukou, registration rates depend on rigorous enforcement; upward of half of migrants may remain unregistered (Davin, 1999, page 43; Wang, 2005).

Despite these changes, transferring hukou from agricultural to non-agricultural status has remained difficult. Much urbanisation is therefore linked to temporary hukou or non-hukou migrants: in 1990, only 21.2 percent of the total population had a permanent non-agricultural hukou, while the proportion of the urban population was 26.4 percent, and in 1995 the figures were 23.8 percent against 31.7 percent. A new form of transfer appeared in the late 1980s and early 1990s, when non-agricultural hukous were sold by local authorities on a market price basis (for example, in Beijing in 1994 it would cost as much as 50,000 yuan, and 40-60,000 yuan in Shenzhen Special Economic Zone (Davin, 1999; Hardoy, Mitlin, and Satterthwaite, 2001). Such adaptations enabled the wealthy and the educated, as well as those with official positions, to obtain local hukou even in the major cities. They may help the local government to earn revenue from what would otherwise be a potential or actual source of corruption. They do not, however, provide security or long term legality to the vast majority of comparatively low-income migrants who still cannot qualify or afford local hukou.

Migrants without local registration are referred to as temporary migrants, or the floating population, though as the terms imply these migrants can be hard to locate and count or even define (Goodkind and West, 2002). On the basis of the 2000 census, from which floating migrants can be defined as people who have lived at a destination for at least six months without local household registration status, of the

estimated 79 million inter-county migrants about 59 million were part of the floating population (Liang and Ma, 2004). Overall, the inter-county floating population accounts for about 6% of China's population, and while they are found throughout the country, they are concentrated in the more economically successful regions along the coast – with 27% of the inter-county floating population in Guangdong Province alone.

Migrants who obtain local hukou when they move to urban centres are, as one would expect, more educated and affluent than the 'temporary' migrants (Liang and Chen, 2004) and are more likely to have government or at least formal and white collar jobs (Guo and Iredale, 2004). To the extent that the hukou system creates obstacles for the movement of workers, one would expect it to create economic inefficiencies, and this is indeed what the evidence indicates (Hertel and Zhai, 2004; Whalley and Zhang, 2004). Removing the hukou could help to create a more integrated labour market (Fang and Dewen, 2003). There are also indications that it would provide migrants with better access to housing and urban services, and that the current disadvantages faced by temporary migrants lie more in the institutional restrictions linked to the hukou system than with socio-economic factors (Wu, 2004).

Removing restrictions like the hukou creates losers as well as winners, however. Urban workers with local hukou will face greater competition from migrant workers. Wages in the markets where competition was suppressed are likely to fall, while prices in previously suppressed markets (e.g. housing) may rise. Moreover, attempts to equalize state benefits for migrants and non-migrants will create pressure to depress the benefits for non-migrants as well as to build up the benefits of migrants. Some of the advantages existing migrants might expect to accrue will also be lost as they face more competition from migrants previously put off by regulatory and other restrictions. Alternatively, some of the winners are likely to be employers; while urban governments have tried to control migration in such a way as to meet employers' needs, this has been exceedingly difficult in practice.

Also, judging from international experiences with rapid rural-urban migration involving low income populations, simply dismantling the hukou system will not ensure that migrant workers gain equal, let alone adequate, access to employment, housing or urban services. China's cities have their floating populations, but many cities in other parts of the world have their "squatter" populations whose urban residence is also legally ambiguous (in that their homes are on disputed land, or are not up to standard).

2.3. Key points

- a) China's urbanization has not been keeping pace with its economic growth. Given its rate of economic growth this is perhaps not surprising, but there are indications that the urbanization lag has economic costs.
- b) China also still has a household registration system (hukou), which once tightly controlled rural-urban migration, and still serves to inhibit migration and put migrants at a disadvantage.
- c) Dismantling the household registration system is economically desirable, and could become part of an effort to assist China's poorest groups to improve their conditions. However, unless efforts are made to prevent alternative forms of discrimination from emerging (as they have in many parts of the world), a significant share of migrants are likely to remain "second class citizens"

3. Migration to metropolitan regions

Between 1990 and 2000, the main destinations of inter-provincial migrants without permanent registration have been Shanghai, Guangdong, Zhejiang and Beijing. The size of Guangdong's migrant population nearly tripled during this period. In 2000 the province, which has less than 7 percent of China's population, had 27 percent of the total interprovincial migrant population (Liang and Ma, 2004). More generally, rapid urban growth has been associated with economic reform (Anderson and Ge, 2004). Despite the government's policy of encouraging development in western regions of the country, the coastal provinces still act as a magnet for interprovincial migrants.

These coastal destinations are advantageously placed in relation to the trading system (Bao, Chang, Sachs et al., 2002; Lin, 2005), but share a need for cheap labour to work in export manufacturing, or in the constantly growing construction sector. There is a relative gender balance in the flows of temporary migrants (about 32 million men and 27 million women), most of whom are young (in the age group 15-29), much less educated than permanent migrants, and move primarily for economic reasons (ibid).

Wages are low and working conditions are usually below international standards as well as below Chinese minimum legal wages (Wang, 2004b). In its 2004 Social Responsibility report, the garments and shoes multinational Nike recognised that workers in ninety percent of the 124 Chinese subcontractor factories work very long hours and are often not allowed breaks during work time (Nike, 2005). Large numbers of migrant workers with low incomes and restricted access to services because of their hukou status are having a significant impact on China's emerging metropolitan regions. To some extent, this type of globalisation-driven migration and urban expansion mirrors that of other nations, and much can be learnt from their experiences and the challenges they face.

3.1. Experiences of globalisation-led urbanisation

Much of the economic growth in low and middle income countries since the 1970s has been driven by the restructuring of the world economy, and the delocalisation of industries and services previously located in high-income countries. Concentration of foreign direct investment and a focus on export manufacturing have resulted in increasing regional inequalities within countries, the growth of large urban centres, and accelerated rural-urban migration (Sien and Perry, 2003).

Mexico is one of the countries that has undergone some of the most radical economic liberalization and integration into regional and global economies in recent decades, and its growing regional economic inequalities are revealing (Rodríguez-Pose and Sánchez-Reaza, 2005). Mexico City and the states bordering on the United States have benefited disproportionately. While North-South disparities have been evident since the industrialization of the early 20th century, there were indications of convergence in the 1970s and early 1980s. Regional inequalities started to increase again, however, as Mexico signed the General Agreement on Tariffs and Trade in 1985, and then went on to join the North American Free Trade Agreement.

The experience of economies in transition is also of particular relevance to China, and a recent study of the Czech Republic, Hungary, Poland and Russia also found that the

major cities and urban centres well located and connected for trade with Western European markets have fared well, while remote areas have done less well or have actually lost out (Förster, Jesuit, and Smeeding, 2005, page 336). These countries were far more urban than China at the time of liberalization, and these spatial differences did not have the same implications for urbanization. They do reveal a common pattern, however.

In Southeast Asia there are also indications that well connected regions have been benefiting disproportionately from export-led growth – in Indonesia, for example, where poverty has been more responsive to economic growth in Java and Bali, than in the more remote islands (Friedman, 2005). Extended metropolitan regions are also a striking outcome of recent growth patterns, including for example the regions surrounding Bangkok, Jakarta and Manila. Also called *desakota* regions (from the Indonesian terms *desa* – village, and *kota* – town) these regions can expand for up to a hundred kilometres from their urban core and see the expansion of non-rural activities in urban peripheries and in the corridors between cities (Ginsburg, Koppel, and McGee, 1991; Macleod and McGee, 1996). This process is driven largely by the penetration of global market forces into the countryside near successful urban centres, and is typically unplanned, resulting in a lack of integration between infrastructure provision and population. Neither core urban centres nor the *desakota* regions provide adequate employment, shelter or basic infrastructure services such as sanitation, water or electricity to the majority of their expanding population. This is especially the case in the urban fringes, where much of the lower-income population is forced to move as city centres are converted to financial centres and low and middle-income housing is replaced by high-profile, prestigious buildings. At the same time, self-contained suburban developments for the emerging middle-classes sit next to informal, semi-rural settlements for low-income original residents and migrants, often with latent conflicts over the control and use of resources such as land and water.

This model of urban expansion can also be found in other areas of globalisation-driven urban development, for example in and around large and economically successful cities in India, such as Bangalore (Benjamin, 2000), and in Latin American cities such as Caracas in Venezuela (Lacabana and Cariola, 2003).

3.2. Challenges of globally-driven industrialisation, migration and urbanisation in Southeast Asia

Not unlike China's coastal provinces, in most of Southeast Asia's export manufacturing industries working conditions are poor, workers' organisation is circumscribed and remuneration often very low. Their attractiveness to migrants can be explained by the limited alternatives on offer (mainly in agriculture or in the urban informal sector). For national governments, it is rather the belief that this form of industrialisation can lead to the economic growth experienced by nations such as Singapore and Malaysia (Rigg, 1997).

However, the experience of the joint Indonesia-Singapore Batamindo Industrial Park, on the Indonesian island of Batam, suggests that the problems can outweigh the benefits. Based on the combination of Indonesian cheap labour and Singaporean administration and infrastructure, the industrial park sought to attract transnational corporations; but at the same time, it also attracted a wave of migrants that swamped

the island's infrastructure and capacity to provide employment, housing or basic social facilities. Its population grew from about 50,000 in 1985 to over 350,000 in 1999, a likely large underestimate due to the mushrooming of illegal squatter housing (Sien and Perry, 2003). Employers preferred single women with school qualifications and under the age of 24, leaving the majority of the population (migrants and non-migrants) forced to turn to the informal sector. Hence, far from becoming a new Singapore, 'Batam has rapidly acquired the traditional problems of low-income cities with all the social and infrastructure problems associated with poor squatter communities' (Sien and Perry, 2003, page 19).

In many cases, policy-makers throughout the world have been deeply unaware of the impact of macro-economic policies on migration and urban development (Becker and Morrison, 1996). Free market strategies, trade liberalisation and decreasing government intervention in the national economy have a significant impact on population movement and on the physical form of urban settlements. In Thailand, growing regional inequalities and the unmanageable expansion of the Bangkok Metropolitan Region have prompted the government to try and influence the pattern of industrialisation. However, incentives offered to firms to relocate outside the area have not been effective, suggesting that transnational firms, in alliance with local industry, have more control than the state on the shape, form and character of urbanisation in the region (Parnwell and Wongsuphasawat, 1997).

3.3. China's migrants' mobility and location of employment

Despite China's growing unemployment (Wu, 2004a), recently reported labour shortages in the Zhujiang Delta region, Guangdong and Fujian (Ping and Shaohua, 2005) suggest that export manufacturing may not be the answer to the country's employment problems. The combination of labour surplus and shortage reflects a more fundamental paradox. China's migrant labour force is highly mobile, but there are numerous obstacles to the creation of a national labour market (Fang and Dewen, 2003; Yang, 2003). Moreover, while China's economic strategy (rather than any urbanization strategy) is dominating its urbanization outcomes, the movement of people remains highly political.

A major difficulty in recording temporary migrants is their high mobility, as most tend to move from one destination to the next depending on employment opportunities. According to the Department of Public Security Management, in 1999, 59.4 percent of registered temporary migrants had lived in their current place for between one month and one year, 14.5 percent for less than one month, and only 26.1 percent for over one year (Zhu, 2003). It is likely that unregistered migrants are even more mobile.

The high mobility of migrants was also evident in a review of recent research on migrant workers in ten cities of five coastal provinces and municipalities, including major destinations such as Guangdong, Beijing and Jiangsu (Zhu, 2003). Only 15 to 30 percent of migrants intend to settle permanently in their current workplaces (Zhu, 2003). This is particularly the case for young, single women, who are the overwhelming majority of the export manufacturing factories workforce, but who are under the double pressure of employer preference (older and married women are not

preferred workers) and institutional and socio-cultural constraints requiring them to return to the village upon marriage and take up all village responsibilities (Fan, 2003).

But, increasingly, low pay and working conditions, combined with inadequate services and public support, deter migrants from staying in locations where it is difficult to save any money (Ping and Shaohua, 2005). Most migrants will move on to other locations, either within the eastern region or to other provinces where wages are higher in relation to cost of living, or return to their homeplace. Another reason that may change patterns of migration in the future is the need for only children to remain close to their parents to assist them in their old age. Increasing options for migrants means ensuring that China's urban system can offer a variety of urban centres of different sizes and economic bases that can act as destinations and promote a more balanced distribution of the national population.

3.4. Key points

- Coastal provinces are the main destination for inter-provincial migrants, as employment opportunities tend to concentrate in coastal centres well connected to external markets
- Especially in Southeast Asia, but also in other middle-income countries in Latin America and South Asia, economic concentration has spurred the development of extended metropolitan regions with concentrations of un-serviced poor settlements and environmental problems
- In this form of globalisation-led migration to metropolitan regions, low wages and poor working and living conditions contribute to increase migrant mobility and labour market instability

4. Migration and labour markets in small and intermediate urban centres

Smaller urban centres can play an essential role in the economic development of their surrounding rural area, by providing goods and services to rural residents, and markets and processing of rural produce. As these activities develop, local non-farm employment opportunities increase. This encourages income diversification among residents of the urban peripheries, who can commute daily to the urban centre and still work on their farms. Perhaps more importantly in many nations, the expansion of the local urban labour market can also attract rural migrants from the surrounding rural region and decrease migration pressure on the large cities.

The development of small and intermediate urban centres has long been a priority in middle and low-income nations. However, in many cases smaller urban centres have failed to play a significant role in balanced rural-urban development. The evidence available from several countries suggests that the main reasons for this failure are: the discrepancy between local economic development policies and national development strategies that concentrate resources and infrastructure in a limited number of growth areas, often linked to export production; the failure to give sufficient attention to agricultural production systems in the surrounding rural region; and the often limited capacity and financial resources of local governments in providing essential infrastructure and access to external markets (Satterthwaite and Tacoli, 2003).

Failures can also result from policies based on misplaced assumptions about the nature and role of small and intermediate urban centres. Generalising about small and intermediate centres is inherently risky. In fact, even definitions vary, partly because of the national differences in definitions of what constitutes an urban centre, discussed earlier in this paper, and partly because the role of small and intermediate urban centres is best understood in the context of their national urban system rather than based on their size. For example, in Belize, a small Latin American nation with a total population of 200,000, small towns may not even have 2,000 inhabitants and the secondary urban centres have between 5,000 and 10,000, and still perform important urban functions within their rural region. In contrast, in nations with large populations such as China and India, urban centres with as many as 200,000 inhabitants are often defined as small, especially in densely populated areas where urban functions may concentrate in larger centres.

4.1. Encouraging China's smaller settlements to urbanize

Large cities in China have grown in absolute size and have attracted large numbers of rural migrants. They have also attracted the bulk of foreign investment, especially in the coastal region, and are undoubtedly the key economic nodes of China (Ma, 2004). Their dominance in the national urban hierarchy has however declined following the increase in the number of small cities and towns. This reflects article 4 of China's City Planning Law adopted in 1989 (and previous strategies dating from 1978), and which has not been officially abolished. The law states the national strategy for urbanisation as: strictly control the development of large cities; rationally develop medium-sized cities; and vigorously promote the development of small cities and towns (Kirkby, Bradbury, and Shen, 2000; Ma, 2004). The number of towns and cities in China started to increase rapidly since 1984. At the end of 1983 there were 2,781 designated towns (previously classed as rural) in China, but their number more than doubled (to 6,211) in mid-1984. This number increased again from 12,084 at the end

of 1990 to 20,312 at the end of 2000, a reclassification that is estimated to account for 22 percent of the urban population growth in the 1990s (Chan and Hu, 2003).

China's policy of 'leave the country without leaving the countryside' launched in the mid-1980s prioritised the development of small cities and towns to absorb the rapidly increasing rural surplus population and stimulate regional development. Measures to promote small cities and towns included: the relaxation of household registration for some migrants; the equalisation of taxation rates on town-based enterprises with those based in townships and communes; and the expansion of administrative boundaries to include much of the surrounding rural territory. Reflecting the 'city controls counties' system whereby municipalities have taken on the regional centres, small towns expand their boundaries to incorporate the (often considerable) rural territory of the township they usually replace and by this have greater control over human and material resources (Kirkby, Bradbury, and Shen, 2000; Ma, 2005)..

Changes in the administrative status of these urban centres are closely linked to the development of Township and Village Enterprises (TVEs) (Chen, 2005). These small scale rural non-agricultural enterprises grew enormously between 1978 and 1994, when their share of the gross national industrial output went from 9 to 42 percent and their contribution to the total state revenue from 4 to 22 percent (Kirkby, Bradbury, and Shen, 2000). At their peak, in the mid-1990s, it was estimated that TVEs employed over one-quarter of the rural workforce (125 million workers) (Kirkby, Bradbury, and Shen, 2000).

It is important to underline the wide differences between small towns in terms of population size and incomes, local government revenue, infrastructure and service provision. As might be expected, the main variations are those between small urban centres in remote areas and with difficult access to transport and roads, and small towns in densely populated regions, especially the eastern and coastal one, which are effectively satellites of large cities (Chen, 2005). Service provision in some small towns can be as poor as in rural areas, and where economic opportunities are lacking, these centres are sources of out-migration rather than migrant destinations (Kirkby, Bradbury, and Shen, 2000). Some authors (e.g. Chen, 2005; Kirkby, Bradbury, and Shen, 2000) identify a shift in urbanisation strategies in favour of medium-sized cities, where economies of scale are expected to increase efficiency. Perhaps a more fundamental problem with China's urbanization strategy is that different categories of urban centres are defined by size, rather than their functions and the characteristics of their surrounding region. In practice, however, the highly decentralised Chinese local government system may compensate for this, although it also exacerbates regional inequalities (Kanbur and Zhang, 2003).

The expansion in the number of towns has contributed to China's urbanization through their reclassification from rural to urban settlements, although in the 1990 and 2000 censuses not all the areas of (urban) designated towns and cities were considered urban for the purpose of counting urban populations. Moreover, their role as destinations for rural migrants appears to have declined. In the period 1990-1995, village to town movement registered the biggest drop of all migration flows, declining by 54.4 percent (from 4.05 million in 1985-1990 to 1.85 million in 1990-1995). Rural migrants, especially interprovincial ones, seem to increasingly opt for the cities rather than the towns – and although some of this may be explained by the elevation of some

194 towns to city status in 1990-1995, it fits well with data on the increase in rural-urban migrants in the coastal provinces described earlier in this paper (Li, 2004). In 2000, 55 percent of interprovincial migrants had moved to cities, against 20 percent to towns (although this includes urban-urban migrants). It is only at the intracounty level that rural to town movement prevails with 39.3 percent of all movements, although the proportion of intracounty migrants moving from town to city is similar at 35.1 percent (Liang and Ma, 2004). At the same time, the role of small towns in providing non-agricultural employment opportunities to rural workers (either through migration or commuting) and to their own populations remains key to reducing rural and urban poverty in China.

In the past decade there has been a renewed interest in the role that small and intermediate urban centres can play in balanced regional and rural-urban development, and the critical reviews of the experiences of several middle and low-income nations (Satterthwaite and Tacoli, 2003) can inform policy debates on the spatial distribution of population and labour markets in China as described in the next sections.

4.2. Economic growth and labour markets in small towns

One of the key roles of small towns is that of providers of services and goods to their surrounding rural region. This, in turn, stimulates local enterprises and creates employment. There are two factors that influence the capacity of small urban centres to fulfil this role. First is the nature of rural economic activities and, related to this, the income levels and purchasing power of the rural population. Second is the capacity of local enterprises to meet this demand and the demand from those living within the town. The quality and nature of goods must respond to local demand in the face of competition from elsewhere. Even enterprises in thriving urban centres can be undermined by cheaper imports, or by competition from larger urban centres, especially where these are located sufficiently close and transport links are reasonably accessible, efficient and affordable.

The following example from Costa Rica, a middle-income nation in Central America, illustrates the first point. The region of Huetar Norte is primarily a cattle ranching and export crops production area. In the 1970s, generous credit facilities were allocated to cattle ranching, to produce meat for export to the US. Large ranchers were given preference over smallholders, increasing inequality in access to land and causing much rural unemployment. In addition to this, since the meat was intended primarily for export, processing facilities were located close to the major port, in the capital city San Jose, by-passing regional small and intermediate urban centres. And since the rural population was so impoverished, demand for goods and services dropped, again affecting local urban enterprises (Romein, 1997).

In general, small and intermediate urban centres are much more likely to play a role in the economic growth of their region, including providing non-farm employment to rural workers, if they can rely on broad-based demand for goods and services within the surrounding region. This implies equitable access to assets and resources for agricultural production, such as land, water and credit; in practice, this often means agricultural systems where small and medium-scale farming prevail and where farmers' incomes are sufficiently high.

In China, town and village enterprises (TVEs) expanded rapidly in the post-reform period, when increases in agricultural procurement prices increased farmers' incomes and their demand for goods and services. At the same time, the household responsibility system allowed farmers to move from agricultural to non-agricultural employment. Between 1978 and 2000, the rural labour force grew by 2.6 percent annually, but workers in the rural non-farm sector increased by 27 percent per year, most of them employed in TVEs (Fleisher and Yang, 2004). However, urban-rural income inequality has increased since the mid-1980s, as farm prices stopped rising, prices of agricultural inputs rose, state investments were heavily geared towards the urban and industrial sector at the expense of the rural and agricultural sector, and the hukou system continues to limit the potentials of migration. Compared to other countries where urban-rural income ratios are mostly below 1.5, China's ratio of between 2 and 3 is very high (Yao, Zhang, and Hanmer, 2004). By negatively affecting the purchasing power of rural populations, this limits the potential economic role of small towns, including that of destinations for rural migrants.

While there is much evidence that rural non-farm employment is a critical element of rural households' incomes throughout the world, its nature can vary enormously between and within countries and regions. For example, worldwide only a minor proportion of non-farm activities is in manufacturing, usually around 20-25 percent. Services and trade typically provide a much larger share of employment and income, and in many countries they have expanded following the demise of central marketing boards that controlled trade of agricultural commodities and often transport services between rural settlements and urban centres (Haggblade, Hazell, and Reardon, 2002). Manufacturing, services and trade all benefit from concentration in small towns. In Vietnam, manufacturing in rural micro-enterprises has increased in response to the contraction of state owned enterprises. However, many rural micro-enterprises employ less than five workers, and suffer from constraints that tend to hamper their growth. These range from shortage of capital, limited local demand and lack of access to wider markets, poor marketing ability, lack of information, technology, skills and management capability (Hoang, Dang, and Tacoli, 2005).

4.3. Developing small and micro-enterprises through clustering

Small towns can play a role in overcoming the constraints of small and micro-enterprises. They can stimulate growth by offering larger markets, higher levels of infrastructure and facilitate access to national and international markets. There is currently much interest in industrial clustering and local economic development, where local and regional institutions, usually located in small and intermediate urban centres, can play a key role in supporting local enterprises and connecting them to national and international agencies and markets.

Much of the recent research on small urban centres points to the significance of their connection to wider market networks that go beyond their immediate region, and to sufficient population densities that support demand for food, goods and services as well as an increase in the non-agricultural labour force supply. In Vietnam's Red River Delta, proximity to the capital city, Hanoi, and to the major northern port, Haiphong, has helped farmers intensify and diversify their production to meet urban demand for high value fresh vegetables and meat. This, in turn, has spurred demand for agricultural services and inputs in the local small towns, increasing opportunities for non-farm employment (Hoang, Dang, and Tacoli, 2005). Other villages (the 'craft

and industry villages' or CVIs) have specialised in the manufacturing of export goods such as baskets and embroidery, which benefit from close links with exporters based in Hanoi and Haiphong. These villages have grown in size and population density and are best defined as urbanising settlements (ibid).

There are similar examples of such 'in situ' urbanisation in China, where it concentrates in the eastern region and coastal provinces (Webster and Muller, 2002). Although TVEs in China are often portrayed as examples of rural industrialisation in remote areas, the most successful ones were established in peri-urban areas, outside built-up areas but often in the proximity if not within the administrative boundaries of urban centres (Webster and Muller, 2002). With economic liberalisation, TVEs have to some extent benefited from declining levels of output from urban State-owned enterprises (SOEs), and some laid-off SOE workers have moved to TVEs. However, while some TVEs have benefited from economic liberalisation and restructured as private or corporately owned enterprises, many others have not survived competition and market pressures. One success case is that of Jinjiang municipality, in Fujian province (Zhu, 2000). Remittances from overseas migrants invested in joint-household enterprises became the main local employer in the early 1980s. Since 1988, most of these TVEs are foreign funded, and investors have helped improve production techniques and the enterprises' export capability (Zhu, 2000). There is also a degree of geographical and sectoral concentration of enterprises (clustering), as in Vietnam's CVIs.

4.4. Challenges of small town-based economic growth

The small town clusters of micro-enterprises described above have shown to be, in many places, the key element of local economic development and employment creation. But a number of challenges need to be addressed for them to increase their positive role.

First, small and micro-enterprises can be major air and water polluters, as their size often does not allow them to enter small industrial zones where adequate infrastructure may be provided (Hoang, Dang, and Tacoli, 2005; Kirkby, Bradbury, and Shen, 2000). In China, the spatial dispersion and small size of TVEs has made environmental control particularly difficult. In the mid-1980s, it was estimated that TVEs were responsible for one-third of China's gas emissions, one-sixth of water pollution and one-sixth of solid waste production (Kirkby, Bradbury, and Shen, 2000). Stricter environmental regulations introduced in the 1990s have affected many TVEs: in 1997, the national government ordered the closure of tens of thousands of TVEs engaged in highly polluting activities such as tanning, paper making and dyeing textiles (Webster and Muller, 2002). Increasingly, survival for the most successful TVEs has meant relocating to county and township industrial estates that provide pollution control facilities, and organising into clusters of specialised production. Provision of basic infrastructure in small towns and urbanising villages needs to take into account the needs and constraints of this increasingly important category.

Second, small and micro-enterprises are more likely to help local economic development when they focus on the interface between local agricultural production and local industrial production, rather than being too much oriented towards external markets. This is because increasing incomes from farming are more likely to benefit a larger part of the population in the surrounding rural region, especially poor people.

Third, and related to the first two, care is needed in establishing industrial development zones around small urban centres, as shown by the experience of both Vietnam (Hoang, Dang, and Tacoli, 2005) and China (Deng and Huang, 2004). In many cases, agricultural land was expropriated in the hope of attracting domestic and especially foreign investment, but in both countries little of this has materialised, while at the same time valuable farmland has been taken away from households for whom agriculture is still an important income source. Moreover, compensation for farmers is so low (ibid) that it is likely to contribute to migration.

Fourth, local governments' capability, accountability and financial resources are essential. In China, under economic reform, local governments were granted more responsibilities and autonomy in allocating their resources. This has had very different impacts depending on the province's economic base: predominantly agricultural provinces have to rely more on taxation and compulsory apportionment, which hinder local economic growth. In contrast, provinces with a diverse economic base and a larger revenue base have benefited from their increased freedom to finance their development (Kanbur and Zhang, 2003). This also has the perverse effect of increasing regional inequalities, themselves a key reason for internal migration.

4.5. Key points

- Small towns in China have played a major role in urbanisation and industrialisation in the 1980s and up to the mid-1990s, absorbing large numbers of rural migrants and commuters, but census data suggest that this has declined in the last decade.
- Economic liberalisation has exacerbated differences between remote centres in sparsely populated regions and well-connected towns in expanding peri-urban (emerging extended metropolitan) regions, making generalisations about small towns misleading.
- Stagnating purchasing power in their surrounding rural areas and internal and external competition have negatively affected many TVEs, but others have become major factors of urbanization and especially peri-urbanization in the eastern region.
- This 'in situ' urbanization benefits from support to industrial clusters (including the provision of infrastructure to minimise environmental pollution) and to the interface between local agricultural production and local manufacturing and services

5. Migrants' contribution to the development of their home areas

Migration is best understood as a livelihood strategy that households and individuals undertake to ensure their survival, or to improve their situation. Any livelihood strategy is based on the assets available to the household or individual, and include social assets (for example, networks that facilitate migration or access to employment), human assets (people's health, education and skills) and physical assets such as land and housing. In the rural areas, migration can also be seen as a form of income diversification that includes spatial mobility. Mobility has higher costs, including transport, initial accommodation, the acquisition of relevant skills and maintaining a social network spanning home and destination areas, but also higher expected returns. In part, this explains why long-distance migrants tend to be better educated and come from relatively wealthier groups. Poor rural migrants tend to move to rural destinations and closer to their home area.

In most low and middle-income nations, migration has increased in recent years, partly because of improvements in communications and transport systems, partly because of the often growing inequalities between rural and urban areas and between regions. Any discussion of the potential contribution of migrants to the development of their home areas needs to be set in this wider context, as migrants' remittances and investments cannot compensate for insufficient public investment in infrastructure in sending areas, or for models of economic growth based on spatially concentrated industrialisation.

Much of the international literature on migrants' contribution to the development of their home areas focuses on international migration. In part, this is because this type of movement fits better with expectations of investments of relatively large sums of savings, especially when migrants have been away for a few years. However, internal migrants have similar or even more compelling reasons to keep a foothold in their home areas, to contribute to their household's well-being and to the development of their home area. In any case, information on the use of remittances and on migrants' role in local development is limited and often contradictory, making it an area that would certainly benefit from further research.

5.1. The reasons for maintaining links with home areas

Migrants tend to maintain links with home areas for a number of reasons, which in turn vary depending on who migrates and from where. For example, in the Dominican Republic, sons tend to send remittances to their parents to invest in housing and agricultural production. This is motivated by the fact that they traditionally expect to inherit these assets. Daughters, on the other hand, do not usually inherit land and housing but still send remittances to maintain their safety net of relatives and kin at home (de la Brière, de Janvry, Lambert et al., 1997). In South Africa and Botswana, low-income migrants to the cities are keen to maintain and if possible increase their assets in home areas. These may include livestock, which is looked after by relatives and therefore somehow contributes to local employment (Kruger, 1998); or housing, which increases options when financial and personal insecurity in the city become intolerable (Smit, 1998). Women migrants often rely on female relatives in home areas to look after their children while they work in the city (Izazola, 2004).

Migrant networks play an especially important role in providing information on jobs and destinations, assistance and friendship while away. In China, this role is enhanced by the semi-illegal status of many rural migrants and their need to rely on 'native-place fellows' for a living in the city. In some cases, these home-town based networks have developed into successful business networks revolving around home places and sub-settlements within the city where migrants from the same area of origin live and work, reinforcing links with home areas (Xiang, 2005). Rural migrants' economic acceptance but social rejection by urban residents is also seen as a major reason for maintaining close links with home areas (Murphy, 2002). This includes poor living conditions and access to services due to hukou regulations. In addition, there is increasing evidence of unemployment among rural migrants, which prompts many of them, especially those without savings or social networks, to return home at least temporarily (Nielsen, Smyth, and Zhang, 2004). A further reason is the interest of local governments in sending areas in attracting remittances and return migrants. Since the late 1970s, poor townships and inland provinces have actively promoted outmigration, and remittances are a significant part of rural incomes and local government revenues (Ping and Pieke, 2003).

5.2. Migrants' contributions at the household level

Remittances are a significant proportion of rural household incomes throughout low and middle-income nations. In 2001, it was estimated that remittances from internal and international migrants accounted for about 18 percent of Chinese rural household incomes (Whitbread, Kanji, Jianming et al., 2004). In some provinces with high rates of outmigration, such as Anhui, money earned through migration accounted for 30 to 40 percent of household income in the same year (Wang, 2004b).

Throughout the world, a large proportion of remittances is used to pay for daily expenditure, although not all of it should be seen as purely consumption-oriented. For example, relatively large proportions are spent on health and education (Francis and Hoddinott, 1993), thereby increasing assets and improving the prospects of household members. Other items of expenditure such as bicycles, motorcycles, sewing machines and refrigerators, are also in most cases used to generate income. Housing is often seen as consumption expenditure, although it usually improves residents' health and well-being, and can be used as a source of income through renting out rooms to tenants or establishing a shop or other productive activities on the premises. In the Chinese rural context, housing also tends to improve social status, which in turn may lead to better alliances through marriage (Murphy, 2002).

Investment is often related to farming but also, increasingly, to the expansion of non-farm activities. In northern Vietnam, seasonal migrants invest their earnings in agricultural implements or machines, but also in larger equipment such as tractors and milling machines which allow the household to provide services to local farmers for a fee (Hoang, Dang, and Tacoli, 2005). In Kenya, remittances are used to invest in land or land improvements, such as reclaiming previously degraded land (Tiffen, Mortimore, and Gichuki, 1994). In Swaziland, returning migrants bought second-hand tractors with their savings and were hired by migrants' wives who paid for the service with remittance money. This resulted in an increase in agricultural production and in the number of family fields under cultivation, despite the relative shortage of male labour due to out-migration (Simelane, 1995). The positive impact of remittances from migration at the household level is well documented; perhaps less clear is the

fact that they can increase inequalities between households, as the poorest groups often do not have the resources to migrate.

5.3. Contributions at the community level

Since 2000, there has been much interest in the potential contribution of remittances and return migrants among Chinese local government officials (Ping and Pieke, 2003), particularly for the ways in which they can help local development rather than just household well-being. The most obvious impact is the increase in demand for goods and services from households receiving remittances. Housing improvements and construction are often a major area of non-farm employment for local residents: this has been widely documented, for example in Vietnam (Hoang, Dang, and Tacoli, 2005) and in Nigeria (Okali, Okpara, and Olawoye, 2001). However, in Nigeria construction in some cases took over fertile farmland, leaving farmers with short-term opportunities in construction work but limiting their long-term farming prospects. In other instances, small-scale industries were built along rivers and untreated water was discharged after industrial use, again affecting local fishermen and farmers (ibid). These examples suggest that migrants' contributions (like any other initiatives) need to be set within the context of an institutional framework that takes into account the needs and interests of migrants and non-migrants alike.

Support from local government is obviously a critical element for migrants wishing to invest in productive activities in home areas, and for these activities to be successful. The main benefit for the local economy is generally an increase in non-farm opportunities, and better information on urban markets. Overall, it is very difficult and probably unhelpful to make generalisations on how migration can support local economic development as several other factors influence the latter. However, the provision of basic infrastructure and services, including affordable transport and communications, skills training in non-farm activities, and broader accountability of local governments to migrants and non-migrants, have all proved to increase the potential benefits of out-migration.

5.4. Key points

- Most migrants retain strong links with home areas, whether they are registered or not. Home areas are a safety net, especially where migrants retain access to land and housing.
- Migrants' contribution to their households is significant, especially in provinces with high levels of out-migration. Whilst remittances are often an essential part of rural households' incomes, their use is not limited to consumption (covering basic needs) but increasingly to investment in non-farm activities.
- Migrants' contribution to local economic development can be important; however, it cannot compensate for insufficient public investment in infrastructure, and depends on appropriate and accountable institutional support that represents the interests of both migrants and non-migrants.

6. Rural-urban migration and addressing urban poverty

Poverty in China is concentrated in rural areas. However, while rural poverty has declined since the early 1980s, urban poverty has been steadily increasing (Khan and Riskin, 2002). Nevertheless, poverty has only recently been recognised as an urban problem (Wang, 2004b; Wu, 2004a). In 2003, it was estimated that there were 100 million poor rural migrants in the cities, 20 million poor suburban farmers who lost their land as a result of urban expansion, and 20 million original urban residents who became poor as a result of industrial reorganisation (Wang, 2004b page 52).

Urban income inequality has increased, but so have differences between economic sectors, with collective sector employees' incomes stagnating. There are also significant variations in urban incomes between different cities, with coastal urban centres, especially larger cities, showing much higher average incomes than inland cities (Wang, 2004b). These inequalities could be exacerbated in the near future. It is estimated that, following China's access to the WTO, as many as 40 million people could lose their jobs in urban enterprises, especially SOEs, due to competition and demand for better educated workers. And, according to the World Bank, 40 million rural jobs could be lost as a result of the rise in cheaper agricultural imports, precipitating an increase in the migration of rural labourers to urban centres (Solinger, 2003).

What differentiates China from other transition economies, especially Eastern Europe⁴, is that new forms of urban poverty are emerging in a period of unprecedented and extremely rapid economic growth. As part of the transition to a market economy, the industrial sector is undergoing radical structural reform with many retrenchments and a very low growth rate of employment (0.9 percent in the period 1995-2000 (Solinger, 2003)). In 2001, the Ministry of Labour and Social Security announced that urban labour supply was 30 percent above demand (cited in Solinger, 2003). While unemployment and underemployment are the key factors behind the rise in income poverty, the spatial restructuring of Chinese cities also contributes to the physical and economic marginalisation of some groups; in addition, the hukou system continues to affect the welfare and incomes of unregistered rural migrants.

6.1. The relevance of the hukou system to urban income poverty

Since the mid-1980s and especially the 1990s, the increasing recognition and concern for urban poverty has resulted in several policies and programmes promoted by the central government, in most cases implemented by local governments and, to some extent, by employers. In all cases, the appropriate household registration (a permanent urban hukou) is necessary to be entitled to benefits (Wang, 2004b).

The most prominent group of new urban poor in China is that of workers laid-off from state-owned and collective sector enterprises. Their number is difficult to estimate because definitions used in official statistics are restrictive. A conservative estimate by the State Statistics Bureau gave a figure of about 30 million in 2001. Other estimates put this figure at about 50 million, or one-quarter of the total urban force (Solinger, 2003). A disproportionate number of laid-off workers are women, and

⁴ for example, urban poverty rates in Poland between 1978 and 1987 went from 6 to 25 percent following the dismantlement of consumer subsidies and full employment policies Wang, Ya Ping (2004b), *Urban poverty, housing, and social change in China*, Routledge, London.

the majority are people in their forties and fifties who grew up during the Cultural Revolution and therefore have low educational qualifications.

The basic living allowance for laid-off workers was introduced in the late 1990s, and re-employment service centres (RESCs) were introduced as a transitional measure. These were run by employers, and for a period of up to three years provided some benefits, including basic unemployment allowance, payment of social contributions (pension, health and unemployment), and training for new jobs. Incentives to start own businesses were also offered for the same three-year period. Funds for the RESCs came from employers, central government and local social funds. But the programme did not work in particularly badly affected areas, and many entitled workers did not get any benefits. Since 2001, the system is being phased out and merged with the unemployment insurance (Wang, 2004b). Subsidies provided under the basic living allowance for laid-off workers were far from sufficient, representing about 52% of average urban incomes. Because of the scale of lay-offs, re-employment service centres failed to arrange work for everyone, and the rate of re-employment of the laid-off in 1997 was 40-50% nationwide. In part, this is because these poorly educated workers were competing with the 10 million young urban people entering the labour market each year (Solinger, 2003; Wang, 2004b).

Unemployment insurance was introduced in 1986 along with labour and employment reform, and became compulsory for all workers in SOEs in 1993. In 1999, it was extended to all workplaces (state, collective, private) and employer and employee contributions were set by the central government but with variations by province. The fund was managed by the municipal government, including decisions on the length and level of benefits, and an adjustment fund at the provincial level was responsible for balancing differences between municipalities. The key problem is the low coverage (105.7 million workers in 2001, declined to just above 100 million in 2003) mainly by SOEs.

Workers that never entered the workplace system are more vulnerable, also because of increased competition in the informal sector from laid-off workers and migrant workers, and decline in demand due to shrinking numbers of formal sector workers. However, they still benefit from access to services under their urban hukou, including the urban minimum living standard. First tested in Shanghai in 1992, this was then extended to the whole country in 2000. The system requires municipal civil affairs authorities to provide help to 'non-agricultural urban residents' whose income falls below the local minimum living standard (locally determined poverty line). Income support recipients are required to participate in local voluntary work, and actively look for employment. Funds come from government budget, and the system has spread out quickly. By November 2003, about 5 percent of the official urban population (22 million) was receiving some income support. The amount received varied between cities, from 79% of the poverty line in Beijing to 23 % in Shenyang.

Another emerging group of urban poor are the landless suburban farmers. Land for development has become an important issue in the early 1990s, with about 10 million *mu* (about 660,000 hectares) of agricultural land lost to various development zones or districts; since the mid-1990s, it is estimated that 2-3 million *mu* (134,000-200,000 hectares) are lost each year (Wang, 2004b page 62). Under the pre-reform system, urban land was owned by the municipal authority and suburban land was owned by

village farmers collectively as users but not as individual owners. In the 1980s, municipal authorities would pay compensation and assign non-farm jobs to farmers. However, because of the declining role of government in the labour market, new jobs were difficult to create. In many cases, because of the speed of expansion, farmers do not have the 'transition' time to engage in non-farm activities and diversify their livelihoods, and end up in poverty or join the rural migrants.

The largest group of urban poor is the floating population. It is difficult to establish their incomes, and for the most successful of them it can be higher than urban averages, but migrants have to pay for temporary work permits; they are often restricted from working in the better-paid sectors; and their short-term contracts attract limited welfare provision. The most vulnerable are those migrants who cannot enter the formal labour market and are therefore at a double disadvantage (Wang, 2004b page 63). Key problems for migrants are poor working and employment conditions, often including the non-payment of wages. This is so widespread that in 2003 it attracted the attention of the State Council and resulted in a special notice to labour and social security authorities to monitor and implement labour legislation with regard to migrant workers (Wang, 2004b page 64).

There is evidence of an increase in unemployment among migrants (Ping and Pieke, 2003; Wang, 2004b; see also section 3), often linked to relatively high educational requirements, especially in joint-venture and private enterprises. There is no dispute that, in addition to being excluded from the urban social support system, rural migrants are the poorest paid workers in the cities: if measured according to the urban living standard, the majority if not all of them would be classed as poor (Wang, 2004b; Wu, 2003). With declining employment in manufacturing, China's service sector is expected to grow in the near future. However, this is a very segmented sector, and while high-skilled jobs will probably provide employment opportunities in the near future, the low-skilled service industry (including street vending, shoe polishing, etc) is already saturated. Demand for 'community services' (such as street cleaning, waste disposal and treatment, etc) exists, but residents are only prepared to pay very little so workers are usually very low-paid migrants (Solinger, 2003).

6.2. Housing and services: the spatial concentration of urban poverty

Increased socio-spatial mobility since reform includes residential relocation within cities, increasing social stratification and area-based poverty and marginalisation (Wu, 2004a). Poor quality housing in central city areas has mostly been replaced by redevelopments (offices, commercial centres) and old residents have been relocated, but not always. Pockets of poverty remain in old housing areas, and commercial redevelopment is low in areas with high population density and, as a consequence, high compensation costs. For the residents of many of these dilapidated inner-city areas, small businesses are the main activity, and they were not integrated in housing/work units during the pre-reform period. Relocation often cuts off residents from employment opportunities in these informal sector activities (Wang, 2004b; Wu, 2004a).

Workers villages (or state enterprises housing estates) are usually located in industrial districts with a concentration of SOEs employees, and are affected by redundancies in the sector, as well as by lack of maintenance and low building quality.

Perhaps the most prominent areas occupied by the urban poor in China are the so-called urban villages. Taken over by urban expansion, they maintain their rural background (including household registration and administrative organisation). With fewer planning restrictions and regulations, they are the main rental housing market for the poor (especially migrants). Urban villages are a common feature of Chinese cities, and especially common in the rapidly urbanising coastal provinces. Residents' activities are mainly non-farm, especially trade and services, but a major source of income for the original residents is rental (Deng and Huang, 2004). Monthly rents per room are high, equivalent to a migrant's monthly wages, and sharing accommodation contributes to overcrowding in most urban villages. Due to the high cost, many migrants prefer to sleep 'on the job', and it is estimated that in Beijing about 20% of migrants live on construction sites (Wang, 2004b).

Overall, housing commercialisation and privatisation has substantially changed urban housing distribution over the past 20 years (Song, Knaap, and Ding, 2004) and has decreased the availability of low-cost housing. This has created problems for laid-off workers and unemployed persons. Targets for social housing have declined from 15 percent of the total stock to provision for very small numbers of extremely poor non-agricultural (urban) hukou holders' families. Problems with funding from district and municipal authorities are likely to continue to affect social housing especially in poorer cities and provinces. Migrants, who are excluded from municipal housing programmes, suffer even more from spatial segregation, and although their incomes are generally lower than those of most non-migrants, they have to pay more for private rented accommodation.

Urban income inequality and spatial stratification affect the quality of life of low-income neighbourhood residents in more ways than access to housing, and include inequalities in public infrastructure provision and health status. A study of neighbourhoods in Tianjin in 1993 suggests that residents' income levels overlap with differences in the provision of schools, parks and gardens and piped gas (which has a significant impact on air quality), and that low-income neighbourhoods have much higher rates of tuberculosis, a disease associated with overcrowding, inadequate sunlight, substandard ventilation and poor hygiene (Logan, 2005).

Housing policies, like many other policies in urban China, are the subject of constant reform and review, and their implementation varies widely in different cities. Based on international experiences, a key recommendation is that, with expected increased migration and urbanization, there is the need for a wide range of housing options to avoid the creation of large suburban slums.

6.3. Addressing urban poverty: key lessons from international experiences

Urban poverty has emerged as an important issue not only in China but in many other countries, including countries with rapid economic growth such as India, and countries generally considered as middle-income, such as many in Latin America. These countries also share a growing recognition that comprehensive, universal social welfare systems are increasingly difficult to sustain financially, and perhaps more crucially tend to benefit middle-income groups and have difficulties in reaching the poor and very poor.

There is no doubt that inadequate and often unstable incomes are a major cause of urban poverty. However, several successful experiences around the world show that it is possible to address at the local level the many deprivations that are not directly related to income. These deprivations include inadequate access to infrastructure and services (water and sanitation, health and education services, public transport), lack of secure tenure, living in unhealthy and sometimes dangerous conditions and, overall, lack of representation and of the capacity to negotiate with local officials and decision-makers (Mitlin and Satterthwaite, 2004). Whilst not addressing income poverty directly, these experiences show that increasing the asset base of the urban poor and decreasing the costs they face (which are often much higher than those in middle-income neighbourhoods) has a positive impact on incomes.

These innovative experiences share the view of people as the main resource for development rather than an object of development efforts or mere recipient of benefits. Motivating and mobilizing the population of low-income urban settlements to take the lead in planning and implementing improvement programmes and initiatives has proved to be more effective than top-down approaches. Strengthening community organisations to increase their capacity to improve their conditions, and to negotiate with local governments and other external agencies is a key lesson from international experiences (Boonyabanha, 2005).

Other key lessons that can prove helpful to reduce urban poverty in China include reducing the costs of housing, infrastructure and services by keeping down unit costs and ensuring that they respond to local needs rather than official standards. In Pakistan, the Orangi Pilot Project in Karachi has shown that the costs of community-managed water and sanitation provision in low-income neighbourhoods can be significantly lower than those normally sustained by municipal and private utilities (Hasan, 1997). Where possible, recovering costs from users allows the funding of further improvements, and can make credit available to households to spread capital costs for housing and to smooth income fluctuations (D'Cruz and Satterthwaite, 2005).

The international experiences mentioned here also suggest that two issues are of crucial importance. The first is that addressing non-income deprivations in urban (and rural) areas cannot be done through one-off projects, but needs to be part of an ongoing process of participation and negotiation between a range of actors, including community organisations, civil society organisations, the private sector and local government officials and representatives. The second is that income poverty remains an enormously important issue which needs to be tackled at the local as well as national levels. Ensuring adequate incomes to all can be extremely difficult in stagnating or declining economies, but in the context of rapid economic growth, such as in China, institutional factors are likely to play a more important role. For example, reducing barriers to 'informal' sector activities can increase growth in the (often labour-intensive) micro and small scale enterprise sector and, by legalising it, ensure that working conditions and wages are adequate.

6.4. Key points

- Urban poverty is increasing in China, but rural migrants suffer from a double disadvantage because of their hukou status. In the short term, extending income and welfare support to migrants is likely to be unsustainable, but

ensuring that migrants' wages and working conditions satisfy China's minimum requirements would improve their condition.

- Urban poverty is not only income-based, and housing is a major component of people's livelihoods; ensuring a wide range of housing options and appropriate infrastructure contributes to the alleviation of urban poverty.
- International experiences show that addressing at the local level the non-income deprivations linked to urban poverty is possible, but inadequate incomes and income inequalities require action at both local and national levels.

7. Rural-urban migration and preventing environmentally adverse settlement patterns

7.1. Introduction

Rural-urban migration can increase or decrease pressures on the environment depending on who is moving from where to where, as part of what type of economic transformation. When people move from areas of rural environmental degradation and resource scarcity, local pressures on the rural environment are likely to decrease. But when urban enterprises are set up and migrants settle in urban centres, a new set of environmental pressures comes into play. The severity of these environmental pressures depends on both the environmental characteristics of the urban destination, and on the income levels and consumption patterns that the migrants attain.

Urban dwellers have, on average, larger ecological footprints than rural dwellers. However, this reflects higher average urban consumption levels, which are rarely attained by rural-urban migrants. Moreover, if rural-urban migrants do achieve consumption levels closer to the urban average, this has direct benefits as well as indirect costs, and certainly does not justify preventing migration. There may, however, be justification for trying to divert rural-urban migration away from regions or centres where urban development poses particularly serious environmental problems. This need not involve direct intervention in the migration process: a combination of taxes, payments for environmental services, infrastructure investments and regulatory measures can help make environmentally desirable locations more attractive to investors and to migrants.

The spatial distribution of China's urban settlements is illustrated in Figure 1. As China urbanizes, the changing spatial distribution of urban centres will be critical to China's evolving environmental problems. Unfortunately, long-term environmental considerations rarely play an important role in the initial economic success of different regions and urban locations.

Rural-urban migration is more likely to result in increasing environmental burdens if it is concentrating people in areas where:

- The resources required to service urban settlements (e.g. freshwater) are especially scarce;
- The geography makes residents particularly vulnerable to certain environmental hazards (e.g. ambient air pollution);
- The local ecosystems are especially valuable or susceptible to degradation (e.g. coastal ecosystems).

This section focuses on the last of these possibilities, and the pressures being put on the coastal zone in particular. The first two are also of concern, and are addressed briefly in the paragraphs that follow.



Figure 1: Urban Extents in China circa 1995

Water is a clear example of a resource that is critical to urban development, and is available at very differing levels in different parts of China, as in many other large countries. Generally, the direction of migration in China is from the water scarce areas of the Northwest to the less water scarce areas of the Southeast. As in other parts of the world, there are important exceptions, however. Internationally, the Federal District of Mexico City is notorious for having become a megacity despite a number of environmental disadvantages, including very limited water resources. Beijing displays somewhat similar features: it is located in a comparatively water-scarce area, has been facing water resource problems for many years (Nickum, 1994). Yet the province of Beijing had the highest net in-migration rate for the period between 1985-1990 (Fan, 2005) and remains an important destination of interprovincial migrants.

The concentration of ambient air pollution is a clear example of an environmental hazard that is borne in urban areas, and while air pollution is generated by human activities, ambient air concentrations and human exposure also depend on the geographical characteristics of the urban setting. Because of their weather and geography, air pollution is more likely to build up in some towns and rapidly disperse from others, and such differences often vary regionally. National mortality and morbidity from air pollution can be influenced by where urban centres and industrial polluters choose to locate.

A clear example of an environmentally sensitive area that is subject to rapid urban development is China's coastal zone. Coastal zone management has become a global concern, because of the important services provided by coastal ecosystems and the loss of many of these services due to rapid transformation driven by urban and associated developments (Reid, Mooney, Cropper et al., 2005). As illustrated in the last row of Table 2, overall, urban areas cover less than 3% of the land area of the world, with average densities of about 770 people per square kilometre. Taking the relatively narrow delimitation of the terrestrial coastal zone as extending inland 100 kilometres from the coastline or 50-meter elevation (whichever is closer to the sea), the coastal zone only account for about 5% of the world's land area, but is home to almost 20% of the world's population (McGranahan, Marcotullio, Bai et al., 2005). By the end of the millennium, some 10% of this land was already urban, with urban densities averaging 1,100 people per square kilometre.

Table 2 – Rural and urban land areas and population densities for coastal zones and all land areas in China and the world

	Land Areas (000 square kilometres)				Population Densities (persons/km ²)		
	Total	Urban	Rural	% Urban	Overall	Urban	Rural
China							
Coastal zone	230	43	187	18.6%	742	2,297	408
All land	9,198	261	8,937	2.8%	132	1,616	90
World							
Coastal zone	6,538	665	5,873	10.2%	175	1,119	69
All land	130,670	3,673	126,996	2.8%	46	770	25

Source: CIESIN Global Rural-Urban Mapping Project 2005 and McGranahan, Marcotullio et al. (2005). (The estimates for China should be viewed as preliminary).

In China, the urban land shares and densities in the coastal zone are even more striking. The coastal zone accounts for 2.5% of China's land area, and contains 14% of the population. But what is truly exceptional is that an estimated 19% of the land in the coastal zone is already urban, with urban densities averaging 2,300 people per square kilometre. Even in rural areas the density is estimated at 400 people per square kilometre, reflecting what has been termed in situ urbanization or peri-urbanization (Webster and Muller, 2002; Zhu, 2004), or alternatively rural industrialization.

The next subsection examines how China's urban population is distributed in relation to a series of land-based systems that were identified and mapped as part of the Millennium Ecosystem Assessment (Reid, Mooney, Cropper et al., 2005). China's situation is compared to other parts of the world. This is followed by a subsection on interregional migration, and how it is increasing pressures on the coastal zone. The section ends with a brief review of the geographical and policy drivers of the coastward movement, and the policy implications.

7.2. Ecologically relevant land-systems and China's urban settlement patterns

The first international scientific assessment of the health of the world's ecosystems – the Millennium Ecosystem Assessment, or MA – was recently completed (see <http://www.millenniumassessment.org/>). In assessing the conditions and trends, a number of different land and marine-based systems were examined, including urban systems (Hassan, Scholes, and Ash, 2005). Table 3 summarises, for China and the world as a whole, the extent of a selection of these systems, the urbanization of their populations and land areas, and the density of their urban centres.

Table 3 Chinese and global statistics on urban population, land percentages and densities in Millennium Ecosystem Assessment zones - 2000

Millennium Assessment Zone	% of total land Area in zone		Urban population as %age of population in zone		Urban land as %age of land in zone		Average population density of urban areas in zone (pop/km ²)	
	World	China	World	China	World	China	World	China
Coastal	5.0	2.5	65	57	10.2	18.6	1,100	2,300
Cultivated	27.1	36.8	45	35	6.8	6.6	800	1,600
Dryland	45.9	39.4	45	37	2.1	2.5	700	1,400
Forest	32.2	21.4	36	21	2.0	2.1	500	1,400
Inland water	22.5	12.7	55	42	3.2	4.8	800	1,900
Mountain	24.6	55.7	30	18	1.7	1.1	600	1,100
All land	zones are not exclusive		47	33	2.8	2.8	800	1,600

Source: CIESIN Global Rural-Urban Mapping Project 2005 (The estimates for China should be viewed as preliminary).

As illustrated in Table 2, China is a relatively mountainous country, with a large cultivated area and comparatively little area in forests. Almost 40% of the land area is dryland, and although this is somewhat less than the world average, it is high given China's population densities (nearly three times the world average). Like most of world, China's population is least urbanized in its mountain and forest zones, and most urbanized in its coastal and inland water zones. Similarly, the highest shares of the land are urban in the coastal and cultivated zones, and lowest share is urban in the mountain zone. And in all the zones China's urban population densities are at least 80% higher than the world average.

The land in China's coastal and inland water zones stand out as being more urban than elsewhere (18.6 and 4.8%, as compared to world averages of 10.2 and 3.2%). This may in part reflect the relatively small share of China's land in these zones. Thus, the shares of urban land in the coastal and inland water zones are actually somewhat lower than the world averages: 16% of China's urban land is in the coastal

zone, while the world average is 18%. Similar figures for the inland water zone are 21% for China and 26% for the world. In other words, in order to achieve close to comparable shares of urban settlement near coastal or inland shorelines, China has had to devote a far larger portion of these zones to urban development.

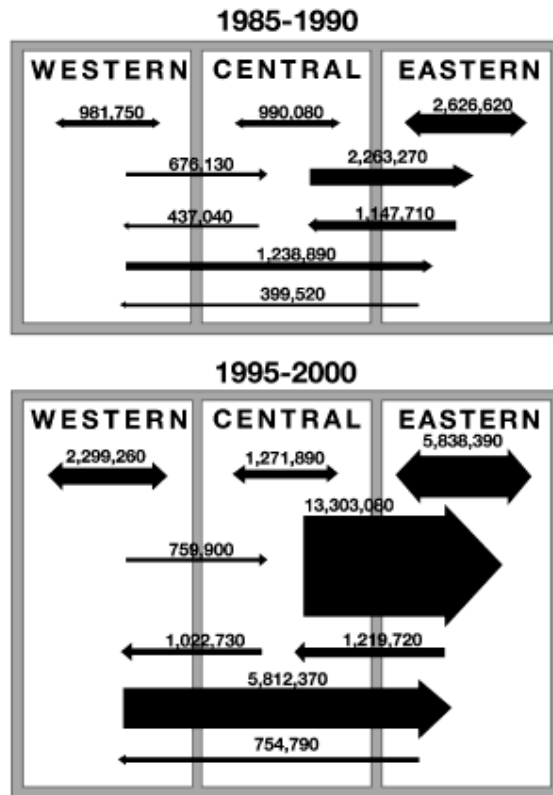
China's coastal ecologies are already seriously degraded, and as in many parts of Asia rapid coastal urban growth is contributing to this (Jiang, Kirkman, and Hua, 2001). The problem is not that the population in the coastal zones is becoming more urban, so much as that national urbanization processes are resulting in migration to the coastal zones, and particularly their rapidly growing urban centres.

The conversion of coastal land to urban uses is a small part of a transformation that threatens not only the land-based and wetland ecologies, but also the marine ecologies. The areas of rapid land use transformations extend well into the peri-urban regions (Ho and Lin, 2004). Problems related to land reclamation, loss of agricultural land, siltation and flooding are becoming increasingly severe (Chen, Chen, Liu et al., 2005). A recent review of the pollution of the East China Sea from land-based sources documented a number of disturbing tendencies (Li and Dag, 2004). Harmful algal blooms have been causing growing damage along China's coast (Yan, Zhou, and Zou, 2002). Efforts at coastal zone management, while often commendable, have not been equal to the task (Lau, 2005; McCleave, Xiongzhi, and Huasheng, 2003), and display considerable variations between different coastal areas (Shi, Hutchinson, and Xu, 2004). Moreover, as described in the following section, the pressures are still mounting.

7.3. Interprovincial migration and increasing pressures in the coastal zone

As described in previous sections, the migration from inland to coastal provinces has become an important aspect of China's urbanization process, from the perspective of both equity and the environment. Figure 2 summarizes the migration figures from the 1990 and 2000 censuses, which collected information on people who had migrated within the previous five years. In 1990 there were an estimated 11 million people who had moved provinces in the last 5 years, while in 2000 this figure had increased to 32 million (Fan, 2005). (Analogous figures for intra-provincial migrants were 24 million and 91 million.) Though part of this increase is the result of a broader definition of a migrant, it mostly reflects increasing movements of people. And as illustrated in Figure 2, by 2000 more than half of the intra-provincial migration involved migrating from the Western or Central to the Eastern provinces, and about half of the remainder was migration amongst the Eastern provinces themselves.

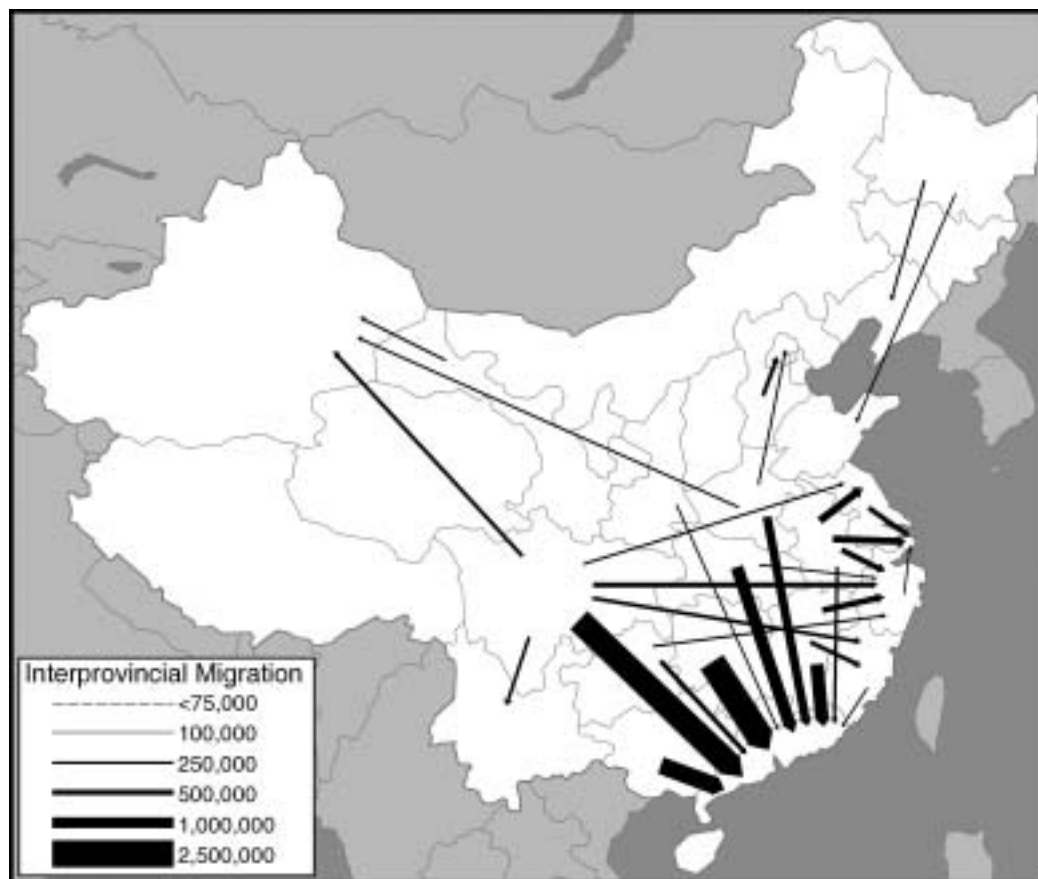
Figure 2 Interprovincial migration within and among the three principal regions of China



Source: Fan, C. Cindy (2005), Interprovincial Migration, Population Redistribution, and Regional Development in China: 1990 and 2000 Census Comparisons, *The Professional Geographer*, Vol 57, No 2, page 304

Between 1990 and 2000, the principal destination of the Eastward bound migrants had shifted. Thus, whereas in 1990 more than half of the inter-provincial migrants were located in Beijing, by 2000 Beijing's migrants were dwarfed by Guangdong province, where about 14 of the 32 million migrants were living (Fan, 2005). As illustrated in Figure 3, the geographical concentration of the major migrant flows is striking. Thus, whereas the mobility of the Chinese population may be comparatively low, the population distribution is nevertheless shifting substantially.

Figure 3 – The 30 largest interprovincial migration flows in China, 1995–2000.



Source: Fan, C. Cindy (2005), Modeling Interprovincial Migration in China, 1985–2000, *Eurasian Geography and Economics*, Vol 46, No 3, pages 176.

Table 4 Annual percentage change in population, urban population and urbanization level – China 1990-2000, by Millennium Ecosystem Assessment zone

Zone	Total Pop (%/annum)	Urban Pop (%/annum)	Urbanization (%/annum)
Coastal zone	2.01	3.48	1.48
Cultivated	0.96	2.13	1.22
Dryland	1.05	1.55	0.48
Forest	0.61	2.17	1.59
Inland Water	1.42	2.69	1.29
Mountain	0.81	2.41	1.53
Overall	1.06	2.25	1.27

Source: CIESIN Global Rural-Urban Mapping Project 2005 (These estimates should be viewed as preliminary).

Rural and peri-urban activities also put pressure on the coastal ecosystems. As noted above rural densities are also high along the coast. This is not primarily the result of urban residential sprawl: as detailed in earlier sections of this paper it is the growing importance of non-agricultural activities, which often started with town and village enterprises, in peri-urban areas (Webster and Muller, 2002). There are some

indications that, like more conventional urban sprawl, peri-urbanization is environmentally burdensome. On the one hand remote sensing indicates that these peri-urban areas can rapidly take the form of urban sprawl (Sui, 2001). On the other hand, there has long been concern that Town and Village Enterprises have been the source of many environmental problems. Indeed, where there has been a stricter enforcement of environmental regulations, this has driven some of these enterprises out of business and led others to relocate in larger settlements (Webster and Muller, 2002). It is not clear, however, whether these latter environmental problems are inherent to this form of rural industrialization, or whether they reflect environmental management systems that have not adapted to rural industries.

7.4. Geographical and policy drivers of migration to the coastal areas

The movement of population from inland to the coastal provinces (and the narrower strip of land referred to above as the coastal zone) reflects declining restrictions on population mobility, but is also an outcome of China's economic strategy, in both a strong and a weak sense. Thus one reason that economic growth has been concentrated disproportionately in the coastal provinces is that coastal settlements are more strategically located with respect to international markets and foreign investment. Past strategies focussed on inland development, but since China's economic reforms have been designed around markets, exports and foreign investment, they inherently favour the coastal regions, which are in a better position to take advantage of new market-driven opportunities. This is the weak sense in which China's economic strategy is driving the rapid economic growth of the coastal provinces, and the resulting coastal direction of rural-urban and urban-urban migration. Coastal settlements have also benefited from policies that have given them greater capacity to respond to market opportunities through the creation of special economic zones and the like. This is the strong sense in which China's economic strategy has spurred urban growth in the coastal regions.

Starting with the creation of three special economic zones in 1979, and continuing through the creation of 10s of more economically advantaged zones in the 80s and 90s, the Chinese government has strategically promoted market-driven economic growth in selected locations, predominantly along the coast (Demurger, Sachs, Woo et al., 2004). The economies of the areas selected have performed consistently better than elsewhere, and in one study it was estimated that being awarded special economic zone status increased annual growth rates by some 5.5 percentage points (Jones, Li, and Owen, 2003). For successful regions, the direct benefits of being designated a special economic zone were amplified by the declining share of state revenues in GNP, and the decline of redistributive policies.

Even in the absence of special economic zones along the coast, the coastal provinces would be expected to fare better in a liberalizing economy, as the result of their geography. Access to water-based transport is itself a major advantage, and many of the coastal cities have a history of trading that stretches back centuries. A study of geographical factors found that they alone could explain up to 60% of the variation in growth among provinces (Bao, Chang, Sachs et al., 2002).

Because special economic zones were created in geographically favourable locations, it is easy to conflate the influence of geography and policy. An attempt to distinguish the policy-based and geography-based advantages held by coastal settlements found

them to be of approximately equal magnitude (Demurger, Sachs, Woo et al., 2002, 2004).

One reason for initiating experimental economic reforms in coastal settlements that were geographically in a comparatively advantageous position was simply to increase the likelihood of success – experimenting with reforms in the areas where entrepreneurs were less able to take advantage of market opportunities would have seemed perverse. The demonstration effect, along with other indirect benefits, would eventually benefit the rest of the country. Once the economic potential of the market-based strategy has been demonstrated, however, there is far less economic justification for providing special advantages to already advantaged areas, especially since the spill-over effects have been disappointing (Brun, Combes, and Renard, 2002). Moreover, amplifying the economic advantages of the already favoured coastal areas is undesirable from an equity and environmental perspective, particularly in the absence of effective coastal zone management.

7.5. Key points

- a) Urban growth can impose very different costs in different locations, but these long-term costs do not have much influence on a city's short term economic success. China's narrow and ecologically sensitive coastal zone is an already far more heavily populated and highly urbanized than those in most parts of the world, with serious adverse environmental consequences. Much the same applies to the areas adjoining inland waterways.
- b) China's economic strategy has favoured rapid development in coastal areas, both because coastal cities are strategically placed with respect to trade and foreign investment, and because special economic zones have been created giving selected coast settlements added advantages.
- c) A more balanced economic strategy could help relieve some pressure on the coastal zone, and a more vigorous coastal zone management system, combined with measures to help maintain compact urban development, could contribute to a more balanced economic strategy.

8. Migration policy options for economic growth, environmental sustainability, and equity

The policy options identified below are just a small subset of those implied by the preceding text. They are organized into three categories, depending on the principal goal of the policy: (1) economic growth, (2) environmental sustainability, or (3) socio-economic equity.

8.1. Securing economic growth (1): reforming registration-based barriers to mobility

The barriers to migration built into the household registration system are being progressively undermined, not only by policy decisions, but by the increasing difficulty inherent in controlling population movements in a market economy. There are potentially large economic benefits associated with dismantling registration-based barriers to mobility, and creating a more unified labour market and harmonious society. There will also be some economic and political costs, but these depend very much on how the policy is implemented.

Implementation:

The hukou system needs to be reformed with a view towards the welfare of all Chinese citizens, balancing the interests of rural and urban dwellers, as well as those of Eastern, Central and Western Provinces. This implies that the reforms cannot be left to local government bodies, who will tend to prioritise the benefits for their own localities. It is appropriate to implement the reforms unevenly so that their impacts can be monitored, but it should be kept in mind that if the reforms are concentrated in certain locations, the effects on migration to these locations are likely to be larger than with a broader reform.

Two broad types of reforms will need to be implemented:

- Reforms that progressively remove the locational restrictions associated with the hukou, and give (currently ‘floating’) migrants a greater incentive to register in the urban locations where they are living.
- Reforms that progressively reduce the link between hukou status and access to services

To be successful this second type of reform will have to be implemented in parallel with policies to develop and extend basic social and public services in urban and rural areas.

Removing the registration-based barriers to mobility will almost certainly increase rural-urban migration, and also decrease the share of temporary migrants in the migrant pool. Judging from international experience, however, temporary migration will remain a widespread phenomenon, and most migrants will still succeed in improving their economic situation by moving to urban centres. In evaluating the reforms, it will be important to assess the impacts on all groups affected, including but not only existing urban residents and local officials. Developing a systematic process for assessing hukou reform will be important to its effective implementation.

Equity effects: Removing barriers to migration could shift the locus of inequality from location to class position, reducing inequalities between urban (registered) and rural workers, but not necessarily between unskilled workers and others. Hukou-based

exclusion would probably be at least partially replaced by exclusion through a lack of access to land/housing, and the related concentration of poverty in neighbourhoods with little provision of/access to services. Overall, it is difficult to predict whether inequality would increase or decline, though poverty would probably become more visible as the number of migrants would increase (and urban poverty is more visible than rural).

Environmental effects: The ecological footprint of urban China, and China overall, would likely increase to the extent that average output and consumption increased. There might also be even more movement toward the coast, intensifying pressures on the coastal zone.

8.2. Achieving environmental sustainability (1): reducing rural-urban migration to environmentally costly sites

China's urban environmental burdens would be less if rural-urban migration could be diverted away from locations where urban development imposes particularly high costs on the surrounding ecosystems, or exposes residents to particularly large environmental health risks. This should not require direct intervention in the migration process: a combination of taxes, infrastructure investment, payments for environmental services and regulatory measures can help make less environmentally appropriate locations less attractive to investors and to migrants.

Some locations are more water scarce, others more prone to inversions causing air pollution to build up, others more prone to disturbing coastal ecosystems. The appropriate policy response varies. Ideally, however, the policies should be designed to complement the measures to achieve more environmentally compact urban development.

The policy mechanisms could include a mix of **interrelated** economic incentives, which could be locally imposed but would also have to be nationally co-ordinated and managed to ensure that the net differentials between urban centres are appropriate, and that extra-local burdens were taken into account:

- Green urban taxes
- Payments for ecological services
- Utility tariffs reflecting environmental burdens

It would also be important to develop more goal-oriented planning systems, such as integrated coastal zone management, and give them the capacity to influence urban development.

For the examples mentioned (air pollution, water scarcity and degradation of coastal ecosystems), one would expect a lot of potential overlap between measures designed to create more environmentally compact cities (through internalizing environment costs, negotiating environmental improvements, or instituting integrated management systems) and measures designed to prevent excessive growth in environmentally disadvantageous sites. In most cases, pressures can be reduced by reducing per capita or per unit output burdens or by diverting the pressure-inducing people/activities to less 'burdensome' places. Efficient environmental management systems promote both types of responses in a balanced way.

Economic impacts:

If this option could be achieved by internalising environmental costs, there would be a positive economic impact, though this would not be picked up in conventional economic indicators (e.g. GDP). In some cases there would be economic costs, but this would depend on policy specifics, and implementation, rather than the broad aspirations. The costs are less, however, if policies are imposed before rather than after infrastructure decisions have been made.

Equity impacts:

The equity effects would be ambiguous, except to the extent that green taxes and the like could be used to help promote the more regionally balanced economic growth that the Chinese government is aspiring to.

8.3. Addressing equity (1): Reducing inequities between migrants and longstanding urban residents

Section 6 in this paper described how only residents who possess permanent non-agricultural urban hukous are entitled to the benefits from poverty reduction programmes in urban areas, including income support and social housing. Extending access to welfare benefits to all urban residents, including temporary migrants, would seem the most obvious policy option to reduce inequalities between migrants and non-migrants. This may not be a viable option, however, at least in the short run. The first reason is that, overall, a relatively small minority of those entitled to various benefits actually has access to them, largely because of limited funds in the face of growing urban poverty and limitations in the enforcement of regulations, especially in the case of redundancy-related benefits to be paid by employers. There are also significant variations in the levels of coverage between provinces and municipalities, with the poorest locations (where the numbers of poor people are likely to be higher) faring much worse in supporting their residents than wealthier cities. Stretching already limited resources to cover temporary migrants would require decreasing the amount currently allocated to the existing beneficiaries. Moreover, in order to avoid reinforcing rural-urban inequalities (a key factor of migration) similar benefits would need to be made available to rural residents, at a considerable cost to national and local governments.

A more realistic option would be to increase all migrants' rights, especially in the labour market, by eliminating the notion of 'illegal' or 'unregistered' migrant. These are often the most exploited urban workers, and legalising their status would make it easier to ensure that employers comply with working conditions and national minimum wage regulations. Experiences in a number of European countries with regard to international migration suggest that the main winners from illegal migration are employers, as by hiring undocumented workers they avoid payment of taxes and social contributions. Most rural-urban migrants in China (and elsewhere in the world) are primarily interested in earning better incomes than at home, rather than in abusing social welfare systems. In Europe, much anti-immigration sentiment is fuelled by the perception of international migrants as opportunists who try to gain access to benefits without paying their contribution to the system. In contrast, all evidence points to the fact that registered migrants are more likely to pay taxes and use benefits proportionally much less than non-migrants. Introducing simpler registration systems that are not costly and do not require large amounts of administration permissions, can

improve migrant workers' pay and conditions while at the same time ensuring that taxes and contributions are paid to the state by both workers and employers.

Economic effect: Relying exclusively on a subsidy-based approach (the first option) could impose significant economic costs especially to national and provincial governments and municipalities, the main funders of urban income support and social housing. In the second option, economic costs would probably be mainly for employers, as they would have to bring wages in line with national minimums and pay contributions as established by law (this would probably include unemployment insurance). This would marginally raise the cost of labour in China, but given its very low starting point, it should not make much difference in terms of internal and international competitiveness.

Environmental effects: Not very significant in relation to resource and pollution issues, but could have major positive effect on the quality of human living environments.

8.4. Addressing equity (2): pro-active anti-poverty measures in urban areas, complementing social welfare systems

International experiences in the past two decades have shown that poverty is multidimensional, and involves not only incomes but also security (of tenure, against thefts and crime...) and above all recognition of poor people's citizenship rights. In practice, this policy option would involve focusing less on government subsidized social welfare systems, and more on creating the conditions so that low income urban residents, including migrants, can secure livelihoods, homes and services more easily. In some areas, this might require deregulation, in others re-regulation. What would clearly be required is putting low-income urban residents in a better bargaining position vis-à-vis both local government (e.g. from other parts of the world would be through federations of the urban poor) and major employers (e.g. through unions), and for low income 'communities' to be able to act more effectively in their own local collective interests (e.g. in relation to infrastructure and services).

For example, 'informal sector' activities by low-income migrants and non-migrants are often an important source of income. Rather than attempting to suppress them, this policy option would encourage discussions with workers, residents and local government officials to develop solutions to potential problems such as use of polluting materials and processes, working space, etc. International experience shows that under many circumstances community organisations are capable of contributing to the building and managing of water and sanitation infrastructure, provided that there is room for dialogue and negotiation between officials and residents. If successful, such policies would improve the well-being of residents of low-income urban neighbourhoods (including migrants). They may also attract some additional migrants, although probably without changing substantially the existing concentration of migrants in 'urban villages' and other places connected to migrant networks from their home place. The changes involved are hard to quantify, but would be very significant vis-à-vis inequality.

Economic effect: likely to be positive: income-generation can increase, and cost recovery for services and infrastructure is probably higher. Increased well-being

would decrease the economic costs of ill health among residents (including the inability to earn an income).

Environmental effect: as for the previous policy option.

8.5. Addressing equity (3): Enhancing migrants' support to home areas

As described in section 5 in this paper, migrants can make substantial contributions to the well-being of their households, and to the economic development of their home areas through the sending of remittances and return migration, bringing additional financial and human capital (new skills, extended networks...). Estimates of the contribution of remittances to rural household incomes in China vary between provinces: for example, in provinces with high numbers of outmigrants it can be as high as 30-40 percent, against a national average of around one-fifth (including remittances of seasonal migrants). Policy options that seek to enhance migrants' support to home areas thus need to be tailored to specific contexts. Measures that might be deployed include for example:

- Ensuring that migrants can retain rights to land in their home areas, should they wish to do so.
- Ensuring that sufficient public investment goes to sending areas' infrastructure, as this is key to migrants' willingness to invest there.
- Consulting migrants' relatives in home areas, migrants' associations and non-migrants in deciding how best to allocate public funds that can multiply the impact of remittances but also avoid marginalizing poor groups that cannot afford migration.

Economic effect: Initially would expect it to be a net positive effect on economic output, but could be pushed to the point where the net effect is insignificant, so as to enhance the equity effect.

Environmental effect: Would expect some effects, but of ambiguous direction.

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