China Issues Note # 2000-1

Strategic Considerations for Development of China’s Western Region

Edward Leman, President

September, 2000

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References
1 Introduction

1. The Tenth Five Year Plan, to be promulgated by the National People’s Congress in March, 2001, is expected to translate the government’s “Great Western Development Strategy” into a program of initial actions to guide economic development in China’s ten Western Provinces and Autonomous Regions\(^1\). The central government, through the “Leading Group for the Great Western Development”, has been working since February 2000 to draft the Strategy and to prepare proposals for the Tenth Five Year Plan (TFYP).

2. This paper examines some key issues in regional development planning methodology that should be considered in the preparation of the Western Strategy. Rather than making specific suggestions on the content of the Strategy, we believe that it is important and timely that the Leading Group and participating ministries fine-tune their approach to the planning process to avoid the many costly mistakes that have been made in regional development efforts in Canada and other countries. Specifically, the Note calls for: the careful identification of Regional Systems of settlement in the West, based on international best practice in regional analysis; a reassessment of disparities based on functional Regional Systems rather than provinces; focusing development efforts on core Regional Systems, including improving functional and physical linkages to less-developed areas in the periphery of these Systems, and connections between Systems; design of a process for achieving consensus on a wide range of development objectives among various levels of government; regulatory impact analysis of existing laws and regulations to maximize their usefulness to the Western Strategy; and the pragmatic selection and application of existing and new policy instruments that are likely to have the greatest leverage in today’s emerging market economy.

3. While the Issue Note reflects only Chreod’s views, it builds principally on two recent consulting assignments and one current study by the firm for the Government of China\(^2\): 1) a review of public infrastructure investment policy for the Ministry of Finance and ADB; 2) a study on municipal finance reforms for the Ministry of Finance and ADB; and 3) a two-year assessment of urban and regional development trends in ten provinces comprising the Yangtze River Basin (four of which are in the Western Region).

Chreod Ltd. openly welcomes comments, criticisms and suggestions on the points raised in this Issue Note (e-mail to info@Chreod.com).

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\(^1\) Xizang, Xinjiang, Gansu, Qinghai, Ningxia, Shaanxi, Sichuan, Chongqing, Guizhou, Yunnan

2 How can the “Western Region” be usefully defined?

4. The West covers a territory roughly equal in extent and area to a grouping of India, Bangladesh, Bhutan, Nepal, Myanmar, Thailand, Laos, Cambodia, and Vietnam (Fig. 1). The grouping of ten provinces into a “Western Region” was first made in 1986 as part of the Seventh Five Year Plan (7FYP). The “Region” is a very broad construct initially formed to provide a notional spatial basis for promotion of the Coastal Region as a “growth pole” through which linkage and multiplier effects would trickle inland to Central and Western provinces. The Eight Five Year Plan continued with a similar spatial thrust favoring the Coast. However, the Ninth Five Year Plan (1996-2000) replaced the coastal bias with recognition of the need to “pay greater attention to supporting the development of inland areas”. This was to be pursued through the designation of seven economic zones across the country, a focus on development of endogenous comparative advantages, and greater coordination in regional economic development. However, the boundaries of the seven zones were never defined (some zones were apparently to cross provincial boundaries) and they remained elusive constructs, particularly at sub-national levels.

5. As in any country, the singling out of selected provinces for special policy (and, very likely, fiscal) attention is a sensitive issue in China. Prior to the issuance of the long term “Great Western Development Strategy” by State Council in February of this year, there appeared to be considerable internal debate over which provinces to actually include in the Region. In the end, the 7FYP definition was retained. Recognizing the political constraints that result in such a broad spatial delineation, it must be remembered that the “Western Region” is not a functional region any more than are the Coastal or Central areas. There are wide differences in economic conditions, economic capacities, population concentrations, human resource capacities, ethnic groupings, natural resource endowments, environmental conditions, infrastructure capacities, geography, and institutional cultures.

6. The West’s regional diversity is suggested in Figure 2 which overlays population densities, cities, and known mineral resources in the ten provinces on a satellite image indicating landscape characteristics. Key observations are: 1) population – both rural and in cities – is concentrated in the river valleys of Yunnan, plateaus in Guizhou, the Sichuan Plain, the plateaus around Xian and Lanzhou, and in a narrow band through Gansu into and around Urumqi; 2) agricultural production and forestry occurs predominantly in the same sub-regions, which were settled historically to harvest these resources; and 3) known mineral deposits are also concentrated in these sub-regions, with the exception of several major oil and gas fields in sparsely settled basins.

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1 For a description of the regional development orientations in China’s various Five Year Plans, see Wang Huijiong (1997)
7. Therefore, while the Strategy will need to address isolated areas with comparatively sparse settlement, and potentially valuable mineral resources in outlying areas, its focus will likely need to be on clearly-definable regions and sub-regions with concentrations of people, extractable natural resources (including arable land and forestry), and therefore actual or potential economic activity.
8. While the West is a huge area, a relatively small portion of it is actually habitable for significant concentrations of people, either in a rural or urban setting. This is clearly shown in Figure 3 which maps the highest habitability zones in the western portion of the Yangtze Basin based on analysis of land cover, soil conditions, accessibility to water, and topographic slope.

![Figure 3: Areas Suitable for Extensive Settlement (Western Region in yellow)](source: Chreod Ltd. (2000))

9. Our research on the Yangtze Basin shows that primary, secondary and tertiary production is concentrated in and around networks of cities of various sizes and adjacent urbanizing counties. Figure 4 shows primary sector productivity in quantiles (agriculture, forestry, mining, oil and gas); the blue areas are those with lowest productivity. Not surprisingly, there is a strong congruence between these counties and those centrally designated by the State Council (through its Leading Group on Poverty Reduction (LGPR)) as poverty counties. Counties and cities with the highest primary sector outputs are clearly located within or close to cities that provide factor and output markets, and distribution channels to broader national and international markets.

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4 68% of the registered population in all Western Provinces lives in administratively-defined Counties; the balance are evenly split between County-level Cities and the municipal areas of Prefecture-level Cities. However, 52% of the West’s GDP is generated in these cities, and 61% of GDP from the secondary and tertiary sectors. This likely means that, as in the Yangtze Basin, there is a significant portion of the County population – likely adjacent to cities – that is engaged in non-farming activity and actually integrated into broader urban economies (to varying degrees. Per capita GDP in counties is Y 2867 compared with Y 4720 in County-level Cities and Y 9,339 in the municipal areas of Prefecture-level Cities. This suggests that a development strategy of improving linkages between selected counties and cities – including through removing or minimizing constraints to market flows of information, capital, human resources, factor inputs and market outputs – could serve to improve standards of living in these peri and suburban counties.
10. Figure 5 shows the spatial distribution of per capita output in non-farming sectors; as expected, most secondary and tertiary activity is concentrated in and around small, intermediate, and large cities, metropolises, and the two large metropolises of Chengdu and Chongqing. Non-farming output includes outputs from collectives which, during the late 1980s and 1990s, transformed many areas, traditionally considered as “rural”, into peri and suburban extensions of urban markets (77% of TVE output in the Basin is produced within the municipal boundaries of county-level and prefecture-level cities; 21% is produced in counties immediately adjacent to these cities).

Figure 5: Coincidence of State-designated Poverty Zones with Primary Sector Productivity (Yuan of GDPP per km2), 1996

source: Chreod Ltd. (2000)

A combination of analyses\(^5\) enabled us to identify clearly-recognizable, core regional economic systems along the entire Yangtze Basin. These are not provinces or large-scale agglomerations of provinces. Using small area (county/city) data it was possible to identify regions as functional entities, unconstrained by administrative conventions. Economic production and factor and output flows are strongest within these regions, and standards of living are in many cases much higher than in areas falling outside their areas of immediate influence. Eleven such systems were identified in the Basin; Figure 6 shows the three identified in the western portion of the Basin. The Kunming-centered Region holds 9% of Yunnan’s population but produces 62% of the non-farming GDP; the Guiyang-centered Region holds 11% of Guizhou’s population and produces 48% of its non-farming GDP; the Chengdu-Chongqing Megalopolis – a large network of urbanizing corridors – holds 44% of Sichuan’s and Chongqing’s population, and produces 74% of its non-farming GDP.

\(^5\) Overlay mapping, Principal Component Analysis, statistical Cluster Analysis, gravity modeling, analysis of average daily traffic flows along the national highway network, geographic constraints analysis, GIS Spatial Analysis, GIS Network Analysis.
Figure 5: GDP from Secondary and Tertiary Sectors per Non-Farming Resident, 1996
source: Chreod Ltd. (2000)

Figure 6: Regional Systems in Yangtze Basin Portion of Western Region
source: Chreod Ltd. (2000)
11. In terms of the Western Strategy, findings from our Yangtze Basin research suggest that: 1) while the “Western Region” is immense, the actual territory that is habitable – and inhabited – and in which there are significant extractable natural resources covers a much smaller area; 2) these areas differ significantly in many respects: policy actions will therefore need to be tailored specifically to regional needs and constraints (universal “Western Region” policies are not likely to be equally effective across the ten provinces; indeed, application of some policies that are useful in some provinces could be counter-productive in others); 3) the most productive cores of these regions are most likely to be regional systems of settlement, particularly cities, that provide factor and output markets and distribution channels; and 4) using regional analysis tools and available data, these regional systems can be identified with enough precision to usefully inform strategic planning in the West (and in other regions in China).

12. A particularly important implication is that the identification and delineation of regional systems provides a framework for addressing two policy imperatives that have so far proven elusive: economic development in the periphery, and environmental management. By defining regional systems spatially, it is possible to clearly identify those populations that fall outside their territories. Many of these households rely on subsistence farming, forestry, and small-scale mining, and are likely to include the majority of China’s remaining absolute poor. The most serious environmental problems identified in the West – pollution of water courses and air in urban areas, agricultural land loss, water pollution from agricultural run-offs, and deforestation – are concentrated in or near the regional systems in which most production is located.

### 3 How disparate are “regional disparities”?

13. A fundamental precept of the Strategy announced in February of this year is the need to reduce regional disparities between the Coastal and Western provinces. While there is no doubt that there are differences in output, productivity and standards of living, the degree of disparity is a function of the spatial unit being compared, and which variable or condition is actually being measured.

14. The descriptor most often used by central agencies and policy analysts in China to substantiate regional disparities is average per capita GDP calculated at the provincial level (Figure 7). Differences are indeed striking: the Western average is less than half that of the Coastal Region. However, looking at individual provinces, the impression of homogeneity within each of the three Regions does not hold. Xinjiang’s per capita GDP is higher than Hainan’s; six of the Western provinces have per capita GDP levels higher than Guangxi’s; Anhui and Jiangxi have levels comparable to Sichuan, Ningxia, Yunnan and Qinghai. Provincial aggregates seriously obscure often significant intra-provincial disparities, including in the Coastal and Central provinces.

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6 While household incomes would provide a better indication of disparities, a combination of various continuing subsidies in some locations and the absence of reliable data on inter and intra-provincial price differentials means that income data are not comparable. Given existing data, per capita GDP is at best a proxy for incomes, recognizing that in some areas (e.g. cities such as Yuxi in Yunnan and Panzhihua in Sichuan, both of which are single industry towns controlled by central SOEs) output is not necessarily translated into household earnings.
15. Policies for regional economic and social development need to be based on spatial scales smaller than provinces if they are to be responsive to regional needs. In our Yangtze Basin research, we compared per capita non-farming output (GDP from secondary and tertiary sectors per non-farming resident) in all of the cities and industrializing counties in the Basin (Figure 8). While levels are clearly higher in Shanghai, Jiangsu and Zhejiang, the divergence is much less marked for cities and counties in the central and western provinces. Indeed, there are many cities and counties in both sets of provinces that have non-farming output levels comparable with cities in the upper middle ranges in the booming Yangtze Delta. These form the core nodes in the regional systems described above into which less developed areas in outlying areas need to become integrated.

16. To better understand the degree of inequality and equality in distribution of incomes in the Basin, we calculated Gini coefficients for per capita GDP at the city and county scales, and separately for GDP from secondary and tertiary sectors per non-farming resident for cities (Figure 9). The results indicate that, at least for the Yangtze Basin portion of the Western Provinces Region, the extent of inequality is not as pronounced as suggested by provincial per capita GDP figures. Income inequality in the Western Yangtze overall is comparable to that in the Yangtze Delta, and at exactly the same level for counties.

17. However, inequality is greatest between cities in the Western Yangtze. Subsequent analysis confirmed that there are wide differences in levels of urban economic development in provinces where one or two large cities (e.g. Kunming and Yuxi in Yunnan) dominate; in all of the western provinces in the Yangtze Basin, there appears to be a divergence defined by the population size of a city. Small and Intermediate Cities are often well behind Large Cities and Metropolises in most measures of economic development (output, retail sales, bank savings, on-budget revenues etc.).
Figure 7: Provincial per capita GDP as Per Cent of National Average, 1998
Source: 1999 China Statistical Yearbook
Figure 8: GDP from Secondary and Tertiary Sectors per Non-farming Resident, Yangtze Basin cities and industrializing counties, 1996 (Yuan)

Source: Chreod Ltd. (2000)

<table>
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<th>Region</th>
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<th>Cities Gini</th>
<th>Total Gini</th>
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<td>0.32</td>
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<td>China</td>
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<td>0.30</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Gini Coefficient: GDPST/non-farming resident within city boundaries

Gini Coefficient: GDP/person 1996

Figure 9: GINI Coefficients, Yangtze Basin

Source: Chreod Ltd. (2000)
18. Our Yangtze Basin research - using small area data on counties and cities - led us to the following conclusions on economic disparities: 1) while most coastal cities have high levels of per capita output, there are some (such as in Anhui and northern Jiangsu) with levels comparable to those in the west; 2) central and western cities are, on average, at comparable levels with a few reaching output levels of high-performing coastal cities; 3) major disparities in the west are between counties with low levels of industrialization and cities and adjacent counties with comparatively higher levels; and 4) there are major differences between cities throughout the Basin, but particularly in the West, based on city size with the smaller cities faring worse.

19. The key issues in terms of levels of economic development appear to the degree to which the economies of smaller cities and counties are integrated into those of regional systems enjoying agglomeration benefits, the degree to which the economies of cities have diversified (sectorally and in terms of enterprise ownership) so that production responds to demands of both domestic and international markets, and the degree to which these regional systems are networked, both physically and functionally, with domestic and international markets. Considerable progress is being made with physical connections between market networks (Figure 10). However, more attention now needs to be paid to improving functional connections by: removing inter-provincial (and even inter-municipal) trade barriers; resolving inequitable fiscal flows and entitlements between levels of government; and removing constraints to the mobility of labour, enterprises, and capital. Similarly, endogenous constraints to economic restructuring, capital formation, and innovation need to be addressed if sustainable regional development is to occur in the West, and efforts intensified to enhance local comparative advantages, particularly of human resources.

Figure 10: Counties (yellow) and Urbanizing Settlements With Access to Greater than Class II Roads by 2005
4 Key Steps in Defining Regional Development Policies

20. The following description of Canadian experience with regional development highlights some of the problems shared by many countries in their attempts to influence the spatial distribution of economic and social development in a market economy. These are problems that China now potentially faces.

“Over the past forty years regional development has been a policy sector highly resistant to “success” in terms of achieving stated objectives, or even the less rigorous measure of producing steady, incremental improvements toward the stated objectives. It seems both the objectives and the popular expectations they raised have been unrealistic. Policy often has been based on poorly understood economic processes and relationships, informed by weakly developed and untested theories. It has been plagued by half-hearted or poorly managed policy implementation, frequent changes to programs and implementation agencies, intergovernmental friction and conflict over appropriate roles and jurisdiction, and sometimes excessive ‘politicisation’ in the form of clientelism and patronage.”

from: “Regional Economic Development – Building Partnerships or Transfer Dependencies?”, James Bickerton (Dept. of Political Science, St. Francis Xavier University)

21. Premier Zhu Rongji recently alluded to such problems while seeking to place public expectations of the Western Development Strategy in perspective.

“He emphasized that a more in-depth understanding of the Government’s overall plan, guiding policies and principal objectives is necessary to ensure better planning and prioritisation of tasks in a down-to-earth manner. Past lessons and experience should be drawn upon for us to act according to natural and market laws. The Western Development Initiative should not lead to unchecked rush for actions, duplicated construction of inferior quality, or establishment of non-competitive industries with no market prospect. Flashy “showcase” projects with lack of solid results are not acceptable. Quoting a speech by President Jiang Zemin, who said the Western Strategy should help the West to make breakthroughs in infrastructure and eco-environment construction in 5 to 10 years in order to ensure a good beginning for China’s western development, Zhu reiterated that, in the spirit of this objective, the Western Strategy should be planned and implemented phase by phase and in a priority order.”

from: A Breakthrough in Development of Infrastructure and Eco-Environment in Xinjiang in 5 to 10 Years (Abstract); People’s Daily, 13 September 2000

22. We suggest that a regional development planning process for the Western Provinces should consist of five key components: 1) systematic regional analysis to define unmet needs, development constraints, and development opportunities; 2) establishment of complementary development goals and objectives; 3) the careful selection of instruments through which policy can best be applied at each level of government; 4) the formulation of policies using the most useful instruments; and 5) the establishment and management of an underlying base of information that informs each of the preceding components.
5 Defining Scales for Regional Development

23. One of the earliest challenges in formulating regional development policy is to accurately define “region” in spatial and scalar terms that conform to actual needs of households and enterprises. Many policy efforts flounder because, from the beginning, there is confusion over which spatial scales should be addressed – and which scales can be managed. Based on reports that we have gathered over the past 12 months on the government’s deliberations on the Western Strategy, we believe that this confusion over scale may already have started.

24. For example, much has been made over the actual and potential mineral resources in the West, including oil and gas (Box 1). While planned pipelines from the Qaidam Basin will certainly meet the development needs of some coastal and central cities, the actual developmental impact on the West (aside from short-term construction employment) is likely to be limited. We would classify this project as a national-scale effort to support inter-regional networks in China, not as a project that will lead to many significant benefits at the regional scale. Similarly, two of the ten major projects to be started this year in the West will reportedly be expansion and/or renovation of the Xian International Airport and a 13.5 kilometer elevated light railway in Chongqing. These projects might well have more than short-term employment benefits in each of these cities; however, we would classify these projects as settlement-scale (metropolitan) projects, not “regional”.

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**Box 1: Ten Major Projects Started in 2000 for Western Provinces**

SDPC announced in April that ten key projects will start this year in support of the Western Development Strategy:

- 955 kilometer long Xian to Hefei section of the Xian-Nanjing railway line with an investment of RMB 23.2 billion;
- 640 kilometer long Chongqing-Huaihua railway line (RMB 18.2 billion);
- highways, including arterial routes of the national roads and national-grade roads in impoverished counties;
- Xian Xianyang International Airport;
- a network of feeder airports will also be built, supported by Chengdu Shuangliu Airport, Kunming Wu Jiaba Airport, Xi’an Xianyang Airport, Lanzhou Zhongchuan Airport, and Urumqi Airport;
- 13.5 kilometer elevated light railway in Chongqing as the first phase of the Jiao Changkou-Xin Shancun line project, with an investment totaling RMB 3.26 billion;
- 953 kilometer natural gas pipeline in the Qaidam basin from Sebei through Xining to Lanzhou with a capacity of 2 billion m³/year;
- water resources management projects in Zi Pingpu (Sichuan) with a holding capacity of 1.1 billion m³ (RMB 6.2 billion) and Sha Potou in Ningxia with a holding capacity of 26 billion m³, installed electrical generation capacity of 760,000 kilowatts (RMB 1/3 billion);
- environmental conservation projects including restoring farm plots to forestry use, ecological construction, and tree planting, in 13 provinces and districts including Yunnan, Sichuan, Shanxi and Gansu provinces. The plan is to return 5.15 million mu of land currently being used for agricultural purposes, and to reclaim artificial forest
or grassland from 6.48 million mu of barren mountains and wasteland.

- potassic fertilizer project in Qinghai;
- facility expansion and renovation of universities in Western Provinces.

25. Introduction of a spatial discipline could be extremely useful in planning the Western Strategy. Such a discipline could provide for the clear identification and definition of a hierarchy of unmet needs, development constraints, and development opportunities. This kind of discipline is invariably difficult to invoke – in Canada, China or any large country – for two principal reasons: 1) political pressure at various scales (national, provincial, local) to derive potential benefits, however illusory, from a new regional development policy; and 2) lack of experience among policy makers, particularly at the national level, in dealing with meso-scale spatial units.

26. Figure 11 outlines a broad spatial framework that emerged from our empirical analysis of regional development in the Yangtze Basin. Several points need to be emphasized. This first is that regional development policy based solely on natural resources will have limited developmental impacts. Although the extraction of natural resources is likely to have national benefits, the local economic benefits and impacts of extraction on rural and urban settlements in the vicinity of the resources needs to be defined and understood. Impacts include those on the local environment and on the potential for reducing poverty among the local population, particularly in surrounding villages and towns.

27. The bottom band on Figure 11 shows the relative importance of extraction of oil and gas deposits, mineral deposits, commercial forests, and agriculture to various types of settlement (defined on the basis of population size). Agriculture is important to all sizes of settlement, particularly villages and towns, but also at the metropolitan scale for provision of daily food supplies. The importance of forestry to settlement economies diminishes as they grow – there are few large cities and metropolises that rely predominantly on timber processing, but there are a number of small and intermediate cities in Yunnan, for example, that do. Similarly, mining towns are generally small cities, and oil and gas extraction have comparatively less impact on cities of all sizes.

Scale 1 in the spatial hierarchy consists of individual settlements. Their primary importance in terms of regional development policy is their role within the wider Regional Systems at Scale 2.

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7 *Meso*-scale is a term now widely being used at the OECD to differentiate between macro-level policy (with which central governments are familiar) and micro-level policy (largely under the purview of local governments). The *meso*-scale lies spatially between the two and is an attempt to recognize the economic and social importance of functional economic regions that are often smaller than provinces, but also often traverse provincial/state boundaries, e.g. the Eastern Seaboard in the US, the Yangtze Delta Megalopolis (which includes Shanghai and parts of Jiangsu and Zhejiang), and the emerging Chengdu-Chongqing Megalopolis in the West.
28. In our Yangtze Basin research we identified five types of Regional Systems at the meso scale and a sixth by default - isolated settlements of villages, towns, some small cities, and a few intermediate cities that are not part of any apparent regional system in any obvious way. The five types of regional systems are: 1) town-centered regions comprised of a network of villages and towns, often in a loose hierarchy; 2) city-centered regions in which a single Large City or Metropolis seems to play a major role in regional production, employment and distribution; these city-centered regions encompass villages, towns/townships, Small Cities and Intermediate Cities, and can cover a radius from the central city of as much as 200 km (e.g. the Kunming-centered Region and the Guiyang-centered Region); 3) Clusters of villages, towns and cities at or below the Metropolis scale across an area of 100-200 km radius; unlike city-centered regions, no single town or city appears to play a central or leading role (in the Yangtze Basin only two Clusters were identified, both in Anhui); 4) Corridors, which are very similar to Clusters but stretch in a linear form along a major road or rail line (a possible emerging Corridor in the West is one stretching from Lanzhou to Wuwei, Jinchang, Zhangye and perhaps to Jiuquan, Jiayuguan and Yumen in Gansu); and 5) Megalopolis.

29. The latter is a very large regional system both in area (200 – 400 km radius) and population (20 – 50 million). In other countries (e.g. in Japan, India, Europe, US) megalopolitan systems – which are anchored between at least two large metropolitan
cores – have tended to become the principal engines of national economic growth and the principal hubs to international markets. The Pearl River Delta in China is now acknowledged to be a Megalopolis, as is the Yangtze Delta system stretching from Ningbo through Hangzhou to Shanghai, and on to Suzhou, Wuxi and Nanjing. Our Yangtze Basin research identified two additional Megalopolises that are at early stages of development: one stretching from Wuhan to Jingzhou and Yichang; and the other in the West stretching from Mianyang through Deyang to Chengdu, and then southeast through Neijiang and Zigong to Chongqing. Figure 12 shows the delineation of Regional Systems in the Yangtze Basin by 2005. A similar effort of definition in the Western Provinces could provide a useful spatial framework for policy development, particularly related to the programming and sequencing of inter and intra-regional transportation, communications and energy infrastructure in the West.

![Figure 12: Regional Systems in the Yangtze Basin and Major Inter-regional Transportation Infrastructure, 2005](image)

30. Scale 3 in the spatial hierarchy consists of higher-order Inter-regional Networks of inter-connected Regional Systems. These can be sub-national networks of various kinds, the national network, cross-border networks (such as the Greater Mekong Sub-Region and the Central Asian Republics), and international networks of trade and commerce.

31. While the typology described above might not be entirely applicable throughout the Western Provinces, we wish to stress the importance of establishing a clear framework of spatial units that correspond to functional economic systems, not large provincial administrative units. Only by doing so will it be possible to identify and define unmet needs, development constraints, and development opportunities at each spatial scale with sufficient precision to avoid confusion over the Western Strategy. The definition of settlements (rural and urban), Regional Systems, and Inter-regional...
Networks can be done using a combination of regional analytical techniques that have been applied successfully in other countries.

6 Defining Regional Development Goals and Objectives

32. A spatial hierarchy will provide a framework for systematically establishing economic, social, technological, environmental, cultural and financial goals and objectives for the Strategy. One of the biggest pitfalls in regional development policy in other countries has been that goals and objectives often conflict between spatial scales. For example, a policy that favours the development of cross-border networks (Scale 3) of city-centered regions (Scale 2) may well siphon scarce investment capital away from town-centered regions (Scale 2) located farther afield. An investment focus on one particular city (Scale 1) in a Regional System may similarly divert attention from improving linkages to isolated villages, towns, and small and intermediate cities that fall outside of the System.

33. While goals and objectives are often easy to generalize, as noted in the earlier quote from Bickerton, they are often unrealistic, partly because they rarely focus on specific spatial scales, and partly because potential conflicts between goals and objectives have not been identified and defined in the early planning stages. Figure 13 shows the range of possible goals and objectives that can drive regional development policy.

34. Clearly, policy makers will need to seek consensus at all levels of government on which objectives are germane – at each level of government and in different locations – and the relative weighting or priority among objectives. This effort must be preceded by a clear, systematic and comprehensive regional analysis leading to the identification and definition of unmet needs, development constraints, and development opportunities in all affected regions. Without such an analysis, attempts to reach consensus on objectives will invariably be fraught with subjectivity and political posturing at all levels.
### ECONOMIC:
- equalization of opportunity
- consolidation of comparative advantages
- expansion of output, employment
- economic diversification
- improved market access

### TECHNOLOGICAL:
- innovation incubation
- innovation transfer
- innovation protection

### SOCIAL:
- alleviation of absolute poverty
- "minimum" level of public services
- health care improvement
- nutrition improvement
- gender equalization
- improvement of educational attainment
- skills development
- universal social security
- special support to ethnic minorities

### ENVIRONMENTAL:
- ecosystem restoration
- environmental protection
- resource conservation
- sustainable resource management

### CULTURAL:
- heritage preservation
- heritage restoration

### FINANCIAL:
- own-source financing
- full cost recovery
- limitation of contingent liabilities
- non-government financing
- fiscal equalization

Figure 13: Possible Goals and Objectives for Regional Development
7 Selection of Instruments

35. Another reason for failure of regional development efforts in other countries has been that policy makers often assume that simply articulating a policy is enough. There is often a great leap between development goals and objectives to policy that fails to explicitly recognize which instruments are available to government to influence the spatial distribution of economic and social activity in a market economy, and which of these instruments are most effective in influencing this distribution. We have learned through difficult experience in Canada that: 1) instruments are essential; 2) some instruments cost too much; 3) other instruments are too blunt and unwieldy; and 4) some instruments simply do not work.

36. Figure 14 is a broad outline of instruments that could be used to influence – to varying degrees – regional development in the Western Provinces. For China, which is in a transition from a command to a market economy, the choice of instruments is likely to be particularly difficult. While a unitary state, fiscal decentralization over the past 15 years means that direct budgetary investment by the central government is now very limited. The structuring of the fiscal system – allocation of revenue and expenditure assignments, tax assignments, and the design of predictable transfer systems – is still underway, particularly at the sub-provincial levels in which much most financing is required. Credit and monetary instruments are also in transition.

37. The structure of the system of public administration is itself a powerful instrument for influencing regional development policy. For example, the degree of autonomy accorded to village governments, the allocation of functional responsibilities among village, town and county governments, and the administrative criteria for designation of statutory towns and cities all can influence the fiscal and institutional capacities of settlements of varying sizes to pursue development agendas (e.g., loosening of the criteria for designation of statutory towns could mean that many more local governments in the West could potentially access new own-source revenues and transfers from senior governments).

38. Another public administration instrument that can affect the success of regional development policy is the structuring of regional institutional mechanisms to coordinate implementation across sub-provincial and provincial territories. There is a wealth of experience in OECD countries on such institutions, both successful and unsuccessful, ranging from establishment of new institutions to dramatic changes in mandates of existing organizations and sub-national governments. China could well learn from this experience.
### INSTRUMENTS Available to Government

#### PUBLIC FINANCE:
- Budgetary investment:
  - Capital investment
  - Program investment
  - Cost-sharing
- Fiscal system structuring:
  - Revenue + expenditure assignments
  - Expenditure assignments
  - Transfer system
- Fiscal incentives:
  - Tax exemptions/credits
  - Tax holidays
  - Interest rate rebates
- Credit policy:
  - Directed credit
  - Subsidized credit
  - Sovereign guarantees
- Monetary policy:
  - External borrowing
  - Sovereign guarantees
- Tariffs:
  - Tariff setting responsibilities
  - Tariff levels

#### PUBLIC ADMINISTRATION:
- Regional coordination mechanisms
- Sub-provincial management
  - Village administration
- Allocation of functional responsibilities
- Boundary definition
- Town/city designation
- Budgeting and monitoring
- Public service delivery

#### PUBLIC REGULATION:
- Social Regulation:
  - Labour mobility (hukou)
  - Gender rights
  - Rights of ethnic minorities
- Economic Regulation:
  - Property rights
  - Enterprise formation + exit
  - Enterprise mobility
  - Capital mobility
  - Market access
  - Allowable non-state investments
  - Access to capital markets
  - Price controls
  - Competition
  - Intellectual property
- Environmental Regulation
  - Resource use
  - Pollution standards
- Land/Use Regulation:
  - Conversion
  - Types of land use
  - Intensities of land use
  - Periods of land use
- Infrastructure Regulation
  - Levels of service
  - Technical standards

#### APPROVALS:
- Investment approvals
- Technology approvals
- Licensing

#### INFORMATION AND EDUCATION:
- Public Education
- Information Standards
- Reporting Requirements
- Communication

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Figure 14: Possible Instruments to Effect Regional Development Policy
39. The most obvious instruments available to government are regulations (assuming, of course, that they are enforced). Experience in North America has shown that seemingly unrelated sets of regulations – which were not considered in the formulation of regional development strategy – can have completely unexpected and negative effects on policy. Even minor changes to these regulations have been shown to leverage major developmental impacts. Regulatory impact assessment is now increasingly being practiced in most OECD countries and should be applied systematically in the preparation of the Western Development Strategy.

40. Less tangible but also powerful instruments available to government are public education, the establishment of consistent reporting standards, and the implementation of shared information management systems on development conditions and trends. In other countries, these have proven to be important adjuncts to other instruments noted above.

41. The tendency so far in promotion of the West has been to use the limited instruments of public budgetary investment and the granting of fiscal incentives for non-government investment, often in areas that have no obvious economic attraction for such investment. An important issue is identifying which investments should be public, and which of these will have the greatest developmental impact. There is considerable evidence in other countries that, up to a point, capital investment in transportation and communications infrastructure can lead to major economic returns. A host of tools and approaches have been developed through which competing infrastructure investment proposals can be compared and their development impacts assessed at varying spatial scales. Given that much of the investment in infrastructure in Western Provinces will continue to be for public goods, these tools and techniques should be applied in establishing clear priorities among capital projects to be financed by the public sector.

42. While public investment and fiscal incentives can be useful instruments, the Western Strategy will take years to evolve and implement. Government should consider as many instruments as possible at the outset so that development policy is pursued through “multiple channels”.

8 Setting Regional Development Policies

43. Regional development policy should translate complementary objectives into clearly defined actions that can be implemented through an appropriate mix of the policy instruments touched on above. Policy must define what should be done, the potential benefits and costs of proposed actions, the scale and locations for priority actions, the sequencing and phasing of these actions and of possible modifications to policy instruments (e.g. regulations), responsibilities for these actions (including between government and non-government, and between levels of government), and the ways in which desired actions should be financed.

44. Canadian experience shows that implementation responsibilities and financing strategies are essential. A regional development policy that does not include them will invariably become ambiguous and be perceived either opportunistically or cynically by the public and other stakeholders, including lower level governments. Experience has shown that, in the final analysis, it is better to have no regional development policy than one that leads to confusion, frustration and conflict.
9 Conclusions

45. As in other countries, the success of regional development policy has been limited in China, especially since the gradual implementation of market reforms starting in the late 1970s. Lack of clarity in defining what constitutes “regions”, and how they fit into an overall national development strategy, have led to confusion and ineffectiveness of policies designed to influence the spatial distribution of economic activity and systems of human settlement.

46. An intractable problem – shared with many countries – has been setting realistic goals and objectives for regional development that are shared by central, provincial and sub-provincial governments. In China, implementation problems have been exacerbated by attitudinal overhangs from the command era that perpetuate the use of now-blunt policy instruments with limited leverage in an emerging market economy.

47. The “Great Western Development Strategy” is an opportunity for China to test new approaches and new policy instruments that are based on: 1) recognition of actual development patterns, needs and constraints rather than on the inertia of administrative interests; 2) consensus-building among affected levels of government, including at the local level; 3) assignment of implementation responsibilities tied to financing capacities; 4) prudence in setting investment priorities; and 5) acceptance of the dramatically different scope of government influence possible using the more indirect policy instruments available in a market economy.

48. The Tenth Five Year Plan is recognized by senior leaders as the start of the Western Strategy, which will continue well into at least the next decade under subsequent Plans. It provides a platform on which new, more market responsive approaches to regional development policy could be structured in China during the coming years.
References


