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Technical Note

on Preparing the National
Territorial and Spatial Plan of China
April 2020



WORLD BANK GROUP

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Design: ZhengZhou Dengine Translation Services Co., LTD

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ACRONYMS

MLR	Ministry of Land and Resources (absorbed by MNR)
MNR	Ministry of Natural Resources
MoHURD	Ministry of Housing and Urban Rural Development
MSP	Maritime Spatial Plan
NDRC	National Development Reform Commission
NTSP	National Territorial and Spatial Plan
NTUP	New Type Urbanization Plan
SDGs	UN Sustainable Development Goals
SOA	State Oceanic Administration (absorbed by MNR)

SUMMARY

1. Purpose of this Note

China's recently-established Ministry of Natural Resources (MNR) has been given the task of developing the country's first National Territorial and Spatial Plan (NTSP). This Plan will replace four separate sectoral plans previously prepared by different ministries. The NTSP is meant to integrate the sectoral plans and address the overlaps, disconnects, and conflicts among them. The ultimate goal is to have "One Plan" for China.

This Advisory Note responds to a request from MNR to provide policy advice and lessons drawn from international practices on topics relevant to the Territorial and Spatial Plan.¹

2. China's Four Spatial Plans

Four key national spatial plans were reviewed for this Note:

- Land Use Master Plan 2011-2030; prepared by the former Ministry of Lands and Resources;
- National Urban System Plan 2007-2020; prepared by Ministry of Housing and Urban Rural Development;
- Main Functional Area Plan, 2010; prepared by NDRC;
- National Marine Spatial Plan, 2015: prepared by The State Oceanic Administration (SOA) and NDRC.

Potential gaps and overlaps among these plans were identified to inform the selection of international cases for review.

3. International Experience

Experience in nine countries was reviewed in both national and sub-national territorial planning (Republic of Korea, Japan, Canada, USA, Germany, France, Netherlands, Ireland, UK). The scope of planning initiatives in these countries was compared with those of China's existing four spatial plans. Where they address the scope of two or more plans in an integrated way, these cases were identified and described.

Key observations from this international review are that no country has tried to prepare an integrated territorial plan that covers the scope of all four of China's plans: the 'One Plan' initiative being pursued by MNR is the first attempt globally. In addition, all nine countries follow a strategic planning approach either at the national or sub-national level. Some countries, such as Canada and the US, do not have national territorial strategies due to the allocation of responsibilities in their Constitutions. Integrated land and marine planning at the national level is so far being addressed partially, and only explicitly in the Netherlands and Ireland. There are more integrated initiatives sub-nationally in seven countries, suggesting that integrated planning is more manageable and perhaps effective in these countries at the provincial, regional, and metropolitan levels.

4. Preparing China's National Territorial and Spatial Plan

Since most of the case study countries follow strategic planning rather than 'master planning', key elements of the

¹ The note was developed by the World Bank's China Urban and Disaster Risk Management Team.

approach are described in this Note as a possible checklist for MNR in preparing the NTSP. Differences in the two approaches are highlighted, and some key lessons learned from unsuccessful applications of strategic planning in other countries.

Six major steps are outlined and applied to the China context. Methodological challenges are identified, particularly reconciling functional and administrative territories in development planning, and defining functional spaces, territories, and the relationships between them.

5. Initial Suggestions

Based on this brief review, seven suggestions are made to MNR:

- 1). that it reviews its approach to ensure that a systematic strategic planning process is followed consistently;
- 2). that MNR ensures an evidence-based approach that anchors territorial planning on an objective understanding of existing and recent trends – not only on aspirations;
- 3). that MNR first plans functional territories and then plans administrative territories to address statutory requirements (not the other way around);
- 4). that functional regions be defined using human settlements as the base;
- 5). that MNR builds into its approach recognition of the need for incremental improvements and continual updating of the ‘One Plan’ to respond to unforeseen and often rapidly-changing conditions;
- 6). that MNR ensures that it has the mandate and assured capacity to update the NTSP and lower-tier territorial plans regularly and fully;
- 7). that MNR explicitly designs and implements a program to monitor development trends and NTSP implementation to rapidly inform updates.

Since China’s preparation of ‘One Plan’ is the first such initiative globally, MNR might benefit from technical assistance for in-depth analysis of international experience, structured dialogue with other governments that are trying to integrate their territorial and spatial planning, case study tours, exchanges through seminars and conferences, and just-in-time advice and assessments as needed¹.

The World Bank welcomes discussions with MNR on how it can continue to best support the NTSP process.

¹ To help position the NTSP in terms of key global agreements, Appendix A lists the UN Sustainable Development Goals and links the goals and targets of the Paris Agreement, the UN New Urban Agenda, and Sendai Framework to the SDGs.

1. INTRODUCTION

1.1. Purpose of this Note

China's recently-established Ministry of Natural Resources (MNR¹) has been given the task of developing the country's first National Territorial and Spatial Plan. This Plan will replace separate sectoral plans previously prepared by different ministries including the Land Use Master Plan by the former Ministry of Land and Resource, MNR's predecessor; the National Urban System Plan by the Ministry of Housing and Urban and Rural Development (MoHURD); the Main Functional Area Master Plan prepared by the National Development and Reform Commission (NDRC); and the National Marine Spatial Plan prepared by the former State Oceanic Administration (which has been merged into the new MNR). The new Territorial and Spatial Plan is meant to integrate the sectoral plans and address the overlaps, disconnects, and conflicts among them. The ultimate goal is to have "One Plan" for China: the National Territorial and Spatial Plan (NTSP) to clarify and unify spatial policies, and to support their consistent implementation across the country.

The Ministry of Natural Resources requested the World Bank to provide policy advice and lessons drawn from international practices on topics relevant to the Territorial and Spatial Plan.

This Advisory Note responds to MNR's request. Since the Note addresses concepts and processes that differ somewhat across regions and countries, some key terms are defined at the outset (Box 1).

Box 1 Terms used in this Note

There is no widespread consensus professionally or among governments on what constitutes 'territorial planning'. There are also Chinese meanings of various terms related to planning and territories for which English equivalents either do not exist, are less precise, or have slightly different meanings.

For this Note, the following English terms and definitions are used.

- administrative: of or related to the exercise of governance and public management
- administrative space: a type of space defined by level of government (e.g. Province, municipality)
- functional: refers to activities that occur, or should occur, in space or a territory;
- functional space: a type of space in which defined activities occur or should occur (e.g. farmland)
- territory: space demarcated by a boundary
- administrative territory: administrative space demarcated by a fixed boundary (e.g. Shaanxi Province, Chengdu Municipality, Dongcheng District, marine Exclusive Economic Zone)
- functional territory: functional space demarcated by a boundary defined by the extent of functional activity (e.g. Yangtze River Delta City Cluster, Changsha Metropolitan Region, inner urban core, marine protected area); boundaries can be terrestrial or marine
- territorial (or spatial) plan: a precise visualization of a clearly-defined end-state with targets to be attained within a specific time period; static, occasionally subject to formal updates
- territorial (or spatial) strategy: a more adaptable conceptualization of development directions based on goals agreed by stakeholders, tied broadly to a specific time period; iterative and cyclical to reflect changing conditions (e.g. economic, climate change).

¹ established in 2018.

1.2 China's Four National Plans

China began to prepare sectoral national territorial plans almost thirty years ago in response to mounting pressures on land arising from rapid industrialization and urbanization in many parts of the country. There are currently four core national plans regulating: 1) land use; 2) urban and rural settlements; 3) areas for focused economic development; and 4) China's coastal and marine territory.

Land Use Master Plan 2011-2030. The Land Use Master Plan was initiated in the early 1990s, after the foundation of the State Land Administration in 1987 and the enactment of The Land Administration Law in 1991. Updates were prepared from 1996-98 and then again in 2005 culminating in the current 2011-2030 Plan, prepared by the former Ministry of Land and Resources (which succeeded the State Land Administration in 1998), and approved by State Council in 2013. It is a strictly hierarchical plan system cascading from the National Land Use Plan to equivalents at provincial, municipal/prefecture, county/district, and village/town levels.

The land use plan generally allocates land resources and provides strategic guidelines for the development, use, improvement, and conservation of land resources, including resources found underground. Development is managed through land use quotas that tier hierarchically, including quotas for: 1) cultivated land; 2) basic cultivated land quota; 3) urban and rural construction land quota; 4) land conversion from cultivated use to development/construction use; 5) supplementing cultivated land through land reclamation; 6) per capita urban industrial and mining land; 7) construction land; 8) urban industrial and mining land; and 9) increasing construction land quota. Quotas have been set to 2030 and are rigorously monitored by higher-level governments to ensure compliance.

National Urban System Plan 2007-2020. The National Urban System Plan identifies cities by population size classes, seeks to strengthen linkages between cities and towns, and prioritizes their growth according to national policies on urbanization that, until recently, promoted towns and small and intermediate size cities and controlled growth in larger cities. Its purpose – to outline an overall arrangement for the development of urban areas – was defined in the Urban Planning Law (1989). The Plan's scope was widened to include rural settlements with the passage of the new Law on Urban and Rural Planning in 2007. The current National Urban System Plan was prepared by the Ministry of Housing and Urban Development in 2007 to guide the development of urban and rural settlements to 2020.

This plan is an overall arrangement for the development of urban areas and urban spatial layout, and is an important policy basis for guiding the healthy development of cities and towns. It is the basis for the formulation of urban system planning and urban overall planning by provinces, autonomous regions and municipalities directly under the Central Government. As with the National Land Use Master Plan, the National Urban System Plan is hierarchical with plans of lower levels requiring approval of the next higher level of government.

Main Functional Area Plan (NDRC, 2010). While the Land Use Plan is oriented towards the protection of agricultural land and the Urban System Plan seeks to manage population shifts of settlements, neither plan explicitly addresses the economic development potential of areas across the country. In 2010 NDRC completed China's first 'Main Functional Area Plan' that defines four types of functional areas, based on the carrying capacity of resources and the environment:

- **'optimized function zone'** – a largely urbanized area with comparatively high population density and high development intensity causing significant resource and environmental problems;
- **'prioritized function zone'** – an urbanized area with development potential, strong resources and environmental carrying capacities;

- **‘restricted function zone’** – an agricultural and ecological area that is unsuitable for the development of industrialization and urbanization;
- and **‘prohibited function zone’** – a protected area containing national nature reserves, world cultural and natural heritage sites, national scenic areas, national forest parks, national geological parks and other ecological function areas.

The National Main Functional Area Plan defines three major “strategic layouts”: 1) an urbanization layout with “two horizontal developing axes, three longitudinal developing axes”; 2) an agriculture layout with “seven zones, twenty-three belts”; and iii) an ecological layout with “two screens and three belts”. The National Plan defines locations for each of the four types of functional areas which are further developed in more detailed, statutory provincial and municipal plans¹.

National Marine Spatial Plan. The State Oceanic Administration (SOA) and NDRC prepared China’s first National Marine Spatial Plan in 2015². It establishes six guiding principles for marine spatial planning in China:

- prepare suitable development plans for different marine areas
- identify the major functions and purposes of a marine area before making a development plan
- prioritize development activities in the Exclusive Economic Zone (‘EEZ’) and high seas while controlling human activities in coastal waters
- enhance sustainable fisheries management
- require an environmental impact assessment before any land reclamation or port construction takes place
- enhance protection of the marine environment.

The National MSP represents a shift in China’s ocean governance from a sectoral to a holistic approach. It identifies three major functions for China’s sea areas: industry and urban construction; aquaculture and fisheries; and ecosystems. Four types of functional zones are defined:

- **Improvement Zones:** near the coast where most human activities occur and where marine pollution is a serious problem. The MSP advocates replacing highly-polluting projects, such as steel plants, with less threatening activities, for example marine tourism.
- **Key Development Zones:** areas suitable for urbanization, port construction, and oil and gas exploration and exploitation.
- **Restricted Zones:** areas that provide seafood, especially fishery zones.
- **Prohibited Zones:** marine protected areas and islands. Prohibited zones are used to protect biodiversity and unique ecosystems. Very few activities are allowed in these areas.

Related National Plans. Two other related national plans were issued by State Council over the past ten years: the New Type Urbanization Plan (2014-2020; NTUP, prepared by NDRC); and the 13th National Five Year Plan (2016-2020).

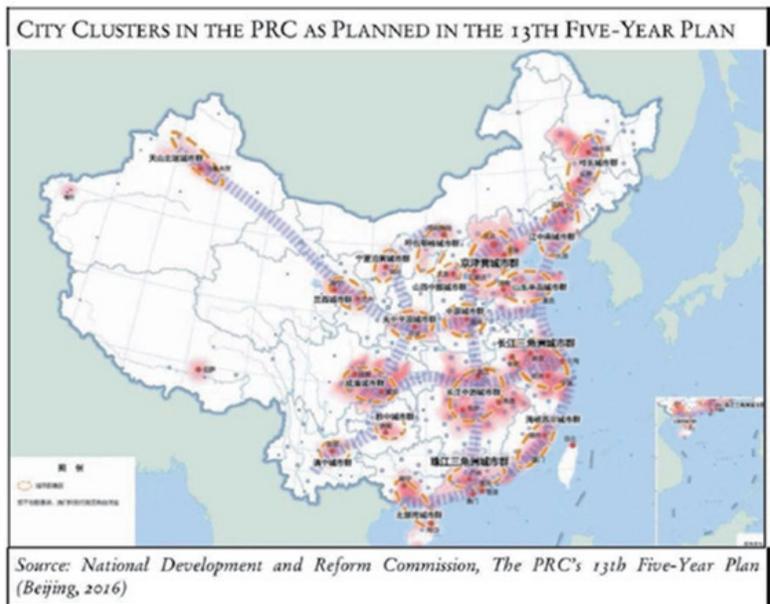
NTUP took a much broader view of China’s system of human settlements than the 2007 National Urban System Plan. It clearly recognized urbanization’s role in China’s continued economic development through expansion of domestic

¹ The Main Functional Area Plan directly influences other sectoral plans. For example, the 13th Five Year Plan for Ecological Environmental Protection emphasizes the implementation of the Main Functional Area Plan, defining conservation of ecological area at local level (ecological protection red line), and integrating multiple plans to support the realization of environmental targets.

² SOA’s planning functions were absorbed into MNR in 2018.

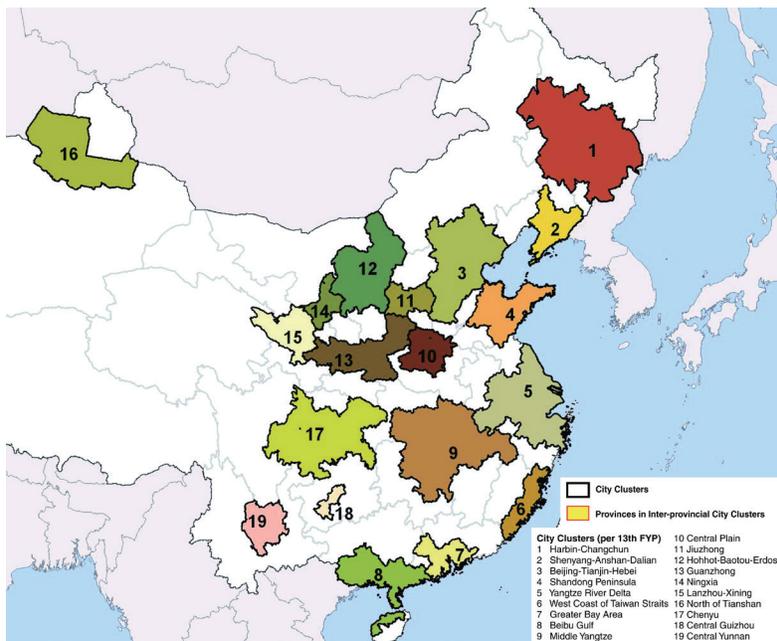
consumption as a key driver of growth. It also addressed policy challenges in integrating rural residents with towns and cities. Significantly, it was the first major national plan to identify urban ‘agglomerations’ as policy spaces in which urbanization could be systematically promoted. This was a major shift in national thinking on cities and towns from administrative to functional territories.

Figure 1 19 City Clusters in 13th Five Year Plan



Source: NDRC (2016)

Figure 2 19 City Clusters as Aggregates of Prefecture-level Cities



Source: World Bank (2019)

The concept of ‘agglomerations’ was expanded and formalized in China’s 13th National Five Year Plan, 2016 - 2020 which specified 19 ‘City Clusters’ as the broad spatial constructs in which key development policies will be enacted

(Figure 1, Figure 2). This should provide a much firmer basis for monitoring regional development and planning interventions.

While the ‘agglomeration’ or ‘cluster’ concept was first raised informally by SDPC¹ in the 1990s, it was not elaborated and applied until the NTUP and the 13th Five Year Plan. Presumably this recognition of sub-national functional regions – many of which cross provincial boundaries – will be reflected in the ‘One Plan’ currently under development.

Plan Connections, Gaps, and Overlaps. Given China’s unitary system of governance, all of the national plans are hierarchical and statutory: provinces must prepare equivalent plans for their administrative territories, municipalities for theirs, and districts and towns for their territories (Figure 3).

One of the reasons for preparing ‘One Plan’ is to minimize the overlaps and gaps among the four existing national plans, all of which were prepared at different times by different agencies. The connections between the plans is shown by the blue arrows on Figure 3.

The National Land Use Plan clearly overlaps with the National Urban System Plan. The National Main Functional Area Plan overlaps with the National Land Use Plan and the National Urban System Plan. Both the Urban System Plan and the Main Functional Area Plan directly influence sectoral transport and infrastructure plans (roads, rail, pipelines, river diversion). Importantly, the National Marine Spatial Plan does not appear to be influenced by any of the other national plans. This pattern of plan connections is replicated at provincial, prefecture, municipal, and district and town levels.

Before addressing how to support the preparation of China’s ‘One Plan’, approaches to national territorial planning in selected countries are first reviewed.

¹ State Development Planning Commission, predecessor to the National Development and Reform Commission (NDRC).

Figure 3 China's Four Connected and Overlapping Plans

		Five Year Plans - including commitment to 2030 SDGs								
		Functional Policies								
Scale		agriculture, forestry	economic development	social development	heritage protection	environmental management	coastal management	human settlement	transport + infrastructure	disaster risk management
Spatial Policies embedded in Spatial Plans or Strategies	1 national	National Land Use Master Plan other Plans, e.g.: Sustainable Agricultural Plan (2015-2030)	National Main Functional Area Plan			various Plans: e.g. Biodiversity Conservation Strategy, Climate Change Program; new MEE plans underway?	National Marine Functional Zoning Plan (MFZP)	National Urban System Plan	National Sectoral Plans: NTHS, HSR, Rail, Air; Power; Water Resources; Communications	new Ministry of Emergency Management plans underway?
	2 provincial	Provincial Land Use Master Plan	Provincial Main Functional Area Plan			Provincial-level subsidiary Plans	MFZP for each of 9 Coastal Zones**	City Cluster Strategy; Provincial Urban System Plan	Provincial Sectoral Plans	
	3 sub-provincial/prefecture-level	Municipal/Prefecture Land Use Master Plan	Prefecture-level Main Functional Area Plan			Prefecture-level subsidiary Plans		Prefecture-level Urban System Plan; ad hoc, non-statutory regional plans	Prefecture-level Sectoral Plans (roads, water resources)	
	4 municipal*	District + County-level Land Use Plans	Municipal Main Functional Area Plan		Municipal Heritage Master Plan	Municipal subsidiary Plans		Municipal Urban Master Plan	Municipal Sectoral Plans	
	5 districts + statutory towns	District/Town Land Use Plan [?]	District/Town Main Functional Area Plan [?]		Area Heritage Master Plans	District and Town-level subsidiary Plans		District Plan; Town Development Plan	District, Town Sectoral Plans	

* urban + suburban districts, county-level cities, counties

** 1) Liaodong Peninsula; 2) Bohai Bay; 3) Shandong Peninsula; 4) Northern Jiangsu; 5) Yangze River Delta; 6) western waters of the Straits; 7) Pearl River Delta; 8) Beibu Gulf; 9) Hainan Island

2. TERRITORIAL STRATEGIES IN SELECTED COUNTRIES

2.1 Overview

How do other countries manage their territories? Do they have ‘One Plan’ as China is seeking to prepare? Are there aspects of their approaches to spatial planning that might inform MNR on its territorial initiative?

International comparisons with China need to be interpreted with care. Three countries that have large land areas and populations were not selected for comparison: India, Brazil, and Russia. India’s national and regional spatial planning is still relatively nascent. Russia’s is also in transition and Brazil’s 2007 approach to national and regional planning is currently being revamped.

The nine countries compared in this Note were selected on the basis of planning practices that might, in part, be applicable to China in its ‘One Plan’ initiative and to inform approaches to territorial planning at the ‘City Cluster’ and ‘Metropolitan Circle’ scales. However, there are very big differences between these countries and China (Table 1). While Canada and the USA are slightly larger in land area, their populations are considerably smaller. Japan has only 9% of the population of China. The Netherlands has a land area slightly smaller than Fujian Province and a population slightly larger than Tianjin’s. While the spatial planning challenges facing the nine comparison countries are nowhere near the scale of those facing China, the exigencies to manage national and sub-national territories sustainably are very similar.

There are also some differences in the structure of governance. Three of the comparison countries are federations with markedly different relationships between levels of government than in unitary states. While five countries have three levels of government, three countries have four levels and China has five. This has implications for functional responsibilities of levels of government, and on plan hierarchies.

Following the example of Figure 3 for China, this Note compares the nine selected countries to China in terms of four broad types of ‘plans’: land use plan; economic spatial plan; human settlement plan; and coastal spatial plan (Figure 4). The countries are assessed in the chart below both in terms of each of the four types of plans and the degree to which they have integrated the content of these plans (partially or fully). Two types of coloured boxes should be noted: blue boxes indicate ‘no plan’ exists; and yellow boxes indicate partially integrated plans (the scope of partially integrated plans is indicated by dotted line and arrows to applicable sector plans). Key practices potentially relevant to MNR are then elaborated.

Table 1 Comparator Countries on Territorial Planning

	type of state	levels of gov’t:	2018 pop.	area (km ²)	urban pop (%), 2020*
China	Unitary	5	1,392,700,000	9,562,900	61.4
Rep Korea	Unitary	3	51,635,000	100,339	81.4
Japan	Unitary	3	126,529,100	377,970	91.8
Canada	Federation	3	37,100,000	9,984,700	81.6
USA	Federation	4	327,167,434	9,831,510	82.7
Germany	Federation	4	82,927,922	357,580	77.5
France	Unitary	4	66,987,244	549,087	81.0
Netherlands	Unitary	3	17,231,017	41,540	92.2

	type of state	levels of gov't:	2018 pop.	area (km2)	urban pop (%), 2020*
Ireland	Unitary	2	4,853,506	70,280	63.7
UK	Unitary	3	66,488,991	243,610	83.9

Sources: World Bank. World Development Indicators (<https://databank.worldbank.org/source/world-development-indicators>)

Figure 4 Territorial and Spatial Planning in Selected Countries

		Types of Territorial and Spatial Plans					
		land use plan	economic spatial plan	urban/human settlement plan	coastal spatial plan	partially integrated	fully integrated
China							
spatial scale	national	MLNR Land Use Plan	NDRC Main Functional Area Plan	MOHURD Urban System Plan	SOA/ NDRC Marine Functional Zoning Plan		
	sub-national provincial/state	Provincial Land Use Plan	Provincial Functional Area Plan	Provincial Urban System Plan	MFZP for each of 9 Coastal Zones		
	metropolitan/urban region	Prefecture-level Land Use Plan	Prefecture level Functional Area Plan	Prefecturelevel Urban System Plan			
	municipal	Municipal Land Use Plan		Master Plan			
Korea, Rep.							
spatial scale	national	↓	↓	↓	"Master Plan for Marine Space"	● National Comprehensive Plan	
	sub-national provincial/state	↓	↓	↓		● Provincial Comprehensive Plans	
	metropolitan/urban region	↓	↓	↓	Regional Coastal Management Plans	● Metropolitan Area Plans in 6 'metropolitan cities' and 2 'special cities' (Seoul, Sejong)	
	municipal	↓	↓	↓	Municipal Coastal Management Plans	● City Master Plans; Urban Management Plans (zoning)	
Japan							
spatial scale	national	↓	↓	↓	coastal management; no formal Marine Spatial Planning	● two plans: 'National Spatial Strategy' and 'National Land-Use Plan'	
	sub-national provincial/state	↓		↓	coastal management; no formal Marine Spatial Planning	● Basic Land-Use Plans' 'City Plans of Prefectures'	
	metropolitan/urban region	↓		↓		● 'Master Plans of City Planning Areas',	
	municipal			Municipal Master Plans; 'City Plans of Municipalities'			
Canada							
spatial scale	national	protected and conserved areas; no national 'zoning' of agricultural and forest lands			13 national Marine Protected Areas identified and under planning		
	sub-national provincial/state	regional sectoral plans		regional plans for parts of all Provinces; only 2 are Province-wide	five 'Large Oceans Management Areas'; plans underway		
	metropolitan/urban region	occasionally by Provinces		cross boundary territorial plans in selected metropolitan regions, mostly by Province			
	municipal			'Official Plans' and zoning regulations			

USA							
spatial scale	national	protected and conserved areas;; no national 'zoning' of agricultural and forest lands			9 Regional Marine Planning Areas under purview of NOAA since 2010;		
	sub-national provincial/state	ad hoc regional or state-wide sectoral plans		only 12 states have state-wide 'Strategic Plans' to guide local planning	Regional Marine Spatial Plans currently underway		
	metropolitan/urban region			Metropolitan Planning Organizations require territorial strategies to get federal funds; some voluntary inter-municipal planning			
	municipal			highly variable: only 11 States require local 'Comprehensive Plans' (but many do so voluntarily)	some municipalities prepare Coastal Management Plans		
Germany							
spatial scale	national	no plan, but Standing Committee of Ministers responsible for Spatial Development sets national policies		no plan, but Standing Committee of Ministers responsible for Spatial Development sets national policies	National Spatial Plans' for the Exclusive Maritime Economic Zone		
	sub-national provincial/state	'Landscape Programmes' (nature conservation)			Marine Spatial Plans prepared for 4 EEZ sub-zones	'State Spatial Development Plans'	
	metropolitan/urban region	'Landscape Framework Plans'				'Regional Plans' for planning regions typically covering 10-30% of a State	
	municipal	'Local Landscape Plans'		'Preparatory Land Use Plan'; 'Binding Land Use Plan'			
France							
spatial scale	national				'National Strategy for the Sea and Coast'		
	sub-national provincial/state	Sectoral plans, e.g. 'Regional Silviculture Management Scheme' (SRGS) for forests; other separate plans for biodiversity, agriculture	Region economic strategy (SRDEI) but no spatial or territorial plan		Sea Basin Strategies for maritime regions; Marine Spatial Plans currently under development	18 regions in France: new regional plan (SRADDET: Sustainable Development and Equality Scheme) to be completed and adopted by end 2019	
	metropolitan/urban region					Territorial Coherence Schemes' (SCoT); prepared by inter-municipal associations; municipalities must conform to SCoT	
	municipal			'Local Urban Plan' (single municipality) or 'Intercommunal Local Urban Plan' for multiple municipalities			

spatial scale	national	Nature Protection Plan; 'National Water Plan'; 'Environmental Policy Plan'		'National Structure Plan'	Netherland's Maritime Spatial Plan		
	sub-national provincial/state	↓		↓	MSPs for selected coastal zones under dev't	• 'Regional Structure Plan'; 'Rural Development Plan'	
	metropolitan/urban region	[done at provincial scale]		[done at provincial scale]		[done at provincial scale]	
	municipal	↓		↓		• 'Municipal Structure Plan'; 'Land Use Plan' (zoning)	
Ireland							
spatial scale	national	↓		↓	no formal Marine Spatial Planning	• National Spatial Strategy 2002-2020 ¹ was replaced by new 'National Planning Framework to 2040' in 2018	
	sub-national provincial/state		↓	↓		• 3 Regional Assemblies (as of 2015); prepare 'Regional Spatial + Economic	
	metropolitan/urban region			[done at Regional Assembly level]			
	municipal		↓	↓		• 'Local Economic + Community Plans'	
UK							
spatial scale	national			'National Planning Policy Framework' (policy, no spatial plan)	National Marine Spatial Plan		
	sub-national provincial/state	↓		↓	Marine Plans prepared for East, South, and Scotland	• 'Scottish Land Use Strategy' (only one in UK)	
	metropolitan/urban region	↓	↓	↓		• 'London Plan'	
	municipal			'Core Strategies/Local Plans'			

2.2 National Territorial Planning

None of the nine countries have fully integrated plans such as the 'One Plan' that MNR is tasked to prepare. At the national level, only Korea, Japan, and Ireland have plans that partially integrate two or three plans (land use, economic functions, human settlement/urban), but not marine spatial plans¹. Since Korea and Japan are both unitary states, their national plans are hierarchical by statute to lower levels of government, as in China. However, in Ireland, which is also unitary, the National Spatial Strategy applies only at the national scale.

The Republic of Korea's National Comprehensive Plan was first prepared in the early 1970s in response to uncoordinated, piecemeal reconstruction after the Korean War ended in 1953. It incorporates a settlement spatial plan, economic spatial plan, and a land use plan. The Comprehensive National Territorial Plan (CNTTP) was, from the outset, based on extensive analysis of current conditions and recent trends. Evidence forms the basis for comprehensive, multi-sectoral policies for the use, development, and conservation of territory across the country. It systematically addresses population distribution, industrial location, infrastructure, environment conservation and improvement, and natural resources management.

¹ Some countries prepare coastal management plans, following Integrated Coastal Zone Management practices. However, these can be different in spatial and thematic scope to Marine Spatial Plans as advocated by UNESCO and others; MSPs often cover territorial seas, Exclusive Economic Zones, and the continental shelf, and include broader issues of shipping and offshore extraction of oil+ gas.

In the 1970s, the Korean government sought to develop ‘hubs’ of cities throughout the country (1ST CNTP). In the 1980s, territorial policy shifted to the development of growth poles (2ND CNTP). In the 1990s, emphasis was placed on four corridors and the northeastern cluster (3RD CNTP). Since the turn of the century, government has been pursuing a territorial policy of belts and integrated regions with explicit external linkages (4TH CNTP: 2000-2020, updated in 2011). Each CNTP designated and located specific economic functions within the national territory. Recognizing the importance of economic clusters, the central government initiated the “Industrial Complex Cluster Program” in 2005 to convert “production agglomerations into places of innovation”. This Program was updated in 2010 to designate “5+2 pan regional clusters” with clearly-defined economic specializations.

Japan has two national territorial plans that are tightly integrated: the National Land Use Plan that designates settlement, agriculture, forests, biodiversity protection areas, and inland water resources; and the National Spatial Strategy. The Land Use Plan pays particular attention to the location of natural hazards (especially earthquakes, flooding, tsunami) and policy interventions to mitigate risks.

Japan’s National Spatial Strategy follows the constraints identified in the National Land Use Plan. Both are prepared by the Ministry of Land, Infrastructure, Transport and Tourism (MLITT). The Strategy is comprised of eight Regional Plans all of which are prepared by MLITT on the direction of the Regional Plan Council, a national council chaired by the Minister of MLITT and comprising related national ministries, Prefectural and Tokyo Governors, Mayors of representative cities, and heads of private sector economic federations and chambers of commerce. The Strategy explicitly identifies economic functions for and within the eight Regions. It therefore incorporates a national settlement strategy and economic spatial plan. With the National Land Use Plan, three of the four types of national territorial plans are realized by the National Spatial Strategy.

Ireland’s National Spatial Strategy 2002-2020 was replaced in 2018 by a new ‘National Planning Framework to 2040 (NPF) and a ‘National Development Plan 2018-2027’ (NDP). Preparation of the NPF was highly participatory: it was prepared over three years and resulted from “thousands of submissions from members of the public, and dozens of events and consultation exercises right across the country”¹. It defines ten goals or ‘National Strategic Outcomes’ that are linked to the UN’s Sustainable Development Goals². These goals provide the framework for 75 policy objectives to guide national territorial development in Ireland, structured in a hierarchy of settlements (Cities, Large Towns, Smaller Towns and Villages, Smaller Settlements and Rural Areas). While Ireland is currently preparing a National Maritime Spatial Plan (required by EU Directive to be completed by 2021), the NPF notably addresses the need for integrated land and marine planning and sets out a conceptual framework to guide such planning. The NDP accompanies the NPF and is a 10-year implementation and public investment plan in support of the NPF’s policy objectives. Ireland is the only country among the nine comparator countries to explicitly include an investment plan in its national territorial strategy³.

Aside from China, only four countries have the equivalent of national urban/human settlement plans: Rep. of Korea, Japan, and Ireland (as part of their partially integrated territorial plans); and the Netherlands which has a National Structure Plan. Germany and the UK set national policies for spatial planning at lower levels of government, but

¹ Government of Ireland. (2018). Project Ireland 2040: National Planning Framework. Dublin.

² The NPF notes that: “There is significant alignment between the UN SDGs and the National Planning Framework’s National Strategic Outcomes (NSOs) in areas such as climate action, clean energy, sustainable cities and communities, economic growth, reduced inequalities and innovation and infrastructure, as well as education and health”. (pg. 19)

³ The NPF outlines ten ‘National Strategic Outcomes’. These are supported by ten ‘Strategic Investment Priorities’ in the National Development Plan (NDP): 1) housing and sustainable urban development; 2) national road network; 3) rural development; 4) environmentally sustainable public transport; 5) enterprise, skills, and innovation capacity; 6) airports and ports; 7) cultural, heritage and sport; 8) climate action; 9) water infrastructure; and 10) education, health, and childcare. Each of these ten investment priorities has specific targets with timelines. Importantly, the NDP explicitly outlines how these investments will be financed (including cost-sharing among governments) and identifies new financing vehicles to support the Plan’s implementation.

do not have national human settlement spatial plans. Canada and the USA have neither national spatial settlement plans nor national policies governing urban and rural settlement¹. France similarly has no national plan, but has very developed policies defining the intent and scope of second-tier regional planning.

Constitutions of both Canada and the US assign most land-related responsibilities to the Province and State level. In Canada cities are not recognized in the Constitution: they are clearly defined as responsibilities of the Provinces. One of the reasons that spatial settlement planning is not conducted at the national scale in Canada and the US is that, historically, settlement was deliberately unplanned to enable pioneers to push westwards to settle 'wild' territories. That legacy has been enshrined in Constitutions and population growth and urbanization have never reached the point that national governments see a need to plan the spatial distribution of human settlement².

The Netherlands' National Policy Strategy for Infrastructure and Spatial Plan (Structure Plan) is noteworthy. While the country also has a separate National Maritime Spatial Plan, the Structure Plan is the only territorial plan among the nine comparison countries to explicitly define and designate coastal and marine zones along with human settlement and natural areas. The Structure Plan includes an explicit maritime component that locates coastal protection areas, wind farms, offshore oil and gas activities, shipping, defense and flood control measures³.

In terms of national land use plans, Canada's federal government identifies and maps protected and conserved areas (national forests and parks, wildlife areas, bird sanctuaries, wetlands, and other conserved lands). There is no national 'zoning' of agricultural and forest lands as in China. Similarly, in the US the federal government prepares 'Resource Management Plans' for federally-owned lands that identify 'Special Recreation Management Areas', 'Wilderness Areas', 'Wilderness Study Areas'⁴, and 'Areas of Environmental Concern'. As in Canada, there is no national zoning of agricultural and forestry lands. The Netherlands has three national plans that govern land use: the 'Nature Protection Plan', 'National Water Plan', and the 'Environmental Policy Plan'. Neither Germany, France, nor the UK have national land use plans: that function has been delegated to lower-level governments. As noted above, Korea and Japan include land use in their partially-integrated territorial plans.

Marine spatial planning is conducted at the national scale by the Republic of Korea in the form of a stand-alone 'Master Plan for Marine Space'. Japan has coastal management policies but does not conduct marine spatial planning. Canada has identified 13 national Marine Protected Areas for which it is preparing spatial plans. Similarly the USA has had nine Regional Marine Protected Areas under the purview of NOAA since 2010. None of these countries prepare marine spatial plans as in China and as advocated by UNESCO.

Conversely, Germany, the Netherlands and the UK each have a National Marine Spatial Plan extending to the limits of the marine Exclusive Economic Zones. Ireland and France are currently developing such plans. However, as noted above, only the Netherlands and Ireland explicitly recognize marine areas in their national territorial planning.

To summarize, key observations from this review of international experience in territorial planning at the national level are:

- none of the nine countries have integrated four types of plans into 'One Plan';

¹ Except for policies on environmental protections, health, and safety.

² Both national governments influence, often in major ways, the spatial distribution of settlement through investments in major infrastructure such as highways, railways, navigable waterways, and pipelines.

³ pg. 16. Map: National Spatial Structure.

⁴ 'Wilderness Areas' have been formally designated by the U.S. Congress as protected areas under the National Wilderness Preservation System. 'Wilderness Study Areas' are areas identified by the Bureau of Land Management for the Congress to consider for designation as protected areas. (<https://www.blm.gov/programs/national-conservation-lands/wilderness>)

- only the Republic of Korea, Japan, and Ireland have plans that partially integrate two or three plans;
- all of the national territorial initiatives in the nine countries are strategic plans; none are traditional ‘master plans’;
- some countries do not have national territorial strategies because land management is delegated to second- and third-tier governments under their Constitutions; this reflects the principle of ‘subsidiarity’ which holds that decisions should be taken at the most local level that has the institutional capacity to do so; it also reflects an underlying belief in market forces, and a ‘pioneer’ legacy in the treatment of territory in the USA and Canada where early settlers had almost free reign over unclaimed territory;
- national economic spatial planning is conducted only by Korea and Japan in their partially-integrated territorial plans;
- in most countries, land use planning at the national level is focused on conservation of ecologically-significant land and on land owned outright by the national government;
- land use planning at the national level usually does not zone land for agricultural use and commercial forests; this might be done in some countries at lower levels of government (province/state, municipality);
- terrestrial planning generally continues to be done in isolation from coastal marine planning; the separation is exacerbated by specialists who do not necessarily understand each other and do not have the mechanisms (or the professional language) to communicate (e.g. urban planner with a marine biologist);
- integrated land and marine planning at the national level is so far being addressed only in part in the Netherlands and Ireland.

2.3 Subnational Territorial Planning

Most territorial planning in the nine countries is conducted sub-nationally either for administrative territories – provinces/states, municipalities – or functional regions. Functional regions are territories demarcated by densities of frequent social and economic activities (e.g. daily, such as labour markets, or weekly/monthly, such as input and output market areas), or by natural areas that are characteristically similar or homogenous (e.g. grasslands, wetlands, coral reefs).

In Korea, the partially-integrated National Comprehensive Plan provides the framework for selected ‘Regional Development Plans’ that are prepared by the central government for strategic areas, and for ‘Provincial Comprehensive Plans’ in all nine provinces. These are also partially-integrated, encompassing land use, spatial economic, and settlement plans. At a third spatial scale, ‘Metropolitan Area Plans’ are prepared by the national government for six ‘metropolitan cities’ and two ‘special cities’ (Seoul, Sejong). At the local level of municipalities, ‘City Master Plans’ are prepared by municipal governments along with ‘Urban Management Plans’ that are largely detailed zoning plans. While they are all called ‘plans’, regional, provincial, and metropolitan initiatives are very strategic.

As noted above, in Japan ‘Basic Land Use Plans’ are prepared at the Prefecture scale by the Regional Plan Council. ‘City Plans of Prefectures’ are also prepared. However, they are not city-specific but rather cover all urban areas in a Prefecture in a single plan. ‘Master Plans of City Planning Areas’ are also prepared for selected metropolitan regions that often cross municipal boundaries. At the lowest scale, municipalities prepare ‘Municipal Master Plans’ and ‘City Plans of Municipalities’ (the latter are mostly zoning plans).

In Ireland three Regional Assemblies are comprised of appointed members of county and city councils. Their principal purpose is to prepare and monitor ‘Regional Spatial and Economic Strategies’ within the context of the new ‘National Territorial Framework’ and to channel EU funds for regional development to support these strategies. The national government approves regional strategies. Local municipalities prepare ‘Local Economic and Community

Plans' that also combine settlement and economic spatial plans.

Sub-national, partially-integrated territorial planning in Rep. of Korea, Japan, and Ireland is hierarchical by statute. All levels must prepare territorial plans that conform to the next highest level's territorial strategy; their strategies are approved either by the next highest level or by the national government. In this respect, they are very similar to the hierarchical planning conducted in China. The difference is that their hierarchical plans are partially-integrated, following national territorial strategies that combine the scope of two (Ireland) or three of China's four plans.

In Canada only two of ten provinces and three territories prepare province-wide territorial strategies. Others either have no territorial plans or, in a few cases, provincial government prepare sub-provincial strategies for smaller regions¹ and to protect vulnerable farmland and natural areas². At the metropolitan scale that crosses municipal boundaries, territorial strategies have been prepared by provincial governments (e.g. Growth Plan for Toronto metropolitan region) or, in very few cases, by special purpose vehicles established by municipalities (e.g. Metro Vancouver 2040 Strategy). At the local level, municipalities prepare and implement 'Official Plans' or their equivalents – land use and transportation plans for their administrative territories that are approved by respective provincial governments.

In the USA only twelve states have state-wide 'Strategic Plans' to guide local planning. In other States, spatial planning is strictly local. However, federal government established planning organizations in the early 1960s to channel federal funding in transportation and infrastructure, and to provide for the coordination of land use, transportation and infrastructure services. These Metropolitan Planning Organizations (MPO) can be independent organizations or may be administered by a city, county, regional planning organization, highway commission or other government organization. Each MPO has its own structure and governance.

For example, the Chicago Metropolitan Agency for Planning (CMAP) is the federally-designated metropolitan planning organization (MPO) for seven northeastern Illinois counties, including Cook County in which Chicago is a constituent municipality. CMAP prepared the GO TO 2040 Chicago Metropolitan Region development strategy that seeks to accommodate 2 million additional residents in 285 communities through strategies that coordinate land use, transportation, housing, metropolitan economic development, the environment, and resilience. GO TO 2040 is among the most advanced metropolitan development strategies in the world.

At the municipal scale, only eleven States require local gov'ts to prepare 'Comprehensive Plans', although many do so voluntarily. Similarly, only five States require local zoning regulations by law, but many municipalities prepare them voluntarily.

In Germany, subnational territorial planning is conducted in all States who prepare 'State Spatial Development Plans' that encompass both settlement and economic spatial planning. 'Regional Plans' are also prepared for planning areas that cover 10-30% of a State's administrative territory. These 'Regional Plans' are for functional regions, much smaller than China's city clusters. Municipalities prepare two spatial plans: a 'Preparatory Land Use Plan' similar to urban development strategies; and an optional 'Binding Land Use Plan' that sets out the as-of-right permissible uses, densities, and setbacks for individual properties (i.e. 'zoning' plans).

France has recently undergone major changes to its approach to subnational territorial planning. There are 18 regions in France directly under the central government. By the end of 2019, they have been required to prepare and adopt

¹ For example, Growth Plan for Northern Ontario in Canada's largest province.

² For example, Greenbelt Plan in the Toronto metropolitan region.

a 'Sustainable Development and Equality Scheme (SRADDET)' that amalgamates previous 'Regional Planning and Sustainable Development Schemes' (SSRADDT), 'Climate, Air, and Energy Regional Plans' (SRCAE), and 'Infrastructure, Transport, and Inter-modality Regional Plans'. The SRADDETs now encompass settlement and land use planning, and incorporate strategic transportation and infrastructure plans. At the scale of functional metropolitan and urban regions that cross municipal boundaries, 'Territorial Coherence Schemes' (SCoT) are prepared by inter-municipal associations; municipalities must conform to these SCoT schemes in the preparation of their 'Local Urban Plan' (for single municipalities) or 'Intercommunal Local Urban Plan' for multiple municipalities.

In the Netherlands, twelve provinces have until recently prepared a 'Regional Structure Plan' that encompasses land use and settlement planning, and a 'Rural Development Plan' specifically addressing rural areas. However, a new 'National Environmental Planning Strategy (NOVI)' was promulgated in 2019 providing a comprehensive vision for the living environment in the Netherlands. The provinces and municipalities will also develop local and provincial environmental planning strategies, which together will comprise long-term national and regional plans for the broader living environment in the Netherlands. Four priorities have been identified by the national government: 1) stimulate sustainable economic growth potential for the Netherlands; 2) provide space for climate change and the energy transition; 3) foster strong and sustainable cities and regions with capacities for living, housing and mobility; and 4) work towards future-resistant development of rural areas. At the local level, municipalities are required to prepare a 'Municipal Structure Plan' and a 'Land Use Plan', essentially a zoning plan.

Regional plans are no longer prepared in the UK except for the 'Scottish Land Use Strategy'. Wales and Northern Ireland prepare 'Planning Policies' but not territorial strategies or plans. At the metropolitan region scale, crossing municipal boundaries, territorial planning is only conducted for Greater London. The Greater London Authority Act requires the City Mayor to formulate a spatial development strategy for London – the 'London Plan'. Local Plans for each borough must align with the London Plan as do other strategies formulated by the Mayor. No other metropolitan region in the UK has a territorial development strategy similar to the London Plan. At the local level, municipalities are required to prepare 'Core Strategies' and 'Local Plans' similar to France, Germany, and the Netherlands.

For marine spatial planning, Regional Coastal Plans are prepared for the UK by the national government and Municipal Coastal Management Plans by municipal governments¹. Japan has no subnational marine spatial plans; Canada is currently preparing plans for five 'Large Ocean Management Areas'; and 'Regional Marine Spatial Plans' are also being prepared in the USA where some municipalities also prepare 'Coastal Management Plans'. In Germany, Marine Spatial Plans are prepared for 4 EEZ sub-zones, but not at the municipal scale. Similarly, in France and the Netherlands, subnational Marine Spatial Plans are currently being prepared to conform to an EU Directive. In the UK, Marine Plans have been prepared for the East, the South, and Scotland.

To summarize, key observations from this brief review of international experience in territorial planning at the subnational level are:

- partially-integrated territorial strategies are prepared in Rep. Korea, Japan, Germany, France, the Netherlands, Ireland, and the UK (Scotland, London); this is three more countries that integrate settlement planning sub-nationally with land use planning or spatial economic planning than nationally, suggesting that integrated planning is more manageable and perhaps effective at provincial, regional, and metropolitan levels than at the national scale;
- territorial strategies are prepared for functional regions – not only administrative territories – in Rep. Korea,

¹ note these are 'coastal' areas and so not include wider areas normally covered by Marine Spatial Plans.

Japan, Canada, the USA, Germany, France, and the UK (London); none of these functional regions are near the size (population or land area) as most of China's 19 City Clusters;

- in most countries, territorial planning at the regional, metropolitan, and municipal levels is far more comprehensive, reflecting the principle of subsidiarity;
- subnational territorial plans in all nine countries are strategic and adaptable to change, including at the municipal scale; no countries prepare detailed master plans, except for local land use zoning (which are accompanied by clearly-defined statutory processes to change zoning as needed);
- all countries that do national marine spatial plans also do so at least at one and often two subnational levels providing for greater granularity and specificity in the management of marine territories.

3. PREPARING CHINA'S NATIONAL TERRITORIAL AND SPATIAL PLAN

3.1 Strategic Planning

While there have been major changes recently to the planning process in China, some aspects of spatial 'master planning' practices still continue. Other countries also conducted 'master planning' in the past before shifting in recent years to strategic planning. Their traditional approach to 'master planning' was often characterized by:

- seeking to define a fixed end-state for a territory at some arbitrary time in the future;
- rigid application of population projections that were usually prepared without assessing the capacity of economies and the natural environment to support additional population;
- a focus on the physical aspects of space, not on what is or should be happening in that space;
- a narrow focus on land use and infrastructure with insufficient attention to social needs, natural and cultural heritage, the natural environment, and natural hazards;
- a preoccupation with detailed spatial planning of territories i.e. 'planning everywhere';
- a narrow focus only on the spatial unit being planned without sufficient understanding of contextual forces and cross-boundary issues;
- planning for administrative entities (e.g. provinces, cities, districts) and not on functional socio-economic regions;
- limited understanding of development trends at a granular level, and the deep-rooted influence of path dependence;
- insufficient appreciation of possible unforeseen spatial consequences of public policies;
- a focus on creating a 'finished product' of maps and reports that are static and therefore not updated';
- preparation by technical and professional specialists with little input from multiple stakeholders.

Experience in other countries has repeatedly shown that traditional 'master plans' are: too static in nature, take too long and are extremely costly to prepare; are updated infrequently; and are rarely, if ever, prepared with a rigorous understanding of probable risks from current and future natural disasters and the implications of climate change.

Many countries recognize that territorial planning needs to be a continuous process to reflect changing institutional and financial limitations, changing priorities within sectors, and externally-induced changes, such as from climate change. For planning to be effective, it must be a cyclical and iterative process that expands and deepens governments' understanding of needs and risks, strengthens consensus and commitment of all key stakeholders to address these needs, and provides instruments and tools to these stakeholders through which evolving economic, social and institutional needs can be met. New planning approaches are being applied in various countries, including performance-based zoning in which key desired outcomes are clearly defined (e.g. natural and cultural heritage protection, environmental quality, population densities, employment densities, accessibility, disaster resilience) rather than specific uses of land. The integration of disaster risk reduction and climate change mitigation and adaptation into territorial planning is relatively recent. Methodologies are evolving. If China chose to pursue such integration, it could strongly buttress the development of approaches to territorial planning that explicitly take into account risks from natural disasters and impacts of climate change.

Many countries have found that 'strategic planning' best supports development efforts, especially at higher spatial

scales where precision is often illusory. These countries usually distinguish between a “strategy” and a “plan”. A strategy precedes a plan: it defines a desired outcome shared by a broad range of stakeholders in terms of a vision and goals, and policies to guide actions towards achieving the shared outcome. A plan without an underlying strategy is usually incomplete, arbitrary, and hence loses credibility. Conversely, a plan based on a strategy usually defines objectives, targets, and procedures for implementing the overall strategy or, most often, parts of the strategy. While plans are precise in defining actions and performance metrics, strategies provide only enough detail to define policies and supporting actions. Strategies usually take into account uncertainty as they have far longer time horizons than plans and they cover a much wider range of sectors. Strategies are generally highly participatory and formulated through consensus compared with plans that are usually formulated largely by professional and technical experts. The main differences between strategies and plans are outlined in below (Table 2).

The following generalized model of the strategic planning process is derived from experiences in other countries at varying spatial scales – from nations to regions to cities and communities – over the last several decades. Some aspects of the model might be useful to MNR in approaching the preparation of the NTSP.

Table 3 Differences between a Strategy and a Plan

Strategy	Plan
defines desired outcome (vision, goals) and how to achieve them (policies)	defines objectives, targets, and implementation process for parts of the Strategy
wide range of stakeholders; consensus- building	decision-makers (scope, timing, budgets, roles + responsibilities), operational managers
sufficient to define policies (but not specific actions); recognizes, and allows for, uncertainty	sufficient detail to define specific actions and to objectively measure performance + implementation progress
highly-participatory by governments (at various levels), their agencies, civil society groups, policy think tanks, educational institutions, NGOs, private sector, and others	largely by professionals and technical specialists with feedback from governments and public at specific points (largely reactive, not proactive)
defined broadly e.g. by year or 5-year period, recognizing unpredictability of changing internal and external circumstances	detailed schedule e.g. annually

Many countries have found that a strategic planning process is most effective when it: 1) begins with the explicit definition of spatial and temporal scales; 2) emphasizes the clear definition and prioritization of issues; and 3) goes beyond the level of policy to define specific policy instruments that stakeholders – particularly governments – can effectively use, given their often unique institutional arrangements. The process generally consists of six steps.

Step 1: Establish Relevant Scales and Goals. Stakeholders need to clearly establish the spatial and temporal scales over which they can exert varying degrees of influence. This is a key step in defining the scope of strategies. If the time period is too long, or if the spatial scale is larger than areas over which participating governments have some control, strategic planning will lose concreteness and relevance to governments and other stakeholders. Defining spatial scales at the outset is important – especially for the NTSP process which generates hierarchical plans. Development goals are the desired outcomes – within the temporal and spatial scales defined above – that stakeholders commonly desire. Goals can generally be defined as economic, social, cultural, environmental, and disaster risk reduction outcomes. Consensus among key stakeholders on development goals – and the priorities among them – is central to the success of subsequent strategic planning. This will be an important step in aligning the ‘One Plan’ with the

underlying goals of the previous 'Four Plans'.

Step 2: Define Problems and Opportunities. Many strategic planning efforts bog down during this step through extensive and expansive analysis of strengths, weaknesses, opportunities, and threats (SWOT). Experience suggests that this step should clearly identify and define: 1) problems that prevent or constrain the meeting of stakeholders' goals articulated in Step 2; and 2) existing and latent opportunities that could be harnessed to meet these goals.

Steps 3 and 4: Define Issues and Priorities. Problems and opportunities can be overwhelming, particularly if there are expectations that they will all be dealt with equally and simultaneously. The objective of this step is to probe deeper by identifying and defining the causes of problems and the constraints that prevent the effective harnessing of opportunities. Issues are the causes of problems and the constraints to opportunities. Defining issues as causes and constraints provides for the setting of priorities based both on the feasibility of stakeholders' interventions, and on the development goals set in Step 1. These two steps are often the most difficult to follow in strategic planning since they require detailed, objective analysis to lead to evidence-based priorities.

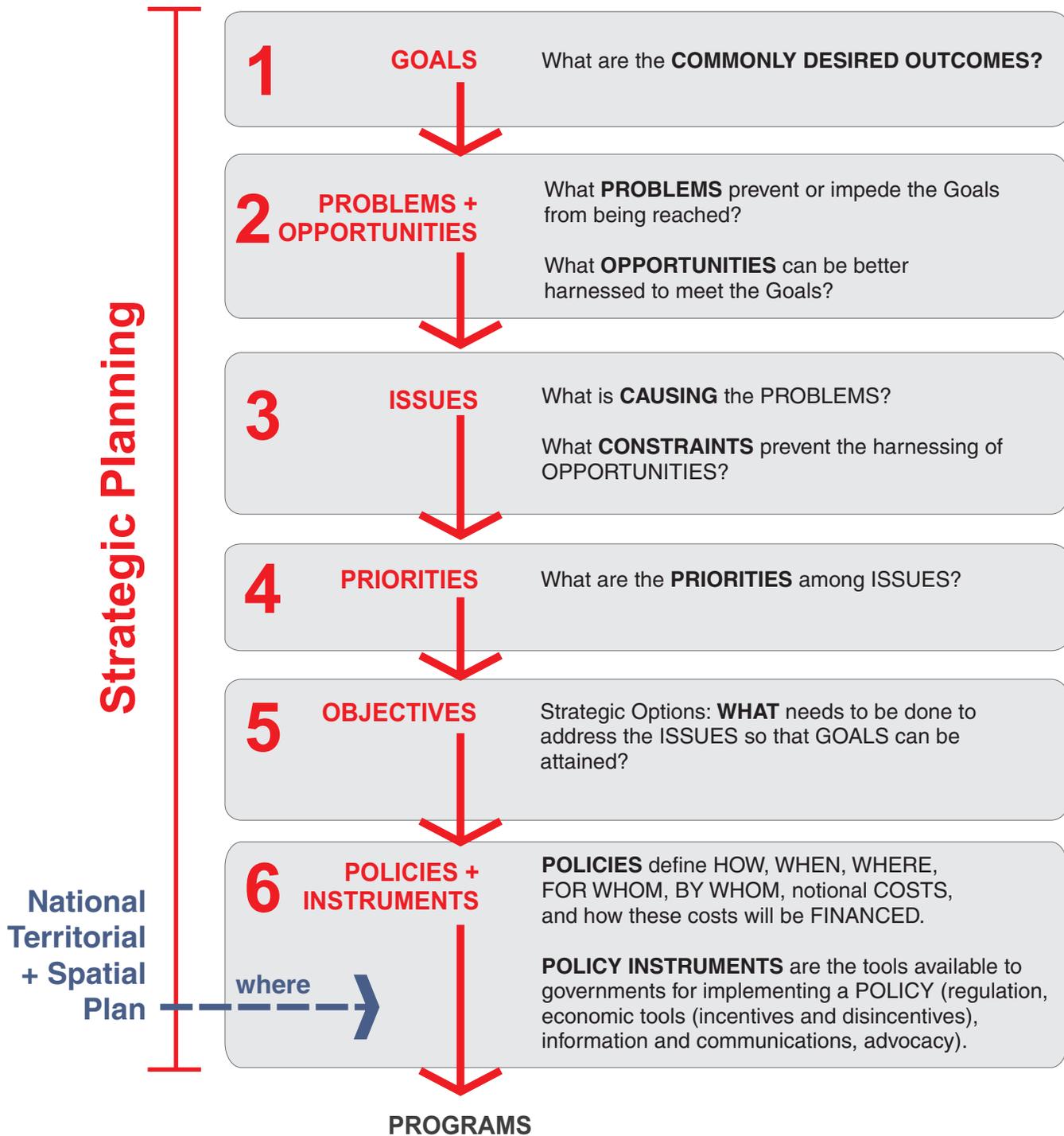
Step 5: Objectives. Step 5 leads to stakeholders defining specific objectives for dealing with prioritized issues. Unlike the goals established in Step 1, objectives set measurable targets for specifically addressing issues (causes and constraints) that limit the attainment of the development goals. Objectives should clearly define WHAT needs to be done to address major issues.

Step 6: Policies and Instruments. Policies define: HOW objectives should be met; WHEN interventions should occur and by when they should be completed; WHERE actions should occur; WHO should benefit (e.g. targeted segments of the vulnerable population); and WHO should be responsible for implementing actions (e.g. public or non-state sectors, partnerships). Spatial policies integrated other policies by defining: 1) where actions should happen; 2) the intensity of these actions (e.g. densities); and 3) in what kinds of spaces these actions should occur.

An integrated territorial development strategy describes where a territory is now, and where stakeholders want it to be in the medium and long terms. It defines a way forward shared by most stakeholders within government, the citizenry, the business community, and other key stakeholders. An integrated territorial development strategy provides the basis for the coordinated preparation of key sectoral plans for land use (including agricultural land and forests), transport, infrastructure, environmental protection, disaster risk management, heritage protection and tourism, settlement, and economic development, all of which would use the strategy as their underlying framework.

While strategic planning can improve how governments manage development, if the process is incomplete or lacks rigor, other countries have found that strategies can run into difficulties (Box 2).

Figure 5 Generalized Approach to Strategic Planning



Box 2 Some lessons from unsuccessful strategies

Experience around the world suggests that many national, regional and urban development strategies are not effective for one or more of the following reasons:

- unclear temporal scale: for when is the Strategy designed?
- unclear or incorrect spatial scale
- using administrative rather than functional boundaries
- insufficient scope and depth of baseline analysis (inadequate grounding in evidence)
- lofty, general 'vision' and development goals that do not recognize local conditions
- insufficient participation and buy-in of stakeholders in definition of 'vision' and development goals
- limited scope of development goals, e.g. focusing on 'urban development' and ignoring economic and social development, environmental protections, disaster risks
- narrow or inaccurate definition of problems and/or opportunities due to weak baseline analysis and lofty goals
- loudest voices channel attention to specific problems and opportunities (vested interests rather than evidence-based)
- focus on problems and opportunities without understanding causes of problems and constraints to opportunities
- without addressing causes of problems and constraints to opportunities, a strategy is set up to fail
- objectives focus incorrectly on problems and opportunities rather than on causes and constraints, i.e. on what government and other stakeholders might be able to actually influence
- ambiguous performance indicators + measures
- instruments for implementing policies are not defined, or insufficiently defined, leading to ambiguity, confusion and policy paralysis
- implementation plan does not adequately define timing and phasing
- implementation plan does not adequately define responsibilities
- weak or non-existent buy-in of implementation stakeholders
- insufficient financing for Strategy implementation
- overly-ambitious or complex Strategy that does not align with capabilities of local stakeholders (gov'ts., CBOs, firms) to actually influence outcomes
- insufficient and/or inadequate human capital for Strategy implementation
- one-time Strategy rather than an iterative process building continually on new information, experience, changing needs and circumstances.

3.2 Strategic Planning in the China Context

Policy makers and academics have been discussing the possibility of 'One Plan' for China for most of the past decade. Considerable thought has been given to methodological and procedural issues surrounding the preparation of a unified territorial plan. The World Bank has not been part of these discussions which means that the following might repeat, at least in part, what Government has already considered. This Note offers several suggestions for discussion, based on knowledge gained from work on territorial planning elsewhere in the world.

Could a strategic planning approach be followed in preparation of the National Territorial and Spatial Plan? Aspects of the planning process in China already share some characteristics of strategic planning (Figure 65). This section of the Note describes in broad terms how the NTSP could be prepared following a strategic planning approach.

Vision. China's vision – long-term national outcomes to 2050 – was affirmed at the 19th Party Congress and is

reflected in the 13th Five Year Plan (2016-2020).

Scope and Goals. Scope refers to the temporal and spatial scales to which goals will apply, and to the core definition of territories in which human functions, at various intensities, can and should not occur.

China's focus on sustainability, food security and environmental stewardship, reflected in its adoption of the SDGs and the Paris Accord, and its concerns over natural hazards, reflected in its adoption of the Sendai Framework, is supported by an enormous amount of information and knowledge on land and marine resources, some of it dating back centuries. The National Use Plan, Main Functional Area Plan, Marine Spatial Plan and other sectoral plans (e.g. environmental, water resources, disaster risk) all have various kinds of natural baselines that clearly define geographic and environmental characteristics of territories— including their vulnerabilities to human impacts. A strategic approach to the NTSP could include, as an early step: 1) the assembly of all relevant baseline information on natural areas (terrestrial, aquatic, and atmospheric) and: 2) consensus on criteria for defining areas which are to be completely protected and those areas in which gradations of human use are permitted; and 3) delineation of these areas as a single, comprehensive baseline for territorial planning. Much of that work has already been done by various agencies and could now be unified into a single spatial baseline for the 'One Plan'.

The temporal scale is also defined in various plans and needs to be unified for the 'One Plan'. Spatially, the Plan will focus on the national scale. However, an important challenge for MNR is to reconcile the administrative hierarchy of levels of government (province, prefecture/municipal, district/county/county-level city, towns/townships) with the territories in which human and natural functions actually exist.

That challenge is already being faced with the definition of 'city clusters' that cross the boundaries of provinces and autonomous regions. Currently, twelve of nineteen city clusters (as defined in the 13th Five Year Plan) cover territories in more than one province/autonomous region (Figure 7). This suggests that provincial spatial plans (administrative territories) of 23 of 34 provinces/regions will be influenced, in some cases very significantly, by the territorial strategies for city clusters (functional territories) prepared recently by NDRC. Under the NTSP, they could possibly become 'second-tier territorial and spatial plans' if the 'One Plan' explicitly incorporates functional rather than only administrative regions.

Similar challenges of reconciling administrative and functional regions will exist in preparing sub-national territorial plans and strategies. For example, the Government's policy appears to be shifting towards planning 'metropolitan circles', nominally the area within one hour drive time from the center of a metropolis with over 1 million residents. In other parts of the world, these are called 'metropolitan regions' and, in some cases, 'extended metropolitan regions' within a two hour drive time of most suppliers to metropolitan markets. In China, as in many other countries, 'metropolitan regions' cross municipal and often provincial/state boundaries (Figure 8). Examples internationally are the New York metropolitan region that includes three States, the Seoul metropolitan region that crosses into Incheon and four provinces, and the Bangkok metropolitan region that crosses into two adjoining provinces. In China, the Shanghai metropolitan region crosses into southern Jiangsu and northern Zhejiang provinces, the Chongqing metropolitan region crosses into Sichuan, the Beijing metropolitan region spills over into Hebei, and the Tianjin metropolitan circle also crosses into Hebei province. At a lower scale, urban functional regions usually cross municipal boundaries and town-based regions cross the administrative boundaries of towns and townships.

Figure 6 A Strategic Planning Approach to Preparing the NTSP

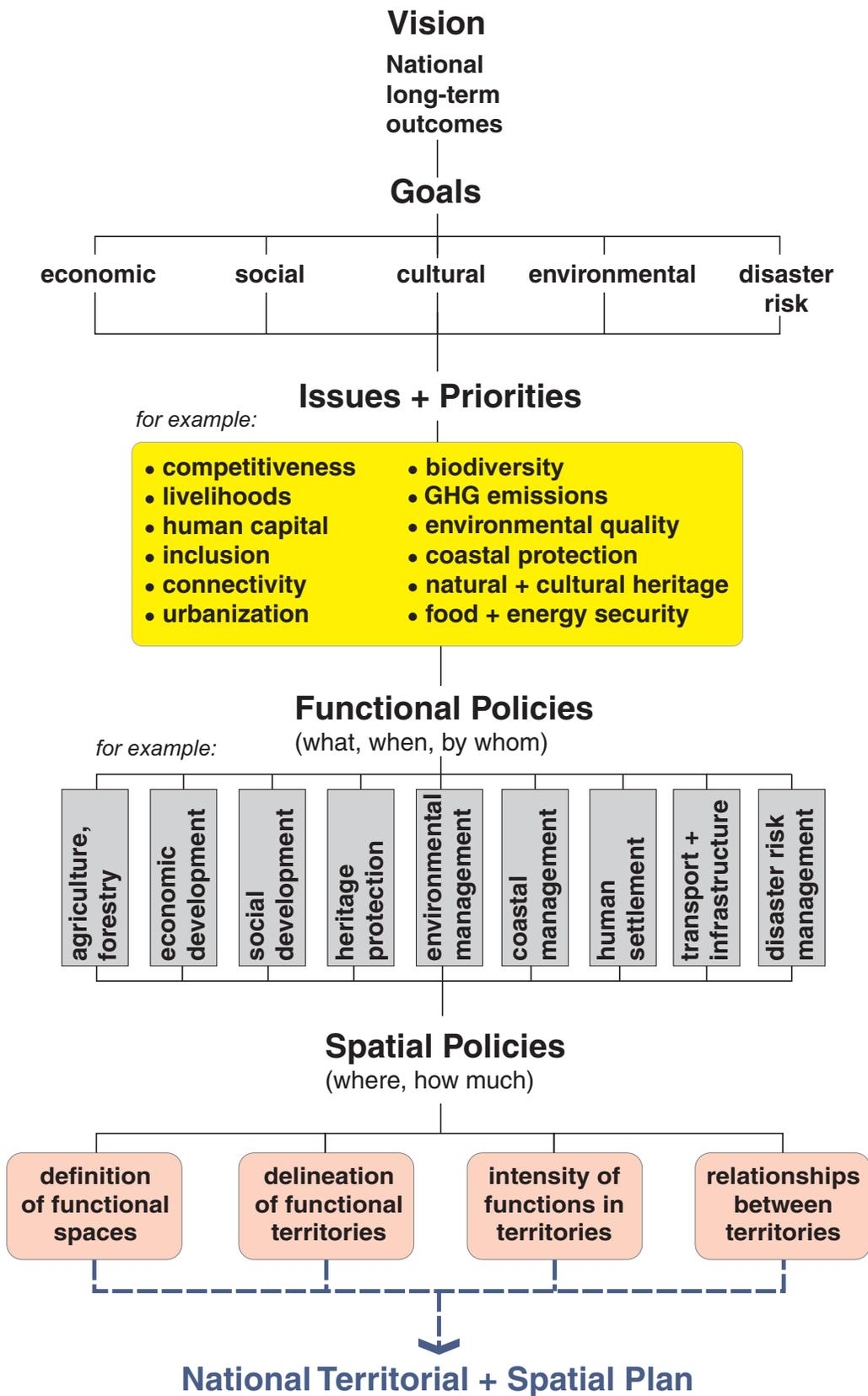


Figure 7 City Clusters Crossing Provincial Boundaries, 2020



The reconciliation of administrative and functional territories is a crucial pre-condition to effective territorial planning (Figure 9).

Many countries reconcile administrative and functional regions by: 1) placing precedence on territorial planning of functional regions; 2) conduct planning by the level immediately above where functional regions cross administrative territories; and 3) requiring territorial planning at that level of administrative territories to conform (often by law or statute) with the upper-level territorial plan for the functional region. For example, the Canadian province of Ontario plans the Toronto metropolitan region which consists of 21 upper-tier and single-tier municipalities. The Growth Plan has its own Act that is passed by the Ontario legislature. All municipalities must ensure that their Official Plan conforms to the provincial Growth Plan for the Toronto metropolitan region. In Seoul, the ‘Capital Region Plan’ (4 provinces and two metropolitan-cities, Seoul and Incheon) is prepared and enacted by the national government’s Capital Area Development Plan Committee chaired by the Prime Minister. In China, the City Cluster Strategies are prepared by the central government. To date, only Shanghai metropolitan region has initiated a territorial plan covering Greater Shanghai, and the plan is still under preparation.

Figure 8 Metropolitan Regions Cross Municipal Boundaries

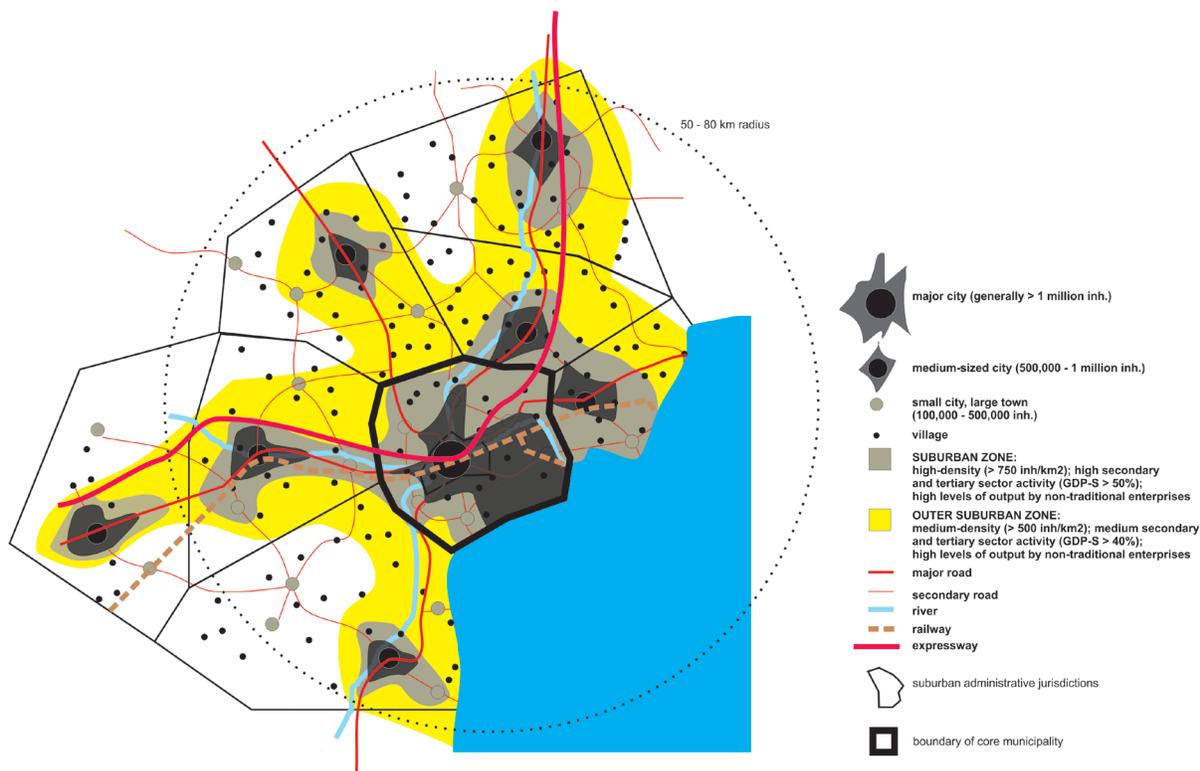
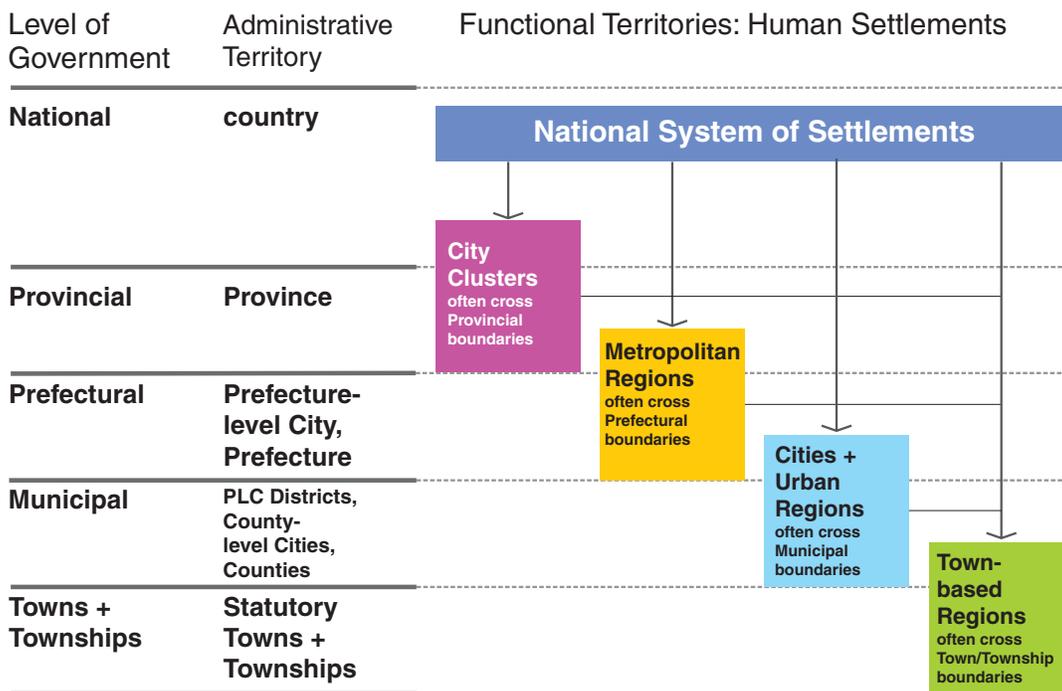


Figure 9 Functional Territories Overlapping with Administrative Territories in China



The FYP and sectoral plans (including the Four Plans) articulate economic, social, cultural, environmental, and disaster risk management goals. Some of China's commitments to the Sustainable Development Goals, the Paris Agreement, the UN New Urban Agenda, and the Sendai Framework for Disaster Risk Reduction (2015-2030) are also broadly reflected in the country's development goals. To demonstrate China's commitment to these protocols and agreements, linkages between its development goals and those defined internationally could be made much more specific.

The first step in doing so is to assemble all of China's economic, social, cultural, environmental, and DRM goals – articulated in numerous plans and policy statements – into a unified list. SDGs, New Urban Agenda goals, and Sendai targets could then be linked specifically to the goals in China's unified list. This would clearly show how China's goals converge with those of the international community. It could also identify where gaps might exist, or where China might choose to expand or sharpen its development goals. (Appendix A lists the key undertakings in each of the four agreements, and identifies those with implications for national territorial and spatial planning).

Issues – the causes of problems and the constraints to realizing opportunities – have been articulated in part in the 13th FYP and sectoral plans and analytic work by Government agencies and institutes. Priorities for dealing with these issues are also indicated in the 13th FYP and sectoral plans.

Objectives and Policies. Similarly, various plans and policy statements articulate a wide range of functional policies (defining WHAT needs to be done and HOW), including in: agriculture, forestry, economic development, social development, protection of cultural and natural heritage, environmental management, coastal management, urbanization and human settlement (including rural development), transport, infrastructure, and disaster risk management.

Most of these 'functional' policies are supported by spatial policies that define the types of spaces in which functional policies need to be implemented, the functional territories for implementation, the intensity of functions that are appropriate in various territories, and the spatial relationships between territories. These spatial policies are addressed – in part – in each of the 'Four Plans'.

A major challenge to MNR in drafting the 'One Plan' will be synthesizing the goals, issues, and priorities from among the many sectoral plans prepared in the past by specialists in line Ministries and their institutes. While the planning functions of NDRC, MOHURD, MLNR, and SOA are now consolidated in MNR, there are likely still those who continue to advocate these sectoral plans. Rather than a hindrance, past planning efforts should be viewed as a rich legacy of information and knowledge that needs to be carefully tapped in the preparation of the 'One Plan'.

The underlying goal of 'One Plan' is to have one National Territorial and Spatial Plan that defines spatial policies for all of the government's functional policies. This will require:

- systematically extracting all functional policies from Government's various plans and policy directives;
- assessing extracted policies to identify gaps, overlaps, potential policy conflicts, and unintended consequences of policies;
- calibrating functional policies and consolidating them into a single statement of core and supporting policies.

Rather than focusing solely on preparing the territorial and spatial plan, MNR might consider investing the time and effort to systematically assess, modify, and consolidate functional policies embedded in sectoral plans and strategies. If this is done well, the NTSP will flow logically from complementary and comprehensive functional policies.

Spatial Policies. Four major sets of spatial policies could be considered for the NTSP addressing: 1) how to define functional spaces; 2) where to locate these spaces, and what should be their boundaries; 3) the optimal intensity of functions or activities within functional territories; and 4) the relationships (including buffers) between these territories.

Functional spaces can be broadly defined as where interactions between human activities and natural systems occur (Figure 10). The natural systems (defined through the baselines raised above under ‘scope’) generally are biomes of terrestrial (land, including subsurface and subterranean structures; land cover; and ecosystems), aquatic (freshwater, groundwater, and marine systems), and atmospheric sub-systems (especially climate zones and air sheds at various spatial scales). Human activities, also broadly defined, include human settlement at varying scales¹, production of goods and services (mostly in human settlements but occasionally beyond them (e.g. oil + gas refineries), agriculture (including aquaculture and fishing), forestry, resource extraction (non-renewables such as oil+gas, mining; and renewable resources such as solar, wind, and tidal energy), and transport of inputs and outputs, including ocean shipping.

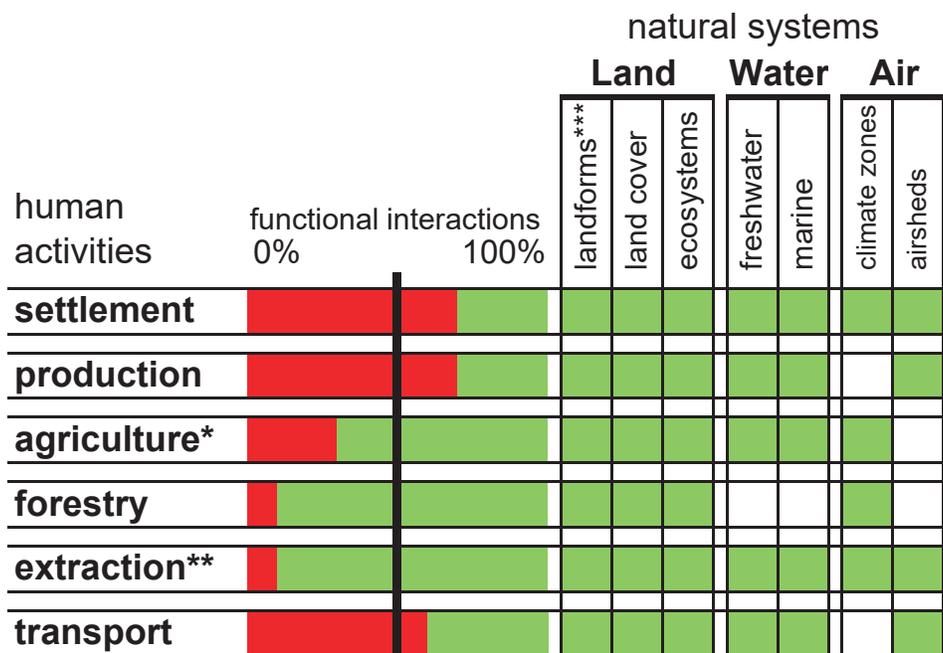
Each of these human activities interacts with natural systems to varying degrees. Ministries and institutes in China have in the past defined these interactions in intricate detail based on their specialized fields of interest. However, preparation of the NTSP provides an important opportunity for specialists to integrate definitions of these interactions and provide policy-makers with a common basis for defining the most important functional spaces that the NTSP needs to address.

Policies also could be fine-tuned on where these functional spaces should exist in China, their spatial boundaries, and the intensity of functions that should occur within territories. Again, this has been done extensively already by various government agencies – but usually from different perspectives. Based on the functional policies defined in the preceding step, territorial characteristics could be affirmed or adjusted based on a unified view.

While development patterns in China are generally following a well-established trajectory, perhaps the biggest challenge for the NTSP is to fine-tune the relationships between functional territories, for example between settlement and agriculture, forestry, and production spaces. Some of the international experiences raised earlier might inform MNR on how to better define and manage these relationships.

¹ including spaces for tourism and recreation.

Figure 10 Defining Functional Spaces Based on Interactions



* including aquaculture and fishing

** non-renewable resources (oil+ gas, mining) and renewables (wind, solar)

*** including subsurface and subterranean

note: human and natural shares (%) of interactions vary depending, in part, on policies

While MNR will take a national approach to the development of spatial policies, its methods should generally be replicable in the spatial planning of sub-national functional territories (e.g. City Clusters and metropolitan ‘circles’) to support policy coherence and consistency.

4. CONCLUSION AND SUGGESTIONS

With the 'One Plan', China is embarking on a large and complex initiative that has not been done elsewhere in the world. No country has attempted to integrate a land use plan with an economic development spatial plan, an urban system plan, and a marine territorial plan. Some countries have recently integrated two or three of these plans, but not all four.

This brief review of international experience on territorial planning, and recent practice and policy work of the World Bank, leads to several suggestions that MNR might wish to consider in preparing the NTSP. These suggestions are made recognizing that China has made very important inroads on national territorial planning by: explicitly recognizing that the natural environment will be the base on which all aspects of national territorial and spatial planning will be done; and explicitly recognizing that the purpose of territorial planning is to manage human activities and interventions on land and sea.

The following suggestions might incorporate ideas and approaches that are already being applied by MNR in preparing the NTSP: we recognize that there might be duplications and look forward to continuing and deepening dialogue so that the World Bank can focus its support as appropriate.

Initial suggestions are:

1. MNR appears to be working to synthesize a 'strategic plan', not a 'master plan'. We suggest that it reviews its approach to ensure that a systematic strategic planning process – of the kind described in this Note (Vision, Goals and Scope, Issues and Priorities, Objectives and Policies) – is followed consistently. A systematic approach to strategic planning should serve to unify key elements of the 'Four Plans', and the National Territorial and Spatial Plan should logically follow;
2. Systematic and objective analysis is very important. We suggest that MNR follows an evidence-based approach that bases territorial planning on an objective understanding of existing and recent trends – not only on aspirations;
3. While planning in China is hierarchical to lower levels of government, we strongly suggest that MNR's approach to the NTSP be based primarily on functional regions as integrated combinations of human, terrestrial, aquatic, and atmospheric components of the natural environment. We suggest that MNR first plans functional territories and then plan administrative territories to address statutory requirements;
4. We suggest that functional regions be defined using human settlements as the base (i.e. from mining camp to megalopolis);
5. Considerable effort is going into the preparation of the first NTSP. We suggest that MNR build into its approach recognition of the need for continual updating of the 'One Plan' to respond to unforeseen and often rapidly-changing conditions; MNR might explore how other countries address methodological and operational challenges in integrating national and sub-national development planning;
6. Based on the World Bank's work in other countries on territorial and spatial planning, we also strongly suggest that MNR ensures that it has the mandate and assured capacity to update the NTSP and lower-tier territorial plans regularly and fully;
7. We suggest that – even at this relatively early stage of NTSP preparation – MNR explicitly designs and implements a program to monitor development trends and NTSP implementation comprehensively, rigorously,

continually and transparently to rapidly inform updates.

Technical Assistance. Since China's preparation of 'One Plan' is the first such initiative globally, MNR might benefit from in-depth analysis of international experience, structured dialogue with other governments that are trying to integrate their territorial and spatial planning at various spatial scales, case study tours, exchanges through seminars and conferences, and just-in-time advice and assessments as needed.

The World Bank welcomes further discussions with MNR on how it could continue to support the preparation of the National Territorial and Spatial Plan, including through focused technical assistance.

APPENDIX A: KEY INTERNATIONAL AGREEMENTS

China is a signatory to four major global undertakings that have implications for national territorial and spatial planning: 1) the Sustainable Development Goals (SDGs); 2) the Paris Accord; 3) the UN Urban Agenda; and 4) the Sendai Framework.

Sustainable Development Goals: “The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests”¹.

The Paris Agreement on Climate Change, drafted in December 2015 was signed in 2016 by China and 194 other countries of the United Nations Framework Convention on Climate Change (UNFCCC). “The Paris Agreement’s central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to increase the ability of countries to deal with the impacts of climate change, and at making finance flows consistent with a low GHG emissions and climate-resilient pathway. To reach these ambitious goals, appropriate mobilization and provision of financial resources, a new technology framework and enhanced capacity-building is to be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for an enhanced transparency framework for action and support”².

“The New Urban Agenda was adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador, on 20 October 2016. It was endorsed by the United Nations General Assembly at its sixty-eighth plenary meeting of the seventy-first session on 23 December 2016. The New Urban Agenda represents a shared vision for a better and more sustainable future. If well-planned and well-managed, urbanization can be a powerful tool for sustainable development for both developing and developed countries”³.

“The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) was the first major agreement of the post-2015 development agenda and provides UN Member States with concrete actions to protect development gains from the risk of disaster. It was endorsed by the UN General Assembly following the 2015 Third UN World Conference on Disaster Risk Reduction (WCDRR), and advocates for the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries. It recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders. The Sendai Framework is the successor instrument to the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters”⁴.

¹ <https://sustainabledevelopment.un.org/?menu=1300>

² <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>

³ <http://habitat3.org/the-new-urban-agenda/>

⁴ <https://www.undrr.org/implementing-sendai-framework/what-sf>

The table on the following page outlines all of the goals, targets, and other undertakings of the four global agreements and highlights in yellow those that could have national and sub-national territorial and spatial implications¹. The SDGs have the widest scope and provide a useful thematic framework for the other three agreements. As raised earlier in this Note, MNR might want to link NTSP goals and policies to those in the four global agreements to show how commitments are being addressed.

Table 3 Global Accords

territorial and spatial implications (differentiation)

	Sustainable Development Goals	Paris Accord	UN New Urban Agenda: Commitments	Sendai Framework for Disaster Risk Reduction
type of goal				
social	Goal 1. End poverty in all its forms everywhere			
social	Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture			
social	Goal 3. Ensure healthy lives and promote well-being for all at all ages		1. Provide basic services for all citizens	1. Substantially reduce global disaster mortality 7. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information
social, cultural	Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all			
social	Goal 5. Achieve gender equality and empower all women and girls		2. Ensure that all citizens have access to equal opportunities and face no discrimination	
social, economic	Goal 6. Ensure availability and sustainable management of water and sanitation for all		1. Provide basic services for all citizens	
social, economic	Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all			
economic, social, environmental	Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all			3. Reduce direct disaster economic loss in relation to global gross domestic product (GDP)
disaster risk, economic	Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		4. Strengthen resilience in cities to reduce the risk and the impact of disasters	4. Substantially reduce disaster damage to critical infrastructure and disruption of basic services
social	Goal 10. Reduce inequality within and among countries			

¹ as specifically requested of the World Bank by MNR.

	Sustainable Development Goals	Paris Accord	UN New Urban Agenda: Commitments	Sendai Framework for Disaster Risk Reduction
social, env., disaster risk	Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable		3. Promote measures that support cleaner cities 7. Improve connectivity and support innovative and green initiatives 8. Promote safe, accessible and green public spaces	2. Substantially reduce the number of people affected by disasters
economic, env.	Goal 12. Ensure sustainable consumption and production patterns			
env., social, economic	Goal 13. Take urgent action to combat climate change and its impacts	<ul style="list-style-type: none"> Keep warming well below 2 °C Aim for GHG emissions reduction as soon as possible, and from 2050 to balance with GHG sinks Support adaptation, resilience and low emission development, to ensure food security. 	5. Take action to address climate change by reducing greenhouse gas emissions	
env., economic	Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development			
environmental	Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss			
social	Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels		6. Fully respect the rights of refugees, migrants and internally displaced persons regardless of their migration status	
implementation	Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development			5. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020 6. Substantially enhance international cooperation in DRR to developing countries

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