

Development Plan
for Beijing Capital Circle:
New Approach on Constructing a World City

北京首都圈 发展规划研究

——建设世界城市的新视角

顾朝林◎主编



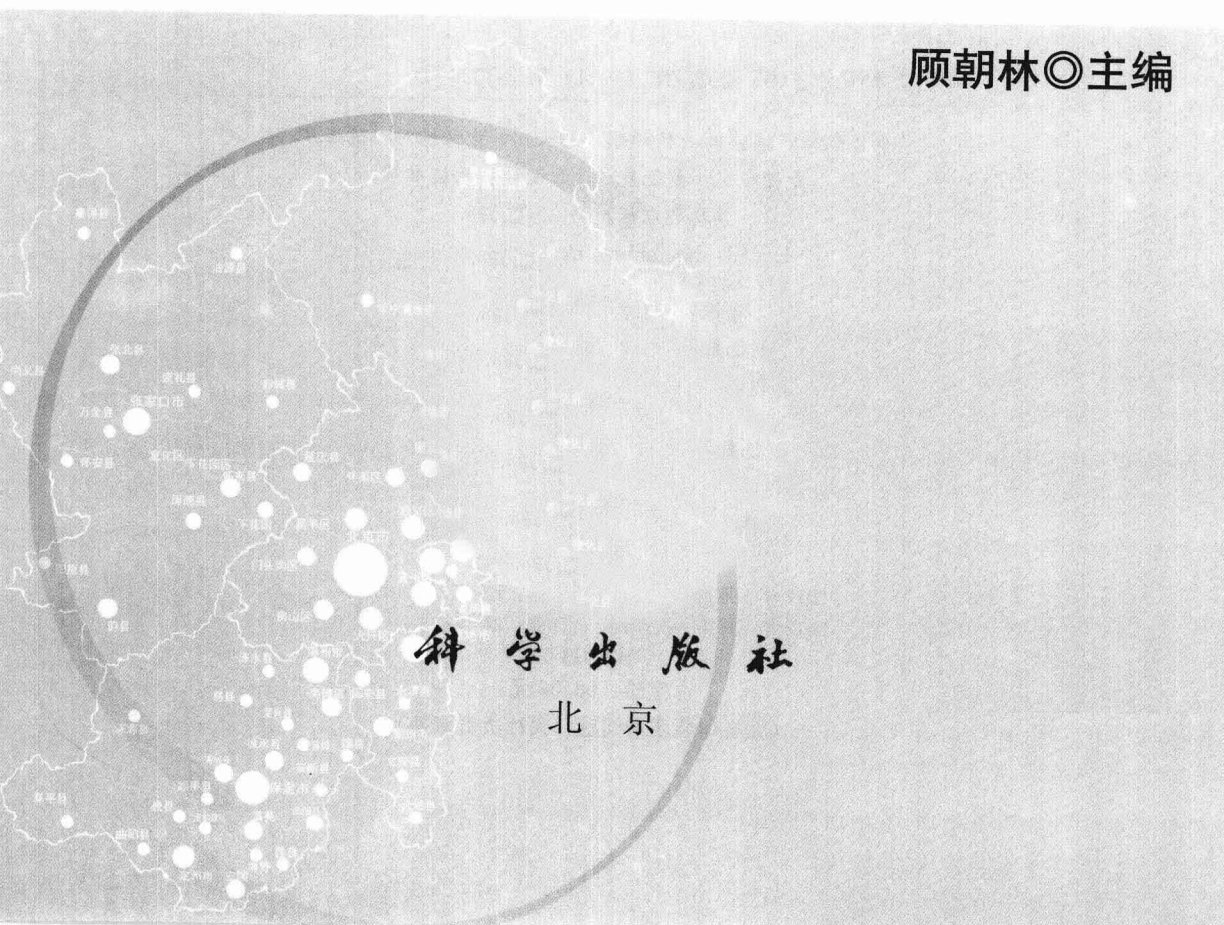
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序 言

北京正面临人口快速增长、城市空间急剧扩大、交通拥堵、住房短缺、环境污染、生态退化等大城市病，人口、资源与环境的协调发展成为北京建设世界城市的障碍，从区域层面思考和解决这些问题，成为政治家和科学家共同关注的焦点。最近河北省委、省政府提出建设环首都绿色经济圈战略，这无疑是顺应世界城市和区域发展规律做出的重大决策。建设环首都圈，为大局服务，为河北添活力；建设环首都圈，承接首都北京的溢出效应，打造首都产业和功能转移的平台；建设环首都圈，借助首都北京的优势形成发展高地，辐射带动河北省又好、又快发展，迅速提升河北省经济社会发展水平。与此同时，建设环首都圈，利用首都圈广阔的空间、土地、水、生态资源，可以解决北京世界城市建设过程遇到的交通拥堵、住房紧张，以及能源、淡水和土地资源短缺和环境污染加重、生态退化等人口-资源-环境-生态问题。国家“十二五”规划已经将打造北京首都圈提升为国家发展战略，环首都圈总体规划也就成为新时期国家和首都地区政府、科学家、普通大众都十分关注的焦点。

北京清华城市规划设计研究院、清华大学建筑学院研究团队作为国内一流规划设计单位，承担过国内多项重点地区的区域规划，受河北省政府的邀请作为四家国内外一流规划设计研究院之一参与规划研究工作，按照“环首都绿色经济圈总体规划”编制任务书的要求，

在较短时间内做了大量富有成效的研究工作，出色完成了《环首都绿色经济圈总体规划（方案稿）》，受到河北省政府领导和国内外专家的一致好评。本书即在此基础上完成。

概括起来，本书从环首都圈发展和建设北京世界城市两个视角进行深入研究，具有如下鲜明的特色：①提出绿色、可持续、增长拉动型的总体目标和发展战略；②设计了北京首都圈多中心、网络化、功能区的世界城市新空间结构；③从国家战略和全球视野进行首都圈人口预测；④规划建设切合实际的、可实施的环首都圈“3+X”新城体系；⑤立足绿色科技革命构想北京新世界城市的产业体系；⑥以快速交通和能源大通道建设为主进行首都圈大交通体系规划；⑦为首都可持续发展规划淡水资源涵养地、清洁能源基地和生态保护圈；⑧面向农民、农业和农村进行首都圈城镇化和农业现代化的城乡统筹规划。

本项研究成果的出版，一方面可以给更多的科学工作者、政府决策者和关心首都圈发展和北京城市建设的广大读者提供一个很好的、深入思考和探索的研究基础和平台，另一方面无疑也对促进环首都圈的发展和建设具有重要的科学价值和社会意义。

北京清华城市规划设计研究院院长

清华大学建筑学院副院长



2011年3月31日

前 言

进入 21 世纪以来，中国沿海地区的空间发展出现了明显变化，环渤海地区成为国家经济发展的新热点地区。其中，京津地区发展较快，拉动了环首都圈的发展，北京和河北都处在重要战略机遇期。2010 年中国总人口达到 13.43 亿，为世界第一人口大国；国内生产总值（GDP）达到 39.8 万亿元（6.04 万亿美元，相当于美国的 41%），成为世界第二大经济体，人均 GDP 约 4500 美元（相当于美国人均 GDP 的 10%）。早在 2002 年我国著名的城市规划及建筑学家吴良镛就提出：中国是一个幅员广阔、地域特色明显的人口大国，也是政治大国、文化大国和经济实力急剧崛起的最大的发展中国家……大北京地区应该发展成为 21 世纪的世界城市之一。

目前，人口、资源、环境如何协调发展成为首都经济社会发展中最主要的问题。人口的快速增长、城市空间的急剧扩大使北京水土资源短缺压力进一步加大，交通拥堵、住房短缺、环境污染、生态退化等大城市病已经爆发且没有得到有效遏制。建设北京世界城市面临越来越多问题和挑战，甚至有学者提出将首都迁离北京的建议（专栏 1）。

首都是国家最高权力机构所在地，是国家政治、文化中心，也常常是一个国家人民激发自豪感、认同感，增强凝聚力的政治符号和象征。首都位置的选择既要考虑有利的自然条件，也要有利于对全国进行行政管理，还要兼

顾历史、文化和民族等多方面的因素。尽管有些国家的首都出现按功能分设的情况，如荷兰的皇家首都在阿姆斯特丹，而中央政府在海牙；再如南非比勒陀利亚是行政首都，开普敦为立法机关所在，布隆方丹是司法部所在的城市；还有利比亚、玻利维亚和老挝等国也在不同时期有过分设首都的现象，但这些国家一般都为小国或政治原因使然。北京作为中华人民共和国的首都，具有明确的政治地位并已经建设成为全国的行政、文化、科技、交通中心，因城市发展瓶颈而迁都是不现实的。解决首都经济社会发展中存在的问题需要首都周边地区的支持。

事实上，环首都圈历史上就是首都发展的支撑平台和腹地，在城市功能疏解、水和土地资源、劳动力和市场等方面具有独特的区位优势，能够为服务首都、建设首都承担重要的任务。2010年11月河北省在北京举行“环首都圈规划编制座谈会”，省委常委、常务副省长赵勇出席座谈会并讲话，正式启动环首都圈规划编制工作，提出推进环首都圈建设最基础、最紧要的工作是要高水平、高标准地编制好一整套规划，以规划引领建设和发展；要把世界上最前沿的规划理念和最新的技术运用到规划编制中，创新规划编制思路、方法和内容，以宽视野、高标准、大手笔搞好各项规划，努力把环首都圈打造成为世界一流、中国气派、河北特色、充满活力的地区。建设环首都圈，为国家分忧，为北京排难，为河北发展寻找机遇，具有重要的战略意义。

在2010年11月河北省公布环首都圈发展设想后，社会上也出现了“唱衰”首都经济圈的不和谐之音，有所谓“美好想象，宏伟蓝图，却是河北省的一厢情愿”之论，也有人表示“残酷的现实是决策主体缺失，政策优惠只是噱头”，甚至有媒体提出尖锐的批评：“无知规划——地铁1100km延伸进入河北；畸形的榜样——重复卖地财政的规划。”他们认为一旦这种毫无主动权的规划概念成为河北省的第一战略，不仅不会带来经济发展，反而必会造成地区资源浪费等一系列经济、社会问题。

不过，近期北京市政府已经认识到环首都圈规划与建设对解决北京城市问题的重要性，已与河北省政府在交通、通信、规划等领域展开合作。北京市委常委、常务副市长吉林表示，和许多大都市一样，北京在发展过程中也面临可持续发展的难题……北京今后要集中解决人口、交通和创新三个问题，这些问题单靠北京自身是难以解决的，必须推动与周边地区的统筹协调，特别是与河北的统筹协调发展，要在交通运输、水资源与生态环境保护、保障首都市场农产品供应、旅游、金融商贸流通、科技教育卫生事业发展、人力资源等方面展开卓有成效的合作。《国民经济和社会发展的第十二个五年规划纲要》提出，推进京津冀、长江三角洲、珠江三角洲区域一体化发展，将打造首都经济圈列入国家发展战略。

建设北京世界城市是国家赋予北京的 21 世纪城市功能，北京城市发展必将出现城市空间蔓延问题，部分城市功能越过原有的行政边界，形成经济与社会意义上的城市范围与政治意义上的城市范围的不一致；城市环境问题，特别是空气污染、水污染；公共空间等跨区域问题；日常通勤路程延长要求交通与基础设施的跨区协调发展以及住房市场和政策等问题，这些都是大都市圈发展过程中很难避免的问题。通常的区域规划、城市总体规划和发展规划等均不能实现相关的规划目标。19 世纪末，美国为了解决类似的问题和矛盾，满足规划区的范围超越行政边界的要求，将基础设施、交通设施的安排需要在比城市更大的范围内进行协调解决，并开始编制大都市圈规划。

大都市圈规划是一种问题导向性规划，具有宏观性、综合性、协调性和空间性的特点，它的主要目的在于用协调的办法来解决城市发展中的跨界问题。大都市圈规划的主要内容包括：①都市区经济社会整体发展策略，避免区域内部的恶性竞争，有利于增强区域整体的竞争力；②都市区空间组织，区域中心与外围地区之间的功能互补；③产业发展与就业；④基础设施建设，交通需求、交通设施自身的需要，从科学、经济等角度需要区域统筹安排供排水和污水处理以及固废处理；⑤土地利用与区域空间管治，如都市区内部各地区的住房和土地政策是相互影响的；⑥生态建设与环境保护，如公园和开敞空间布局，在区域整体层面上共同解决空气质量问题；⑦区域协调措施与政策建议。大都市圈规划由四重目标组成：强大的经济、高水准的生活质量、可持续发展的未来以及为所有成员提供机遇。大都市圈规划强调经济增长、社会公平、环境保护的综合平衡发展，坚持维护社会公平和良好生态环境与促进地方经济增长同等重要，重视物质规划以及不同层次物质规划与社会、经济发展规划之间的密切配合，在完备的纵向控制体系中增加横向的沟通，通过规划提升大都市区的综合竞争力。

本书源自河北省政府委托北京清华城市规划设计研究院完成的《环首都绿色经济圈总体规划（方案稿）》，全书编写思路和提纲由顾朝林设计，其中：第一章由王颖、顾朝林、胡伶倩撰写；第二章由袁晓辉撰写；第三章第一节由顾朝林撰写，第二节由王春丽撰写，第三节由顾朝林、王颖撰写，第四节由王颖撰写；第四章由刘晓斌撰写；第五章由郭婧、杨利平撰写；第六章由姚瑶、郝银燕撰写；第七章由李阿琳撰写。全书最终由顾朝林统稿定稿。



2011 年 3 月

专栏 1

迁都提议和研究

1980年年初首都经济贸易大学汪平教授率先提出了将首都迁出北京的意见，从此，北京迁都的呼声不绝于耳。1986年，学者又提出北京面临迁都的威胁，一度引起极大的震动。2006年，凶猛来袭的沙尘暴将“迁都”的提议推向高潮。同年3月，参加全国人民代表大会的479名全国人大代表，联名向全国人民代表大会常务委员会提出议案，要求将首都迁出北京。此后，北京理工大学胡星斗教授在网上发出酝酿已久的迁都建议书：“中国北方的生态环境已经濒临崩溃。我们呼吁：把政治首都迁出北京，迁到中原或南方。”他们上书中央、全国人大、国务院，建议分都、迁都和修改宪法。次年11月，商务部国际贸易经济合作研究院研究员梅新育在英国《金融时报》中文网撰文，他认为，中国应认真考虑迁都，“如果北京继续充当首都，不仅对整个国家发展构成了额外的负担，城市自身也走入了死胡同”。2008年2月，学者秦法展和胡星斗合作撰写了长文《中国迁都动议》，提出“一国三都”构想，即选择佳地建立一个全新的国家行政首都，而上海作为国家经济首都，北京则留作国家文化科技首都。民间关于“新都”的构想大部分的选择是中原地区或者长江流域。最为民间所青睐的是中原地区。同样由秦法展和胡星斗撰写的《中国迁都报告》中说，应该把首都迁往河南南阳。陕西是民间迁都的另一个热门省份，其民间从未停止过努力。陕西师范大学一位副校长曾撰文建议将首都迁到宝鸡，而陕西省社会科学院发展与政策研究中心主任胡义成则认为至少应当将西安设成“陪都”。民间迁都的构想一度被激发到了最高潮，全国各地也掀起了民间“选都”热。有人根据人口、城市规模、经济总量等指标，列出了中国迁都地——成都、重庆、西安、武汉、汉中五大候选城市名单，甚至连南方的广州和海口等城市的民众也加入了这场硝烟四起的口水仗。2010年12月13日，上海学者沈晗耀在接受媒体采访时表示：要解决北京集中爆发的城市病，迁都是最好的选择，并提出未来的新首都应选在湖南岳阳或河南信阳。有人将其表述称之为“迁都治堵”，认为不论将首都迁往何处，都会是再造一个“北京城”，对于治堵本身并非治本的良药。

Summary

Constructing a world city, Beijing faces a series of urban problems, such as population explosion, urban space expansion, traffic congestion, housing shortage, environment pollution and ecology degradation. The coordinated development of population, resources and environment in the Beijing mega-city region has become a key on its way to a world city. Politicians and scientists are very concerned with these issues. They try to analyze and solve these problems from a regional perspective. The Master plan of the green economic circle area surrounding Beijing is committed to the coordinated development of this area, and tries to solve the urban problems related to development. This plan includes development goals and strategies, spatial structure, population forecast, new towns plans, industrial layout, transportation system, water and energy, ecology and environment protection, coordinated development of urban and rural areas, and plan implementation.

1. The Green, Sustainable and Growth-driven Goals and Development Strategies

The overall development goals of the green economic circle is to develop the area as a significant constituent of the Beijing World City, the carrier of the regional integration of the green economic circle area surrounding the capital, and the new development strategic region of Hebei Province. The development strategies of the area are: serving the capital, connecting with Beijing, achieving harmonious development, and building this area into a significant constituent of the Beijing World City. The function and development strategies are determined at two levels: the Great Circle Area and the Inner Circle Area. The strategies of the Great Circle Area are growth-driven, focusing on enhancement of capabilities to serve the capital and the harmonious development between humans and nature. The strategies of the Inner Circle Area focus on strengthening connection with the capital and directly undertaking world city functions to ensure harmonious development.

2. New Spatial Structure of the Beijing World City with Multiple-centers, Network and Function Areas

From the overall perspective to construct Beijing as a world city, the plan identifies the functions that the green economic circle area surrounding the capital should undertake. According to the characteristics of world city spatial structure, which has multiple-centers, network and urban function areas, the plan suggests the spatial structure of green economic circle area surrounding capital should be two circles, three areas, four cores, and five corridors. Two circles which refer to the Great Circle Area and the Inner Circle Area will interact with each other. Three areas will lead the development of the whole green economic circle area, including the New Culture Development Area in the east of Beijing, the New Energy Development Area in the south of Beijing, and the New Technology Development Area in the north of Beijing. Four cores will be upgraded on the current base, including Zhangjiakou Green Ecology and Transportation Core, Chengde History and Culture Tourism Core, Baoding New Energy Development Core, and Langfang Manufacturing Base Core. Five corridors will form the network of the area, including Ecology and Tourism Corridor between Beijing and Chengde, High-tech Development Corridor between Beijing and Zhangjiakou, Manufacturing Corridor between Beijing and Langfang, New Energy Development Corridor between Beijing and Baoding, and Ecology Protection Corridor around Beijing. The spatial structure will improve the development of the green economic circle area surrounding the capital.

3. Population Forecast of the Green Economic Circle Areas from the National Strategy and Global Perspective

Population growth is a symbol of the prosperity of urban economy. China needs a mega world city that matches its entire economic and population size. Compared with the development features of population size in existing world cities, and based on the growth trend of population in the capital area since the founding of new China, the population in the green economic circle area will continue blooming. Several models are adopted to forecast the population of the capital circle area. Its population will reach 65 million in 2030 and the population of Beijing will reach nearly 35 million. Beijing will need to dis-

perse 12.5 million people to its periphery, and another 12.5 million to the Inner Circle Area. By 2020, the population of Zhuolu, Huailai and Chicheng counties in the Zhangjiakou City will reach 1.3 million, the four counties in Chengde City will rise slightly to 1.6 million, the three northern counties in Langfang City will increase to 2.4 million, and the three counties of the Baoding City in the Inner Circle Area will be 2 million.

4. Plan a Realistic and Feasible “3 + X” New Town System

In accordance with the vision of spatial structure, the population forecast, and the current urban development situation of the green economic circle area surrounding the capital, the plan will launch a “3 + X” new town system, setting Beijing as the nucleus, the four cities of Langfang, Baoding, Zhangjiakou and Chengde as nodes, and the Inner Circle Area as the key area. This system is characterized by a large number of cities and towns, with diversified scale of population and town functions. Further growth of this system relies on the development of rapid transportation system. This “3 + X” new town system maximizes the number of new towns in the Inner Circle Area, balances the population distribution in and out of the green economic circle area surrounding the capital, as well as promotes economy and employment conditions within the green economic circle area. This plan intends to form eastern new town gathering area, Gu'an County seaf airport logistics park, Guangyang and Anci global manufacturing base, southern new town gathering area, northern new town gathering area, Chicheng capital service base, Chengde back garden of the capital circle area, and approximately 30 decentralized new towns with a population of 5 – 20 million on the current foundation of various resource types.

5. The Blueprint of the New World City's Industrial System on the Basis of Green Technical Revolution

Taking advantage of the national technology innovation, this plan aims to develop a new green industrial system for the green economic circle area surrounding the capital with comprehensive industrial production chains and distinct local characteristics. To achieve the goals, the plan focuses on three industrial systems: green industrial system (new energy industry and green food industry), cultural industrial system (cultural and creative industry, pub-

lishing and furniture manufacturing) and local industrial system (electronic information industry, high-end equipment manufacturing, new material industry, modern services and modern agriculture). The green economic circle area of the capital will form several industrial development areas: the eastern cultural and creative industrial development area, the southern electronic information and modern equipment development area, the southwestern tourism development area, the western new energy industrial development area, the northern tourism and new energy industrial development area.

6. Comprehensive Transportation Planning with Fast Transport Networks and A Great Energy Channel

As an important component of the Beijing world city, the green economic circle area surrounding the capital will build the largest comprehensive transportation hub in China and an aerotropolis connecting to the world. The planning strategies for the transportation system are: building modern transportation corridors connecting to other mega-regions in China and the world, cooperating with Beijing to solve the traffic congestion problem, promoting the development of the Inner Circle Area through building transportation systems, constructing multimodal system to fulfill different transportation needs. The most important action is to build a fast transport system around Beijing, which includes Beijing-Harbin and Beijing-Baotou express railways, Beijing-Shijiazhuang, Beijing-Zhangjiakou and Beijing-Chengde inter-city railways, and east-western highway network outside Beijing. The second important action is to construct a public transport system to serve commuters between the Inner Circle Area and Central Area of Beijing. The system consists of the inter-city rail transit and the Inner Circle Area public transit system. The third action is to build the third energy channel in China for goods movement between the outside areas, such as the Inner-Mongolia Autonomous Region and Shanxi Province, and the main ports around Bo-Sea in the Beijing-Tianjin-Hebei Region, such as the ports of Tianjin, Caofeidian, and Qinhuangdao.

7. Constructing Fresh Water Conservation Area, Clean Energy Base, and Protective Eco-Circle for Sustainable Development of the Green Economic Circle

Lack of fresh water, clean energy and eco-environment has become serious barriers for sustainable development in the green economic circle area sur-

rounding Beijing. According to the principle of convenience, efficiency, safety and reliability, the plan fully utilizes local resource to solve the environmental problem in constructing the world city. First, water resource conservation areas in the green economic circle area should ensure a safe and reliable water supply system for the capital area. Second, the green economic circle area should build a clean energy base by aggressively developing clean energy, gradually limiting the use of fossil fuels, and actively exploiting and using nuclear power. Third, aiming for better eco-environment, higher living quality and more reasonable economic development pattern, the plan integrates regional resources to construct the capital area eco-hinterland, which is made up of greenways, blueways, and a protective eco-circle around Beijing. In addition, the plan suggests closing enterprises of sefstromite, steel and cement in the Chengde-Zhangjiakou district and relocating 200 000 residents out of the water resource conservation area. Though these two actions will cost 43 billion yuan per year, the economic benefits from water transfer, construction of tourism, leisure, and clean energy bases, and ecological compensation will create 300 billion yuan economic returns and 55 000 new jobs. Therefore, the actions are feasible, and should be highlighted and detailed in future plans.

8. Overall Urban-rural Planning to Promote Urbanization and Agricultural Modernization of Farmers, Agriculture and Countryside

The urban-rural planning for the green economic circle area surrounding the capital mainly focuses on the following aspects: the integration of urban-rural spatial distributions, the coordination of urban-rural industrial development, the connection of urban-rural infrastructure, the balanced construction of urban-rural ecological environment, and the overall planning of urban-rural public service and social security systems. The key points to achieve urban-rural integration are to pay close attention to peasants and increase their income. The most fundamental ways are urbanization, industrialization and agricultural modernization. Emphasizing on scale economies, Agricultural modernization includes developing establishment agriculture and precision agriculture, as well as building vegetables and subsidiary agricultural production and supply bases for Beijing and Tianjin. Specifically, the green economic circle area surrounding the capital is planned to construct off-season vegetable supply bases in Zhuolu and Chengde, characteristic vegetables bases in Baoding

and high quality vegetables bases with distinctive features in Langfang, Zhuozhou and other cities.

9. Policies and Measures Related to the Implementation of the Plan

The planning period of this master plan is from 2010 to 2020, and the planning period of the long-range perspective plan is to 2030. The master plan is divided into three stages: the short-term plan (2011-2015), long-term plan (2015 - 2020), and the perspective plan (2020-2030). The short-term plan of the green economic circle area surrounding the capital includes new town construction, industry projects, transport facility construction, water resource conservation and development, and energy and environmental protection. In order to serve the goal to construct Beijing as a world city, the green economic circle area surrounding the capital will need to attract the overflowing population from Beijing, support industrial restructure, provide resources, protect environment, and reduce the center city traffic congestion by year 2015. The green economic circle area surrounding the capital will be a spatial and functional integrated part of the capital, as well as a strategic area for the rapid development of Hebei Province.

The plan provides implementation oriented policies regarding industry, land use, finance, investment, population, environment, and ecology. It also suggests innovations in the implementation mechanism and the institutional system, such as establishing consultation mechanisms among provinces and cities, initiating national level planning and coordination, establishing cross-border regional development funds and banks, adopting horizontal fiscal transfer payment policies.

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