

φ R103
28/9/12 (A)



黄河国际论坛
S₂₀₀₃YIRF

Sustainable Yellow River Water
Resources Management

可持续的黄河水资源管理

陈小江 Chen Xiaojiang



2012年9月24-28日 中国 郑州

可持续的黄河水资源管理

Sustainable Yellow River Water
Resources Management

中国·郑州

2012年09月24日 - 28日

Sustainable Yellow River Water Resources Management

Chen Xiaojiang

(Commissioner of Yellow River Conservancy Commission of Ministry of
Water Resources)

Good morning, ladies and gentlemen;

The sustainable development of river basin and water rights of rivers are the topics received worldwide concern. Today, I am very delighted to invite you all here on the International Yellow River Forum, to exchange experiences, share some achievements and discuss corresponding strategies about these topics. At first, please allow me on behalf of the Yellow River Conservancy Commission to sincerely welcome you, the distinguished guests from all over the world.

Yellow River is the mother river of China, and has cradled the glorious Chinese civilization for five thousand years. Since the founding of New China, under the leadership of the Chinese Government, the Yellow River management and development has made remarkable achievements. In the process of building a well-off society and national modernization, the global and strategic position of the Yellow River management work become even more prominent.

After the turn of this century, based on the scientific judge of the complicated situation of water resources as well as the social and economic development trend in China, the Chinese Government came up with a new concept of water management, that is 'People-oriented, harmonious coexistence between human beings and water, the sustainable utilization of water resources for supporting sustainable development of economic and society'. The Yellow River Conservancy Commission took active probes and practices about integrated water resources management. As a consequence, we successfully coped with issues such as drought, water shortage, eco-system deterioration and so forth, and achieved no zero-flow for continuous 13 years. All these significantly contributed to the social and economic development of the basin and related regions.

Here, I would like to emphasize some practice and experiences of integrated water resources management in the Yellow River basin.

1. To implement available water supply allocation and guarantee the water rights of multiple parties

Yellow River is the first river in China that conducts water allocation in the basin scale. In 1987, the Chinese Government approved the *available water supply allocation scheme of Yellow River*. According to this scheme, in the normal year, the annual runoff of Yellow River is 58 billion m³. Of all the water resources, 37 billion m³ is allocated for water demand of the 11 provinces (regions, cities), while the remaining 21 billion m³ is allocated for sediment transport and ecological base flow within the river channel. The scheme considers the water demand of both economic development and the river itself, and it provides fundamental support for water resources exploration and management of the whole river basin.

2. To implement integrated water resources management and regulation, and maximally satisfy the water demands of different stakeholders

In 1999, the Yellow River Conservancy Commission was authorized by the national government to implement the integrated water resources management and regulation in the Yellow River basin. In 2002, the water resources management system with the incorporation of river basin and region was clearly defined in the newly issued *Water Law*. In 2006, *Regulations of the Yellow River Water Regulation* was issued by the national government. This is the first national administrative regulations to regulate water dispatching of large rivers, clears the responsibility and authority of basin and regional management and scheduling, and establishes a new mode for water resources management of the Yellow River, namely, 'the national authority is responsible for water allocation; river basin authority is responsible for implementation of the water allocation scheme; and the provinces (autonomous regions) are responsible for water utilization and distribution, double control of the total water use and section flow, integrated regulation of important water intakes and reservoirs'. In terms of the benefit of the ten years water resources regulation from 1999 - 2000, in the river basin and related regions, the accumulative increment of GDP is 350.4 billion Yuan and that of grain production is 37.2 million tons.

3. To probe into water rights system and promote water-saving society construction

Strictly implement water extraction license system and water resources argumentation system for construction project, take control on the total water consumption and enhance water use efficiency. In 2003, pilot projects about water right transfer were carried out in Ningxia and Inner Mongolia. In these projects, the new industrial projects invested in improving the irrigation constructions. And the water saved in the irrigation was bought by the new industrial projects. The benefits of water transfer are remarkable. Up to now, 39 water right transfer projects has been approved in Ningxia and Inner Mongolia, the total transfer of water is 337 million m³, and the investment of water-saving projects is 2.5 billion Yuan, the average investment for per cubic meter of water is 7.46 Yuan. Through water right transfer, water resources are moved effectively towards industries with high water use efficiency. What is more, under the premise of no increment in total water use, it can satisfy the newly increased water demand of social-economical development, and promote the adjustment of industrial structure and transformation of economic development mode.

4. To strengthen water resources protection and obviously improve the water ecological environment

We have built the water conservation planning system of the basin, defined 346 important water function zones which have been approved by the State Council, checked and ratified the pollutant carrying capacity, and made the control requirements of the total pollutants discharged into rivers in different level years. We focused the 56 buffer zones at the provincial boundaries, strengthened the management of water function zones in accordance with the law, and had completed the verification of neary 2 000 sewage outlets along the river. We also improved the emergency response mechanism for sudden water pollution incident, and have successfully dealt with a number of water pollution incidents. We sought to improve the overall capability of water quality monitoring and the construction of monitoring network system. As a result, the monitoring coverage of the important water function zone has been gradually increased, and 75 provincial sections have been achieved full coverage of water quality monitoring.

Currently, the water quality of the Yellow River main stream was significantly improved, and the deterioration trend of estuary ecosystem has been effectively curbed. In main stream, the reach length with water quality of I - III category accounts for 85% of the total length, increased by 15% in comparison with that in 2000. In addition, the area of estuarine delta wetlands increased over 250 square kilometers, biodiversity is significantly improved, and compared with 1990, bird species in the Yellow River Delta National Nature Reserve increased by 109 kinds.

Ladies and gentlemen,

After all these efforts, we have gained considerable achievements for mitigating the contradiction between supply and demand of Yellow River water resources, as well as providing powerful support for sustainable social-economic development. However, the essential characteristic of the Yellow River, namely the water resources shortage, has remained unchanged. In the future, with the increase of water demand, the contradiction between water supply and demand is likely to be more serious, and the mission of water resources management and protection would be more complicated and arduous.

The Chinese Government attaches great importance to the issues of water. In 2011, a water conservancy conference with the highest level was held by the central government. In this conference, significant strategic deployment about speeding up the reform in water conservancy section was put forward. Meanwhile, the water conservancy was raised to the strategic height and it is related to security of flood control, water supply, provisions supply, economy, ecology and the whole nation. In addition, the strict water resources management was taken as the strategic measure to accelerate the transformation of economic development mode in the conference. In this January, the state council issued the opinions about the most-strict implementation of the water resources management system.

The nature of the most-strict water resources management system is to promote sustainable use of the water resources and economic and social sustainable development in the basin, while the core of which is the implementation of the "three red lines", namely: the water resources utilization total quantity control, water resources utilization efficiency control and the effluent sewage volume control of water function zone. Meanwhile, we should make full use of the water resources functions such as basic, constraint, controlling and guiding; establish the 'bottom-up

mechanism' of water resources saving and protection. These are beneficial for the basin economic structure adjustment and development mode transformation, as well as for the harmony among social-economic development, water resources and water environment carrying capacity, so as to achieve the harmony, sustainability, co-development and mutual promotion between the water resources utilization and social-economic development.

Therefore, we will take the following measures:

1. Strengthen the top-level design

To achieve constantly improving the planning system of management and development of the Yellow River, we should carry out review and formulation of the comprehensive and specialized planning, for instance, river basin comprehensive planning, river basin (regions) planning of long-term water supply and demand, basin irrigation development planning, river water resources protection planning. Meanwhile, it is essential to strengthen guidance and restraint function of the planning, so that the overall layout of Yellow River management and development, as well as the optimization of water resources allocation, conservation and protection of water resources, are consistent with the national major function oriented zoning, and are also in agreement with population, resources, environment, with the economic-social development in the basin.

2. Strengthen the system construction.

The systems to be constructed or reinforced include the following aspects.

Firstly, further establish the most-strict water resource management system, such as resources argumentation for all the construction projects, water extraction license and pollutant discharge outlet approval. It is also necessary to carry out the planning water resources argumentation to impose strict constraints on the construction of high water consumption and heavy pollution projects in water shortage areas and ecological fragile areas, comprehensively promote the construction of water-saving and anti-pollution social.

What's more, for the regions where water resources utilization and total amount of pollutant discharge has exceeded the red line, the further approval for more water and pollutant discharge will be limited. In these areas, water right transfer is recommended to get the water licenses for the

new projects.

3. Strengthen supervision and coordination.

To form a powerful force to implement the most strict water resources management, we will seek to build up a water resources management system and mechanism that engaging the basin and regional organizations, and also establish the water resources consultation mechanism that involving all the stakeholders. As a constraint index, the 'three red lines' will be included in the economic and social development comprehensive evaluation index system of the provinces (autonomous regions) along the Yellow River. In addition, it is of great importance to perfect the public participation mechanism, and regularly publish the implementation progress of 'three red lines', so as to develop a supervision mechanism with wide social participation.

4. Strengthen ability construction

It is required to enforce the fundamental capability building for the most strict water resources management and constantly enhance the water quality monitoring network of water use sections and provincial sections. Within the next three years, we will strive to equip all the provincial sections and 90% of all water use amount in the main stream with the water quality and quantity monitoring facilities. Based on the good job of water allocation on the tributaries, the scope of water monitoring should be gradually expanded. Moreover, we should further improve our capability for water resources monitoring and management, through improving the water dispatching and management system and the decision support system for water resource conservation.

Ladies and Gentlemen:

Water is an origin of life, an essential element for production, and a basis for ecology. It is an inevitable choice for sustainable development and river basin water rights protection to implement of the most strict water resources management system, and it needs the co-participation and long-term efforts of the whole society. We would like to cooperate with the colleagues from all over the world, to share some successful experiences, to crack the tough issues we are facing, and to contribute to the sustainable economic-social development and improvement of water ecological environment!

Thank you!

φ R103
28/9/12 (C)



黄河国际论坛
2009
SINCE YIRF

Sustainable Yellow River Water
Resources Management

可持续的黄河水资源管理

陈小江 Chen Xiaojiang



2012年9月24-28日 中国 郑州

可持续发展的黄河水资源管理

陈小江

(水利部黄河水利委员会主任)

各位来宾,女士们、先生们:

今天,很高兴和大家一起在黄河国际论坛,就共同关心的流域可持续发展及河流用水权保障问题交流经验,研讨对策,分享成果。首先,我代表黄河水利委员会,对出席本次论坛的各位嘉宾表示诚挚的欢迎!

黄河是中华民族的母亲河,孕育了五千年光辉灿烂的中华文明。新中国成立以来,在中国政府的领导下,黄河治理开发与管理取得了举世瞩目的成就。在全面建设小康社会和国家现代化建设的进程中,治黄工作的全局性、战略性地位更加凸显。

进入本世纪,基于对中国水资源复杂情势和经济社会发展趋势的科学研判,中国政府提出了以人为本,人水和谐,以水资源可持续利用支撑经济社会可持续发展的治水新思路。黄河水利委员会对水资源统一管理 with 调度进行了积极探索和实践,成功应对了流域洪涝灾害、干旱缺水、生态恶化等问题,实现了黄河连续 13 年不断流,为流域及相关地区经济社会发展做出了重大贡献。

这里,我着重向大家谈谈黄河水资源管理的一些做法和体会。

1. 开展黄河可供水量分配,保障多方取用水权

黄河是中国最早进行流域分水的大江大河。1987年,中国政府批准了黄河可供水量分配方案。按照这一方案,正常来水年份,黄河天然径流量为 580 亿 m^3 ,其中分配流域内外 11 个省(区、市)用水 370 亿 m^3 ,河道内输沙和生态用水 210 亿 m^3 。该方案兼顾了经济社会发展用水和河流自身用水需求,为流域水资源开发利用和管理提供了基本依据。

2. 实施水资源统一管理 with 调度, 最大限度满足各方用水需求

1999年, 国家授权黄河水利委员会对黄河水资源实施统一管理与调度。2002年, 国家颁布新的《水法》, 明确了流域和区域相结合的水资源管理体制。2006年, 国家颁布了《黄河水量调度条例》, 这是中国第一部规范大江大河水量调度的行政法规, 它明确了流域和区域管理与调度的责任和权限, 确立了新的黄河水资源管理与调度模式, 即: 国家统一分配水量, 流域机构组织实施, 省(区)负责用水配水, 用水总量和断面流量双控制, 重要取水口和骨干水库统一调度。经对1999-2009年10年水量调度效益评估, 流域及相关地区累计增加国内生产总值3504亿元, 增产粮食3719万吨。

3. 探索建立水权制度, 推进节水型社会建设

严格实施取水许可制度和建设项目水资源论证制度, 控制用水总量, 提高用水效率。2003年, 在宁夏、内蒙古自治区开展水权转让试点, 由新增工业项目出资, 对灌区进行节水改造, 将输水过程中的损失水量节约下来, 有偿转让给新增工业项目。截至目前, 已批准宁夏、内蒙古39个水权转让项目, 合计转让水量3.37亿 m^3 , 节水工程总投资25.12亿元, 平均节约每方水工程投资7.46元。通过水权转让, 有效地促进了水资源向用水高效产业转移, 在不增加用水总量的前提下, 保障了经济社会发展新增用水需求, 推动了产业结构调整和经济发 展方式的转变。

4. 强化水资源保护, 水生态环境得到明显改善

构建流域水资源保护规划体系, 划定并经国务院批复的重要水功能区346个, 核定纳污能力, 提出不同水平年入河污染物总量控制要求。以56个省界缓冲区为重点, 依法强化水功能区的管理, 完成了近2000个人河排污口的核查。完善突发性水污染事件应急机制, 成功处置多起突发性水污染事件。全面加强水质监测能力和监测网络体系建设, 重要水功能区监测覆盖率逐步提高, 75个省界水质监测断面实现监测全覆盖。

目前, 黄河干流水质明显好转, 河口生态恶化趋势得到有效遏

制。干流Ⅰ-Ⅲ类水河长比例增至85%，比2000年增加15%。河口三角洲湿地面积增加250多平方公里，生物多样性明显提高，黄河三角洲国家级自然保护区鸟的种类增加了109种。

女士们、先生们：

经过各方面的努力，我们在缓解黄河水资源供需矛盾、支持流域经济可持续发展方面取得了一定成效，但黄河流域资源型缺水的基本属性没有改变，且随着流域经济社会发展用水需求的刚性增长，黄河水资源供需矛盾将更加突出，水资源管理与保护的 task 更加艰巨。

中国政府高度重视水的问题。2011年，召开最高规格的中央水利工作会议，对加快水利改革发展做出重大决策部署，把水利提高到事关防洪安全、供水安全、粮食安全、经济安全、生态安全和国家安全的战略高度，把严格水资源管理作为加快转变经济发展方式的战略举措。今年1月，国务院出台实行最严格水资源管理制度的意见。

最严格的水资源管理制度，其本质是促进流域水资源的可持续利用和流域经济社会可持续发展，其核心是落实“三条红线”，即：水资源开发利用控制红线、用水效率控制红线、水功能区限制纳污红线。要充分发挥水资源的基础性、约束性、控制性和先导性作用，建立水资源节约保护的“倒逼机制”，推进流域经济结构调整和发展方式转变；促进经济社会发展与水资源、水环境承载能力相协调，使水资源可持续利用与经济社会可持续发展和谐共生，协调发展。

为此，我们将采取以下措施：

1. 强化顶层设计

着力完善黄河治理开发与管理的规划体系，做好流域综合规划、流域(片)水中长期供求规划、流域灌溉发展规划、流域水资源保护规划等综合规划和专业规划的修订和编制，强化规划的指导和约束作用，使黄河治理开发总体布局、流域水资源优化配置和节约保护，同全国主体功能区划相衔接，同人口、资源、环境相协调，同流域经济社会发展相适应。

2. 强化制度建设

着力构建黄河流域最严格水资源管理制度体系,严格建设项目水资源论证、取水许可和入河排污口审批,积极开展规划水资源论证。对水资源短缺地区、生态脆弱地区,严格控制发展高耗水、重污染项目,全面推进节水防污型社会建设。对开发利用和入河污染物总量超标的地区,实行区域限批,新增取水项目一律通过水权转让获取取水指标。

3. 强化协调监督

着力构建流域和区域相结合的水资源管理体制与机制,积极探索建立由相关利益方参与的流域水资源管理议事协商机制,形成落实最严格水资源管理制度的强大合力。将“三条红线”作为约束性指标,纳入沿黄省(区)经济社会发展综合评价指标体系。完善公众参与机制,定期公告“三条红线”实施情况,形成社会广泛参与的监督机制。

4. 强化能力建设

着力完善用水、省际断面水量水质监测网络,力争用三年时间,实现对省际断面水量水质监测的全覆盖,干流用水监测达到总用水量的90%。在抓好支流水量分配的基础上,逐步扩大支流用水监测的范围。进一步完善水量调度管理系统和水资源保护决策支持系统,不断提升流域水资源监测和管理能力。

女士们、先生们:

水是生命之源,生产之要,生态之基。实行最严格的水资源管理制度,是流域可持续发展及河流用水权保障的必然选择,需要全社会的共同参与和长期努力。我们愿与各国同行分享这方面的成功经验,共同破解面临的难题,为推动流域经济社会可持续发展和水生态环境的改善做出新的贡献!

谢谢大家!

