

Original Research Article

The Influence of Agricultural Water Conservancy Project on Environment

Lei Yu, Tao Sun

School of Environment and Planning, Chengdu Water Conservancy University, Sichuan, China

ABSTRACT

In recent years, due to the rapid increase of China's economic level, agriculture and industry have developed vigorously, and the demand for electricity has increased accordingly. Water conservancy project construction investment is also increasing, too much water conservancy construction projects will inevitably affect the natural environment, the human environment. China's water conservancy and hydropower construction is facing a difficult task. In terms of environmental impact, compared with other projects, water conservancy and hydropower projects have prominent characteristics: the impact of a wide geographical area, affecting the population, the local social, economic and ecological environment is huge, the external environment on the project also exert a huge impact. The At present, the whole society has paid more and more attention to environmental problems, and the environmental quality has become higher and higher. Environmental problems have become one of the restrictive factors in the construction of water conservancy and hydropower projects. As the human environment continues to deteriorate, the public is increasingly concerned about environmental issues and sustainable development. At the same time, people are also aware that the impact of agricultural water conservancy construction on the environment is also twofold, so avoid or mitigate the adverse effects, Fully rational use, is the water conservancy workers in the construction of agricultural water conservancy planning must be carefully studied and to solve the important issues.

KEYWORDS: agricultural water conservancy; ecological environment; influence; countermeasures

1. Introduction

1.1. The purpose and meaning of the topic

China is a big agricultural country, agricultural production for the national economic development and social stability has a very important role, and the development of agriculture is inseparable from the development of water conservancy, the level of agricultural water level for agricultural production plays a decisive role. With the improvement of living standards, people's awareness of environmental protection is also growing, food safety awareness has also risen to a new level, people's attention to green food greatly improved, for agricultural water quality requirements are more stringent, especially aquaculture Industry, water quality determines the quality of aquaculture, once the water quality has been damaged, will seriously affect the development of aquaculture. The agricultural water conservancy is a systematic project, involving engineering, resources, environment, management and other aspects, to protect the ecological resources, we must always be vigilant mentality.

2. Analysis on the Current Situation of Agricultural Water Conservancy in China and Its Correlation

2.1. Literature Review of the Current Situation of Agricultural Water Development

Based on the study of the impact of agricultural water conservancy projects on the environment, the author finds that China's research on the main focus of its theoretical research: water conservancy development and environmental protection, countermeasures and other aspects of the study.

The author uses 'agricultural water conservancy', 'ecological environment', 'influence' and 'countermeasure' as the key words, and has searched CNKI Chinese journal full-text database, Baidu library. Expert research mostly concerned about the 'agricultural water conservancy project on the environmental impact' of the specific content, such as water conservancy construction, agricultural development, fertilizer use and aquaculture; 'Jilin agriculture' 2014, the author Liu Yongxiang mentioned, with the market economy Regulating the role and the continuous development and progress of society, agricultural production goals also change, in the past to yield for the pursuit of the basic rice, wheat, corn, rape and other crops, with the changes in market demand, vegetables, melons Fruit, nursery stock and flowers. have gradually become the main target of planting, this change in the industrial structure of agricultural water should also change, because the original agricultural water conservancy construction standards have also failed to meet the new industrial structure of crop irrigation, And the requirements of drought and drought, and now the production mode of rural areas in China is still a contract responsibility system, in the planning, construction, adjustment and other aspects of the lack of unified management, which is supporting the construction of agricultural water is not a small cause.

2.2. The impact of agricultural water conservancy construction on the natural environment

Literature review

At present, China's total annual water consumption has exceeded 600 billion cubic meters, the national average annual water shortage of more than 500 billion cubic meters, two-thirds of the city water shortage, and per capita water resources is only 2100 cubic meters, only the world's per capita level 28%, lower than the per capita arable land accounted for 12 percentage points lower.

Investment experts Agriculture, forestry, animal husbandry and fishery industry researcher Zheng Yujie that the reasons for the shortage of water resources in China, on the one hand because of our 'people more water less', and water pollution, water waste is very serious, resulting in China's per capita water resources is very small, only The world's per capita level of 28%; the other hand, China's spatial and temporal distribution of water resources uneven, the Yangtze River and its south of the region covers only 36.5% of the country's total water resources accounted for 81% of the country; The land area of the northern region accounts for 63.5% of the country's total, and its water resources account for only 19% of the total water resources.

Investment research director Zhang Yanlin pointed out that China's water resources utilization is relatively extensive, the current effective use of farmland irrigation coefficient is low, only 0.5, while the international advanced level has reached 0.8. Therefore, China's top priority is to use water-saving irrigation technology and other methods to improve water efficiency, China if the farmland irrigation water efficiency can be raised to 0.7, the existing water resources can basically meet the normal operation of China's grain production.

From the access to the literature, China's agricultural water use in the lower coefficient, water waste, water pollution is very serious, low per capita water resources, uneven distribution now.

(1) The issue of ecological environment carrying capacity. The development of farmland water conservancy facilities cannot destroy the local ecology, therefore, in the development and utilization of resources, the first is to maintain the river's own ecological protection, which is a sound ecological system guarantee. Ecological water demand, including river drainage and drainage needs water, lake depression ecological environment requires water.

(2) The impact of the hydrological environment. The construction of water conservancy project is to make a change to the development of the original natural river structure in combination with the actual demand of water conservancy. On the basis of natural river, the construction of water conservancy project will have a certain influence on the hydrological environment.

(3) Water resources carrying capacity problems. In a certain sense, the water is not renewable resources, once the water is destroyed, will not be able to recover in the short term, take decades or even thousands of years to recover, the water itself is also a certain amount of water balance, such as water evaporation, infiltration underground water, contaminated water and row of hydrochloric acid water, need water.

(4) The geological structure of the investigation is not meticulous, the project site is not appropriate to cause a large area of ecological deterioration, a large area of bank collapse, causing disaster earthquake, underground water level rise will cause salt salty problem.

(5) The impact of construction on the local environment. Due to the lack of standardized management of construction, extensive construction caused a large area of environmental pollution, this type of environmental impact can be carefully designed and constructed, strengthen the management of production can avoid or reduce natural disasters, or through the natural ecosystem to establish Ecological balance.

(6) The impact of agricultural fertilizers on water resources. In agricultural production, pesticide fertilizer and the use of plastic film has increased significantly year after year trend. Not only brought the soil of the knot, acidification, soil and fertility deterioration. More importantly, chemical fertilizers, pesticides and other pollutants through farmland

drainage and surface runoff, into the surface water, causing surface water eutrophication. At the same time, and into the groundwater, seriously affecting the surface water and groundwater quality. This is the current agricultural planting on the face of major problems, polluted the environment soil, washed by the rain, the natural flow into the rivers and lakes, resulting in rivers and lakes water fertilizer pesticide content on the natural sun and water cannot be completely competitive, affecting the water resources.

(7) Rural livestock and poultry breeding industry to bring water pollution. Livestock and poultry breeding industry from the scattered farmers to intensive farming, factory farming, livestock and poultry pollution significantly expanded, the gradual increase in water use, slaughterhouses, hatcheries are often directly animal blood, waste water, livestock feces and eggs Shell, into the nearby water. There is no standardized treatment of polluted water, resulting in a large number of nitrogen, phosphorus loss and river water body black, resulting in water environment affected.

(8) The problem of agricultural water shortage increasingly water conservancy facilities abandoned

Mao Zedong put forward the 'water conservancy is the lifeblood of agriculture', the national farmland basic construction, the construction of reservoir 84,000 (total capacity of 400 billion cubic), embankment 170,000 kilometers, the new irrigation area of 300000000 acres, the irrigation power from 12.8 million horsepower increased to 71.22 million power, a fundamental solution to the problem of drought in grain-producing areas. For the development of agriculture, for food production has laid a solid foundation. This is more than 30 years people out of the collective economic form of labor, people in their own interests as the center, lost the ability to organize labor, Chairman Mao's hard work to build water conservancy facilities are lack of maintenance, and now there is a large part of the water conservancy facilities aging, damage, waste cannot be used again. Ministry of Finance officials said that the current (2011) the country's 1.8 billion mu of arable land, 55% of the arable land entirely rely on the day to eat, large-scale irrigation area damage rate of nearly 40% of the key, small and medium-sized irrigation area dry branch channel rate of only about 50% Arrived at the end of the farmland is the aging of the aging system is serious, the benefits of attenuation. The data show that the average annual investment in water investment accounted for 6.7% of the country's capital construction by 1980 and 2.84% in 1980 to 2007.

With the collapse of the collective economy, Chairman Mao era of rural small water conservancy projects have abandoned, large water conservancy projects because there is no small water conservancy project supporting difficult to play its due role. 1998 rainfall is far less than in 1954, but there have been major floods, and rural small water projects are abandoned not unrelated. In recent years, the late year of drought in rural areas is a direct result of rural small water projects have deserted. Farming a large number of application of chemical fertilizers, pesticides, breeding a large number of the use of hormones is led to soil compaction, livestock diseases frequently. Chaos development, chaos is to make our country's valuable land resources decreased year after year.

In the 1970s, China completed the most magnificent agricultural irrigation revolution in human history and built the world's largest irrigation agriculture system. On the Yellow River, is in the basin and the downstream Huang-Huai-Hai Plain to build a huge scale of irrigation works. Due to drought and water concentration, and reservoir water storage capacity is relatively inadequate, there has been a mild 'seasonal flow.' The average annual drying time is only 14 days, drying time only occurred in the spring drought season.

The late 80s, the Yellow River drying up the 'malignant', drying time from the spring season to the annual full of annual cross-flow has been common. The annual cut-off days are expanded to 100 days, and the cut-off channels extend from Shandong to Henan. In 1997, Lijin station cut off 226 days, the river for 330 days without dripping into the sea; Kaifeng following 800 km river Yimingchuan, breaking almost equal to the middle reaches of the Yellow River boundary block --- Zhengzhou Garden mouth.

The current farming model causes institutional drought. 'Buns to households' end of the Chinese classical agriculture 'cultivate soil moisture' system, reversing the Mao Zedong era established 'irrigation water conservation agriculture' direction, thus increasing the farmland evaporation. According to the experimental results, only the Huang-Huai-Hai basin, due to abandon the 'water conservation farming' and increase the farmland evaporation up to 89 billion m³; close to a Yellow River plus two Haihe, equivalent to 10 'South-North' Flood 'the most fundamental cause. The mainstream view is that the cause of 'flood' is due to: reduced precipitation, increased temperature; industrial and urban water increased; forest vegetation reduction, in fact, these are not the main reason. The main reason is the current farming model in China. In the arid and semi-arid agricultural areas in northern China, the annual water demand is about 1000mm, the annual precipitation is only 200-600mm, and the seasonal distribution of precipitation is very uneven. In the ancient China, where the society does not have the ability to organize large-scale irrigation, in order to solve this very sharp supply and water demand, the working people invented the farming system with 'moisture conservation' as the core. 'Moisture' is 'operating water', the so-called business, that is, through deep plowing, fine rake, ground hoe and other means to minimize the evaporation of soil moisture, so that as much water to meet crop transpiration.

Unfortunately, this fear became a reality in the 1980s. Since the 'package to households', the small farmers have thrown away the hands of the 'tight son' hoes, leaving the ancestors who did two thousand years of 'soil moisture', in the planting and harvest between the long wait Another kind of old and emerging 'agriculture' - mahjong. 'Mahjong' is the

whole process of agriculture 'pioneers - planting - mature - harvest - storage - developed' imitation. Experiments show that from the 'intensive', 'water conservation till' to just species, pouring, income 'lazy farming', will cause a lot of water loss: give up 'loose soil moisture' can increase the '1/2 of the soil evaporation, or '1/4 of the field total hair'. Confirmed the folk 'hoe three provinces one' argument; hoe three times can be less poured a water. This is not a small figure! Not including the northeast of China's northern China --- 'Huang-Huaihai River Basin' The existing area of 70 million mu of arable land (another information of 585 million mu); annual rainfall of 566mm; irrigation area of 346 million mu, 2005 irrigation water was 91.5 billion m³; 7 million mu of farmland, including precipitation and irrigation water, including the total 'water' to 355.6 billion m³. Due to give up the 'soil moisture' to increase the total amount of field production every year: 355.6 billion m³ × 1/4 = 89 billion m³; close to one of the Yellow River plus two Haihe natural water; the equivalent of 10 'Midline a project! 89 billion m³ of figures, reveals the north of China,' flood 'the most direct and fundamental reason.

2.3. Literature Review on the Impact of Agricultural Water Conservancy Project on Ecological Environment

2.3.1 Raise awareness of agricultural water conservancy

Water is the basis of agriculture, but also the lifeblood of agriculture, there is no good water conservancy, agricultural development and agricultural modernization cannot be guaranteed, there is no basis for flood control and waterlogging facilities, agricultural stability, income efficiency is impossible to achieve. While the agricultural base if unstable, is bound to affect the stability of rural society, affecting the development of the national economy, showing how important agricultural water conservancy. Although the importance of agricultural water is well known, but there are still many problems to be solved in the specific operation and implementation, it is necessary to pay attention from the top to the bottom, the national system level to protect the construction of agricultural water conservancy, and effectively improve the Agricultural water conservancy awareness, to ensure that capital investment, according to local conditions, according to the needs of the market, strengthen the agricultural water infrastructure construction, with advanced technology and equipment to build agricultural water conservancy, to ensure the stable development of agriculture and accelerate the process of agricultural modernization.

2.3.2 Strengthen the construction of agricultural water conservancy team

Water conservancy team is the undertaker of water conservancy development, and good agricultural water conservancy team is very important for the development of water conservancy. To continue to strengthen the building of the team, cited the modern scientific and technological personnel, the business ability and high level of knowledge of high-tech talent to enrich the first line of water conservancy construction management and effectively improve the level of construction management. In the flood control and drought relief, irrigation and drainage, water resources management and other aspects of strengthening management, increase water technology demonstration and promotion efforts to improve the level of agricultural water conservancy construction and management, as soon as possible to achieve public service and business services, separation, comprehensive services and professional Service, technical services and guidance services in harmony, and strive to improve service levels and quality of service.

2.3.3 Promote water-saving irrigation technology

China is a serious shortage of water, the relative lack of water resources, and because of economic development, agricultural water conservancy infrastructure construction is relatively backward, early water conservancy facilities, due to the economic and technical conditions at that time, some of the basic structure is relatively poor, poor technical conditions, cannot meet the needs of the development of modern agricultural water conservancy, coupled with some facilities in disrepair, there is a serious waste in the use of water resources, so in the agricultural structure adjustment at the same time, update equipment and facilities, the implementation of water-saving irrigation Large water-saving efforts to reduce the waste of water resources. Water-saving irrigation is a very important revolutionary change, to increase the water-saving facilities and water-saving technology to promote the work of the transformation of agricultural production methods, improve agricultural productivity has an important role.

2.3.4 Improve farmland irrigation and drainage standards

With the deepening of the adjustment of agricultural structure, the irrigation and drainage, the level of waterlogging put forward higher and higher requirements, to strengthen the irrigation, drainage, down technical standards. In the future, the basic construction of farmland water conservancy should meet the needs of agricultural structural adjustment, effectively improve the water supply guarantee rate and farmland drainage capacity standards, and better provide high standard irrigation and drainage services for agricultural production. At the same time, it is necessary to strengthen the

planning of agricultural industrial structure, in order to facilitate the farmland water conservancy facilities to play a better role.

2.3.5 Increase the agricultural water environment management efforts

In recent years, with the development of industry and the change of environment, the water quality problem is already a very urgent and urgent problem. The deterioration of water quality has seriously affected the safety of agricultural production and food production safety, animal breeding, grain cultivation, aquatic product Aquaculture and so on are affected by water, coupled with soil erosion more seriously affected the ecological environment of agriculture and agricultural sustainable development, so strengthen the rural water environment management, protect rural water resources, improve the living conditions of rural residents, create good water The ecological environment is becoming more and more important.

3. Research methods

(1) Literature search method (2) Interview method (3) Observation method

3.1. Basic situation of agricultural water conservancy team

Lack of talent, with the relevant professional background of the highly educated talent shortage, the current water conservancy statistics team staff, most of the old workers from the original composition of these old tools rich experience, but because of their own knowledge level And most of the work in the new situation feel powerless; at the same time because of the nature of agricultural water conservancy work is hard, often in harsh conditions of operation, making the vast majority of professional background with a high degree of professional talent is not willing to accept such a job, Due to long-term vicious cycle makes the lack of agricultural water conservancy engineering professionals, the overall level of knowledge of the team is not high.

Serious distribution of talent, grass-roots team knowledge and technical reserves are weak, most of our senior staff are concentrated in the provincial and municipal departments, and township agricultural water conservancy engineering department no senior staff, grass-roots working conditions cannot meet the high-level talent Requirements, resulting in high-level talent is not willing to serve at the grassroots level.

Serious loss of agricultural water resources, due to the social work of other departments is good, the working environment is good, so that some senior to long for more high-quality work, making the grassroots level of agricultural water loss, in some major projects, often appear The shortage of professionals is a great challenge for the development of the work.

3.2. Basic status of aquaculture

Search data show the impact of aquaculture on water quality

Dissolved oxygen (DO) decreased. Dissolved oxygen is one of the necessary indicators to measure the water quality of water bodies, and it is also an important condition for the survival of aquaculture. Good water quality, the dissolved oxygen must be maintained at 5-10mg / L or so. Oxygenation and oxygen consumption in aquaculture can make the content of dissolved oxygen in water have time and space changes. When the oxygen release rate of aquaculture is less than the oxygen consumption rate is less than the oxygen consumption rate, the dissolved oxygen content in water is reduced to 4mg / L, the survival of aquaculture will be threatened, and even a large number of deaths, when the dissolved oxygen in water, the water will appear anaerobic decomposition of water, water quality gradually decreased, the water environment suffered a relatively large impact.

3.3. Underground water intake of agricultural water conservancy projects

The impact of agricultural water conservancy projects on the environment of water intake Agricultural water conservancy project water consumption is very large, will inevitably agricultural water conservancy project water resources caused by a lot of pressure. Whether the water intake of agricultural water projects is in the river or the lake, by the seasonal impact of China's climate, in the less precipitation season, agricultural water conservancy project on the water resources of the water is very obvious, and sometimes in the dry season Water desirable. Even in the summer of more precipitation, agricultural water conservancy projects will also affect the underground water storage of water, the groundwater level may not be as before. Most of our rivers have not built enough water storage projects, precipitation more season, most of the water into the sea white, in the less precipitation season, some rivers and even drying up.

4. Countermeasures for Environmental Impacts of Agricultural Water Conservancy Projects

The author from the literature data retrieval, interviews, observation of three aspects of a month-long survey, summed up the above agricultural water conservancy projects affect the environment. According to the reasons, the author will put forward the improvement of the environment.

4.1. To improve the overall quality of agricultural water conservancy team

4.1.1 Strengthen diligence

For the work of water conservancy engineering staff, given regular training and assessment, assessment of non-compliance practitioners cannot engage in occupation, has been assessed so far. Repeated assessment of non-compliance can be changed positions or dismissed.

4.1.2 Strengthen the hard work.

To establish a dare to be responsible, the courage to bear the heavy responsibility of the work, the real intentions of things, intentions, intentions, with a new concept, a solid style, in the hard work to seek development.

4.1.3 Improve the working environment

For the grassroots working environment conditions particularly poor areas to give economic subsidies to encourage highly educated high-tech water conservancy personnel in the grassroots practitioners, to further improve the economic treatment of grassroots cadres. We should try to narrow the gap between remote townships and suburban towns, poor towns and affluent towns. Set up special positions and conditions, come up with specialized indicators for outstanding water conservancy practitioner recruitment, in order to encourage outstanding staff to take root work to attract rural outstanding youth to return home business.

Strengthen the unity of harmony. Always adhere to the democratic centralism, so that stresses the righteousness, talk about the overall situation, stresses the principle, stresses unity, between people live in harmony, the formation of unity and cooperation, smooth and orderly, fair and equitable atmosphere.

4.2. Specification of aquaculture

Unified planning of beach aquaculture. The state plans to use watersheds to identify waters and beaches that can be used in aquaculture. Units and individuals shall use the national plan to determine all the waters and beaches for the aquaculture industry. The user shall apply to the fishery administrative department of the local people's government at or above the county level and issue the aquaculture certificate by the people's government at the same level, Waters, tidal flats engaged in aquaculture production. The specific procedures for the issuance of aquaculture certificates shall be prescribed by the State Council. Collectively owned or owned by the collective use of agricultural collective economic organizations, water, beach, can be personally or collectively contracted, engaged in aquaculture production.

The use of national planning to determine the aquaculture industry for all the waters, the beach in the production of aquaculture production units and individuals should be to the waters, the beach where the people's governments above the county level fishery administrative departments to apply, issued by the people's government at the level of aquaculture, Permit the use of the waters, tidal flats engaged in aquaculture production. Contracted collectively owned or owned by the collective economic organizations to use the waters, tidal flats engaged in aquaculture production, according to the law after signing the contract, you can apply to the local people's government at or above the county level to receive aquaculture permits, the local people's government to be registered, certificate. If the registration certificate is changed, it shall go to the original issuing authority to handle the alteration registration procedure. Engaged in aquaculture units and individuals need to hold a certificate of aquaculture can apply for a certificate of origin of aquatic products, pollution-free aquatic products base qualifications.

Feed pollution. Engaged in aquaculture should protect the ecological environment of the water, scientifically determine the density of farming, rational feeding and use of drugs to prevent pollution of the water environment. The discharge of oil from the ship, domestic sewage, should meet the ship pollutant discharge standards. Ships engaged in marine shipping into the river and the port, should comply with the inland river pollutant discharge standards. The residual oil and waste oil of the ship shall be recovered and prohibited from being discharged into the water body. It is forbidden to dump ship waste into water body. Ships carrying transport of oil or toxic goods, should be taken to prevent overflow and leakage measures to prevent water pollution caused by falling water.

4.3. Reasonable extraction of groundwater

Groundwater pollution control work. Relatively backward groundwater pollution control of the relevant laws and regulations, but from the actual point of view it, cannot sit idly by many pollution incidents, although because of the backward laws and regulations. On the one hand, from the national situation, the relevant laws and regulations should be strengthened to develop, on the other hand the local laws and regulations should be put into place and the actual situation. From the overall point of view, to prevent the implementation of the process of fraud, must establish the necessary information feedback closed loop. To prohibit the use of seepage, seepage, cracks and cave discharge, dumping of toxic pollutants containing sewage, pathogens containing sewage and other waste; prohibit the use of non-leakage measures trenches, ponds and other transport or storage containing toxic pollution Waste water, pathogens containing sewage and other wastes; multi-layer groundwater aquatic water quality differences should be stratified mining; contaminated diving and confined water, not mixed mining; the construction of underground engineering facilities or carried out Underground exploration, mining and other activities, should take protective measures to prevent groundwater pollution; artificial recharge recharge groundwater, shall not deteriorate the groundwater quality.

Improve the efficiency of water use. China's water resources development and utilization rate is higher, but the use of low efficiency, improve water use efficiency and utilization efficiency is great potential to be tapped. Such as improving the scientific and technological content of water industry, industrial water, advanced technology and advanced technology, agriculture to promote water-saving irrigation technology. Such as 'drip irrigation under the film', the effect is good, high water saving. Promote channel seepage prevention technology to improve the number of circulating water. Urban water and sewage treatment, after purification a number of use, to take advanced water-saving facilities and water-saving measures to solve the city water 'run, run, drop, drain' phenomenon. To build a large reservoir, the use of atmospheric precipitation (rain) effective use. In all aspects, to take effective measures, in a comprehensive water-saving links, and actively open up new sources of water, improve water use efficiency and utilization efficiency.

Management of strong groundwater resources. The exploitation of groundwater, the implementation of drilling declaration system and water abstraction permit system. The groundwater resources shall be collected at the beginning of each year and shall be submitted to the county (city, district) water administrative department at the beginning of each year. After the examination by the water administrative department, the annual water conservancy construction plan shall be included and published by the county Level people's government approval and approval, for water abstraction permit. Drilling must adhere to the first permit, approved water intake, and then drilling wells, any other units may not be approved by the owner of drilling wells, but not unauthorized drilling or first cut after the play. Strict control of land reclamation, all new development projects, especially land development projects, to adhere to the water development, set the project, need to dig wells to extract groundwater, first by the county or county people's governments above the water administrative department Water resources demonstration, through the water before the permit, otherwise no project. In view of the current situation and new problems in the management of groundwater resources, it is necessary to formulate relevant rules and regulations in a timely manner, improve the system of laws and regulations, and incorporate the main body behavior into the more specific, more specific, more convenient operation and more targeted regulations The

Establish and improve the super-mining area groundwater dynamic monitoring network. Provincial people's government water administrative departments to scientific planning and rational allocation of groundwater monitoring wells, the establishment and improvement of groundwater dynamic monitoring network and management information system. Groundwater development may be due to groundwater sinking due to groundwater sinking, groundwater disturbance and other side effects within the range of water as a reasonable amount of water, estimated for one year of rain soaked in the amount of land 20.5 billion m³ of 70% Amounting to 1.4 billion m³. In order to systematically develop and effectively manage and manage groundwater, it is necessary to conduct a nationwide survey of groundwater and develop a basic plan for integrated groundwater management. The content of the first groundwater analysis of the status of the country. According to the administrative area to collect information on the actual situation of the use of groundwater conservation, on the basis of this analysis, including economic and social factors around the comprehensive status quo, the national sub-large and small watershed units, yearly extensive hydrogeological survey, detailed Of the groundwater preservation characteristics, made of hydrogeological maps.

In addition, the establishment and operation of groundwater observation network. According to the basin, the regional continuous observation and analysis of typical groundwater level, water quality changes in the real, as the basis for the development of groundwater data used in the national groundwater observation network and the national groundwater observation network transport city group, in the existing observation network foundation On the establishment of 30 ~ 40 auxiliary observation network, continuous investigation and analysis of water level water quality changes. Synthesize all the information about groundwater, make a database, and analyze the characteristics of groundwater, such as water quality, and develop software that provides effective support for underground development and preservation decisions based on information that we fear.

Establish water market. The establishment of water resources market is the need for the sustainable development of water resources, water supply and demand between the inevitably increase in the contradiction between the product. For the establishment of the water market, we should implement the 'user pay' economic principles, the use of economic means and legal means to improve the urban and rural areas of water shortage situation.

Conclusion

Through the above situation, we can get the following conclusions: fertilizer, pesticides, plastic sheeting and animal husbandry pollution is increasing year by year. Agricultural pollution has become a large source of non-point source pollution, water environmental capacity is gradually reduced, the proportion of water pollution is growing, has affected the quantity and quality of agricultural products, food safety is affected. The development of ecological agriculture, limiting pesticides, chemical fertilizers, the amount of plastic sheeting, the rational development of aquaculture, the promotion of 'straw bioreactor' technology and 'biogas project' is imperative. Agricultural water conservancy unreasonable development, leading to landslides, resulting in natural disasters, due to the importance of agricultural water development, to be rational use, sustainable development.

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