

Innovative Ideas and Key Strategies for Control of Water Pollution Rural Area

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Abstract. Rural areas are more primitive areas, but with the continuous development of society, the production of rural areas, residents' domestic water discharge and sewage discharge of urban enterprises have polluted rural water resources, and consequently led to the destruction of the ecological environment. In order to solve this problem fundamentally, we should first start from the ideological point of view and improve the environmental protection consciousness of rural residents. Secondly, we should take corresponding measures to control the water pollution in rural areas to achieve reasonable planning and layout, and put forward innovative ideas and effective countermeasures for controlling water pollution in rural areas to make rural economy and environment develop in a coordinated way.

In order to realize beautiful countryside, environmental problems must be paid attention to, and water resources are the material basis for human survival, so the control of water pollution in rural areas must be paid attention to. Since the reform and opening up, the material and living standards in rural areas have also been greatly improved. The rural economy is developing rapidly, and the intensification of rural agriculture is becoming more and more obvious, and people are also beginning to seek the most benefits. In order to improve the output of crops, a variety of chemicals have been used, ignoring the impact of chemicals on rural environment. As a result, the problem of water pollution has become more and more serious, even affecting the normal life of rural residents. Therefore, it is necessary to put forward innovative ideas and take effective countermeasures to control water pollution in rural areas.

1. Causes of Water Pollution in Rural Areas

Poor sanitation, difficult treatment and poor water quality are common problems in rural areas of China. Especially, the sewage discharged from factories, domestic sewage of residents and the use of industrial fertilizers have caused great pollution to rural water sources. In addition, the sewage treatment systems in most rural areas are not very perfect. Environmental awareness of villager is also weak, which brings some difficulties to the control of water pollution. At present, the main causes of water pollution in rural areas of China are as follows.

(1) Agricultural Production has Caused Water Pollution.

In order to promote economic development, most rural areas in China have increased agricultural productivity, which has also caused the problem of water pollution to increase. In the process of agricultural production, fertilizers and pesticides are indispensable because they can effectively eliminate agricultural pests and diseases and increase agricultural production, but at the same time, the use of chemical fertilizers and pesticides has caused a certain degree of soil pollution in rural areas. In the process of watering or raining, harmful substances in the soil will penetrate into the groundwater, which will pollute the drinking water in the rural areas and affect people's health^[1].

(2) Water Pollution is Caused by Domestic Sewage of Urban Residents.

Not only the domestic sewage of residents living in cities will cause water pollution, but in rural areas, the domestic sewage of urban residents will also cause great pollution to water quality. With the development of the times, the living standards in rural areas have also been significantly improved. Various new types of household sanitary ware and washing machines have entered many rural families, which will inevitably increase the discharge of domestic sewage. However, the sewage treatment capacity in rural areas is not strong, and it can not effectively treat the discharge

of domestic sewage. Excess sewage can only be discharged to the surface, which leads to pollution of lakes and underground drinking water in rural water sources ^[2].

(3) The Environmental Awareness of Rural Residents is Relatively Weak.

In our country, people's participation in environmental protection is not very high. In the control of water pollution in rural areas, the awareness and governance of rural residents is obviously insufficient. Most rural residents believe that the discharge of domestic water is a normal phenomenon, and residents are more dependent on the government. They think that sewage treatment is a matter of the government and has nothing to do with themselves, lacking environmental awareness.

(4) Water Pollution is Caused by the Production of Township Enterprises.

The educational level of rural residents is generally not very high, so the employment cost of township enterprises is obviously lower, the rent of warehouse land and the purchase of raw materials are more affordable, so many enterprises will choose to build factories in villages and towns, which brings the income of township residents. At the same time, the company will also discharge some sewage in the production process, especially in order to reduce costs, the sewage treatment facilities are not perfect, which increases the speed of water pollution ^[3]. Some enterprise managers are weak in environmental protection consciousness. Some chemical wastewater is discharged directly into lakes without treatment, which pollutes villagers' drinking water greatly.

2. Innovative Thoughts on the Control of Water Pollution in Rural Areas

(1) Enhancing The Awareness of Environmental Protection of Rural Residents

The domestic sewage produced by rural residents in their daily life is also an important component of water pollution, and they are also victims of water pollution. Therefore, it is necessary to raise the awareness of environmental protection of rural residents, let them realize the harm caused by water pollution to arouse rural residents' attention to the control of water pollution. To improve the environmental protection awareness of rural residents, the cadres of rural towns and villages can organize environmental protection lectures to make them aware of the causes of water pollution and the harm it will bring, and to tell rural residents how to use water correctly in their daily life to form the awareness of saving water and protecting water resources ^[4].

(2) Strengthening the Monitoring of Water Quality in Rural Areas

If we want to do a good job in controlling water pollution in rural areas, we must first make clear what factors rural water pollution contains, most of which are industrial pollution, domestic water pollution, domestic waste and chemical fertilizer and pesticide pollution. To control water pollution, it is necessary to understand the local water quality, strengthen the monitoring of water quality in rural areas, and understand what pollutants are contained in water quality to take appropriate measures to control water pollution.

(3) Adopting Corresponding Policies and Measures

The development of control of water pollution in rural areas needs to adopt corresponding policy measures to promote. It is mainly around the concept of rural agricultural cleaner production, including the introduction of cleaning supplies, the development of clean production technology, and clean output. In order to improve the enthusiasm of rural residents for water pollution control, a certain incentive mechanism can be formulated. The government departments give certain subsidies to farmers who use clean technology and reuse of wastewater, and encourage villagers to participate in control of water pollution ^[5].

3. The Countermeasures for Control of Water Pollution in Rural Areas

(1) To Improve Rural Sewage Treatment System

In order to deal with the control problem of rural domestic sewage, we must first identify the main causes of sewage generation, analyze what pollutants are contained in the sewage, what kind of methods should be adopted for treatment, and combine the concept of modern green production to improve domestic sewage and agriculture. The treatment system for producing sewage and

industrial sewage uses different pipeline facilities to establish a sewage treatment terminal, and finally carries out centralized treatment to strengthen the treatment capacity of rural sewage. The relevant departments of sewage treatment should cooperate with the colleges and universities specialized in sewage treatment in universities to jointly study high-efficiency and low-cost sewage treatment systems, and do their best to achieve safe recycling and repeated recycling of domestic sewage.

(2) To Adopt Modern Eco-Agricultural Production Technology

In rural areas, the cultivation of crops is the main source of income for farmers. In the process of agricultural production, many farmers will choose to use fertilizers and pesticides to promote economic growth in order to reduce pests and diseases and increase the growth rate of crops. However, some fertilizers and pesticides will cause great harm to soil and water quality. Therefore, modern eco-agriculture production techniques should be adopted, and green organic fertilizers should be adopted to appropriately adjust and increase the proportion of nitrogen, phosphorus and potassium in farmland. New agricultural energy-saving irrigation technologies, such as drip irrigation technology, should be adopted to reduce waste of water resources and improve the utilization rate of fertilizers; farmland rotation technology is used to enhance land utilization and prevent soil erosion; a water storage system can be established in farmland to collect natural rainwater for irrigation; the extraction of underground drinking water is reduced; agricultural animal husbandry is combined with planting, and natural organic fertilizer is used to achieve ecological production^[6].

(3) To Plan The Layout Of Township Enterprises Reasonably

The emergence of township enterprises has brought a lot of income to rural residents. Now township enterprises have become the core driving force for the development of productive forces in many rural areas, but in this process, they also bring certain harm to the environment. Therefore, if enterprises want to produce and operate in villages and towns, they must take environmental protection into account. They can't destroy the environment for economic production. This requires the relevant government departments to plan the layout of township enterprises reasonably. On the premise of fully understanding the production scale, raw materials, production process and excreta of township enterprises, the production location and sewage treatment system of enterprises should be planned reasonably. In this process, the relevant government departments should give correct guidance to vigorously promote the green and sustainable development of rural township enterprises, and promote control of water pollution^[7].

4. Conclusion

Water resources are the material basis for people's survival. The land area and population of rural areas in China account for a large part. According to the introduction above, we can see that control of water pollution in rural areas is a problem that must be paid attention to. In order to achieve green and sustainable development of rural economy, environmental protection can not be ignored. The problem of control of water pollution in rural areas should first raise the environmental protection awareness of rural residents. Secondly, modern eco-agricultural production technology should be adopted. Finally, the relevant government should give some guidance to rationally plan the layout of township enterprises. Only in this way can we promote rural economic production while minimizing the harm to the environment.

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