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The 21st International Grassland Congress / 8th International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

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Distribution and sustainable utilization of water resources in Inner Mongolia pastoral area

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Key words : pastoral area, grassland, water resources, sustainable development

Introduction The total area of grassland is 827,000 km² in Inner Mongolia, but the gross water resources are 19.935 billion m³. The utilization of water resources do not correspond with the development and protecting of grassland because of asymmetry in distribution, illogical scheme and low ratio in utilization of water resources. So it is very important to enhance the management and improve the scheme in using water resources, and then we could advance some good plans to meet the expectation of economy and society.

Distribution and utilization of water resources The grassland is very vast in Inner Mongolia, variability of land form is complicated. Annual variety of precipitation is very large, and the distributing of water resources is very asymmetric because of precipitation, geographical location and temperature etc. Water resources are much uncoordinated with the distribution of population and grassland. Until 2005, the total water consumption is 3.231 billion m³, 1.127 billion m³ of them are the surface water and 2.104 billion m³ of them are the groundwater.

Sustainable utilization schemes of water resources At present, the emphases in using water resources are how to protect the water resources successfully and the logical scheme in Inner Mongolia. As the central methods in protecting ecosystem, some water saving irrigated grassland were cultured, and some natural grassland were enclosed, the feed is prohibited or stocked in turn in these regions. For the purpose of protecting ecosystem and developing irrigated grassland, we should give some regards to the matters, (1) implementing the law of water resources, adjusting prices of water; (2) Adhere to the principles of "water for grass, grass for livestock", making overall plans in using water resources for production, living and ecosystem; (3) Adhere to the principle of "reasonable development and logical schemes", pay equal attention to water saving and water development; (4) Developing efficient and water-saving forage grassland, improving the ratio in use of water resources; (5) improving the rebuilding and management in surface water irrigation district; (6) logical plans in using the underground water resources.

Epilogue With the development of irrigation works in pastoral area, the conflict between water resources and grassland will be serious more and more, logical schemes plans in using water resources will become one of very important factors in protecting ecosystem and sustainable development in pastoral area.

References

- Country and Water Department of Ministry of Water Resources, the plans for protecting water resources in improving environment in Chinese pastoral area, 2003. 10
- Ma Chang Jun, Wu Shou xin etc. Dictionary of resources in Inner Mongolia -water resources volumes. Inner Mongolia People's Publishing Company, 1997, 10.