

CONCEPT, DISTRIBUTION LAW AND FORMATION MACHANISM OF INLAND SALINE-ALKALINE WETLAND —— Taking Songliao Plain for Example

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ABSTRACT: The paper, taking Songliao Plain for example, studied the concept, distribution law and formation mechanism of inland saline-alkaline wetland. The inland saline-alkaline wetland is distributed over the inland region of arid or semi-arid climate; it is the wet or slightly stagnant environment, forming saline-alkaline soil and salt vegetation and making the geographical environment forming complex with an ecosystem of saline-alkaline wetland. The laws of zone nature and non-zone nature control the distribution of the inland saline-alkaline wetland that extensively spreads in north part of China and other countries. The inland saline-alkaline wetland is formed jointly by atmosphere, hydrosphere, lithosphere and biosphere including intellectual sphere. Under the special condition, the artificial activity is possibly the key function. In order to improve the human environment, it is a great duty confronting the whole world to rationally transform the inland saline-alkaline wetland. Therefore, we presented an anti-inland theory to promote the environment transformation.

KEY WORDS: Songliao Plain; inland saline-alkaline wetland; wetland distribution law; wetland concept; wetland formation mechanism;

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1 RESEARCH BACKGROUND

According to the modern wetland concept, inland saline-alkaline wetland is a component of wetland. In the world, it is mainly distributed in inland plain, plateau and basin of the arid or semi-arid areas where there are fragile ecosystems deteriorated environment and poor biological resources which result in backward economy and poverty. Therefore, the study on inland saline-alkaline wetland is significant for improving environment and realizing sustainable development.

However, the inland saline-alkaline wetland has not been specially studied in China and other countries for a long time. Although such countries as all countries in northern Europe, Russia, United States and Canada studied marsh and wetland earlier, they have not studied this field, because they are lack of this kind of wetland. The new influential book, “Wetlands” (MITSCH *et al.*, 1993), has not deeply approached to the inland saline-alkaline wetland.

In China, influenced by the concept of narrow marsh, the study of marsh and wetland has been limited

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Biography: SUN Guang-you (1940 –), male, a native of Harbin, professor. His research interests include geography, wetland.

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