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Building the Green Industry in Qaidam Basin on the Basis of Multidiscipline Studies of Salinology

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Thanks to the efforts on prospecting and exploiting of salt lakes, new cities and towns have grown up in Qaidam Basin, which used to be untraversed deserts and saline and alkaline lands. And these progress have made great contribution to local livelihood, especially for improving the standards of living, promoting social progress, and ensuring food security. The Qaidam basin possesses vast territory, and is rich in green energy (light, wind, and cold) and minerals resources (specialty salt lake brines, oil and gas, and nonferrous metals), serving basic natural conditions. Although the Qaidam is dry and has a fragile ecological environment, its conditions are better than that of many famous extreme regions (e.g. Sahara, Dead Sea), and the successful experiences during the exploitation of mineral resources and development of tourism at the Dead Sea offers good reference.

After many years of development, transport infrastructure has been greatly improved. However, the comprehensive utilization of salt lakes is in low level, and

most of the salt products are low-end. To improve the level of comprehensive utilization and to produce high-end products, we need adjust measures to local conditions, make best use of the advantages and bypass the disadvantages, and adhere to independent innovation. We should abandon the old way, i.e. assessing and utilizing only one type of mineral resources based on the studies in a single discipline. We suggest building the green salt industrial cluster, with the integration of salts- renewable resources - natural gas; salts- nonferrous metals; salts – coal; and salt lake agriculture, in Qaidam Basin on the basis of multidiscipline studies of Salinology. In the near future, guided by the development of fine chemical industry chains of Li, K, B, we can also start the construction of production base of salts in West Qaidam, and the development of demonstrative region for salt lake agriculture in Golmud. In the future, the development can extends to the fine chemical industry chains of Mg, Br, and Sr.

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