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**| RESEARCH ARTICLE**

## **Two Ways: The Comprehensive Views on Protection Strategies to Tibetan Plateau**

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**| ABSTRACT**

The meaning of research about the protection of the Tibetan Plateau does not only include the ecological aspect but also involves the economic benefits. In order to achieve the integration of ecology and economy, it seems to be necessary to search the diverse and useful protection methods. Currently, there are two main kinds of protection strategies for the Tibetan Plateau: top-down protection with the government as the main actor and bottom-up protection with the society as the main actor. This paper is from the perspective of policymakers and attempts to analyse the practical value and actual problems of the two methods through a comprehensive view; that is mainly about capability, deviation, adaptability, economy, and even the influence in international aspects.

**| KEYWORDS**

Tibetan Plateau; environmental protection; top-down; bottom-up

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### **1. Introduction**

As an area with important meaning in geographical and climatic aspects, the environmental protection of the Tibetan Plateau should be considered seriously and reasonably. This paper will attempt to analyse two main ways of protection from the perspective of policymakers. In this process, the main research methodologies will be literature induction and comparative analysis. The first section will focus on top-down protection, and it will be mainly about the governments' organizational capability and actual deviation. The second part will pay attention to bottom-up protection, which could involve social acceptance and economic situation. Then, the third session will analyse the two main ways of protection comparatively and attempt to provide a comprehensive view of the applying situation to help the policymakers to protect Tibetan Plateau according to the specific local condition.

### **2. Top-Down Protection**

This kind of strategy focuses more on the top leadership's macro-order regulation. The main actor of this protection method could be the governments of the time because this method likely requires careful preparation in the early stage and needs enough force to prove the ecological pertinence. In Tibetan Plateau, ecological risk research is necessary before the actual activities of top-down protection. An important point of ecological risk research is to consider the different regional characteristics. It should be subdivided into small geographical units in each region and then considered comprehensively during the assessment (Jin et al., 2019). This kind of complex preliminary work needs to be finished by the institutions with enough authority to prove the later-stage management of the actual protection strategy. Due to this characteristic, the top-down protection strategy may be more in line with the maximum ecological benefits of environmental protection. However, there is a certain deviation between policies of top-down strategy and local people's needs (Yan & Zhang, 2011). Because this method could cause the governments to ignore the actual situation of the local farmers and herders during the policymaking process, which means some policies might injure some local people's economic benefits, which can harm the whole protection plan.

### 3. Bottom-Up Protection

Different from top-down protection, the key points of the bottom-up method are mainly in order to promote the public and society with indirect means to protect the natural environment spontaneously. The important advantage of this kind of method could be higher social acceptance. In Tibetan Plateau, there were various explorations and attempts at bottom-up strategy in the past time. According to Yang (2013), the bottom-up strategy has greatly motivated the local people to protect the natural environment of the Tibetan Plateau and depend on themselves. After transferring the ownership of pastures to the private, many herders began to use rotational grazing measures to protect their own pastures. In the Naqu region, by 2007, there were over 15,000 herders grew more than 62,000 mu (1 mu = 0.667 hectares) of grass in their pastures, and over 23,000 herders applied for autonomous environmental protection against fire, pests and over-grazing in more than 9.2 million mu of pastures (Yang, 2013). That could be regarded as a great achievement of the bottom-up strategy. However, this strategy is also able to produce negative consequences. Before the later 1990s, the main bottom-up strategy in Tibetan Plateau was the model of “public pastures, private livestock”, whose initial purpose could be hoping the herders to see the pastures as public property and then protect them. The policymakers ignored the basic economic situation in this area. Even in the 2010s, there were still nearly 40 state-level poverty-stricken counties and over 23.7% of high data of poverty (Ren & Li, 2010; Shen, 2015). This economic situation made most local people massively increase the number of their livestock to gain short-term economic benefits; then, the long-term ecological value was easy to be ignored. The natural environment of the Tibetan Plateau was damaged seriously by the initial bottom-up protection method.

### 4. Comprehensive View

The two strategies all possess their own characteristics. The top-down strategy possesses more ecological pertinence, and the bottom-up strategy is able to gain wider social acceptance. Their application is a significant issue of environmental protection. It should be considered first that there is quite a complex geographical situation in Tibetan Plateau. For instance, regarding atmospheric temperature, Guo et al. (2016) and You et al. (2020) pointed out that temperature warming rates have complex changes, which increase first and then decrease with higher altitude, and the temperature warming rates also will influence the population distribution and natural environment. This kind of different geographical situation requires the policymakers to apply different strategies in different regions, such as using the top-down strategy in sparsely populated areas and the bottom-up strategy in densely populated areas. Comprehensive environmental protection should involve concerns about the local people's livelihood, and the bottom-up methods may be able to play a larger role. Because climatic shocks such as heavy rain and heat waves could greatly damage the economic benefits of the local people who have less financial and social capability (Wang et al., 2019), the bottom-up strategy could use this point to appeal to the local people to protect the environment of Tibetan Plateau by themselves. However, the top-down strategy is also more important in the other aspect. As a region which is bordered by many countries in the west and south, the protection methods of the Tibetan Plateau could produce international disputes in some filed like water sources. That needs the authority to conduct the macro coordination with other countries in the international aspect, and it means the top-down methods could possess larger advantages because its main actor is the government, which is also the main actor of international discussion.

### 5. Conclusion

This paper has analysed two protection strategies for Tibetan Plateau, and their different characteristics mean that they have different use conditions. Top-down protection possesses higher ecological pertinence while possibly producing some deviation from people's needs. The bottom-up protection is indeed more acceptable for the local people, but the omissions of policies to human nature may lead the effect to be not obvious or even counterproductive. From this point, a comprehensive view becomes more significant for the protection strategies. Applying different strategies in different conditions and promoting them to play specific roles in specific fields could be a kind of more actually comprehensive and effective protection strategy for the Tibetan Plateau.

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