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Complex Terrain and Ecological Heterogeneity (TERRECO): Evaluating Ecosystem Services in Mountainous Landscapes Water Use and Distribution in Kangwon Province



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Introduction: The Haeon catchment is located in the upper reaches of Soyang Dam. The water of this dam is used for drinking water of thousands of people. Approximately 260 households have moved into Haeon in 1956 on a government scheme and cleared the forest for farmland. The serious soil erosion from this farmland has caused muddy water to the dam every year whenever we have a heavy rain. Especially, the impact of the flood on Gangwon Province was terrible in 2006. The flood covered the villages with water, hundreds of people were made homeless in the flood and muddy water continued over a long period. The water policy of Korea is also direct influenced by the flood.

Objective: The objective of this research is to analyze the water policy and find out how the water use and the distribution system are going on in Korea. The final goal of this research is to present the desirable water policy which is good for both people living in Haeon catchment and people used the Soyang Dam for their drinking water

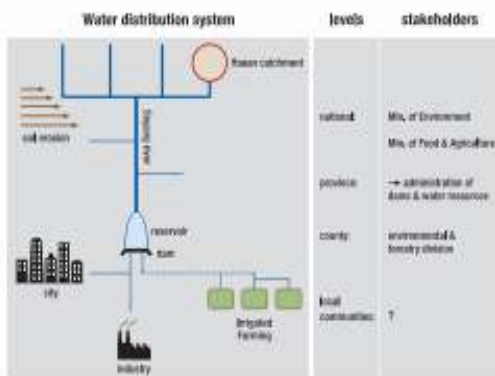
Methods: This research examines the water policy and its application in Korea. The water policy of Korea is divided in two parts such as quality and quantity sides. Ministry of Environment is in charge of water quality policy and Ministry of Land, Transport and Maritime Affairs is in charge of water quantity policy. In this research, the government reports, annual statistical data, and social organizations' reports are analyzed to find out historical processes of water policy. In addition to that, the interviews and analysis of media data are conducted to know the responses of water policy. In 2006, the torrential rain brought flooding.



The villages and fields of Gangwon Province were flooded and muddy water of Soyang Dam, which is used for drinking water, lasted for a month. This event was influenced on the water policy of Korea. In this sense, the water policy before and after 2006 is also analyzed to understand how has the flood in 2006 influenced on the water policy of Korea.

Results and Discussion: The water policy of the past was known to have some problems. For instance, muddy water was not an interest concerned of the policy in the past and has caused drinking water problems every year.

In addition, the government has tried to move the location of intake of the dam. In this sense, the water policy should be changed for considering both the public interest and environmentally sound.



References: Mansig Jun. 2007. A device for reducing muddy water in the watershed of Soyang Dam. Gangwon Development Research Institute. Yeonhong Choi. 2001. Environmental policy and administration of Korea. Shingwang.

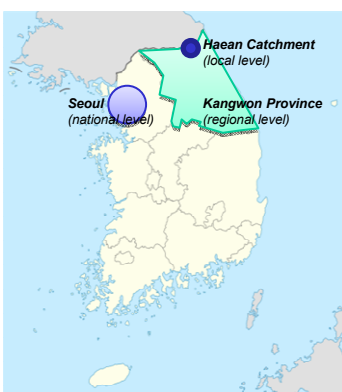
The Political Ecology of Climate Change – Adaptation Strategies of Farmers in Haeon

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Background: During recent decades the global climate is underlying severe changes that result in weather events having an impact on the local level. These impacts don't need to be necessarily of negative character but mostly they are considered as disturbances that affect a society, social group or an economic system. Required adaptation strategies and decision making can be found in various forms: on the individual, collective local and regional, national and on a supranational level. Adaptation is generally embedded in the social and cultural frame of a society. The driving force to act is rooted a discourse on climate changes and perceptions of the changing environment. Observing climate change and its impacts on a society, it must be clear that some social groups within a society are more vulnerable than others and their capacity to cope to climate change differs.

Case Study Area: In this project farmers who work in the catchment area of Haeon represent a social group that is exposed to the consequences of climate change regarding the structure in the bio-physical domain. On the other hand side this catchment is characterized by a particular demographic structure and its location at the inner Korean border which makes the area an important political side (structure in social-economic domain).

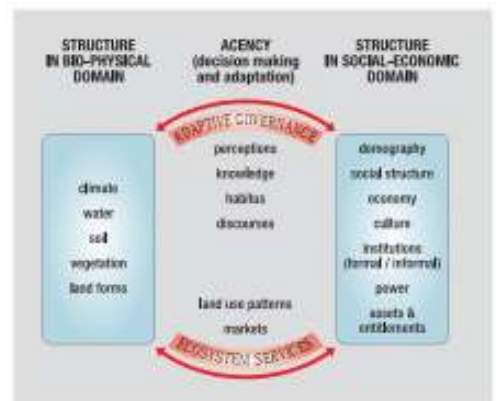


Research Objective: The research objective is to describe adaptation efforts along the political and cultural system as well as future adaptation scenarios under different conditions. An early adaption to climate change can reduce human and financial risks so that the results help to encourage climate change adaptation elsewhere.

Methods: Depending on the scale there will be different methods to be applied. In order to sketch the frame for decision making processes on the international and national level, the discourse on climate change is to be analyzed (Discourse analysis). More data about motives and the development of political programs will be collected by expert or group interviews (on the national and regional level) as well as a total population survey in Haeon.

Expected Results: Regarding Korea's position in the world community we expect a strong motivation to face climate change and to adapt. Which other interests on different scales and how far the political implementation actually reach farmers in Haeon on the local level will be focus topics in the upcoming research period.

References: Berkes, Fikret et al. (2003): Navigating Social-Ecological Systems – Building Resilience for Complexity and Change. Cambridge Univ. Press
Müller-Mahn, Detlef (2009): Transdisciplinarity in Environmental and Social Sciences, Presentation at the BayCEER-Colloquium 18.06.2009



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