

- R. Edward Grumbine, *Where the Dragon Meets the Angry River: Nature and Power in the People's Republic of China*, Washington: Island Press, 2010, 236 pp.

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The present Chinese leadership widely agrees on the concept of the “*harmonious society*”, which includes the goal of economic development in harmony with nature conservation. In his latest book Edward R. Grumbine shows how difficult it is to implement a noble idea. The renowned American expert on nature conservation and biodiversity provides an unique insight into “conservation with Chinese characteristics”, or in other words China’s struggle to synchronize demands of economic development with ecology. With a focus on South-Western Yunnan province, one of the most important hotspots for biodiversity and an important region for eco-services such as providing clean water and forests serving as carbon sink the author shows that issues are often more complicated on the ground. For several years Grumbine, who is at present a senior scholar at the Institute of Botany of the Chinese Academy of Science in Kunming, hiked through Yunnan’s remote nature reserve areas. Based on these observations from the ground the second part of the book leads over to a macro perspective of China and the world’s future challenges climate change, food security and supply of resources. The outcome is a successful balancing act between solid scientific information and an entertaining travelogue.

In 2003, a New York Times article lured Grumbine into China’s biodiversity hotspot. The newspaper reported about the Chinese government’s decision temporarily to suspend a planned dam project at the Nujiang (the “Angry River”). The river is located near the Three Parallel Rivers UN World Heritage Site in the Western part of Yunnan. The moratorium for the giant project was interpreted as an example for an at least “short term” successful campaign of local civil society organizations. During several hiking tours Grumbine inspected the watershed of the proposed dam projects and the UN World Heritage Site. By his own investigations he hoped

to gather information “what does landscape ‘protection’ mean to local peoples”. He was not discouraged by representatives of local NGOs who reminded him of the difficulties that might be encountered by someone who did not speak Mandarin or any of the other nine languages spoken in the Three Parallel Rivers area. Despite this handicap Grumbine is an excellent observer and over the years after frequent travels to Yunnan’s remote nature reserves one piece of information added to another and finally the puzzle became a whole picture.

The book’s central question is if and how modernization reaches China’s lesser developed areas and what it means to the local people in those regions. During his five years in South-West China Grumbine witnessed the impacts of the so called “Go-West Program”, a government program with massive investment for infrastructure of the more remote and less developed areas. He observed how Yunnan province, the “border” region “South of the clouds” became more and more connected to the global economy. At present Yunnan is receiving one million foreign and more than 60 million domestic tourists every year. And the sector is expected to grow. Within the coming decade Yunnan tourism authorities plan to attract as many as 100 million tourists a year. How will ethnic groups cope with the transition, and will the rather vague description of “ecological construction” which is included in the “Go-West Program” be sufficient to stop further environmental degradation?

Grumbine provides a first hand account of the struggle between conservation and local people’s justified desire for economic development. He takes a closer look on the well minded so called “eco-tourism” projects in the area, which in many cases are initiated and supported by international NGOs. “Eco-tourism” is promoted as a perfect strategy to create alternative income opportunities for locals and support the maintenance of nature reserves struggling with limited financial support from the government. At the same time eco-tourism provides visitors from urban areas with a unique experience of nature. However, how authentic and unspoiled is this nature?

“What were these Chinese women seeing? Was their experience similar to mine?” Grumbine contemplates while he, the experienced conservationist, accompanies two young Chinese teachers from Hangzhou on their first hiking tour in the Yunnanese wilderness. *“Where she saw healthy pasture, I saw heavily grazed fields fretted with erosion. Springs’s ‘forests’ were my ‘goat-hammered woodlands.’ Asian black bear, rhesus macaque, and endangered pheasant had been seen in this area in the past, but it was difficult to imagine how they could survive under current conditions. Maybe Lucy and Spring saw some version*

of Peach Blossom Valley from the Chinese story I had dreamed about. My ecologist's eye revealed a land hard-pressed by humans."(p. 48).

Grumbine doubts that there is a practicable strategy for existing Nature Reserves and the so called National Parks. There is no clear definition how to manage these parks, there is lack of funding and last but not least science in the field of nature conservation (i.e. conservation biology) is not very well developed in China. There are a numerous international NGOs active in nature reserves in Yunnan, however, as Grumbine notices, they often failed to communicate their activities to the local communities. And very often conflicts between the nature protection and the economic interests of the indigenous people occur. He criticizes that in some cases international NGOs even exploit local people for their goals. For example in one case, traditional plant doctors were declared "plant stewards" without asking them if they wanted to be labeled as environmentalists.

Grumbine investigations also lead him to Southern Yunnan, where contradictions between economic development and biodiversity protection are best described by the rapid expansion of rubber plantations on the cost of traditional agriculture systems and primary rain forests. Along with increasing mobility and the boom of the Chinese car industry and their demand for tires, investments into rubber plantations became a profitable business. In Xishuangbanna, the county bordering to Laos, the original habitats of the endangered Southern Chinese tiger and the Asian elephant are almost lost. The ruthless exploitation is threatening conservation plans such as the corridor E (an ambitious conservation project to allow tigers and elephants to wander from one forest habitat to another) and it is affecting transboundary nature protection reserves. On the Laos side of the so called *Great Green triangle* Grumbine observed how rubber plantations of Chinese investors encroach the Nam Ha National Protection Area. Although the plantations on the short run may help the local villagers to earn cash on the long run they will suffer from impacts of depending on monoculture, such as dropping water tables, less food grown and dependence on world market prices for rubber and grain. And as the area at present is scarcely populated it can be expected that rubber plantations will attract migrant workers to the area once the trees are ready for harvest. The influx will increase the population pressure on sensitive ecosystems.

Finally, the author returns to the "angry river" and the disputed hydropower projects that once brought him to Yunnan. The competition between interests of hydropower development and nature protection is serious. Grumbine reveals that the Three Parallel Rivers UN World heritage Site actually does not include the river itself and the lower canons where biodiversity is highest, simply because these areas are planned sites for the dam projects. Yunnan already generates ten percent of China's hydropower but

has the potential for at least double that amount. The plans for eight new dams along the Lancang (the upper Mekong), the Jinshajiang (the upper Yangzi) and the Nu (the upper Irrawaddy) are gigantic and can only be compared with the Three Gorges Project. Once completed their combined installed capacity will be more than 100,000 MW. These dams will produce electricity not only for China's booming Eastern provinces but also for Vietnam and Thailand. Hydropower is a promising business for Yunnan province. Although it is one of the poorer Chinese provinces recently its economic growth rates have been well above the Chinese average. Where economy is booming, river ecology becomes a second priority. Data about the disputed rivers are handled as state secrets. In recent years Chinese civil society organizations repeatedly requested authorities to make the environmental impact assessment reports available to the public but their requests have not been granted. However, the serious 2008 earthquake in South-West China, which not only claimed an estimated 80,000 people's lives but also dangerously damaged a number of dams increased the chances for reassessment of hydropower proposals in South-Western China. Experts from the Chinese Academy of Science, for example, argue that the Three Parallel Rivers area is located in an extremely tectonic active belt and therefore should be spared of large dam projects.

The concluding chapter discusses these issues from a broader perspective. Grumbine provides an idea of the challenges the energy hungry booming China might face in the coming decades with a growing number of people wishing to participate in the new wealth but also demanding a healthy environment and climate. The speed of growth is breathtaking. In 2005, China added within one year power capacity equal to the capacity of the entire British grid. The conclusion leaves little space for optimism: China lacks natural resources to sustain an economy following the conventional models of growth. If business as usual continues China will increasingly have to import resources from neighboring countries and all over the world, and by this will affect the global markets.