

Study on the local residents' perception on the nature reserve in China

— Case study on local resident's participation —

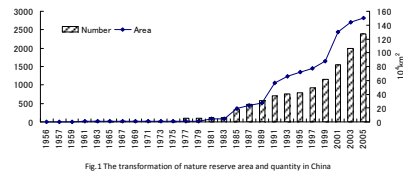


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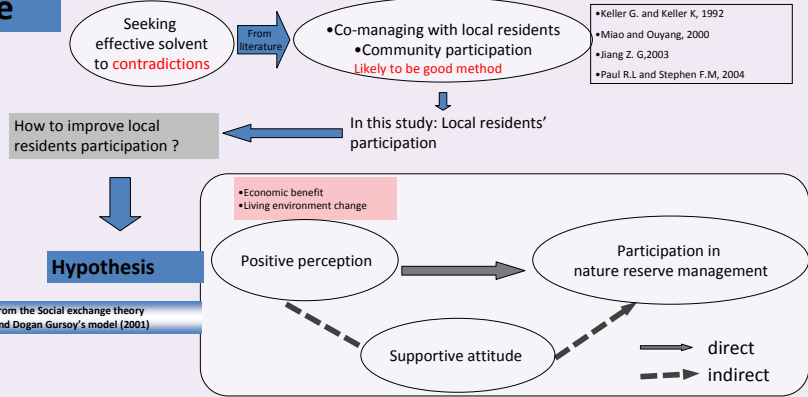
Background

Since the 80's, the Chinese government realized that the big area forest and wetland destruction had accelerated the ecological environment worsening. Wild species exterminated rapidly, natural disaster occurred frequently, the government starts to strengthen the forest and the ecological environment protection, the most main method was the establishment of nature reserves.

By the end of 2005, China had established 2349 Nature Reserves. The total area of established nature reserves was 150 million ha, covering 15.0% of the land of China (Fig.1). However, establishments of the most of nature reserves have ignored local residents' opinion. That resulted into **contradictions** between the administrative bodies managing nature reserves and local residents (Miao and Ouyang, 2000; Zhang, 2002; Wang, 2002).

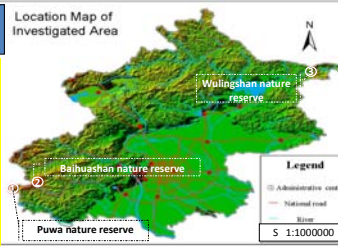


Purpose



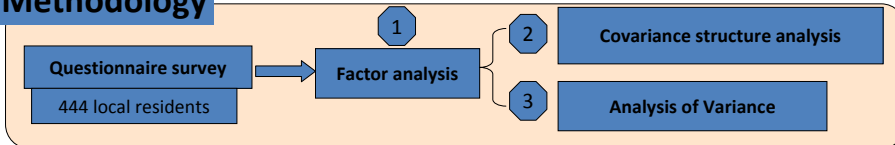
Investigation area — Beijing

- Beijing as a megalopolis, has established 20 nature reserves by the end of 2005.
- The communities in and nearby the nature reserves have a relative developed economic condition, also facing the pressure of a huge population.
- Nature reserves of Beijing can be seen as the representations of the nature reserves in developed area of China.

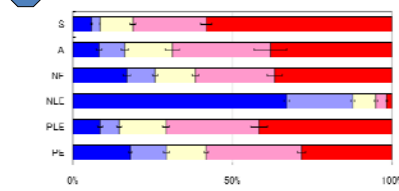


- Investigate the local residents' perceptions in the nature reserves.
- Elucidate the relation structure of attitude and participation behaviors of local residents.
- Propose some managing approach to improve local residents participation.

Methodology

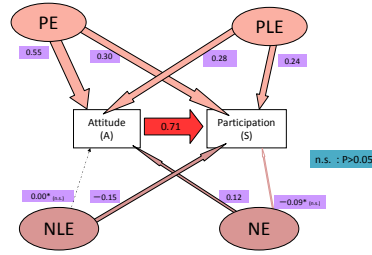


2 Covariance structure analysis



Note: A: attitude to nature reserve, S: participation in nature reserve
Distribution of point and S.D.

NLE: more than 85% disagreed rate;
S: more than 80% agreed rate.

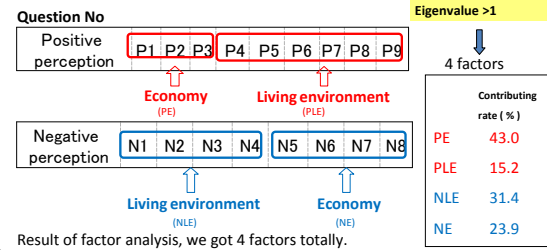


Relation structure of perception, attitude and participation

PE is the most important factor;
 $PE \rightarrow A = 0.55 \times 0.71 = 0.39 > PE \rightarrow S = 0.3$;
 NLE—A: uncorrelated;
 NLE and NE—S: antithetic correlated.

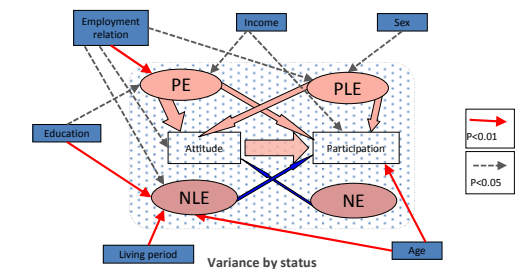
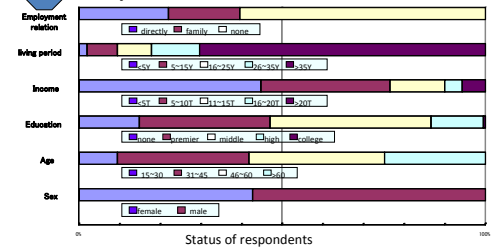
Results

1 Factor analysis



Result of factor analysis, we got 4 factors totally.

3 Analysis of Variance



- 'Employment relation' impact 4 items
- PE was impacted by 'employment relation', 'education' and 'income'
- NLE was impacted by 4 status, show the biggest difference in estimating standard

Discussion and Conclusion

- The most positive attitude and willingness to participate in a management of nature reserves is mostly driven by the positive perception concerning the economy (PE) (results 2). Therefore, the move toward increasing participants satisfaction and in particular the move toward improving participants income are found to be the most important driving factors in promoting the participation of local residents.
- The covariance structure analysis has revealed a weak influence of the negative living environment perception (NLE). That mean the majority of local residents are not aware of the feasible negative impacts of tourism, economical growth and infrastructure development. Local authorities could place more importance to educate local residents on relevant issues concerning the living environment.
- Increasing the employment rate of local residents is the most likely to influence the attitude and the participation (results 3). Local authorities and nature reserves should be a driving force in creating new employment opportunities in their vicinity. The increased rate of a direct or indirect involvement of local residents to the nature reserves and creation of sustained income sources is also likely to bring direct positive impacts to the whole society.