

Chapter 6



CONCLUSION AND SUGGESTION

The main aim of the present study is to estimate the willingness to pay for the protection and management of Kaziranga National Park in Assam, India. So as to evaluate how much these resources are valued by the people. It is also attempted to study the various socio-economic factors affecting people's WTP and their attitude towards the environment and natural resources. As the natural goods or resources of KNP have no market, in the present study, in order to estimate the WTP amount, the CVM was applied. Such evidence of economic valuation of environmental resources is important in helping to determine the economic contribution of the environmental goods and services which could be incorporated into the national income accounting of a nation. This in turn can help in taking proper decision and policies on the part of the policy makers as well as the common people for the protection and conservation of certain environmental resources.

This study shows that the visitors of KNP have a significant WTP for its conservation. The WTP per month amounts to Rupees 30.10 for the better management and conservation of KNP. This derived amount is based on the price and income level of the current year only. In this study it is seen that WTP is highly correlated to income of the respondents. So, anticipating an increase in the price level and the income level over the next 5 years, in India, WTP and hence the valuation would be higher over the next 5 years.

It is seen that income and the attitude of the visitors have the most considerable impact on the WTP amount of the respondent. Again, WTP is strongly correlated with the income of the respondents. The same relation is found in the result of the other studies like Chaudhury (2006) and Khorshiddoust (2004). Income is one of the most significant determinants of the well being of the man and the society. In the present study it has been revealed that some of the educated and concerned respondents with pro-environment attitude refused to accept any WTP bid only because of their lower income. In the country like India and particularly in Assam also, there is evidence that lots of educated and qualified youth could not obtain appropriate job. So, it is very essential to create satisfactory job opportunities in the country and the scope to enroll the qualified person so that the person can attain suitable job according to their skill and ability. Further, Government should put much emphasis on creating adequate and better infrastructural facilities-generating an impetus for self employment and various earning sources-which would help in increasing the income level and living condition of the households.

Other than income, strong pro environmental attitude is another important variable influencing WTP of the respondents. This means increased income is not the sufficient condition of accepting WTP. For motivating WTP, increased income must be supported by the increased pro-environment attitude of the people. So, it is very important on the part of the government, institutions and the NGOs to wide spread the environmental issues effectively for making the common people aware and concerned about the environmental problems through various means so as to make their attitude pro-environment.

It is observed that older people (above age 55) are less willing to pay. The work of Chaudhury (2006) and Tognacci, et al. (1972) also estimated that younger generation is more concerned and inclined towards environment. The two possible reasons other than the lack of the disposable income in the hand of the older person (and the very younger persons below age 30) i.e. lower ability to pay, may be due to the fact that older a person lesser is his/her expectations of future consumption of this public good, or it could be due to the variation in education and values of the older people. Somehow this reflects the ignorance of the older people about the present scenario of the environmental crisis. They are not realizing the seriousness of the situation and their significance of involvement in the society matter. So, to spread equal awareness, and to make the elderly person realize their importance and involvement in the society, certain workshops and program must be conducted (also through television and radio) especially for the elderly persons which would provide them the scope to know the situation and realize their duty and role in saving the environmental resources today for the next generation.

The male visitors are more willing to pay compared to female. Female are by nature very much concerned about the welfare of her family only. Again, women referred here mostly belong to the higher /and middle class families so though they are aware about the environmental degradation but does not realize the problem like those poor women who faces various hurdles due to environment resource degradation (like traveling far distances for collecting basic necessities of life -water, food and fodder). So, it is necessary on the part of these women (from well-to-do family) to realize the burden of environment degradation on the poor women and

they should also understand that if environment is degraded beyond a certain limit then in the long run they themselves will not remain unaffected. For this, more publicity of such situations via mass media in various possible and effective manners would be helpful so that they could personalize the situation and come forward with their helping hand in reality. Moreover, various local women oriented organizations, besides working for women development and welfare, should also give priority to create environmental awareness. Some initiatives may be of the nature of organizing environment related programs, activities and group discussion which are very rare in the present scenario of Assam.

People visiting KNP frequently showed higher willingness to pay. This implies more visit to KNP increases the sense of protecting and conserving the place as they become more closely attached to the problems and prospects of KNP. So, more publicity of nature tourism and KNP would increase the flow of visitors and hence this would increase the closeness of the people to the nature and a strong feeling for the preservation of nature would be developed among the masses. Provision of easy tourist packages and various possible facilities like improvement and addition of more infrastructure and public facilities such as toilets, dustbins, etc. to the tourist by both government and NGOs would also be very important. Also signboards and number of notices of reminder should be put so as to keep the tourist reminded and aware about their basic duties and awareness about the value and importance of all kind of flora and fauna in the Park. This would also help in reminding them the importance of their support and co-operation in protecting as well as in preserving the area and its wildlife. According to Marikan et al (2006), the

relationship of one's satisfaction derived from enjoying their visit to a National Park will more or less determine their WTP to preserve the areas.

This study shows that the education is one of the most important factors in bringing environmental awareness. Similarly, some studies like the work of Khorshiddoust (2004) and Chaudhury (2006) find that there is a strong correlation between education and WTP. The present study explains that higher educated people with higher enriched and reasonable outlook about the good and bad around their environment and with a higher ability to pay (due to good job and better income), are more willing to contribute for the Park management compared to less educated people. Thus, meaningful education is required to be spread all over from the very grass root level which could bring reasoning power and efficient knowledge and ideas among the citizens about the real world situation. According to 2001 census, the literacy rate of Assam is only 64.28% which is ranked 5th among the other North Eastern states of India. This figure is far below the satisfactory level, so government should give more efficient effort to fill up the literacy gap through proper vigilance in all the related aspects. Suitable actions should be taken to check corruption and rural masses (especially women) must be encouraged and attracted with proper implementation of various programs and projects. Moreover, inclusion of proper environmental education at both school and college level; and making them compulsory and mandatory would be some effective steps for creating environmental awareness among the people. Though at present some courses on environment are there at various levels of education but they are of very introductory levels and they are not sufficient in justifying the need for environmental protection. Thus the courses need to be further revised so that they become effective in environmental protection

and initiatives. To bring a long-term return to the society on sustainable basis, a more organized investment on education system and environmental development is crucial.

After the biodiversity of KNP, the recreational aspect of KNP is the visitor's second highest valued feature of KNP. It has been estimated that the visitors valuing the recreational aspects and visiting KNP for recreation are willing to pay an average amount of Rupees 26.36 per month for the better management and conservation of KNP which depicts the value of the recreational aspects of KNP in the quantitative terms. Therefore, for making KNP more attractive, emphasis must be given not only to its biodiversity and wildlife but also on developing and improving its recreational aspects. Under the Park authority, a recreational park and picnic areas may be created in its vicinity with all possible kind of amusement equipments and facilities for children, and also permanent provision for exhibiting the Parks resources -its various valuable species of flora and fauna, with informative materials, which would help in knowing the importance of wildlife and flora and their conservation. This would help in generating awareness and concern for environmental protection and its biodiversity among children as well as the elders in bringing them closer to the nature.

Regarding the attitude of the visitors, majority of the visitors exhibited the consciousness towards the environmental aspects rather than the growth and development. The sign of awareness and concern among the people were visible. But, some kind of hesitation seems to arise among the respondents with a number of neutral responses when the case of growing demand of the increasing population and question of growth and development were presented. This means in some cases people are confused in between the environment and industrial growth of the nation

and this is because of lack of concern and awareness in the real sense. This indicates that the existing awareness campaign and various environmental education and program are not enough. We should understand that the industrial growth is the support of economic development and our well being, while, environment is the very base of our survival. To spread out this thought among each and every citizens of India, imparting of more awareness is required regarding the effect of unconscious industrial growth on the environmental resources. We should have proper planning so that the country may prosper industrially leaving environment unaffected. Adoption of various green technologies is one such option.

Majority of the respondents are concerned about the conservation of the endangered animals and birds especially the one horned Rhino, i.e., almost 85% of the respondents showed a very strong preference regarding the existence and the conservation of these species. Majority of the respondents believed that the existence one horn Rhino makes a difference. It is clear that, the name of Kaziranga is more or less associated with Rhino. It is one of the main attractions of KNP. It reflects the importance of the Rhino and it is to be preserved. The anti poaching activities undertaken by the forest department must be strengthened further so as to curb down the on going cruel activities. This should be further supported by the vigorous participation of the NGOs, so that the corrupt officials, if any, are identified. Again, the support and involvement of the reliable and dutiful local people residing in the fringe villages is also very important one. The efficient local people must be encouraged to support the officials on duty. Also a number of awareness camps, programs and workshops on a regular basis are the pre requisite to educate the fringe people about the environmental resources of KNP and regarding the role and

importance of their own participation in the protection of nature and biodiversity/wildlife conservation.

The study shows that the visitors to KNP have a positive WTP for the conservation of KNP in Assam. India being a developing country, with majority of her population in lower and middle income group, an average people are willing to pay a good amount for the protection and proper management of KNP. This implies that the people are quite aware about the importance of the conservation of KNP. It is seen that higher income, education, pro-environment attitude, positive concern and awareness regarding the problems of KNP have positive impact in determining the WTP of the visitors. Visitors are ready to sacrifice a part of their earnings, and prepared for contributing, over the entry fee of the Park, to solve its problems and for its conservation and proper management. This implies that a considerable economic value would not be lost from any large-scale development and constructive work that would destroy this huge natural resource. As the surrounding environment and natural resources are the basis of livelihood, health and prosperity, while deciding about investment in growth and constructive projects in and around KNP, the government and policy makers should undertake a cost benefit analysis.

In fine, it can be concluded that in the developing countries like India, where the environment degradation is one of the most acute problems and the economic valuation of the natural resources is imperative, spreading of meaningful education is very crucial irrespective of male and female, to increase general as well as environmental awareness. Attitude development in favor of environmental improvement among the citizens is another vital issue. Creation of an impetus for self

employment and income generation by providing proper and better infrastructural facilities so as to increase the income level and living condition of the household is also important on the part of the Government. Implementation of new strategies to develop the parks is important so as to attract more visitors, create awareness and increase closeness to the nature and raise the revenue flow for further development and management of the Park. Undertaking of regular environment awareness camp, workshop, exhibition and effective implementation of various projects and program would be helpful in generating consciousness and understanding among the common people. One of the most effective ways of solving the environmental problems of Assam as well as the problems of its socio-economic backwardness could be through the creation of tourist's spots at various suitable places and handing over the responsibility of their management and protection to the local people of the fringe areas. These spots may be treated as common property and the property rights may be well defined with a substantial amount of share of the local people. This would be more effective, not only in ensuring more income generation for the local poor people (who are participants in the management) and in checking out-migration- keeping them satisfied in their own blocks, living with nature and maintaining life at subsistence level-but also to a large extent in protection and development of natural resources of Assam.

As a whole, it can be said that, in Assam for preserving its natural resources, the efficient working and initiative of both public as well as private collaboration with the active participation and co-operation of local people is crucial. As the economic growth and development often affects the existence of natural resources, so it is necessary to enhance awareness amongst the public, decision makers, educational

institutions and various corporate establishments so that sustainable use of these natural resources are made.