The role of local people in environmental conservation of the Shir-Ahmad wildlife refuge. Sabzevar-Iran
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ABSTRACT
Local community play very important role in environmental conservation process and Participation of them in management of wildlife is the key for conservation of natural resources. The main approach to wildlife management and conservation has been to include the local people to gain their cooperation and support, which have eventually resulted in integrated conservation and development. To find out the level of local communities environmental awareness and their concept regarding environmental conservation, questionnaire have been circulated among them in 9 villages around the Shir-Ahmad wildlife refuge. The results reveal that most of them have willingness to protect this wildlife refuge if government pays attention to the conflict resolution.

Keywords: Ecotourism, Biodiversity conservation, Environmental awareness.

1. Introduction
Local communities whether in cities, towns or villages is part of natural environment and wanted or unwanted have connected to their neighborhood natural landscape such as protected areas, lakes, rivers, mountains, etc. The environments as well as beautifully and view provide essential resources for human and animals by supplying materials and energy for them (Daily, 1997),

As long as local communities have this level of awareness regarding the natural resources that they have to maintaining natural resources, no any harm attended to the environment but problem raises when their activity contributed to increasing flora and fauna extinction (Chapin et al., 1997; Tilman, 1997; Vitousek et al., 1997), which means it needed to planning a safeguard for natural environment and it is goal not achieved until they come to this conclusion that they have to protect these natural resources. (Ehrlich and Ehrlich, 1981; Wilson, 1985; Lawton and May, 1995), Local community’s cooperation is essential to design a conservation planning and it is experimenting with increasing their level of environmental awareness to make the partners in saving species and wild land (Western and Wright, 1994; Biodiversity Conservation Network, 1995).

2. Environmental conservation in Iran
Deforestation, overgrazing, illegal hunting, desertification, etc. are the most environmental issues in Iran (Veisi and et al, 2007) and these are causes of rushing local communities to their surrounding natural resources which Government of Iran has not able to control and...
process of the natural resources in practice and it is a big problem for management of natural resources and environmental conservation in Iran (Haji Rahimi and Hamid, 2008),

Due to drought and less amount of precipitation in the Shir-Ahmad wildlife refuge and its surrounding area, local people illegal uses their needed from this wildlife like as illegal hunting, overgrazing, etc.

3. Study area

The Shir-Ahmad wildlife refuge situated in north-east of Iran in Razavi-Khorasan province. The biggest cities near the Shir-Ahmad are Sabzevar, Neyshabour and Kashmar and Cheshmeh-Avash is the only village that settled into this wildlife. Totally this wildlife from north with new Sabzevar-Kashmar road connection and Kalshur limited to the east side and along the north of Kalshur extent from Hashem-Abad to Kalshur River. From east Hashem-Abad and Kalshur to Kalate-Feizi and Salehabad and Yahhya-Abad. South from Yahya-Abad to Cheshmeh-Avash and finally west from Cheshmeh-Avash to the north side to Aliabad-Shur and Kashmar-Sabzevar main road. The rural area around the Shir-Ahmad wildlife refuge according to the Census (2006) contains 1162 households equal to the population of 3991. Beside this there are 9 villages around the study area.

3.1 Method of study

The researcher circulated questionnaire among local people of 9 villages around the Shir-Ahmad wildlife refuge to understanding their perception and level of awareness regarding environmental conservation of the wildlife refuge to design and demonstration an effective way to management of conservation of the study region.

4. Results and discussion

What is the perception of local people about conservation of environment? This question is addressed to local people by circulating questionnaire in the survey. The sub questions are related to 5 different ways of conservation. These are avoiding hunting and cutting vegetation, protecting pasture and ground water. The fifth sub question is meant for any other way of conservation. The data thus have been classified according educational level and Chi-Square analysis has been carried out using SPSS package (Table No 5.7),

The following Pie-Chart (figure No. 1) shows that the highest proportion of local people (26.83% and 23.69%) believed that protect of environment and wildlife against hunting or removing any species can be useful for achieving the goal of environmental conservation. However, 21.25% have pointed out that overgrazing is the main issues for conservation and they have to reduce that problem. About 19.51% of local people believed that excessive use of ground water is one of the significant factors for environmental protection.

The Hypothesis in the below is that educational level of local people has relation with their opinion regarding environmental conservation and H0 would be that their educational level does not have relation with the willingness for the environmental conservation. The Chi-Square test has been conducted and results obtained are tabulated (Table No.1),
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Which one of the following means to you environmental conservation?

- Do not hunting
- Do not destroying vegetation cover
- Protecting pasture against over grazing
- Restricted excessive of ground water
- Other

Figure 1: Environment conservation

Table 1: Output of Chi-Square analysis

<table>
<thead>
<tr>
<th>Education level</th>
<th>illiterate</th>
<th>Primary Education</th>
<th>secondary education</th>
<th>high school diploma</th>
<th>higher/ University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>Count</td>
<td>Count</td>
<td>Count</td>
<td>Count</td>
<td>Count</td>
</tr>
<tr>
<td>Do you believe that you should protect natural environment?</td>
<td>yes</td>
<td>26</td>
<td>73</td>
<td>101</td>
<td>80</td>
</tr>
<tr>
<td>no</td>
<td>20</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 2: Pearson Chi-Square Tests

<table>
<thead>
<tr>
<th>Do you believe that you should protect natural environment?</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>87.492</td>
<td>4</td>
<td>0.001</td>
</tr>
</tbody>
</table>

The analysis has shown that (H1) has been accepted at 0.001 level. This means that there is significant association between the level of education of local people and their willingness for conservation of environment. However respondents with university education having good awareness are very few in numbers computed to the other groups like primary, secondary, high school diploma level. This means that just primary of secondary educational facility may improve environmental awareness. The strategy should be first to provide primary education to all and secondly, the Department of Environment should be prepare awareness program for school going children.

It is also interesting to obtain binary data (Yes/ No) for local peoples willingness to conserve environment. The positive answers have been recorded by 91.3% of the respondents from the
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set of local people and negative by only 8.7%. This is real strength of local people which may be useful for ecotourism activity (Figure No.2),

![Pie Chart](image)

**Figure 2:** Willingness of local people regarding environmental conservation

This kind of analysis of the sample can be useful to provide information regarding willingness of the respondents about protection of environment. It may appear that they agree to preserve the natural environment however the field observations reveal that their activities are not reflecting the answers. For example hunting practices are observed although it is reality banned.

Inquiry about possible ways of local people’s participation has been made in the survey. The graph (Figure No. 3) shows the possible ways that local people of the villages near the Shir-Ahmad can be participate in conservation programme. About 35.4% of sample believed that direct benefit from this wildlife could be the best way to participation local people. Around 12.9% people think that conflict resolution is necessary to ensure their participation. Government of Iran has fenced the wildlife for conflict resolution but still wild animal can damage the agricultural fields. Hunting of wild animals become essential for the villages is they attack.

Participation of local people in management of wildlife is the key for conservation of natural resources. The main approach to wildlife management and conservation has been to include the local people to gain their cooperation and support, which have eventually resulted in integrated conservation and development. Projects (ICDPs) (Wells and Brandon 1992), Johannesen and Skonhoft (2005) find out that conservation of the wildlife could be possible only when local people participate in the management and receive direct benefit from the project. The present study also accepts these principles.

5. Conclusion

The results reveal that most of local people near the Shir-Ahmad wildlife refuge have willingness to protect this wildlife and their surrounding natural environment and this willing has relationship with their level of education which means people with higher education level are more in believed that they have to protect these natural resources.
Since the animal husbandry is one of the main occupation for local people and the Shir-Ahmad wildlife refuge offers the best source of grazing encroachment is observed. About 14.8% of the respondents have pointed out that there should be alternative grazing land so that encroachment can be sneaked. Significant portion of people (21.6%) have mentioned that creation of job opportunities through this wildlife can motivate them to conserve wildlife.

Government play very important role for conservation of protected areas. The level of satisfaction of local people for conservation can be useful in this regard.

The discussions with local people have suggested that there is fear that government intervention may reduce their traditional rights to use biomass resources from the Shir-Ahmad wildlife refuge. How to tackle this type of conflict between government policies and livelihood of local population?

This conflict may resolved by priority alternative livelihood for local population. It is in this context ecotourism may bring money to the area from outsiders. Further the ‘action plan’ should be designed so that local people can be gainfully employed in the new activity.
6. References


