

## Public Involvement on Environment Issues in Kota Bharu and Jeli District, Kelantan

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**Abstract: Problem statement:** Environmental problems are too serious and complex to be solved through scientific approaches, technical and purely legal. Thus, public involvement with a more comprehensive vital is needed. This is because as one of the groups interested, this group can influenced and changed decision related policy legislation and policy related to environment. Public Involvement is needed in every development process as one of the positive move and proactive to create sustainable development. This study carried out in Kota Bharu and Jeli district, Kelantan, Malaysia with 390 respondent involved in each of them. **Approach:** Major method of study was used investigation question form. This study compared the extent to which a significant correlation ( $p$ ), Mean ( $M$ ) and Standard Deviation ( $SD$ ) of the studied demographic factors as gender, age, race, religion, income, education and the respondent lived with the knowledge of environmental issues, environmental local environment and constraints factors involved in environmental issues at the research areas. Chi-square test used to study demographic factor association with environment issue knowledge respondent. **Results:** Comparison of demographic factors with knowledge of the respondents of research areas on environmental issues shows that there is relationship for respondents education level with their respective  $p$  values is 0.036 and 0.040. The relationship between demographic factors with knowledge of the local environment issues by respondent shows there is also relationship to income and education with their respective  $p$  values is 0.033, 0.019 for Kota Bharu and 0.014, 0.019 for Jeli. As for the relevance of demographic factors of respondents with the constraints factors to be involved with environmental issues shows that have a relationship by the factors of incomes and education with the  $p$  values is 0.020, 0.037 for Kota Bharu and 0.040, 0.011 for others research area. **Conclusion:** This research find out that factors demographic of the respondents can influenced their knowledge about the environmental issues in both research area and they also agreed that the public involvement in issues environmental issues is very important in ensuring the quality of the environment is always protected and well as help the government formulate strategies to implement sustainable development.

**Key words:** Environmental issues, enhancing public awareness, Standard Deviation ( $SD$ ), accompaniment, public communities, Environmental Impact Assessment ( $EIA$ ), demographic factors, public involvement

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### INTRODUCTION

Everyday we are exposed to deterioration and destruction of the news environment increasingly widespread. Deterioration and destruction of the environment that occur on an ongoing basis was mainly a result of human activities that do not concern the well-being and environmental sustainability. This resulted in the occurrence of various natural disasters that threaten the health and well-being, such as drought, tsunami, floods and air pollution that has killed

thousands of people around the world (Grove, 2002). Thus, since the end of the millennium and environmental issues have become an important global issues, whether in multilateral negotiations at the United Nations or in the context of regional economic cooperation and political (Nouri and Kamali, 2005).

Public involvement in environmental issues has been recommended as an effective way to achieve sustainable development and sustainable as well be able to resolve these issues and development, it also brings many positive effects as to anticipate and avoid conflict

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that may occur, predict the impact due to the actions that have been proposed, collecting and disseminating information, highlighting the local expertise that enables authorities to learn new ideas and alternatives for each of the recommendations put forward in the planned action, resolve conflicts and disputes that are place other than basic information contributed to the government agencies who then use it in determining any action to be taken (Abidin *et al.*, 2008). The involvement of local civil society is very important because they are individuals or groups with vested interests who may have a significant impact of the development of projects or programs planned and implemented (Halil, 2007). Many studies have proven the local civil society are given the space and opportunity to be involved in managing natural resources, their support for the preservation and conservation of the environment will also increase (McNeely, 1995; Abidin *et al.*, 2008) and the success of maintaining protected areas also depends on the involvement and support local civil society.

#### **MATERIALS AND METHODS**

The study was conducted from January to April 2010. Overall Kota Bharu and Jeli District each has a total population of 509.600 and 48.000 people (Department of Statistics Malaysia Kelantan, 2010). From the sample size determination table Krejcie and Morgan (1970) for a total population exceeding 100,000, the total sample,  $S = 384$ . The respondents involved were from different walks of life such as civil and private servants, school students (>18th year), residents which elected from a draw a random list of households and covers all areas of both districts concerned. Head of the family to represent each family was selected as the respondent. The questionnaire used in the study to see the understanding and perception of the local community on issues related to environmental development activities taking place, impact, policy and related legislation and measures and actions taken to address the problem. The questionnaire consists of three main parts, Part A related to socio-economic information (demographic data), Part B related to respondents' knowledge about environmental issues, Part C deals with the knowledge of respondents about local environmental issues and Part D related to factors faced by respondents to be involved in environmental issues. Comparison of Mean (M), Standard Deviation (SD) and significant relationships (p) of the respondents according to their demographics and their knowledge about environmental issues, local environmental factors and constraints to be involved in environmental issues is made to the two provinces concerned

#### **RESULTS**

The result of the study is shown in Fig. 1-3 for comparison of significant relationships (p) between the demographic factors of respondents with knowledge about environmental issues, local environmental issues and constraints for factors involved in environmental issues in the area of research. The result of comparison of Min (M) between the demographic factors of respondents with knowledge about environmental issues, local environmental issues and constraints for factors involved in environmental issues is shown in Fig. 4-6. The results of comparison of Standard Deviation (SD) between the demographic factors of respondents with their knowledge about environmental issues, local environmental issues and constraints for factors involved in environmental issues is shown in Fig. 7-9. The result of comparison related to public involvement on environmental issues for both district is shown and summarized in Fig. 10-13.

#### **DISCUSSION**

In terms of comparison of significant relationships (p) between the demographic factors of respondents with knowledge about environmental issues, local environmental issues and constraints for factors involved in environmental issues in the two provinces, there are differences between the demographic factors which for a significant correlation (p) between demographic factors and the level of respondents' knowledge of environmental issues (Fig. 1-3), there are similarities (significant) for the two provinces involved in the education factor to the value p respectively 0.036 and 0.040. For the respondents' knowledge of local environmental issues, the comparison shows that there are similarities to the value of p (significant) for income and education factors for the two provinces. For the constraint factor to the respondents in the two provinces involved in the study of environmental issues, also shows that income and education had significant relationship with p value <0.05. The results of this study is timely study by the World Conservation Strategy (2010) of the respondents who had more education and higher income are more important considerations are reasonably good on environmental issues, as well as the Environmental Education a measure for the transformation of attitudes and behavior of the community and to develop ethical the environment (Palmer, 1998; Halil, 2007).

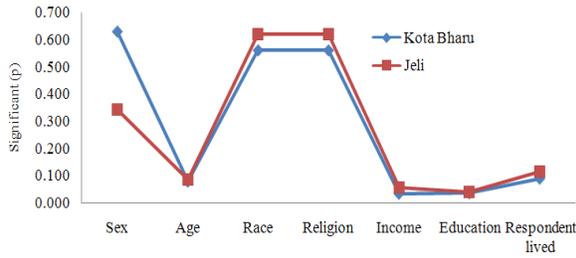


Fig. 1: Relationship with demographic factors on the level of respondent's knowledge of environmental issues

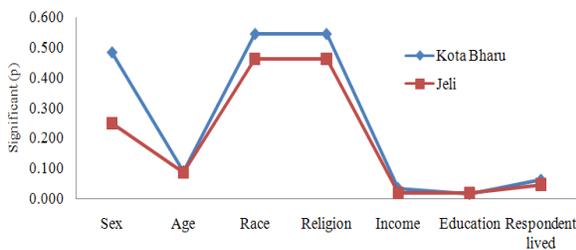


Fig. 2: Relationship with demographic factors on the level of respondent's knowledge of local environmental issues

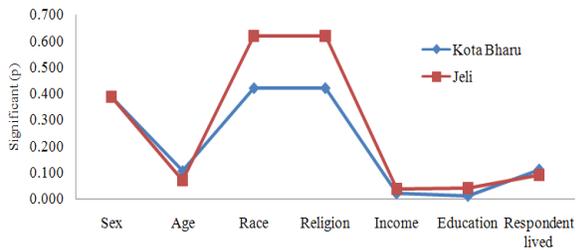


Fig. 3: Relationship with respondent's demographic factors on constraint factors involved in issues related to environment

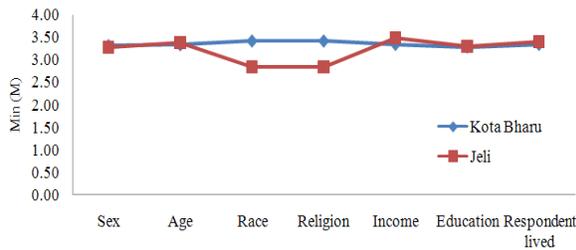


Fig. 4: Relationship with Min demographic factors on the level of respondent's knowledge of environmental issues

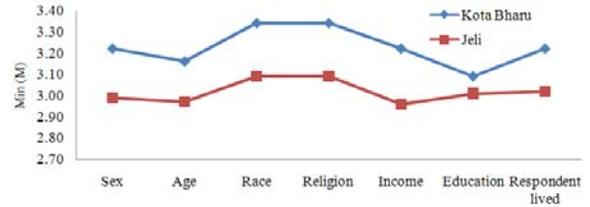


Fig. 5: Relationship with min demographic factors on the level of respondent's knowledge of local environmental issues

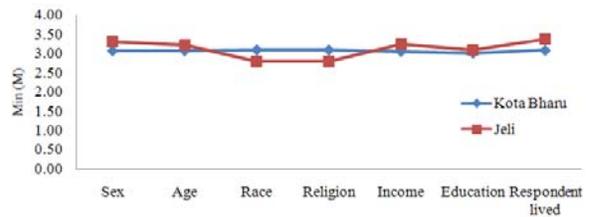


Fig. 6: Relationship with min respondent's demographic factors on constraint factors involved in issues related to environment

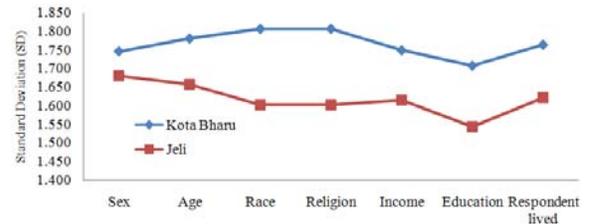


Fig. 7: Relationship with Standard Deviation (SD) demographic factors on the level of respondent's knowledge of environmental issues

In terms of comparison of Min (M) between the demographic factors of respondents with knowledge about environmental issues, local environmental issues and constraints for factors involved in environmental issues in the two provinces, there are differences between the demographic factors which for a Min (M) between demographic factors and the level of respondents' knowledge of environmental issues (Fig. 4-6), there are little differences in mean value for the two provinces involved in the sex, age, respondent lived and education factor respectively 0.04, 0.04, 0.01 and 0.05. This meant no significant differences between the factors for the both district concerned. For the income factor, there are significant differences between the both district with different mean values 0.13. This shows the income of the respondents in the Kota Bharu district is higher than the income of the respondents in the Jeli district. For the respondents' knowledge of

local environmental issues, the comparison shows that are significant differences between income and respondent lived for the two provinces with differences mean value respectively 0.26 and 0.20. There a little difference between education factor of both provinces with difference mean value is 0.08 which means respondent in the two provinces have almost the same level of education. For the constraint factor to the respondents in the two provinces involved in the study of environmental issues, also shows that income and respondent lived factors have different significant of mean values respectively 0.20 and 0.30. Others factors such as education factors shows a little difference only 0.08.

In terms of comparison of Standard Deviation (SD) between the demographic factors of respondents with knowledge about environmental issues, local environmental issues and constraints for factors involved in environmental issues in the two provinces, there are differences between the demographic factors which for a Standard Deviation (SD) between demographic factors and the level of respondents' knowledge of environmental issues (Fig. 7-9), there are significant differences in SD value for the two provinces involved in income, education and respondent lived factor respectively 0.133, 0.163 and 0.142. That meant there are significant differences between the factors for the both district concerned. For the respondents' knowledge of local environmental issues, the comparison shows that are significant differences almost all factors that considered in this research. Respondent in Kota Bharu district is more exposure about environment issues and also take initiative to control the problem compare to respondent in Jeli district. For the constraint factor to the respondents in the two provinces involved in the study of environmental issues, also shows most factors that considered in this study not significantly different with the value of SD respectively between 0.010-0.029. That information shows respondent in both provinces have almost similar constraint factor to involved in environment issues.

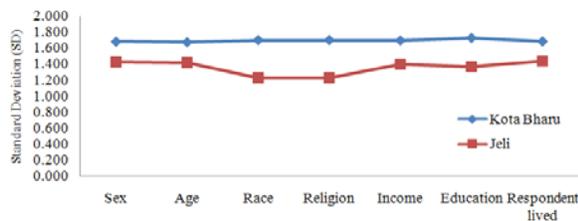


Fig. 8: Relationship with Standard Deviation (SD) demographic factors on the level of respondent's knowledge of local environmental issues

Comparison public involvement on environmental issues for both district is shown and summarized in bar charts and graphs below (Fig. 10-13). The study found that although the understanding and knowledge of local communities in issues involving the environment quite well, but their involvement is still in low level. These factors caused the local community in the study area is less vulnerability and there is less awareness and lack of knowledge of environmental issues in particular those involving policy, regulatory agencies, as well as

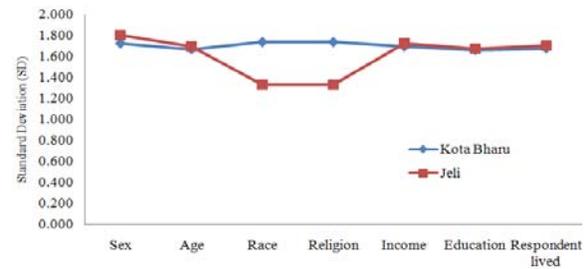


Fig. 9: Relationship with Standard Deviation (SD) respondent's demographic factors on constraint factors involved in issues related to environment

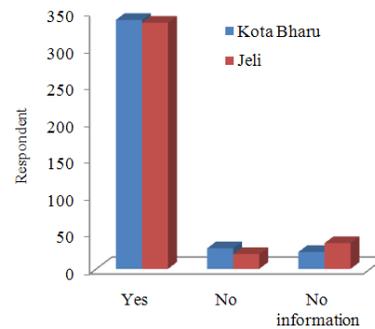


Fig. 10: Phenomenon environmental damage worrying?

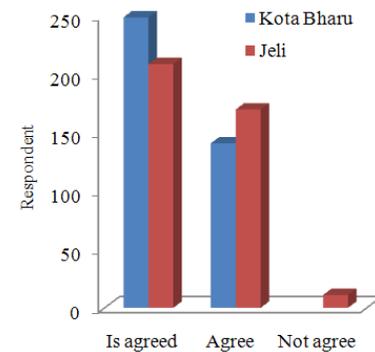


Fig. 11: Public opinion should be included in development plans?

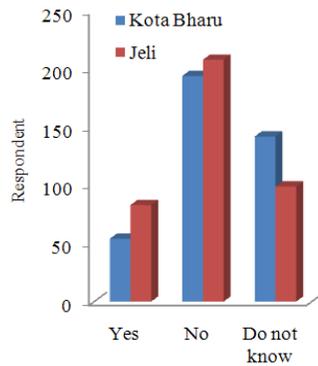


Fig. 12: Environmental quality for 10 years (2000-2009) is better?

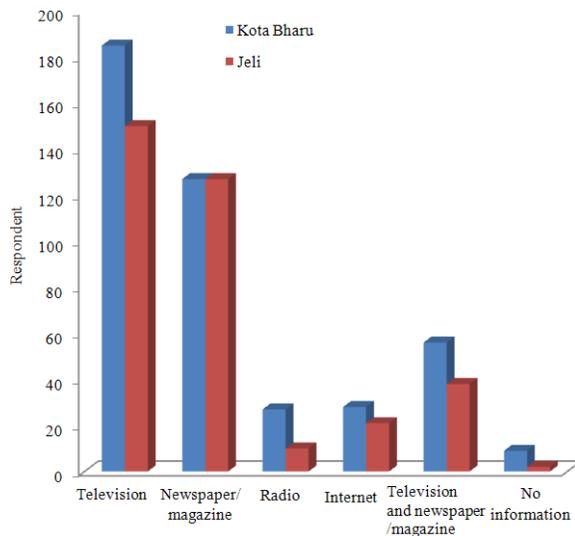


Fig. 13: The most influential mass media in environmental education

their interest to participate in issues related to the environment. In addition, public in both district is less exposed and not given opportunities to be involved directly in issues involving the environment, particularly in the planning and implementation of programs and projects in their area than there were complaints that complaints and problems they face are often not taken appropriate actions by the authorities. All these hinder local people's interest in the study area to get involved in environmental issues.

### CONCLUSION

Through this research, has identified the level of knowledge of local communities in the study of environmental issues, constraints and suggestions of

factors that they bring in an effort to preserve and conserve the environment in the study area. In this study, nearly 14 proposals were put forward by local communities in efforts to preserve and conserve the environment, including the role of education, laws, campaigns, taking into account the views of the community in local development and so on. In general, research has demonstrated the role of education and income factors in influencing public involvement in environmental issues as well as the importance of collaboration of all parties such as governments, private sectors and communities in the development of a strategic plan to create a sustainable environment. The study found that demographic factors such as age, income, education and length of stay has a significant relationship to respondents' knowledge about environmental issues, local and environmental constraints factors for those involved in environmental issues.

By Model Hines, to change the attitude of a person through Environmental Education, an individual must be given the knowledge and information on issues of environmental pollution that requires immediate action. In addition to the knowledge, skills, action must be given to the individual which will affect the interest, curiosity and the desire of an individual. If the interest, desire is starting to tend to the care of the environment. However, factors such as personality and external social pressures, economic demands and the opportunity to choose will affect the formation of interest. This means, the community, the economic system that is need to provide opportunities for action to be taken on the environment and the facility returns to the individual. The researcher expects that adequate education about the environment is given. Various studies have been carried out by (Md Taff, 2007; Mittelstaedt *et al.*, 1999; Palmberg and Kuru, 2000; Kaabneh and Al-Bdour *et al.*, 2005) in the field of outdoor education, proving that it is one of the effective medium in shaping the attitudes and understanding of environmental positively to the students since the early stages because the education that allows them more aware of environmental issues in addition to reducing the environmental problems that increasingly threaten the health masyarakat. In addition, the government must do everything in our human capital development strategies and economic to increase the household population. In Model (Hines *et al.*, 1987; Lee *et al.*, 2004) explains the importance of economic factors in promoting environmental awareness.

**Recommendation:** Associated with the findings of the study, the researchers suggest several aspects that need to be and can be reviewed to ensure that the knowledge

and involvement of civil society on environmental issues to achieve goals set. This proposal also takes into account the recommendations proposed by the respondents in the survey through questionnaires given question. Such as more strict enforcement of any company or person who does not emphasize the care of the environment properly. In addition, civil society should be more actively involved in issues relating to the environment because they are capable in giving constructive ideas to the implementation of laws and acts effectively in the protection of the environment other than to assist in the development of environmentally sustainable. In addition, the relevant parties should intensify the campaign environment for enhancing public awareness of the importance of caring for the environment, while improving the function and role played by the NGOs concerned. To provide proper education to the public is also very important in preserving and conserving the environment. This is because education is an important factor in efforts to provide knowledge to the public about the importance of awareness and involvement in environmental issues while ensuring the environmental health of the public are always good at. The government should strive to increase income among the general public. This is because the income is sufficient to provide the best input in an effort to educate the public about environmental issues as well as to increase interest and awareness on environmental issues.

Knowledge and awareness of civil society on policies and legislation related to the environment in our country must be improved to ensure the public fully understand the policies and legislation related to the environment. This will provide information needed by civil society in improving their level of knowledge about legal action that can be applied to criminals who damage the environment as well as additional knowledge about environmental issues. Planning approach in the form top to bottom must be reduced and replaced with the planning approach from the bottom up (Kaabneh and Al-Bdour, 2005). This approach takes into account the hopes and aspirations of civil society in efforts to minimize environmental problems. With this, the public be given opportunities to provide ideas and opinions are always in the government's efforts to formulate a plan for sustainable environmental development, strategic and integrated. All forms of information, discussion and consultation between relevant bodies and agencies, governments, the private sector, developers and contractors and civil society must be comprehensive, transparent and more sensitive to the effects of development on environmental health, particularly to the public that any development without

planning carefully and take into account the Environmental Impact Assessment (EIA) will impact the residents in the area. The government should strive to provide a data base where the public can access to make reference to current environmental issues and to give their views to produce a best approach in minimizing environmental problems (Lyu *et al.*, 2004). The role of the media must be used and fully extended in a program that involves the knowledge that must be owned by the public related to environmental issues. This is very important that the goals and objectives of a program to achieve its targets relating to environment and not just stay as a program solely.

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