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Knowledge and Awareness on Environmental Impact Assessment of Local Government Officers

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Abstract: The development of project constructions are associated to the issue report of environmental impact assessment in order to propose before applying for a constructing permission. The officers of Local Government, who are responsible in operating, must necessarily be knowledgeable and being well-aware of the environmental impact assessment in order to protect a negative effects, which will happen to the projects and surrounding community. This research is having a aim to study and compare knowledge and awareness concerning to the environmental impact assessment from officers of the local government with different ages, education levels and job positions. The samples consisted of 105 officers as agent the part of civil in Mahasarakham province, selected by a multiple sampling technique. Constructed questionnaire was used to collect data and also was assessed for its reliability. Data analysis involved meaning, standard deviation and hypothesis's tests F-test (One-way MANOVA). The result of this study showed that knowledge on environmental impact assessment of local government officers was at the medium level, Officer's awareness on environmental impact assessment was at a high level. Officers with different ages, education levels and job positions did not show knowledge and awareness on environmental impact assessment differently ($p>0.05$).

Key words: Environmental impact assessment, knowledge, awareness, local government, education levels

INTRODUCTION

An Environmental Impact Assessment (EIA) is an assessment of the possible impact positive or negative, that a proposed project may have on the natural environment. The purpose of the assessment is to ensure that decision makers consider the ensuing environmental impacts to decide, whether to proceed with the project. The International Association for Impact Assessment (IAIA) defines an environmental impact assessment as the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made (Carrol *et al*., 2009).

The most immediate aim of EIA, arising directly from these functions, is to supply decision-makers with an indication of the likely environmental consequences of their actions. This is with the aim of ensuring that development only proceed in an acceptable manner. To this end. EIA provides the mechanisms for a development proposal to be amended where, necessary and likely adverse impacts are ameliorated. Although, EIA may lead to the abandonment of certain proposals, its focus is more strongly on the mitigation of any harmful environmental impacts likely to arise). In addition to these 'proximate aims', EIA is increasingly being positioned within a broader context of sustainability and its original, substantive aim of contributing to more sustainable forms of development is being rediscovered. However, its precise role in this regard remains to be clearly defined (Stephen *et al*., 2007).

The promulgation of royal Thai constitution in 1997 and the Act of decentralization plan and process in 1999 has obligatorily expanded the Thai Local Government provides public services (Weerasak, 2004). According to these documents, there are a legal powerful decision relating to the EIA, which is according to the 46 and 51 section at environmental act 1992 of Thailand. This is now the projects do not study EIA as it should it be, indicating that the local government officers don't have enough an awareness of EIA.

Therefore, the researcher as an university teacher had studied a knowledge and awareness development on EIA of local government officers by surveying to solving those problems.

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The aims of this research, were to study and compare knowledge and awareness on EIA of local government officers with different ages education level and position.

MATERIALS AND METHODS

The sample of this research were a 105 officers, who were part of civil of local government offices in Mahasarakham province, which had been selected by a multiple sampling technique.

The contents of this research were importantly divided into three types, which are type one: general data are four items such as ages, education levels and job positions of the local government officer. Type two: Knowledge on EIA is two choices, which are (yes or no) in the amount all together of 30 items. Type three: An awareness on EIA in the rating scale of five is in the amount all together of 20 items. They were examined by five experts for an evaluation form IOC, which is indicated that they were between 0.05-1.00. Improving and collecting them, which according to the five expert's suggestions and opinions, which leaded them to find out without the thirty officers sampling random group, it's indication was discrimination value that also, using in the point of Pearson Coefficient Correlation by choosing the items with positive discrimination value, which having a score >0.02, the discrimination value in range of 0.02-0.80, the reliability value that using the Cronbach α-coefficient and the reliability is equally to 0.85. Then they were analyzed for collecting data by mean ($\bar{X}$) Standard Deviation (SD) and compares the knowledge and awareness on EIA of the local government officers with different ages, education levels, job positions by F-test (One-way MANOVA).

RESULTS AND DISCUSSION

The major findings revealed as following: the local government officers have shown their total knowledge on EIA at medium level ($\bar{X}$ = 13.40); the maximized mean showed that the etiquette of vocational at medium level ($\bar{X}$ = 15.85) and the minimized mean showed that the social impact assessment at medium level ($\bar{X}$ = 9.92) (Table 1). In addition, the awareness on EIA showed that integration of EIA at very high level ($\bar{X}$ = 4.52) and the minimized mean showed that the etiquette of vocational of EIA at high level ($\bar{X}$ = 3.80) (Table 2).

The local government officers in Mahasarakham province with different ages, education level, job positions did not differently show knowledge and awareness on the environmental impact assessment at all (p>0.05) (Table 3-5).

Table 1: Knowledge on EIA

Knowledge	$\bar{X}$	SD	Level
Law and regulation	14.12	3.74	Medium
Etiquette of vocational	15.85	8.53	Medium
Social impact assessment	9.92	4.35	Low
Public participation	12.57	5.55	Medium
Integration	14.47	3.72	Medium
Monitoring	13.33	2.11	Medium
Total	13.40	2.11	Medium

*0.00-9.99 = Low; 10.00-19.99 = Medium; 20.00-30.00 = High

Table 2: Awareness on EIA

Awareness	$\bar{X}$	SD	Level
Law and regulation	4.01	0.53	High
Etiquette of vocational	3.80	0.64	High
Social impact assessment	4.35	0.49	High
Public participation	4.51	0.46	Very high
Integration	4.52	0.42	Very high
Monitoring	4.15	0.53	High
Total	4.28	0.36	High

*1.00-1.49 = Very low; 1.50-2.49 = Low; 2.50-3.49 = Medium; 3.50-4.49 = High; 4.50-5.00 = Very high

Table 3: Comparison of knowledge and awareness on EIA officers who were ages different

Statistic	Value	Hypothesis df	Error df	F-test	p-value
Pillai's trace	0.067	1.765	4.000	204.000	0.137
Wilks lambda	0.934	1.754	4.000	202.000	0.140
Hotelling's trace	0.070	1.743	4.000	200.000	0.142
Roy's largest root	0.051	2.620	2.000	102.000	0.078

Table 4: Comparison of knowledge and awareness on EIA officers who were education levels different

Statistics	Value	Hypothesis df	Error df	F-test	p-value
Pillai's Trace	0.067	1.766	4.000	204.000	0.137
Wilks Lambda	0.933	1.780	4.000	202.000	0.134
Hotelling's Trace	0.072	1.793	4.000	200.000	0.132
Roy's Largest Root	0.072	3.658	2.000	102.000	0.029

Table 5: Comparison of knowledge and awareness on EIA officers who were positions different

Statistics	Value	Hypothesis df	Error df	F-test	p-value
Pillai's trace	0.082	2.177	4.000	204.000	0.073
Wilks lambda	0.919	2.183	4.000	202.000	0.072
Hotelling's trace	0.088	2.188	4.000	200.000	0.072
Roy's largest root	0.077	3.942	2.000	102.000	0.022

The overall of the local government officer's knowledge in EIA is in the medium level and social impact assessment has a lower average score, which is shown that the local government offices may not have enough knowledge, which relating to the EIA and as well as social impact assessment, which are not good enough, as we can see from the overall of average score, which is <50%, which is accorded to Pakpoom (2000) research, who find that the staff of the Bhumipol hydro plant had an intermediate level of knowledge of environmental problems.

Awareness of the local government officers on the EIA are in a high level including the aspects of integration and investigation in EIA, which are the highest level. This is shown that the local government officers are concerned an usefulness of EIA, which is a reduction process for environmental problems, which were caused from development projects and is accorded to Weerachat (1999) research, who educated an awareness to enforce environmental law of domestic police officers in Chiang Mai Municipality, which is in the intermediate level.

The local government officers who differently have ages, education levels and job positions, having had knowledge and awareness in indifferently EIA. This is shown that the local government officer's ages, education levels and job positions do not cause to acknowledgement receiving and also awareness in the EIA.

This might be that the local officers are differently having ages, education levels and job positions, they have not received an acknowledgement or even a training and giving less attention for the EIA, this indifferently cause an EIA's knowledge and awareness, which is accorded to Pakpoom's research (2000), who found that the staffs of Bhumipol hydro plant had an in differential knowledge levels of environmental problems and Weerachat's research (1999), who found that the knowledge and awareness about environmental law of domestic police officers in Chiang Mai Municipality, who are having a differential positions and in differential knowledge and awareness.

CONCLUSION

From this research, the local government officers had knowledge on EIA, which were at a medium level and awareness were at the high level. The local government officers with different ages, education levels and job positions did not differently show knowledge and awareness on EIA and need EIA training for every local government officers. Information from the study was giving a benefit to the EIA's development system in the local government.

RECOMMENDATIONS

In this research should be a knowledge development by giving the local government officers a training in the aspects of law firm, regulation and act of parliament, which relating to the environmental effects, people's participation and social effect evaluation for the local government officers to be able to constantly use this knowledge to develop their responsible areas, including environmental problems reduction, which were caused from many development projects.

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