परिच्छेद १०:वातावरणीय परीक्षण

वातावरण संरक्षण ऐन, २०७६ को दफा १२ (१) अनुसार वातावरणीय प्रभाव मूल्याङ्कन गर्नु पर्ने प्रस्तावको कार्यान्वनयन सुरु गरी सेवा सुरु गरेको २ वर्ष भुक्तान भएको मितिले ६ मिहना भित्र वातावरणीय परीक्षण गर्नु पर्ने हुन्छ। वातावरणीय परीक्षण वन तथा वातावरण मन्त्रालयद्वारा गरिनेछ। यसको मुख्य उद्देश्य भनेको वा.प्र.मू. प्रतिवेदनमा प्रस्ताव गरिएका न्यूनीकरणका उपायहरु प्रस्तावकले आयोजना निर्माण तथा संचालन गर्दा कित्तको पालना गरे भनेर ती उपायहरुको कार्यान्वयनको प्रभावकारिताको जाँच गर्दछ । यस आयोजनाका लागि वातावरणीय परीक्षणको योजना तल तालिकामा देखाइएको छ;

तालिका २०: वातावरणीय परीक्षण तालिका

ऋ.स	प्यारामिटर	स्थान	विधि	सुचांक			
भौतिक वातावरण							
٩	वायु गुणस्तर	आयोजना क्षेत्र	Air sampler	PM ₁₀ , CO, SO _x , NO _x			
2	ध्वनि स्तर	आयोजना क्षेत्र	ध्वनि मापन यन्त्र	ध्वनिको स्तर			
æ	भू-उपयोग	आयोजना क्षेत्र	निरीक्षण	भू-उपयोगमा परिवर्तन			
	जैविक वातावरण						
γ	आयोजना क्षेत्र भित्र	आयोजना क्षेत्र	निरीक्षण	आयोजना वरिपरिको			
	हरियाली प्रवर्द्धन गर्ने			हरियाली			
सामाजिक, आर्थिक तथा साँस्कृतिक वातावरण							
ሂ	स्थानीयलाई	आयोजना क्षेत्र	अन्तरिक्रया, निरीक्षण,	आयोजनाको तथ्याङ्क र			
	रोजगारीको अवस्था		सर्वेक्षण	स्थानीय सँग छलफल			
w	खानेपानी र सरसफाई	आयोजना क्षेत्र	प्रत्यक्ष अवलोकन,	उजुरी र रोगहरु			
			कामदार र स्थानीय सँग				
			अन्तर्वार्ता				
9	स्वास्थ्य	आयोजना क्षेत्र	प्रत्यक्ष अवलोकन	स्वास्थ्य चौकीबाट			
			र	आएका तथ्याङ्क			
			कामदार र स्थानीय सँग				
			अन्तर्वार्ता				

ऋ.स	प्यारामिटर	स्थान	विधि	सुचांक
5	बालश्रम	आयोजना क्षेत्र	निर्माण व्यवसायीको	बालश्रमको संख्या
			अभिलेख र स्थानीय	
			व्यक्तिसँग अन्तर्वार्ता	

Environmental Auditing in Nepal: Status and Challenges

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Abstract

Environmental auditing has been an integral part of development projects. Environmental auditing has been implemented to check on existing practices, evaluating the current activities from environmental point of view. Although this is done basically to check whether the parameters mentioned in approved project documents complies with the real practices or not, it has much broader scope lying ahead. Environmental auditing outcomes have been goodwill to many organizations. In Nepal, the concept of environmental auditing is new and environmental auditing of very few organizations have been executed. Authority of environmental auditing is provided by law and department of environment is only competent authority to carry out environmental auditing. Till date, environmental auditing of 16 development projects have been completed by department of environment and many problems and challenges have been faced in short duration. Majority of the project parameters (49.5%) have not been complied and this have been a point to be improved. There are different reasons to non-compliance of the parameters and these reasons should be managed to get better results in future.

Keywords: Environmental auditing, Environmental Impact Assessment, Department of Environment, Environment Protection Rule

1. Introduction

Environmental auditing is essentially an environmental management tool for measuring the effect of certain activities on the environment against set criteria or standard. Environmental auditing is carried out when a development is already in place, and is used to check on existing practices, assessing the environmental effects of current activities (SOAS, 2014). Environmental auditing therefore provides a 'snap-shot' of looking at what is happening at that point in time in an organization (SOAS, 2014). It was also regarded as an activity used for avoiding prosecution or civil lawsuits under the increasing pressure form environmental legislation.

Environmental audit is currently at a crucial stage in its development as a discipline (Maltby, 1995). What has yet to be formed is a consensus among practitioners, clients, legislators and users of environmental information about the purpose of the audit, and consequently about the form that it should take (Maltby, 1995).

Environmental auditing began in the early 1970s when a handful of industrial companies, working independently and on their own initiatives, developed environmental auditing programs as internal management tools to help review and evaluate the status of the company's operating units. It enabled managers to check compliance with (i) local environmental laws & regulations (ii) National environmental laws & regulations (iii) Corporate Policies. (SOAS, 2014)

Environmental auditing originated in the United States in the 1970s as a way of checking whether a company was complying with the multitude of new environmental laws and regulations (Jamtsho, 2005).

Environmental concern rarely formed as integral part of development plans, particularly in third world countries (Augustine et. al. 2013). Environmental issues are now at the vanguard of international and domestic as well as local government's agenda (Augustine et. al. 2013).

Environmental auditing is not a particularly new discipline; however its popularity as a means of assessing environmental performance has recently increased dramatically (Welford, 2002; Augustine et. al. 2013). Environmental audit is a periodic, systematic, documented object review by regulated entities of facility operations and practices to assure meeting environmental requirements (EPA, 1997). It is the post project assessment of actual environmental impacts, the accuracy of impact prediction, effectiveness of impact mitigation / benefit enhancement measures and functioning of monitoring mechanism (Manandhar, 2013). As per Environmental Protection Regulation (EPR), 1997 environmental audit is carried out once for each project after two years of commencement of project operation. Previously, it was the authority of Ministry of Population and Environment (MoPE) but ministry has delegated the authority to Department of Environment.

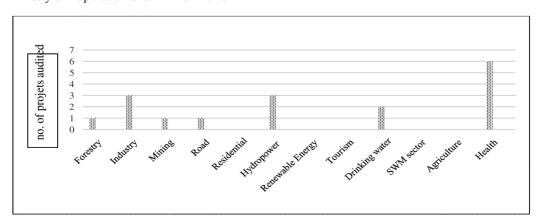
Till date, EIA of 263 projects have been approved by the Ministry of Population and Environment (MoPE). The projects are classified in 12 sectors in accordance with Environment Protection Rules, 2054. The projects have separate threshold level according to their type and nature. So, the audit measures are also different for the projects under observation.

2. Methodology

Checklists, Key informant interviews and Focal Group Discussion are also found to be used in audit (Gani, 2013). Primary and secondary information were collected and analyzed in the study. Primary data were collected by the audit team and secondary data were collected via previous audit reports in the Department of Environment. The audit team visited the project to be audited and collected necessary information. Checklists were prepared in accordance with the approved Environmental Impact Assessment (EIA) report and the project was analyzed in accordance with the parameters complied by the project.

3. Results and discussion

Environmental auditing of 16 projects has been completed by Department of Environment. The number of projects to be audited is determined in approved annual program endorsed by ministry of population and environment. So, 6 projects were audited in FY 2070/71. Similarly, 5 and 6 projects were audited by FY 2071/72 and 2072/73 respectively. Out of total 11 sectors listed in EPR, sector with maximum no. of audited project was health sector. Environmental auditing of 6 projects from health sectors haven been completed. Figure 1 indicate that no any environmental auditing from Residential, Renewable Energy, Tourism, SWM sector and Agriculture sector have been done. This is because very few EIA reports from these sectors have been approved from Ministry of Population and Environment.



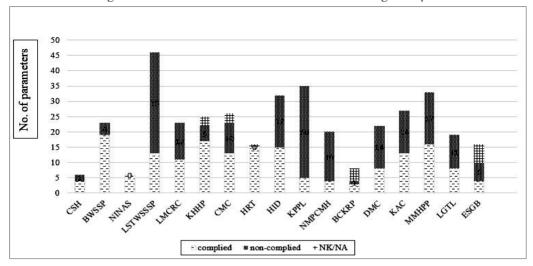


Figure 1: Sector wise status of Environmental auditing in Nepal

Figure 2: Status of compliance of parameters in audited projects by DoEnv

Moreover, projects to be audited is determined by the availability of the approved EIA report in the ministry and time duration of the project commencement. According to Environment Protection Rules, 1997, "two years after the commencement of service, distribution and production relating to the implementation of a proposal requiring an environmental impact assessment, the Ministry, shall carry out an environmental examination of the environmental impact of the implementation of the proposal and the measures adopted for reducing such impact etc. and maintain updated records thereof ". So, to know whether a project has completed two year time duration providing service and production is being a very difficult task. Similarly, not all the sectors listed in Environmental Protection Rules have been eligible to carry out EIA. So, to do environmental auditing of all the sectors has not been possible.

Similarly, a total of 388 parameters have been considered and audited by audit team (Figure 2). Out of these, 174 (44.8%) parameters were found complied whereas 192(49.5%) parameters were not found complied. Similarly, status of 22 (5.7%) parameters were not known. This shows the fact that majority of the parameters were not complied by the concerned stakeholders. There may be various reasons for that. Lack of knowledge on environmental issues, lack of relevant equipment to fulfill environmental provision, lack of financial resources are some of the reasons of non-compliance of environmental parameters mentioned in approved EIA reports.

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