The barriers facing the implementation of EIA in the Libyan oil industry

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Abstract
Libya established its oil sector over fifty years ago. This sector is one of the most important and largest industrial sectors in Libya and it is the main source of foreign currency for development. In the 1970s and 1980s the Libyan government awarded concessions to national and international oil companies to explore new oil discoveries. As a result, there was an increase in the number of oilfields resulting in increase of oil revenues which improved the national income. Associated with this increase is a general failure to comply with environmental laws and regulations which creates various environmental impacts such as groundwater contamination, soil and air pollution.

The present work aims to assess the main barriers facing the implementation of EIA in the Libyan oil industry, this study based on the cumulative assessment of the current environmental laws and regulations, interviews with some of the company’s personnel and telephone communications with some employees of the companies and filed visit to some oilfields. The data analysis reveals that the implementation of EIA in the Libyan oil and gas industry is generally poor and exacerbated by number of factors. Firstly, Lack or poor application of EIA systems. Secondly, Ineffective environmental laws and regulations. Finally Absence of monitoring and weak supervisory authorities and Low environmental awareness. Addressing these factors will allow the development of more approach to environmental management in the Libyan oil industry.

Introduction
Oil is a vital global material needed by everyone without exception. The petroleum industry is the largest industry in the world, however, depends on the supply and demand, balance affected by the price fluctuations and political circumstances dominate the economics of petroleum.

The Libyan petroleum industry was established for more than fifty years, this sector is one of the most important and largest industrial sectors in Libya, and it is the main source of hard currency and the expenses of projects on infrastructure and development. The Libyan economy is linked largely to oil, and oil revenues consider major supplier for the Libyan national income (Masoud, 2012). Libya one of the major oil producers in the world. As a member of the Organization of Petroleum Exporting Countries (OPEC) and one of the major oil producers and the biggest oil supplier to Europe among other oil supplies from North Africa, Libya faces a big challenge in protecting its environment while promoting the continued development and growth of its petroleum industry.
Purpose of study
The main purpose of this study is to investigate the main barriers facing the implementations of EIA in the Libyan oil and gas industry.

Methodology
The research has entailed review of existing literature and programme of fieldwork during December 2012. This fieldwork included visits to NOC, EGA and two petroleum companies.

Stresses on the environment
The rapid increase in the awareness of environmental impact of petroleum operations by both governmental and non-governmental organisations has led to efforts by the petroleum industry in minimizing the environmental impacts of its operations. Society’s need for oil and gas, and the political and industrial responses to these needs, all place a stress upon the environment. The upstream industry covers the stages from exploration to the transport of oil to land terminals. Stresses on the environment in the upstream industry are caused primarily by routine discharge and accidental spillage of oil from platforms and ships and of chemicals used in production. The downstream industry covers the stages from refining to the disposal of used oil. Stresses include emissions from refineries, spillages of petroleum products from storage, release of air pollutants by combustion, and contamination from discarded oil (Environmental Agency, 1998).

Legislative framework

There are numbers of environmental laws and regulations relevant to environmental protection and control of impacts of petroleum industry in Libya. The first legislative act in Libya was the Law No. 7 of 1982. This law was not dedicating particular space to the environmental aspects of petroleum industry and development as Libya is a petroleum producing country. Presently, environmental management in Libya is controlled through the key legislation (Law No. 15/2003) which replaced the law No. 7/1982. The enactment of this Law is an important milestone in the evolution of the Libyan EIA system and has significant implications on EIA practice. The Law contains a set of 79 Articles grouped into twelve chapters and the executive regulation for its illustration is still under preparation.

This law authorizes the Environmental General authority (EGA) to promulgate environmental Regulations for controlling the development projects which are likely to have harmful effect on the environment at both the national and local level (EGA, 2004). The main legislative document in Libya, stating the Environmental Law No 15 of 2003 as the main environmental assessment procedure, is the Law on environmental protection which is not a specific EIA-related legislative document. According to this Law, the Environmental General authority (EGA) was authorized to develop the legislative framework for EIA process in the country.

In 2006, EGA published a document entitled Organizational Manual for the Study of Survey and EIA. Also, has produced the Environmental Assessment Form No.1. Furthermore, it was produced the regulation proposal of EIA and the Annex of
classification of economic activities and projects, which should be subject to EIA procedures.

Although there are a number of environmental laws related to environmental protection, they have no specific law to impose the implementation of EIA and the country still lacks a comprehensive regulatory framework for environmental management to support its environmental protection law.

Also, there are no executive regulations for the law No. 15/2003 which have a role in EIA practice.

**EIA in the Libyan oil industry**

In the petroleum industry, the EIA process is not apply in most of national and foreign oil and gas companies operating in the country and some of them are not have any environmental management system or any written environmental policy. Even some companies have these systems and policies but no practical means of implementing them. At the same time, there appears to be discrepancy between the model of project management used by oil companies and the requirements by EGA with regards to the level of details in EIS at submission. The Libyan oil and gas projects are developed within legal framework of Production Sharing Agreement (PSA) which not encompasses EIA requirements. On the other hand, PSA gives project developers with immunity against national environmental legislation that sometimes make dilemma for the authorities while reviewing EIAs.

Over the past five years, NOC has made contribution to improvement the performance of petroleum industry in terms of environmental legislation. It was established its environmental protection department in 2003. Also, NOC has introduced Environmental Impact Assessment Guidelines for seismic operations in 2006.

The legislation is not comprehensive and fails to address important environmental aspects such as various steps and issues involved in organizing the EIA process; neglects the role of public participation in the EIA process; problems of terminology are evident in the legislation of the country. This creates confusion about the institutional responsibilities of the various actors involved in EIA; no reference is made in any of the legislation for environmental training programmes and enhancing public awareness for environmental issues; post-decision monitoring and impact management requirements are ignored in the legislation and not concerns regarding the cumulative long-term impact of certain pollutants or technology standards. Even though EGA is ultimately lawfully responsible for setting environmental regulations and standards, this responsibility is in practice fragmented, shared by several highly centralized organisations. This creates institutional overlap, inefficiency and contradictory interpretations regarding EIA implementation and enforcement. There is thus unavoidable need to reinforce environmental legislation and the regulatory framework in Libya.
The main barriers facing the EIA implementation

This research has confirmed that the obstacles facing the implementation of EIA process can exist at national levels, institutional, managerial and individual. These obstacles facing the EIA Implementation, which appear when the government institutions and oil and gas sector ignore the need for EIA system or consider it is not necessary or pertinent.

The main barriers facing the implementations of EIA in Libya are poor development of comprehensive data collection programme, with clear priorities, for the collection and management of baseline data. Both the EGA and NOC have not set up a database of consultants for use by project proponents as references. A central database of EIA reports has not been established in Libya. In addition, the EGA has not already set up an EIA tracking system to monitor, record and report the status of EIA cases in general and oil and gas industry in particular. Lack or poor implementation of laws and regulations in Libya is regarded as one of the major problems facing the EIA implementation in Libya. Regarding current co-ordination and cooperation between organisations, regulator and industry, also current arrangements were inappropriate to meet the necessary requirements.

Poor co-ordination and cooperation among EGA, NOC and governmental institutions is very evident in the country, which contributes to an increase in environmental problems.

The shortage of human resources related to EIA study and low environmental awareness are also evident in Libya. These factors are other difficulties facing the implementation of EIA process. Moreover, ambiguity and overlapping of responsibilities and duties for conserving the environment are perceived characteristics in the country because the governmental sectors, oil industry sector and environmental institutions do not have clearly defined roles or responsibilities. As a consequence, each organisation considers other organisations responsible for implementing, monitoring and control of environmental pollution, hence, these often become non-existent.

CONCLUSION

The research has found that Libyan EIA procedures lack most essential components compared with an idealised EIA process. In terms of the elements of the EIA process, the study reveals considerable differences in the way the EIA process is implemented in Libya. It appears that the idealised EIA process has never been achieved in practice. EIA plays little role in decision-making in the planning process as project proponents utilised EIA as a tool to obtain project permissions rather than to assist in minimising environmental adverse effects which will be generated by their projects.

In the review of existing practices, there is a lack enforcement of monitoring and auditing at the post-decision stage. Most essential elements of the idealised EIA process are also missing from the existing EIA practice, such as consideration of project alternatives, identification of impacts, the EIA follow-up and public participation and consultation.

In terms of the context of EIA practice, the major difficulties obstructing the effective implementation of EIA in Libya are the national culture and attitudes and intellectual
contexts. These include: a lack of political commitment for pursuing environmental policy goals at the national level; shortcomings in using EIA in the project permission system such as produce an environmental protection plan or development proposal that include the end-use of the oil and gas field before granting them permission; absence of monitoring and auditing after decision-making; a lack of enforcement organisations for EIA practice; and a shortage in human resources in EIA generally in that the environmental institutions and oil sector did not offer any courses, workshops, seminars etc in relation to EIA process; and absence of cooperation and coordination between the oil sector and governmental organisations especially EGA in particular in the field of EIA development and training. Administrative control is thus ineffective in the current EIA practice in Libya.

The research found that the existing related environmental laws are not sufficiently directed towards enforcing the implementation of EIA with project planning. There is a necessary need for improvements in legislative framework for the EIA in the country. Thus, the current implementation of EIA system to the petroleum industry and in the Libyan context is ineffective which needs improvement of the EIA process in the future oil and gas industry.

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