The Environmental Impacts of Hasira Village Oil Production

Hazhar.M. Aziz, Mahir Essa.

Field crop Department -Kalar Technical InstituteSulaimani poly Technic University/Kurdistan-Iraq

Abstract: This research consisted of 150 questionnaire form, in the form of multi sections, the questionnaire made as (High, Low, Intermediate, some law, bad). The goal of this research is to find the impact of Hasira oil production on the surrounding environment. the Hasira village is located in the Sarqala sub-distribution the area include a number of villages, the research focuses on the impact of the oil production on cultivation, graze land and wild life, and the main goal is to find out the impacts on the cultivation areas therefore we have created a list of questions to indicate the rate of impact of the oil production on the surrounding areas, after visiting the sites and collecting the questionnaire, we found that damage rate is much higher than to benefits, because the local people of the areas, are occupied only as a normal employed and servant, this had made them quit, the life stock and agricultural products, and the oil industry has lead to local conflict between the local areas despite of damages have be made to the lands causing degradation of the graze land.

Keywords: Air, Soil, Water, Land, contamination, Environmental Impacts, agriculture, people.

I. Introduction

The remediation of oil contaminated soils has been a major problem in oil producing countries and recently use of plants to clean such soils has been on investigation ⁽¹⁾ The exploration and production of petroleum and its subsequent transportation and distribution in the Niger Delta have led to pollution of aquatic habitats with serious threats to associated flora and fauna. Consequently, most studies have concentrated on the effects of crude oil and its products on aquatic flora and fauna, with little emphasis on the socio-economic environment ⁽²⁾

Negative impacts of the oil industry are a major concern in sub-Saharan Africa (SSA),threatening not only the health of local communities, but also the livelihoods they depend on. but also the livelihoods they depend on. The following study examines the impacts of the oil industry in sub-Saharan Africa and current measures to mitigate these impacts. Soil and water samples obtained from four sampling points; around an oil well head, flare site, waste pit

and effluent discharge point in an exploration area in the Niger Delta were analyses for their heavy, metals contents⁽⁴⁾ Agricultural and petroleum sectors are both of great importance to the Nigerian economy in terms of their contribution to Gross Domestic Product (GDP) and value of their exports. Dependence of Nigeria on the oil sector has been found to adversely affect both the agricultural sector and the economy⁽⁵⁾

The complex system of interactions between basic environmental components is very often complicated by anthropogenic pollution. Petroleum hydrocarbons and volatile organic compounds represent the most frequent pollutants in the area of the Czech Republic. Our attention was therefore focused especially on these substances. Since mankind first cultivated plants, agriculture has had an impact on the environment. While the intensity of cultivation can exacerbate those impacts, all agriculture, including subsistence farming, has environmental and social impacts both on the farm and in the surrounding areas.

II. Materials And Methods

The main objectives of this research is to spread the quesionnnare forms, consisting of (25) questions, to conclude a feedback on the impact of the oil industry in the Hasira and surrounding locations, the forms have been divided to on to beneficence and these places have located close by the oil fields.

III. Results And Discussion

In this research we realized that oil production in Hasira area have made a bad impact of he area, because majority of people have left their normal agricultural life and life stock, and has impact on the reduction of land, in those places where have been used as graze land more specifity had a bad impacts on the wild life this has lead to disturbance of people due to all of those machinarys which visits the areas despite that the industry have became a disturbance to other villages and damaged a social form of life.

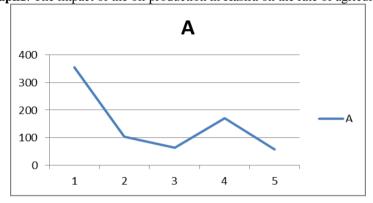
DOI: 10.9790/2402-1006010104 www.iosrjournals.org 1 | Page

Table 1: The collected data is as follow:-

No	A	В	C	D	E
1	355	290	151	219	200
2	103	90	37	69	57
3	64	69	39	58	66
4	171	196	131	167	176
5	57	105	92	87	101

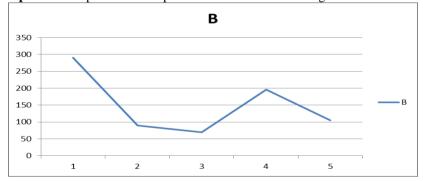
In **table 1** shows that , the collected data is refer to the opinion of (150) local people , for each question we have given five options to be chosen , the answers (High ,Low , Intermediate , some law , bad). and we have given number to all the question , as (1,2,3,4,5) answers above , we also have given letters to all the questions as follow (A, B,C, D, E) .

Graph1: The impact of the oil production in Hasira on the rate of agriculture



Interpretation: in this graph we mean to show the impact of the oil production in Hasira on the rate of agriculture, in the surrounding areas each form has composed of (25) question only five question of that was related to our research. The result are as follow out of (150) people, they have answered (750) different opinions which majority have given the negative answer (355), people have answered some low (103) people, very low (64) people, low (171) people and high (57) persons, therefore of the last conclude that the research shows the impact of oil production of Hasira oil field on agricultural productivity, based on the research we came to know that due to the oil production in mentioned field the agricultural production has declined.

Graph2: The impact of the oil production in Hasira on the agriculture of the area

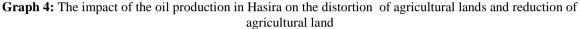


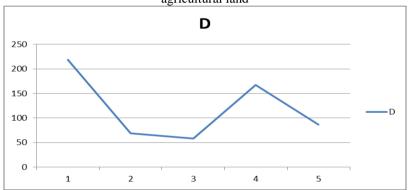
Interpretation: in this graph we mean to show the impact of the oil production in Hasira on the agriculture of the area, in the surrounding areas each form has composed of (25) question only five question of that was related to our research. The result are as follow out of (150) people, they have answered (750) different opinions which majority have given the negative answer (290), people have answered some low (90) people, very low (69) people, low (169) people and high (105) persons, therefore of the last conclude that the research shows the impact of the oil production on the agricultural of the area, with refer to the collected data, has huge impact on the business, due to the residual of the area have become employed by the company's and the companies have occupied a majority of agricultural areas.

C 160 140 120 100 80 60 40 20 Ω 2 1 3 4 5

Graph 3: The impact of the oil production in Hasira on the reduction of wild animals

Interpretation: in this graph we mean to show the impact of the oil production in Hasira on the reduction of wild animals, in the surrounding areas each form has composed of (25) question only three question of that was related to our research. The result are as follow out of (150) people, they have answered (450) different opinions which majority have given the negative answer (151), people have answered some low (37) people, very low (39) people, low (131) people and high (92) persons, therefore of the last conclude that the research shows the based on the research data the oil production in the area has a negative impact on the wild life in general and specifically on the wild bird population.





Interpretation: in this graph we mean to show the impact of the oil production in Hasira on the distortion of agricultural lands and reduction of agricultural land, in the surrounding areas each form has composed of (25) question only four question of that was related to our research. The result are as follow out of (150) people, they have answered (600) different opinions which majority have given the negative answer (219), people have answered some low (69) people, very low (58) people, low (167) people and high (87) persons, the result of the research shows that the production site have occupied majority of the lands in the area because the oil as well as the oil pipe line shed a vast area. Therefore it has a bad impact on the quality of land in entire region.

E 250 200 150 100 50 0 3 1 2 4 5

Graph 5: The impact of the oil production in Hasira on the reduction of graze land

DOI: 10.9790/2402-1006010104

Interpretation: in this graph we mean to show the impact of the oil production in Hasira on the reduction of graze land, in the surrounding areas each form has composed of (25) question only four question of that was related to our research. The result are as follow out of (150) people, they have answered (600) different opinions which majority have given the negative answer (200), people have answered some low (57) people, very low (66) people, low (176) people and high (101) persons, the research shows the that wherever the production sites located the grazing lands have decreased due to separation of the production sites by fencing from rest of the areas.

IV. Conclusions

Eventually this research shows that oil production has many positive and negative impacts on the area as following:-

*Positive impacts: The original resident of the area were benefiting from the process in terms of employment and annual rental of their lands are not complaining about the process despite of their jobs companies have made a black top roads for them.

*Negative impact: the negative impact is too much because the oil production causes the deterioration of the environment due to smoke and suffering from the process because a large number of oil transportation tankers are a crossing the areas making a dust and smoke to the residents, thus leads to the contaminated of the environment of the area. Which causes the declination of wild life and the entire process has impact on the agribusiness due to employed of the farms, at the last this is the only research has made in garmyan showing that the oil production has more negative impact rather than the positive impact.

References

- [1]. NJOKU, K.L., AKINOLA, M.O. AND OBOH, B.O. Department of Cell Biology and Genetics, University of Lagos, Akoka Lagos, Nigeria. Phytoremediatioof crude oil contaminated soil, the effect of growth of glycine max on the physic-chemistry and crude oil contents of soil, Nature and Science, 2009
- [2]. 2-Ibama Brown, Eyenghe Tari, An Evaluation Of The Effects Of Petroleum Exploration And Production Activities On The Social Environment In Ogoni Land, Nigeria, international journal of scientific and technology research volume 4, issue 4, april 2015
- [3]. 3-BAUMÜLLER, Heike, DONNELLY Elizabeth, the effect of oil companies activities on the environment, health and development in sub-saharan Africa, august 2011.
- [4]. 4-Asia, I. O.1*, Jegede, S. I.2, Jegede, D. A.3, Ize-Iyamu O. K.1 and Akpasubi E. Bernard2, The effects of petroleum exploration and production operations on the heavy metals contents of soil and groundwater in the Niger Delta, International Journal of Physical Sciences Vol. 2 (10), pp. 271-275, October, 2007
- [5]. 5-A. B. Sekumade, The effects of petroleum dependency on agricultural
- [6]. trade in Nigeria: An error correlation modeling (ECM) approach, Scientific Research and Essay Vol. 4 (11), pp. 1385-1391, November, 2009
- [7]. 6-František Konečný Zbyněk Boháček Pavel Müller Miloslava Kovářová Irena Sedláčková, Contamination of soils and groundwater by petroleum hydrocarbons and volatile organic compounds Case study: ELSLAV BRNO, Bulletin of Geosciences, Vol. 78, No. 3, 225–239, 2003
- [8]. 7-S. LORD AND J. CLAY, Environmental Impacts of Oil Palm Practical Considerations in Defining Sustainability for Impacts on the Air, Land and Water
- [9]. 8-Jan Kucharski, Monika Tomkiel, Edyta Boros, Jadwiga Wyszkowska . the effect of soil contamination with diesek oil and petrol on the nitrification process , University of Warmia and Mazury in Olsztyn , J. Elementol. 2010, 15(1): 111–118
- [10]. 9-Kareem B. Federal University Of Technology akura, ondo state ,Nigeria, Karbil2002@yahoo.com.
- [11]. 10-KUCHARSKI J., WYRWAŁ A., BOROS E., WYSZKOWSKA J. 2009. The nitrification process as an indicator of soil contamination with heavy metals. Ecol. Chem. Eng. (in press).
- [12]. 11-United States Department of State (2005). The political economy of income distribution in Nigeria.
- [13]. 12-EC (2011a) EU Crude oil imports, Market Observatory for Energy, Brussels: European Commission. Available at ec.europa.eu/energy/observatory/oil/import_export_en.htm (accessed on 25 May 2011).
- [14]. 13-EIA (2011a) International Energy Statistics, Washington D.C.: U.S. Energy Information Administration, available at www.eia.gov (accessed on 25 May 2011).
- [15]. 14-Okolo, J.C., Amadi, E.N. and Odu, C.T.I 2005. Effects of soil treatments containing poultry manure on crude oil degradation in sandy loam soil. *Appl. Ecol. Environ. Res.*, 3 (1), 47-53.
- [16]. 15-Merkl, N. 2005 Phytoremediation of petroleum-contaminated soil Margraf Publisher Weikershim, 125pp.
- [17]. 16-EITI (2011) EITI Fact Sheet. Oslo: Extractive Industries Transparency Initiative.
- [18]. 17-HRW (2004) Some Transparency, No Accountability: The Use of Oil Revenue in Angola and Its Impact on Human Rights. New York: Human Rights Watch.