

Research Article

**A Study Psycho- Social Impact Of Hydro-Carbaon Exctration**

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**Abstract**

Hydrocarbon extraction clean extraction method that leaves little or no hydrocarbon residue when properly utilized. At the end of the hydrocarbon extraction process, the resulting extract is clean and contains very high levels of cannabinoids and terpenes. Before production wells developers sink a large number of appraisal wells to physically assess the extent and characteristics of the reservoir (Nityanan.J,2017). If the Neduvasal project takes off, these wells will be located within the 10-sq.-km lease area. The entire lease area will not be acquired; only areas around the proposed drill locations will be leased or acquired. The present study dealt with the critical analysis of the Environment Impact Assessment as if the report has given the explanation on the diverse effects of environment and precise mitigation process of the project in Neduvasal. Secondly the study dealt with the socio demography profile of the people in Neduvasl and its village system. The study is thirdly also dealing with the psycho socio impacts of the village people in Neduvasal as how far they have understood the project. The study has also analyzed the causes of the protest executed by the people movement. The study is also trying to suggest by intervention strategy that the hydrocarbon extraction project must find some other alternate ways of doing it and also it is people's responsibility of reducing oil usage in whatever the way it is possible for example, trying to use mostly the public vehicles .

**Key words** : Hydrocarben, Environment, extraction

**Introduction**

The world is heading towards the work of increasing the production of natural gas extraction that would compensate the shortfall of the conventional oil supply in the future. The future is not so far from now but it is very near. Every country in the world except the five main Middle-East suppliers is reaching the maximum set by physical resource limits. When the world's physical conventional oil gets defecated and the resourceful countries decide to substantially curtail supply, the world has to find the alternative ways to get things done (Bentley, R.W, 2002). Now the problem is lying not in accepting the project of Hydro – Carbon but the places where it can be allowed. The People of Neduvasal and Kathiramangalam keep on protesting against the project with the support of social activists, experts and politicians and the report of ONGC not giving proper information or not given in deeper detail. These points is being discussed here in the with paper .

**Review of Literature**

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Environmental issues has become a major source of concern in oil and gas exploration and production because of current practices and the use of modern technology and materials (toxic in nature) in the discovery and exploitation of oil reserves (Chidinma, G E., 2012).

According to Environment report “Pollution can be defined as contamination of the earth’s environment with materials that interfere with health, quality of life, or the natural functioning of ecosystems (living organisms and their physical surroundings)” Chidinma, G E., 2012). Based on this, oil and gas pollution occurs when any or all of these take place: (i) drilled rock cuttings (contaminated with toxic drilling fluid) is discharged into the seas or lands, (ii) Produced water (contaminated with crude oil or gas) is discharged into the seas, lands, or injected in underground formation, (iii) seismic operations that disturb human and marine lives, (iv) hydrocarbon discharge or spillage in the sea or land in the course of hydrocarbon production and transportation, which can be either accidental or planned discharges, (iv) burning of hydrocarbon oil (in cars, trucks, trains, and planes), and (v) flaring of hydrocarbon gas. Accidental discharges can be as a result of vessels collision with rock or ice, explosion, a blowout of an offshore well, or pipeline leakages. The largest volume of wastes during exploration is drilling muds and cuttings while the largest volume of production waste is produced water.( *ibid*). While specific information may not be available on that the people of Neduvasal are blindly opposing the project, the villagers are aware about the general consequences of hydrocarbon extraction thanks to a successful and popular campaign against controversial coal-bed methane (CBM) project in Thanjavur between 2010 and 2016. Led by the late G. Nammalwar, a popular organic farming proponent, the campaign included a massive awareness drive to educate villagers about CBM as well as about how hydrocarbons are extracted from Earth, the effects of such operations on the environment and on people’s livelihoods .

Nityanand J, (2017) discused that, an exploratory well constructed by ONGC near Neduvasal in 2008-2009 also gave villagers a sense of things to come. “For three months after the well was dug, they would burn the gas night and day. Sometimes the gas would burn orange with black smoke, and sometimes blue with no smoke,” says T. Amudha, an engineering graduate who gave up her job in Chennai after being disillusioned by city life to return to farm in her village. Pointing to a pit filled with oily wastes, she says, “Look at that. That has been lying there for seven years. If there are heavy rains, the wastes flow out of the pond into the neighbouring lands. This is only a small quantity, generated during the exploration stage. Much larger quantities will be generated during oil production. (*Ibid*)The Neduvasal oil field reportedly has a seven-year mining lease that expires on December 31, 2019. The leased area is 10 sq. km from within which oil and gas can be extracted by the contractor. The recent award is part of the Indian government’s October 2015 Marginal Field Policy, aimed at inviting private sector participation in exploitation of marginal and small oil fields (*Ibid*). The project is not a coal-bed methane- or shale-gas-extraction project. So the use of hydraulic fracturing or fracking is unlikely – although it can only be ruled out pending further assessments. The proposal appears to be for a conventional oil and oil-associated gas extraction project with total extractable reserves of 430,000 tons of oil and oil-equivalent of gas. Speaking to The News Minute, Gem Laboratories has revealed that it has not made up its mind on the technology to be deployed to extract the hydrocarbons. Onshore exploratory and production wells in the Cauvery delta are drilled to depths of between 1,750 m and 6,000 m. And the Neduvasal field, too, if developed will be drilled on to these depths .

### **Mehtodology**

The study is made for analyzing the psycho socio impacts of the Hydrocarbon extraction being carried out at Neduvasal in order to give accurate analysis of people's mind towards the beneficial project for the whole people in India. Moreover this analysis also helps the study how people are being united in opposing the extraction irrespective of having clear understanding on Hydrocarbon extraction. As the protester's views the real factor of protesting against the hydrocarbon extraction is not just because of other politicians or any other people as many outside people thinking, it was indeed a people's movement that protested against it. This study came to realize this truth by doing focus group discussion with some groups in the village; only then the all other groups have joined with the village people. It is villager's or protester's opinion that the extraction process can be taken to somewhere else where there are no people and forests. Hence, the researcher is using both quantitative and qualitative method with descriptive design. The survey method is used to figure out the accuracy in bringing out the people's mind about the extraction, awareness on merits and demerits of hydrocarbon, what they feel about the government that allowed this project. The researcher analyzed the Environment Impact Assessment (EIA) report precisely and it gives the clear picture that the extraction process is giving adverse effects will happen while executing the project but there is clear analysis on even mitigating or reducing the effects. But the researcher views that mitigating or reducing level is not clearly mentioned and it is to be noted that those effects just can be mitigated not fully removed. So this analysis creates a kind of fear among people that everything will be collapsed. When the project is practically considered the village would lose the prosperous systems In order to get accurate information researcher also used content analysis and focused group discussion that gave a clear picture of people's knowledge on the project for analysing the data the researcher used IBM SPSS version 21.0. Percentage analysis and frequency analysis were used for getting accurate interpretation from available data .

### **Result and Discussion**

The researcher has critically analyzed the report of Environment Impact Assessment (EIA) produced by ONGC, India which gives the clear understanding of how the hydrocarbon extraction process is taking place while the project is on. But, after the serious analysis of the protest by the Neduvasal village people comparing with the EIA report, the protest is based on the fear that the agriculture and natural environment completely be affected which are the social capital for in and around of Neduvasal village people. The study is also trying to suggest by intervention strategy that the hydrocarbon extraction project must find some other alternate ways of doing it and also it is people's responsibility of reducing oil usage in whatever the way it is possible for example, trying to use mostly the public vehicles .

**Psycho socio impacts of the people:** The researcher analyses that people of the village irrespective of educated or illiterate are not much aware of the EIA report produced by the ONGC in fact they were not given any proper awareness on the project. So the researcher feels that if the project is not having any problem why there was no transparency in executing the project. The reality should have been informed to the people of the village . ]

**The Causes of the protest:** The researcher analyses that the causes of protest is because of the adverse effect on the environment which is social capital for the villagers. Even though the project has started little long before about 2009, but now when they came to know that the leakage in the agriculture has brought some doubt and dealt with people who are working abroad in the

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same companies have made the people aware that it will create many environmental problems in the village. So the researcher feels that it is their right to protest when something works against it .

**View on Central and state support on people side :** It is analyzed by the researcher that the Neduvasal people are requesting and protesting that the problems should be analyzed in the perspectives of the people and the environment that are going to be affected. In one sense the government is trying to increase the economical strength which will benefit even the people of Neduvasal, the other sense of victimizing the same particular people by allowing the project without having a precise field work is so much contradicting .

**The people and political parties' support in opposing this project :** The researcher analyzed that the people of the state is really in support of the people who are going to be affected in the village because, if they neglect this the same thing will happen to their places in some other days. Some are scientifically have come to an understanding that it will be affecting the whole system of Cauvery delta basin .

**Alternate ideas of producing natural gas as it creates good result in economical growth :** As per the details of the group, the researcher has come to an analysis that the whichever the project is done by government must not affect anybody and anything that is in support of human living, particularly they suggested the hydrocarbon extraction project must be taken away from Neduvasal village and can be done anywhere else where the human being are not inhabited and it also should not disturb the eco system .

### Conclusion

Hydrocarbon extraction project is one of the scientific goodness to human life functions, because of its needs in the physical life. Sometimes this is what the compete sources of income in many other countries. Any living creature is in need of carbon, so it should be utilized properly. According to some people's allegations, this project is implemented to take methane gas in the name hydrocarbon extraction, so the government has to ensure that what is exactly done in the project, because whenever private sectors are involving in the projects it really disturbs the common human's life not the rich, so the we must be ready even to listen what the people say about the issue. There are a lot of evidences available in the history. The private companies are always in the mind set of receiving much gain and only some kind of benefits to the people that too not for so long only short time period. The quality of life is stripped, for instance being owner of the land having own agricultural business become slave to the company in a low position. So my conclusion is Hydrocarbon is much needed in the life of human but it should not be implemented in the areas where people live and depend on the land for their livelihood and natural system particularly at Neduvasal village because in and around of the villages the project will destroy whole system. As the researcher enquired many people in the village if they can survive without the benefit of natural gas, they said they are ready. But being city people it is indeed a difficult one practically but we all have the responsibility of saving our nation with good natural system. Gandhiji once said, the development of India lies in the development of the villages in India .

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