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SOCIO-ENVIRONMENTAL CONFLICTS LINKED TO THE OIL EXPLOITATION IN THREE LATIN-AMERICAN REGIONS

INTRODUCTION

Since the beginning of their history as republics, Ecuador and Bolivia have based their economy on the exploitation of natural resources such as oil. This extractive economy has laid its stake again and again on depending on one of the few primary products whose export generates a financial income for the country. The income from the oil yield has not always been reflected in the infrastructure or in social projects for the regions where the exploited resources come from. On the other hand, the oil exploitation has generated serious social and environmental conflicts to which the states or the privately owned oil companies that carry out their activities under concession contracts or service contracts pay little attention.

Over the course of the last decades, a large number of documents have been published that take a critical look at the socio-environmental conflicts derived from the activities of the oil exploitation in Bolivia and Ecuador (e.g. Oilwatch, 2005). The oil extraction has come into the centre of attention in particular due to the scale and scope of its socio-environmental impacts. In Ecuador, the current struggle between the transnational Chevron-Texaco and social organisations and communities affected by the deterioration of the environment, culture and health has brought in a reality the states do not really admit and multi-national companies have rarely accepted.

The model of economic and social development that is applied in Nicaragua has not been based on the exploitation of oil, instead it has had a clear vision of short-term development and environmental degradation, contamination which has been shown in the traditional model of the enclave (banana, African palm trees) and the inadequate development of contaminating industries (Penwatl case), but in any case the oil process has advanced slowly in comparison with Bolivia and Ecuador, more for technical reasons, political factors and instability; remembering the hard path of dictatorships, revolutions, economic blockades, intervention of privatization politics and the implementation of contaminating industries.

At present, the economy in Nicaragua is propitious to giving an impulse to significant changes; however, unfortunately they are for the time being not included in a model of sustainable development. With regard to the exploitation of oil, the economy depends on the energy matrix, on allies with a strong expertise in the matter, such as Libya, Arab countries and member of ALBA (Bolivarian Alliance for the Americas), which due to the instability of the oil industry itself and the technical/legal weaknesses does not guarantee the general well-being for everybody, and much less so with regard to the environment.

Despite all these factors Nicaragua that is still a very young state stands out as one of the legal systems that has recognized more participation and autonomy of indigenous peoples and peoples of African descent (Law 445 and Law 28). Jurisprudence has recognized the right to property and the granting of permissions, which happened in the case of Awas Tingui. The paralysation of oil concessions in two occasions since 2006 shows the effect of the rights of indigenous peoples and peoples of African descent. In this framework, the subject of oil and the handling of its derivatives has not been discussed very widely, which enabled the generation of noticeable legal and technical gaps that violate the principles of prevention and precaution, despite the fact that Nicaragua has signed international conventions for the protection of specific maritime resources in particular on the handling of hydrocarbons in the sea, such as OPRC (International Convention on Oil Pollution Preparedness, Response and Co-operation) and the one of Antigua Guatemala; it still does not have a national plan in case of spillages on the coast bearing in mind that Nicaragua is the largest country with the longest coastline both on the Atlantic and the Pacific.

In the Central American region only San Salvador has currently presented a contingency plan in case of spillages, as the handling of hydrocarbons presents severe problems in Nicaragua starting from its sale (petrol stations) which caused the reforms of the law no. 277 through to the traffic of hydrocarbons and its derivatives, which applies for remote communities and communities on the border where we find up to 15 clandestine supply stations. The river San Juan that connects the Atlantic Ocean with the Pacific and through which different types of sharks enter Lake Nicaragua – making it a unique natural phenomenon – is full of oil waste and contamination.

In this present piece we present a review of two cases, one in Bolivia and one in Ecuador and analyse the application of environmental regulations in order to contribute to the socio-environmental discussion generated by the oil activity. Parallel to that we also analyse what could happen in the case of Nicaragua, a country which is beginning to exploit oil, but whose people still do not know the extent of the impacts this could have. Finally, we evaluate the coincidences and contradictions that arise in the Bolivian and Ecuadorian cases and try to identify the lessons that can be applied for Nicaragua.

METHODOLOGY

We start with a historic, comparative and analytical description of a case in Bolivia and one in Ecuador about the environmental and social impacts and the possible processes to remedy them. Then, after a brief description of the history of oil in Nicaragua we will analyze what could occur in this country, if the oil border opens and the legal practices, as they occurred in the two Andean countries, are repeated.

ENVIRONMENTAL IMPUNITY OF OIL COMPANIES IN BOLIVIA

It is often said in Bolivia that it has the best laws, but that nobody abides by them. This statement corresponds to reality: The drafting and passing of laws that are created in contexts that are alien to national specifications, which has been normal since the beginning of the republic, together with the weakness of the state to exercise the due control of the environmental management. In fact, the con-compliance and/or the negligent compliance with the rules in force tend to damage the poorest sectors of society and environment and benefit the sectors with a lot of capital.

In the area of extractive industries, social and environmental irresponsibility of companies extracting natural resources has been recurrent in the history of the country (Gavaldá, 2005). The consequences of the colonial logic, and later the capitalistic logic

in the mining and oil extraction have caused a series of social and environmental impacts, such as the permanent violation of labour rights and the degradation of the environment.

Below we will address the consequences of the irresponsible environmental management of oil companies in indigenous territories that, due to their historic social and legal marginalization, have frequently been victims of the logic of profitability as an objective as such. The fact that one of the companies that is largely responsible for the contamination of indigenous territories is the state-owned oil company Yacimientos Petrolíferos Fiscales Bolivianos (YFBF) whose environmental impacts accumulated over various decades of work still contaminate the aquifers and soils of indigenous communities in the area of the Bolivian Chaco.

Colonial inheritance

The Bolivian Chaco stretches over three departments: Santa Cruz, Chuquisaca and Tarija; and it is the traditional zone where hydrocarbons are produced. In this region the first oil concessions were granted in 1916. After nearly one century of oil exploitation, there are numerous environmental effects, and they particularly affect indigenous communities, because the areas of concession are in many cases in native community land (Gavaldá, 2003).

Government officials of consecutive governments were the first defenders of oil companies to the detriment of indigenous communities or peasants with respect to disputes about ownership and use of their land where explorations or the exploitation of oil or gas is carried out. This sad reality reflects to a large extent the colonial past that has marked the institutionalized character of the Bolivian state. Below, we will show how the Bolivian government has favoured the irresponsibility of oil companies and damaged the environment, biodiversity and of course the well-being of indigenous peoples and peasants.

An audit that never came

On 18 September 2004, a pipeline transporting hydrocarbons from the former Bolivian oil capital Camiria Sucre broke and spilled about 70,000 litres of diesel in the area called Paso del Tigre, very close to the Azero bridge that separates the provinces of Tomina and Hernando Siles in the Chuquisaca department in the south of the country.

Six years after the accident, the environmental audit is still pending that can determine the responsibility and with that the measures to repair the environment, and the corresponding reimbursement. This spillage affected hundreds of wild and domesticated animals as they drank the water of the contaminated streams and put an end to the cultivations of the peasants in the area.

According to the former director of the Natural Resources and the Environment of the Chuquisaca Prefecture in 2004, Leonor Castro, the diesel spilled for 32 continuous hours through a 15 centimetre large hole in the pipe. The spillage spread along 9 kilometres of the river Azero. 'Five communities were witness to the advance of the large patch of diesel that passed through the river and brought death with it,' confirmed the former environmental official.

In the opinion of engineer Castro, the measures of remediation taken to mitigate the environmental impact of the spillage on the part of the company CLHB, owned by Peruvian and German shareholders that are responsible for the pipeline, were not adequate and turned into another attack on the environment and the health of the inhabitants of the area. The inspection conducted by technicians of the Directorate of

Natural Resources and the Environment, as well as the spokesperson of the Competent Sectorial Organisation proved that the company had committed various transgressions of environmental regulations.

The actions (transgressions) consisted in burying the spilled diesel with a tractor, or in other words making the contamination invisible. Furthermore, children and adults were hired to clean the contaminated waters without any type of industrial protection, only in their underwear. Furthermore, children and adults were hired to clean the contaminated waters without any type of industrial protection, only in their underwear. Lastly, they collected the dead animals to make them disappear, although animals kept dying for days because of the magnitude of the spillage days.

The official said that some affected families were influenced so that they would not make a statement about the facts. When the Public Ministry sent two spokespeople to the site, the local inhabitants did not want to make a statement. However, several months later affected families living downstream reported that the diesel patch was about 10 cm thick, very large and had killed different animals.

In view of the evidently irresponsible handling of the environmental disaster by CLHB, the Directorate of Natural Resources and the Environment of the Chuquisaca Prefecture as well as the Directorate of Natural Resources and the Environment managed the execution of an environmental audit before the Ministry for Sustainable Development. The environmental audit should have been started in August 2005 and would have been carried out by a consultancy in Santa Cruz de la Sierra under the independent supervision of the United Nations Development Programme (UNDP). The company CLHB should have paid the expenses of the process. However, at the end of 2005, the new authorities of the Ministry for Sustainable Development (the minister Martha Bozo and Marianela Curi) decided, to the surprise of the institutions that had requested the study, to suspend all audits because they determined that regulations for their application had to be implemented. Since then nothing has been heard about a regulation to reactivate the audit applied for.

The contamination was left unpunished

A pending case

Six years after the mentioned environmental disaster it was proven that the environmental regulations had been avoided by those responsible for the spillage. Therefore, no measures of remediation or restoration were taken in the affected area. It has not been possible to prove whether the contingency measures the company CLHB had taken have had an effect; there is evidence that the resources which the company had employed to clean the area were 'handmade' (hoses were covered in cotton to absorb the diesel, while peasants cleaned the diesel with sponges without having been provided the necessary protection).

According to the ex-president of the Asociación Sucreña de Ecología (ASE or the Environmental Association of Sucre), Apolonia Rodríguez, it has been proven that the diesel spilled into the ecosystem is still there 20 years later. The affected communities and families are still waiting for a specific response. Engineer Rodríguez says that the spillage was caused by the old age of the pipeline, which is about 50 years old, and the absence of adequate maintenance. 'The Bolivian government must evaluate the environmental liabilities of the oil exploiting activity, because such old pipes without adequate maintenance can be regarded as obsolete material that has a negative impact on the ecosystem; it is, therefore, necessary to replace or do maintenance work on the pipeline between Camiri and Sucre,' emphasises the environmental activist.

THE LARGEST OIL CONTAMINATION IN HISTORY: TEXACO IN THE ECUADORIAN AMAZON

In 1937, shortly before the end of Federico Páez' dictatorship, a model was created to hire companies with concessions by means of one of the first oil acts passed in Ecuador (Aráuz, 2009). Although later governments modified the hydrocarbon acts, hiring companies with concessions was the preferred norm; currently the law also considers other options such as association contracts, participation contracts, service contracts and other contractual forms of delegation.

In February 1964, the Ecuadorian state granted a concession for a territory of about 1,431,430 hectares to the consortium Texaco-Gulf so that it can explore and extract oil in this region of the Amazon. In the first quarter of 1967, Texaco drilled the first wells in the land of Lago Agrio. After various contractual modifications and modifications of the laws on hydrocarbons of the country, a new contract was signed with Texaco in August 1973 increasing the area of the concession by 491,355 hectares. Since then, the company has drilled more than 200 wells and built a large part of the oil infrastructure existing in the area, including the Trans-Ecuadorian Oil Pipeline System (SOTE) starting in the Amazon and ending in the coastal area.

In the long years of the concession called Río Napo (1964 – 1990), Texaco breached regulations and procedures, which the company itself applied in the operations in its country of origin, the United States of America (Power and Quarles, 2006). After the end of the contract, various independent studies and audits of the state showed irresponsible technical handling that lead to severe environmental, social and cultural consequences. In 1993, PetroEcuador, a state-owned oil company, took on the environmental remediation of the damage Texaco had left and has since uncovered one of the most severe environmental crimes world-wide, which can only be compared with the famous spillage of Exxon Valdez (1989 in Alaska) and the Gulf of Mexico (2010). Prior to that, in 1993, a group of communities, peasants and indigenous people in the Amazon took the company to court in the state of Texas (the place Texaco is based).

The contempt for the environment

There are many episodes of environmental damage caused in the 25 years Texaco was in the Ecuadorian Amazon, which is shown in the numerous technical studies, audits and surveys carried out since 1994 (Hurtig and San Sebastián, 2002). Next follows a summary.

Even if the injection of formation water underground is a practice that has been regulated for more than sixty years in many oil extracting countries and has been applied by Texaco in its operations in other countries, the reality was different in the Ecuadorian Amazon. These waters, which are loaded with heavy metals and full of chlorine and other contaminants, are present in the subsoils together with the hydrocarbons; to obtain the oil it is necessary to first separate these waters.

The practice of Texaco in Ecuador consisted in not injecting these waters that were deliberately thrown into bodies of water or onto the surface of the land. This has gravely contaminated the land and the water in the region, both on the surface and underground. Heavy metals do not biodegrade; they are very persistent, so that they have prevailed in the soil and the bodies of water until today. In the studies and surveys prepared during the legal proceedings against the current Chevron-Texaco, in a sample of 80,000 chemical analyses toxic contaminants were detected in the ground and the water.

Texaco knew the environmental risks the discharge of superficial formation water entails and had the technological experience to reinject it instead of discharging it. Contrary to the global valid standards Texaco discharged 15,834 million gallons between 1972 and 1990 in small river beds and land close to its stations and drills.

Before discharging the formation water Texaco stored it in earth pools without waterproof lining so that it regularly filtered through and flowed over the edge, thus extending the contaminated areas, which is proven by an audit by Fugro/McClelland West prepared for the company itself. From these pools, where the oil was already separated from the oil, pipes emerged to drain the toxic liquid – with impunity – towards the jungle and its riverbeds. Without any doubt, this open discharge of formation water without any type of analysis or previous treatment was cheaper for Texaco than building and maintaining reinjection wells.

Texaco built and abandoned more than 900 open-air pools without lining and full of toxic mud containing hazardous chemicals, such as chromium, barium, lead, etc., highly cancerous substances (San Sebastián, 2000). These pools were nothing else than not very profound excavations and not at all technical that did not repair any bodies of water or headwaters of streams nearby. Their construction under the open sky lead to their repeated overflowing resulting from the accumulation of rain water. The contaminating substances dispersed by filtering into the ground and underground water, by deliberate discharge through pipes and by overflowing pools.

Nine of the 18 production facilities of Texaco that were audited by Fugro-McClelland (in 1992) had pools that directly discharged the surface water; they also contained a high proportion of hydrocarbons that was not separated from the contaminated water. There was evidence of oil discharged from these pools in the fields of Aguarico, Cononaco, Sacha Central, Sacha Norte and Yuca, while the draining canals in Sacha Central and Yuca were strongly contaminated and contained crude oil.

Equally, the audits carried out by AGRA Earth & Environment (1993) discovered pools with waste containing hydrocarbon in 125 of 162 oil drills that were evaluated; this is to say, in 80 pools of the 22 audited stations. These audits recommended immediate remediation in all production facilities and in the majority of the drilling locations. This remediation did not take place as we will see.

Practices similar to the water formation pools were applied for the handling of the drilling mud, which is a dense liquid that comes out of the first drilling holes. Again, Texaco was far below the international industry standards as the documentation of their own audits shows. The entire mud was abandoned in ditches without lining or in open spaces.

But this was not all. Another severe source of contamination was the oil spillage – accidental or not, which we will not discuss in much details – and the intentional combination of oil with ballast and sand to ‘clean up’ roads and paths. This measure, which seemed to be full of good intentions, turned out to be another source of contamination after frequent rainfalls that carried the oil towards natural riverbeds. Lastly, the quality of the air in the area was also affected due to the bad handling of the petroleum gas that burnt 24 hours every day. A measure Texaco took before oil spillages was the intentional burning according to information by Fugro-McClelland (1992). In 1987, Texaco advised that it had burnt a spillage of 100 barrels of oil, while the National Directorate of Hydrocarbons advised that Texaco burnt approximately 40 barrels of crude oil of the collection drill Sacha 37 in 1976 without any authorization, which caused serious damage to the adjacent facilities.

As a climax, we will show an example of the level of contamination existing around the Aguarico station, in the canton Shushufindi, where Texaco started its operations in 1974. The judicial inspection revealed excess chemicals in the water and ground, and the following substances exceeded the maximum tolerance threshold for contamination of the ground: benzene, benzanthracene, benzopyrene, chromium, ethylbenzene, PAH, naphthalene, pyrene, vanadium and xylene. At the time, the water samples showed intolerable levels of barium, benzopyrene, cadmium, PAH and TPH, exceeding the threshold of barium by more than 1000 times and of TPH, naphthalene and PAH by more than 200 times.

Impacts on the local population

Just like the environmental impact, the many damages to the local population have been sustained in various technical studies. In 1994, Jochnick and their collaborators showed concentrations of polynuclear aromatic hydrocarbon (PAH) that were several times higher than the levels permitted by EPA, the US Environmental Protection Agency, in 32 samples of drinking water of the zone. So, while the permitted level of benzene in drinking water is 5 micrograms per litre, the international standards do not tolerate even one nanogram in the case of PAHs. Nonetheless, the samples of analysed drinking water had PAH concentrations of between 32.8 and 2,792 nanograms per litre. Due to the high cancerous potential of these PAHs, the risk of cancer due to the consumption of this water is up to one for every one thousand inhabitants.

Nearly 10 years later, San Sebastián (2000) evaluated the incidence of abortions and cancer in a sample of 500 people. It was shown that the numbers were considerably higher in communities that were exposed to oil contamination than in communities that lived far away from this activity. Abortions were 150% more frequent and cancer was 130% more frequent with a mortality risk that was 260% higher than in the city of Quito. The Yana Curi report by the same author shows that there is an elevated health risk for domestic animals and human settlements when they are exposed to toxic substances derived from oil. These severe and irreversible effects, such as for example cancer, spontaneous abortion and reproduction deficiencies translate to a public health problem.

According to this study, the rate of spontaneous abortions in the region oil has an impact on is 2.5 times higher than in similar communities that are not exposed to this contamination. Equally, the rate of leukaemia among children in these zones of the ages between 0 and 4 years of age was three times higher than in other regions of the country. The Cancer in the Ecuadorian Amazon (1896 – 1998) report by Hurtig and San Sebastián (2002) documents that in areas of oil exploitation the risk of suffering from cancer was higher than in those areas without this activity. The National Tumour Register shows a progressive increase of new cases of cancer in the provinces of Napo (today Orellana) and Sucumbios until 1984. The cases with higher incidence were uterine, stomach, blood, skin and lymphatic gland cancer.

On the other hand, a psychosocial study of the activities of Texaco in the Ecuadorian Amazon (Beristain and collaborator, no year) registered a higher rate of sexually abused women. One out of 20 interviewed people said that they knew of such acts, both against adult women and women under age. Equally, one out of every 10 interviewed people had witnessed sexual violence by the company operator in their own family, while at the time nearly half of the interviewed people confirmed that they had fallen victim to hostile behaviour on the part of workers of Texaco.

Indigenous people reported that they had suffered discriminations in the form of deceptive behaviour, abuse, or mocking about their clothing and culture. Three out of every four interviewed people indicated that they had lost land as a consequence of contamination or the exploitation of petroleum, which included land of the community. Lastly, this study showed that the deterioration of the environment, the loss of land, serious illness, accidents and violence caused a higher rate of emigration from areas in which Texaco operated. The indigenous groups were more inclined to relocate.

But was there any remediation?

For contractual obligations vis-à-vis the state, Texaco had to remedy and restore its socio-environmental damage, which was called liabilities in the language of oil contracts. There is a lot of evidence that proves that its irresponsibility and negligence was deliberate. This evidence comes from independent studies, and audits carried out by the state itself (via the National Comptroller's Office, the Subministry of Environmental Protection of the Ministry for Energy and Mining and the Environmental Protection Unit of Petroeducador, Petroproducción).

Repeatedly Texaco did not comply with valid environmental regulations in many instances of its supposed remediation; from the moment it hired and subcontracted companies to act as remediators that were not qualified by the Ministry for Energy and Mining (now the Ministry of Natural Not Renewable Resources) until it abandoned the formation water in the covered up pools that were not treated in any way. The companies IECONTSA and CANONI for example incinerated recovered solid and crude residue in the open and did not comply with environmental regulations. According to additional technical investigations Texaco hid about 500 pools before 1990. Until 1996, the environmental authorities of the energy sector reported information about approximately 200 hidden pools, the fact that the formation water was not reinjected in the majority of the production stations, shafts that were closed badly and abandoned, spillage without remediation. Thus, Texaco did not comply deliberately with its contract with the Ecuadorian state.

The studies developed by the Comptroller's Office conclude that the damage caused by Texaco is irreversible and leaves a level of contamination that is above the permitted limit in most of the samples of water for human consumption. The judicial inspections during the proceedings against Chevron-Texaco, when thousands of samples were evaluated, brought up similar results. It is interesting that the surveys arranged by Chevron-Texaco had similar results.

The desire to accuse Ecuador of deliberate inaction adds more to the controversy of the actions of Texaco. Texaco puts forward that it fulfilled its commitments of socio-environmental remediation and restoration in its convention of environmental remediation signed with national authorities in 1998⁴ that declined to present a later claim against the company once the remediation was implemented and approved and the state is responsible for the damage it was accused of because Petroecuador took on the exploitation of their fields from 1993 onwards. In a concomitant way, the Ecuadorian state turned into a complice of Texaco as it effectively approved the closing down of its operations.

Petroecuador takes over the fields franchised to Texaco

Once Petroecuador took possession of the fields of Texaco, the big damage had already been made. Although the state-owned oil company claims having tried to improve the conditions of exploitation, little was improved. According to the quoted Comptroller

⁴ In 1998, Texaco signed a convention with the State, four municipalities and two provinces where previously the concession area had been, and they agreed a transaction and liberation from complaints in a series of contracts signed in 1995, 1996 and 1998.

between 2000 and 2004 Petroecuador used 1% of its budget for the protection of the environment and 2% for the reinjection of formation water. These percentages were in any case not sufficient. Furthermore, it was documented that Petroproducción did not comply with the environmental regulations for the reinjection of this water. While a report of the state-owned oil companies mentions 38 reinjection wells, the information provided by the Subministry for Environmental Protection of the ministry of the industry suggested that 35 of them did not comply with the environmental regulations for the treatment of this water.

According to an inspection by the Comptroller, many production stations (Lago Agrio, Parahuaco, Anaconda, Secoya, Frontera) do not dispose of reinjection equipment, so the formation water is still discharged into the environment without any treatment, a clear reiteration of the disastrous practices of Texaco. Furthermore, the majority of the reinjection wells does not dispose of a retention area around the drill hole and does not have a waterproof base (as stated in the same report of the Comptroller quoted before). According to the report of the National Hydrocarbon Directorate Petroproduccion disposed of more than 61 million barrels of formation water into the environment. Data of the Water Reinjection Unit of Petroproducción informs of discharges of 83 million barrels into the environment. Regardless of the exact amount, the contamination dose of the hydric resources and the ground was enormous.

A similar situation became evident in an analysis of leachates taken from the Conocaco well no. 27, where a concentration of barium was registered that was 2.4 times higher than the limit legally permitted in Ecuador. As it had occurred 10 years earlier with Texaco, the companies subcontracted by Petroecuador, such as Drillfor, S.A., Schlumberger and Sipec, did not apply the appropriate procedures to avoid contamination or to remedy the environmental impact.

A systematic violation of the law

The environmental legislation in Ecuador goes back to the 1970s, in 1976 under the model of Mexican legislation from 1971⁵, the Prevention and Control of Environmental Contamination Act was passed that created an Inter-Institutional Committee for the Protection of the Environment. The objective of this act was to establish the mechanisms necessary for the prevention of the contamination of the environment in the resources air, water and soil.

Afterwards, the first environmental regulation was included in the Constitution of 1978, which was reformed in 1983; it established the right to live in a healthy environment free of contamination. The Constitution of 1998 widened the regime of the protection of the environment, as well as the scheme of participation incorporating among other topics a previous consultation and indigenous rights derived from the Convention no. 169 of the International Labour Organization (ILO) and among them the consultation when their territory is subjected to extractive activities.

With regard to the hydrocarbon sector, the valid Hydrocarbon Act obligates oil companies to take measures to prevent environmental damage. (Art. 31 paragraphs r,s,t,v). In 2001, a specific environmental regulation was developed for hydrocarbon operation (Environmental Regulation for Hydrocarbon Operations).

Currently, the valid Constitution of 2008 is wider in environmental matters, it recognizes nature as a rights-bearer and grants at the same time the same human right to living in a healthy environment.

5 Ecología y Derecho. Vladimir Serrano Pérez, 1987. p. 266

Nonetheless, in spite of the validity of a legal framework to prevent environmental damage caused by the activities of oil companies, the application of the environmental rules was not very effective and efficient.

NICARAGUA ALSO WANTS TO BE AN OIL EXTRACTING COUNTRY

The first oil explorations in this country, the largest one in Central America, were made on the Pacific in the 1930s, and in 1965 Chevron and Shell had drilled about 20 wells. Forty years later, Nicaragua's plans to extract oil appeared again with exploration studies prepared by Norwood, a US-American company. Something similar happened on the Atlantic side, where the first studies discovered oil in 1940, but nearly 60 years had to go by until the important oil potential of the region was recognized.

Today, the Nicaraguan state plans to put its trust in the oil industry as a source of income for the impoverished country after years of political conflicts triggered by a long dictatorship, an economic blockade and a counterrevolution; however, the legal instruments to prevent, regulate and in this case to remedy social and environmental impacts are awkward and in some cases even inexistent.

Like in Ecuador and Bolivia, the laws in Nicaragua regulate the previous consultation in the process of approving oil concessions in areas where indigenous peoples and people of African descent live; however, they are very weak with respect to their compliance and the level of experience and expertise of the actors who take the decisions and the debate of this matter; this has now become very important because exploration processes have been started and because of the large number of companies that have approached communities of indigenous people and people of African descent to negotiate on a bilateral level by making a large variety of promises.

The social and environmental conflicts lie in the fact that the people are negotiating their resources without any type of advice, they sign conventions that do not include any measures of prevention and precaution, which is made worse in view of the fact that the country does not have technical rules in force to measure and quantify the limits of contamination emitted by the industries. Proof of this is the workshops related to oil extracting activities that have brought together a large number of people in the surrounding communities; but unfortunately, it has not resulted in the review of public policies and environmental rules.

We will merely quote some means of public and legal management that prove this statement.

Decree 76-2006 demands the creation of an Inter-Institutional Committee (art. 10) to discuss and prepare proposals, which the competent body, MARENA (the Ministry for Natural Resources and the Environment) hardly ever organizes, and the appropriate guidelines are not in place to be able to identify the criteria of this committee or the levels of advice. As a result, the communities are advised by the companies themselves. Oil concessions are granted and the creation of a large refinery called Supremo Sueño de Bolívar is planned, but there are not any rules in place for the evaluation of the environmental impact or any technical rules for the companies carrying out the remediation. Nicaragua is governed by NOM-052-052-SAMRNAT 2005, so there are resources for large projects, but not to establish an adequate environmental regulatory framework. .

According to the provision of art. 7 para.8 of the Municipality Act and art. 21 of the Oil Exploration and Exploitation Act 286 the Regional Councils of the Atlantic have the

ability to approve or reject oil concessions; however, as we have been able to see, there is no basis of analytical information or any criteria with regard to environmental matters; yet, there is an enormous economic need and a strong dependence on oil derivatives for the generation of electricity, and about 70% to 80% of the country generates energy on the basis of oil. .

Currently, the Fishing and Agricultural Act 489 in its article 79 designates interior waters and a three-nautical-mile-wide strip measured from the shoreline along the Pacific coast and the Caribbean Sea for the exclusive use of private fishing. In the same article the autonomous regions are granted the exclusive right for community and small-scale fishing in the three-nautical-mile-wide strip next to the shore and 25 miles around the adjacent cays and islands.

The zones that may be affected by the exploitation of oil on the Caribbean side of Nicaragua are more than three nautical miles away from the coast, but the consequences of a possible spillage would directly affect the communities on the coast due to the natural conditions of the region where the currents tend to move northward at a speed of two nautical miles per hour, which would directly affect the communities of RAAN and the border with Honduras and Columbia, both of which are covered by a large variety of reefs.

In the territory of Nicaragua many corals and other protected areas would be affected, some of which are: the cays of Miskitos, Edimburgo and Perla covering a total of about 454 km² and providing a habitat for 38 species of aquatic diversity and an immense variety of sea grass that reaches up to the coast and is home to 6 of the 7 turtle species known in the world, and above all the leatherback sea turtle.

On average every hectare of the coral reef provides:

- food, raw material for ornamental resources: 1,100 U\$D (up to 6.000)
- Climate regulation, water purification, limitation of hurricanes: 26,000 U\$D (up to 35,000)
- Cultural and touristic services: 88,700 U\$D (up to 1.1 million)
- Maintaining biodiversity: 13,500 U\$D (up to 57,000)
- Total average value of one hectare of the coral reef: 129,300 U\$D (up to 1.2 million U\$D)

According to preliminary data of INPESCA (Institute of Fishing) 67 % of the fishermen are Misquitos and about 20% are of African descent, and in the south more than 50% of the fishing is small-scale fishery done by the Ramas and with a marked migration towards industrial ships in times of shortage, which is worrying because the granted areas are in banks of fish or very close to them.

Until today the companies have started to make social investments at an accelerated speed, and in particular Infinity Energy Resources in the region of Atlántico Norte, with about USD 35,328.60 invested into the construction of a bridge and about USD 297,999.41 in one year and a portfolio of social projects exceeding one million US dollars of investments; this obeys the large interest the zone that was granted as a franchise represents, which according to studies of Fugro Group is about 3 billion barrils of light oil; thus, the social investment made until now evquals about one day's salary of its current president and at least 0.00000042% of his estimated income.

Nicaragua is tying itself to the oil industry via exploration, and it also does it by means of its high energy dependence and international treaties that diversify its economy; it has a lot of difficulty in controlling the enormous amounts of derived oil that are transported,

due to which between 2003 and today about 80 hydrocarbon spillages have been discovered. This does not include illegal and non-registered traffic, as until today there are only three companies acting as remediators that have been inspected by the state on the basis of foreign rules and without appropriate equipment for this inspection.

There are emblematic cases, such as the spillage of the Texaco unit Propósito-Managua where a spillage of at least 4,544 gallons of gasoline was measured, but it was 'plagued' by irregularities and the interest to put petrol stations in the area next to Lake Managua, one of the richest drinking water sources in the country, which put the human right to clean water and a healthy environment at risk, because a group of businessmen wanted to increase their earnings in a strategic geographic point as it is one of the main entrance roads to the city and the international airport.

The main cause of the spillage was a broken hose that made the product return to the drains (blind shafts) of the tank pit through secondary pipes so that the drains overflowed and the product spilled onto the bottom of the tank pit. The pipes of the station were outdated pipes of the second and third generation by Enviroflex; the one that had been damaged most was of the second generation, and the pipe of the third generation had a broken section and small inflations that looked like creases, as well as darkened parts on the interior engraving. When the pressure test was carried out on all lines of the product, they showed totally damaged stretches and two that did not pass the test.

When the tank pit was dug out two large fractures were found, but they were not taken into account despite the technical implications that this can have for the mobility and the propagation of contaminants.

Although the case was reported one week later and in view of the irregularities the state signed an act of mediation in 2006, the results of which are not yet evaluated.

Contrary to the expected ideal, instead of promoting the participation of all bodies of civil society and the people as a whole, the Supreme Court of Justice demanded the payment of 20 thousand Córdobas for the intervention as a third party in favour of the Alexander Von Humboldt Centre and has not been able to respond to the petition to incorporate an ad hoc committee to analyse the case for about two years, so that this case has become a too bureaucratic, difficult and uncompleted case for the time being.

On the Pacific side there is Norwood, a noteworthy oil company that after years of exploration still has not presented a full and published environmental audit report to the MEM (Ministry of Energy and Mining) and to the MARENA (Ministry of the Environment and Natural Resources). The questions that interested most were: Was there formation water? What happened to the drilling mud? Where are the complete reports? These and other questions sleep the sleep of the innocent, because there are very few organizations that monitor environmental questions; until today there are only two: the Humboldt Centre and the Fundación del Río, as the topic environment is complicated and there is a lack of control.

Like in Bolivia and Ecuador, Nicaragua has ratified international conventions for the protection of indigenous peoples and people of African descent, as well as environmental prevention and control (like the ILO convention no. 169). However, its legal structure and inter-institutional coordination seems to be weak bearing in mind the social and environmental impacts of an oil industry that is growing. In view of this, the coordinated participation of government institutions in processes of oil exploration has been incipient until now weakening any opportunity to monitor these processes, environmental evaluations and the participation of civil society in them.

The legal framework of Nicaragua is full of instruments protecting indigenous peoples and people of African descent, but the government lacks the means to watch and control these industries. To prove this statement the Law no. 286 in its article 32 limits the access to information about oil contracts until two years afterwards and only on the will of the companies; furthermore, the access to information act no. 621 in its article 15 limits the access of the public to information about contracts; contrary to Bolivia, where contracts pass through the congress which makes them public one way or other, and contrary to Ecuador where transparency is talked about; in Nicaragua this is a pending subject, due to which the principles of prevention and environmental precaution are not applicable.

In Ecuador, where legal instruments related to the exploitation of oil date back several decades (Aránz, 2009), and are not only a few, Chevron-Exxon could systematically not comply with valid rules and regulations. What can be expected in the case of Nicaragua, if its environmental legislation with respect to hydrocarbons proves to be weak? What would the panorama be like, for example regarding the environmental remediation of possible spillages of crude oil, if the regulations for remediation are the same as established in Mexico, where the specifications for the exploitation of oil are different? Is it not time that Nicaragua established a series of strong legal instruments that standardize and regulate the exploitation of oil, that control the processes for the evaluation of impacts or the remediation of damages? It is necessary to prevent what has happened in other latitudes where companies could act like judges and a part of the 'resolution' of socio-environmental conflicts.

CONCLUSION

From this analysis we can draw the following conclusions:

- a) The trend of companies to continue postponing the internalization of the cost of externalities in environmental matters⁶ and the slowness of the state to exceed compliance with rules and policies that obligate companies in this matter. For this reason, companies avoid this principle that the one who contaminates pays, and continue using the ecosystems as drains for hazardous waste, which leads to severe consequences with responsibilities for the environment.
- b) The lack of transparency of some companies and of the states to enable broad and fluid access to environmental information.
- c) The institutional weakness of tutelage models and the environmental management of the states, as well as of the existence of weak models of sustainable development that displace the political will towards implicit economic short-term interests at the expense of environmental sustainability and the valid legislation under the pretext of current poverty and the economic crisis in these countries.
- d) The relativization of the public interest to protect and conserve the environment according to the short-term economic interests of the companies.
- e) The weak public participation in environmental matters as well as the absence of special legal systems for environmental responsibility and access to environmental justice.

In view of these conclusions we can comment as follows:

The Ecuadorian and Bolivian cases we have quoted are paradigmatic in the history of oil exploitation, as they have all the features of what tends to occur when an oil company or an oil service company operates with all the freedom the state grants, or in other words a relativization of the interests of the companies becomes noticeable that puts the public interest to protect the environment into second place. In this relativized relation

⁶ Principle 16 of the Rio Declaration from 1992 says: 'National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.'

between the state and the companies, oil companies repeatedly empowered themselves directly or indirectly with the technology of remedying environmental damage, and consequently when the results of the processes of remediation occur, they are not refuted by environmental authorities, which take them as the last word from those who 'know most about the subject'. Complaints come from environmental organization and in particular from directly affected peasant and indigenous communities. However, their word is disregarded in the majority of cases as they allegedly do not have the authority to discuss technical questions related to oil.

What is most paradoxical is that the environmental remediation has never taken place or – which is worse – was carried out in a deliberately negligent way knowing the weak environmental legislation or unfavourable institutional framework very well. The indemnification as well as repair and restoration were not at all or only partly carried out or they were turned into relationship programs with communities separated from real community needs or into programs of 'conflict resolution' (Fontaine, 2004).

Although it could be said that the Bolivian, Ecuadorian and also the Nicaraguan environmental sectors suffer from an institutional weakness compared to the extracting sectors, the non-compliance with environmental regulations goes further. It responds, as Andrade suggests (2008), to the disequilibrium between financial and environmental interests of these countries, in urgent need of exploiting their natural resources to sustain their public purse.

As these countries depend on the exploitation of primary resources the thought that they give priority to environmental regulations over the extraction of hydrocarbons, is, at the most, ingenious. The recent history of the Yasuni National Park in Ecuador (Andrade, 2008) is a good example; it shows how fragile legislation and the environmental institutions are compared to the urgent need of oil companies. Firstly, they signed contracts of oil concession in the national park, which fully contradicts the objectives of conserving this category of protected area. Secondly, in view of the international critique the government would receive it introduced modified limits (in 1990) that reduced the extension of the park to be able to award land to the Waorani tribe. Although this measure was beneficial for this tribe, it also favoured the oil industry, because it freed it from environmental regulations applicable to areas protected by the state.

Due to the relativization of environmental laws depending on the interests of oil companies, and the inoperability of environmental institutions with their cross-sectoral approach and their concurrent competences different environmental institutions have roles that are not very clear in these countries; and due to the absence of state-controlled entities for the defence and control of nature (defender and supervisors of the environment) the application of environmental regulations is ineffective vis-à-vis the exploitation of hydrocarbons – and equally the mining industry.

The short-term vision that exceeds an extraction-friendly economy (Acosta, 2009) dissuades prolonged discussions and processes of analyzing the population directly affected by a certain extractive activity. On the contrary, it motivates client relations of companies with local communities or even of the state itself with its inhabitants. The application of blunt contractual clauses with respect to the environment that dissuades an arbitrary handling of the environment is put behind the need for resources. This need is converted into an argument to justify any violations of the national constitutions and describe the exploitation of hydrocarbons (and other natural resources) as a national priority. Is it possible that the environment is turned into a priority?

The interest and participation of the civil society is key, which shows the prolonged proceedings one sector of the Ecuadorian society that is directly affected by the extractive activities of Chevron-Texaco continues against this gigantic corporation. Therefore, thanks to the pressure of certain sectors of the civil Ecuadorian society, it was possible to achieve at least that certain environmental regulations are respected with regard, for example, to the exploitation of the Yasuní National Park. In recent years, the public interest in environmental matters related to the oil industry has grown; certain pressure is exercised on the Ecuadorian government and its concessionaries. On the contrary, the general perception is that the society in Nicaragua shows little interest in this matter, apart from certain exceptional episodes that have made the news.

Ecuador and Bolivia have constructed an oil history with more obstacles than good decisions in contractual, financial, social and environmental matters. Although they have a most robust legal framework than Nicaragua, there has been an abundance of mistakes in socio-environmental matters. If Nicaragua has to open its borders to the oil industry, it will have to study the processes of these two countries (and various other impoverished countries) that strongly depend on the exploitation of hydrocarbons.

As long as the responsibility for and social participation in the management of the environment as well as the tutelage of the environment on the part of the states that have enough political will are not strengthened, the risk of perpetuating environmental disasters will remain. Nicaragua has an important advantage over the abused oil history of Ecuador and Bolivia (in environmental matters): it is only starting its oil adventure.

This gives it the opportunity to strengthen the principles of prevention and precaution from the start. After all, the best form to remedy severe socio-environmental damage caused by bad oil exploitation is to avoid that they happen in the first place.

Unfortunately, in Nicaragua the subjects of democracy, human rights, starvation and poverty did not allow that the subject of the environment was given the same priority, and our home and our land were relegated to second place, although it is our mother that offers us what is necessary to live, unlike our brothers and sisters in Bolivia and Ecuador who have created spaces to discuss this subject on their way that is full of irregularities and environmental disasters and are at least aware of this problem.

Finally, we have to point out that the defence of the environment is a fundamental right of the people and as such inalienable and inviolable. The social organisation and political will to achieve a true model of sustainable development is still a priority.

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