Kashagan oil field development Kazakhstan

Preliminary NGO Fact Finding Mission Report

September 4-13, 2007











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MISSION OBJECTIVES

The international NGO Fact Finding Mission to Kazakhstan was organised to investigate the environmental, social and health impacts of the Kashagan oil field development operated by the Agip Kazakhstan North Caspian Operating Company N.V. (AGIP KCO).

The mission was a part of the Friends of the Earth Europe-coordinated "Extractive industries: blessing or curse?" project funded by European Commission DG Development. It aims to ensure that the performance of the Extractive Industries in developing countries is substantially improved, in order to ensure that it has a positive impact on poverty reduction and that it does not contribute to social and environmental problems.

Furthermore, the mission's long-term goal was to:

- Increase awareness among the public in European countries on the social, environmental and poverty issues related to the Extractive Industry in developing countries, on the interdependence between these issues and the EU and on strategies and policies that can contribute to a reduction of the negative impacts of the Extractive Industries in developing countries;
- Establish support from the public, national and EU policy makers, corporations and investors to ensure that: (1) Policies of national governments and the EU on development issues, environment and trade agreements and other relevant issues prioritise poverty reduction and sustainability in developing countries; (2) Policies of national governments and the EU on Corporate Social Responsibility stimulate corporations and investors to act responsibly; (3) Companies do not engage in projects that do not respect the rights of local communities and have severe negative social, environmental and poverty impacts; (4) Public and private financial institutions guarantee that their investments only contribute to projects that respect the rights of local communities and do not have severe negative social, environmental and poverty impacts;
- Encourage citizens to urge government, companies and investors to take measures that improve the performance of the Extractive Industries;
- Contribute to the development of an active civil society in developing countries that
 is able to ensure that investments in the Extractive Industry benefit the poor and do
 not result in severe environmental and social problems that threaten local
 livelihoods.

The mission drew on the experience and furthered the findings of 2005-2006 International NGO Fact Finding Missions to the area implemented by Campaign for the Reform the World Bank, CEE Bankwatch, Friends of the Earth Japan and Crude Accountability. Special thanks to Platform UK for consultancy on the Production Sharing Agreement (PSA).

MISSION MEMBER GROUPS

International:

Darek Urbaniak, Friends of the Earth Europe (Brussels, Belgium). Gwenael Wasse, Friends of the Earth France (Montreuil, France). Manana Kochladze, CEE Bankwatch Network (Tbilisi, Georgia). Elena Gerebizza, Campaign for the Reform of the World Bank (Rome, Italy). Richard van Amersfoort, Amsterdam, The Netherlands

Local:

Galina Chernova, Centre "Globus" (Atyrau, Kazakhstan)

MISSION SCOPE

Originally discovered in 2000, the Kashagan oil field is planned to produce up to 1.5 million barrels per day in 2020. Such production would make it one the biggest fields in the world, and Kazakhstan one of the world's top oil-producing countries. However, due to the specific chemical composition of Kashagan crude (very high levels of sulphur and other toxic pollutants such as mercaptans) and onerous exploration conditions (including very high oil pressure, a harsh climate and an offshore location), it is likely to result in catastrophic impacts on the fragile ecosystems of the Caspian Sea as well as on the people living in the region. For these reasons, the Kashagan oil field development has been closely monitored by several international NGOs.

Based on direct information from local NGOs, research and previous-mission findings and spurred on by the lack of monitoring activities carried out on behalf or by any relevant international institutions, governments or financial institutions, the current mission has also been organised to increase awareness about possible negative impacts of this investment among the public in European countries and to provide support to local NGOs in Kazakhstan.

POLITICAL AND ECONOMIC CONTEXT

Though the mission had been planned in advance, it coincidentally took place within a tense political context. Following the Italian oil company and project-operator Eni's official announcement last July that the production of Kashagan would not start before 2010 (instead of 2008 and after a first previous delay from 2005), the Kazakh government announced a temporary (3 month) moratorium of the project in August 2007. The official justifications for such a decision were environmental violations as well as the Kazakh government's interest in renegotiating the multi-year Production Sharing Agreement (PSA) with the Agip KCO consortium (also comprised of US-based ExxonMobil and ConocoPhilips, UK-Netherlands based Shell, France-based Total, Japan-based Inpex and Kazakh national company Kazmunaigaz), due to massive increases in estimations of the project's cost, from 57 to 136 billion USD - according to current projections.

The fact that the Kazakh government used environmental damage claims in its official position towards Agip KCO consortium led some local officials to meet the Mission members, speak openly and provide additional information about the field's development

and possible impacts. Agip KCO representatives in the company's head office in Atyrau, however, have refused to meet the Mission. According to the company's Public Relations Manager Mr. Robert Dunkley, "now is not the correct time." At of the time of writing, the Kazakh government is negotiating a new PSA with Eni S.p.A and several high level meetings have already been concluded, though no official public statements have been released regarding their outcomes. In the course of these negotiations Eni S.p.A has received political support from Italian Prime Minister Romano Prodi and from the European Commissioner for Energy Andris Piebalgs, despite the fact that Agip KCO has failed to disclose all available information on the environmental, health and social impacts of its operations in the Kashagan oil field since becoming the field's main operator.

Such disclosure is required by Constitution of the Kazakhstan Republic and the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters ratified by Kazakhstan in 2001.

MISSION FINDINGS

Investigations were conducted in the Atyrau and Mangistau regions (cities and vicinities of Aktau, Atash, Atyrau, Bautino, Bolashak, Damba, Karabatan and Koshanai) - locations of the onshore operations of the Agip KCO. Access to offshore facilities (drilling platforms) was not made possible.

Based on field visits, interviews and discussions with local NGOs, regional government administration, local communities and individuals, the Mission was able to record concerns of very serious negative impacts of the oil industry and the Kashagan project on the Northern Caspian Sea. These impacts can be classified into three inter-linked areas:

- Environmental impacts
- Socio-economic impacts
- Health impacts

The Mission was also able to assess some concerns on the current Production Sharing Agreement.

ENVIRONMENTAL IMPACTS

Some very alarming impacts on biodiversity

The Mission has collected numerous reliable testimonies of a drastic decrease in Northern Caspian biodiversity in the last few years. This phenomenon was always directly linked to the oil industry development in the region, and especially to the Kashagan project.

Fish stock sharp decline: Several villagers mentioned a massive drop in fish catches in the last decade, both in the Atyrau and Mangistau regions. This concerns not only the endangered Caspian sturgeon species, for which the Northern part of the sea remains one of the last spawning grounds, but also many other commercially valuable species. Fish skin diseases were also mentioned by fishermen in Demba Village (located along the Ural River, close to Atyrau), making the fish unmarketable; similar testimony was collected in Bautino. The decrease in fish stock was also confirmed by officials from the Ministry of

Environment Atyrau Regional Office, and by Prof. Diarov from the Scientific Centre of Regional Ecological Problems of the Atyrau Institute of Oil and Gas (see below). Obviously, decreasing fish populations have severe socio-economic impacts, given the reliance of local people on fishing (in Demba Village, for instance, the fishing cooperative employs up to 40% of the 2,500 inhabitant population).

Bird death

Several testimonies of bird death were taken in Bautino and Fort Shevchenko. According to the interlocutors, this fact was considered as directly linked to the operations of Cuttings, Oily Water Treatment Facility in Koshanai, located a few kilometres away from the two villages, and described as "previously unseen" by some villagers. The Northern Caspian Sea is also a major stop-over for millions of migrating birds every year.

Marine mammals' massive death

Acknowledgements of massive death of seals, mostly occurring during the last years (2006-2007) were collected from several sources. This concerns the Caspian Seal, an endangered red-listed species for which the Northern Caspian Sea serves as a whelping ground. Some witnesses mentioned several tens of dead seals found on the shores. The Associated Press reported on April 8th, 2007 that "247 dead Caspian seals had washed up in one week on the shore of Northern Caspian Sea in the region of Mangistau," where construction of the Atash Marine and Supply base are taking place near Bautino. Without fail testimonies of villagers in Bautino, officials from the Ministry of Environment Atyrau Regional Office and Prof. Diarov linked this phenomenon to the Kashagan project (see below).

Possible biological death of the Caspian Sea

Based on general research and according to Prof. Diarov, Director of the Scientific Centre of Regional Ecological Problems of the Atyrau Institute of Oil and Gas, there are strong possibilities that the oil industry development would result in a total biological death of the Caspian Sea in the next decades, mostly due to the high level of toxic pollutants that are contained in the Kashagan oil. To prevent this from happening, Prof. Diarov recommends a strong limitation of the production levels planned for Kashagan and a strong international political effort to give the Caspian a UNESCO protection status.

The sulphur issue: a major long-term local and global problem

From interviews with officials, villagers and a scientist, the sulphur issue appears to be the principal cause of environmental and health problems stemming from the Kashagan project.

Indeed, while Northern Caspian oil contains very high levels of reactive sulphur which can become toxic under some climatic conditions such as those encountered in Kazakhstan (e.g. very high temperatures), there is still no sustainable treatment and long-term storage plan for the huge quantities of sulphur that would be extracted from the Kashagan oil in the next decades. According to Prof. Diarov, any improper treatment would lead to massive local and global environmental and health consequences, such as acid rain over Europe.

Other toxic or lethal pollutant emissions

Northern Caspian oil contains around 40 toxic pollutants that can have strong impacts on health and the environment. According to Prof. Diarov, the extraction of 1 tonne of oil from Kashagan would result in 110 kg of sulphur, which is not dangerous in crystallised form but can become extremely dangerous when left unprotected, it changes chemical structure – like in Tengiz facility – from atmospheric agents (rain, wind) and the extreme temperatures of the region. Processing of Kashagan oil will cause emissions that, without the proper technology, will impact directly the city of Atyrau and the villages in the vicinity of the Bolashak processing plant. In particular, the villagers and officials voiced strong concerns about very highly toxic mercaptans (or thiols). These components were frequently pointed out by villagers, officials from the Ministry of Environment Atyrau Regional Office and scientists as a cause for the massive death of fish and seals in the Northern Caspian in recent years. In addition, due to the presence of these components, the gas flaring that is planned to take place in Kashagan would also have major local and global environmental impacts, in regard to both biodiversity and global warming.

SOCIO - ECONOMIC IMPACTS

Atyrau is experiencing the typical oil town boom. For the last ten years, since large oil companies established their regional headquarters in the city, the cost of living has grown exponentially in Atyrau. As a consequence, living conditions for the local population in the city and in the villages have plummeted. According to information gathered from local NGOs, the price of real estate grew ten fold, reaching almost European levels. Salaries did not increase proportionally, causing major pauperisation among the local population. The average salary level in Atyrau is around 100 USD per month. According to unofficial data, around 90% of the population in Atyrau lives under the poverty line, without access to basic services.

Oil profits do not remain in Atyrau region that suffers the impact of extractive and processing activities. According to public officials we met, Atyrau is a donor region, channelling money that feeds the rest of the country. Oil profits flow to the capital, Astana, and to the national budget and national oil fund of Kazakhstan. This leaves the people of Atyrau, who endure the social, economic, environmental impacts of the project, no compensation.

Investment in basic infrastructure in the city and the whole region is very poor.

Lack of electricity and fuel for heating

The majority of houses in Atyrau lack access to gas and sometimes electricity.
 People cook and warm their houses by burning coal during harsh winters, when temperature often hit -50°C, according to locals

Lack of infrastructure

- In the city, only a few central roads have good pavement
- In the periphery are dirt roads, which become muddy in rainy season, making travel within the city very difficult
- Outside the city, the only roads with good pavement are those connecting oil facilities, while the villages where local people live are left isolated

Lack of public transportation

- in the village of Karabatan, children travel once a week to school by train where they remain during the week, coming back to their families on Saturday afternoons
- there is no public transportation connecting the village with the city of Atyrau, at about 20 km

Lack of basic sanitation

- in the city, most houses are not attached to the sewer system
- villages outside Atyrau lack a sewer system completely

Lack of a health care system

- Karabatan Village, like most villages in the surrounding of Atyrau, lacks ambulance services for basic health care
- According to the Regional Office for Health, doctors and nurses prefer to work inside oil facilities, where salaries are high, than serve in public hospitals and ambulances. This leaves public health structures without the needed personnel.

Working in the oil sector represents a way out for local population. Salaries are higher: around 150 USD per month for men, employed mainly as unskilled workers; around 100 USD for women, employed mainly as cleaners in oil-workers camps. But this comes with high risks.

- Oil workers are the most exposed to emissions of sulphates from the extraction and processing of Northern Caspian Oil
- According to the Trade Union of Oil Workers in Atyrau, around 15.000 people work in the construction of the Bolashak processing facility, near the Villages of Karabatan and Iskenye, about 30 km from Atyrau
- All together, about 10% of the region's population works in the oil sector
- There is no information available on emissions from the offshore plant where construction for the extraction of Kashagan oil is taking place. Trade unions have no access there. Talking with one worker employed on the platform, we gathered that they all have to wear masks when on the platform.

HEALTH IMPACTS

We heard many testimonies of serious health impacts by villagers in Fort Shevchenko, Bautino and their vicinities directly related to the development of the Bautino Atash Marine and Supply Base and the Koshanai Cuttings, Oily Water Treatment Facility, both located only a few kilometres from residential areas.

These health problems comprise:

- In Fort Shevchenko: headaches, nose bleeds and child anaemia, associated with frequent bad odours at night from the Koshanai facility, according to some elderly female villagers.
- In and around Bautino: diarrhoea from fish consumption and child skin diseases, which worsened with sea-bathing. Villagers are now alarmed and do not swim anymore in the Bautino Bay waters (NB: since open-sea water on the other side of the village is much rougher, the villagers no longer have anyplace to bathe). We also heard testimony that the

sick villagers were sent to Aktau to be cured, but that nobody wanted to take care of them there.

- According to local NGOs which we met in Atyrau, about 100 people have died and thousands have fallen ill in the last ten years in the vicinities of the Tengiz oil field and facilities. These concerned mainly men less than 40 years of age, and happened at night during sleeping hours. Other symptoms include drowsiness, which is likely related to intoxication by mercaptans.
- According to some top specialists whom we could meet at the Ministry for Health Atyrau Regional Office, the development of the oil industry in the Northern Caspian is extremely worrying. They pointed out the following points:
- Sulphur in its crystalline form and if protected from atmospheric agents (wind, rain, extreme temperatures) is inoffensive. However, it is high toxic in gaseous form; yet huge quantities of sulphur would be extracted from the Kashagan field, and the Agip KCO consortium still does not know how and where they will be stored. This was also confirmed by Pr. Diarov and some other local NGOs.
- Mercaptan gases are extremely toxic and are also contained at high levels in the Northern Caspian oil; this was also confirmed by Pr. Diarov and some other local NGOs. It also seems that these gases can be responsible for genetic mutations, for which detailed data are still waiting to be gathered and analysed.
- On average, the state of Atyrau Region citizens' health is very low. The pathologies most frequently encountered are: cardiovascular illnesses, respiratory illnesses (such as chronic bronchitis), anaemia, blood illnesses (leukaemia), high levels of premature births and stillborn babies. Another concerning point is that these pathologies are occurring in younger and younger people. This leads the region's official medical specialists to say that it is very likely that these pathologies and the region's very bad general health can be directly related to the oil industry's recent developments, and the enormous amount of toxic substance emissions that are associated with it. The huge Karachaganak gas condensate field, in the vicinity of which local populations were severely impacted; Karaton and Sarykamys Villages, 30 km away from the Tengiz oil field, whose population had to be relocated after 12 years; and the city of Kulsari, (60,000 inhabitants) located 75 km away from Tengiz, and now planned to be relocated, were all cited as examples.
- There is a high level of fear amongst the region's official top medical staff that, in case of an accident in the Kashagan field, tens of thousands of people living in Atyrau and its vicinity could be severely impacted or killed by accidental toxic gas emissions such as mercaptans. Risk of such a catastrophe would be increased by the proximity of the Kashagan platform (70km), the very windy climate of the Northern Caspian, and the fact that the oil-associated heavier-than-air gases would concentrate in the lower lays of the atmosphere. The whole area is in a valley, about 30 meters below the sea level, which facilitates such concentration. The possibility of relocating the whole population of Atyrau (220,000 hb) has also been floated.
- Generally speaking, according to the region's official medical staff, there is a very low awareness amongst the national authorities for the potentially-catastrophic impacts of oil development on the Northern Caspian. While the local population is mainly opposed to it, and while the environmental situation has been drastically worsening since the starting of

the Tengiz field 20 years ago, the issue has never been made public at the level is possible impacts call for.

Other concerning points:

- Mass poisoning of workers: according to a trade union representative in Atyrau a mass poisoning of 500 Turkish workers occurred at the Karabatan-Bolashak Facility. It is only thanks to trade union action that these workers received financial compensation.
- Shortage of medical staff: according to the same trade union representative in Atyrau, the development of the oil industry in Northern Caspian results in a shortage of skilled medical staff for the local population. Indeed, with wages much higher in the oil industry, many medical specialists prefer to work for private companies rather than for the public health administration. While it seems that a subsequent increase of public medical staff salaries has resulted in a slowing of this tendency in the last years, this point was partly confirmed by the Regional Health Administration officials during our meeting with them.

CONCERNS REGARDING THE PRODUCTION SHARING AGREEMENT

Signed at a time of relatively low oil price, and when Kazakhstan (like other former Soviet states) was going through radical market reforms, there are questions on whether the terms strike the right balance between benefits to the consortium and to the Republic of Kazakhstan. Effectively, the contract serves to guarantee consortium profits from any economic, legal, political or other change – at the expense of communities living near the development, workers on the project and the citzens of Kazakhstan more generally. It ensures legal "stability" (for example, no new laws are permitted to make the project less profitable), combined with economic "flexibility" (very little revenue goes to the state until healthy profits have been achieved).

For example, Article 40.2 provides that any new laws (except environmental, health or safety laws) or judicial rulings that affect the consortium's profits will force an adjustment of the terms of the contract to restore the rate of profits. The exclusion of environmental, health and safety laws from this "stabilisation" is an improvement compared to PSAs signed in Russia and Azerbaijan, but still restricts the Republic's exercise of sovereignty, and indeed compliance with international human rights norms, in other areas: these might include labour law, land expropriation law or third party compensation laws.

The contract is one of a new breed of economically "flexible" PSAs, largely developed during the 1990s and tried out in the former Soviet states. This new breed was introduced following arguments from oil companies, the World Bank and others that fiscal systems should be maximally responsive to company profits, and should avoid taxing the extraction of the resource *per se* (such as through royalties). One effect of this approach has been to allocate project risks to host states rather than to investors, and even in some cases to deprive the state of any meaningful income from the extraction of its non-renewable resources.

The effect of this could be to constrain the Republic's ability to address the socio-economic concerns raised above, and to meet the needs of its citizens more generally.

The usual model (and indeed justification) for foreign direct investment is that the foreign

investor carries the investment risks – in the case of an oilfield, these include risks that insufficient oil will be found, that costs will inflate, that the oil price will fall etc; in short, risks that the project will be unprofitable. While the investor takes these risks, in return, the investor receives profits in the event that the project is successful.

However, with Kashagan, these risks are instead effectively carried by the Republic, since almost no revenues will be received until the consortium has achieved its profits. In the event, precisely the risks that an investor would normally bear did materialise (including siting difficulties, cost of materials and exchange rates). Normally, one would expect such events to reduce the consortium's profits. Instead, in this case, those costs will be carried by the Republic.

So, as project startup has been delayed (first to 2008, and then to 2010), and as project costs have ballooned to \$136 billion, both circumstances have delayed the time at which the consortium will achieve its profits, and hence the time at which the state will receive meaningful revenues.

Traditionally, oil fiscal systems have set a minimum proportion of revenues that will be received by the state. This is usually done by charging a royalty (usually around 15%) or by setting a limit (commonly 40-60%) to how much of the extracted oil can be used to cover the investor's costs (any amount above this limit to be shared between state and investor, thus ensuring the state some income).

The Kashagan PSA does not include any royalty, and the cost recovery limit is set very high, at 80%. Combining these facts with a "sliding scale" of profit-sharing results in almost no revenue being received by the state until profits have been achieved. Indeed, 90% of all "profit oil" is allocated to the consortium until either (roughly speaking – we are simplifying somewhat here):

- a) the consortium achieves an internal rate of return of 17.5% (a healthy rate of profits), or
- b) consortium receipts exceed expenditures by a factor of 1.4 : 1 (also likely to be a healthy rate of profits), or
- c) volume of oil produced exceeds 3 billion barrels (a large proportion of the field).

Whilst the project is still being developed, only 2% of revenues (a 10% share of the 20% remaining after cost recovery) will go to the state, 98% to the consortium. Only after one of these conditions is met, does the state's share increase.

Furthermore, the PSA (Article 14.5(d)) provides for a right of renegotiation in extraordinary circumstances resulting in "economic hardship" to the consortium. There is no corresponding right for the state – thus in the "hardship" arising from failures of project management and changed circumstances, there is no provision to adjust the terms to ensure adequate revenue to the state.

NGOs DEMANDS

Basing on all the findings of the mission, the NGO Consortium demands that the European Union, European and Kazakh Governments and oil companies (Agip KCO) take the following action:

Environmental demands

- Sulphur: considering its enormous potential impacts, there must not be any restart of the Kashagan project as long as the sulphur issue is not resolved. This means that a sustainable solution has to be found concerning the way huge quantities of Kashagan-oil sulphur will be extracted, treated and stored by the oil companies. In addition, the sulfur's environmental and health impacts must be scientifically and independently assessed.
- Biodiversity impacts: considering the massive decline in the Northern Caspian Sea's fragile biodiversity and ecosystems in recent years, especially concerning fish and Caspian Seals, as well as severe socio-economic impacts for the Caspian Sea-dependent populations of five countries, the short and long-term environmental impacts of offshore oil-extraction must be scientifically and independently assessed before the Kashagan project restarts.
- Gas flaring: considering this practice's well-known negative impacts on local and global health and the environment, as well as the Kazakh legal framework, gas flaring must be strictly forbidden from the Kashagan project.
- Climate impacts: given the global and urgent short- and long-term fight against global warming on an international scale, as well as its ambitious position as a key-leader on this issue, the European Union should not support Europe-based highly-profitable private oil companies that choose to invest massive amounts of money in fossil fuel and environmentally unsustainable mega-projects, such as Kashagan, rather than to invest equivalent sums in renewable, clean and more employment-providing energy. This is particularly relevant in regard to Kazakhstan, which, like other developing countries in Central Asia, may be severely impacted by global warming in the medium and long term.

Health impacts

Health impacts: considering the massive presence of highly-toxic (or lethal) pollutants in the Northern Caspian oil, as well as the very concerning testimony that the NGOs gathered in the Atyrau and Aktau regions, the short- and long-term health impacts of offshore oil extraction for the hundreds of thousands of people living in the Northern Caspian region must be scientifically and independently assessed before the Kashagan project restarts.

Socio-economic impacts

- Social impacts: considering the negative impacts that are already resulting from the last decade of development of the oil industry in the Northern Caspian region, especially in regard to already-occurring rapid inflation, and which may worsen drastically with the development of the Kashagan project, the short and long-term social impacts of oil industry development for the hundreds of thousands of people who live in the Northern

Caspian region must be scientifically and independently assessed and compensated".

- Employment: considering the negative testimony that the NGOs gathered, the Kashagan-involved oil companies must commit to employ local people and/or expatriate workers according to national and/or international labour legal standards and best practices. In particular, this refers to trade union rights, payment of social charges, safety standards, stable long-term contracts, free access to information and any other criteria that may guarantee that the project really is beneficial for the local populations.

Development impacts

Development: considering the very negative examples of many other oil-producing countries in the last decades, and the potential of massive environmental, socio-economic, health and governance impacts that may result from the development of the Kashagan project, the long term direct and indirect development impacts of the Kashagan project must be scientifically and independently assessed before the Kashagan project restarts. In particular, any other safer, cleaner and more sustainable development option, (e.g. tourism or fishing), should be accurately studied before embarking on massive oil development projects such as Kashagan, and eventually be supported by international and/or EU public or private financial institutions and development agencies.

Information

Information: given the evident lack of transparency that the local population, as well as local and international NGOs, regularly encounter when working on Kashagan-related issues, any information and assessment concerning the environmental, health and socioeconomic impacts of the project should be immediately released and kept freely available in local languages and easily accessible by the both Kazakhstan's authorities and Kashagan-involved oil companies.

Governance

Population involvement: given the negative testimony that the NGOs gathered and evidence witnessed themselves, all development steps of the Kashagan project must get free, prior and informed initial consent by the local populations.

Production Sharing Agreement

The PSA must be made publicly available, in line with best practice in the international oil industry, and as recommended by the World Bank and others. A meaningful consultation should be carried out with civil society groups and with oil experts on whether the terms of the PSA provide for their interests.

The "stabilisation clause" (Article 40.2) should be restricted to purely fiscal changes, and in particular should affirm the Republic's right and duty to comply with international human rights instruments.

Other legal and international issues

- Legal status of the Caspian Sea: considering its ambiguous status and its richness in natural resources, the five countries that benefit from access to the Caspian Sea, as well

as the international community as a whole, should work together with the aim of giving rapidly a clear legal status to it.

- Protection of the Caspian Sea: considering it as a world natural and/or cultural heritage site, the five countries that benefit from an access to the Caspian Sea, as well as the international community as a whole, must work together with the aim of establishing rapidly a clear international protection status for the Caspian Sea, such as a UNESCO protected area.

LIST OF PLACES VISITED

Atyrau Region:

Atyrau City, Demba Village and a nearby area proposed for development of the National Oil Spill Response Centre, Karabatan Village, vicinities of the Bolashak Refinery, New Sarykamys.

Mangistau Region:

Aktau City; Kuryk Village, vicinities of the ERSAI Logistic & Fabrication Yard, Fort Shevchenko, vicinities of the Agip KCO Koshanai Cuttings, Oily Water Treatment Facility, vicinities of the KazMunaiGaz Facility for Toxic Waste Utilization from Oil Processing, Bautino Village, Bautino Atash Marine and Supply Base.

LIST OF OFFICIALS AND NGO MEMBERS INTERVIEWED IN ATYRAU:

- Prof. Muftakh DIAROV	Director, Scientific Centre of Regional Ecological Problems, Atyrau Institute of Oil and Gas	
- Mr. Tlekkabyl KABDULOV	Chairman, Oil and Gaz Industry Atyrau Region Trade Union	
- Mrs. Yelena MUSTAFINA	Deputy Chairman, Oil and Gaz Complex, Trade Union of the Kazakhstan Republic	
- Mr. Abdrakhmanov MARAT	Head, Atyrau Region Territorial Administration for Environmental Protection	
- Mr. Iliasov ELAMAN	Director, Atyrau Region Natural Resources and Nature Management Department	
- Ms. Sungalieva GULZINEP	Deputy Head, Atyrau Region Department of Public Health Service	
- Ms. Utepkaliev MUSSA	Head Surgeon, Atyrau Region Health Department	
- Ms. Kamenova DINA	Head Pediatrician, Atyrau Region Health Department	
- Mr. Kabdrakhminova ALMAGULHead Physician, Atyrau Region Health Department		

- Mr. Shaimanov AZBERGEN Head Gynecologist, Atyrau Region Health Department

- Ms. Shinar IZTELEOVA Director, NPO Social Fund

- Mr. Makhambet KHAKIMOV Representative, NPO Social Fund

- Ms. Galina ZEMLIANIA Representative, NPO Social Fund

- Mr. Artur SHAKHNAZARIAN North Caspian Press Club

- Ms. Valentina CHJEN Women Social Unite Tomirist

- Mr. Malik ISABEKOV Oil Income Transparency Coalition

Galina CHERNOVA
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 Ms. Natalia CTOLNIKOVA
 Mr. Mikhail KARAPUN
 Saudabai RAKHIDJAN
 Director, Globus Centre
 Volunteer, Globus Centre
 Volunteer, Globus Centre
 Volunteer, Globus Centre
 Volunteer, Globus Centre

- Ms. Kaisha ATAKHANOVA Chairwoman, EcoForum of Kazakhstan, Receiver of

Goldman Prize Award

- Mr. Vadim NII Director, LEEP, International Expert for the Aarhus

Convention Compliance Committee

Due to the use of the Cyrillic alphabet in Kazakhstan, some name spellings may vary slightly.

INTERVIEWS WITH LOCAL PEOPLE

Villagers were extensively interviewed in the villages and vicinities of Karabatan, Demba, New Sarykamys, Kuryk, Fort Shevchenko and Bautino.