



**AFRICA EUROPE FAITH AND JUSTICE NETWORK  
RESEAU FOI ET JUSTICE AFRIQUE EUROPE**

**Kouidiadiène,  
A mining operation  
under scrutiny... evidence.**



**Étude réalisée par CICODEV Afrique**

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## Foreword

Senegal's wealth has grown by 70% thanks to telecommunications, financial service and the extractive industries.

This growth does not benefit everyone as it is concentrated in the hands of foreign multinationals.

If we want inclusive growth, we will need to invest in agriculture as that is where 60 – 65% of the country's population works.

However, for investment in agriculture and the creation of jobs in this sector, people such as family farmers must have secure access to land.

Today they are facing strong competition for access to land. Europe and America are engrossed with the ability of their companies to compete and need land to stand up to the Chinese.

This land, they hear, can be found in ... Africa.

Our public authorities need to be able to feed their people and animals, to generate resources, to create employment for the young, to protect their natural resources and the climate, to house a population that is growing by 3% per annum.

And land enables them to do all this.

We have often shown interest in the interface between land and food security/sovereignty when denouncing land-grabbing that benefits only agro-business. However, very little light has been shed on the consequences of large-scale land acquisition by extractive industries on the various functions of land noted above.

This study, commissioned by the Africa Europe Faith and Justice Network (AEFJN) and undertaken by CI-CODEV Afrique, hopes – via a case study – to shed light on the ways extractive industries acquire land, on land tenure in relation to international principles and national legislation, and the the impact of the mining on people, the local economy and the living environment of Koudiadiène, a village in the municipality of Cherif Lo, department of Tivaoune in Thies, Senegal.

The authors and sponsors of the study intend to use the results to educate the public and policy makers in Europe and Senegal, using documented evidence for their advocacy because the results show that the land acquisition processes for this industry are not in accordance with normative frameworks, those decreed in international principles nor with national laws and regulations.

Amadou C. Kanouté  
Executive Director, CICODEV Afrique  
20 March 2015.

## Foreword (AEFJN)

In the global economy the economic actors need to jostle for a good position in the global value chains and often the power relations favour the big players, including multinationals. Small tradespeople, family farmers and artisanal miners in Africa do not benefit from the financial windfalls of international trade; they just suffer from them. These economic power relations are evident in international trade and investment agreements, often sealed in favour of large players and barely taking account of local industries and family farms.

In many African countries, family farms provide livelihoods, income and employment in rural areas. Moreover, family farms are crucial in the fight against hunger and to guarantee food self-sufficiency. According to the FAO, they currently produce (despite a lack of any real support) about 80% of the world's food.<sup>1</sup> Nevertheless, direct foreign investment in Africa, be it for extractive industries, large-scale agriculture or tourism, is compromising access to land for family farmers who depend on it for employment, income and food security. In numerous cases, foreign companies export their products in order to feed the consumer economy in industrialised countries while locally monopolising land and destroying the environment. Rarely do the local people and economies benefit.

Furthermore, it is clear that investments in land do not always comply with international principles, in particular the FAO Voluntary Guidelines especially the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the context of national food security. A key principle concerns the free, prior and informed consent of local communities affected by investment in land. If the land rights of the people are not respected, there is a high risk that the land grabbing will undermine the food security and sovereignty of these people.

This study appears as the first of a series of case studies analyzing how the local population and the economic development of African countries are being affected by international trade, EU policies and those of international organizations. The results will provide a foundation for sensitizing policy makers and the public, both in Europe and Senegal.

We thank Father Grégoire Dog and the community of the Blessed Sacrament at Kouidiadiène for drawing our attention to the circumstances in the village and for facilitating the initial field survey undertaken by a researcher at AEFJN. We also thank CICODEV Afrique for carrying out this study – and for their fruitful cooperation.

Gino Brunswijck  
AEFJN Policy Officer  
Brussels

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1.- FAO, 2014, "Putting family farmers first to eradicate hunger": <http://www.fao.org/news/story/en/item/260535/icode/>

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Africa Europe Faith and Justice Network



Panafrican Institute for Citizenship,  
Consumers and Development

## Résumé

### Kouidiadiène, a mining operation under scrutiny ... evidence

The case study conducted at Kouidiadiène, Senegal, known for its rich subsoil minerals, highlights the land acquisition process for mining and the impact of the activity on the population, the local economy, the land and the living environment of Kouidiadiène.

The activities of the mining companies installed in Kouidiadiène and operating on the land around the neighbouring villages have a socio-economic impact that weakens the environmental and socio-economic rights of local people. These companies are owned by European groups specializing in the production of various forms of fertilizers and other chemicals. The phosphate mined in Kouidiadiène is destined mainly for export to the European market to be processed and used there.

### A. Failure to comply with Senegalese legislation and international principles

Responsible investment requires an assessment of project impacts and strategies to prevent negative fallout. During the processes of acquiring land and mining investments in Kouidiadiène this was not done. This mining clearly does not comply with international supervisory principles of large-scale land investments as foreseen by the FAO Voluntary Guidelines and Senegalese legislation (the mining and environmental codes).

Here are some examples of provisions that the mining companies failed to follow:

- Prior consultation of the rural community and local populations (Mining Code and FAO).
- The requirement to carry out an environmental and social impact assessment before operations (Mining Code, Environment Code and FAO).
- Payment of just and prior compensation by mining companies to the people affected by the project (Mining code and FAO); instead paltry compensation was paid late.
- The local community does not benefit from an equalization fund or the environmental rehabilitation fund. (Mining code).

## B. Negative impacts of phosphate mining

### B.1. Impact on the health and well-being of the people

Increased risk of diseases (Pulmonary among others) because of:

- The emission of toxic dust
- Pollution of arable land, pasture and orchards.

*"We noticed that our children were coming home each day from school covered with the phosphate dust rejected by the mining companies that are active near our village. We are seriously concerned about the health of our children. We know that phosphate dust contains chemicals that can be toxic." (a mother from Koudiadiène, a village right by the factory).*

### B.2. Impact on the natural resources, land and environment

- No rehabilitation of the excavations and environment
- Loss of vegetation cover and forest species
- Loss of agricultural fallow land
- Loss of agricultural plantations
- Reduction in areas for grazing and transhumance

### B.3. Socio-economic impact

- Pressure on human habitat and risk of relocation of the village. Indeed, the village was surveyed and its subsoil was found to contain phosphate
- Low job creation for young people
- Increased poverty in the villages affected by the project
- Loss or decrease in income previously derived from plant gathering, agriculture, livestock, crafts, and use/processing of natural resources

As a consequence of the loss of land, the food security and income of the villagers are threatened as there will be less land for growing food crops (such as millet and sorghum) and cash crops such as peanuts.

### B.4. Financial impacts

The mining code makes provision for an equalisation fund. The mining activity is subject to royalty payments and other taxes to the treasury, to be shared between the local communities affected by mining projects. However, mining companies in Koudiadiène are exempt from any tax, fee or other form of taxation. So the local people do not even benefit from the financial impact of activities carried out on its territory.

## C. Recommendations

To end the damage caused by mining projects and the weakening of the socio-economic rights of indigenous people through land grabbing, the states that host investors and the countries of origin of these investors should require:

- The investor to carry out, in advance, an investment plan and an environmental and social impact assessment and present it to the competent authorities of the host country and those of the country of origin.
- The establishment of mechanisms for monitoring and evaluating these plans and the results of environmental and social impact assessments; these to be carried out by joint committees that

include the people, local authority representatives, businesses and government.

- Repair by companies of harm done to the people of Kouidiadiène caused by the phosphate extraction.
- The active involvement of the member states of the European Union in creating an intergovernmental working group to draw up a legally binding international instrument applicable to transnational corporations and other enterprises by the United Nations High Commissioner for Human Rights.
- Increased efforts by the EU to develop a legislative framework with mandatory requirements for companies operating in the European market regarding the responsible sourcing of raw materials from developing countries. There is no doubt that the supply of ores in these countries without due diligence impedes economic development and can create or increase the risk of conflict within these countries.
- Increased efforts on the part of the EU **and the host country, Senegal**, to put into practice the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the context of national food security.

## **Kouidiadiène, a mining operation under scrutiny ... documentary evidence.**

### **INTRODUCTION**

This study of the impacts of the phosphate mining in Kouidiadiène has been commissioned by the Africa Europe Faith and Justice Network (AEFJN) based in Brussels in Belgium.

CICODEV Afrique – the Pan African Institute for Consumer Citizenship and Development – the body undertaking the study, is a Senegalese, not-for-profits international organisation based in Dakar, Senegal.

#### **Objectives:**

The overall objective of this work is to demonstrate, through a case study, the process of land acquisition for mining and the consequences of the activity on the population, the local economy, land tenure and the living conditions in Kouidiadiène, a village in the municipality of Cherif Lo, region of Tivaoune, Thies, Senegal.

The study has the following specific objectives:

- To analyse whether or not Senegalese legislation (the mining and social codes) or Senegalese socio-economic and environmental laws protecting the people, the workforce and the environment are being honoured.
- To analyse and highlight the impact of the activities of European companies operating in the extractive sector in Kouidiadiène on the local population (socio-economic and human rights), on local food security, the environment and, more generally, economic and social development.
- To analyse and highlight the appropriateness of corporate practices in relation to international texts including the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security.

CICODEV Afrique and AEFJN intend to use the results to sensitise the public and decision-makers in Europe and Senegal to the issues.

The results of the study will therefore provide detailed information to support the advocacy of AEFJN and CICODEV. So, when meeting policy makers in Senegal and the EU institutions, these two organisations will be able to put forward more convincing arguments concerning the practices of companies involved in phosphate mining in Senegal and their impacts on the local people.

The results will also enhance AEFJN's advocacy at the EU on the responsible supply of natural resources coming from developing countries.

Currently, the political slant in the EU concerning the supply of minerals is about the prevention of “conflict minerals”, that is to say minerals coming from countries that are suffering from violent conflict.

However, the supply of minerals coming from peaceful countries could equally well arouse or increase the potential for and risks of conflict within these states.

Consequently, the results of the study could be used to put pressure on the EU to develop the concept of a responsible supply of minerals, whatever their origin.

## **Methodology**

This study is the fruit of field work in three stages. Initially, an exploratory work was conducted on the site of Koudiadiène. The idea was to meet the people of Koudiadiène to inquire into the reality of the phosphate problem and thereby understand how they felt about the various questions raised by phosphate mining in the area. These preliminary discussions brought together the women's representatives of Koudiadiène and Thiafathie, the priest of Koudiadiène, the youth representative and distinguished people of Koudiadiène.

From the discussions with the local population, a survey guide was developed which covers the main orientations that emerged. Based on these elements, a second meeting was organized with the people of Koudiadiène and Thiafathie. There was also a meeting with the municipal authority to find out how he viewed the phosphate mining in Koudiadiène. A further meeting was held with the coordinator of SEPHOS in order to have a balanced view of the problem of phosphate in the Koudiadiène area.

Finally, there was a third visit to the site in Koudiadiène where, through discussions in focus groups, we were able to crosscheck and verify the reliability of information received a few days earlier and also to go more deeply into certain issues, including those relating to the impacts of exploitation of phosphate.

Meanwhile, a documentary research work was carried out to analyse how the realities at the grassroots related to international and national texts.

## **PART ONE: KOUDIADIENE AND THE MINING OPERATION**

### **I. THE SOCIO-ECONOMY OF KOUDIADIÈNE**

#### **1. The village of Koudiadiène**

The village of Koudiadiène is situated in the commune of Cherif Lo, in the department of Tivaoune in the Thiès region. With about 2000 inhabitants – mostly Serers – this village lies in the Thies plateau which is known for its wealth in subsoil minerals. The population is predominantly Catholic, served since 1973 by the Italian catholic mission who built a church there.

The area brings together the villages of Thiafathie, Baliga, Lam-Lam Serere, Thiaoune, Ndiolène, Ndiassane Serere, Keur Masser Ndieng and ColobaneThiombane. All these villages are affected by the phosphate mining activity. However, the villages of Koudiadiène and Thiafathie are most affected because they are exposed to dust emissions. They are traditional villages located within 500 m of the phosphate mining sites.

The land used by the people of these villages - which has been taken from under their feet - has always been managed on the basis of customary rules despite the removal of customary rights through the national domain Act in 1964. The heads of villages are considered legitimate custodians of the land, exercising an honorary right in land distribution. The people relate to the land in many ways in this area. It is primarily seen as a mirror of identity, reflecting social, economic, religious values and supporting many activities.

#### **2. The main activities in the Koudiadiène area**

Agriculture, livestock, gathering food from the wild and crafts are the main activities in Koudiadiène. The men and women share the land according to the nature of the activities. Their fields produce timber and non-timber plant products intended for human and livestock consumption. Some of these products are intended for marketing as well as for traditional medicines. The gathering activity has developed considerably - mainly leaves for food and medicinal purposes, fruits, firewood, roots, bark and building materials. Chief among them are the palmyra and jujube trees, leaves and fruit of the baobab and kinkeliba whose leaves are marketed.

Bordering onto Niayes, Koudiadiène is indirectly involved in the activity of arboriculture which is highly developed in the area where there are large numbers of mango, mahogany and lemon trees.

Outdoor agriculture and livestock are prominent in the everyday lives of the people of Koudiadiène. Millet, sorghum and sunnah are the main established varieties grown in the area during the rainy season from July to October, while market gardening is practised at the end of rainy season. The peanut farming is also at the heart of agricultural activities. Overall this is subsistence agriculture. However peanut straw is sold and serves as a source of additional income.

The collection of dead wood is also an important activity in the area. Women do most of this. The wood is used as fuel for cooking. The service-wood collection is one of the most, if not the most, common activities in Koudiadiène. The palmyra wood is much used for crafts which are the flagship of the local economy.

### **3. Mining in Koudiadiène**

Mining activity in this area dates back to 1957 and the former SSPT (Société Sénégalaise des Phosphates de Taïba (SSPT). Since 1960, the Chemical Industries of Senegal (ICS) have been mining a tricalcium phosphate deposit which extends over an area of 40 km<sup>2</sup> in the Taïba region 100 km northeast of Dakar in the Thiès region. The first mine began production in 1960 at a production rate of 600,000 tons of phosphate per year. In 1996 ICS absorbed SSPT by merger. At that time phosphate production was carried out by domestic companies through ICS. The peculiarity of this situation is that ICS settled in the area at a time when the legislation did not require the completion of an environmental and social impact study. The land was used with the simple approval of the State.

It was only with the adoption of the first mining code (Act 88 of 26 August 1988, replaced by the 2003 code) that social and environmental impact studies prior to any mining activity were required. This legislation has not slowed down the development of mining activity.

Phosphate extraction has grown considerable in the Koudiadiène area in the last 5 years with the arrival of SEPHOS (Senegalese Phosphates) in 2009 and AIG (the African Investment Group) in 2012 - both European companies – and of their sub-contractor GME (General Maintenance Enterprise) a Senegalese mining company.

### **4. The presence of companies in the Koudiadiène area**

The village of Koudiadiène is encircled by three interconnected companies: SEPHOS, African Investment Group (AIG) and GME. The following table provides an overview of these mining companies.

Table 1: Mining companies present in Kouadiadiène

Company	Description	Nationality
<b>SEPHOS SA</b>	<p>The Senegalese Phosphate Company -SEPHOS SA -, with a capital of 850 000 000 FCFA (1,297,709 Euro) is a subsidiary of the Spanish Tervalis group.</p> <ul style="list-style-type: none"> <li>• The TERVALIS Group<sup>2</sup> is one of the European leaders in agricultural supply. Via its industrial and commercial subsidiaries it is present in Algeria, Argentina, Spain, France, Italy, Mexico, Portugal, Senegal and Ukraine. It exports its products to more than 60 countries and produces some 1.7 million tons of fertiliser for export each year.</li> <li>• After 26 years of uninterrupted growth and good results, in 2014 Tervalis has an annual turnover of 450 million euro and over 1000 employees spread around the entire world.</li> <li>• SEPHOS SA's main activity is a small opencast phosphate mine straddling an area of 500 hectares between Kouadiadiène and Lam-Lam Serere. The company received the license to operate in 2009. This is also when it commenced operations.</li> </ul>	SEPHOS SA a Spanish company under Senegalese law and affiliated with the TERVALIS Group
<b>AIG</b>	<ul style="list-style-type: none"> <li>• African Investment Group is a consortium of businesses. It comprises 2 Polish companies, DEGG ECO and the Azoty Police Group, holding 35% and 55% of the shares respectively. A Senegalese operator holds the remaining 10%. Initially, 90% of the shares were held by DEGG ECO. On August 28 2013, 55% of the stock was sold to Azoty Group SA for 28.55 million euro. The latter is itself a subsidiary of the Group Azoty, another Polish chemical company based in Tarnow.</li> <li>• The Azoty<sup>3</sup> group is composed of 8 subsidiaries, one of which is Azoty police SA.</li> <li>• AIG's phosphate production, estimated to be between 500,000 and 800,000 tons per year, is destined for export for use as fertiliser and chemical products.</li> </ul>	90% Polish and 10% Senegalese

2.- TERVALIS Group internet portal <http://www.fertinagro.com/en/le-groupe-tervalis/> . Visited November 30th, 2014

3.- <http://grupaazoty.com/>

<b>GME</b>	A Limited Liability Company (LLC) with a capital of 1 million CFA francs (1,527 euro), GME was created December 12, 2011 and registered with the National Trade Register of Senegal under the SNDKR2011B16843 number. It specializes in mining mines and quarries and its social purposes are the extraction of minerals, terracing and the work of the mine. GME is working as a subcontractor with AIG and SEPHOS SA providing the necessary equipment for the extraction of phosphate.	Senegalese
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## **PART TWO: THE LEGAL AND INSTITUTIONAL FRAMEWORK FOR MINING IN SENEGAL**

### **I. THE SENEGALESE LEGAL AND INSTITUTIONAL FRAMEWORK**

#### **1- History of mining in Senegal**

Senegal is a Sahelian country of 13,508,715 inhabitants. Its subsoil is full of phosphates, the reserves of which are estimated between 500 million and 1 billion tons<sup>4</sup>.

Industrial phosphate mining dates back to the 1940-1950 period with the opening of two large phosphate mines in Taiba and Lam-Lam in the region of Thies, 80 km from Dakar. For decades phosphate mining has helped the Senegalese economy, thanks to the national economy's flagship, the Chemical Industries of Senegal (ICS).

At that time mining activities were concentrated in the north-west of the country. The phosphates were generally used in the chemical industry and for fertilisers. From the 1970s the marketing of phosphates for export expanded exponentially. From 1979 to 1984 the phosphate mines of Taiba and Lam-Lam produced 422,245 tons for export<sup>5</sup>.

The discovery of layers of phosphates in eastern Senegal and in the region of Matam that had been confirmed in 1984 brought new energy to the marketing of this mineral. Reserves were estimated at 40 million tons.

4.- [http://www.un.org/esa/dsd/dsd\\_aofw\\_ni/ni\\_pdfs/NationalReports/senegal/Mining.pdf](http://www.un.org/esa/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/senegal/Mining.pdf). Site visited 21 November 2014.

5.- See a report covering mining activity and geology from 1976 to 1982 on:

<http://www.sist.sn/gsd/collect/eismv/index/assoc/HASH013f.dir/TD85-21.pdf>

Senegal's current objective is to figure among the top ten producers of phosphates in the world. The increasing variety of industrial actor is helping achieve this goal. More and more foreign businesses, in particular European, are interested in this mining sector.

To enhance transparency in the extractive sector, Senegal accessed October 17, 2013, candidate country status in the Initiative for Transparency in Extractive Industries (EITI). The EITI is a global coalition of companies, governments and civil society organisations working together to improve the transparency and responsible management of revenues from natural resources. Ensuring good governance in the extractive sector is the main mission of this structure. Up to 2014, Senegal has granted 262 permits for operating in the mining sector, clearly reflecting the need to promote transparency in the sector and in such a context.

## **2- The legal-institutional framework relating to mined resources in Senegal**

The area of mines is an area of expertise not transferred to local authorities who report directly to the State. The Mining Code reiterates this principle through Article 7 which states that "on all or part of the territory of the Republic of Senegal and under the conditions provided by this Code, the State may grant to one or more natural or legal persons the right to start or operate one or more mining operations for mineral substances in the soil and subsoil."

### **i. Statement of mining policy<sup>6</sup>**

The economic importance of mining and the need for it to develop harmoniously mean it is vital to commit the necessary effort and resources to assure continued growth so that the sector may play its true role as yeast in the socio-economic development of the country.

The mining policy statement is built around 6 axes including the improvement of the institutional framework, artisanal and small-scale mining, local processing of mining products, respect and preservation of the environment and the promotion of vocational training in the field of mining.

The document also presents some general principles regarding mining. These include the state's exclusive ownership of mineral resources, participation and state ownership of 10% of the shares.

Finally, this policy statement accepts the role of the state in mining, primarily that of being the institution that supports mining investment (promotion and support of domestic and foreign private initiative and its participation in mining operations). Another role is to ensure compliance with legislation so as to improve the sustainability of resource use and reduce damage to the environment.

Together, the legal instruments and mineral policy statement essentially aim to provide a framework that promotes responsible mining.

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6.- Statement of mining policy of 6 March 2003, Ministry for Mines, Energy and Hydrocarbons.

## ii. The 2003 Mining Code and the implementation decree of 2004

At the legal level, Senegal has established a legislative and regulatory body governing mining activities. Reforms are underway to improve and strengthen the existing one and to adjust activities in mines and quarries to the socio-economic context.

The main legal instrument remains Law No. 2003-36 of 24 November 2003 relating to the Mining Code. This law replaced Law No. 88-06 of 26 August 1988 which no longer met the socio-economic demands of the time.

The 2003 Mining Code is the state of Senegal's formula for making its mining sector more competitive and attractive by having a simple, clear and transparent mining policy, underpinned by mining legislation designed to streamline procedures administrative and the security of investors<sup>7</sup>.

However the Mining Code reaffirms that all mineral resources contained in the ground and the sub-soil are the property of the State which may grant the right to explore and exploit these resources and to occupy the land without owning it.

The Mining Code describes the process for acquiring land for quarrying. The use of land for mining follows a process that involves the state and its technical services, the applicant, the local community concerned and the local populations that may be impacted by the project.

The process involves several steps which are imperative:

- **Prior public consultation and information to communities affected by the mining project.**

There is a basic principle that the state has the privilege of disposing of land for mining. However, the land acquisition procedure requires prior consultation of the communities likely to be affected by the activity and of the local authorities on whose land the mining will be carried out.

The consultation of the local authority takes the form of a request for an opinion from the operator as stipulated in Article 10 of the Mining Code: "Every natural or legal person who performs work more than 10 meters deep (...) is required to declare this in advance to the local community". This notice has no legal force; it is simply giving information.

Local authorities have no delegated competence in mining matters. However, law 96-07 of 22 March 1996 gives jurisdiction over land to local authorities. The land surface is the responsibility of local authorities and that is why they are informed of mining projects.

Furthermore populations must also be consulted before the implementation of mining projects that affect them either directly or indirectly. But they are not consulted beforehand for an endorsement of the project.

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7.- Explanation given for the Mining Code of 2003.

Their consultation focuses on identifying the costs, their expectations and potential socio-economic impacts that may result from the project - and their recommendations. These consultations must be held before work starts in case anything is needed for the implementation of the project.

Not until after the consultations of the public and the local authority have been carried out is an environmental and social impact assessment produced by the natural or legal person holding the license to operate.

• **The requirement of prior completion of an economic and social impact assessment**

No mining project may be implemented without prior production of an environmental and social impact study. Any applicant for an operations license, a mining concession or small mine operating permit must carry out, at its own expense, an environmental impact study in accordance with the Environmental Code and the decrees and orders related to the Mining Code (Article 83).

This document is a prerequisite that must be included in the mining application package as provided by Article 45 of the Mining Code implementing decree<sup>8</sup>.

Carrying out an Environmental and Social Impact Assessment is a process that, at the very beginning of the project planning, identifies and assesses the risks of environmental impacts resulting from a proposed project. It establishes the measures that can be adopted to counter the negative environmental effects or to reduce them to acceptable levels beforehand.

The environmental and social impact assessment represents a proactive and preventative approach to environmental management and protection. It also helps identify disbursements and compensate all the other socio-economic impacts that may be caused by the project.

- The payment of compensation of just and prior compensation to people affected by the project.
- The required opening by title holders or those operating permits of a trust account in a commercial bank in Senegal, for the creation of a fund for restoring mining sites and rehabilitating the environment.
- The establishment of an equalization fund built on fiscal charges that will go to local communities affected by the project so that they may benefit from the financial returns from the exploitation of the underground resources.

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8.- Decree 2004-647 of 17 May 2004 fixing the conditions applying to Law 2003-36 of 24 November 2003 relating to the Mining Code of Senegal [http://www.dirmingeol.sn/principal-pages/docs\\_dmg/DECRET\\_2004-647.pdf](http://www.dirmingeol.sn/principal-pages/docs_dmg/DECRET_2004-647.pdf)

### iii. The Environment Code

Mining activity is intrinsically linked to the environment. The Environmental Code in force was updated two years before the adoption of the Mining Code. It is enshrined in the law 2001-01 of 12 April 2001. In terms of mining, this legal instrument and its implementation decree of 2001 are equally important because they require the production of environmental impact studies before the company embarks on any operating activity and public participation prior to these proceedings.

### iv. The 1964 law relating to the national domain

Land is needed if mineral resources are to be exploited. Under the National Domain Law, the State owns all the land of Senegal with the exception of land in private ownership. Individuals have a right to use, not to own, the land allotted to them by the rural councils who have the power to apportion and withdraw land belonging to the national domain.

## II. THE INTERNATIONAL FRAMEWORK: BASIC PRINCIPLES OF THE FAO DIRECTIVES ON LARGE-SCALE LAND INVESTMENTS

The international texts, including the FAO Voluntary Guidelines, are a set of universal principles designed to provide a framework for the impacts of large-scale investments on land tenure and environmental and socio-economic life.

These principles apply to the various sectors of land investment – agricultural, mining, animal husbandry ...

Countries are responsible for creating the right conditions for their implementation.

The basic aim of these principles is to encourage 'responsible investment'. The accountability of large-scale investors is promoted via a number of broad, universal principles that are summarised below:

### i. The principle of prior consent (9.9):

States and other parties should hold good faith consultations with indigenous peoples before initiating any project or adopting and implementing legislative or administrative measures affecting the resources for which the communities hold rights. Such projects should be based on an effective and meaningful consultation with the indigenous peoples, through their own representative institutions in order to obtain their free, prior and informed consent under the UN Declaration on the Rights of Indigenous Peoples<sup>9</sup>, with due regard for the positions and understandings of individual states. Consultation and decision-making processes should be organised without intimidation and in a climate of trust.

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9. - Resolution 1/2 of 26 June 2006 - UN Declaration on the Rights of Indigenous Peoples [http://www.un.org/esa/socdev/unpfii/documents/DRIPS\\_en.pdf](http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf)

#### ii. Consultation and participation (3B-6):

Engaging with and seeking the support of those who, having legitimate tenure rights, could be affected by decisions, prior to decisions being taken, and responding to their contributions; taking into consideration existing power imbalances between different parties and ensuring active, free, effective, meaningful and informed participation of individuals and groups in associated decision-making processes.

#### iii. Prior and fair compensation (16.1):

Subject to their national law and legislation and in accordance with national context, States should expropriate only where rights to land, fisheries or forests are required for a public purpose. States should clearly define the concept of public purpose in law, in order to allow for judicial review. States should ensure that all actions are consistent with their national law as well as their existing obligations under national and international law, and with due regard to voluntary commitments under applicable regional and international instruments. They should respect all legitimate holders of tenure rights, especially vulnerable and marginalized groups, by acquiring the minimum resources necessary and promptly providing just compensation in accordance with national law.

#### iv. Environmental and socio-economic impacts:

States should monitor the outcome of allocation programs, especially impacts on food security and action taken to eradicate poverty, but also the effects on social, economic and environmental objectives, with a specific reference to gender. Where appropriate, they should adopt the necessary corrective measures.

### **PART THREE: AN ANALYSIS OF THE IMPLEMENTATION OF THE MINING TEXTS AND INTERNATIONAL PRINCIPLES IN KOUDIADIENE**

The phosphate mines around Koudiadiène are types of large-scale land investments.

The land investments of the European companies SEPHOS SA (a Spanish company) and AIG (Polish) are subject to the universal principles described above and to Senegalese legislation and regulations.

The field study reveals a discrepancy between the implementation by the mining companies of the texts (national mining legislation) and principles described above (FAO guidelines) and what is actually happening in Koudiadiène.

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12.- Résolution 1/2 du 26 juin 2006 portant Déclaration des Nations Unies sur les droits des peuples autochtones [http://www.un.org/esa/socdev/unpfi/documents/DRIPS\\_fr.pdf](http://www.un.org/esa/socdev/unpfi/documents/DRIPS_fr.pdf)

The following table illustrates this.

Principles of the FAO Guidelines and National Legislation	The Reality in Koudiadiène
<p><b>1- Prior consultation</b></p> <ul style="list-style-type: none"> <li>• Principle 3B-6 of the FAO Guidelines;</li> <li>• Article 10 of the Mining Code: Every natural or legal person carrying out works to a depth of more than 10 metres (...) must declare such works to the local authority .</li> </ul>	<ul style="list-style-type: none"> <li>• <b>No prior consultation of the rural community and the local people.</b> The authorities of the rural community of Cherif Lo where the mining activities are taking place complain that they were not consulted by the mining companies. The former President of this rural community stated that one morning they woke up to find there were machines digging up the fields that the local people were cultivating. He added that they were never involved in the process that allocated the mining permit.</li> <li>• The same applies to the local people. There was no public consultation until 2011, two years after work had started. "The problem is that they came to survey our fields and even fenced them without consulting us and we feel that that's just not done." Extract from the minutes of the public meeting in Koudiadiène on 21 March 2011 (Resettlement and/or compensation plan, SEPHOS, p.106).</li> </ul>
<p><b>2- The requirement of an environmental and social impact study carried out before work begins</b></p> <ul style="list-style-type: none"> <li>• Principle 8.11 of the FAO Guidelines;</li> <li>• Article 83 of the 2003 Mining Code: Anyone requesting a permit for mining or a mining concession or authorisation for small-scale mining must conduct, at their own expense, an environmental impact study conforming to the Environment Code and the decrees and orders relating to it.</li> <li>• Article 48 of the Environment Code states: Any development project or activity likely to affect the environment, and similarly policies, plans, programmes and regional/sectoral studies are all subject to an environmental evaluation mentale».</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The environmental and social impact study was carried out 2 years after the beginning of the mining works.</b></li> <li>• SEPHOS has been working on 547 hectares of former agricultural land since 2009 but did not produce an impact study until 2011, in other words when work was already underway.</li> <li>• AIG has been present in Koudiadiène since 2012 only 400 metres away from dwellings. It still has not produced a socio-environmental impact study.</li> </ul>

<p><b>3- Payment of just, prior compensation by mining companies to people affected by projects</b></p> <ul style="list-style-type: none"> <li>• Principle 16-1 of the FAO Guidelines;</li> <li>• Article 81 of the Mining Code: “The mining title holder shall compensate the State or any person or entity for damages and material losses it caused”</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Derisory compensation or late payments.</b></li> <li>• The owner of a palmyra plantation affected by mining operations received 15,000 FFCA compensation per trunk. Our interviews show that the wine extract from just one palmyra can bring him up to 540,000 FFCA;</li> <li>• SEPHOS is accused of delays in the payment of compensation due since 2009. Some occupants have still not received (2014) their compensation and resettlement promises have not been kept. “People in Lam-Lam Serere and Ndiassane Serere affected by the SEPHOS project all received their compensation. However, many from Koudiadiène and Thiafathie have not yet received their compensation.”(Joseph TENE, interviewed on 27 September 2014).</li> <li>• Compensation must be granted to any person affected by the projects but AIG is accused of discrimination in the payment of compensation to rights holders.</li> </ul>
<p><b>4- Creation of a perequation fund for local authorities affected by the project</b></p> <ul style="list-style-type: none"> <li>• <b>Article 55 of the Mining Code:</b> Part of the tax resources from mining operations is poured into an equalization fund for local authorities.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The rural community of Cherif Lo does not benefit from the perequation fund</b></li> </ul> <p>This rural community has never received any money from the perequation fund of taxes that the mining companies pay the state.</p> <p>“We have never benefited from a perequation fund since the arrival of the mining companies in our rural community” (Jean Pierre Tine, former president of the Koudiadiène rural community)</p>
<p><b>5- Creation of an environmental rehabilitation fund</b></p> <ul style="list-style-type: none"> <li>• Article 84 of the Mining Code: “<b>Notwithstanding the obligations under Article 82, any holder of a permit to operate a mine shall open and pay into a trust account in a commercial bank in Senegal. This account is intended to constitute a fund to cover the costs of implementing the environmental rehabilitation programme</b>”.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The environment has not been rehabilitated in the Koudiadiène site.</b></li> </ul> <p>The mined sites are now gaping holes and have not been made good. The reason given by the former President of the Koudiadiène rural community is that “<i>there is no environmental rehabilitation fund for the Koudiadiène rural community.</i>”</p>

## PART FOUR: THE IMPACTS OF THE PHOSPHATE MINING IN KOUDIADIENE

There are numerous health and socio-economic consequences from the mining activity for Koudiadiène.

### 1- Health and safety for people and animals:

Koudiadiène and Thiafathie are the villages worst affected by the phosphate dust emissions.<sup>10</sup>

The women of Koudiadiène were the first to raise their concerns about their children's health and safety.

*"We noticed that our children were coming home from school each day covered with the phosphate dust thrown up by the works of the companies that operate around our village. This worried us a lot as we feared for their health and safety. That's when we decided to call a meeting of the men and young people of the village to plan an action to protest against and denounce the phosphate mining.*

*Our children's health is a very great concern for us. We know that phosphate dust contains chemicals that can be harmful to humans. All we want is that our children can go and come back from school without their health and safety being threatened."*

*"The excavation holes are still wide open and pose a threat to the safety of our children and our animals. This has already caused the death of two young shepherds who drowned in these holes. It even got into the press. Then there are the cattle we have lost after they fell into the holes that hadn't been refilled after the surveying."*

*"At one time, we couldn't even eat outdoors because of the risk of eating phosphate dust. Such was the extent that the dust invaded our compounds.*

*When AIG arrived, just 400 metres from our houses, our bed would shake at night when the phosphate extraction machines were turned on."*

Philomène THIAW, leader of the women of Koudiadiène at a meeting in Koudiadiène, 27-09-2014.



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10.- AEFJN, De la poussière sur les paupières, <http://www.aefjn.org/index.php/souverainete-alimentaire/articles/id-1406-de-la-poussiere-sur-les-paupieres.html> (French only)

11.- <http://www.enqueteplus.com/content/drame-%C3%A0-thi%C3%A8s-deux-enfants-meurent-noy%C3%A9s-dans-le-bassin-dune-usine>

The young take up the health concerns, too.

*"We are slowly dying. The phosphate discharges are killing us little by little."*

Modou TINE, member of the organisation for the defence of the interests of Koudiadiène and Thiafathie.

Nevertheless, these risks of pulmonary infections for those living close by and of disruption to cattle grazing had been identified in an environmental and social impact study produced, belatedly, by SEPHOS SA.<sup>12</sup>

Table 2: Summary of negative socio-economic impacts of the project<sup>13</sup>.

Indicators	Negative Impacts
<p><b>Health and well-being</b></p> <p><b>Active population and demographic changes</b></p>	<ul style="list-style-type: none"> <li>• <b>Decline in the well-being of those living nearby because of machinery noise</b></li> <li>• Increase in pulmonary illnesses due to the dust emissions the Project will create.</li> <li>• Increase in health risks and public safety</li> <li>• Disruption to the usual livestock transit paths</li> </ul>

When asked about the harm linked to phosphate dust, the people of Koudiadiène living near the phosphate mines are unanimous in saying that the harm to their health is immeasurable.

These statements confirm the fears and opinions of the people who participated in the public meeting on March 21, 2011 in Koudiadiène, organized by consultants to SEPHOS SA to present the project. They had said<sup>14</sup> "If there have to be explosives, gases and dust, we are likely to suffer greatly"; "We also ask you to improve our health infrastructure and provide an ambulance ..." "Likewise, we ask that the trucks that transport the products from the mine are required to cover their load to avoid dust, and not for just some of the time, but always."

However, Koudiadiène still only has one health centre ... built by the Catholic mission and always full of patients.

12.- SEPHOS SA/Sénégal. Projet d'ouverture et d'exploitation d'une mine de phosphate de chaux dans les communautés rurales de Pambal et de Chérif Lô. Plan d'Action de Réinstallation et/ou Compensation (PARC). Ankh Consultants, Décembre 2011. Rapport Final.

13.- Extract from the SEPHOS Action Plan for Rehabilitation and/or Compensation (PARC), December 2011. Final Report, p.14

14.- Idem pp 106 and 107.



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## 2- The impacts on the environment and natural resources

First and foremost, the phosphate mining affects the environment. The natural resources and land clearly show the effects on the life of the villages close to the mines, especially Kouadiadiène and Thiafathie.

### i. La non-rehabilitation of quarries and the environment

In Kouadiadiène, the holes left by the survey excavations are still gaping. It is a dismal sight.



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## ii. The loss of vegetation cover and forest species

The village no longer enjoys the lush vegetation that used to surround it<sup>15</sup>. The grass for grazing is becoming scarcer and scarcer. Transhumance areas are disappearing little by little, bringing the risk of conflict between the farmers and herdspeople of the area.

Fields for farming have been transformed into massive gaping holes.

The palmyra plantations are most exposed to the effects of the phosphate mining activities. This natural genetic heritage is at risk in the area while the felling of palmyra is forbidden in some Sahelian countries like Mali where the 95-004 law on the protection of biodiversity prohibits any initiative to cut this species down. The environmental impact study had identified this risk, citing among other risks.

Indicators	Negative impacts
<p><b>Natural resources and land</b></p>	<ul style="list-style-type: none"> <li>• Loss of land lying fallow;</li> <li>• Loss of agricultural plantations;</li> <li>• Reduction of transhumance areas;</li> </ul>

### Focus on the Palmyra

#### “The Palmyra Plantation: the Serer vineyard”

Besides the loss of biodiversity brought on by the felling of palmyras in favour of mining, this tree has an irreplaceable place in Serer sociology.



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15.- Interview with Joseph TINE, an eminent villager in Kouadiadiène 29-09-2014.

One sunny September afternoon in 2014, in the heart of Kouidiadiène, we met Joseph TENE, a man well into his sixties and teaching in his retirement. He was busy with what is the most common daily activity in this village: wickerwork. This traditional craft uses products of the palmyra, a special tree in this area.

When asked what the palmyra meant to him, Joseph, with a smile bordering on the esoteric, replied: "The Serer and the palmyra are old companions. The palmyra, along with the 'souneu' (pearl millet), both feature on the Serer emblem."

Indeed, the Palmyra is a sacred tree for the Serer, as much for its religious function as for its numerous uses. This tree is at the heart of the Serer social dynamic. It is an ancient tree that can grow up to 25 metres tall and live more than 100 years. Its wood can be used in many ways.

Today the Thiès is the last region in Senegal with large Palmyra plantations, but the few plantations that are still to be found here are threatened by human activity, notably mining. And the village of Kouidiadiène has not been spared from this threat. However, the local rural economy here relies to a great extent on products from this tree.

Since the arrival of the Europeans at the beginning of the 20th century<sup>16</sup>, palmyras planted near agglomerations have been over-exploited for local needs. In 1935, the French legislator classed it among the protected forest species and taxed any felling so as to limit the wastage.

For a long time settlers thought the Palmyra was a wild tree. Far from it. It has to be grown. It takes at least 8 months for a seed to germinate – and a further 10 years for the tree to reach maturity.

### The Palmyra, a multi-purpose tree

**"The whole of the palmyra tree can be used"** Joseph aded. Indeed, from the roots to the buds, each part has various uses:

- **The roots** provide traditional medicine. When ground, they can be a remedy for asthma, according to Joseph.
- **The sap** is used to make the traditional alcohol. Gathered from bleeding points in the trunk, it is then fermented. After a few days, you can extract a fermented liqueur that is drunk like wine. A mature Palmyra with normal rainfall can produce up to 10 litres of wine per day for 6 consecutive months, in other words 1800 litres in total. A litre is sold for 300 FCFA so one tree can earn the owner up to 540,000 (825 euro). Bleeding the tree will lead to its death, so this activity is rarely undertaken.

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16.- Pierre Louis GIFFARD, Le palmier rônier, in Revue Bois et Forêts des tropiques, n°116, November-December 1967.

- **The branches** are used for fencing and also for making tables, chairs, sofas, beds, etc.
- **Dead wood** becomes biomasse and is used by the women as firewood.
- **The leaves** are used for roofing – and also for wickerwork. A great variety of items are crafted from the fibres (baskets, bags, decorative items, etc) using techniques that have been passed down the generations. Both men and women are involved in this activity which is particularly lucrative.



Wickerwork session in Koudiadiène using the fibres of the palmyra.

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- **The fruits** of the palmyra are edible – firstly for people but also for animals. The pulp is dried and used to fatten livestock.
- **The terminal bud**, pearly white, smooth to the touch and covered with a whitish, rather tough sleeve, offers a delightful delicacy. The removal of the terminal bud, also known as a ‘palmetto’ is forbidden among the Serer except in exceptional circumstances and then only if it is picked in a traditional way, as it leads to the death of the tree.

Notwithstanding its many uses, the Palmyra which constitutes the flagship of the local economy in Kouidiadiène is threatened today by the activities surrounding phosphate mining.

Above and beyond the risk that this species could disappear from this area, an important part of Serer culture is under threat.



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### 3- The socio-economic impacts of phosphate mining

#### i- Pressure on the human habitat and the risk of villages having to relocate

Phosphate mining in the Kouidiadiène area is threatening the human habitat. In fact, the site of the village has been surveyed and there appears to be phosphate in the sub-soil. According to the local people, this topic is not yet on the agenda. Nevertheless they sense a real threat and this is a worry for a number of the locals. The Société Sénégalaise des Phosphates de Thiès (SSPT), the first mining company to come to the Kouidiadiène area, surveyed 2 square kilometres in the beginning stretching from Kouidiadiène to the village of Léhal situated near Chérif Lo, the main town in the area. This dormant threat did not put off the Italian Fathers from building the village church in 1973.

*“Even the church we are sitting in<sup>17</sup> risks being demolished if they came to exploit the layers of phosphate as the surveys have revealed that the ground it is standing on contains phosphate.”*

Interview with Father Grégoire 27-09-2014

Moreover, this risk of eviction has not been excluded by SEPHOS, a subsidiary<sup>18</sup> of the SSPT that undertook the surveys.

The rehabilitation plan produced in 2011 explicitly mentions the risk of villagers living near the project having to move out, as seen in this extract: “Occasional relocations in the context of mining activities, to mitigate the negative impacts, should operate by the gradual acquisition of land, spread over a long period, so that evictions of communities may be achieved by stages over a number of years, even decades.”<sup>19</sup>

## ii- Impacts on youth employment

Many of the demands of the people of Koudiadiène arise from the inequalities and injustices observed in the distribution of quotas for recruiting the local workforce by mining companies in the area.

*“Not a single young person from Koudiadiène has been recruited for the mining activities”* state the former President of the Rural Community and Modou Tine from the Organisation for the Defense of the Interests of Koudiadiène et Thiafathie, who accuse the companies of dishonouring their promises.

These opinions are taken up by eminent people of the village:

*“The companies settled in and since then have not respected their commitments. As far as the recruitment of youth is concerned, not a single young person of Koudiadiène or Thiafathie was taken on during the most recent recruitments. Most of the young who have been taken on come from Lam-Lam and Baliga with whom they collude.”*

Opinion of Joseph NDIOLÉNE, notable from the village of Thiafathie

These statements have been refuted by the managers of SEPHOS SA who blame the lack of qualifications of the youth of Koudiadiène and Thiafathie.

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17.- The interview took place inside the church

18.- SSPT has become TOLSAT, a group under Spanish management

19.- Action Plan for rehabilitation and/or compensation, p. 16

*"We are a company that is aware of its social responsibility. That is why we have made a point of recruiting young people from the local villages. 80% of the recruits are from Lam-Lam and Baliga. As far as the young people of Koudiadiène and Thiafathie are concerned, we haven't recruited them simply because they do not have the skills."*

Opinion of Silly FAYE, SEPHOS coordinator of works, in an interview, 19 November 2014.

For the youth of Koudiadiène, it is a form of discrimination which is damaging them as, they think, *"the young of Koudiadiène and disadvantaged villages are treated in the same way"*. They compare the recruiting to a 'parody of recruitment' which, according to them, is a form of punishment inflicted on them by SEPHOS because of their many objections to the project.

The finger of blame is pointed much more at AIG. The people feel that, unlike SEPHOS that has at least made efforts to recruit, AIG *"has never recruited or taken on young people from the area since it came in 2012."*

### iii- The growth of poverty in the villages affected by the project.

*We are getting poorer and poorer by the day and our market gardening activities and the gathering of 'kinkéliba' are constantly under threat from the phosphate mining. Nowadays, we are supported in our struggle by the men and youth of the village but that does not mean that the situation has improved."*

Philomène THIAW, Leader of the women of Koudiadiène, interviewed there 27-09-2014.

The phosphate mining has reduced the activities by which the families near the mines could earn good money. The picking of kinkéliba is a good example.



A consignment of kinkéliba, photo taken on the way in to Koudiadiène.

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Kinkéliba leaves are known for their medicinal powers and are made into a traditional tea. The picking of the leaves is usually done by women from May until January. The leaves are gathered, dried and then sold in small heaps or larger quantities to roving traders who in turn sell them in the big towns.

This activity is particularly lucrative as can be seen from the table below.

Designations	Price
<b>1 bag of kinkéliba</b>	100 FCFA
<b>One pile of kinkéliba</b>	1500 FCFA
<b>One cartload</b>	3500 FCFA
<b>Monthly income</b>	14 000 CFA
<b>Annual income</b>	168 000 FCFA

The income from these sales help towards household expenses and to reducing poverty.

Kinkéliba plants are becoming more difficult to find as they have been ravaged by the phosphate mining. There has been less picking of leaves since the arrival of the mining companies as the phosphate dust sticks to the leaves. The women, therefore, are having to face a reduction in their income which drives them further into poverty.

They have formed an association and have presented SEPHOS with a request to fund a micro credit structure so that they can have projects that bring a good income such as market gardening. Despite the availability each year of 5 million FFCA (7,600 euro) in SEPHOS' social budget, this request never came to anything.

A further factor that is increasing poverty is the threat to the gardening activities carried out at the end of the rainy season. The dust emissions endanger the garden produce cultivated by the women to supplement their food needs.

These two examples of lucrative activities being endangered witness to the risks of growing poverty in the Koudiadiène area where the livelihood of the people is based on agriculture and livestock.

These potential consequences had been identified in the study conducted by the team of consultants commissioned by SEPHOS for this purpose.

Indicators	Negative Impacts
<b>Subsistence activities</b>	<ul style="list-style-type: none"> <li>• Loss or reduction of income formerly derived from gathering, farming and processing of natural resources;</li> </ul>
<b>Active population and demographic changes</b>	<ul style="list-style-type: none"> <li>• Disruption of cultures</li> </ul>

## iv- Food insecurity risks at Koudiadiène

Table summarising the risk of food insecurity in Koudiadiène

Agricultural activities	Situation before the arrival of the mining companies	Current situation, with the mining companies present
<b>Market gardening - tomatoes</b>	<ul style="list-style-type: none"> <li>• Production of 10 crates of tomatoes a week;</li> <li>• One crate fetching 2,500 FCFA, about 4 Euro</li> </ul>	In 2013 and 2014, not a single crate of tomatoes was harvested in Koudiadiène because of the dust polluting the market gardens.
<b>Fruit - mangoes</b>	<ul style="list-style-type: none"> <li>• 15 baskets of mangoes picked per week</li> <li>• Each basket fetching 3,000 FCFA, about 4.5 Euro.</li> <li>• An orchard has up to 20 mango trees.</li> </ul>	In 2013 and 2014, not a single basket of mangoes was gathered in at Koudiadiène because the dust that chokes the mango trees.
<b>Millet consumption</b>	<ul style="list-style-type: none"> <li>• Daily consumption throughout the year;</li> <li>• Sufficient availability of millet at the Koudiadiène agricultural cooperative;</li> </ul>	<ul style="list-style-type: none"> <li>• Consumption reduced to 3 or 4 times a week;</li> <li>• No millet available at the Koudiadiène agricultural cooperative;</li> </ul>

The phosphate mining has had a bad effect on food security in the Koudiadiène area. Market gardening, outdoor cultivation of millet and fruit trees are threatened by the installation of mining companies in the area. These threats are having repercussions for the well-being of the local people.

As far as market gardening is concerned, this activity is usually carried out by the women at the end of the rainy season. We are talking about growing food and the income from it goes towards basic social and family needs, chiefly allowing the children to go to school and covering domestic expenses. Tomatoes are the main crop. For a number of years now, the women of Koudiadiène have not managed to harvest them because of the phosphate dust that affects the plants.

*"Before SEPHOS and AIG came here, we could gather as much as 10 crates of tomatoes each week, earning us in 2,500 FCFA (about 4%) per crate. But today we don't even manage to pick enough for one crate a week."*

Niouma FAYE, President of the Koudiadiène Women's Group

The risk of food insecurity is a far greater concern when it comes to millet, the staple grain in Koudiadiène which is used to make couscous, a traditional Serer dish. Before the arrival of the mining companies, the families were able to eat millet daily throughout the year. Now, some families are hard put to to have it 3 times a week. The reason given is that good land is becoming scarce and are not as productive as they used to be. SEPHOS and AIG have set themselves up on the farmland belonging to Koudiadiène and the surrounding villages.

This shortage of millet is also visible at the Koudiadiène agricultural cooperative for which the women's group is responsible. After harvest, each family sells part of its produce to the cooperative which is responsible for the redistribution of millet to needy families during the year. This cooperative is a real social economy tool operating on the basis of solidarity and mutual aid. According to the President of the Women's Group, *"The store of the cooperative could sometimes hold up to 10 tons of millet to be redistributed to families in need. But today we have less than 50 kg of millet there because of the low production this year due to the scarcity of good farmland where SEPHOS and AIG." Operate.*

As well as the market gardening and outdoor farming, fruit cultivation is another agricultural activity threatened by the arrival of the mining companies.

*"Before SEPHOS and AIG came, we used to pick up to 15 baskets of mangoes a week which we sold at 3,000 FCFA (about 4.5%) a basket. We haven't sold a single mango these last two years because the phosphate dust stifles our mango trees."*

Penda NDIONE, member of the women's group of Koudiadiène

Today, the agricultural cooperative is not functioning any longer as it does not have enough food reserves to allow it to function properly. Millet is becoming scarce in the Koudiadiène area. Because of poverty, the people are constantly facing the risk of food insecurity.

The risk of food insecurity hanging over Koudiadiène is coupled with difficulties accessing water. Koudiadiène is served by only two public standpipes while at the same time Thiafathie is served by a water system installed by the Water Company. Water from the public taps has to be paid for. A 20-litre basin costs 25 FCFA. The funds raised are intended to pay the costs of the standpipes. There is a recurrent lack of water in Koudiadiène and, although SEPHOS promised to install a water system in the village, it has not yet done so.

The economic impacts caused by mining companies are just as significant.

#### v- Economic impacts

The mining activity is subject to tax royalty payments and other taxes to the treasury, to be shared between the local communities affected by mining projects.

This fund is distributed on the basis of economic solidarity to help local authorities to meet their financial needs.

Article 55 of Senegal's Mining Code stipulates it as follows: *“Part of the tax collected from mining activities is put into a perequation fund to be used by the local authorities.”*

L'article 55 du Code minier du Sénégal le stipule en ces termes *“Une partie des ressources fiscales provenant des opérations minières est versée dans un fonds de péréquation destinée aux collectivités locales. The terms and conditions are fixed by decree.”*

The rural community of Cherif Lo in which the village of Koudiadiène is situated has never, according to its former president, benefited from this fund.

*“The rural community of Cherif Lo has never benefited from the perequation fund. The mining companies that operate here are exempt from all taxes, dues or other forms of tax. We don't even enjoy the financial benefits arising from the operations carried out on the land of the rural community.”*

Jean Pierre TINE, former President of the rural community of Cherif Lo, expressing his views 19 November 2014.

In spite of these tax concessions, the mining companies are failing to keep their commitments to the local authority.

Nevertheless SEPHOS has accomplished the following:

- The building of a Middle School in the village of Lam-Lam in 2011, spending 150,000,000 FCFA with the support of the Impulso Foundation
- The gift of a millet mill to the women of the village of Baliga.



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Until now, AIG has offered nothing by way of infrastructure or economic support for the rural community of Chérif Lo.

However, AIG has found a way to engage the mining companies in the mobilization of financial resources. A rural tax has been created and applies to all trucks parked on the territory of the local authority. It amounts to 8,000 FCFA if the vehicle carrying volume is over 800m<sup>3</sup> and 1,000 FCFA if it is below 800 m<sup>3</sup>.

## CONCLUSION AND RECOMMENDATIONS

The case study carried out at Koudiadiène demonstrates that the mining does not honour the international supervisory principles of large-scale land investments as foreseen by the FAO Voluntary Guidelines and national legislation.

The activities of miners, in this case AIG and SEPHOS, who have settled in and operate on the farmland of the surrounding villages, create socio-economic impacts that weaken the environment and socio-economic rights of local populations.

The adoption, currently being managed by the United Nations High Commissioner for Human Rights, of binding international instruments applying to transnational corporations and other businesses could mitigate the harmful effects of large-scale land investments and strengthen the protection of rights humans.

Responsible investment must take into account the impacts of a project and prevent potential damage. This has not been the case with mining investments at Koudiadiène.

To put an end to the damage caused by the mining projects through large-scale land investment and the weakening of the socio-economic rights of the indigenous people the states hosting the investors and their countries of origin of the investors must require:

- **That the investor carries out and presents in advance an investment plan and an environmental and social impact study – both to the competent authorities of the host country and to those of the country of origin.**
- **That the implementation of mechanisms to monitor and evaluate these plans and the environmental and social impact studies by joint committees including representatives of the people, the local authorities, the companies and the government.**
- **That any damage caused by the phosphate extraction to the people of Koudiadiène be repaired by the companies.**
- **The constructive involvement of the Member States of the European Union in the creation of an intergovernmental working group to draw up a legally binding international instrument applicable to transnational corporations and other enterprises by the United Nations High Commissioner for Human Rights.**
- **That there is an increase in the EU's efforts to develop a legislative framework with mandatory requirements for companies operating in the European market as regards the responsible sourcing of raw materials from developing countries. This is because the supply of ores in these countries without a due diligence work impedes economic development and can create or increase the risk of conflict within these countries.**
- **An increase in the efforts of the European Union and the host country, Senegal, to implement the FAO Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests in the context of national food security.**