STUDY ON MERCURY: case of traditional gold mining in Kangaba Circle



FINAL REPORT

November 2010

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I. Background and rationale

1. Background

Large landlocked country located in the heart of West Africa, Mali covers an area of 1,241,238 km² and shares borders with seven countries that are Senegal and Mauritania in the west Coast d'Ivoire, Guinea and Burkina Faso to the south, Niger to the east and finally north-east Algeria. The 2/3 of the territory is occupied by desert areas. Mali's population was estimated at 13.5 million people in 2005 with a growth rate of 3% per year. The majority of this population, 70% live in rural areas, while urban population growth experience a higher than rural.

Mali is one of low-income countries. In 2005, the Gross National Income per capita was estimated at U.S. \$ 380. More than half of the population, or 59.3%, live in poverty on less than a dollar a day.

Thus, in order to reduce the number of people living in poverty, Mali has been implementing since 2007 the Strategic Framework for Growth and Reduction of Poverty (GPRSF 2007-2011). This plan supports the achievement of the Millennium Development Goals (MDGs).

It is within this context that this research project on "use of mercury in Mali: A Case Study of the miners was started. Its implementation will contribute to improving the quality of people's health and protecting the environment and therefore to achieving the MDGs.

I. 2. Justification

Mali has signed and ratified several international conventions, treaties and agreements on environmental protection. Among these include inter alia the Convention of Rio de Janeiro, Stockholm, Basel, Bamako, Rotterdam. This political will at the state level has been materialized in the primary legal document of the country, namely the Constitution. In fact, Mali has included in its 1992 Constitution in its Article 15 that: "Everyone has the right to a healthy environment, protection and preservation of the environment is a duty for all and for the state."

Thus, to achieve the goals of these commitments, the country has established institutions to facilitate the management of the environment, resulting in 1998 by establishing the Ministry of the Environment and the Sanitation (MEA). The National Directorate for Sanitation and Pollution Control and Nuisance (DNACPN) houses all of the MEA focal points of different conventions mentioned above and also within it, the focus of the Strategic Approach to Management International Chemicals Management (SAICM).

Also, one can note the existence of the National Environment (PNE) and the Law 01-020 of 30 May 2001 on pollution and nuisance. These are frameworks for action in the area.

However, despite these efforts for the protection of human health and the environment, many shortcomings are particularly noted in the field of chemicals management, such as mercury. In Mali, there is no specific legislation regulating the management of mercury. As chemical, it is generally managed by the Law 01-020 on pollution and nuisance. Similarly, the country does not currently collecting system data on the effects and impacts associated with discharges of mercury on human

health and the environment. This void in the regulatory favors anarchy around the management of this metal that poses a threat to health and the environment. Therefore, the NGO Sahel Development Foundation (FDS) by this project intends to initiate discussions on this issue, to better guide future actions for better management of mercury in Mali.

Objectives and expected results

3.1. Objectives:

Overall objective:

They are:

Contribute to environmental protection through better understanding of the impacts of mercury on human health and the environment in order to achieve the Millennium Development Goals.

Specific objectives:

They include:

- Determine the level of mercury use in Mali and in the area of use of mercury;

- Determine the level of enforcement of legislation relating to regulation of the use of mercury in Mali;

- Assess the degree of knowledge of users of traditional mercury in gold mining;

- Organize briefings and awareness about the dangers and risks associated with mismanagement of mercury,

- Define an advocacy plan could mitigate the effects of mercury on the environment and health.

3.2. Expected Results

- The level of mercury use in Mali and the area of use of mercury are determined;

- The level of enforcement of regulations governing the use of mercury in Mali is determined;

- The degree of knowledge of users about the impacts of mercury in gold mining traditional health and the environment is assessed;

- Information sessions and awareness about the dangers and risks associated with the use of mercury are organized;

- An advocacy plan is defined.

4. Methodology

To conduct this study, the following methodology has been adapted:

- Sharing Terms of Reference (TOR)

- Desk research,
- Preparation of questionnaires and interview guides,
- Collection of field data,
- Processing of data collected,
- Production of interim report
- Presentation of outcomes of the study in place of data collection,
- Production of final report.

II. Study Results

1. Mercury in the market

Mercury is available in liquid form in Mali. In this state, it is generally used in artisanal mining of gold (traditional gold mining) and in small quantities in measurement devices, such as the thermometer. It is found in gaseous form as a result of burning amalgam of minerals and liquid mercury. Also, there is mercury in solid form when used in dental fillings

Compared to artisanal mining of mercury; data were collected from a sample of 20 actors on product knowledge. The results are reflected in the graph below.



Graph 1: Results of survey on mercury knowledge

In light of this graph, we see that the product is well known in the locality, because 85% of those surveyed claim to know him well.

The image below shows the burning of mercury by passing from liquid to gaseous state





In Mali the mercury comes from illegal trade. The graph below indicates the sources of mercury.