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Socio-economic assessment (SEA) of the Khaidarkan Mercury Mining Area

Guidance Note

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Introduction

Mercury mining in the territory of modern Kyrgyzstan dates back to 1,000-2,000 years BC. The prime period of the mercury mining was between 8th and 11th centuries. Almost all known recent mining sites were discovered by following the trails of ancient miners. Kyrgyzstan possesses large mercury reserves, two of which contain more than 40 thousand tonnes of mercury: Chonkoy (Ulugtau mine) and Khaidarkan, up to 20 thousand tonnes of mercury each. This makes Kyrgyzstan one of the world's largest reserves of mercury, but it is now the world's first producer of mercury after the Almaden mine in Spain closed down in 2004.

Given this historical and modern context, mercury pollution, in particular mercury releases into atmosphere, water and soil and mercury wastes give rise to environmental concerns in Kyrgyzstan. Threats from mercury emissions have been also recognized at the international level and reduction of mercury supply has been identified as a priority area by the Governing Council of the United Nations Environment Programme (UNEP). It is highly likely that there will be global control in place on mercury within 10 years implying that global supply of mercury will be managed and that accessing existing sources of mercury is likely to become a preferred source of mercury in this interim phase (i.e. use the mercury that already exists rather than generate more mined primary). Global trade will likely be managed in a way that will create a diminished need for mercury. As a result, the UNEP Global Mercury Partnership Programme was established in 2003. The overall goal of the programme is to reduce the risks to human health and the environment from anthropogenic mercury releases worldwide.

This Guidance Note on a Social-Economic Assessment (SEA) of the Khaidarkan Mercury Mining Area was developed to support the project on *Development of an Action Plan to Address Primary Mercury Mining in Kyrgyzstan* which is a partnership activity between Kyrgyzstan, UNITAR, UNEP, UNEP/GRID-Arendal with financial support from the Government of Switzerland and the United States Environmental Protection Agency (USEPA).

The overall objective of the project is reduce risks associated with primary mercury mining in Khaidarkan, Batken Oblast, the Kyrgyz Republic by assessing the mercury mine and smelter, including environmental, technical and socio-economic aspects and developing an action plan to address identified gaps and challenges. This project is expected to raise awareness of the local as well as donor community about the current primary mercury mining and catalyze investments for possible follow-up.

This Guidance Note provides suggestions for conducting the SEA in the Khaidarkan Mercury Mining Area, including the methodology, organizational process, the scope of the SEA, and available survey instruments, among other issues. The purpose of the SEA is to analyze and, to the most practical extent possible under the framework provided by this project, predict foreseeable social and economic impacts, both positive and negative, of planned interventions to change the nature or direction of present industrial activities in the region in the context of global action to reduce risks of mercury pollution worldwide.

The assessment will concentrate on the collection of basic statistics on population, health, education, economy, and welfare as this data relates to the population of the area under past and current socio-economic and environmental conditions. This could include bilateral

interviews with the various national and regional stakeholders and additional surveys to collect data about the communities concerned.

The Note should be seen as guidance and is not intended to be a detailed textbook or operations manual for Kyrgyz experts to carry out the full socio-economic assessment. It can therefore be adapted to national or local insights, circumstances and conditions as needed. It should be noted that given the limited timeframe and budget allocated for this work, the SEA can not include comprehensive social and economic research, surveys and studies. The SEA could also be considered as an additional orientation along with the ongoing national strategic development planning in local communities (Batken and Osh Oblasts) to allow national experts at a later stage, together with the results of a technical assessment study, to formulate initial options for improving the social, economic and environmental situation of the region.

It is suggested that the National Lead Agency, tasked with overseeing the project implementation will select the necessary national experts with extensive expertise and experience in social sciences, social and economic research and economics to be involved in the development of the socio-economic assessment. These individuals will form a SEA Task Force to conduct the SEA and deliver the SEA report. UNITAR and the group of international advisors commit to supporting the SEA Task Force by providing required guidance and advise as well as comments on the draft social-economic assessment report.

The recommended structure of the social-economic assessment report is as follows:

- Section I the introduction.
- Section II briefly presents objectives and the approach for conducting the SEA.
- Section III summarizes suggestions for organizing the development of the SEA, including the identification of concerned stakeholders, steps for conducting surveys, and other related issues.
- Section IV will contain key elements of the SEA, grouped into categories.
- Section V will summarize the significant concerns as expressed by stakeholders resulting from the face-to-face interviews and provide their suggestions as proposed guidance for the SEA.
- Section VI provides guidance for analysing the collected data and offers recommendations for the action plan development.
 - Annex I can be consulted for sample questions which can be used in surveys by national experts.
 - Annex II provides suggestions for the table of content of the SEA Report.

Overview of the Process to Develop Social-Economic Assessment

Development of the Social-Economic Assessment

Establishment of a SEA Task Force

- Identifying and selecting 5 – 8 national and local experts with appropriate experience
- Preparing the short terms of reference for the SEA Task Force itself, its individual members and the National Coordinator

Expected result: the management structure for overseeing its preparation

Developing a workplan

- Planning the SEA details such as milestones, sequence of events and timelines, and expected outputs (including reference to interim status reports, meetings, etc); timeframe for development of the SEA

Expected result: Table 1 “Checklist of workplan activities” is reviewed, adjusted and completed

Preparing for the SEA development

- Developing SEA content and scope
- Identifying key sources of information and gaps for the SEA
- Collecting preliminary data
- Identifying relevant stakeholders, conducting a stakeholder analysis, choose the mode of collecting the data will be used, etc
- Undertake field visits to Osh, Bakten and Khaidarkan
- Conduct surveys and targeted interviews
- Prepare a first draft of the SEA and submit to UNITAR
- Address comments and suggestions made by UNITAR and international advisors

Expected result: the SEA prepared

Developing the SEA Report

- The SEA and the technical assessment will inform the development of an action plan to initially address environmental and socio-economic concerns associated with primary mercury mining

Expected result: social-economic aspects are addressed in the action plan

II. Objectives and approach

The main objective of the SEA is the development of a systematic appraisal of the past and current social and economic impacts of mercury mining and related industrial activities on all sectors of society in the Batken and Osh oblasts, and on the Khaidarkan community in particular.

Together with the results of a technical assessment study, development planning strategies and other relevant sources, the SEA will inform the development of an action plan to address primary mercury mining in Kyrgyzstan against the background of the aforementioned global developments. It is envisaged that the plan will include initial options as a blueprint for economically viable and sustainable alternatives for possible industrial activity in the region.

The SEA will be conducted through a desktop review of accessible literature including consultation of relevant national and regional statistical documentation, such as demographical and unemployment data, industrial sectors and agriculture, etc. and the results of field studies, direct consultation of authors of studies and authorities, bilateral interviews of stakeholders and, where necessary or indicated, questionnaires. In addition, the SEA should be linked to local praxis and the process of land use planning, including strategic environmental assessment and national development planning.

III. Suggested Organization for the Development of the SEA

Part III of this Guidance Note presents suggestions for organising the work to develop a Social-Economic Assessment (SEA) of the Khaidarkan Mercury Mining Area. Special emphasis is placed on preparatory and organisational considerations, practical steps towards completing the SEA and a checklist to help assess progress in preparing the SEA.

3.1 Establishment of the SEA Task Force

Basic to the success of developing the SEA is the establishment of a clear management structure for overseeing its preparation. It is therefore suggested that a National Lead Agency in consultations with the National Advisory Committee and UNITAR identifies and selects 5–8 national and local experts who will be engaged in the development of the SEA and will form a SEA Task Force. In this regard, it is important to recognise the value of high level expertise and skills of experts in a range of relevant disciplines, including social science, natural resources, and economics, development planning and assessment and strategic environmental assessment. SEA experts should work in consultation with technical experts familiar with mining and industrial activity in general. Alternatively, one of the experts involved in the SEA should possess technical expertise in mining and industrial field

The selection of national and local experts for the development of the SEA should be conducted in accordance with the national legislation and based on merit and expertise. At a minimum, terms of reference for individual members of the SEA Task Force should require an appropriate level of education, extensive experience in the above-mentioned disciplines, fluency in Russian, and preferably an understanding of English, and availability for 3-4 months during the stage of the project when SEA is to be developed.

In order to clearly define all organisational aspects of preparing the SEA, it may be helpful to prepare short terms of reference for the SEA Task Force itself, which could specify, for example:

- the authority and mandate of the Task Force
- the tasks and functions of the National Coordinator in relation to the SEA development within the SEA's scope and content
- the role and functions of the SEA Task Force and its individual members.

3.2 Developing a work plan

A work plan sets out the details for the SEA preparation process, such as:

- milestones, sequence of events and timelines, and expected outputs (including reference to interim status reports, meetings, etc); and
- timeframe for development of the SEA, including a graphical timeline such as a Gantt chart.

Developing draft terms of reference and work plan will help to ensure that each participant is in agreement concerning important administrative and organisational details. A work plan checklist is a useful tool to ensure each step is completed, to assess the priority of any gaps or missing information and to document progress towards completing the SEA. The following checklist (see Table 1 below) could be adapted to be consistent with the procedures established in Kyrgyzstan.

Table 1: Checklist of work plan activities

Activity	Timeframe	Completed?
1. Develop terms of references for selection of national and local experts (members of the SEA Task Force) and the SEA Task Force itself		
2. Contact interested experts / disseminating information regarding the SEA development		
3. Select national and local experts in accordance with national legislation		
4. Distribute the present Guidance Note to the SEA Task Force members to them to familiarise themselves with methodology and tasks		
5. Develop SEA content and scope		
6. Divide responsibility and tasks between members of the SEA Task Force in relation to SEA's content and scope		
7. Identify key sources of information and gaps for the SEA		
8. Collect preliminary data		
9. Undertake field visits to Osh, Bakten and Khaidarkan		
10. Conduct surveys and targeted interviews		
11. Prepare a first draft of the SEA and submit to UNITAR		
12. Address comments and suggestions made by UNITAR and international advisors, if any		
13. Finalise the draft SEA		

3.3 Preparing for the SEA development

It is recommended that the development of the SEA will be primarily based on the extensive review of available literature and publications, communication with authors of these studies, statistical data, and information held by public authorities at national, oblast and local levels. Section IV contains specific categories of information which should be included in the SEA. After the initial review of the existing sources, it will be necessary to identify information gaps and data to be verified for accuracy, completeness, and credibility. This can be addressed through using various tools for information collection, namely basic surveys and targeted face-to-face interviews. The subsection below will lead the experts step-by-step throughout the process of developing surveys.

1) Formulate the survey keeping in mind overall substantive and analytical needs¹

- Define the issue that needs to be examined
- Identify the population that will be surveyed
- Determine what kinds of variables needs to be measured
- What questions do you want to have answered? (please see Annex I for sample questions)
- What's the best way to go about getting those answers?

2) Identifying relevant stakeholders

At the outset, it is essential to identify key stakeholder groups that may hold required information as well as help to understand and analyse concerns and opinions of the different groups of local communities. While not all members of the concerned public will need to be directly interviewed when collecting data for the SEA, it is nevertheless important to understand who the stakeholders are and to ensure that their perspectives and concerns are heard. It should also be recognised that certain parties will be more enthusiastic, more willing and more capable to provide valuable input.

3) Conducting a stakeholder analysis

It is important to develop a thorough understanding of the interests of different stakeholders, the extent to which future of Khaidarkan and changes in the economic outlook of Batken and Osh oblasts may affect them, and the reasons behind their likely support or opposition.

It is also important to understand what may have gone on in the past in order to ensure validity of information presented by various stakeholders and to uncover any serious issues or concerns relating to past operations which may not be otherwise disclosed.

In order to determine who should possibly be involved or might want to be involved in survey and interviews, the following questions can be asked keeping in mind that consideration should be noted to the fact that mercury demand is likely to be severely reduced in a 10 year time frame:

¹ Based on the document How to do a Survey (A 9-Step Process) Mack C. Shelley, II Fall 2001 LC Assessment Workshop.

- Who might be affected by the changes in the Khaidarkan Mercury Mine operations e. g. changes in the nature of the Khaidarkan Mercury Mine operations, gradual replacement of the mercury mining operations with other economic/industrial activities)?
- What are their interests and positions?
- Who has information about past operations and modern technologies that might be helpful?

Below is a preliminary list of stakeholder groups who may be interviewed or participate in the survey:

- Officials and miners of the Khaidarkan Mercury Mine
- Retired operators, administrators, and laborers of this and other regional mines.
- Office and service providers of the Khaidarkan Mercury Mine
- Local government officials (health, environment and emergency situation)
- Residents in Khaidarkan
- Residents of Osh/Batken
- Non-governmental groups
- Women's groups (or women) in Khaidarkan
- Local businessmen and entrepreneurs
- Local administration representatives
- Experts involved in development (land-use or spatial) planning

4) Determine specifically what mode of collecting the data will be used

In social science there are a number of modes used for collecting information. They include:

- Personal interviews
- Telephone surveys
- Mailed questionnaires/drop-off surveys
- Email-based surveys

Given the specific purpose of the SEA, personal interviews and written questionnaires may be the most appropriate modes for data collection.

5) Determine an appropriate sampling plan

Next step involves the designing of a sampling plan. The sampling plan serves to provide a specific description of the data to be collected, the interval of data collection, and the subjects from whom the data will be collected. The validity of the data needs to be assessed through accepted quality assurance/quality control protocols, and these protocols need to be applied and referenced. It emphasizes the importance of gathering samples of data to obtain "just enough" information. The major question that motivates sampling in the first place is: "Who do you want to generalize to?" In most social research, researchers are interested in more than just the people who directly participate in the study. It is important to be able to talk in general terms and not be confined only to the people who are in the study. Therefore one of the tasks of the sampling plan is to get a list of the members of the accessible population.

The following questions need to be answered when developing a sampling plan.

- How to get information on the listings of the accessible population?
- How many interviews need to be completed? (sample size, sampling fraction in accordance with accepted quality assurance/quality control protocols)
- What response rate is required?
- Who should be included in the sample?
- How can the sample be made representative of the population?

6) Develop the questionnaire (the survey instrument)

In developing the questionnaire, it is necessary to consider the following questions:

- Each question should fit into the overall plan of research
- Each question should be suitable for the mode chosen to conduct the survey and for the population that has been sampled
- Each question should be developed so that it does not lead the responder to a perceived, desired response.
- What level of confidentiality needs to be incorporated. Are responders named or number coded?

Annex I includes sample questions for each of the suggested categories of stakeholder groups. Based on its experience of local conditions, the SEA Task Force is encouraged to further elaborate and modify these questions.

7) Conduct an early pretest of the survey, whenever possible

- Use these results to refine the instrument and work out any fault in the survey procedures

8) Execute the survey in the field, and be ready to deal with problems such as:

- The length of the instrument
- Some items may be unnecessary and those questions or others may have been omitted (missing data)
- Some items may turn out to be incompatible for the format chosen to carry out the survey
- Some respondents may not have been able to respond to the items as they were presented
- People have different degrees of receptiveness to being surveyed
- Surveys may be filled out only partially or not at all
- Some respondents may not be accessible

9) Edit and process the data

- Code responses in a reasonable and useable way
- Make data machine-readable
- Minimize errors

- Incorporate mechanisms for information validation.

10) Analyze the data

- Descriptive statistics
- Develop findings or conclusions
- Write up a summary of what has been found

3.4 Developing the SEA Report

Based on information collected through the literature review, information held by the public authorities and data gathered using surveys and interviews, the SEA Task Force can draft a SEA report. The possible structure of the report is suggested in Annex II. It will be necessary to ensure the integration of the results of the technical assessment into Kyrgyzstan's socio-economic analysis. UNITAR and international advisors stand ready to review and provide comments on the draft SEA report. The final draft SEA report will address, to the extent possible, these comments and suggestions.

3.5 Next Steps – “feeding” the report into the Action Plan process

The SEA, together with the technical assessment study, the results of development planning strategies and other relevant sources will inform the development of an action plan by national experts (in close consultation with UNITAR and UNEP). The action plan will address environmental and socio-economic concerns associated with primary mercury mining in the country in the context of the currently ongoing international action to deal with the significant global adverse impacts of mercury. It is envisaged that the action plan will include initial options for economically viable, sustainable alternatives for industrial activity in the region.

The results and recommendations will be discussed by a wide variety of national and regional stakeholders and presented for consultations and approval at a National Forum. Subsequently an International Forum will be organized to present the results of the National Forum to interested donors and international organizations.

IV. Key Elements of the socio-economic assessment

1. Overview of the operations of the Khaidarkan Mercury Mining Company

1.1 History and overview of the operations (including recruitment and training of personnel, and education of personnel/ employment skills supplemented by information from the Technical Assessment)

1.2 Review of the existing social management system in the Khaidarkan Mercury Mining Company (e. g. occupational health programmes, medical facilities, education, sports/recreation activities, kindergarten, cultural activities, hotel accommodation, etc.).

1.3 Review of environmental projects and activities financed by the Khaidarkan Mercury Mining Complex and other sources that took or are taking place in and around the Khaidarkan mining area

1.4 Revenues, taxes and royalties generated by the Khaidarkan Mercury Mining Complex including government subsidies provided to the company for the last 15-20 years as an assessment of its contribution to the national budget and its proportion in the total amount of public investments in the Batken Oblast

1.5 Review the dynamics of costs/revenues/payroll costs of the Khaidarkan Mercury Mining Company for the last 15-20 years.

1.6 The role of political parties and trade union(s) in relation to the operations of the Khaidarkan Mining Company.

- a) Were there any strikes, protests or any other events of this sort in the history of the Company?
- b) What emphasis was placed on the environmental/ human health concerns of previous employee/employer relations?
- c) Have these parties shown interest in the operations of the Company as a major local employer? Have there been any disputes between them and the Company in relation to primary or secondary labour conditions and agreements?

2 Overview of the region and local communities

Information concerning economic and social aspects of the Batken and Osh oblasts can help understand the current situation and possible opportunities that could be seized to contribute to the economic development of the region.

2.1 Population statistics of the oblasts (age structure, growth rate, birth rate, death rate, migration rate, infant mortality, life expectancy, spatial distribution of the population, etc.) as compared with national data or data from other regions.

2.2 Numbers and likely movements of refugees, migration patterns of neighboring population in Khaidarkan, and in the Batken and Osh oblasts as a whole; migration of nomadic groups (if applicable).

- 2.3 History of main industries of Khaidarkan and of the Batken and Osh oblasts as a whole;
- 2.4. Review of small and medium-sized enterprise (SME) development in the oblasts under the current policy framework.
- 2.5 Economic and social development of the Osh region and linkages with overall national development strategy (including degree of political and administrative decentralization, privatization policy and policy towards foreign-owned corporations).
- 2.6 Review of current infrastructure (railway and highway networks, utility systems, possibility for energy generation; etc.) of the Batken and Osh oblasts; future projects
- 2.7 Health Care, Education and other Public services in Khaidarkan, and in the Batken and Osh oblasts as a whole and the quality of these services (based on available statistics and personal face-to-face interviews);
- 2.8 Employment rate of male and female workers in agriculture, industry and services in Khaidarkan and the Batken and Osh oblasts as a whole;
- 2.9 Occupational protection of workers in the Khaidarkan community (including number of incidents of workers and population affected, broken down by age, sex, position in household, occupation) as compared to other areas with major industrial activities.
- 2.10 Nature and extent of land ownership and plans for legal reforms.
- 2.11 Development of Tourism and nature protection programmes in Khaidarkan, Batken and Osh oblasts. Location of critical resources.

3. Socio-Economic Impacts of the mining activities in the Khaidarkan area

3.1 Employment (mining as distinct from other industrial activities, agriculture and services) and income of Khaidarkan community and oblasts as a whole in comparison with other regions.

Table 1. Employment by Major Economic Sectors

ISIC Code₁	Description	Number of Facilities	Total Employment	Output Value (per year)
31	Food Industry			
32	Textiles/Clothing and Leather Goods			
33	Wood and Wood Products, Printing			
34	Paper and Paper Products			
35	Chemical/Coal/Petro/Plastic Products			
36	Non-metallic Mineral			

	Products			
37	Basic Metals Industry			
38	Fabrication of Machinery and Equipment			
39	Other Manufacturing Industries			
	Mining and Extraction (Coal/Oil/Natural/Gas/Minerals/Metals)			
	Electricity Generation			
	Agriculture			
	Services			
	Other			
TOTAL				

1 ISIC: International Standard Industrial Classification of all Economic Activities, OECD.

3.2 Legal framework relevant to mining and other industrial activities in Kyrgyzstan (supplemented by information from the Technical Assessment); legal framework related to compensation of displaced workers in Kyrgyzstan.

3.3 Local Procurement Spending (raw materials, gas, etc.) in Khaidarkan, and the Batken and Osh oblasts as a whole.

3.4. Investments climate and overview of investments projects related to mercury mining and other activities in the last 5-10 years in Khaidarkan, and the Batken and Osh oblasts as a whole.

3.5 Assessment of past and recent studies of the relationship between mercury and other heavy metal pollution on the mortality and morbidity of the population of the Khaidarkan community and the region as whole (supplemented by information from the technical assessment)

3.6 Livelihood of the Khaidarkan community and the oblasts and the role of the major employer.

3.7 Past and current housing, cultural and recreational infrastructure and programmes in Khaidarkan and the Batken and Osh oblasts.

3.8 Review of the level of crime/delinquency, public violence, poverty in Khaidarkan and the Batken and Osh oblasts in the last 5-10 years.

3.9 Role and extent of the informal sector in Khaidarkan and the Batken and Osh oblasts including artisanal gold mining and estimated use of mercury.

3.10 Assessment of the current educational level and potential for upgrading/conversion of the labor force to proposed options in the SEA.

V. Key issues identified by stakeholders

Based on the public consultation, different stakeholder groups will be asked to identify key issues related to socio-economic aspects of Khaidarkan Mining operations. Together with information gathered in the above chapters, these issues will facilitate the development of recommendations to address perceived priorities when developing options for an action plan to address mercury mining in the region.

VI. Conclusions and Recommendations

Conclusions can be drawn from the SEA report, development planning strategies for Batken and Osh oblasts, the Technical Assessment report, and other relevant sources regarding the impact of mining and related activities on the health, environmental and socio-economic situation of the region. This can then be used to recommend alternatives which have emanated from the technical assessment study and consultations with stakeholders.

Annex I: Sample survey forms/questions

General questions

Personal Information

Information provided by interviewers will be treated as confidential and will be used strictly for the analysis of issues related to SEA.

Marital Status**Age**

Single

16 – 25 years

Married

25-35 years

Divorced

35-55 years

Widow/widower

55 - more

Education**Sex**

High school

Male

Higher Education (Bachelor degree)

Female

Post-graduate Education

Resident in _____**since** _____

Specific questions

Possible stakeholder groups that can be identified for the purpose of SEA exercise, include:

- Officials and miners of the Khaidarkan Mercury Mine
- Retired operators, administrators, and laborers of this and other regional mines.
- Office and service providers of the Khaidarkan Mercury Mine
- Local government officials (health, environment and emergency situation)?
- Residents in Khaidarkan
- Residents of Osh/Batken
- Non-governmental groups
- Women's groups (or women) in Khaidarkan
- Local businessmen and entrepreneurs

It is suggested to organize targeted direct follow-up face-to-face interviews of responsible representatives of these groups. The samples of the group-specific questions include:

1. Miners of the Khaidarkan Mercury Mine

How long have you been working at the Khaidarkan Mercury Mine?

Are you still employed with this company?

How would you evaluate the working conditions at the Khaidarkan Mercury Mine:

Very poor

Poor

Good

Very Good

Excellent

Were you informed about any occupational health risks related to the mining and smelter activities?

Are you aware of any occupational health risks specific to the work you were asked to undertake.

Did you experience any occupational health problems during your employment at the Khaidarkan Mercury Mine. If so, please specify.

Did you experience any occupational accidents and /or injuries during your employment at the Khaidarkan Mercury Mine. If so, please specify.

Are you aware of adverse effects of mercury on human health?

2. Office and service providers of the Khaidarkan Mercury Mine

Is emergency response documentation available at the Khaidarkan Mercury Mine. If so, please specify.

Are there laboratory facilities (to examine air/water/soil samples, samples of urine/blood/hair, etc. available at the Khaidarkan Mercury Mine?

What types of analysis and tests are undertaken by the Company laboratory and how regularly?

Is there a register of industrial incidents that took place at the Khaidarkan Mercury Mine?

3. Local government officials (health, environment and emergency situation)?

Who do you believe is responsible for health and environmental monitoring and inspections at the mine?

Does your office undertake any health / environmental inspections of the Khaidarkan Mercury Mine?

How often are the health / environmental inspections of the Khaidarkan Mercury Mine undertaken?

Please describe the scope and nature of these inspections.

Are you aware of occasions when health / environmental inspections revealed any infringements of national/regional/local legislation?

Are you aware if your offices/departments are provided with sufficient equipment, medical supply, and other resources to deal with industrial incidents and environmental and health inspections? If no, please specify what is needed to improve the situation.

Is there a register of industrial incidents that took place at the Khaidarkan Mercury Mine?

Are you aware of emergency response documentation available at the Khaidarkan Mercury Mine. If so, please specify.

Do you undertake any awareness-raising activities and campaigns in Osh and Batken Oblasts, including regarding adverse effects of mercury on human health?

4. Residents in Khaidarkan / Osh/Batken

How long have you lived in Khaidarkan? Where did you live before Khaidarkan?

What is your current occupation?

Please describe employment opportunities in Khaidarkan for people with similar occupation.

Do you have any environmental and health concerns? If so, please specify

Are you aware of adverse effects of mercury on human health?

Have you taken any measures to protect yourself and your family from mercury effects. If so, please specify.

5. Non-governmental groups

How would you evaluate awareness of local communities of environmental situation in the area in general and mercury-related concerns in particular?

Very Low

Low

Medium

High

Do you undertake any awareness-raising activities and campaigns in Osh and Batken Oblasts, including regarding adverse effects of mercury on human health?

6. Women’s groups (or women) in Khaidarkan

How many years have you been living in Khaidarkan? Where did you live before?

Do you have children?

How do you evaluate your health:

Very poor	Poor	Good	Very good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How do you evaluate health of your children:

Very poor	Poor	Good	Very good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are you aware of mercury impacts on woman’s health and reproduction system?

Please describe your regular diet (fruits and vegetables /fish/meat/diary products). Do you grow fruits and vegetables yourself? Do you raise cattle or poultry yourself?

7. Local businessmen and entrepreneurs

How would you evaluate the business climate (e. g. duration and complexity to set up a business, conditions to operate business, transparency and complexity in paying taxes and fees, conditions to receive permits for specific economic activities, etc) in Osh / Batken Oblasts?

Very poor	Poor	Good	Very good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Annex II: Suggested Table of Contents for the Socio-Economic Assessment Report

1. Introduction
2. Overview of the operation of the Khaidarkan Mercury Mining Company
3. Overview of the region and local communities
4. Socio-Economic Impacts of the mining activities in Khaidarkan
5. Opportunities for employment and economic development in the region
6. Key issues identified by stakeholders
7. Conclusions and Recommendations