The gold and silver open pit mine **IXTACA PROJECT**, on its advanced exploration stage, is located in the **Ixtacamaxtitlán municipality**, in the **SIERRA NORTE** region of the Mexican State of **PUEBLA**. It occupies the South-Eastern portion of **Tuligtic Project**. Both concessions are properties of **ALMADEN MINERALS Ltd.** Directly or as a partner, Almaden was involved in other mining projects (like Caballo Blanco and White River) which have been cancelled because of its negative impacts on the environment and human rights. **KNIGHT PIEFSOLD ENGINEERING** was responsible for the elaboration of economic reports and environmental impact studies in Ixtaca and other projects which also had severe environmental implications (spills) against the population’s health in Mount Polley, Canada, and Yanacocha, Peru.

**HRIA HUMAN RIGHTS IMPACT ASSESSMENT**

**TARGETS**
- Learn the current state of human rights.
- Learn Almaden Minerals’ business structures, decision makers, supply chain and past record in human rights matters.
- Identify adverse impacts to water, the environment and health experienced during the exploration phase (2010–2016), and the potential impacts in the event of extraction of mineral resources.
- Conduct advocacy to prevent and avoid negative mining impacts.
- Counteract inequality in access to information and the power imbalance between communities, company and authorities, thereby contributing to the empowerment of the population in decision-making.

**METHODOLOGY**

**INCIDENCE**
Meetings are held in which those whose rights are affected communicate to the authorities the adverse impacts to water, the environment, and health experienced during the exploration phase (2010–2016), and the potential impacts in the event of extraction of mineral resources.

**FEEDBACK**
Steps are taken to ensure that all those whose rights are affected have an opportunity to express their opinions regarding the HRIA design, development and results.

**PUBLICATION**
To ensure the high degree of transparency, the final HRIA report is laid out and published; it contains the procedures used and findings made as part of the impact assessments.

**DATA COLLECTION**

**ANALYSIS**
The actual impacts observed from the activity or those that the mining endeavor project is expected to cause are analyzed from a human rights perspective.

**EVALUATION AND FOLLOW-UP**
A system of continuous monitoring of impacts and commitments is put in place to help prevent and/or the impacts cited in the HRIA report so as to defend the rights of peoples to self-determination.

**RECOMMENDATIONS**
The actual impacts observed from the activity or those that the mining endeavor project is expected to cause are analyzed from a human rights perspective.

**IDENTIFYING PROJECT-RELATED EFFECTS AND CONCERNS**
- Concern among the communities about the impact mining will have on the environment, water and health, which became the priority issues to evaluate;
- Lack of information in the communities regarding plans to extract a common good, and the potential environmental risks posed to water and health;
- Process of strengthening individual and collective rights in decision-making regarding common property;
- Authorities and company have done nothing to inform the affected communities.

**PRACTICALITIES**
Identifies, gauges and seeks to prevent negative mining impacts on human rights.

**SHOWS THE DISCREPANCY BETWEEN THE STATE’S OBLIGATIONS AND COMPLIANCE.**
Identifies and recognizes the company as an actor required to respect human rights and existing laws.

**GENERATES A BASELINE OF THE ACTUAL STATE OF THEIR HUMAN RIGHTS.**
Generates a baseline of the actual state of the environment including water, and health conditions prior to exploitation.

**PRIVILEGES THE PERSPECTIVE OF RESPECT FOR AND PROTECTION OF THE HUMAN RIGHTS OF THE INHABITANTS OF IXTACAMAXTLITLÁN WHO OPPOSE THE PROFIT PERSPECTIVE THAT GUIDES BUSINESS ACTIVITY.**
Unlike other evaluations, such as the Social Impact Assessments conducted by companies under Mexico’s energy reform laws, the Human Rights Impact Assessment (HRIA) is led by an Implementation Team comprised of IMDEC, CESDER, Consejo Tiat Tlali, PODER, and the Unión de Ejidos y Comunidades en Defensa de la Tierra, el Agua y la Vida, Atcolhua.

Provides technically consistent information from and for the communities affected by Almaden Minerals’ activities, and is based on investigations by specialists in geo-chemistry, biology, cartography, company research, health, human rights.

**KNOWLEDGE-GAP HUMAN RIGHTS IMPACT ASSESSMENT**

**CONCEPTUAL FRAMING**

**EVALUATION AND FOLLOW-UP**

**ANALYSIS**

**RECOMMENDATIONS**

**PUBLICATION**

**DATA COLLECTION**

**FEEDBACK**

**INCIDENCE**

**TARGETS**

**METHODOLOGY**

**PRACTICALITIES**

**SHOWS THE DISCREPANCY BETWEEN THE STATE’S OBLIGATIONS AND COMPLIANCE.**

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**OPEN PIT MINING**

1) **mining processes** → **facilities which would remain**

![Diagram of mining processes](Image)

**EXCAVATION**

- Rock Storage Facilities
- Low-grade stack

**CRUSHING**

- Flotation
- Separation
- Leaching (cyanide)
- Gold and Silver Bars

**Tailings Management Facilities**

- 35 MILLIONS TONNES OF TAILINGS SOLUTIONS

**ACID ROCK DRAINAGE**

- Sulphurous rocks

**AIR WATER**

- Sulphuric acid

**POLLUTION**

- Streams, rivers and aquifiers

**WATER**

- Rain or courses

**COMPETITION**

- Mining industry versus agriculture, livestock farming, human consumption

**ADVERSE IMPACT**

- Aquatic life drinking water

**REDUCTION**

- Almaden declared it will use rainwater, but: there are no studies about: water balance and water management to make this statement.

**TO THE ENVIRONMENT**

- **ground, atmosphere and landscape:** soil disruption, erosion and deforestation, pollution; aquifer displacement, biodiversity loss and impacts on agriculture.

**TO WATER**

- pollution: by cyanide, heavy metals and chemicals from the acid rock drainage process, reductioin: on water available volume, competition: because of the water use change, depletion: of aquifer and sediments increasing.

**TO HEALTH**

- noise impacts: audible loss, sleep disorders; cardiovascular and physiological effects: mental health and behavior change; stress issues on children.

**The Ixtaca Project activities would seriously affect population’s health over the impact zones because of ingestion, inhalation and direct skin contact with highly dangerous substances and the environment disruption.**

**CONCLUSIONS AND RECOMMENDATIONS**

**THE IXTACA PROJECT, IN ITS CURRENT FORM AS AN EXPLORATION Undertaking, HAS GRAVELY AFFECTED THE LIVES OF THE PEOPLE OF THE MUNICIPALITY OF IXTACAMAXTLÁN, PUEBLA. SHOULD THE IXTACA GOLD-SILVER SURFACE MINING PROJECT PROCEED TO THE EXPLOITATION PHASE IT WOULD POSE GRAVE RISKS TO HEALTH, WATER AND THE ENVIRONMENT, LAND DESTRUCTION, AND DEGRADATION OF VITAL RESOURCES SUCH AS SOIL AND WATER, IT DOES NOT SEEK TO COEXIST WITH THE LOCAL POPULATION, BUT INSTEAD SEeks TO EXTRACT SUBSOIL RESOURCES TO MARKET THEM IN INTERNATIONAL MARKETS. THE COMMUNITIES OF IXTACAMAXTLÁN, LIKE MANY OTHERS IN MEXICO, BECOME AWARE OF THE SUBSOIL WEALTH OF THEIR LAND TERRITORY AND OF THE PRESENCE OF ENTITIES AND PEOPLE SEEKING TO PRIVATIZE THEM ONLY AFTER CONCESSIONS HAVE BEEN AWARDED AND DECISIONS MADE.**

Motivated by profit and private benefit, the company conducted a study of the region where it holds the concession and the broader Sierra Madre Oriental or Trans-Mexican Volcanic Belt region, but has never shared its findings with the people of Ixtacamaxtitlán, thereby depriving them of the opportunity to make informed decisions regarding the natural resources beneath their lands.

-Almaden Minerals is not an exception, but rather one of numerous companies from Canada, Mexico and other countries in the world that take advantage of the facilities Mexico affords for mining speculation or exploitation under more favorable economic conditions than they can find in other countries.

-The HRIA has focused on just the main project Ixtaca, where 72 percent of the mining concessions of the region are concentrated by Almaden Minerals in the Sierra Norte de Puebla. This seemingly small project, which if implemented would have devastating consequences for the population of Ixtacamaxtitlán, is part of a broader model of land occupation and dispossession by means of privatizing community property, in this case subsoil resources, but the model is accompanied by renewable energy projects entailing privatization of water, solar energy and the air.

**ALMADEN MUST:**

- Remediate the damage caused to the human rights of the people of Ixtacamaxtitlán municipality, and violations of environmental regulations.

- Inform Conagua that it has perforated the aquifer, and remediate the damage it has caused by potentially redirecting watercourses and contaminating the groundwater.

- Inform the affected communities about the project it intends to implement and about which it has only reported to its investors. It should tell its investors about the diverse risks to its investments posed by complaints to the CNDH about human rights violations, and to the Profepa about environmental damage as well as legal proceedings that have halted exploration activities. They must tell them of the existence of sectors opposed to the project because of the proven damages that its implementation would entail.

- Respect, protect and guarantee human rights, and other wise respond to human rights violations in regard with the mandate of article 1 of the Mexican Constitution.

**THE MEXICAN STATE MUST:**

- Conduct rigorous investigations into the companies that it awards mining concessions and promote projects that privilege the wellbeing of the general population and rural communities over profits.

- We especially recommend the Profepa, Semarnat, Conagua, CNDH, and Ministry of Economy thoroughly investigate the irregularities and human rights violations documented in this report. The files from the authorities’ investigations should be made available to the communities affected by the activities of Almaden Minerals and made public.

- As responsibility of municipal, state and federal authorities to supervise and establish procedures for monitoring investment projects from the earliest stage of exploration. Public officials should impose sanctions for the company having withheld information from the authorities, conducting unauthorized activities and human rights violations.

- Projects should be subjected to public consultations based on truthful and verifiable information with which the citizenry can decide whether the project is viable before the Ministry of Economy issues a concession, and it should do the same in all other processes in which it is to issue permits for conducting mining activities. Semarnat and other government agencies should conduct Preventive Reports, Environmental Impact Studies, and Social Impact Evaluations.

- Municipal, state and federal authorities must halt exploration activities and guarantee restitution for the damages incurred that have been documented in this investigation as well as other possible damages.
THE PROJECT THAT ALMADEN PRESENTED TO ITS INVESTORS, HAS NOT BEEN HANDED OVER TO THE RESPONSIBLE AUTHORITIES IN MEXICO, NETHER THE RESIDENTS OF IXTACAMAXTILÁN. IT WAS ANALYZED BY A SPECIALIZED TECHNICAL-SCIENTIFIC TEAM WHICH IDENTIFIED A SERIES OF IRREGULARITIES IN THE EXPLORATORY ACTIVITIES. ENVIRONMENTAL DAMAGES, AND ADVERSE EFFECTS ON WATER AND THE HEALTH OF THE POPULATION, AS WELL AS POTENTIAL NEGATIVE IMPACTS IN THE EVENT THAT THE PROJECT’S EXPLOITATION PHASE GETS UNDERWAY.

THE CURRENT STATE OF HUMAN RIGHTS

WATER: Scientific studies analyzed in an international laboratory determined that water throughout the region is of good quality. However, water is scarce, and not all inhabitants can satisfy their needs. A study by the 2014-2018 municipal government administration calls for “undertaking actions to strengthen the countryside through water storage,…[and] the need to upgrade housing and basic services such as sanitation and potable water”.  

ENVIRONMENT: There is enough land for both crops and conservation areas. It is adequate but the ecosystem is vulnerable to the arrival of economic activities previously unknown to the region, especially industrial activity. A study by the 2014-2018 municipal administration concluded that “conditions exist for productive sector growth, but based on the principle of caring for the environment”. The region is home to threatened and endangered species. Semarnat, Mexico’s Ministry of Environment and Natural Resources, has designated it a high-priority conservation region.

HEALTH: The main diseases are respiratory illnesses and the amount of dust and dirt in the air will increase were the project to be implemented. The population is exposed to risks due to the long distances separating the area from the public-health infrastructure that provides access to specialists in mining related illnesses. 57% of the population lacks any medical insurance, according to a study by the 2014-2018 municipal administration.

ACCTIONS AND OMISSIONS BY THE FEDERAL, STATE AND MUNICIPAL AUTHORITIES

—The authorities at all three levels of government have provided no information and have not consulted the population about the project and appear to be unable to address the concerns of the residents in a timely manner. The mining firm has repeated its claim that the project will not affect water resources, but the project is located at the headwaters of the Apulco river basin, just 36 kilometers from the watercourse, which has allowed the mining firm to set up an office there, displacing a preschool and an aqueduct. The company has violated environmental regulations by conducting 236 more blasts than authorized and at a greater density and depth than permitted under Official Mexican Standards (NOM), and exceeded the time authorized by the Semarnat for conducting exploratory activities. According to Almaden Minerals’ own information, the company drilled into the aquifer located 158 meters below the surface, yet it had indicated to Semarnat that it would not drill more than 150 meters deep. Almaden Minerals reports it has conducted blasts at depths of up to 700 meters.

—The company informed its investors that it had drilled water wells for monitoring and hydrogeological studies. The Ixtacamaxtitlán Water Committee has complained that the company is measuring and extracting water from existing wells. Conagua reported that the Ixtacamaxtitlán Water Committee has documented that the water authority has only conducted a single on-site inspection, which concluded that “no well was reported”, according to Julio Fierro Cauffman, Conagua’s officer for inspecting water wells in the municipality. The water wells are important for human consumption and the agricultural activities of the area, as they are mainly used for human consumption and agricultural activities has not previously experienced its exploitation for industrial activities without prior consultation, as is required under Mexican law. A situation would pose grave risks to the inhabitants of Santa María Zotoltepec.

—The company lied to its investors regarding the potential investment risks, indicating that it only employs harvested rainwater. Protefa, Mexico’s environmental authority says that out of 1,250 mining operations, none operate using rainwater.

—A written response to the implementation team, Almaden stated that “the veins recently uncovered show the potential for economic activity and does not want to consult the affected population although it has yet to be made public. Almaden lies to its investors regarding the potential investment risks, indicating that it only employs harvested rainwater. Protefa, Mexico’s environmental authority says that out of 1,250 mining operations, none operate using rainwater.

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—The Ixtacamaxtitlán Water Committee has complained that the company lied to the residents of Ixtacamaxtitlán when it indicated that the cyanide to be used in the leaching process would have no adverse health implications and that it would be safely stored in the dam once the mine closes. It has cooperated with local authorities, such as those of Santa María Zotoltepec, which has allowed the mining firm to set up an office there, displacing a preschool and an aqueduct. The company has violated environmental regulations by conducting 236 more blasts than authorized and at a greater density and depth than permitted under Official Mexican Standards (NOM), and exceeded the time authorized by the Semarnat for conducting exploratory activities.

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POLYGON AND IMPACT AREA IN THE EVENT OF EXPLOITATION

PROJECT SUBMITTED BY ALMADE MINERALS TO ITS INVESTORS

TECHNICAL REPORT NI-43-101

January 2016
Tailings pond dyke:
Open pit mine zone:
Rock storage facilities:

May 2014
Mining project:
Tailings pond:
Open pit mine zone: