



This document contains the most frequently asked questions about the Ilovica-Stuka Project.

Additional FAQs in English and Macedonian can be found on: [www.euromaxresources.mk](http://www.euromaxresources.mk) & [www.euromaxresources.com](http://www.euromaxresources.com) ([www.euromaxresources.mk/prashana-i-odgovori/](http://www.euromaxresources.mk/prashana-i-odgovori/))

### What would be the socio-economic impact of the Project on the local population and the whole region?

Euromax will directly employ and engage around 700 people during construction and around 500 people during operations. All of the people from the local area that have the required skills will be provided an opportunity to apply for work at Euromax. Plus, 78% of the Royalty will go to the budget of the affected municipalities. Many indirect employments (catering, transport, accommodation services etc.) will be created as result of the mine construction and operations. The suppliers will locate themselves close to the future mine which would additionally engage local people for their works. Many local businessmen will benefit as result of the higher living standard.

Euromax is already contributing to the socio-economic development of the communities through some direct investments in the communities, which will be further intensified in the future with the development of the project.

The Project will have a positive impact on the national economy in general.

Please find below some data of our research:

- The Ilovica-Shtuka project will make a significant positive impact on Macedonian exports. The export value of copper and gold concentrate from the first year of operation will be €249 million, which when compared to the total value of Macedonian exports for 2014, represents an increase of about 7%, making the mining industry a key driver of Macedonian exports. The average annual value of exports during the 23 year life of mine will be approximately €171 million per annum.
- The Project’s total direct (€1,902 million), indirect and induced (€547 million) GDP contribution to the country over the operational life of the mine is predicted to total nearly €2.45 billion.
- A state royalty has been applied at 2% of the net smelter return (NSR). The average annual royalty payment is estimated to be on average €3.6 million.

### We heard that the profit of the state would be 2% from the profit of the amount of excavated ore. What exactly does this percentage mean?

Pursuant to the Minerals Law, the royalty is calculated on the value of the metal before costs are taken in to account. Although this seems a small percentage, it is estimated that the royalty would annually be approximately €3.6 million. On top of this, the state will receive corporation tax on profits and taxes on the incomes of personnel.

A breakdown of these government incomes is given in the EIA as follows:

Revenue Source		Construction (Total)	Operations (Average Annual)	Operations (Total)
Taxes	Personal income tax	€ 7,200,000	€ 2,100,000	€ 48,300,000
	Corporate income tax	€ 1,600,000	€ 8,200,000	€ 188,600,000
	Sales and excise taxes	€ 600,000	€ 3,300,000	€ 75,900,000
	<b>Subtotal (Taxes)</b>	<b>€ 9,400,000</b>	<b>€ 13,600,000</b>	<b>€ 312,800,000</b>
Royalties	National royalties	n/a	€ 800,000	€ 18,200,000
	Municipal royalties	n/a	€ 2,800,000	€ 64,600,000
	<b>Subtotal (Royalties)</b>	<b>n/a</b>	<b>€ 3,600,000</b>	<b>€ 82,800,000</b>
<b>Total Revenue</b>		<b>€ 9,400,000</b>	<b>€ 17,200,000</b>	<b>€ 395,600,000</b>

Note: Some totals do not exactly reflect annual averages summed over the life of the Project due to rounding.

In addition the salaries paid, there will also be a benefit to the region. Total direct labour income as a result of the Project’s two year construction period is expected to be over €63 million. Nearly half (over €31 million) of this labour income will be generated in 2018, the year of peak Project construction. During operation, the Project is expected to generate approximately

€14 million in direct labour income annually. The total direct labour income as a result of the Project’s 23 year operational life is, therefore, estimated at over €320 million.

### **How will the mine affect the landform and the forest?**

The proposed Ilovica Shtuka pit is on a part of the hill that is currently scrub forest which has been continually harvested over the past decades and has no mature forest growth, indeed most of the hillside is denuded. Euromax has provided funds to the forestry management company for a sapling nursery facility in order to produce more indigenous saplings and assist in reforestation, including the rehabilitation of the mine site once mining has ceased. There will be no direct impacts on the Belasica Mountains. The pit will be largely invisible from the nearest settlements.

According to data gathered from the municipalities of Bosilovo and Novo Selo, there are 2,086 hectares of pastures and 4,996 hectares of forest within the boundaries of the municipality of Bosilovo on the Ograzhden Mountain. The municipality of Novo Selo has 9,695.7 hectares of pastures and forest on the Ograzhden Mountain.

According to the data from the Cadastre, the total amount of forest and pasture within the Ilovica-Shtuka project footprint area that extends on the territory of the both municipalities is 1,141.59 hectares which is only 6.8% of the whole territory that the both municipalities have on the Ograzhden Mountain.

### **Will the water from the Shtuka intake be used as drinking water? What is the water quality at the moment? How will the new water distribution network affect the cost?**

The intakes will be closed when the Municipality water supply is commissioned for use. This should be before the mine starts operating.

A new water distribution network, co-funded by Euromax, will provide better quality water. The current quality of the water shows that the water is bacteriologically contaminated.

The current cost for water supply is 10 den/m<sup>3</sup> for water from the intakes and in the future they would have to pay 30 den/m<sup>3</sup> for treated water from the WTP although this is to be confirmed by the Municipality/PUEO.

### **How are you sure that the Turija reservoir has the capacity to provide water for the future mine? Will there be impact to the drinking water quantity for the Strumica town?**

A pre-feasibility study is being developed and our water experts have held series of meetings with the representatives of the respective institutions, the company that is preparing the pre-feasibility study, representatives of Vodostopanstvo AD, the Strumichko Pole Water Management Company (SPWMC), the Public Utility of Bosilovo etc. It was determined that the capacity of the Turija reservoir is under-utilised at present and the SPWMC have indicated that they have no concerns regarding the ability to supply the necessary volume of water. SPWMC operate as a not-profit company, so all water use charges paid by Euromax would be invested into improving water distribution and management in the region. Moreover, there are priorities for water use provided in the article 15 of the Law on Water and according to this law provision, the drinking water comes first, then the irrigation water, and the water supply for the industry is of third priority.

### **Who would want to buy agricultural products from a region next to a mine?**

#### **Can Mining and Agriculture exist together?**

There is already significant heavy industry in the Strumica valley including mining for metals and quarrying, and there are also many other instances in Europe, where agriculture is situated near mining operations (UK, Germany, Ireland, Turkey to name but a few) and where the two co-exist without any conflict. It must also be remembered that little of the agriculture in the valley is organic and a great deal of chemical pesticides and fertilisers are used daily.

As an example of this co-existence, the city of Kavadarci, in Macedonia, is the home to a nickel smelter and one of the most famous producers of wine in the country. Vineyards extend to the boundary of the smelter's property and the vineyard still exports wine across Europe and beyond.

It is not the aim to substitute agriculture with mining but to co-exist alongside it and to offer well paid and long-term jobs that will benefit all in the community. It should also be remembered that mining is often seen, by organisations such as the World Bank and IMF, as the industry that is most able to start the economic development of a region or country. The Ilovica-Shtuka project has no material take of agricultural land.

## **What will happen with the endangered habitats and several conservation species of flora and fauna that have been identified by the European Habitat Directive and according to the Red List of EU? Where will the decapods, turtles, bats be relocated?**

Euromax has committed to maintain the existing grazing regime (or to replicate it), avoid disturbance to high quality pasture at higher elevations and revegetate the TMF to pasture and scrub mosaic at closure, designed for suitability for Large Blue butterfly and other invertebrates.

Terrestrial species will be allowed to naturally disperse as the project develops. Construction is conducted in phases over a two year period which will allow these species to naturally move their habitat into adjacent areas of suitable habitat. After closure, affected areas will be rehabilitated and re vegetated with appropriate vegetation so that the species will be allowed to re-colonise. Considerable efforts will be made to ensure that the project area at closure will be suitable for as many species as possible.

The very detailed work that contributed to the Ilovica-Shtuka Project baseline, over several years, has allowed an assessment of the numbers, locations and variety of species impacted and that their natural displacement can be accommodated by the local environment with minimal effects. Longer term the increase in pasture, meadow and scrub associated with the rehabilitation of the tailings management facility, in line with the biodiversity action plan which will be developed prior to construction and committed to by Euromax, should increase the extent of habitats of important local species.

- Species such as the stone crayfish (decapods) will be translocated to other similar water courses in the surrounding areas which already host populations of the crayfish; the exact location of the host watercourses will be determined as part of the detailed Biodiversity Management Plan which will be developed over the next few months. The translocation will be achieved through humanely trapping the crayfish and moving them to the new locations.
- Slow moving species such as tortoises will be assisted to move ahead of clearance works. Maternity colonies of bats will be relocated. A biodiversity specialist will be on site to supervise this clearance and ensure that flora and fauna of concern are removed prior to any works taking place.

### **There could be spillage of the TMF in spite of the dam built there.**

#### **How the TMF's embankment was designed and what kind of material will be used for its construction?**

The TMF embankment will be constructed of unmineralized rock and it is designed to withstand seismic events and in accordance with international design criteria. Sufficient space behind the dam will be allowed to withstand maximum flooding events. This has been done for the maximum probable rainfall event. The design has been reviewed by renowned world experts and will be subject to final approvals from all relevant Macedonia authorities based on the design being safe.

The dam will be routinely inspected regularly throughout the life of the project, not just by project staff, but by independent international experts. There will be a progressive revegetation of the TMF and after a given period of time following the TMF closure, it should look like a natural hill.

## **In which project phase an Integrated Pollution Prevention and Control Permit is required according to the regulations?**

The Integrated Pollution Prevention and Control Permit is a permit that should be issued only after the mine is built and right before putting the mine into operation which means that mining operations can only start after this permit is issued. This is to ensure that the final construction complies with all required regulations before it is allowed to be used.

### **The ore is spread onto a large area and then sprinkled with cyanide through a system of tubes. They must explain where the cyanide will go?**

Cyanide is not used in this way in our project, what is described is a so called 'heap leach' system. At Ilovica-Shtuka we plan to use a closed tank system, known as a carbon in leach system or CIL, as detailed in the EIA and our published technical reports. All possible cyanide will be recovered for reuse. The waste will pass through a cyanide destruction plant to address any cyanide not recovered for reuse.

Some interesting facts about the use and occurrence of cyanide:

- Cyanide is released from natural substances in some foods and in certain plants such as cassava, lima beans and almonds. Pits and seeds of common fruits, such as apricots, apples, and peaches, may have substantial amounts of chemicals which are metabolized to cyanide. The edible parts of these plants contain much lower amounts of these chemicals.
- Cyanide is contained in cigarette smoke and the combustion products of synthetic materials such as plastics. Combustion products are substances given off when things burn.
- In manufacturing, cyanide is used to make paper, textiles, and plastics. It is present in the chemicals used to develop photographs. Cyanide salts are used in metallurgy for electroplating, metal cleaning, and removing gold from its ore. Cyanide gas is used to exterminate pests and vermin in ships and buildings

### **What are the arsenic concentrations in the ore? How dangerous is arsenic as a pollutant?**

Arsenic is not and will not contaminate the water environment since the concentration in the rock is not high at all. Namely, the average is 17 parts per million or 0.0017%. This is not an arsenic rich deposit. This is based on more than 10,000 separate analyses of rock sample.

Laboratory experiments were specifically designed and executed to determine if contaminants, including arsenic, would mobilise from material in the deposit when in contact with water (i.e. to replicate how it would interact with rain). Current concentrations of Arsenic in surface and groundwater in the Jazga and Shtuka catchments are 0.001 and 0.004 mg/l and Euromax are committed to ensuring there will be no exceedance of drinking water standards for Arsenic during or after construction and operation of the project. Current water quality is based on ~350 water sample analyses. Just for comparison, The EU drinking water standard for arsenic is 0.01 mg/l.

It should also be noted that the new water supply network in Ilovica and Shtuka will be constructed by the local authorities and financed by Euromax, and will be tested to ensure it is safe and represent no risk to health. Arsenic has not been identified as a key pollutant of concern as the initial concentration of arsenic within the rock is low and experiments show that most material does not mobilise arsenic on contact with water. Arsenic concentrations in water in contact with exposed material are not expected to be high. Water treatment of a pit lake discharge will reduce arsenic concentrations, as part of the overall treatment to increase alkalinity and remove metals.

### **People of Ilovica and Shtuka move out because they are scared from the mine's negative impacts.**

There is no reason for people to be scared. Euromax is a Company which employ international best practice and are committed to the highest standards of environmental and social protection. We have been working in closed cooperation with both the Macedonian Government and the EBRD to ensure that all Macedonian and European legislation will be met.

One of the EBRD's Commitments is that "The EBRD will seek within its mandate to ensure through its environmental and social appraisal and monitoring processes that projects are designed, implemented and operated in compliance with applicable regulatory requirements and good international practice".

In fact, EBRD's requirements aim to improve the livelihood and socio-economic impact.

We encourage all the residents of the local communities to visit the information centre in order to stay informed about our latest activities.



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