ArcelorMittal Kriviy Rih – transition without sustainability

In April 2006 EBRD approved a loan for ArcelorMittal Kriviy Rih in Ukraine. The main purpose of the 200 million USD loan according to the EBRD was "to optimise the use of current production capacity, and increase the productivity and energy efficiency". The project summary document states that: "The investment programme will significantly improve the current environmental and safety performance of the steel plant and mine operations", "and shift the product portfolio towards higher value-added products" and underlines that "the planned modernization being undertaken is aimed at improving the environmental situation considerably" (our emphasis).

After 5 years of project implementation clear results should have been achieved. Yet the EBRD has recognised the weaknesses with the environmental aspects of the investment in its draft Country Strategy for Ukraine 2011-2014: "The investment with ArcelorMittal Kryvyi Rih (AMKR) for instance has achieved the objectives related to increased capacity utilisation, corporate restructuring and market expansion. Conversely, it fell short of its energy efficiency objectives; and saw an Unsatisfactory environmental performance. A lesson learnt from the AMKR project is the limited scope for energy efficiency gains at Soviet-style steel mills, as those were built to use cheap energy from external supplies and are not designed to capture and recycle waste gases (PE09-448)"

Let us take a closer look at the company’s environmental performance.

Goal: Considerable improvement of the environmental situation

If we take look at the annual levels of NO2, SO2, CO and dust compared to the production level we see the following picture.

These figures show that between 2006 and 2010 the level of SO2, CO and dust decreased, while the level of NO2 rose. This can be considered as an environmental improvement, but these are absolute numbers. Let us take a look at relative picture.

Starting from 2006 there was a slight increase in volume of production at AMKR and between 2007 and 2009 it dropped significantly due to the world economic crisis. Only in 2010 it started to approach to the pre-crisis level. The reduction of the dust emissions and to a large extent the SO2 and CO emissions in 2008-2009 follows the line of the production drop due to the economic crisis. Worryingly,
the NO2 levels stayed more or less the same and perhaps even increased over the period 2006-2010. Overall, therefore, it seems that the level of emissions is tightly coupled with the level of production and the EBRD loan has had little or no impact on the level of emissions at AMKR.

Still, this data is very abstract, as it says nothing about whether the plant is complying with EU standards, and what the ambient air quality is in the areas around the plant. This information is not published.

**CO2 emissions**

We requested data from ArcelorMittal on its CO2 emissions per year in order to ascertain whether there have been any decreases in the plant’s carbon intensity over the period of the project. The annual CO2 emissions figures which were sent to us evoked questions:

There is a clear error in the 2005 figure, while the other figures also show themselves to be much too low if we compare them to CO2 emissions per tonne of steel at other plants. The 2010 figure for example would be 0.26 tonnes of CO2 per tonne of steel. Yet according to the IPCC, 2007: “Emissions per tonne of steel vary widely between countries: 1.25 tCO2 (0.35 tC) in Brazil, 1.6 tCO2 (0.44 tC) in Korea and Mexico, 2.0 tCO2 (0.54 tC) in the USA, and 3.1 to 3.8 tCO2 (0.84 to 1.04 tC) in China and India (Kim and Worrell, 2002a)”

The most interesting thing, however, is the comparison of AMKR’s supposed CO2 emissions with the levels of CO2 emissions of other large Ukrainian steel mills. AMKR’s emissions are supposedly many times less than the other steel mills of comparable size, cycle and level of production. So why do these other steel mills in Ukraine (Azovstal Iron and Steel Works OJSC, Zaporizhstal Integrated Iron & Steel Works JSC, OJSC Illych Iron and Steel Works of Mariupol) not have the same problems with the calculation of CO2 gross emissions?

The figures provided by ArcelorMittal are clearly inaccurate. When asked about this, AMKR explained that “the mechanism of calculation of CO2 gross emissions from technological units of metallurgical and ore-dressing processes (agglomeration, steel melting etc) in Ukraine is not developed properly” and that according to the decrees of the State Statistics Committee of Ukraine #396 of 20.10.2008 and #233 of 21.06.2010 the plant does not include such emissions into the data it provides to the State Regional Department on Statistics. AMKR provides data only on emissions from the Combined Heat and Power plants that work on coke gas and blast furnace gas from the plant.

At the same time we know that in 2006 AMKR did manage to measure at least part of its CO2 gross emissions during the preparation of a Joint Implementation project that was submitted to the UNFCC. The Project Design Document (PDD) indicates that emissions from one of the JI projects at AMKR were at least 13,877,579 CO2/e. The project was withdrawn, but it tells us that the plant knows how to apply the methodology for calculation of CO2 emissions from different sources if it wants to.

This unfortunately appears to be just one more episode in a long line of failures of ArcelorMittal to provide meaningful environmental information to stakeholders. The EBRD must do more to ensure that the public is provided with such information, even if it in the end needs to provide the data itself. Under the Aarhus Convention the public has the right to such information, irrespective of any commercial considerations.

**Conclusion**

This project suffered from substantial failures in its goals of improving the environmental situation at ArcelorMittal Kriviy Rih. It also failed to ensure that ArcelorMittal provided meaningful data to stakeholders.

According to the EBRD there were two reasons for the failure in the environmental improvements: First, as mentioned above, was the limited scope for energy efficiency gains at Soviet-style steel mills. This should have been spotted by the bank’s project appraisal.

Second, external factors were to blame, such as “the unprecedented global financial crisis. This along with the collapse of steel prices at the end of 2008 and the impact of government interference (non-refund of VAT receivables and sequestration of coal imports) reduced available cash resources below the level initially projected.”

The company, on the other hand, is saying it has been making environmental investments. It is possible that some have indeed been carried out, but it seems the main ones are missing, considering the apparent lack of emissions reductions.

AMKR has started to communicate with CSOs (although since new management arrived this tendency has faded) and publish some environmental information on its web-site. However the information refers mostly to the investments the company makes to...
building, renovation and environmental measures, but not the actual quantity of emissions emitted as a result or the improvements as a result of the investments.

Some data on emissions has been provided in an AMKR annual Environmental Report, but it only provides a lump sum of the entire emissions for the main pollutants per year. It does not give any indication about how the emissions are distributed throughout the year and whether they exceed EU limits. Although this would not be required by Ukrainian legislation we expect that as the EBRD uses EU standards as an orientation, such information needs to be available. In addition the Report does not contain information on the CO2 emissions of the plant, nor on other pollutants likely to result from steel mills such as benzene, heavy metals etc.

The EBRD is obliged to promote environmental sustainability in its activities. In the case of ArcelorMittal Kriviy Rih, however, the bank did not add environmental value and should have better carried out the project appraisal to realize the possible obstacles for the environmental targets before committing to the project.

Likewise the bank’s policy on relying on its clients to provide environmental information to stakeholders simply does not work. This must be taken into account during the current revision of the Public Information Policy and in the next revision of the bank’s Environmental and Social Policy.

We therefore ask the bank to explain frankly to us during the coming annual meeting what it has learned from the experience with ArcelorMittal and how it will improve its project appraisal to avoid such projects from recurring. We also re-iterate our request to the bank not to finance any more projects involving ArcelorMittal.

Notes

3. All the data has been provided by the State Regional Departments on Statistics and taken from the official web-site and leaflets of AMKR (documents available upon request).
4. As the company has not provided CO figures separately, CO has been estimated by subtracting NO2, SO2 and dust from the overall main emissions.
7. http://ji.unfccc.int/UserManagement/FileStorage/84WUZ30QYA37FUYY8CIWFFNB40FLSF3 (p.50)
9. http://www.arcelormittal.com.ua/images/pdf/%D0%AD%D0%BA%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D1%87%D0%B5%D1%81%D0%BA%D0%B8%D0%B9%D0%9E%D1%82%D1%87%D0%BD%D1%82.pdf