

# Water for Life or Water for Coal

July 2014

## **Executive summary**

This second coal report from Greenpeace Bulgaria examines two alarming aspects related to the operations of thermal power plants in the country.

### **1) Climate change – drought**

Burning coal is one of the main causes of climate change. Drought in many parts of the world including Bulgaria is a result of climate change.

- Given the increased level of drought, our country has to make a decision – whether to choose food independency or to artificially support the existing coal power plants.
- Hot and dry summer seasons that are expected to be more common in the coming years present a serious threat to the amount of water used in agriculture as well as to the amount used in the work of thermal power plants.

### **2) Water and environmental pollution**

The second aspect relates to the lasting water pollution coming from extracting, processing, transporting, burning and disposing of coal.

The whole process – from extraction to burning and waste disposal, including reclamation of land, has a detrimental effect on water, the environment, air quality, human health and local communities close to the mines.

Toxic waste (sly and fly ash), disappeared villages and moon landscape are just few of the most common and obvious consequences. A significant number of the coal mine reclamation attempts in Europe and the United States are inadequate. The “reclaimed” land is never fertile or fit for agricultural activities; water is contaminated, and the black powder of the coal industry marks the local communities forever.

The pollution with waste generated by the burning of coal in the plants in the energy complex “Maritsa East” presents a threat that can be difficult to remove even after closing down the power plants. Together with the unrealistically large amount of water used in the operations of the power plant, pollution is a hindrance to the development of sustainable local economy<sup>1</sup> as well as to the food independence of the region.

**For these reasons Greenpeace Bulgaria deems it necessary the accelerated close down of the “morally” old power plants and the gradual phase-out of the larger ones. Last but not least, given that there are alternative energy sources Greenpeace Bulgaria considers the expansion of mines “Maritsa East” and the destruction of villages like Troyanovo inadequate from ethical, social as well as practical and ecological point of view.**

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<sup>1</sup> ЕС „За Земята” (2013) „Икономически и енергийни алтернативи за регионите в България, развиващи въглищна индустрия”. [http://zazemiata.org/v1/fileadmin/content/energy/docs/Coal\\_Doklad\\_BG-1.pdf](http://zazemiata.org/v1/fileadmin/content/energy/docs/Coal_Doklad_BG-1.pdf)



### ***Key messages and recommendations***

Greenpeace Bulgaria has asked before: clean air or operating mines and thermal power plants? Now with this study we ask another question: (clean) WATER or coal industry? Considering the fast pace with which climate is changing water in fact will become the most precious natural resource. It is very likely that in near future water in Bulgaria become scarce. One of the reasons for this is the increasing drought, a result of climate change.

The harmful effect of extracting and burning coal, however, does not stop with its impact on the climate.

***The whole process – from extracting to burning, waste disposing and even land reclamation has a detrimental effect on the environment, air quality, human health and local communities close to the mines.***

Toxic waste (sly and fly ash), disappeared villages and moon landscape are just few of the most common and obvious consequences. The disposal of waste from burning coal leads to gradual pollution of the underground and ground water (including pollution with heavy metals) and increases its acidity. Sly, for example, contains a number of toxic elements (lead, cadmium, etc.), acid drainages from abandoned mines get into underground waters making them unsuitable for further use and consumption thus polluting thousands of acres fertile land. A significant number of the coal mine reclamation attempts in Europe and the United States are inadequate. The “reclaimed” land is never fertile or fit for agricultural

activities again; water remains contaminated. The damage of burning coal is too big, diverse and growing for the coal industry to continue to be supported by the Bulgarian government. Immediate actions are required for the gradual step-out of the coal era. Until the government slowly starts to think about the growing social and ecological cost of coal, people around the world are uniting around the idea to leave the coal underground. The public opinions against coal on global level are strong and more vocal than ever.<sup>2</sup>

### **Recommendations to the Bulgarian government**

Greenpeace Bulgaria understands the historic role the energy complex “Maritsa East” has played in the development of the country as well as the economic significance it still has in the region of Stara Zagora. However, the production of electricity from coal has played its role and has become obsolete from ethical, social and economic point of view – a revelation that gains more and more public support.

1. The coal sector should not be institutionally supported by the government. Relying on the development of the coal sector in the long-term energy strategies means that the government does not take into consideration the damages and losses from the coal industry that the population suffers from. The long-term benefits that the country will have from the development of decentralized energy system from alternative energy sources are not taken into considerations.
2. The development of the energy sector cannot be examined outside of the context of the climate change happening right now. This will require in the future to consider the decreasing water resources.
3. Given the low reclamation of the seized land for mines and the high acidity of the water on them, Greenpeace Bulgaria thinks that the expansion of Mines “Maritsa East” is inadequate. The presence of alternative energy sources makes the deportation of the people and burying of the village of Troyanovo unreasonable from ethical, social as well as ecological point of view.
4. All “morally” old capacities that have inadequate or not enough sulfur installations and ecological control should be shut down fast (for example, TPP “Bobov dol”, “Brikel”, “Maritsa East 3”).
5. The pollution with waste generated by the burning of coal in the three largest plants in the energy complex “Maritsa East” (the state-owned “Maritsa East 2” and the two privately-owned “ContourGlobal Maritsa East 3” and “AES Galabovo” presents a threat that can be difficult to remove. Together with the unrealistically large amount of water used in the operations of the power plant, pollution is a hindrance to the development of sustainable local economy as well as to the food independence of the region. Greenpeace Bulgaria thinks that only the gradual phase-out of these power plants could guarantee human health and the presence of clean water for agricultural and other uses in the local economy.

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<sup>2</sup> Greenpeace International, <http://www.greenpeace.org/international/en/campaigns/climate-change/coal/>

The good news is that future without coal is possible: by reducing the wasteful consumption, improving the energy efficiency, restructuring the consumption by reducing our dependency on electricity, and of course by increasing the share of renewable energy sources.