## Werner Gumpel: Environmental Problems in Today's Russia

Last year, there was a freight train accident near the Russian town of Tver in the Volga area. 22 tons of oil poured from tankers into the river Vazusa, causing an oil concentration in the soil that was one hundred and forty times higher than the defined limit. The authorities spoke of an 'ecological catastrophe of national dimensions'.

The accident, the helplessness of the authorities, and also the lack of interest in such incidents illustrate the situation in Russia. It is true that the European press and television keep reporting with optimism about the country in the East, its high economic growth and increasing quality of life, but reality is different: The alleged economic growth is underpinned by only a few sectors, and it is almost exclusively confined to large cities. In rural areas, the people still live in abject poverty.

When it comes to supplying the population with drinking water, the situation is particularly depressing. Inadequate sewage-treatment facilities significantly reduce the quality of the water, constituting a serious threat to the people. The main reason for this is the fact that many cities take their drinking water from rivers that already carry untreated waste water from upstream cities. For there are practically no sewage plants anywhere in Russia.

Of course, the authorities know about the problem. They know that only one percent of the tap water meets international standards. Russian water pipes and wells are hopelessly outdated; more than 60 percent need to be modernised. Yet no funds are provided for this. And the industry prefers to drain its sewage into surface water. This is the cheapest way, and ecological consequences are of no interest.

During the Communist era, hardly any importance was attached to replacement investments and plant maintenance. Funds were spent on purely quantitative growth and on the country's armament. However, even after the collapse of the Soviet Union, little has changed, so that there are enormous ecological disasters such as the one in St. Petersburg, where 20 percent of the waste water are still 'disposed of' in the Neva, or in the region of Moscow, where the existing sewage-treatment plants are inadequate, and the drinking water ranks among the worst in the whole country.

Large and small rivers are equally affected by poisoning. The Amur, for example, is seriously sick; according to *Nezavisimaya Gazeta*, it suffers from 'chronic contamination mainly with phenol compounds and heavy metals'. Chemical companies, cities, and agricultural enterprises drain their waste water untreated into the tributaries of the Amur. In addition to thirty lakes, there are one hundred rivers that exceed the contamination limit set by the state, among them, next to the Amur, rivers such as the Argun and the Ussuri. The local authorities' appeal to put things right goes unheeded in Moscow. The Volga, the Don, the Kuban, the Lena, the Ob, and the Pechora – practically all the large streams in Russia – rank among the most severely contaminated rivers.

The result of this undesirable development that went on for decades are epidemics of all kinds. In Nizhni Novgorod, more than 1,200 people contracted hepatitis in September 2005. Even more frequently, whole village populations come down with dysentery and cholera due to contaminated tap water.

What comes next to water contamination in Russia is the problem of air pollution. Currently, 64 million people live in cities where the air is extremely polluted. According to the ministry of

health, 44 percent of all the diseases in the country result from high air-pollution levels. Cancer, skin diseases, and tuberculosis as well as deaths caused by environmental pollution have meanwhile moved to the top of the statistics. What is alarming in this context is that morbidity and mortality rates in children are increasing. The most evident causes of the high morbidity rates of man and nature in Russia are water and air contamination. Given the Communists' maxim of making nature their subject and stepping up the country's industrialisation, this does not come as a surprise. Black smoke rising from factory chimneys and workers striding proudly along were propaganda symbols of socialist success, leaving hardly any space for an ecological conscience to develop.

Particularly the inherited waste of the Soviet regime, whose elimination the current government does not consider an urgent matter at all, will result in long-term effects of a special kind. First and foremost, these include the desolate crude-oil and natural-gas pipeline system that is to blame for many ecological disasters and has ruined both the Tundra soil and large parts of the Caspian Sea permanently. Capital for renewing pipes is theoretically available but is released only sporadically or not at all. According to Russian sources, repairing or replacing defective pipes might cost up to 185 million dollars.

The construction of an infrastructure for the extraction plants also entailed enormous environmental damage with lasting ecological consequences. And it must be expected that the planned exploitation of the east Siberian natural-gas and oil fields will constitute another step in this sad development.

What should also be mentioned is the use of nuclear energy for civilian and military purposes; it meant and still means a special kind of danger to humans. The best example of the unreliability of Russian nuclear plants is Chernobyl. Some of the 31 reactor blocks that are still operated by Russia belong to the first generation and are considered extremely dangerous. Since maintenance is conducted only irregularly, the newer reactors are probably unsafe as well.

In this context, the secret production of plutonium and/or reprocessing of radioactive material in 'closed cities' such as Chelyabinsk, Tomsk, and Krasnoyarsk is worth mentioning as well. The radiation that has so far been released in these cities exceeds the radiation at Chernobyl by far. Even water courses, lakes, and soils are affected; due to improper and sometimes unprotected storage, they show a high degree of radioactive contamination.

The decommissioned nuclear submarines in the region of Murmansk constitute a risk of their own; they present a radioactive threat to the entire Kola Peninsula and the Barents Sea. Next to more than one hundred submarines, there are large numbers of spent fuel rods, nuclear-powered icebreakers, and floating nuclear waste.

Only a small part of the Russian population is aware of the dangers the current ecological situation of their country entails. The government informs the people either incompletely or not at all about the actual state of affairs. Environmental awareness is not a matter the nation talks about; if anything, it is a subject discussed in small intellectual circles. So far, no change in the status quo can be observed. In the future, people in Russia will probably go on suffering from the consequences that arise from carelessly dealing with nature, and meet their death – in increasing numbers.