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Letter dated 20 May 2013 from the Permanent Representative of Uzbekistan to the United Nations addressed to the Secretary-General

As you may know, the continuing deterioration of the environment in Central Asia is one of the prime concerns for Uzbekistan and the international community. In the light of this fact, I would like to draw your attention to the very dangerous situation in the northern Surkhandarya region of Uzbekistan, along the border area with Tajikistan. Cross-border pollution caused by the harmful industrial emissions of the Tajik Aluminum Company (TALCO) has been a challenge for environmental security, livelihoods and sustainable development in Uzbekistan, Tajikistan and beyond.

The magnitude of the negative impact of the industrial activity of TALCO on the environment, health and gene pool of the local population and the irreparable damage to the ecosystems of the region have reached an unprecedented level.

In 2010-2012, residents of the Surkhandarya region in Uzbekistan sent an appeal, signed by more than 757,000 people, to the General Assembly, the United Nations Environment Programme, and the World Health Organization, among others.

Failure to take concrete measures to stop the negative effects of TALCO emissions may have the most difficult and unpredictable consequences for the health and lives of the citizens of Uzbekistan, Tajikistan and other countries of the region.

This situation was recently considered at a meeting of the Legislative Chamber of the Oliy Majlis (Parliament) of the Republic of Uzbekistan, which adopted a resolution on the prevention of environmental degradation, pollution and threats to human health in the region caused by the emissions of TALCO.

In this regard, I have the honour to convey to your attention the background note on the cross-border pollution caused by TALCO (see annex).

I would highly appreciate it if the present letter and its annex could be circulated as a document of the sixty-seventh session of the General Assembly, under its agenda item 20.

(Signed) Dilyor **Khakimov**
Ambassador
Permanent Representative



Annex to the letter dated 20 May 2013 from the Permanent Representative of Uzbekistan to the United Nations addressed to the Secretary-General

[Original: Russian]

Background note on the cross-border impact of pollutant emissions from the State-owned enterprise Tajik Aluminium Company (Talco) on the population and the environment in the northern regions of the Surkhandarya province of Uzbekistan

The environmental situation in the region is currently extremely tense as a result of continuing cross-border pollution in the northern regions of the Surkhandarya province caused by industrial emissions from the State enterprise Tajik Aluminium Company (Talco) and the negative impact of those emissions on the environment, on agriculture and, in particular, on the health and the gene pool of the population.

Despite the fact that the current output of the enterprise, which came into commission in 1975, is currently only 50 to 55 per cent of its projected capacity of 517,000 tonnes per year, the environmental situation continues to deteriorate and is becoming critical.

Equipped with an ineffective and obsolete purification system, Talco emits around 22,000-23,000 tons of pollutants into the atmosphere annually, including more than 200 tons of hydrogen fluoride, which is extremely dangerous and harmful to both human health and the environment. For 18 or 19 hours per day, the wind transmits a significant share of these harmful emissions towards the regions of Sariosiyo, Uzun, Denov, Altyn-Say, Sho'rchi and Kumkurghon in Surkhandarya province, Uzbekistan, which has a population of more than 1.1 million.

An analysis of the changes during the past five years shows that the hydrogen fluoride content in the atmosphere in Sariosiyo region alone is 1.8 to 2.0 times higher than the maximum permissible concentration. In this regard, the highest level of hydrogen fluoride pollution is observed in the summer months and is 3.4 times higher than the maximum permissible concentration.

The consequences of the increased hydrogen fluoride content in the atmosphere include pollution of the soil and water resources, a reduction in crop yields and the productivity of livestock farming and, most importantly, the negative impact on the health and gene pool of the population.

The situation is exacerbated by the fact that mobile fluorine accumulates in soil and water from year to year. To date, the soil pollution caused by hydrogen fluoride has already affected an area with a radius of up to 150 km from the source of the pollution. In the Sariosiyo region the fluorine content in the arable layer of the soil exceeds the permitted norms by a factor of 4.5-20 within a five-kilometre radius; in the Uzun region, the maximum permissible concentration is exceeded by a factor of 2.3-16.6 within a 10-kilometre radius; and in the Kumkurghon and Zharkurgan regions, the soluble fluorine content is from 2.0 to 3.3 times the maximum permitted concentration within a radius of over 100 kilometres.

During the past few years, the fluorine content in the groundwater in some areas of the Sariosiyo region has also increased to 1.5 times the maximum permissible concentration and, at a distance of 26 kilometres from Talco, a high concentration of the soluble form of fluorine, up to 2.2-2.4 times the maximum permitted concentration, is regularly recorded. A cause of particular concern is the high fluorine concentration in the area where water-bearing horizons are formed.

A high content in emissions of fluorine and other toxic gases, including oxides of carbon, nitrogen and sulphur, hydrocarbons and other pollutants, leads to serious health problems for adults and children, including severe chronic diseases.

The population of the above regions of the Sukhandarya province, located in the area directly affected by the emissions from Talco, suffers from diseases of the endocrine and musculoskeletal systems, the upper respiratory tracts, congenital abnormalities and fluorosis, and oncological diseases. The toxic effects of high concentrations of fluorine compounds also contribute to the development of motor system pathologies.

The most negative impact is on the population's reproductive health. The toxic effects of high concentrations of fluoride compounds contribute to the development of motor system pathologies, including increased calcification of the hip joint, primarily in women, which leads to various complications during pregnancy. As a result, children are born with a range of traumatological pathologies.

Moreover, in women of child-bearing age the frequency of miscarriages and stillborn children is increasing on account of the emissions of harmful substances from aluminium production. During the past five years the number of stillborn children has increased by a factor of 7.7 in the Sariosiyo region, and by 2012 the number of stillborn children in the Denov, Sariosiyo and Uzun regions was 27.3 per cent higher than the figure for the whole of the Sukhandarya province.

In the Sariosiyo region, which has a population of 175,000, more than 42,000 have endocrine diseases, and in the Uzun region, with a population of 150,000, about 100,000 suffer from the various specific diseases referred to above.

On the whole, in the regions subject to the cross-border influence of Talco's activities, the morbidity among both the infant and adult populations, in terms of frequency of pathological disorders, is three times higher than the average for the Sukhandarya province.

Significant damage has been caused to agriculture and the regional economy. The production of silk — which is traditional in the region — has virtually dried up, gardens are perishing and agricultural productivity is declining. In the Sariosiyo, Uzun and Denov regions, vegetable crop yields have decreased by 27 to 46 per cent, melon and pumpkin yields by up to 24.4 per cent and vineyard production by 37.8 per cent.

The discovery of a high concentration of fluorides in vegetables and fruit is of particular concern, with levels from 11 to 19 times the maximum permissible concentration and in wheat — five to 6.5 times the maximum permissible concentration. The consumption by animals of plants with a high fluoride content leads to significant physiological changes in their organisms: disturbance of the calcium and iodine balance, the loosening and falling-out of teeth, deformation of

tubular bones and joint lesions, giving rise to fluorosis, osteodystrophy, osteoporosis, osteomalacia, and a high level of susceptibility to rickets and other diseases.

The presence of a high fluoride content in fodders and biomaterials leads to serious abnormalities in animal organisms, which in practice leads to offspring that are not fully developed, a reduction in lifespan, early culling of animals and the birth of dead foetuses. As a result, the total number of cattle, goats and sheep has fallen sharply, milk yields have declined and the quality of milk has deteriorated.

The average unit weight of cattle in these regions is 15 to 20 kilograms less than in other regions of the province. Furthermore, research has shown that the fluorine level in milk is 9 to 13 times higher than the maximum permissible concentration, and in meat it exceeds the permissible level by 10.9 per cent.

The overall economic harm caused by the State-owned enterprise Talco has amounted to hundreds of millions of dollars in the past five years alone. The assessment of economic damage has only considered direct damage, as all the losses inflicted on nature and human health cannot be quantified. There are no financial indicators that can assess the sufferings of the population living in the area affected by Talco.

Talco's activities also violate the provisions of a number of international human rights instruments and, in this regard, Tajikistan does not take into account the objective negative reaction of the international community, or of international and a number of non-governmental environmental organizations.

Concerned by the increasingly negative impact of Talco on the environment and on the health of the population in the northern regions of the Surkhandarya province of Uzbekistan, the inhabitants of that province sent an appeal to the United Nations General Assembly, the United Nations Environment Programme and the World Health Organization (WHO), signed by more than 757,000 people. The appeal contains a plea to the world community to turn its attention to the disastrous situation in the region, take measures to close down the enterprise and conduct a thorough environmental inspection of production with the assistance of authoritative international specialists, and require Talco to provide full compensation for the damage caused to the health of the population and to the environment during the 10 years of that enterprise's operation.

The situation is exacerbated by the fact that, at a time when many countries in the world are increasingly decisive in their rejection of "unclean" technologies, the Government of Tajikistan is not taking any practical steps to upgrade production and purification facilities, while the area affected by the environmental pollution caused by Talco is covering more and more territory in the Surkhandarya province in Uzbekistan and in the south of Tajikistan, a process which will have very serious and unpredictable consequences for the health and lives of citizens of both Uzbekistan and Tajikistan.

The failure to take urgent measures to improve the environmental situation will lead to irreversible consequences for the environment and a sharp decline in the living conditions of millions of people living in the area suffering the negative impact of Talco.