

(42 %), as is the case in countries with similar economic structure. Minor contributions come from waste and industry. Net emissions from LULUCF were negative mainly because of forest regrowth. The forest sector therefore constitutes a net carbon sink reducing net GHG emissions by 4 %. GHG emissions from the energy sector mostly concentrate in the transport and energy industries, together constituting about 63% of the sector emissions. The rest of industries accounts for 14 %, and household, commercial, and public consider for 24 %.

Between 1990 and 2005, Argentina's GHG emissions grew about 40 % (39 % excluding LULUCF sector and 43 % including LULUCF). As of 2005, per capita GHG emissions were 8.2 tons CO₂ eq.,⁷⁹ over the world average of about 7.5 tons CO₂ eq., but well below the average for OECD countries of 15 tons CO₂ eq. The waste sector showed the highest growth, 497 %, due to the increase in waste, but more importantly because of the trend to its burial disposal in landfills and better accounting. The industry sector, which only includes process emissions and not the energy used, had also an important increase of 135 %, while agriculture had the smallest sectoral increase of only 15 %. If total GHG emissions estimates include LULUCF, the emissions intensity ratio (GHG emissions/GDP) of Argentina declined in the period between 1990 and 2005, falling by about 5 % from 1.16 million tons CO₂ eq./M USD in 1990 to 1.10 million tons CO₂ eq./M USD in 2005.

For the present, as well as for the near future, although many aspects should be considered, three main issues appear to require special attention. The first and more urgent need is public adaptation to heat waves and extreme precipitation events and their associated floods and destructive winds. Reducing damages and casualties from such events requires enhancing early warning systems, both in equipment and personnel. Improving contingency planning is also called for, as well as modifying building designs of new infrastructure when needed. It is also necessary to raise the public awareness and understanding of these impacts of such events, as well as the manner to avoid their impending damages.

THE ECOLOGICAL PROBLEMS OF KAZAKHSTAN

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One of the important domestic policy directions in a sovereign Kazakhstan is the attempts to solve regional environmental problems of the republic. The fact is that the development of the productive forces of Central Kazakhstan fully corresponded to the general trends of the economic development of the Republic of Kazakhstan, which is characterized by a long-term movement without taking into account the environmental characteristics of the region with increasing strain in industry proportions and socio-economic structure. All this led to a serious aggravation of the

ecological situation not only in industrial centers, but also in the entire region as a whole.

One of the most important ecological problems in Kazakhstan is the problem of Aral Sea disappearance.

The Aral Sea was, until 1960, one of the largest closed water reservoirs in the world with an area of 68.9 thousand km² and a volume of 1083 km³ water at a maximum depth of up to 68m. Due to the flow of the Syrdarya and Amudarya rivers, the Aral Sea received an average of 50-55 km³ of water annually.

The sea served as a climate-regulating factor and mitigated the sharp fluctuations of weather throughout the region which favorably influenced the living conditions of the population as well as the agricultural production and the ecological situation.

In general, the biological productivity of the Aral Sea region decreased ten times as a result of anthropogenic desertification. The decrease in water inflow to the Aral Sea led to irreversible changes in the hydrological and hydrochemical regimes of the sea and its ecosystems. The fishing and transportation value of the sea has been completely lost. As a result, industries such as fish processing and ship construction are not functioning any more. In addition, the reduction of pastures, the decrease in land productivity and the reduction of riparian vegetation in the area as well as the drying up of the leftover lakes in recent years caused the loss of more than 100 thousand jobs in traditional industries and a significant reduction in incomes.

As a result of the degradation of the gene pool of the plant and animal world, dozens of plant species disappeared from the local flora. In the southern Aral Sea region, many small lakes have also become shallow and dry. This, in turn, led to the disappearance of almost 90% of the existing riparian vegetation, massifs of reed beds on an area of 800 thousand hectares, and, with them, their inhabitants.

An extremely difficult situation has arisen with the saiga population, which is on the verge of complete extinction. Over the past 30 years, 11 species of fish, 12 species of mammals, 26 species of birds and 11 species of plants have been listed in the Red Book of Kazakhstan. With a decrease in lake areas, traditional bird migration routes were also disturbed.

More than half of the population of the Aral Sea region, especially residents of rural areas, have to use insufficiently purified and highly mineralized water which in most cases does not meet the sanitary and hygienic standards for chemical and microbiological indicators. The pollution of water and the large amount of dust and salt removed from the bottom of the dried-out Aral Sea play a decisive role in increasing morbidity as well as mortality rates among the population. Children are especially affected by strong adverse effects which is a particular danger to the gene pool of the population of the Aral Sea region.