

I.1 INTRODUCTION

There are many explanations for the expression and definition of “Desertification” in world literature. Some scientists involved in the desertification process give priority to ***plant covering*** (grass degradation, induction of biomass sand etc.), others to the ***soil*** (solicitation, swampy soil, erosion and etc.), and still others to the ***aqua environment*** (pollution, solicitation and etc.). The various perspectives held about desertification as well as the generalization of this process can be cumulatively combined to form the following conclusion: ***Desertification is the disturbance of arid and sub arid ecosystems, the induction of natural-ecological potential of soil, the appearance of tight ecological situation that prevents the development of all the types of organic life leading as a result to the migration and poverty beginning. GABA is following in its activities the above mentioned definition.*** Up to 100 countries are currently being subjected to desertification; the negative influence is being felt by over 900 million people with 10 million being ecological refugees migrating from desertified territories. Azerbaijan is no exception; sixty percent of Azerbaijan consists of arid and sub-arid foothill plains which has and is now being greatly affected by the desertification process. The International community recognized that the desertification is a significant ecological, social and economical problem for many parts of the world. A conference took place in Rio-de-Janeiro, Brazil in 1992, which expressed support for new complex approaches to address this problem and underlined the need on taking immediate measures to support sustainable development in local communities. As a result, an application was submitted to the General Assembly of UNO for the creation of an intergovernmental committee for the preparation of a Convention concerning the struggle against desertification. The General Assembly agreed to this request in December 1992, with the approval of resolution 47/188. “The Convention of the United Nations Organization on Struggle Against Desertification in the Countries that are Subjected to Drying or Desertification Especially in Africa” was convened with negotiations starting on June 17, 1994 in Paris, France. This day is now recognized as the “International Day Against Desertification”.

I.2 MAIN FACTORS OF DESERTIFICATION DEVELOPMENT IN AZERBAIJAN.

The territory of Azerbaijan Republic is situated in the eastern part of the South Caucasus and borders: Dagestan Autonomous Republic; Georgia; Armenia; Turkey; Iran and by the Caspian Sea in the East. The territory is 8641, 7 thousand ha. The topography of Azerbaijan can vary from region to region with 60% of land area being considered as mountainous. Main topographical features consist of the large, flat Kura-Aras Lowland surrounded on three sides by mountains. The Great Caucasus Mountains are located to the north, the Lesser Caucasus Mountains are to the southwest, and the Talish

Mountains are in the south near the Iran border. Azerbaijan is also rich in climate diversity containing 8 out of 11 main climatic zones. Sixty percent of Azerbaijan is considered to be arid and sub-arid mainly in the foothill plain regions. For these regions, the climate possess the majority of sun hours (2200 – 2500 hour/day), highest solar radiation (124 – 160 k.calorie/sm² /year), minority of annual rainfall (200 – 400 mm/year), and the largest number of dry days (60 -80 days/year). There are many ecological changes underway in the territory. The drying process of rivers has been increasing noting a reduction over the last few years in water levels 1.5 times below the seasonal high water mark occurring in spring. Also, during the last one and half years, mountainous woodlands have been reduced by a factor ranging between 3 to 5, while in the foothill and plain regions, woodlands have been reduced by a factor of 13. This woodland reduction has adverse effects in Big and Small Caucasus territories by contributing to soil loss resulting in exposing only a rock surface. Research using data from Landsat and Resurs satellites was conducted in 2002 for the Eastern part of Azerbaijan. Use of satellite imagery created the opportunity to quantify the desertification level, intensity and classification. Analyses show that 50% of the territory being researched is subjected to desertification and the plant degradation in the mentioned territories is above 50%.