## Introduction

Climate, topography, hydrological regime, and vegetation cover are some of the most important natural conditions needed for the development of living organisms on Earth. Soil, in addition to these conditions, is important.

Soil plays an especially important role in crop production. It serves as a station for plants, supplying them with water and nutrients. Crop production provides food for humans and raw materials for industry. Soil provides 98% of the world population's food needs, while the World Ocean and seas provide only 2%.

The more complex and diverse the geographical environment is, the more difficult and complex it is to study the soil, improve its properties and carry out a set of measures that need to be taken to efficiently develop a specific area and improve soil fertility. With diversified landscape conditions, it is very difficult to carry out various activities to improve soil properties. In order to efficiently grow agricultural crops, along with the soil, it is necessary to study the hydrothermal regime and terrain properties. Along with soil, the hydrothermal and terrain conditions are the basis of crop development. In order to improve soil properties and increase crop yield, some regions take such measures as irrigation, drying, improvement of tillage procedures, making terraces, application of organic and mineral fertilizers and other measures by considering the local conditions.

As for the measures, it is very important to study the conditions of soil formation, as well as soil composition, distribution patterns and agro-productive properties.