



UNITED NATIONS
UNIVERSITY

UNU-LRT

Land Restoration Training Programme
Keldnaholt, 112 Reykjavik, Iceland

Final project 2018

USE OF COMPOST AS A SUSTAINABLE WAY TO RESTORE SOIL FERTILITY IN UZBEKISTAN

A literature review for preparing recommendations for land users

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ABSTRACT

The negative impact of people’s activities on the soil, such as deforestation and overuse of land for agriculture, leads to soil erosion and reduces soil fertility manifested through loss of organic matter, soil biota and nutrients. The restoration of degraded agricultural soil can be accomplished through management practices that minimize soil erosion, increase soil organic matter, improve soil structure, and enhance soil biota. For improving and increasing soil organic matter, I am proposing the use of compost and vermicompost. I analysed the availability of raw materials in Uzbekistan and explored opportunities of using compost and vermicompost to restore soil fertility in degraded soils. In this report, I analysed the composting process, specifically on how to manage the process in order to get high-quality compost. One important measure of compost quality is the stability of the product after composting. Stability is reached during maturity, which is important for the compost agricultural quality. Another important factor is to select suitable raw materials, to control the degradation rate and preservation of nitrogen (N). In addition, I paid attention to the importance of using organic amendments. Furthermore, I went through the scientific work on the effect of organic corrections on soil properties and plants growth. Compost is an ideal way of recycling and returning organic matter and nutrients to the soil, and could effectively be practiced at the household level, at farms or by municipalities.