

# EROSION CONTROL ON TOPSOIL

TANAP NATURAL GAS PIPELINE,  
COMPRESSOR AND METERING STATIONS  
CONSTRUCTION, TURKEY



**TEKFEN CONSTRUCTION**

# INTRODUCTION

Topsoil is the most fertile and the most valuable portion of soil as it contains all the nutrients that plants need to survive. It requires around 500 years under natural conditions to produce an inch of topsoil. Therefore to prevent and/or minimize the erosion on topsoil is vital for a sustainable future.

Prior to construction activities on pipeline, compressor and metering stations, topsoil needs to be stripped and stored to reinstate after completion of the works.

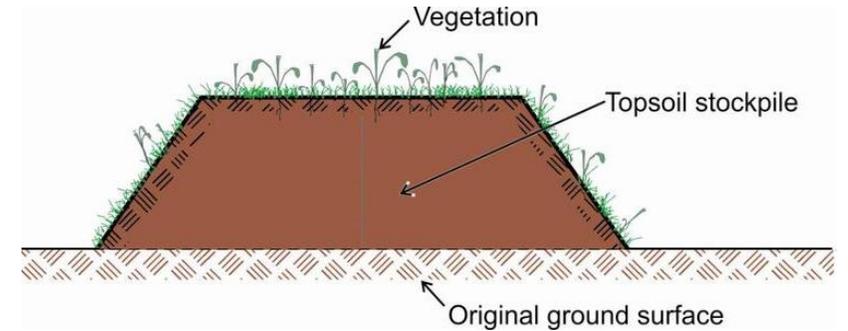
In the period of Project duration, precautions need to be taken to prevent the erosion of the stored topsoil. The topsoil deposition technique is important to minimize dust formation and soil loss as well as keeping the stability of stockpiles.



# INTRODUCTION

Project specifications describe the precautions such as covering by tarpaulin, compacting, etc. But our previous experiences show that none of them give sufficient effect to prevent the erosion as required.

TEKFEN Project Environmental Team developed a method to minimize the erosion on topsoil by formation of vegetative cover. Seeding was applied on a small portion of the stored topsoil and positive effects and the efficiency of the method to prevent the erosion was observed.



Then TEKFEN management obtained the approval of the Client to implement this methodology and funded the implementation. The most appropriate seeds, compliant with the existing ecological structure of the soil, were procured and necessary manpower for seeding implementation on stockpiles were assigned.



# SEEDING

The topsoil (uppermost fertile soil layer) of the affected areas was stripped up to 30 cm depth for proper storage and reuse after the completion of construction.

The stripped top soil was transported to appropriate locations and topsoil stockpiles were formed and necessary compactions were made.

Appropriate seeding was made to form a vegetative layer over the stockpiles to minimize soil loss and erosion.

Type of the seeds were selected after consultations with experts and relevant parties in order to find the most suitable vegetation to the existing ecological structure of the construction location.



# RESULT

In a short period, the topsoil stockpiles were covered with vegetation that provided a strong layer to prevent the erosion.

