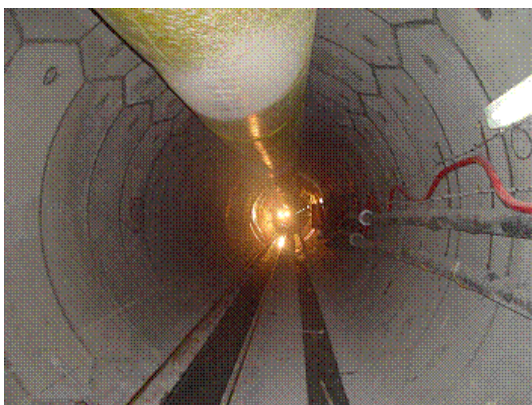


1-Dez river to Qomroud river conveyance tunnel,was completed in 2013

The aim of the water conveyance tunnel of Dez river to Qomroud river is to transfer water from Dez river to the central parts of Iran. The Dez to Qomroud water conveyance project consists of three main parts including conveying tunnels with a total length of 49.1 km, ponds and 6 diversion weirs, the Kouchari dam, and about 107 km of water pipeline. The tunnels are divided into 7 sections of which 5 with a total length of 45 km are excavated fully mechanized and 2 sections with a length of 4 km are excavated using conventional methods.

**2-The longest Urban Tunnel in Iran (Niayesh Tunnel) has been completed in 2013 in Tehran.**

The Niayesh tunnel is constructed in heavy urban area in Tehran, Iran by using SEM (NATM) method. A plan of Niayesh road tunnel project is presented in Figure 1. At Table 1, general characteristics of Niayesh tunnel project have been presented. This project is the biggest tunneling project in urban area in the Middle East for its length, big cross sections. This tunnel project connects Niayesh and Kurdistan highways in west to Sadr highway in east of Tehran.

Table 1: general characteristics of Niayesh tunnel project

Niayesh road tunnel project	Total length of excavations: 10,108 m	
	Main north tunnel	Main south tunnel
Length	3256 m	3045 m
Average Daily Traffic (AADT)	42,000	52,500
Design speed	80 km/h	80 km/h
Overburden	Max: 40 m Min: 4.5 m	Max: 38 m Min: 6 m
Length of access tunnels	2095 m	



The third Koohrang tunnel with the length of 23.4 km has opened at the end of 2013 after about 20 years. This tunnel, about 250 million sqm of water is transferred from Koohrang River to the water reservoir of Zayandeh Rood Dam

"From technical and engineering view, this tunnel is one of the most important and complex tunnels of the world». The methods that have been used for excavation and stabilization of the tunnel are rare and innovative on which international experts have emphasized. The pressure of water in some part of tunnel was more than 30 atmospheres and executive team has worked at the depth of 1400 meters.

