Initial situation

Qatar is a country with a rapidly growing economy and consequently with a fast development of population, employment and as a result also of transport demand. The challenge for the TMPQ project consisted in analysing the historically grown transport system and to redesign it to accommodate future transport needs, to enable Qatar’s development and to reduce negative impacts. The time horizon was the Master Plan was 2006 – 2026.

Main tasks

Data collection and analysis: collection of traffic and structural data, traffic counts, household surveys, roadside interviews, analysis of data and development of an integrated database


Transport modelling: Development of an integrated transport demand model and of microscopic simulation models for short term solutions of traffic problems

Transport Implementation plans: Implementation of proposed measures and networks in 5 year steps.

Methodology

The Core of the project approach was the development of an integrated transport model, using VISEM, (VISEVA-W for freight) and VISUM and being activity based for the analysis and for the forecast of transport conditions over 20 years. Data was collected for the model, plans, recommendations and guidelines were developed for different parts of the
transport system, scenarios were developed for the future development and were tested and analysed with the transport model.

The model was used for the required transport planning tasks, e.g. the development of the road network (see figure above), the development of public transport network and services, the development of bicycle networks etc.

**Results**

More than 60 deliverables consisting of:

- Recommendations and Guidelines: e.g. Traffic Impact Studies, pedestrian facilities, parking facilities
- Development of strategies and policies, e.g. safety strategy, ITS implementation strategy, parking policy, TDM etc.
- Development of the Road Network Hierarchy and the future road network
- Development of a World Class public transport system
- Integrated Transport Model VISEM/VISUM with documentation, manuals, training material etc.
- Short Term Solutions for selected problems using Microscopic Simulation with VISSIM
- Description of transport implementation plans for 5 year steps