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Construction of an information infrastructure for
a transportation-advanced country in the 21st century

National Transportation Demand Investigation and Database Establishment

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KOREA TRANSPORT DATABASE

Establishment of a Comprehensive Transportation Information Infrastructure

National
Transportation
Database
Overview of the
Establishment

>>> What is the National Transportation Database?

The National Transportation Database is a system that comprehensively analyzes and manages basic statistics and survey results so as to help formulate national policies and plans. It includes databases on operational status of transportation modes as well as facilities such as roads, railways, airports, ports and logistics facilities, traffic volumes of origin/destination pairs, traffic characteristics, transportation networks and so forth.

>>> Necessity of the National Transportation Database

Securing reliability of basic transportation data

Accumulates reliable national transportation data through regular surveys

Raising the efficiency of transportation-related investment

Helps to determine feasibility and priority of transportation-related investment through analysis of authorized transportation data

Building up infrastructure on national transportation information

Can obtain analysis and management of nationwide transportation data



>>> Objectives of the National Transportation Database establishment project

- To efficiently establish and execute national transportation policies such as the National Basic Transportation Network Plan and the Mid-term Investment Plan for Transportation Facilities by building up and providing transportation data.
- To establish a system that comprehensively investigates and analyzes national transportation data and statistics.
- To secure the reliability of various investments in transportation facilities through cooperative use of standardized and consistent time-series transportation data.

>>> Legal basis of the National Transportation Database establishment project

- The Transportation System Efficiency Act, enacted in February 1999, to improve national competitiveness by establishing efficient transportation systems among roads, railways, airports and port facilities
- Center for Korea Transport Database founded in 1999
- National Transportation Survey Guidelines, enacted in 2003 and revised in 2006

>>> Current Status of the National Transportation DB Establishment

Category	Database	Description	Coverage
Transportation Statistics	Statistics DB, Documents DB	Socioeconomic index Basic statistics by mode/ facility	307 items Over 16,000 items
Transportation Research/Analysis	Passenger/Freight traffic DB, Logistics traffic DB, Trip generation rates DB, Traffic volume DB	Establishment of Passenger O/D, Freight O/D, Logistics status information, Trip generation rates, Traffic characteristics, Traffic volume	Whole country/metropolitan area/Small cities
Transportation Digital Map	Transportation Digital Map DB	NGIS based transportation facilities including roads and railways, General facilities	National roadway network
Transportation Analysis Network	Transportation network DB	Available to utilize such packages as Emme/2, TransCAD, Transplan, etc.	Whole country/Metropolitan area/Local wide area

>>> Application of the National Transportation DB

- To use as basic and necessary data for the effective establishment and implementation of transportation-related policies and plans of central as well as local governments.
- To use as source data in transportation-related study of academia, industry, and research institutes.
- To provide its GIS-T information and statistics data to the general public through various media, including the Internet.

>>> Predicted Effect

- Saving cost and effort in transportation-related research by using one-stop-service of analyzed data from National Transportation Database (Prevention of survey overlapping, reduction of data gathering and analysis time.)
- Reasonable adjustment, assessment on allocating financial investment, and investment priority
- Establishment of various transportation / logistics information infrastructures through GIS-based traffic data



Korea Transport Database , the center of integrated transportation database of Korea

>>> Mission

- Establishing and providing integrated and standardized national transportation database to support transportation-related policies and plans

>>> Basis of the foundation

- The 「Traffic System Efficiency Act」 prescribes execution of national traffic surveys and a foundation of a National Transportation Database that manages integrated transportation data, including both a national transportation database and local governments-conducted traffic surveys.
- According to this act, the Korea Transport Database Center was set up in the Korea Transport Institute, and was entrusted to such works as traffic surveys and analysis, transportation database building, and data providing services by the Ministry of Land, Transport and Maritime Affairs (MLTM), to establish an integrated transportation database and data provision service.

>>> Research Activities

• Surveys of basic transportation data

Traffic statistics/documents, and traffic facilities
Passenger/freight O/D traffic, and trip generation rates
National traffic cost, and transportation industry service index

• Analysis of Survey Results

Examining and providing data on traffic volume of both national/metropolitan area passenger and freight O/D
Analysis of traffic status of passenger/freight (by mode & by purpose) and trip generation rates
Survey/analysis of the maritime transportation
Analysis of traffic volume and traffic characteristics between specific areas during special consecutive holidays
Raising reliability of transportation DB by utilizing state-of-the-art survey method

• Establishing a Transportation Digital Map and Management/Operation of the DB System

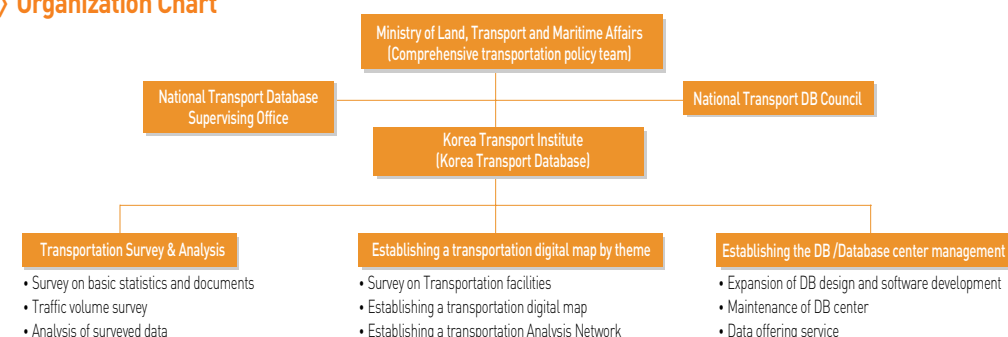
Transportation Digital Map and Transportation analysis network
DB on survey/analysis results data and Transportation Digital Map

• Management of the National Transportation DB

Efficient data management system
Setting up and operating National Transport DB Council
Efficient management of each surveyed data



>>> Organization Chart



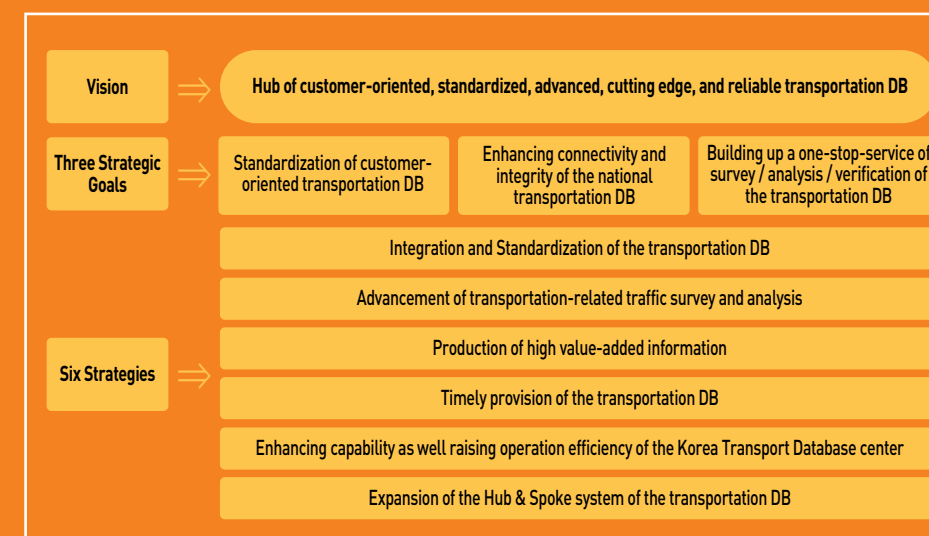
>>> Main Accomplishments

- 5th year of part II (May, 07 - April, 08) Expansion of O/D in metropolitan area
- 4th year of part II (April, 06 - April, 07) Survey on national passenger / freight status by metropolitan area
- 3rd year of part II (April, 05 - April, 06) Survey on nationwide passenger / freight traffic volume by O/D between regions
- 2nd year of part II (April, 04 - April, 05) Survey on transportation facilities and preliminary survey on O/D
- 1st year of part II (March, 03 - March, 04) Updating National passenger / freight traffic volume between regions
- 5th year of part I (March, 02 - March, 03) Survey on transportation facilities
- 4th year of part I (March, 01 - March, 02) Survey on national land / marine transportation
- 3rd year of part I (March, 00 - March, 01) Survey on traffic in the Seoul metropolitan area
- 2nd year of part I (April, 99 - March, 00) Survey on traffic in five metropolitan areas
- 1st year of part I (September, 98 - March, 00) National traffic volume survey (Public labor project)

The Future of
National
Transportation
DB

‘The advancement of Transportation’
Dreaming Transtopia in the 21st century...
National Transportation DB

>>> Vision of the National Transportation DB



>>> Completion of Data warehouse for the National Transportation DB

