

GUIDE LINES FOR DEVELOPING COUNTRIES TO BUILD A SUSTAINABLE FREIGHT TRANSPORT SYSTEM

B. MANDUUL



INTERMODAL TRANSPORT

- **LAND**
 - ROAD
 - RAIL
- **WATER**
 - SEA
 - RIVER
- **AIR**
- **PIPE LINES** (OIL AND GAS)

INTERNATIONAL MULTI MODAL TRANSPORT

COUNTRY	ROAD	RAIL	SEA	PIPELINES
CIS	√	√	√	√
CHINA	√	√	√	
MONGOLIA	√	√		
LATIN AMERICA	√		√	
SOUTH ASIA	√	√	√	
ASIA PACIFIC	√		√	

INTERMODAL SHARE

COUNTRIES	ROAD	RAIL	SEA	PIPELINE
RUSSIA		74 %		Oil and gas
Other CIS	80%			
CHINA		55 %		
MONGOLIA	90%			
LATIN AMERICA	60-90 %		10-40%	
SOUTH ASIA	70%	25%	5%	Oil and gas
ASIA PACIFIC	90%			

MULTI MODAL TRANSPORT



PROPOSED ASIAN HIGHWAY ROUTE MAP



Legend	
—	Asian Highway Routes
—	Potential Asian Highway Routes
—	Ferry Link
○	Canals

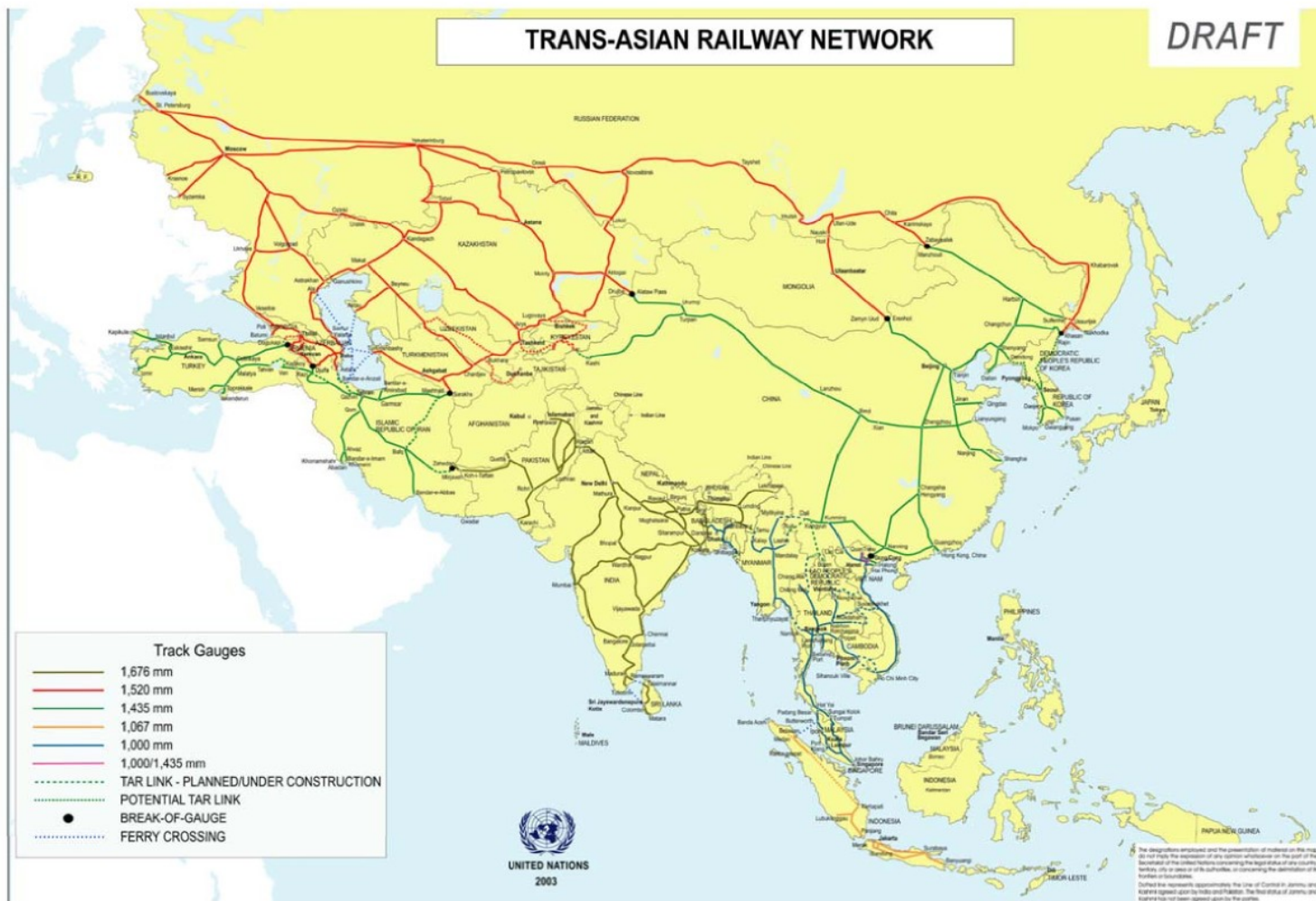


UNITED NATIONS
2002

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Dotted lines represent approximately the Line of Control in Jammu and Kashmir specified under the 1949 Ceasefire Agreement. The first national names and boundaries are indicated around the perimeter of the map.

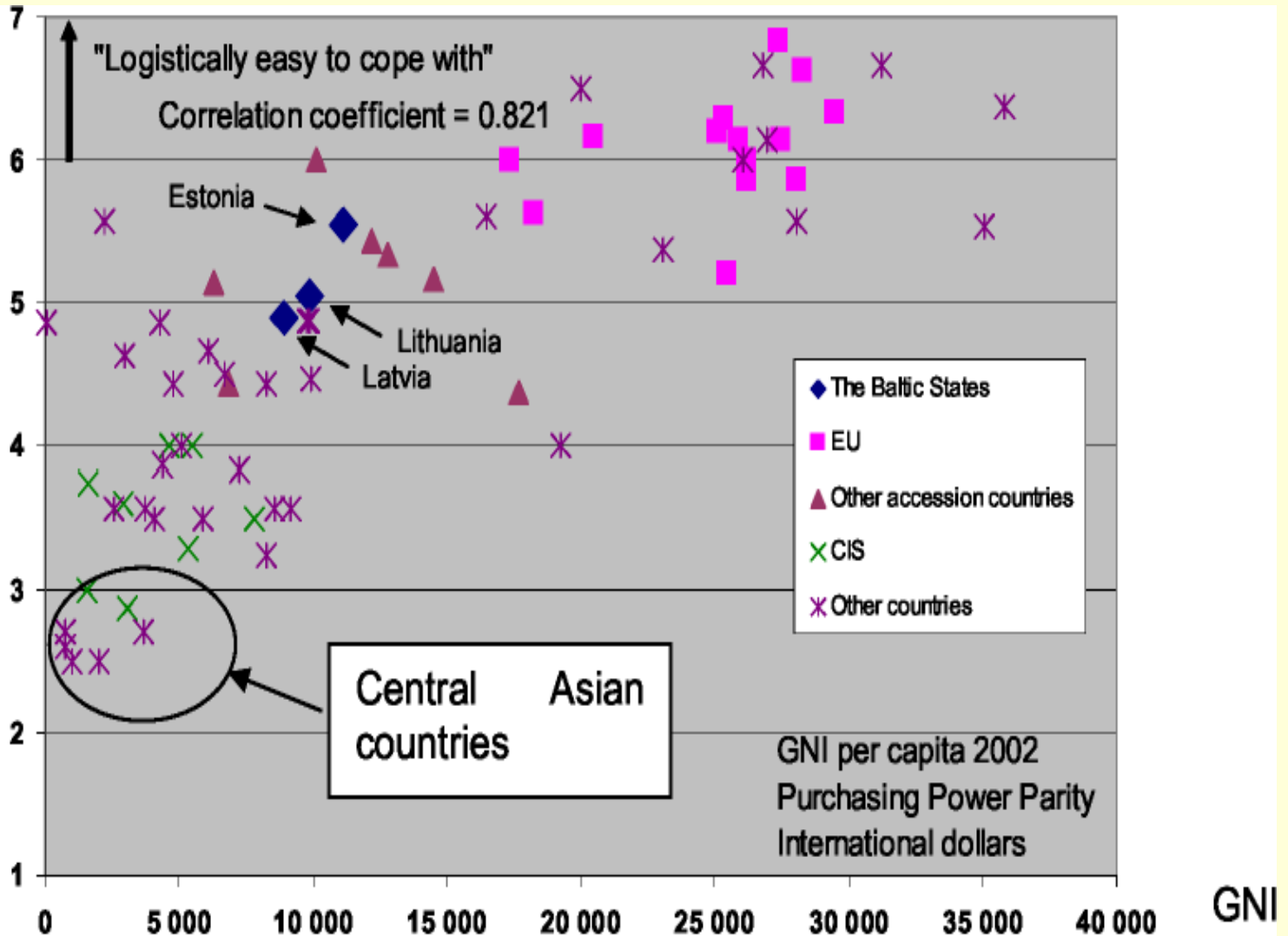
5.1.2 Trans-Asian Rail Network



LOGISTICS FREINDLINESS

(FROM ADB 2005 STUDY)

Rank



TRANSPORT DEVELOPMENT POLICIES

- LAND USE AND SOCIAL DEVELOPEMNT



CONGESTION FREE ROAD



SAFETY



- DEVELOPMENT PLAN
- ASSESSMENT OF ECONOMIC BENEFITS
- PREVALENCE OF MULTI PUBLIC AUTHORITIES
- DECENTRALISATION
- NATIONAL CONSULTATION

ENVIRONMENTAL PROTECTION



ENVIRONMENTAL PROTECTION



- **BLENDING WITH THE NATURAL ENVIRONMENT**



- PRIORITISATION OF PROJECTS
- RESOURCE MANAGEMENT AND WASTE UTILISATION
- SUSTAINABLE ENERGY SOURCES
- INTELLIGENT TRANSPORT SYSTEM
- INTERMODAL COMPATIBILITY
- DESIGN AND PLANNING TEAM
- SUPPORTING SECONDARY SERVICES

INTERNATIONAL BORDER CROSSING

- **CONSENSUS ON MULTILATERAL AGREEMENT**
- **VEHICLE EMISSION REQUIREMENTS**
 - **EURO – 2 / GOST**

AXLE LOAD AND VEHICLE DIMENSION



- **TARIFFS**
 - **ROAD USER CHARGES**
 - **TRANSIT FEE**
- **TRAFFIC SAFETY**
- **PROVISION OF
TRANSPORT SERVICES**

CONCLUSIONS AND RECOMMENDATIONS

- **COMPLEMENTARY AND VIABLE
MULTIMODAL TRANSPORT SYSTEM**
- **PROJECT FORMULATION AND
IMPLEMENTATION BY INTERNATIONAL
EXPERT GROUP**
- **INTERNATIONAL CONVENTIONS**
- **REGULAR ASSESSMENT OF IMPACT OF
TRANSPORT GROWTH BY AN
INDEPENDENT AGENCY**

- **CO-OPERATE AND INTERACT WITH SPECIAL TASK FORCE CONSTITUTED BY THE INTERNATIONAL FUNDING AGENCIES**

THANK YOU

