

Uniting Eurasia by Rail

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What?

• Create unified transportation across all of Eurasia

Open the untapped potential of Central Asia

Extend the discipline of Comparative
 Advantage to a world with a population in excess of Four billion

How?

Using modern railway technology

 Using the political leadership of the Shanghai Cooperation Organization

Gradually

Why?

Replaces conflict with cooperation

 Creates opportunity for marginalized populations of Arabia and Central Asia

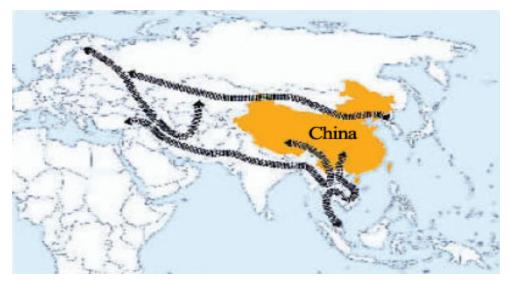
 Expands markets and opportunities for everyone in Eurasia

China Leads the way

China has the example of the Silk Roads

- Through Central Asia
- To Delhi
- To the south

- Their <u>vision</u>



Picture: Sketches of Trans-Asia Railway (TAR) network

Source: from People Daily Newspaper, China

On November 10, 2006, the UN announced the signing of a transportation agreement by 18 transport ministers in connection with the Trans-Asia Railway Network (TAR) in Pusan, South Korea, which started off the UN project to connect the Far East to Western Europe by a rail link.

TAR is often compared to the ancient Silk Road, the old trade route from China to Europe that connected the farthest corners of the known world for centuries. The initial plan started In 1960 envisioned a continuous 4,000-kilometer rail link between Singapore and Turkey, via Southeast Asia, India, Pakistan, and Iran. But with rapid economic growth and increasing interdependence, the TAR has grown exponentially. Today, it encompasses a complex network of nearly 81,000 kilometers spread over four major geographical regions.

| | Trans-Asian Railway Routes | |
|--|--|-----------|
| South-East Asia | Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Viet Nam | 12,600 km |
| North-East Asia | China, Democratic People's Republic of Korea, Mongolia, Republic of Korea, Russian Federation | 32,500 km |
| Central Asia and Caucasus | Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan | 13,200 km |
| South Asia, plus Islamic Republic of Iran and Turkey | Bangladesh, India, Islamic Republic of Iran, Nepal, Pakistan, Sri Lanka, Turkey | 22,600 km |
| Total: | | 80,900 km |

Source: www.unescap.org

Benefits of Trans-Asia Railway (TAR) - Improving Access To Landlocked Countries

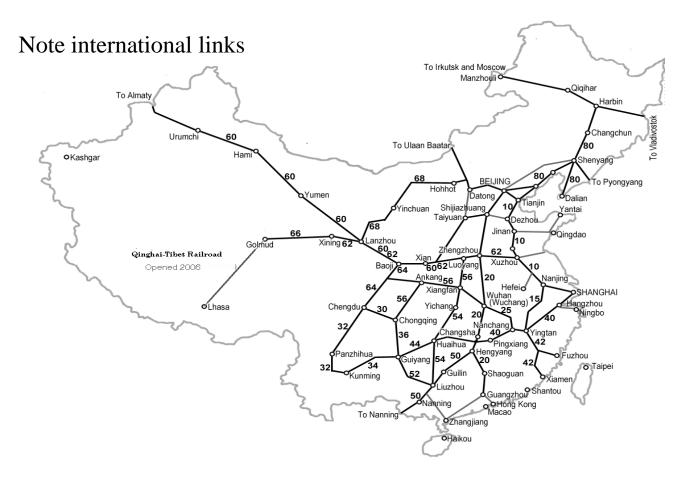
The landlock country's access to world markets is heavily dependent on efficient rail links to international ports. Twelve of the world's 30 landlocked countries are in Asia, and 10 of those are TAR members. UNESCAP experts believe that port efficiency can be enhanced through the integration of rail and shipping to avoid port congestion. That is a key factor in Asia, which is home to 13 of the world's 20 largest container ports.

Some of the Hurdles:

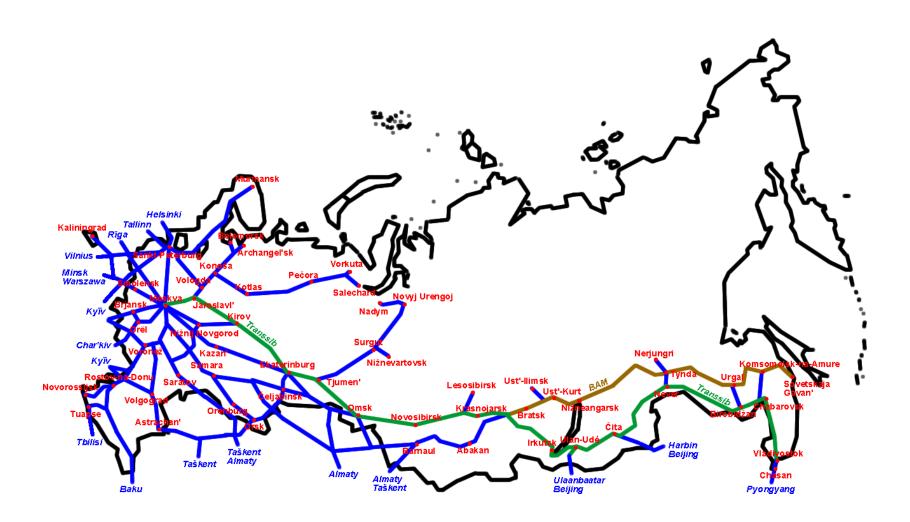
Even though significant obstacles remain to complete the TAR Project, including technical impediments and funding for nearly 6,500 kilometers of railroad, some progress has been achieved as Business-in-asia.com has followed up on the project.

One of the technical hurdles confronting TAR is the different rail widths, or gauges. Rail systems in the former Soviet Union, for instance, use a wider gauge than those in China. The system in India, on the other hand, differs from them both. Kim says the problem will be overcome with the help of containers, which are already widely in use worldwide.

Chinese National Rail System



Russian National Railways



Other Cooperating Efforts

- Russia
 - North-South Rail Corridor development
 - Many projects under way
- Iran-Kazakhstan-Turkmenistan
 - Line connecting Iranian national railway to Kazakhstan
- Iran-India
 - Link from central Iran to the sea; part of the North-South Rail corridor
 - Joint project with India

Economics

- Time saving
 - Trains travel much faster than ships
 - Distances are cut by 1/3 to Europe
 - Creates new links to landlocked places

Beijing to Paris by train: 8,000 miles @ 100 m.p.h. Beijing to Paris by ship (via Suez): 12,000 miles at 25 m.p.h.

80 hours vs 480 hours

Railroad Economics: Freight

- Don't need high speed
- The choke point for rail freight is not speed
 - Time lost in freight yards

Ex.: a train from Chicago to Philadelphia spends twelve hours on the road and two to three weeks in yards.

How can this be changed?

- Containerization
 - To take a car from one train to another now we have to move the car
 - With container yards we just move the cargo

- Remote Control Units i.e. individual trains carry no personnel.
 - Remotely controlled
 - Lowers minimum, efficient size
 - Less mixing of destinations

Passenger

- Also interesting
- High Speed is critical
 - Competes against airlines
 - Paris to Beijing is 36 hours, at 250 m.p.h.
- Must have its own rail network
 - Cannot mix passenger and freight

Conclusion

The East-West division of Eurasia is about to end

Russia is the single greatest beneficiary

- Geostrategic implications:
 - There is an old thesis that pits the sea powers against the land powers

So, What About Us?

• We need to renew our national rail network

- Again, freight is the issue.
 - Passenger also has potential
 - Needs a completely independent system
 - Why not Maglev or Monorail?
- I think we would need to nationalize all rights of way.

How can you participate?

- Not easy
- Equipment makers
 - German
 - French
- Cell phone technology
 - Asian markets