



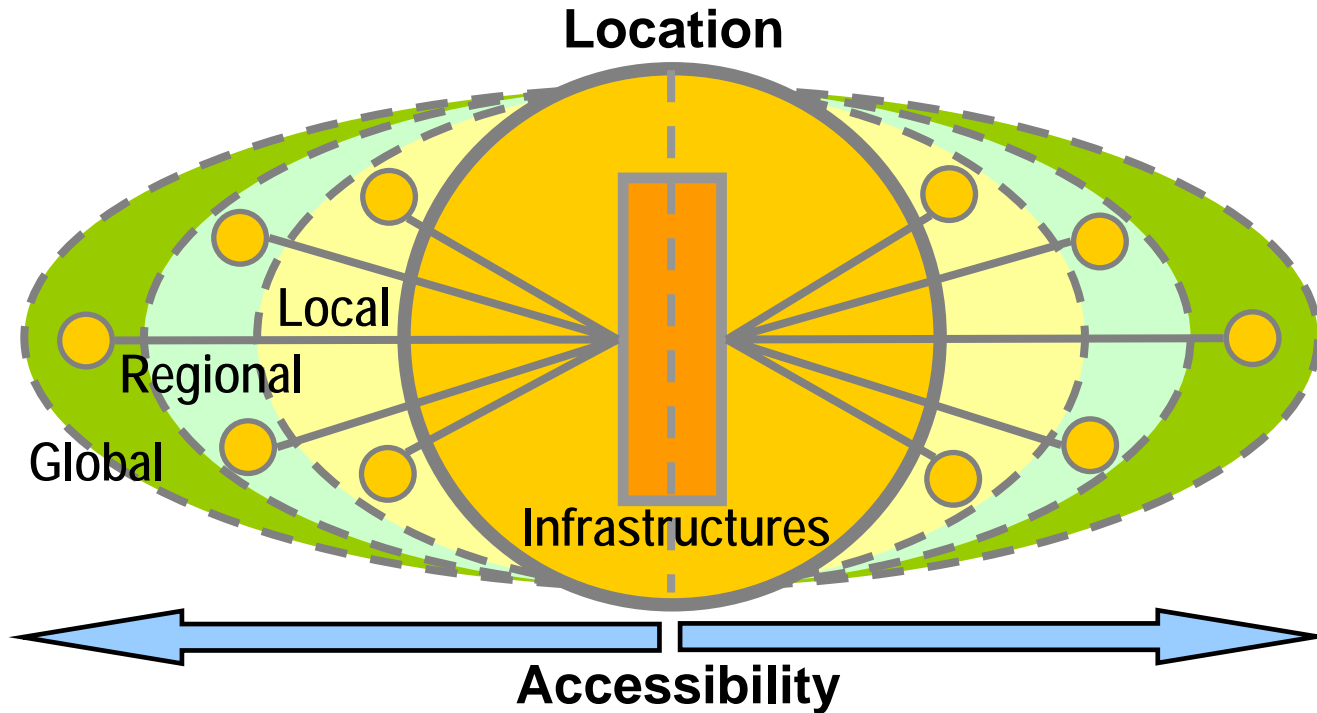
Issues and methods for selecting locations for logistics hubs

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Rationale

- To facilitate inter and intra economic cooperation and to build integrated economy in CAREC
- To promote regional economic cooperation and develop infrastructure networks in CAREC
- Transportation and gateways are essential for development of CAREC and critical for CAREC to plug into global economy

Sphere of influence of Hubs



Why seek logistics infrastructure

- Logistics infrastructure
 - Improves connectivity, reliability, and competitiveness
 - Increases economic opportunity for trade and revenue
 - Increases scope and opportunity for learning
- Infrastructure investment has not kept pace with growth in trade
 - Exacerbated by inefficiencies
 - High landed cost of outbound commodities

Intended economics of hubs

- Hubs are alliances
 - Alliances are vertical and horizontal
- Hubs internalize externalities
 - Upstream and downstream agents must recognize mutual benefit
 - provide platform for cooperation and competition
- Hubs provide agglomeration effects – “grow new or extend city”
- Hubs integrate infrastructure, service, information and human capital

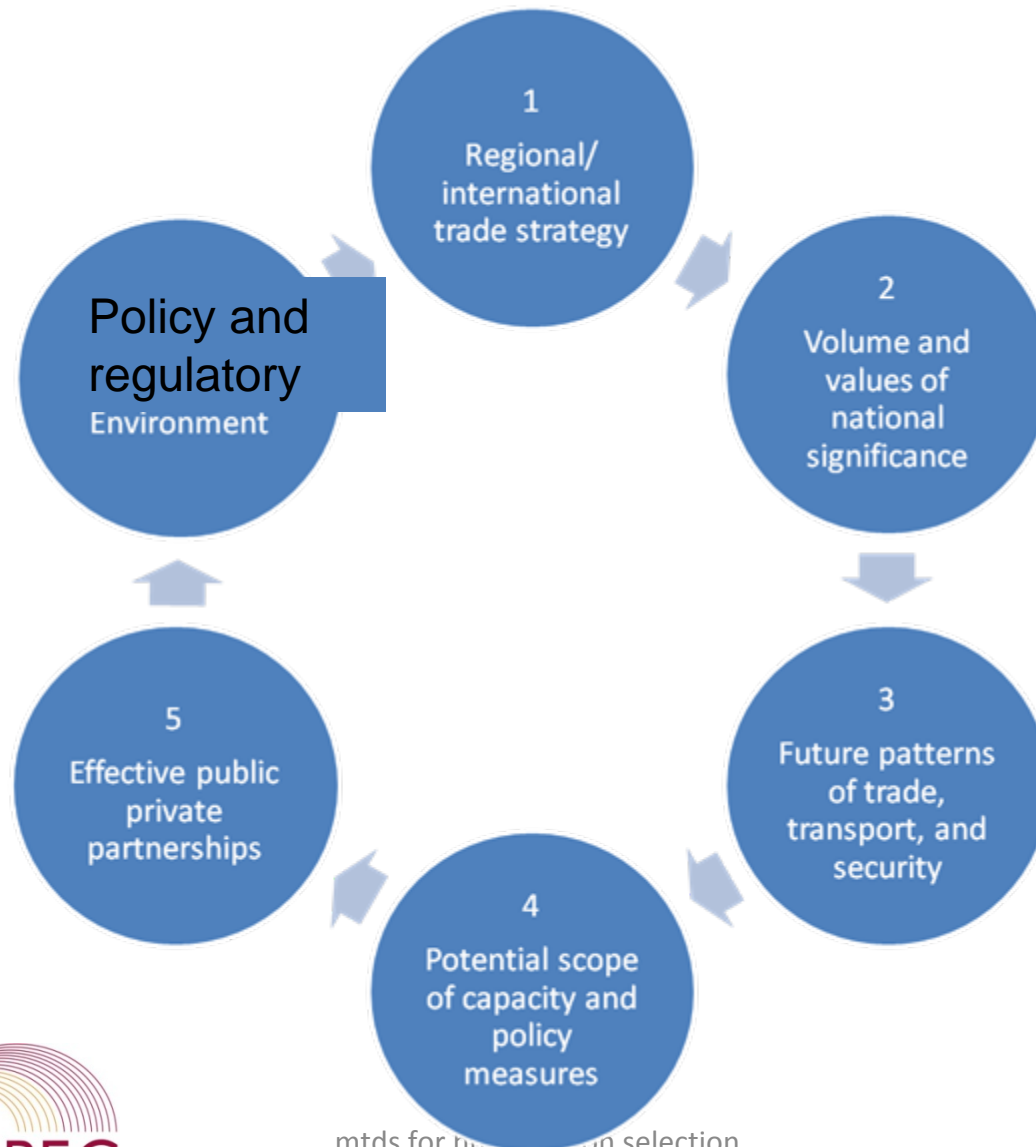
Drivers of selection

- Demand side forces favouring hubs
 - Accessibility/wide geographic scope/interconnectivity/intermodal access
 - Reliability/connecting capacity/Delivery speed
 - Network externalities
- Supply side forces
 - Reduce transactions cost in logistics
 - Economies of scale, scope and density
 - Internalize externalities-alliances
 - Reliability & consistent service (risk reduction)
- Costs
 - Enabler like technology (not just another factor input)
 - Service accountability & transparency
 - Benchmark – measure & monitor
 - Investment in surrounding transport and communication networks so as to align major transport systems
- Logistics hubs are about efficiency, service quality and capacity to deliver

Types of Hinterland

	Macro-economic	Physical	Logistical
Concept	Transport demand	Transport supply	Flows
Elements	Logistical sites (production and consumption) as part of GPNs	Transport links and terminals	Mode, Timing, punctuality and frequency of services
Challenge	International division of production and consumption	Additional capacity (modal and intermodal)	Supply chain management

Hub / corridor selection strategy



Some methods

- Demand Assessment
- Centre of gravity
- Nodal concentration
- Benefit/cost ratio > 1
- Level of incentives

Demand for logistics hub infrastructure

- Demand can come from:
- Type I: Bilateral exchanges such as Mongolia and China and Uzbek-China
- Type II: Transit trade such as China or Russia using CAREC transport facilities to trade with third countries in Europe
- Type III: Regional demand within CAREC
- Type IV: Domestic demand within country

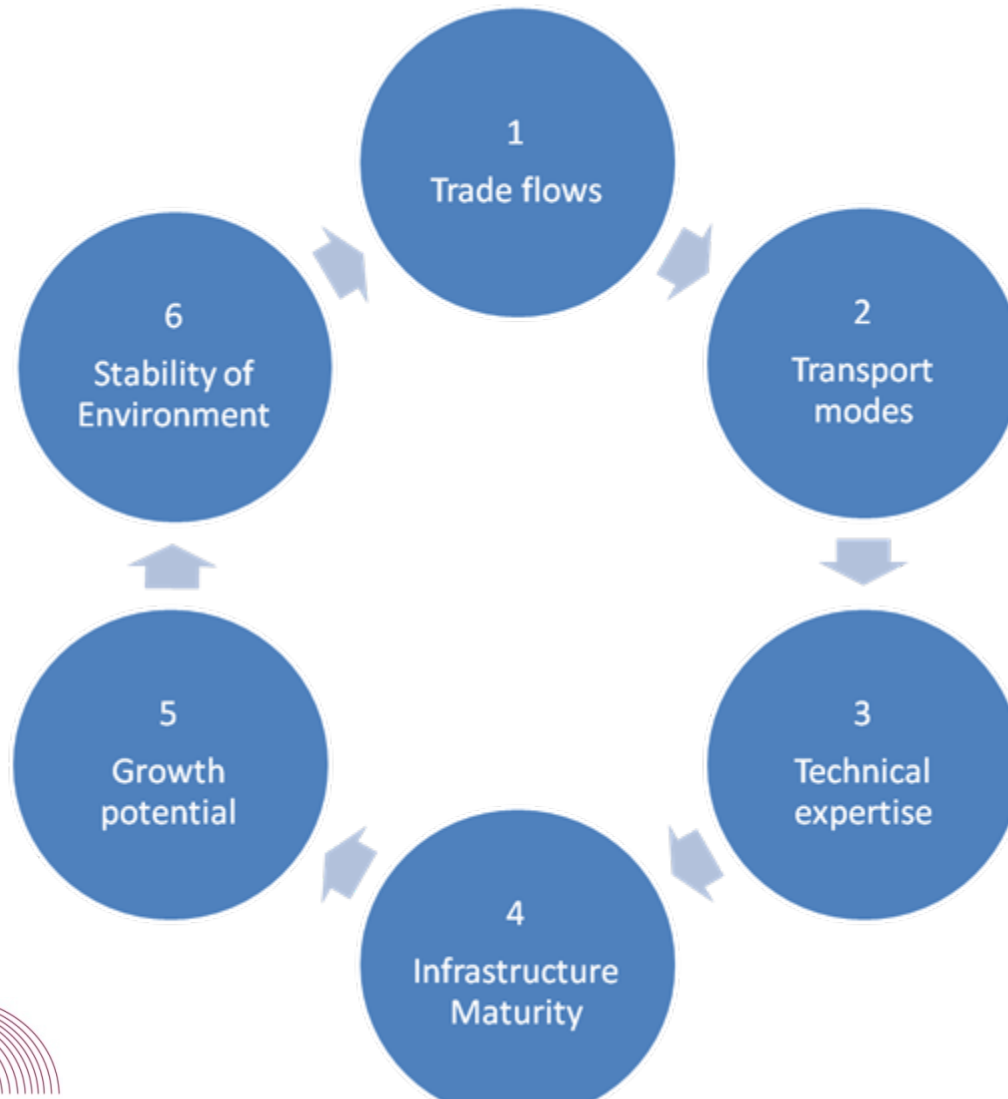
Demand Assessment

Demand	Type I	Type II	Type III	Type IV
Transport	Existing in a few cross-border areas	Mainly in Tashkent area	Not strong yet	
Energy	Existing in a few cross-border areas	Russia's interest area	Badly needed for industrial production and daily life	
Communication	Existing in a few cross-border areas	Emerge in the long run	Needed in major cities	

Cost-Benefit ratio analysis

- In the short run, cost-benefit ratio unlikely to exceed 1 due to insufficient demand for hub facilities except for a few small-scale cross-border transport projects
- Benefit-cost ratio should increase due to the rise of inter- and intra-country demand for infrastructure

6 Step Process



Trade flows

- Understand type of trade presently flowing through node, country, region
- Understand future type of trade flowing through
- Understand SKU level to determine capacity for warehouse, CFS, ICD
- Understand trade documentation
- Understand spend in the hub or in system

Transport modes

- Transport
 - Air
 - State of airport for pax and cargo
 - State of flight connectivity
 - Difficulty of regulations administration
 - Productivity of workforce
 - Condition of transport connectivity (air-rail, air-road)
 - Rail
 - Same as above
 - Safety and hijacking
 - Road
 - Same as above
 - Level of congestion within grid

Technical expertise

- Skills level of practitioners
 - IT
 - ERP, WMS, TMS, network
 - Operations
 - Warehouse, bonded area, export processing
 - Finance
 - Letter of credit, supply chain financing, terms of payment
 - Equipment
 - ASRS, VNA, etc

Infrastructure maturity

- Physical state of buildings
 - Loading docks, Smart buildings, Floor loading, Ground stability
- Ability to handle
 - Dangerous goods, refrigerated goods (cool and cold chain), perishables, valuable garments
- Customs facilities
- X-ray, surveillance systems, security staff, 24/7

Growth potential of hub

- Need to forecast need for current capacity
 - Optimise for efficiency
- Need to forecast current capacity limitation
 - Plan for expansion and determine area for expansion
- Identify secondary or overflow hubs nearby
- Linkage into other modes of transport

Policy and regulatory environment

- Economic stability affects choice of hub
- Political stability affects choice of hubs and transit
- Social stability affects choice of hubs and flows including transshipment

Phased Approach

- 1st phase: four corners and partial connection with neighbors
- 2nd phase: completion of three axes and six growth points
- 3rd phase: completion of networks
- Timetable would be 2008-2012 for the 1st, 2013-2020 for the 2nd, 2021- for the 3rd phase. But this timetable may change depending on whether conditions can be satisfied or have changed

Reasons for Phased Approach

- Even small-scale regional hubs takes minimum of 2-3 years to complete
- Serves as learning curve for building next hub(s)

Selection of corners

- Identify the four corners where cross-border exchanges have been occurring by volume and frequency
- These are natural anchor points to lift CAREC economy in the first stage and they have a special status
- Neighboring countries have some interest in these areas
- Bold measures are required to give them sufficient momentum
- Corners are usually gateway cities, international enterprise zone, international tourist zones

Identify growth points

- export-processing zone that will be turned into a hi-tech center (eg environment technology)
- center of logistics and railway interchange
- hinterland city
- international tourist zone

Prioritization of hubs

- Given the variable constraints, e.g., political and financial, priority projects need to be identified
- Priority projects should satisfy multiple purposes of infrastructure building
- Selected projects should play a catalyst role for CAREC infrastructure network building

Selection criteria for prioritization

- Revealed or potential demand
- Economic effects on the CAREC economy
- Geo-economic integration of CAREC
- Contributions to regional cooperation
- Ease of acceptance by CAREC
- Acceptability and willingness of assistance by neighbors
- Possibility of financing

Conclusion

- Encourage international consortium of public and/or private firms
 - Tap on knowledge
 - Minimise learning curve
 - Leverage on resources
- International financial institutions' support and private project financing for a major activity of this scale using private-public partnership

Whichever hub is chosen, know that

- Logistics impacts on infrastructure efficiency
 - Full versus empty
 - Air – Sea - land interface
- Trade Impacts on infrastructure efficiency
 - Market concentration
- Economics of gateways
 - Gateways & productivity and gateways as networks/alliances
- Trade, logistics and security are intersecting issues