

PRIORITIZATION of TRANSPORT CORRIDORS

**Initial Prioritization, Rational for
The Priority Corridors, Policy
Recommendations**

Contents



**Initial Prioritization of The
Transport Corridors**



**Rational for The Priority
Corridors**



Policy Recommendations

Initial Prioritization

Why Do We Need a Prioritization?

- * Proliferation of transport corridors**
- * Member and Non-member countries have their own priorities & development objectives**
- * No evidence based approach**
- * Regional integration should be considered so as to benefit MC**

Initial Prioritization

- This is an initial prioritization of the Transport Corridors in three regions based on evidence based approach.

THE GRAVITY MODEL

- An important and robust analysis: Gravity Model
- Gravity models begin with Newton's Law for the gravitational force (GF_{ij}) between two objects i and j . In equation form, this is expressed as:

$$GF_{ij} = \frac{M_i \times M_j}{D_{ij}} \quad i \neq j$$

Initial Prioritization

The purpose of The Gravity Model

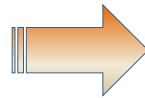
- It utilizes the gravitational force concept as an analogy to explain the volume of trade, capital flows, and migration among the countries of the world.
- Trade potentials were analyzed in three regions;
 - The trade potential within regions
 - The interregional trade potential between each of the three regions and the rest of the world

Initial Prioritization

What are the tools employed in this analysis?

- It is as simple as this but works!

$$P_{Intra_{ij}} = \frac{GDP_i \times GDP_j}{D_{ij}^{2,1}}$$



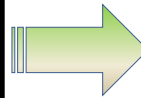
$P_{Intra_{ij}}$	<i>Potential for trade within the region between Country i and Country j</i>
GDP_i	<i>GDP of Country i</i>
GDP_j	<i>GDP of Country j</i>
D_{ij}	<i>Distance between Country i and Country j (Between capital cities)</i>

Initial Prioritization

- In order to calculate potential of interregional trade between a region and the rest of the world classical gravity model can be adjusted to;

• P_{inter} is determined by using a virtual value of port capacity, the relative GDP scale of each country has become inconsistent with the level of its trade potential.

$$P_{inter_{ij}} = \frac{GDP_i \times Port_j}{D_{ij}^{2.1}}$$

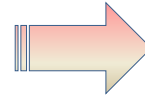


$P_{inter_{ij}}$	<i>Potential for interregional trade between Country i and Port j</i>
GDP_i	<i>GDP of Country i</i>
D_{ij}	<i>Distance between Country I (capital city) and Port j</i>

Initial Prioritization

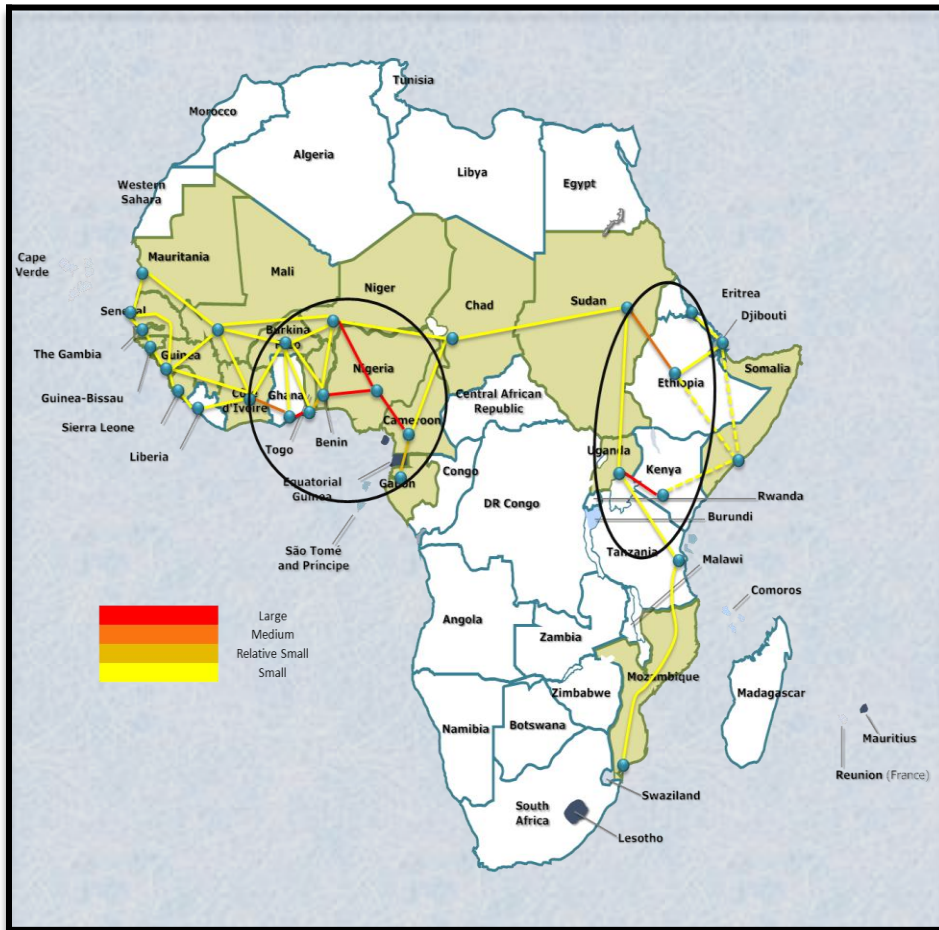
- The total of each country's interregional potential is corrected, using the country's GDP.

$$P_{Inter'ij} = P_{Inter} \times \frac{GDP_i}{\sum_j P_{Interij}}$$



P_{Interij}	<i>Corrected potential of interregional trade between Country i and Port j</i>
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Sub-Saharan Region Gravity Analysis



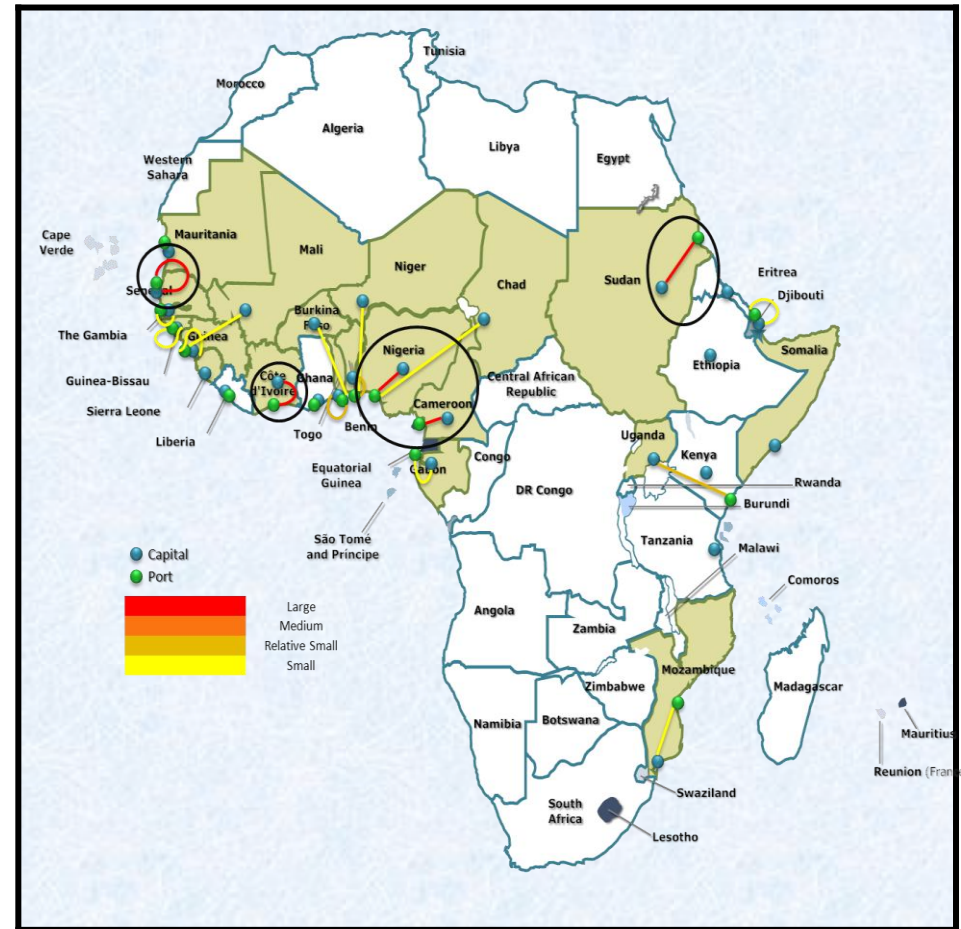
For intra regional trade;

- Nigeria, Niger, Cameroon and Benin have the largest potential
- There is an area of medium potential along the long corridor linking Sudan with Ethiopia and Djibouti and Uganda with Kenya.
- In general that can be said that regional potentials are not as high as it should have been.

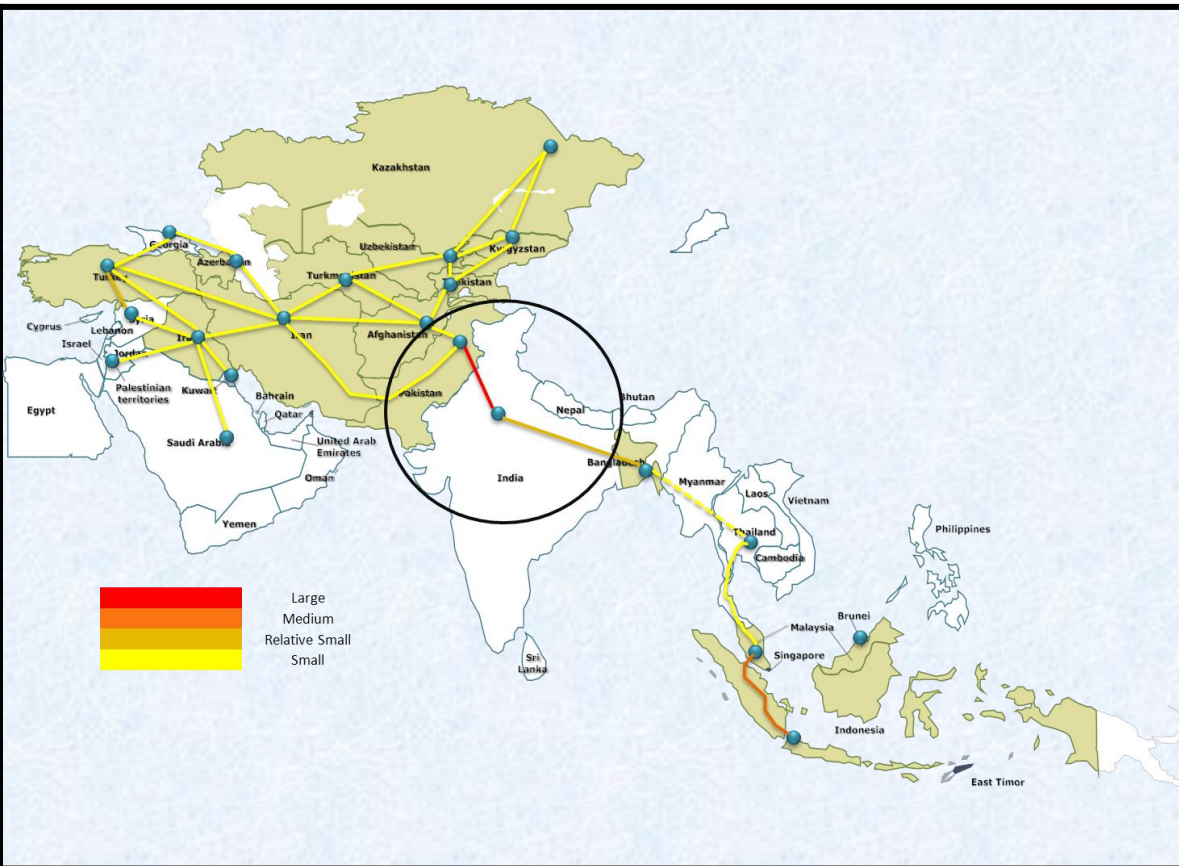
Sub-Saharan Region Gravity Analysis

Interregional trade with rest of the world;

- Senegal, Cote d'Ivoire, Nigeria, Cameroon, and Sudan have large interregional trade potentials vis-a-vis the rest of the world.
- The trade potential of the remaining countries is as high as it should have been.



The Asian Region Gravity Analysis

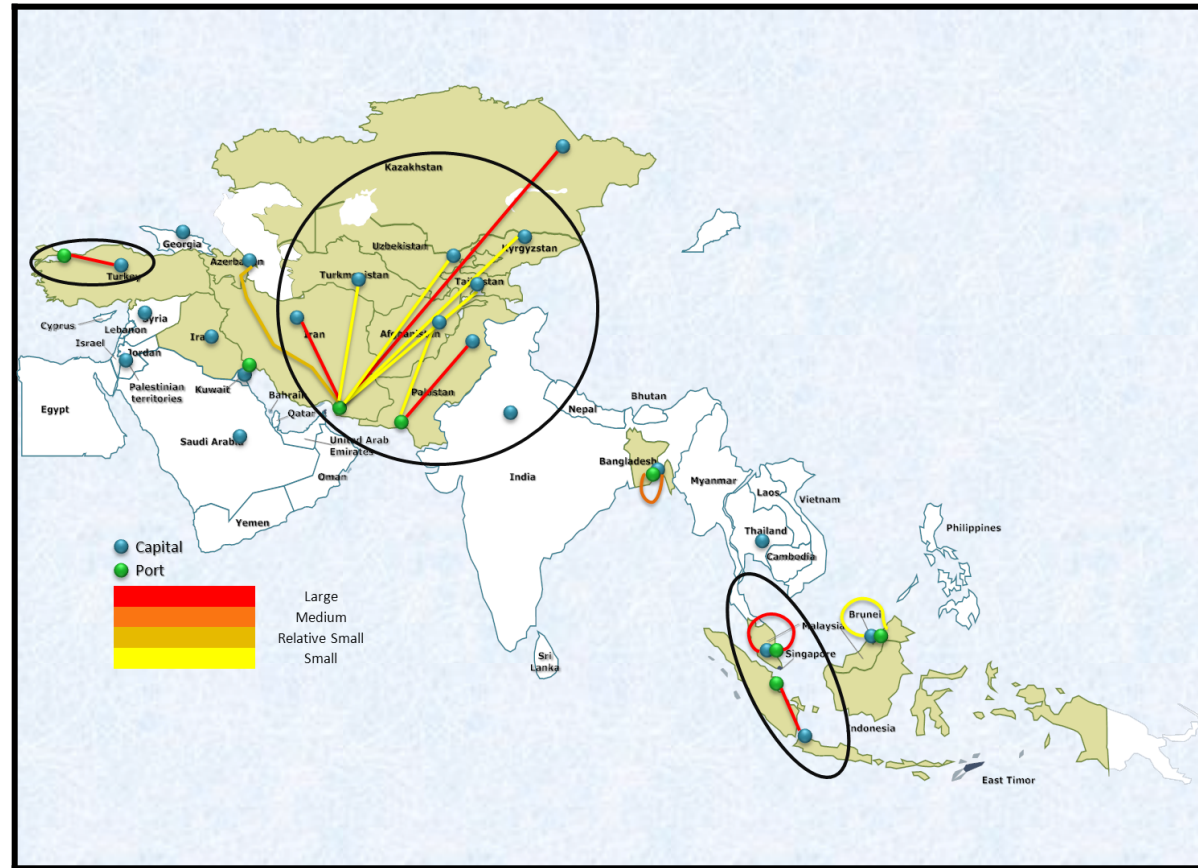


According to the intra-regional trade analysis:

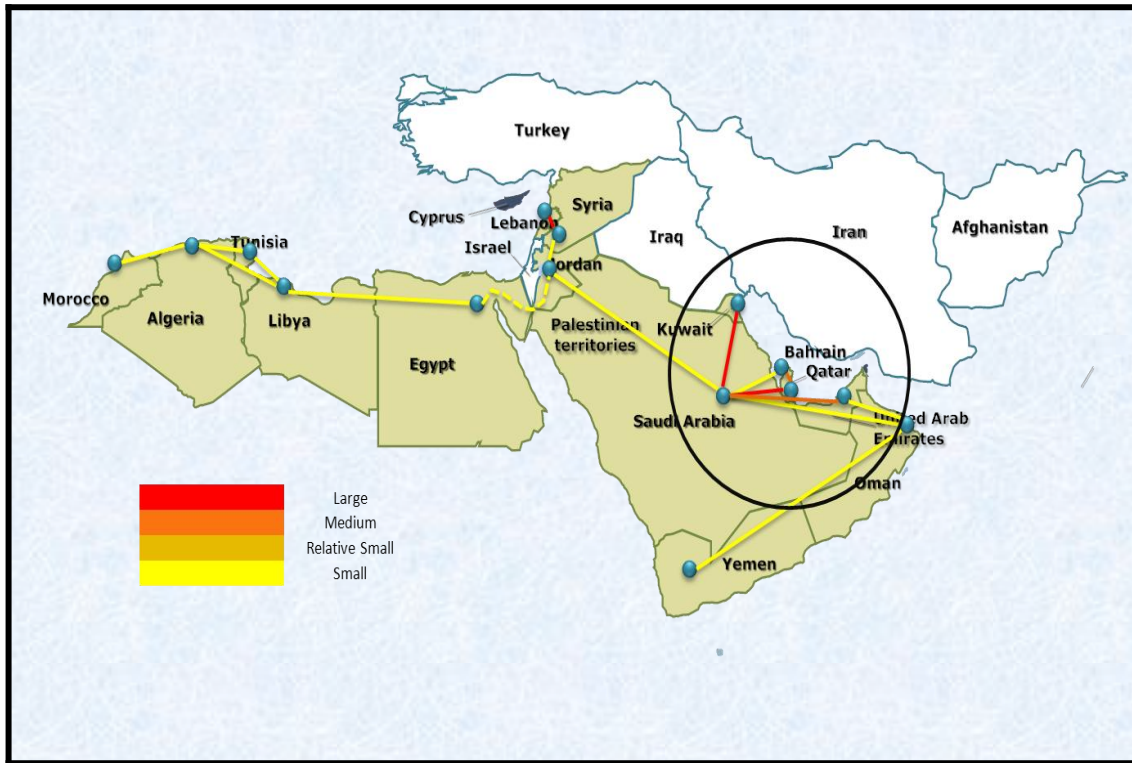
- The corridors around India which connect with Bangladesh and Pakistan have a large potential obviously due to India's current high number of exports and imports.
- The countries of Central Asia present a small trade potential, which underscores the need for developing transport corridors in that area.

The Asian Region Gravity Analysis

- Interregional trade of Asian countries with the rest of the world
- Due to being big exporters for Western Europe, Turkey, Bangladesh, Kazakhstan, Iran, Pakistan, Indonesia, and Malaysia have the largest trade potential.



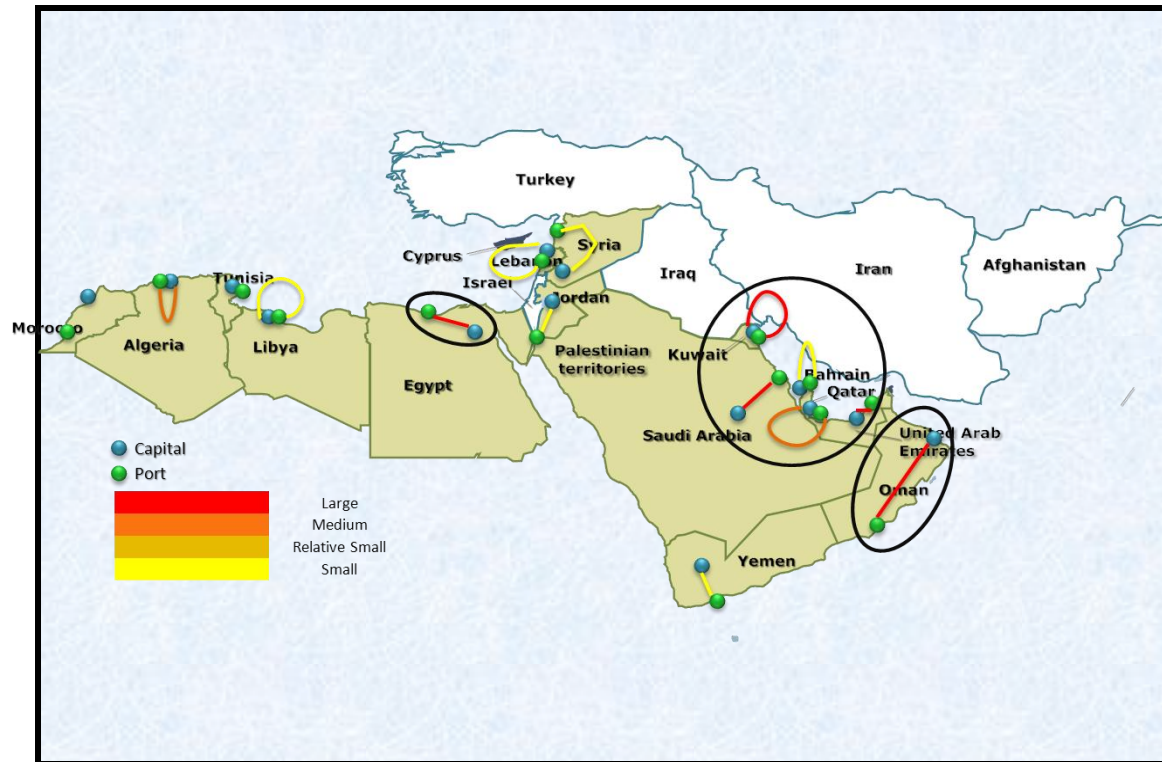
The MENA Region Gravity Analysis



- The MENA region differs notably from other regions due to its oil trade, which changes and distorts the picture of its trade potential for the better.
- Because of that every country has its own port, intra regional trade is low and the potential for trade among the MENA region countries is relatively small.

The MENA Region Gravity Analysis

- Interregional trade with rest of the world;
- The countries in this region have large trade potential, but this is mainly due to their oil exports.



Rational for The Priority Corridors

Rational for The Priority Corridors

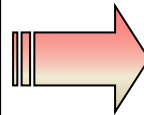
- Transport corridors are evaluated by using the prioritization matrix technique.
- It assigns weights to criteria for efficiency and effectiveness.
- Prioritization is performed by setting the selection parameters for the criteria and their weights.
- An incorrect choice of criteria or of criteria that bear no relation to our objectives—and no relative weighting—would lead to failed outcome.
- Every criterion have been assigned in a range from 1 (less important) to 3 (very important). In addition, a set of choices where appropriate for every criterion have been established with different weights for each choice, in order to better reflect the real conditions of each corridor.

The Criteria and Their Weights

1) Involvement of OIC Member States:

- The involvement of OIC member states in the corridor is a primary objective.
- This factor is a prerequisite and one of the most important criteria in the prioritization of the corridors.

The weight of this criterion at level	3
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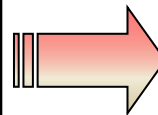
The choices for this criteria	
0	No OIC country involvement
1	Some countries are OIC members
2	The majority of the countries are OIC members
3	All the countries are OIC members

The Criteria and Their Weights

2) Intra Regional Trade Potential:

- Because of being one of the main subject; this criterion can also be characterized as one of the most important in prioritizing transport corridors.
- It uses intra regional trade analysis.

The weight of this criterion at level	3
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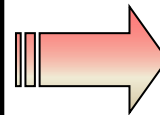
The choices for this criteria	
1	Small Potential
2	Relatively small potential
3	Medium potential
4	Large potential

The Criteria and Their Weights

3) Interregional Trade Potential:

- The interregional trade potential is a significant factor for the prioritization of the transport corridors.
- It highlights the possibility that these corridors will be able to facilitate international trade.

The weight of this criterion at level	3
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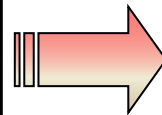
The choices for this criteria	
1	Small Potential
2	Relatively small potential
3	Medium potential
4	Large potential

The Criteria and Their Weights

4) Missing Links:

- This term represents lack of infrastructure.
- Missing links are a crucial factor for the operations along transport corridors and their prioritization.
- This prioritizing is being made for the purposes of investment.

The weight of this criterion at level	3
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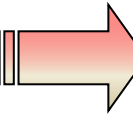
The choices for this criteria	
1	No lack of infrastructure
2	Relatively small lack of infrastructure
3	Medium lack of infrastructure
4	Many missing links or lack of infrastructure

The Criteria and Their Weights

5) Non-Physical Barriers:

- Non-Physical Barrier means that there is a need for capacity building and facilitation.
- It is important for negative factors in the operation of transport corridors.

The weight of this criterion at level	3
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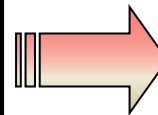
The choices for this criteria	
1	No non-physical barriers
2	Relatively few non-physical barriers
3	Medium level of non-physical barriers
4	Existence of many non-physical barriers

The Criteria and Their Weights

6) Congestion:

- Congestion is a criterion that affects roads and mainly the decisions for the construction of new roads.
- As a criterion for the prioritization of transport corridors, especially for goods, it has a relatively small significance.

The weight of this criterion at level	1
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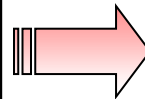
The choices for this criteria	
1	High traffic
2	Medium traffic
3	Relatively little traffic
4	No traffic

The Criteria and Their Weights

7) Transportation Costs:

- Transportation costs are influenced by poor road conditions and are responsible for higher fuel consumption.
- But the principal factor behind high transportation costs is the hidden or unofficial costs that really burden transport.

The weight of this criterion at level	1
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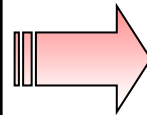
The choices for this criteria	
1	Very low transportation costs
2	Relative low transportation costs
3	Medium transportation costs
4	High transportation costs

The Criteria and Their Weights

8) Facilitation of Intermodal Transport:

- The facilitation of intermodal transport and the existence of the appropriate infrastructure or equipment for transshipment is an important factor for a transport corridor's future development.
- It creates high potential for increasing trade flows.

The weight of this criterion at level	2
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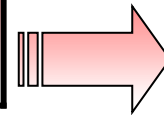
The choices for this criteria	
1	No intermodal transport facilities
2	Some intermodal transport facilities
3	Many intermodal transport facilities
4	Intermodal transport facilities along the length of the corridor

The Criteria and Their Weights

9) Logistics Centers:

- The existence of logistics centers in places where no roads exist seems a luxury.
- Logistics centers optimize trade flows and the use of intermodal transport solutions.
- Not only their existence is desirable but also they are significant for the prioritization of transport corridor.

The weight of this criterion at level	1
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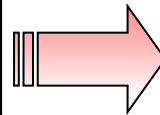
The choices for this criteria	
1	No logistics centers
2	Some logistics centers
3	Many logistics centers
4	Logistic centers along the length of the corridor

The Criteria and Their Weights

10) Distance from Ports:

- Ports are the world's exit and entrance to a transport corridor. The distance of a transport corridor from a port is an important criterion that influences its efficiency of operation.
- However, distance alone cannot be a significant criterion in giving priority to a transport corridor.

The weight of this criterion at level	2
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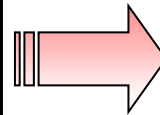
The choices for this criteria	
1	Far from a port(s)
2	Medium distance to a port(s)
3	Port(s) exists along the transport corridor

The Criteria and Their Weights

11) Road Pricing:

- Road pricing could be an important factor in cases where there are no hidden costs or non-physical obstacles.
- In cases where the hidden costs are high, road pricing is really an insignificant factor.

The weight of this criterion at level	1
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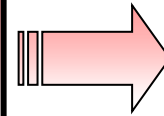
The choices for this criteria	
1	No or limited road pricing
2	Some or insignificant road pricing
3	Significant road pricing

The Criteria and Their Weights

12) Connections with Capital Cities:

- Connections to the capitals of the countries that participate in the corridor is an important factor.
- Normally, the capital cities are the biggest or among the biggest cities of a country; therefore the majority of consumption is concentrated there.

The weight of this criterion at level	2
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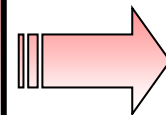
The choices for this criteria	
1	No connection between capital cities
2	Some capital cities are connected
3	Many capital cities are connected
4	All capital cities are connected

The Criteria and Their Weights

13) Connection Between Locations of Economic Importance:

- The connection between industrial zones, free trade zones, or other locations of economic importance is an important factor, as the transport corridor serves trade flows and facilitates their movement.

The weight of this criterion at level	2
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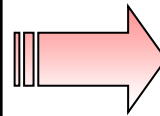
The choices for this criteria	
0	No connection of important economic locations
1	Some important economic locations are connected
2	Many important economic locations are connected
3	All important economic locations are connected

The Criteria and Their Weights

14) Existence of Trade Agreements:

- The existence of trade agreements is a step towards the facilitation of trade and the improvement of the efficiency of the transport corridor.
- However, this is not a significant criterion for the prioritization of transport corridors; as the existence of a trade agreement does not add enough value to corridor selection.

The weight of this criterion at level	1
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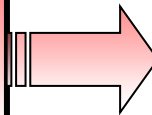
The choices for this criteria	
0	No trade agreements
1	Some trade agreements exist
2	Many trade agreements exist
3	Existence of trade agreements on all issues

The Criteria and Their Weights

15) Other Transport Costs:

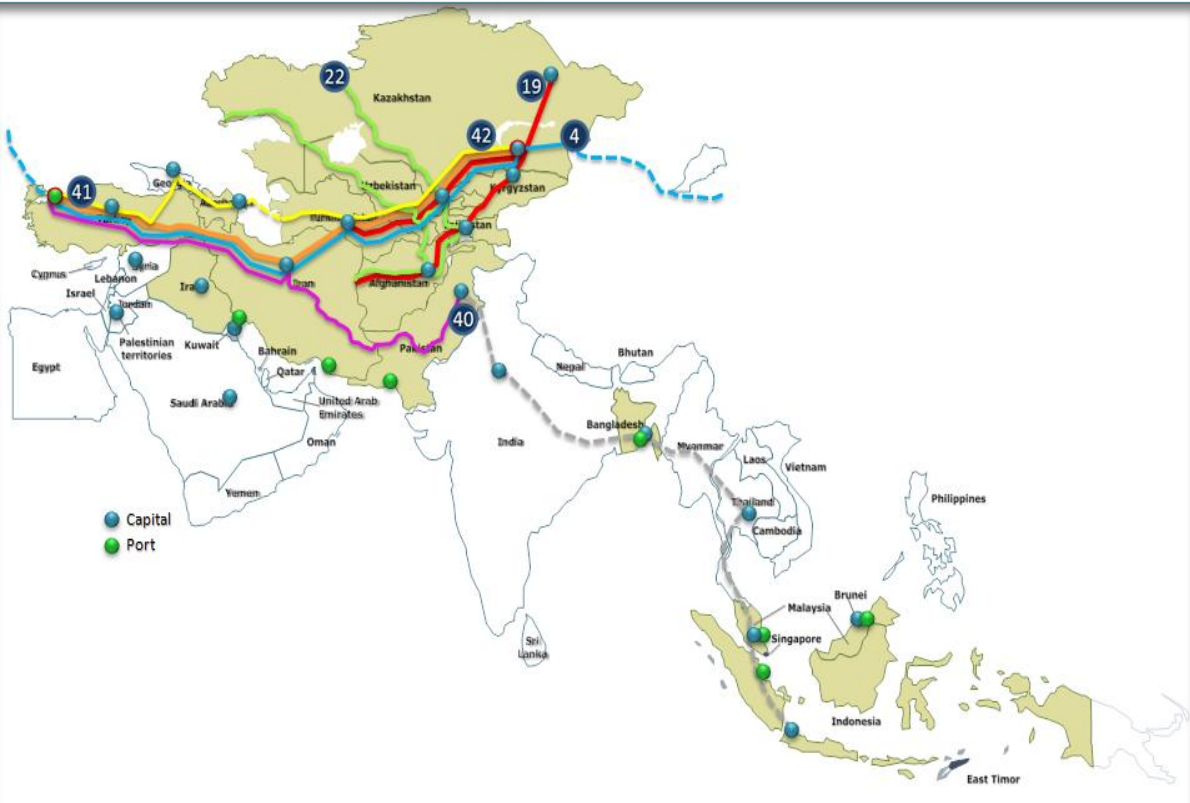
- These costs include the existence of non-physical obstacles or the poor infrastructure that increase transportation costs.

The weight of this criterion at level	1
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The choices for this criteria	
0	No discernible effect on transport costs
1	Relatively small effect on transport costs
2	Medium effect on transport costs
3	Significant effect on transport costs

Priority Transport Corridors for Asia

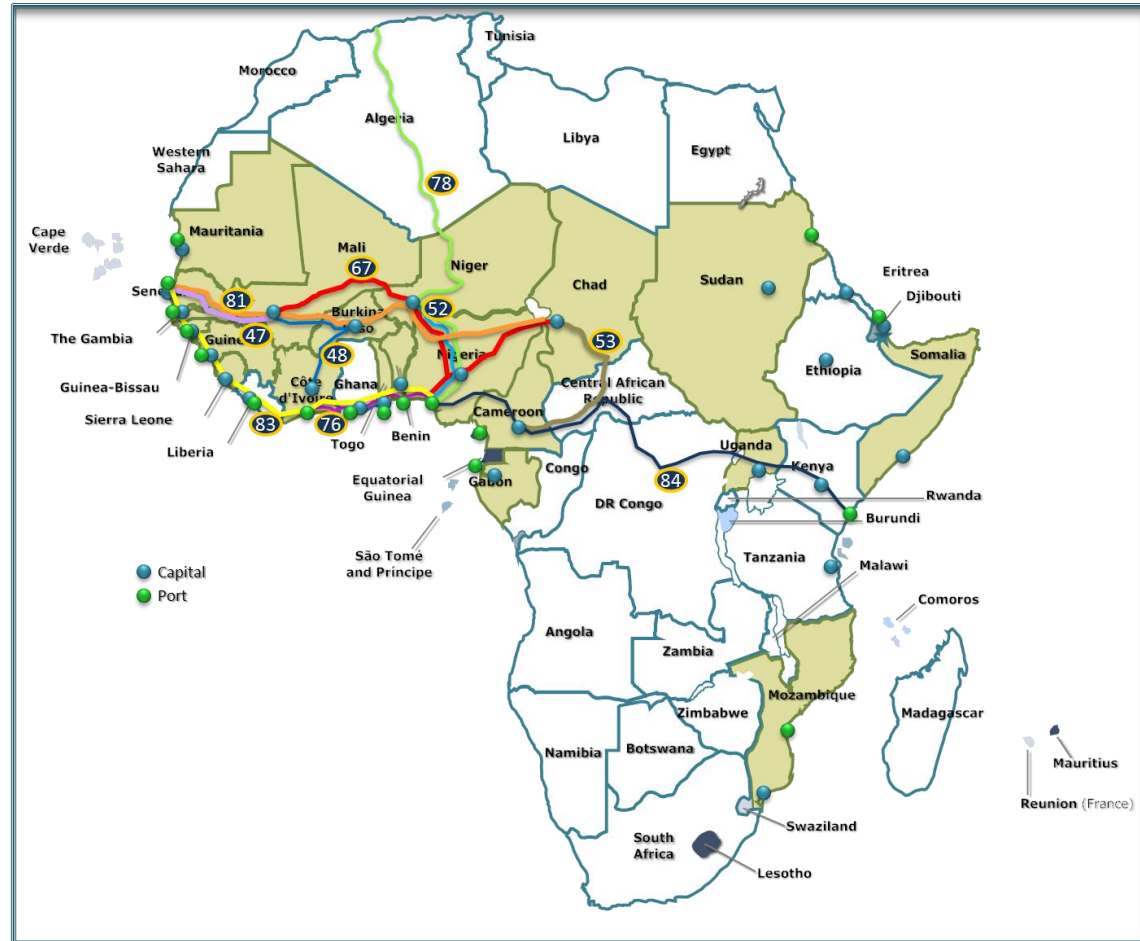


- There are the six prioritized corridors for Asia, which have the highest weights –above 50.
- **19** (CAREC/Corridor 3), with the highest score of 53 which crosses Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Afghanistan, and Turkmenistan is the highest one.

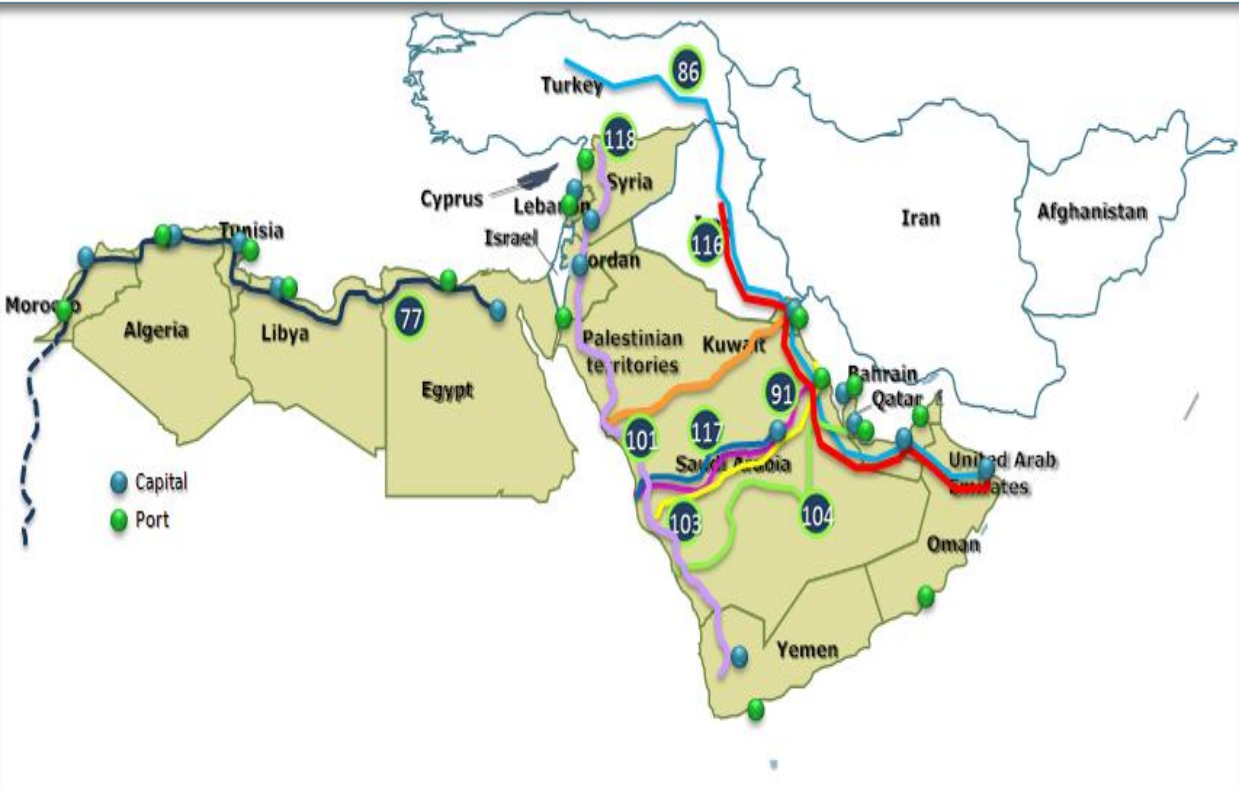
Priority Transport Corridors for Sub-Saharan Region

- There are the eleven prioritized corridors for Sub-Saharan Region which have the highest weights – above 50.

- **52** (UNECA/Corridor 6), with the highest score of 62, which is Corridor 6 of UNECA (Lagos – Niger) and crosses Nigeria and Niger is the highest one.



Priority Transport Corridors for The MENA Region



- There are nine prioritized corridors for MENA which have the highest weights – above 50.

- **86** (M5), with a score of 53 which crosses Turkey, Iraq, Kuwait, Saudi Arabia, United Arab Emirates, and Oman is the highest one.

Policy Recommendations

Policy Recommendations

First, some facts:

- The OIC member states constitute a mosaic—a mosaic with many different pieces:
 - Extremely poor countries and rich countries;
 - Extremely different climate conditions;
 - Political instability;
 - Scarcity of some natural resources;
 - An abundance of others;
 - Lack of infrastructure;
 - Existence of many regional commission and regional integration initiatives;
 - Many different trade agreements;
 - A low degree of accession to international agreements and conventions.
- Therefore, related to differences among the OIC member countries and variations of institutions and organizations lots of different policy recommendations are presented.
- But, briefly, policies that concern the development of transport corridors should be based on the three pillars that the UN proposes: Simplification, harmonization, and standardization.

Policy Recommendations

- In these pillars, harmonization is especially an important one for development of transport corridors.
- Because the existence of many regional commissions or initiatives is considered useful, as it expresses the desire for cooperation and development. On the other hand this become an obstacle, as these initiatives represent differences in trade, transport, and border-crossing agreements.
- With harmonization the objectives are;
 - The uniform of simplification of transport and trade processes among the OIC member state;
 - The operation of OIC member states as an integrated unit;
 - The coordination of all the regional, bilateral, or multilateral trade, transport or border agreements.

Conclusion

- The existence of roads, of connections, creates development through the creation of new jobs through the possibilities of moving people and production to areas of production and consumption.
- Although the opinions on transport and trade facilitation and their prioritization are different, the conclusion is the same. Transport corridors must be established.
- The development of trade is absolutely connected with transport infrastructure and facilitation measures.

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