



STRATEGIC ACTION PLAN FOR UIC MIDDLE-EAST

↗ 2013-2020



INTERNATIONAL UNION
OF RAILWAYS

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INTERNATIONAL UNION
OF RAILWAYS

INTRODUCTION

The Middle-East, composed of countries/regions of Southwest Asia and parts of Northern Africa, is a geographical region connected to the land areas of Africa, Asia and Europe. The Middle East is also connected to maritime areas, where the major trade routes between Asia and Europe operate, including the Persian Gulf, Caspian Sea and Black Sea. The Middle-East railways in this Strategic Action Plan imply the UIC-Middle East Regional Assembly member railways which are: Turkey (TCDD), Iran (RAI), Syria (CFH, CFS), Jordan (ARC, JHR), Iraq (IRR), Saudi Arabia (SRO), Qatar (QRC), United Arab Emirates and Afghanistan a member-to-be. METRA Co., Rail Niroo Co. (Iran) are members of UIC as well. When UIC was restructured, the Regional Assembly of Middle-East (RAME), one of the six regions of UIC, was established as a part of the global dimension in 2006. This region is included in the new UIC statutes adopted in 2009 and officially began its activity from then onwards.

Presenting the priorities and guidelines of the 13 members of RAME with three defined strategies of UIC, innovation, integration and involvement of members, this action plan intends to coherently and concisely show the future activities and performances of the Middle East with a focus on the regional rail projects and expected achievements for the ME railways.

The goal behind this is a move towards an integrated and competitive railway system in the Middle-East region. This strategic document may be followed and evaluated annually, and undergoes certain corrections and revisions taking into account actual situations and conditions.

MIDDLE-EAST, A STRATEGIC BRIDGE FOR THE EAST-WEST AND NORTH-SOUTH CORRIDORS

**THE STRATEGIC ACTION PLAN 2020
IS PREPARED BY UIC MIDDLE EAST OFFICE
ON BEHALF OF THE MIDDLE EAST REGION.**



ECONOMIC AND DEMOGRAPHIC OVERVIEW OF THE REGION

The Middle-East region is considered one of the earliest cradles of civilization in the world. The region, in the past century, had been the centre of global focus and perhaps the most sensitive area of the world in terms of strategy, economy, politics and culture. The Middle East is a place bestowed with the world's largest oil resources. This region also retains major resources of natural gas. About 60 % of the world's proven resources of oil and 35 % of gas resources exist in this region. It is expected that in the next two decades only the five largest oil exporters of the Middle East will still be the biggest oil exporters in the world. Because of having water channels, special geographical position as a bridge linking Africa, Asia and Europe, and above all, existence of huge reserves of energy, the region is of great strategic importance in global interactions. Existence of vast oil and gas resources has led the Middle East to have a growing economy which, in return, demands for freight transportation, in particular, carriage of freight by rail as an efficient, reliable and cost effective mode.

POPULATION

The region has around 394 million people living in 17 countries, of which the population of the member states in the UIC ME region, including Afghanistan, is around 281 million. The urban population in ME stays higher than the global average by dwelling of 70-90% of the population of these countries in the cities. It is expected that the population of the ME with 31% growth will reach 500 million people by 2025. Population growth in the ME has impelled the governments to develop all sectors of the economy, especially transportation.

COUNTRY	POPULATION (MILLION)	ANNUAL MEAN RELATIVE GROWTH RATE%
Iran	76,900,000	1.3
Turkey	74,300,000	1.21
Iraq	35,404,000	3.06
Saudi Arabia	30,193,000	3.41
Syria	22,169,000	2.45
United Arab Emirates	8,659,000	1.56
Jordan	6,517,000	2.84
Qatar	1,917,000	3.85
Afghanistan	25,758,000	2.05
Total	281,817,000	

VISION

The main objective for preparation of a strategic document for the ME region is to set up a policy for a short-term and mid-term development of rail transport networks within the region, as well as connection with Asia and Europe based on a formulated action plan; this would facilitate transportation, gain greater share of the market, protect the environment together with economic growth and social cohesion in the countries of the region. This document aims to meet the needs of the railway sector in ME and creates an integrated network, which will lead to competitiveness of rail passenger and freight transportation, turning it into one of the best transport modes for its customers in the region.

OUR MISSION

Our mission is to realize and sustain the rail transport capabilities of the ME countries and shape a reliable and efficient future for the railway sector. To achieve this, priorities of the RAME member countries, concerning development of rail transportation, are addressed followed by orientations.

PRIORITIES OF THE REGION

The ME has based its priorities on main principles of: **Railway Infrastructure; Improvement of technology; Promotion of rail transport; Cooperation with international organizations; Environment; Training and Membership expansion.**

RAILWAY INFRASTRUCTURE signifies all the facilities, equipment and physical sections (including rail lines, terminals, stations, bridges, tunnels, border crossings, signalling and telecommunications systems, and other fixed installations). Infrastructure is one of the most capital intensive sections in the railway industry, the establishment, maintenance and upgrading of which require non-stop financial support. Thus, involvement and support of this sector, especially in the Middle-East, mainly depends on the states and their decisions; in the meantime, development of rail infrastructure itself may be one of the most revenue making sectors of the

economy. Understanding the crucial role of infrastructure in transport development, the RAME member countries move toward expansion of their rail infrastructure, completion of rail lines and increasing the required fixed installations.

IMPROVEMENT OF TECHNOLOGY

Railway has increasingly experienced continuous innovations and technical improvements. The wide range of advanced railway technologies such as electrification of rail lines, high speed systems, modern signalling and telecommunications, control systems, safety promotion, modern bogie-exchanging facilities, and other state-of-the-art technologies have facilitated operation of railway. Modern railway technologies have improved the capacity and operability of rail sector, raised the safety and the speed of fleet movement and cut the initial technologies' heavy costs. Taking benefit from these technologies, the rail sector is now highly capable of competing with road, with the transport share being increased. Employing new technologies shall be seriously looked at, besides expansion of rail infrastructure.



PROMOTION OF RAIL TRANSPORT

Bulk cargos are mainly moved by railways, highways and waterways. Some cargos like mineral reservoirs are by tradition carried via rail, but still, forecasting the market future needs is a prerequisite for attracting more freight.

Being aware of the significance of drawing freight towards rail and boosting rail transport, the railways of the region expand their rail networks in proportion to the needs of domestic and international markets. They increase their rail network potential through more availability of the rail networks along with utilizing the latest technologies.

Application of consistent uniform rules, close and coordinated cooperation and customs procedures facilitations are initiatives of ME railways for smooth movement of trains. The Middle East railways continue to increase international freight traffic with a competitive approach by observing punctuality, improving train speed, enhancing rail service quality and developing an attractive tariff policy.

COOPERATION WITH REGIONAL/INTERNATIONAL ORGANIZATIONS

In the era of opening international cooperation, the regional and international rail organizations mainly target rail-related subjects.

They deal with common rail issues and are considered the major sources of development and dissemination of information at the world level. They efficiently prepare the international standards and regulations and probe into the execution of international rules. The international organizations can influence decisions and understanding of the politicians and their effective functions are to the benefit all countries national interest. The nature, qualifications and powers of these organizations are relatively different, covering specific expertise areas; meanwhile, the major activity of these organizations is to coordinate the measures of the governments in certain fields of railway issues. The RAME members, as part of UIC, the biggest international railway organization, intend to reinforce their cooperation with the regional and international rail organizations and consequently contribute to the development of a common knowledge, application of uniform rules and facilitation of reciprocal cooperation.

ENVIRONMENT

The transport industry is one of the major energy consumers particularly, petroleum, in the world. Air pollution, emission of green house gases and global warming it causes, have a destructive impact on the environment. Thus, railway transportation is recognized as the most environmentally friendly mode of transport. By reducing road and air transportation, as well as traffic congestion, this greenest mode of transport plays a key role in decreasing the environmental impacts of transport. Protection of environment is amongst the priorities of Middle-East railways; the realisation of which will be made possible through comprehensive policy-making and formulating common environmental goals and developing national and regional green transport plans. They also support the international environmental standards and believe in sustainable transport development.

TRAINING and updating the career knowledge of managers, engineers, staff and all those dealing with the railway issues are vital for gaining success in development and operation of railway. Providing comprehensive training programs and raising the knowledge level in any and all railway fields ranging from railway operation, safety, infrastructure, to informing the employees about their tasks and responsibilities will considerably improve the quality of railway services, and optimum use of sources. The ME railways are aware of the integral relation of knowledge, skill and efficiency with career development as well as progress of their rail activities, and in this line, pursue the needs of the region in terms of scope and content.

MEMBERSHIP EXPANSION in the Middle East region provides a ground for other region's countries to contribute to the planning and developing rail networks of the Middle East as well as sharing experiences and best practices among the concerned railways. Contribution of more members in the region's planning shall strengthen the activities of the UIC Middle East region and promote efficiency of the regional plans. Adhesion of new members to UIC and RAME and expansion of membership in the region is assigned as one of the priorities helping the region from a steering, technical and financial viewpoint.



ORIENTATIONS OF THE REGION

RAILWAY INFRASTRUCTURE

Missing links in the infrastructure networks impede largely integration of rail network in the Middle East and a challenge ahead of international transit and transport corridors.

The construction of efficient transport infrastructure, eliminating missing links and restoration of the infrastructure are essential for the development of corridors and competitive rail routes and ensures operations of international corridors. Presently more than 20 000 km of lines are under construction with many lines in the planning stage in the Middle East. When connecting routes are improved and interregional projects are complete, a range of transit routes will come into existence.

The Middle East is crossroad of numerous corridors along western-eastern and northern-southern directions: Asia International Corridor starting from China and stretching to Europe passes through the Middle East via different alternative routes; International North-South Corridor links Indian Ocean (Mumbai Port) and the Persian Gulf to the Caspian Sea and continues the way to the Northern Europe via territory of Russia and Saint Petersburg; and Southern Corridor of Asia connects the Middle East to south and east of Asia as well as south of China and southeast of Asia (Myanmar, Thailand, Malaysia, ...) to Europe through India, Pakistan, Iran and Turkey. Various corridors could be created and become operational when the countries are interconnected to each other by rail.

MISSING LINKS IN MIDDLE EAST

INVOLVED COUNTRIES	INTERCONNECTIONS
Turkey - Iran	One missing link (Lake Van): 2 ferries crosses on a 24-hour basis
Turkey - Syria	Two connections for combined operation-Meydan Ekboş which is commonly used, and Qamishli /Nusaybin
Turkey - Iraq	No rail connection (only through Syria)
Syria - Iraq	One link at Yaarubiah. Second link to be established at Al Bou Kamal
Syria - Lebanon	No current connections due to severely damaged network of Lebanon
Iraq - Iran	No current rail connection. Two missing links: Khoramshahr- Shalamcheh-Basra Arak - Kermanshah - Qasr e Shirin - Khosravi
Syria - Jordan	No rail connection to Jordan border
Jordan - Iraq	No rail connection between Iraq - Jordan
Saudi Arabia - Iraq	No rail connection between Iraq - Saudi Arabia
Saudi Arabia- Jordan	No rail connection between Saudi Arabia - Jordan
Qatar- Saudi Arabia	No rail connection
UAE- Saudi Arabia	No rail connection

IMPROVEMENT OF TECHNOLOGY

Rail transportation which has brought fundamental changes in freight and passenger traffic is still continually exposed to innovations and technical and commercial progresses. Electrification and the use of high speed systems evidently diminish the travelling time, increase competition of rail sector, and are considered as the corner stone in planning for economic activities such as production and distribution. Today, several Middle East Railways have started to plan, design, and construct high speed lines like TCDD, SRO, RAI, QRC, and NTA. Concerning the high speed railway, the Turkish Railways (TCDD) is leading in the Middle East Region, and some of its high speed projects became operational with several others in the process of execution. Because of different technical, economic, and social benefits, Electrification of rail lines is considered as one of the appropriate methods of promoting, modernizing, and increasing efficiency of the railways especially for highly congested lines. Installing signaling on the routes and equipping them with an ATC system may be a step for optimum and safe steering and full control of the train during the movement, passenger comfort, movement safety, optimization of the travelling time and reaching the maximum speed. Utilizing the standard system of GSM-R radio network, ETCS- automatic control of train, GPS utilization, and Information Technology (IT) systems are among necessities making possible the railways integration and the trains running beyond the borders. Operational systems should be promoted to make use of infrastructure investments to the utmost.

PROMOTION OF RAIL TRANSPORT

Having adequate transit routes and launching scheduled and regular trains, respecting punctuality and accurate timetable with commitment to safety and security, uniform customs procedures, standardized documents, cost cutting and appropriate services are, inter-alia, among the factors paving the ground for the railways to compete with other modes of transportation and attract passengers and cargo owners. Meanwhile identification of main commercial routes and anticipation of future capacity of freight transport and accordingly expanding rail networks will ensure the availability and continuation of freight traffic. The last two decades experienced international transport of cargos along the two

continents of Europe and Asia in particular from/to China using different modes of transportation. When the missing links are eliminated and physical barriers removed, rail traffic from Central Asia to the Middle East and vice versa shall be doubled to create an integrated rail network. In addition, the Middle East region has huge oil resources and mineral reservoirs, as a benefit for the RAME members to boost their rail share from this potential market. Rail networks compared to the roads and waterways, enjoy high capacity and flexibility to carry oil and mineral products and make possible more accessibility to the concerned markets.

COOPERATION WITH INTERNATIONAL AND REGIONAL ORGANISATIONS

The existence of transport rules and regulations, respected and applied regulations and harmonized rules and uniformity of the rules among the countries are in fact the tools functioning to promote rail efficient performances. Adhesion of countries to regional/international rail organisations and consequently to their rules and observing unified rules practically shall facilitate interoperability and thus train traffic benefits from harmonized transport; this surely eliminates the need to re-issue the consignment note at the borders with a time and cost saving and make feasible the smooth running of trains.

Uniform rules in line with standardized rolling stock, procedures and infrastructure are a must for the Middle East to facilitate the complicated



border crossing procedures. In order to realize and make operational rail routes and inter-connecting the countries, regulations and agreements are prepared by the regional/ international organisations to cover technical, operational and commercial issues. International transportation is a medium that enables free transfer of goods and people and can be achieved only in an open environment. Maybe all the countries are not prepared for this issue simultaneously but international tools (conventions, agreements and etc.) are the most effective legal instruments for coordination of legal systems that facilitate trade and transportation within or between regions. Therefore, international legal tools can play roles in the facilitation of intra-regional trade by required frameworks, activities, standards and rules. The Middle East railway initiatives could be co-directed when joining to rail-related international organisations and consequently to the respected international regulations.

ENVIRONMENT

Railway transportation is recognized as the most environmentally friendly mode of transport, having less impact on climate and environment in comparison to the other modes. Railways can help diminish air pollution by reducing road traffic congestion. Hence, shifting more traffic from road to rail is an important step in fighting against air pollution. Reducing road and air transport will have considerable and positive effects on the earth's air quality, acid rain, and climate change. However, in the area of railways, using less polluting energies, like electrification, electric-diesel hybrid train, as well as energy efficiency could highly help in the reduction of pollutants caused by transportation. The railways in ME region have other under-way environment-related measures including reduction of noise and other factors (not only in operation of railway, but also all the installations such as stations, shops, offices, etc.). The members of RAME are committed to protect and maintain the environment for the next generations. They apply preventive and precautionary measures on the environmental challenges, and take supportive measures in the projects and new technologies for advanced environmental performance.

TRAINING

Among the region's strategies is a more serious focus on the rail-oriented global researches and

training activities, promotion of information level and exchange of technical knowledge. These initiatives shall be followed by organizing training seminars and workshops. For this, some events were held on an alternating base in the member countries.

The initiatives were confirmed by the establishment of the Middle East Railway Training Centre (MERTCe) in 2012 in Turkey aiming to survey the needs for the training program and encourage participation, build cooperative relationships with other training centers, organize services and international training activities for all the RAME members and create a database among members for sharing knowledge and experience through regular and intensive courses. So far International Railway Business, High Speed and Safety Courses have been held by the Centre under the auspices of UIC.

The main targets of the training centre are: preparation of future generation of railway management and staff for new rail challenges, development of technical knowledge, finding the best working practices and encouraging interoperability in the region. Middle East railways are decisive in taking part in training programs and development and exchange of knowledge and updating their knowledge by participating in different training programs planned for safety, security, infrastructure and high speed.

AMMAN STATEMENT was issued and endorsed during the High Level Conference on the Middle East Region Rail Projects and Perspectives – Towards an Integrated Competitive Rail Transportation System in November 2012 in Amman, Jordan. The statement keeps an eye on the enhancement of rail transport development in the Middle East as a sustainable transport system in proportion to social and economic needs of the region and a way to cooperate with governments, international organizations and financial institutions to help the strategic prospects of rail transport in the region. These initiatives shall be met by international conventions and agreements and investment policies that can be a magnet for new commercial opportunities and persuade investors, trade partners and multimodal transport players to get involved.

The statement also expects to strengthen regional cooperation among the members backed by UIC. The statement objectives are the cornerstone of the present strategic action plan.

UIC RAME ACTION PLAN

- Follow-up of Railway Vision and Strategic Action Plan for the Middle-East (and follow-up of the High Level Conference «Towards an integrated Rail Transport System for the Middle-East»);
- Updating 2025 perspective of the Middle East Railways;
- Follow-up of 'Amman Declaration' through planning and performing the following tasks:
 - Collecting important national and regional projects of the Middle East Railways along with enough details in order to present to international organizations and financial institutions;
 - Holding the investors' forum of the Middle East with the presence of international/regional banks and financial institutions and also decision makers from the governments.
- Setting up different working groups on rail safety, infrastructure, interoperability, standardization, etc.
- Holding training seminars and workshops with the cooperation of UIC and also the rail training center of the Middle East Railways concerning issues in connection with working groups and other necessary matters;
- Holding training workshops with the cooperation of ECO and UIC on GSM-R, rail standards, combined transportation;
- Defining common regional projects with the cooperation of UIC technical departments and solid partnership with members;
- Developing cooperation with international organizations and using their current capacities in line with RAME plans.

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A detailed presentation of all existing and planned railway networks in the Middle-East is included in the report entitled "Regional and Supra Regional Rail Transportation Linkages - Middle-East".

This report was prepared by the UIC Regional Office for the Middle-East in close cooperation with all Member railways from the Region.

This document offers detailed descriptions of railway developments in the Middle-East and focuses on

- existing transport networks,
- freight and transit flows in the region,
- Middle-East corridors, connections with other regions' corridors,
- recommendations and conclusions,
- description of railway development plans country by country, with maps and figures.

This report can be obtained from the UIC Middle-East Regional Office (ME@rameuic.com) or UIC (Com@uic.org)

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