
Trans-Iranian Railway (Islamic Republic of Iran) No 1585

Official name as proposed by the State Party

Trans-Iranian Railway

Location

Golestan Province
Mazandaran Province
Semnan Province
Tehran Province
Qom Province
Markazi Province
Lorestan Province
Khuzestan Province
Islamic Republic of Iran

Brief description

The Trans-Iranian Railway connects the Caspian Sea in the northeast with the Persian Gulf in the southwest. The railway line crosses two mountain ranges as well as rivers, highlands, forests and plains, and passes through four different climatic areas. Started in 1927 and completed in 1938, the 1394-kilometre-long railway was designed and executed by a successful collaboration between the Iranian government and 43 construction contractors from many countries.

The scale of the railway and the engineering works needed to overcome steep routes and other difficulties are notable. Extensive mountain cutting was necessary in some areas. In other areas, the rugged terrain dictated the construction of 174 large bridges, 186 small bridges and 224 tunnels, including 11 spiral tunnels. Unlike most early railway projects, construction of the Trans-Iranian Railway was funded by national taxes, thus avoiding foreign investment and control.

Constructing the railway was an important step towards the modernization of the country and connecting Central Asia with West Asia. The railway also played an important role in the Second World War, as a vital route for the Allied Forces to send provisions to the Soviet Union. It connected many regions and subcultures within Iran when it was built, and is still in use today.

Category of property

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a *site*.

1 Basic data

Included in the Tentative List

2 February 2017

Background

This is a new nomination.

Consultations and Technical Evaluation Mission

Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 21 September to 4 October 2019.

Additional information received by ICOMOS

A letter was sent to the State Party on 24 September 2019 requesting further information about integrity and authenticity, factors affecting the property, boundaries, conservation, protection and management, interpretation, presentation and visitor management.

An Interim Report was provided to the State Party on 20 December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report, including: justification for the nomination, protection, management and conservation.

Additional information was received from the State Party on 28 October 2019 and 26 February 2020 and has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report

12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history

The nominated property is a cross-country standard gauge rail line connecting the port of Bandar-e Torkaman on the Caspian Sea in the northeast with the port of Bandar-e Imam Khomeini on the Persian Gulf in the southwest. It is a single property of 1394 kilometres in length by (typically) 34 metres in width, and includes 174 large bridges, 186 small bridges, 224 tunnels, 89 stations and a number of ancillary buildings. These constructions vary technically, artistically and architecturally, and have different cultural and social characteristics.

The nominated property can be divided into two segments. The so-called northern line (Bandar-e Torkaman to Tehran) is 461 kilometres long with multiple spiral bends ascending the spectacular hillsides of the Talar gorge. The southern line (Tehran to Bandar-e Imam Khomeini) is 933 kilometres long ascending the deep gorges of the Abdiz valley, passing through vast deserts. The northern segment includes 93 tunnels with a total length of 23.599 kilometres, and the southern segment includes 131 tunnels with a total length of 60.067 kilometres.

The nature of the terrain that is covered by the nominated property varies greatly in terms of geography and climate. The property crosses fertile farmlands of rice, tobacco, cotton and citrus, thick forests and high mountains, wheat farms, a salt desert, hilly terrain, deep gorges, and flat plains with tropical crops. Four different climatic areas are traversed: humid and temperate at the Caspian Sea; cold in the Alborz and Zagros mountains; arid and warm in the central plateau; and humid and hot at the Persian Gulf.

The construction of the Trans-Iranian Railway involved major structural and technical works due to the topographical features and characteristics of the route. They included temporary roads for construction operations, retaining walls, return walls, cover walls, coastal walls, dam walls, flood-ways, channels, heavy walls, protective walls, tunnels, bridges, stations, technical structures and residential buildings in addition to the substructure and superstructure of the rail line itself.

Extensive mountain cutting was necessary in some areas. In other areas, the rugged terrain dictated constructing small and large bridges, including 47 large masonry bridges, 107 valley masonry bridges, 20 large metal bridges, 186 small metal bridges, 1368 vaulted waterways, 1475 bridges with reinforced concrete coatings, 421 metal tubes, 476 reinforced concrete pipes, six overpasses and one underpass. Notable among these are the Orim Bridge, Kalantari Bridge, Veresk Bridge, Veresk Underpass, Rudshur Bridge, Abdiz Bridge, Karun Bridge, Dom-dom Bridge and Shahbazan Bridge.

Extensive backfilling and earthmoving was required in some areas. Keeping the line within an acceptable maximum gradient was a challenge. Four types of gradients were executed, the steepest being about 3 percent. Changes in course, line corrections and construction of open tunnels or drainage canals became necessary in some areas during construction. Two types of tracklaying were used: 12-metre-long rails on 17 sleepers, and 12.5-metre-long rails on 17 or 19 sleepers.

The Trans-Iranian Railway stations are classified into four typologies: large city stations; small town stations; organizational stations; and midway stations. They were built in three different periods that informed their architectural styles. Those built from 1921 to 1941 had classical European façades. From 1941 to 1978, branch stations were built with classical European façades, while stations of major destinations followed the tenets of Postmodernism. And after 1978, the year of the Islamic Revolution, stations were also built following the principles of classical architecture.

Other buildings are included in the nominated property, such as repair workshops, quarters for staff, goods sheds, residual fuel storage structures and depots. Local architecture and weather conditions were taken into consideration in their design. Also included in the property are temporary access roads made for constructing the railway. In its Interim Report ICOMOS requested further information on the cultural and natural aspects that influenced the design of the railway throughout the eight different regions crossed. The State Party did not address this question.

Movable cultural heritage elements such as rolling stock of locomotives and wagons, road construction equipment and machinery are essential for keeping the railway functional.

The history of the Trans-Iranian Railway began in the second half of the 19th century, during the Qajar Period. The construction of railways in Iran had become an important national aspiration, and competing offers for concessions were presented by Western countries. After a number of aborted projects and trials, the construction of the Trans-Iranian Railway started in earnest in 1927. It was financed by public participation and taxes, thereby avoiding foreign funding, and was completed in 1938.

Surveying the terrain and deciding the route were major challenges, given the long distance the railway covers and the geographical diversity of the regions it passes through. Mapping included the use of sophisticated techniques and tools for the time, such as airplanes equipped with vertical photographic instruments. A railway syndicate was formed and tasked with realizing the project. Construction operations started at three sites simultaneously, on the northern, southern and central segments of the rail line. The segments were joined at Sefid Cheshmeh (Fuzieh) Station, which was renamed Somayyeh, at 542-550 kilometres distance from Bandar-e Imam Khomeini.

Railway equipment, such as bridge-building equipment and iron sleepers, were imported from the United States of America. Delays and technical problems, mainly on the southern line, resulted in the syndicate's contract being cancelled. Works were continued under the direct control of the government and the Danish company Kampsax, which had railway construction experience in Turkey.

During the Second World War the Allied Forces invaded Iran and British and Soviet armies used the Trans-Iranian Railway to carry food and ammunition from the southern seas via the Persian Gulf to the Soviet Union. Thus, the Iranian railway played an important role in the Allied Forces' victory.

Beginning in the 1940s the Iranian railways were expanded with the addition of new lines. Operations that had been interrupted by the Second World War were recommenced in the 1950s. The Trans-Iranian Railway has continued in operation to the present day with both passenger and freight trains. The key engineering features and infrastructure that underpin the railway's operation also continue in use.

Boundaries

The nominated property has an area of 5784 ha, and a buffer zone of 32,755 ha.

The nominated property is the railway track itself and a corridor of 17 metres on either side of the rail line's central axis. In cities the property is narrowed to the railway track itself. The areas of workshops in Tehran, Bandar-e Torkaman and other cities are included within the boundaries of the nominated property.

In its first letter, ICOMOS requested information on the rationale for the delineation of the buffer zone boundaries, considering the different local contexts and terrain. The State Party replied on 24 October 2019 that the buffer zone boundaries extend 100 metres beyond the boundaries of the nominated property on each side, with exceptions along the route due to the nature of the localities. The boundaries are those specified in the 1975 bylaw on buffer zone delineation for railways.

A protected "landscape zone" has been identified outside the buffer zone along the route. ICOMOS requested further information on the landscape zone in its first letter, especially on the distinction with the buffer zone, and the rationale for its implementation, as it seems to disappear in some instances (between C27 and C34 for example). The State Party replied that the landscape zone is related to the preservation of the landscapes that are directly related to the railroad, compared to the buffer zone which provides technical aspects of protection of the area. Its rationale has been determined on the basis of the extent and scope of the landscape and natural elements that are visible from the train by the observer. For areas where landscape zone is not much visible, it relates to dense urban zones crossed by the railway.

State of conservation

The nominated property is an operational railway. All its elements are maintained for functional and safety purposes, and have been from its inauguration to the present day.

As an operational railway, the infrastructure of the nominated property that is still being used, including bridges, tunnels, walls and buildings, is generally in a good state of conservation. The buildings that are no longer in use, however, are in need of conservation, renovation or adaptive reuse. Old signalling systems, historical machines, tools and vehicles that are not in use anymore, or are intended to be replaced by modern equivalents, are also in need of conservation and presentation initiatives.

ICOMOS recommends that the State Party undertake a conservation initiative for the historically significant infrastructure, buildings, machines, vehicles and tools that are no longer in use.

Factors affecting the property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property are development pressures, environmental pressures, natural disasters, sandstorms and earthquakes.

Development pressures are relevant primarily in the urban areas, where the buffer zone (and landscape zone) is very small. ICOMOS requested information on the current and potential development pressures in urban, rural and natural areas in buffer zone. The State Party replied that in urban areas, some of the cities were already there before the railway, and regulations are in place to keep their original boundaries. The Environment Protection Organisation provides standards and guidelines for the natural areas.

The pressure to modernize and increase the efficiency of railways in general can also be considered a factor. ICOMOS requested additional information in its first letter, in relation to the impact of the continuous technological improvement and technological upgrading. The State Party replied that when there is replacement of systems for new ones, the old ones are kept as a valuable historical remains. This was the case for the telephone system for example.

Environmental pressures include heat and humidity, soil subsidence and landslides. Natural disasters include floods; potentially vulnerable areas have been recorded by GPS data. Sandstorms create problems for the railway, particularly in the central plateau and southern parts of the country. Seismic faults are found all over the country, raising the possibility of earthquakes.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- It is a technological and architectural masterpiece representing major stages of long-term development of human, technical and economic activities early in the 20th century in West Asia.
- The system is considered a remarkable engineering feat in creativity and innovation on a wide scale, encompassing technological and architectural variety.
- It symbolizes the creative use of various technologies for gaining access to plains, highlands, forests and coastal regions at both ends of Iran that led to new technological developments in building bridges, tunnels, aqueducts, retaining walls, roads as well as carriage of equipment, surveying and mapping, which were later used by international experts in other parts of the world.
- It caused a huge increase in trade and in cultural and economic relations between Iran and other countries in the region, thus marking a significant and decisive stage in the historical development of Iran, regional states and consequently other countries of the world.
- The technological ensemble represents a significant stage of human history because of its role in terminating the Second World War and establishing a sustainable peace.

ICOMOS notes that the proposed justification for inscription has not been supported by adequate argumentation nor documentation.

Comparative analysis

The comparative analysis is presented in three parts: comparison with another railway within the Islamic Republic of Iran; comparisons with railways in West Asia; and comparisons with mountain railways – including World Heritage and Tentative List properties – all having a comparable combination of values and attributes. The analysis makes reference to the 1999 ICOMOS thematic study *Railways as World Heritage Sites* and it is made with regard to eleven physical attributes and eight historical attributes.

ICOMOS noted in the Interim Report that the comparative analysis considers only a few regional and international comparators, and that it limits the latter to mountain railways. ICOMOS considers that the Trans-Iranian Railway is an example of the creation of large-scale transportation infrastructure, which was a global phenomenon by the time of its construction. Therefore, the Interim Report noted that the comparative analysis must be global. As a national railway, the comparisons should be with other national railways with similar values and attributes, particularly those created in the context of challenging terrain and climate. In

addition, ICOMOS noted that the use of quantitative rather than qualitative assessments in the comparative analysis was not helpful in establishing the significance of the nominated property, as cultural values are not always possible to compare quantitatively.

ICOMOS also noted that the analysis did not include a comparison with the distinctive aspects of the Trans-Iranian Railway, such as its protective walls, retaining walls and drainage canals. The notable length of the railway is likewise not considered in the comparative analysis. Assessing the distinctive features that were left out of the comparisons might possibly strengthen the comparisons and provide a more discursive argumentation of the historical, cultural and symbolic aspects of the nominated property.

The State Party submitted additional information expanding and consolidating the comparative analysis including Rhaetian Railway, Italy and Switzerland (2008, (ii) & (iv)), Semmering Railway, Austria (1998, (ii) & (iv)), Mountain Railway of India (1999, 2005, 2008, (ii) & (iv)), Hejaz Railway, KSA (Tentative List (ii), (iv) & (vi)), Trans-Andean railroad, Ecuador (Tentative List (ii), (iv) & (v)), Trans-Siberian Rail Routes, Russia and Overland Railroad, United States of America.

The additional information submitted by the State Party with consolidation of the comparative analysis concluded on the historical, cultural and symbolic significance of the Trans-Iranian Railway, in terms of the role it plays with the bridge of Victory during World War II, the standardisation of the 1435 gauge railways, the revitalisation of the ancient silk route with the connection of the two seas from North to South, the synergy of the international contributors to the construction of the railway, and the role it had for the introduction of new architectural style combining Iranian traditional and western architecture.

ICOMOS considers that the new elements put forward in terms of comparison confirm that the railway was a late construction which did not bring a particular innovative aspect. ICOMOS considers that the comparative analysis did not establish the significance of the nominated property with regards to the proposed justification for inscription in relation to the railway innovation.

In its Interim Report, ICOMOS requested as well the State Party to further develop on the impacts of the development of the railway had on the society itself, as it crosses eight different regions. The State Party answered this question by listing the modernization processes triggered by the entry into operation of the Trans-Iranian Railway: the transition from a condition of demographic dispersion in distant oases to forms of urban centralization, with the creation of new towns, the birth of a new urban lifestyle, the development of new agricultural activities (cotton) and new industrial branches related to oil. However, these effects induced by the Trans-Iranian Railway are only listed and are not

detailed enough to offer element which could support the significance of the property.

ICOMOS considers that an interesting aspect of the Trans-Iranian Railway would potentially lay, not necessarily in terms of history of the railway techniques, but rather on the fact that it represents the expansion of modern state power in the 20th century in a specific context of non-colonized Asia. The Trans-Iranian Railway was a national prestige project undertaken by the new Pahlavi state of Iran (established in 1925), connected the Caspian Sea in the north with the Persian Gulf in the south via the Iranian capital of Tehran. It was the focal point of Iran's comprehensive infrastructural projects undertaken by the state, including highway construction, port construction, and electrification.

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List at this stage.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii) and (iv).

Criterion (ii): *exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;*

This criterion is justified by the State Party on the grounds that the construction of the Trans-Iranian Railway involved an interchange of human values, cultures and technical know-how, as it involved engineers, technicians, contractors and project managers from many countries. It revived ancient routes such as the Silk Road and the Spice Route. It also initiated outstanding ways of solving engineering problems in dealing with the different and challenging terrain along its route. The resulting know-how influenced other parts of the world, as the foreign experts who worked on the Trans-Iranian Railway subsequently worked on projects outside Iran.

The State Party submitted additional information in February 2020 bringing some examples of new solutions used in terms of engineering construction. This includes a new type of insulation used for digging tunnels and the Austrian method of tunneling (NATM) or sprayed concrete lining method (SCL) for design and construction of tunnels that revolutionized modern tunneling. One of the leading engineers who developed it was one of the Trans-Iranian Railway construction engineers. Some publications are mentioned on the engineering experience that was gained in the construction of Trans-Iranian Railway. The State Party also submitted additional information explaining that Iranian traditional master builders cooperated closely with the Trans-Iranian Railway engineers by exchange of knowledge, which is manifested in the stone layout and variety of vaults.

ICOMOS considers that the interchange of knowledge and technical expertise that would have formed the basis for the design and realization of the Trans-Iranian Railway is not demonstrated. In terms of technical influences for railway techniques, the Trans-Iranian Railway was an adaptation of western technologies already implemented elsewhere, with no technical specificities. In relation to the masonry bridge construction and the Persian influence, this argument is weak as they cannot be considered as the same technical structures: for example, the circular arches were not used during the Persian times. The influence could potentially be explored further in terms of architectural designs, for which detailed analyses and further research work would need to be undertaken.

ICOMOS considers that the additional information submitted by the State Party does not provide solid arguments that demonstrate the role of the construction of the Trans-Iranian Railway in the development of railway technological innovations.

Criterion (iv): *be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

This criterion is justified by the State Party on the grounds that the Trans-Iranian Railway represents a major stage in the development of human, technical and economic activities in West Asia in the early 20th century. It is also justified on the grounds that it represents a significant stage in human history because of its role in terminating the Second World War and establishing a sustainable peace. The property is also considered as a showpiece for a creative and new style, emerging from the Iranian mixed with western architecture.

ICOMOS considers that the significant stage in human history regarding the development of human, technical and economic activities in West Asia in the early 20th century, as proposed, is too broadly defined, particularly as concerns the activities and the chosen time period. The new technological knowledge developments should be better documented to support this criterion, and the improvements gained in terms of adaptation of traditional methods or in terms of technical innovations should be highlighted. While arguably important, the overall significance of the role played by the Trans-Iranian Railway in terminating the Second World War and establishing a sustainable peace has not been supported in a comparative context.

ICOMOS notes the interesting role of the Trans-Iranian Railway in the modernization of Iran as a unique approach materialized by importing and domesticating western technologies by national financing and managing of the construction and implementation. Within this context, the modernization of the country impacted it socially, economically and culturally in a unique manner. ICOMOS also notes that the establishment of a new route that connected the Persian

Gulf with the Caspian Sea introduced another aspect of modernity by connecting two previously not connected cultural realms. However, ICOMOS considers that there is a need to enhance this narrative and consolidate it by thorough documentation of the tangible features and deeper analysis of their cultural significance with regards to the narrative.

ICOMOS does not consider that any of the proposed cultural criteria have been justified at this stage.

Integrity and authenticity

Integrity

According to the nomination dossier, the integrity of the nominated property is based on infrastructure such as rail lines, technological and architectural elements and ensembles, and the dynamic functions and interrelationships of an operational railway.

On this basis, the nominated property would appear to be of adequate size to contain all the identified attributes needed to demonstrate the proposed Outstanding Universal Value. It includes the entire length of the historic Trans-Iranian Railway with its key supporting infrastructure, engineering works and architectural elements. The physical fabric of the nominated property is mostly in good condition.

There are some development pressures in the urban areas, and general pressure to modernize and increase the efficiency of the railway. Modernization by electrification has been planned for the line between Tehran, Garmsar and Bandar-e Torkaman. A Heritage Impact Assessment for this project is advised. Any threats that may exist related to geological and climate change are managed by the General Directorate of Line and Technological Ensembles.

Authenticity

The railway line within its surrounding landscapes appears to be largely authentic in terms of location, setting, form, design, materials, use and function, even if some elements have been upgraded or replaced. The stations and station buildings are also mostly authentic (supplemented by new demands such as signalling technology), as are the design and substance of the majority of bridges and tunnels.

Some sections of the original rail line have been enlarged to accommodate a double track, or modified slightly because of geological circumstances, and that several historic steam locomotive devices such as water cranes and coal boxes have been removed. The central masonry arches of the Talezang bridge were replaced by a steel girder in 1988 after being bombed.

ICOMOS notes that it is inevitable that elements of the infrastructure of a viable operating rail line will be replaced from time to time to meet safety and operational requirements. ICOMOS therefore considers that these are tolerable modifications and that the property meets the conditions of authenticity.

ICOMOS considers that the conditions of integrity and authenticity have been met.

Evaluation of the proposed justification for inscription

ICOMOS considers that the comparative analysis does not justify consideration of this property for the World Heritage List at this stage as it does not convincingly establish universal significance of the nominated property with regards to its comparators.

ICOMOS considers that criterion (ii) has not been demonstrated.

ICOMOS considers that criterion (iv) has not been demonstrated at this stage and that the role of Trans-Iranian Railway in developing a unique national modernization process for Iran within its geo-cultural region resulted in a modernization and industrialization process that transformed previously isolated areas into urban modern settlements could be further explored to demonstrate whether this criterion could be justified.

The conditions of integrity and authenticity have been met. A Heritage Impact Assessment of the planned electrification of the Tehran—Garmsar—Bandar-e Torkaman line is advised.

Features

Key features of the property include, among others, the 1394-kilometre-long rail line, bridges, tunnels, train stations and ancillary buildings such as workshops, staff quarters, goods sheds, fuel storage structures and depots, retaining and protective walls, flood-ways, channels and drainage canals. Its continuing use could also be a contributing element. In terms of dynamic functions, the potential attributes could include the interrelationships between the physical elements.

While not attributes of the proposed Outstanding Universal Value, movable cultural heritage elements such as rolling stock of locomotives and wagons, road construction equipment and machinery are essential for keeping the railway functional.

ICOMOS considers that it is not yet possible to conclusively identify the attributes of this property without an adequate justification of Outstanding Universal Value.

4 Conservation measures and monitoring

Conservation measures

To a large degree the nomination dossier equates the conservation of the nominated property with the repair and maintenance activities being undertaken there. The section on conservation focuses on “preventive” repair and maintenance, and “unavoidable” repair and maintenance. The former includes planned and reactive work to preserve safety and prevent structural problems; the latter includes work to guarantee constant service.

Master plans for the stations have recently been produced along with an inventory and history of these buildings. An inventory of the workshop areas currently underway will also lead to a master plan. The management plan lists numerous measures to protect and conserve the nominated property, but also to modernize the railway.

ICOMOS considers that the main conservation challenge is to balance measures that address the safety and operational viability of the railway on one hand, and the conservation of the heritage features on the other hand. ICOMOS therefore considers it essential that an overall conservation management plan be created for the nominated property, including the railway as well as the historical and architectural associated features, which would serve to complement the existing Management Plan.

Monitoring

The monitoring program addresses the main features of the nominated property, including engineering structures (bridges, tunnels, tracks and protective structures), fleet (freight, passenger and locomotive), buildings (stations and facilities) as well as railway infrastructure, publicity, training, tourism, natural elements and environment. It aims to monitor the state of conservation and the proposed cultural-historical and technical aspects of the nominated property, particularly with regards to the factors that affect it. A specialized team is in charge of monitoring and maintaining 13 types of bridges within the property.

The monitoring program is divided into seven categories: fleet (rolling stock), buildings, engineering structures, railway systems (signals, switching systems, etc.), training and education, buffer zone and tourism. Indicators include statements such as “*checking the appearance and cleanliness of buildings.*”

ICOMOS considers that elements of movable cultural heritage such as rolling stock, while essential for keeping the railway functional, are not attributes of the proposed Outstanding Universal Value, nor are training, education, buffer zone or tourism.

ICOMOS considers that the key indicators are not linked as closely as desirable to the identified attributes of the proposed Outstanding Universal Value and to the identified threats. A key indicator for buildings, for

example, should be the condition of the character-defining elements that support the proposed Outstanding Universal Value of the property.

ICOMOS also considers that the monitoring regime should include the historic elements of the property that are no longer in use.

ICOMOS considers that conservation measures should balance the requirements of a working railway with the requirements of a cultural heritage resource, that an overall conservation plan be created for the property, that the key monitoring indicators be linked more directly to the identified attributes that support the proposed Outstanding Universal Value, and that the monitoring regime include the historic elements that are no longer in use.

5 Protection and management

Documentation

The Trans-Iranian Railway Office, part of the Iranian Railway Company, is responsible for keeping records and documents of the heritage-related aspects of the nominated property.

Older Trans-Iranian Railway records and research documents are kept at the Research Division of the Centre for International Research and Education of the Ministry of Foreign Affairs. Records, reports and studies of the technical and management aspects of the property are kept by the Railways of the Islamic Republic of Iran.

ICOMOS appreciates the quality of information in the nomination dossier on the engineering aspects of the Trans-Iranian Railway. However, ICOMOS notes that the nomination dossier does not include a detailed inventory, documentation and analysis of the cultural heritage aspects of the railway. An inventory of all the attributes that support the proposed Outstanding Universal Value of the nominated property is needed, including the architecture and current state of conservation of the railway stations, workshops and other buildings. Historic elements that are no longer in active use should also be fully documented for conservation, protection and management purposes.

As per ICOMOS' request, the State Party submitted additional information clarifying that COSWIN is a program for conservation and management of Trans-Iranian Railway for the engineering aspects of the railways. The State Party submitted information on the existing records on cultural heritage aspects. This concerns machinery (locomotives, machines, tools and rolling stock), architecture (the railway stations, workshops and other related buildings), for which reports and the conservation plan for Sari station are provided, but also historical archives kept in the Railway Company of Iran and other organizations, and objects kept in

depots or the Railway Museum when they are not in use.

ICOMOS notes that the submitted records are not complete for all the features of the nominated property. In addition, ICOMOS notes the need for a complete list of all the stations, workshops as well as all other elements and features of the property. In addition, ICOMOS notes that the datasheets that the State Party submitted on the engines are incomplete and are not useful for conservation purposes as they lack information on the history and state of conservation. ICOMOS also notes the need for documentation of the buffer zone for each railway station and building within the property.

Legal protection

The nominated property and all its infrastructure are owned by the Railways of the Islamic Republic of Iran, which has legal responsibility for the protection, repair and maintenance of the Trans-Iranian Railway. The nominated property is affected by a large number of different types of laws and regulations, due to its function and extent and to the diversity of its cultural and natural contexts.

The property, the buffer zone and the landscape zone are protected by Department of Environment laws under the Constitution of the Islamic Republic of Iran, Article 45 and Article 50; the Act of Conservation and Optimization of Environment; the Criminal Islamic Law for Destruction of Natural Heritage, 1996; and Book Five of the Islamic Penal Code (dissuasive penalties).

The nominated property is registered on the national list of heritage monuments (No. 31906, "Trans-Iranian Railway from Bandar-e Torkaman to Bandar-e Imam Khomeini"), and has been regulated by the legislation governing cultural heritage since 2017. It thus enjoys the highest national level of protection.

Twenty-two individual buildings and structures have also been registered on the national list of monuments, and are thus protected by cultural heritage law both as single buildings and as elements of the Trans-Iranian Railway. Among these are the Tehran Railway Station (No. 3639); Savadkuh Railway Station (No. 14130); Bandar Gaz Railway Station (No. 12563); Small Viaduct of Veresk Railway (No. 13096); Pol-e Siah / Black Viaduct in the city of Ahvaz (No. 2599); Orim Viaduct (No. 13090); Sorkhabad Viaduct (No. 13087); and Railway Residential Complex in Ahvaz (No. 2587).

All construction, organization, maintenance and development operations for the nominated property are undertaken by the state-owned Railways of the Islamic Republic of Iran, as regulated by the 1956 Law on Apparatus of the State Railway Institute of Iran; the 1941 Law on Punishment of Offences Related to Railways; the Third Development Plan of Iran, 1967; the 1970 Law and Bylaws on the Safety of Roads and Railways (and amendments); the 2005 Law on open access to the Rail Network; and the 2007 Law on Development of Public

Transportation and Fuel Management. The Railways of the Islamic Republic of Iran is overseen by the Ministry of Roads and Urban Development and controlled by the Supreme Council of Urban Planning and Architecture.

Management system

The nominated property is centrally managed by the Trans-Iranian Railway Office, which is part of the Iranian Railway Company. The Office's Steering Committee is responsible for reviewing conservation-related issues for the nominated property and the buffer zone as well as consultation and coordination regarding inter-organizational issues. A representative of the Iranian Cultural Heritage, Handicrafts and Tourism Organization is a member of this committee and takes care of heritage aspects of the property's management. A Technical Committee is responsible for policies and decision-making pertaining to conservation issues as well as interdepartmental coordination of technical issues within the company.

The management, maintenance and development of the Trans-Iranian Railway has been included in national five-year development plans since 1989, the current iteration being the "Sixth Development Plan: 2017-2021." The "IRAN 2026 Vision," which was ratified in 2009, includes a document on rail transport.

A Management Plan has been prepared for the nominated property with the main goal of protecting the values of the Trans-Iranian Railway while respecting its authenticity, integrity and function. The Plan sets the management approach, strategy and guidelines. It includes an Action Plan divided into three categories: Short Term Plans (two years); Middle Term Plans (five years); and Long Term Plans (ten years). ICOMOS requested information on the status of the short-term plans of the Action Plan in its first letter. The State Party replied that short-term plans are categorized in three parts. The first one is about preservation, maintenance and monitoring: monitoring for dependent elements is done within station master plans. The first phase included eleven stations and is complete. The documentation and research for historical buildings is done for some buildings. Some contracts are done for the upgrading the maintenance quality of railway facilities. The second relates to sustainable development: events are under process, such as conferences, meetings and ceremonies are managed by related organizations and NGOs. Finally, the third deals with marketing strategies, tourism and human resources development: informative information, such as maps and guidebooks and brochures are done in regular phases. Feasibility studies for founding railway museums on various scales as well as the design of the central museum of railway heritage are in different phases.

The Railways of the Islamic Republic of Iran is a commercial operation. It also receives an allocated budget from the government, which reached 16000 billion Rials in 2018. According to the Management Plan,

budgets are allocated for the maintenance and renewal of running operations. No information is provided about budget allocations for conservation operations regarding the heritage aspects of the nominated property, the buffer zone or the landscape zone.

The Training and Research Centre of Railway is responsible for training staff by running short-term training workshops as well as internal and external training programs. Also, local and national universities run major teaching and research programs at the bachelor's, master's and doctoral degree levels.

ICOMOS requested in its Interim Report explanation on the role and activities of the Trans-Iranian Railway Office at the Iranian Railway Company and the role of the representative of the Iranian Cultural Heritage, Handicrafts and Tourism Organization within the Office. The State Party submitted additional information clarifying that the Trans-Iranian Railway Office is a subdivision of the Deputy of Infrastructure and Technical Affairs, which is the most important deputy in the hierarchy of the Railway Company of Iran. There is also a strategic technical committee. The working group within the Trans-Iranian Railway Office takes action in accordance with management plan objectives. Besides research is conducted by experts from the Office and the Subdivision.

Visitor management

Railway tourism is at an embryonic stage in the Islamic Republic of Iran. In order to plan for and attract more tourists, the Tourism Division of the Railways of the Islamic Republic of Iran was recently established. Policies for tourism development are made on short-, medium- and long-term bases within the nominated property's management plan.

The main train stations are considered as focal points for providing visitors' facilities. Tourist and accommodation places are reportedly being designed at some stations, and exclusive trains for tourists are in operation or are about to be purchased. A study has looked at the potential of the Trans-Iranian Railway to link numerous cultural and natural heritage places, including properties already on the World Heritage List.

Listed buildings within the property have commemorative plaques that provide a short summary of their history. In addition, television screens inside the stations give information on the history of the Trans-Iranian Railway, and tourist destinations that can be reached on the railway. Special tourist trains are available from Tehran northwards, with plans to extend information and rides for tourists within the nominated property.

In its first letter for additional information, ICOMOS requested further information on the future plans for the interpretation and presentation of the different development phases of the railway, in particular the parts that are not in use anymore (locomotives,

machines, etc.). The State Party replied that there are ongoing feasibility studies for the establishment of a Great Railway Museum. Many of the features that are no longer in use will be displayed at the museum or at their location.

Community involvement

Community involvement is mentioned in the Management Plan ("seeking public participation") and at various points within the Management Plan's Action Plan. Community involvement in and awareness of the nomination is not explicitly stated.

The Management Plan's management strategy includes specific objectives that will engage and benefit local communities along the Trans-Iranian Railway. These include delegating tourism management and giving its revenues to local residents; increasing private sector investment in boosting tourism and conserving railway heritage; empowering and improving the economic state of local residents; prioritizing cultural products and adding a variety of social activities; identifying and introducing ceremonies and customs belonging to subcultures on the railway route; creating social interactions between villages and train stations; and expanding cultural, educational and museum activities.

Evaluation of the effectiveness of the protection and management of nominated property

While substantial documentation is submitted about the nominated property, particularly the engineering aspects, the nomination dossier does not include an adequate inventory, documentation, and analysis of the cultural heritage aspects of the railway that are potentially relevant to the proposed Outstanding Universal Value. The additional information submitted by the State Party addressed this issue partially with information that is not complete nor including the details required for an efficient management and conservation of the property as a cultural heritage resource.

Legal protection is generally satisfactory.

The structure of the management system puts the Trans-Iranian Railway Office at a relatively low level in the Iranian Railway Company's organizational chart. Furthermore, the Iranian Cultural Heritage, Handicrafts and Tourism Organization is not positioned at the decision-making level for the nominated property. This raises concerns about achieving the appropriate balance between the operational aspects of the railway and the conservation of the heritage values of the nominated property. The absence of a dedicated budget allocation for cultural heritage conservation activities is also a concern. An overall conservation management plan should be developed.

Visitor management is adequate. Regular monitoring of property should be carried out to assess the impact of tourists on the nominated property in the event the number of visitors increases as a result of the various planned tourism initiatives.

A positive aspect of the nominated property's management strategy is the inclusion of specific objectives to engage and benefit local communities along the railway. However, there is no explicit information on community awareness of, involvement with, or support for the nomination.

ICOMOS considers that the protection of the property is adequate, but that the management of the property is not adequate at this stage.

6 Conclusion

The scale and the engineering works of the Trans-Iranian Railway are notable. Its construction connected many regions and subcultures within the Islamic Republic of Iran and represented an important step towards the modernization of the country.

Nevertheless, the comparative analysis does not convincingly justify consideration of this property for the World Heritage List at this stage.

ICOMOS considers that criterion (ii) has not been demonstrated. The interchange of knowledge and technical expertise that formed the basis for the design and realization of the Trans-Iranian Railway has not been justified. In addition, it is not possible at this time to determine whether the nominated property can be considered an outstanding technological and/or architectural ensemble. Furthermore, the overall significance of the property's role in terminating the Second World War and establishing a sustainable peace has not been supported in a comparative context.

ICOMOS considers that criterion (iv) has not been demonstrated at this stage. However, the role of Trans-Iranian Railway in the modernization of Iran through a different approach and process from other non-western countries could be further explored with an in depth study on its manifestation in the features and characteristics of the nominated property.

ICOMOS considers that the conditions of integrity and authenticity have been met – though it is not yet possible to conclusively identify the attributes of this property without a solid justification of Outstanding Universal Value. A Heritage Impact Assessment of the planned electrification of the Tehran-Garmsar-Bandar-e Torkaman line is advised.

Conservation measures should balance the requirements of a working railway with the requirements of a cultural heritage resource. To that end, an overall conservation plan, as a complement the existing Management Plan, is essential for the nominated property.

The key monitoring indicators should be linked more directly to the identified attributes that support the proposed Outstanding Universal Value, and the monitoring regime should include the historic elements that are no longer in use.

In terms of documentation, a more balanced and holistic approach is required to address the cultural heritage elements (such as buildings) with the same level of detail as the engineering elements.

Protection of the nominated property can be considered adequate, but its management is not adequate at this stage. The Trans-Iranian Railway Office's relatively low placement in the Iranian Railway Company's organizational chart, and the Iranian Cultural Heritage, Handicrafts and Tourism Organization's position outside the main decision-making level, raise concerns about the prospect of achieving the appropriate balance between the operational aspects of the railway and the conservation of the heritage values of the nominated property.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the examination of the nomination of Trans-Iranian Railway, Islamic Republic of Iran, to the World Heritage List be **deferred** in order to allow the State Party, with the advice of ICOMOS and the World Heritage Centre, if requested, to:

- Reconsider the scope of the nomination on the basis of an expanded and augmented exploration of the role of Trans-Iranian Railway in the modernization of the country;
- Create a complete inventory and thorough documentation of all the tangible features that could support a revised justification for inscription, deeply analyse their cultural significance in relation to the revised scope of the nomination; and, in a more holistic way, address the cultural heritage elements (such as buildings) with the same level of detail as the engineering elements;
- Revise the comparative analysis, the justification for inscription and the criteria, focussing on the most appropriate ones in relation to the potential of the property and the revised focus of the nomination;
- Establish a conservation plan to complement the existing Management Plan, with the objective of better ensuring the appropriate balance between measures that address the safety and operational viability of the railway, and the conservation of the nominated property as cultural resource;

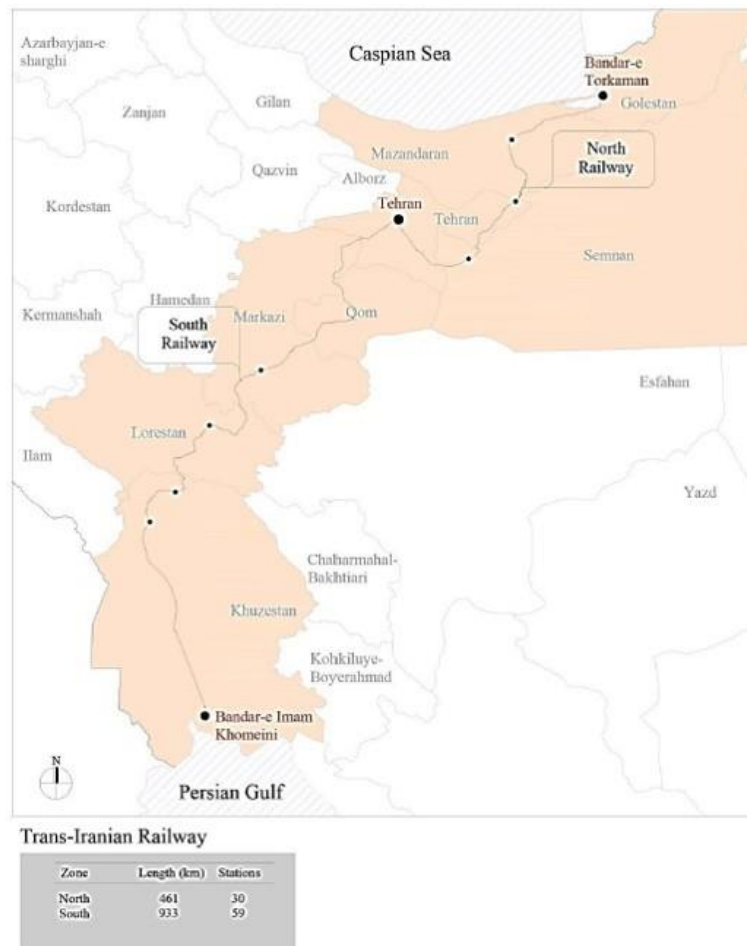
- Reconsider the organizational hierarchy to ensure that decision-making regarding the nominated property's cultural heritage is positioned at the most effective level.

Any revised nomination should be visited by a mission to the site.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

- a) Documenting, monitoring and conserving the historic buildings and other elements that are no longer in use,
- b) Preparing a Heritage Impact Assessment of the planned electrification of the Tehran-Garmsar-Bandar-e Torkaman line,
- c) Encouraging community involvement by means of the full and effective participation of a wide variety of stakeholders and rights-holders;



Map showing the location of the nominated property