



Wadi Hanifa – Looking ahead

UNESCO Mission to Wadi Hanifa Focussing on Water,
Ecosystems and Outdoor Recreation in the Ar Riyadh Capital
Region





Wadi Hanifa:

Draft Report From the UNESCO Mission to Wadi Hanifa Focussing on Water, Ecosystems and Outdoor Recreation in the Ar Riyadh Capital Region

Abdin Salih¹, Benno Böer²& Peter Dogné³

¹Consultant, Former Director, UNESCO Tehran and Cairo Offices

²Programme Specialist, UNESCO Office in Doha

³Programme Specialist, UNESCO Division of Ecological and Earth Sciences

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1. Background

Based on a request of the High Commission for the Development of Ar Riyadh, Peter Dogné and Benno Böer were invited to Riyadh 5 – 10 July 2008, in order to identify, together with Dr Abdin Salih, opportunities for UNESCO partnership and assistance in the context of ongoing restoration efforts and possible future conservation and sustainable development initiatives in Wadi Hanifah and associated areas.

The mission, which followed on Dr Abdin Salih's long-standing cooperation with Riyadh authorities on the hydrological aspects of Wadi Hanifah in the context of urban water management, was undertaken with the particular objective to explore opportunities for applying a number UNESCO's policy tools and instruments for environmental conservation and sustainable development, such as the biosphere reserve concept, the World Heritage Convention and the Geoparks approach.



The overall context of the mission was that of certain concerns that the Wadi Hanifah constitute an area of high ecological, cultural and socio-economic values, but that these values risk not being fully harnessed mainly due to rapid urbanization.

2, Meetings and discussions

The UNESCO team, Abdin Salih, Peter Dogsé and Benno Böer had a first short meeting in the evening of the 5th of July, and got together to discuss UNESCO's potential in assisting the Wadi Hanifah development and the itinerary for the mission.

A number of meetings were on the agenda, including a visit to the High Commission for the Development of Ar Riyadh (ADA), and meeting experts of the National Commission for Wildlife Conservation and Development (NCWCD), as well as the UNESCO National Commission.

During these meetings the UNESCO team met with Engineer Abdullatif Al-Sheik, President, ADA, Engineer Ibrahim Al-Sultan, Deputy President, ADA, Engineer Yousef Al-Fraiheedi, Director, Environmental Data Base Programme, ADA, Engineer Ibrahim Al-Shae, Head, Environmental Unit, Urban Planning Directorate, ADA, Engineer Mohamed Al-Dawes, Al-Hair Master Plan Unit, ADA, Engineer Badr Al-Tamini, Wadi Hanifah Restoration Project, ADA, Mr. Abdelrahman Al-Sadoon, Saudi Arabia National Commission to UNESCO, and others, and we studied geographic and planning maps of the large Wadi Hanifah Area (120 km in length). Furthermore there were a number of discussions and meetings, and finally there was a presentation from the National Commission for Wildlife Conservation and Development, given by Dr. Yusuf Al Wetaid (NCWCD), and in the presence of Mr. Khutaiba Al Saaloon (NCWCD), and in the presence of a representative of the UNESCO NatCom (Mr. Abdelrahman Al-Sadoon). The team agreed to follow-up informing the NatCom about UNESCO's support capacity in World Heritage Convention related issues, especially Natural Heritage, Geoparks, and Biosphere Reserves. The team also agreed that it would draft a report for the High Commission for the Development of Arriyadh, and send it to them via the UNESCO National Commission.

During the meeting with NCWCD, and with the Saudi National Commission for Education, Culture, and Sciences' presence, we gave three presentations:



1. The biosphere reserve concept and the World Network of Biosphere Reserves
2. Preliminary impression of the Wadi Hanifah region, its conservation and development challenges and opportunities
3. Concrete activities of the Doha Office, which may offer a potential for Wadi Hanifah development

3, Site visits

The mission also contained a number of well-organised field-visits in the Wadi Hanifah region, including the protected areas Al Hair, Al Laban, and Al Hasiyah. We also visited an eco-lodge in Thumama. Figure 1 shows the three areas visited, and their geographical setting in the greater capital region. Based on their natural and man-made ecological features, the three sites offer a great potential for the development of recreational tourism.

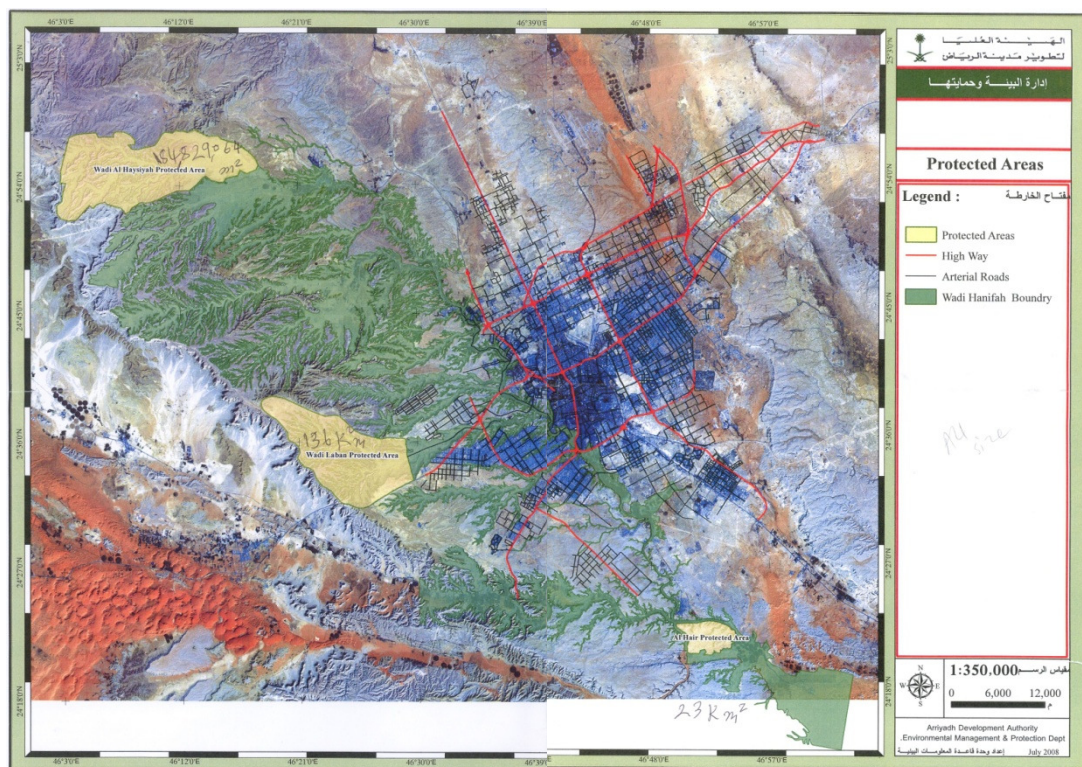


Figure 1: Satellite image of the overall Ar Riyadh region: the area highlighted in blue is the urban area of Ar Riyadh. The green highlights show the surface-water runoff system (which follows gravity from NNW into ESE direction). The highlights in yellow show the three protected areas of concern, namely Al Hair (in the south-east of Riyadh with a total cover of ca. 23km²), Al Laban (in the immediate West of Riyadh with a cover of ca. 136km²), and Al Hasiyah (in the North-West with a cover of ca. 185 km²).



Figure 2 shows the Laban area, and figure 3 a view of Al Hair.



Figure 2: Protected area Al Laban, with geological formations, and electric power lines.



Figure 3: Al Hair, with man-made wetlands suitable for recreational tourism activities such as canoeing.



Figure 4 shows an aspect of Al Hair's invertebrate fauna, which is rather unexpected for the layman in a hot dry desert environment.



Figure 4: Dragonfly in Al Hair. The family is normally known to be freshwater dependant for reproduction.



Figure 5 shows an aspect of the Al Hasiyah landscapes, believed suitable for outdoor recreational tourism.



Figure 5: Dry wadi in the proposed tourism development area Al Hasiyah.

4, Outcomes and tentative UNESCO suggestions and ideas for assisting ADA

The main outcome of the discussions and visits was that the Development Authority got improved insights into the competencies, contacts and networks that they can benefit from through UNESCO collaboration related to sustainable development linking urban and rural natural areas. Another important outcome of the mission was the positive discussion on the reactivation of the MAB National Committee, participation in ArabMAB and the scope for Saudi Arabia to submit, in the near future, biosphere reserve nominations (possibly following UNESCO missions to assist the relevant authorities for this purpose).

Overall, the UNESCO team viewed the mission as highly valuable and productive. Good relations were maintained with the High Commission for the Development of Arriyadh, as well as the NCWCD, and the UNESCO National Commission. Prospects



for increased future collaboration linked to environment and sustainable development issues, including linked to the biosphere reserve concept must be viewed as substantial. Opportunities for collaboration between MAB and IHP should also be mentioned.

The UNESCO team also had the opportunity to present some tentative suggestions for the future related to the fact that the fast developing Saudi capital Ar' Riyadh seems to be in need of areas for public recreation and that the availability of clean water in the Wadi system is important in this context. This assumption also forms the basis for the team's suggestions below, to be further developed and transferred in due time to the Ar'Riyadh Development Authority via the Saudi National Commission concerning the utilisation of the wadi waste-water for environmental enhancements, as well as for the development of recreational environmental tourism. ***However, the team stressed that UNESCO's future advice and engagement of course will depend on the Saudi counterparts expressions of needs and objectives.*** This was indeed highlighted numerous times by the UNESCO team.

The following list contains suggestions that derived from the mission to Ar Riyadh, and its surroundings. The ideas and suggestions are based on the understanding that areas for public recreation, in tune with environmental and social requirements are needed for the Ar Riyadh population.

Al Hasiyah

The Al Hasiyah area, which is subject for proposals for substantive tourism infrastructure investments presently under review by competent auth would indeed be suitable for outdoor recreation, such as picnicking, and camping. In order to keep the area clean, and allow for visitors to feel safe, a number of facilities might be established. It would be advisable to install large and small rubbish bins, ensure they are routinely collected, and ensure the area is being patrolled by trained rangers, responsible on tourism safety, cleanliness of the area, and reporting of changes and incidents of relevance for the management of the area. It would be possible to establish and eco-lodge in the area, possibly reflecting the traditional way of bedu life, and possibly with an educational and entertaining program (edu-tainment), that makes a visit unforgettable for the families. A number of day time and night time activities could be thought of, that might be of interest to the urban population: this ranges from star-gazing (with astronomical explanations) and desert wildlife lamping at night to



the discovery of geological formations, botanical and zoological components to full ecological training courses for the public, as well as for primary and secondary schools (including UNESCO ASP schools), and university classes. Of course, the eco-lodge should be carefully designed, including aspects of environmentally friendly buildings, and under consideration of safety, security, and sustainable human development. Also, a number of additional recreational themes could be possible, such as a climbing park for children, and even more exciting activities, as long as they are carefully planned by professionals.

Tentative UNESCO suggestions for assisting ADA: Tourism plan and eco-lodge for Al Hasiyah

UNESCO would be able and willing to assist ADA in developing a plan for environmentally friendly tourism development in Al Hasiyah. In particular, UNESCO would be able to assist in establishing a team of highly qualified international advisors of tourism developers, with a good background on ecotourism, eco-lodges, and recreational tourism along pertinent themes.

Figure 6 shows an existing ecolodge in Thumama, of value for environmental awareness, education, recreational outdoor tourism, and cultural and natural heritage conservation.



Figure 5: Ecolodge sample of Thumama could function as an inspiration for Wadi Hanifa.



Al Laban

The development capacity of Al Laban is believed to be of relatively lesser capacity than the two other areas due to the fact that the landscape is heavily impacted by above-ground electric power lines, which have a significant visual impact on the beauty of the area. However, due to its undulating geological formations, it would be thinkable to have the area investigated as one of the first ever UNESCO Geoparks in the Arabian Peninsula, possibly in conjunction with a Geological Information Centre. This would be of great potential interest for schools, colleges, and universities, as well as for geotourists. It would also be of great interest to display the history of Saudi Arabia in view of mineral oil and its relation to bio-geology, and have a permanent site developed to display the future industries of today's Mineral Oil and Gas Exporting Countries. In particular the establishment of a public "Science & Technology Park for Renewable Energy" would be a marvellous contribution to the world's future energy supply questions. This, as a matter of fact is so highly important that UNESCO would support it, and it could foster regional cooperation, and make it the first indoor and outdoor museum of its kind in the world, demonstrating and showing ways that mankind and with the support from the gas and oil sectors can go in order to find from the Oil Age into the future times of Renewable Energy. With a view to the imbalance of the industrial diversity of oil-exporting countries, it is believed to be of great importance to empower today's oil-exporting countries to boost their participation in the future global market participation of renewable energy.

Tentative UNESCO suggestions for assisting ADA: UNESCO Geopark and Science & Technology Park for Renewable Energy

UNESCO would be able and willing to assist ADA in investigating the potential and benefits of establishing a UNESCO Geopark in Al Laban, and possibly in conjunction with a "Science and Technology Park for Renewable Energy".



Al Hair

Due to the existence of flowing surface water, the area is unique year-round, and certainly provides a lot of potential for environmental green area development close to the capital, and especially in view of family recreation, public education, and environmental awareness. UNESCO would be interested in assisting ADA with the development of a Master Plan for Al Hair. This master plan would need a number of carefully carried out studies first, as well as additional discussions with experts and ADA. Items that should be considered in order to guarantee for maximum success and acceptance by the people from Riyadh, Saudi Arabia, and international visitors, range from ecological water management issues, such as hygiene, monitoring, awareness, education and research, reedbed technology, decentralised sewage systems, to many aspects of sustainable human urban development, such as GIS training, involvement of ASP schools, resources recycling, air quality monitoring, environmentally friendly buildings and cities, as well as demonstration sites of Arab and Islamic cultural practices, such as establishment of camel farms with hema systems, falconry and houbara conservation, saluki and sustainable hunting, etc. It would also be possible to establish a Quranic Botanic Garden along the river bank, featuring the most prominent plants mentioned in the Quran, as well as other Arabian plants, and make a contribution to botanic diversity conservation.

Along the river it would also be nice to have some prominent recreational activities established, for example down-stream canoo courses, by professional and safety trained experts. It would also be possible to establish environmental walk-about over the river, and allow for visitors to observe the area with a birds-eye view, and so enjoy the vastness of the area – this could be combined with environmentally friendly BBQ's and charcoal, based on the wood of invasive species (*Prosopis juliflora*) – this charcoal is currently being imported into the region from North America.

It would also be important to establish a **Visitor's Education and Interpretation Centre on Water in the Desert**. This centre could be based on a story, extending from the Kingdom of Saudi Arabia, focus more on Ar Riyadh, and then focus even more on Wadi Hanifa and its ecological components. This could include a section on Riyadh's water history, and future plans, as well as Water & Islam.

The widely acclaimed upstream bioremediation facility being established as part of the ongoing Wadi Hanifah restoration efforts is a laudable initiative that highlights the



benefits of harnessing science, technology and ecosystem services for public welfare. It also illustrates the potential that Wadi Hanifah offers for Riyadh and Saudi Arabia to develop a show case of major national and international interest concerning the successful integration of aquatic habitats in urban water management.

Tentative UNESCO suggestion for assisting ADA: Al Hair Recreational Water Park for Desert Education and Interpretation

UNESCO would be able and willing to assist ADA in investigating the potential and benefits of establishing a Master Plan for Al Hair in view of recreational outdoor tourism and public education. This includes the establishment of a Water & Desert Education and Interpretation Centre.

5. Mission follow-up and next steps

The UNESCO Doha Office has sent a letter to the Saudi Arabian National Commission for Education, Culture, and Sciences (NatCom), offering UNESCO's capacity to the relevant Saudi Arabian Authorities in the fields of Biosphere Reserve Development, World Natural Heritage Site Development, and Tentative Lists, as well as Geoparks.

The UNESCO team has drafted this report for the High Commission for the Development of Arriyadh, and submitted it via the Saudi National Commission, offering them the below listed ideas, and suggestions for the Wadi Hanifah development. Based on comments received on the report from ADA, the UNESCO team will then further develop concrete and more detailed proposals, as appropriate.