



**URANIUM DEPOSIT EXPLOITATION PROJECT OF THE "ADRAR EMOLES 3"
RESEARCH PERMIT**



CULTURAL AND ARCHEOLOGICAL HERITAGE IN THE PROJECT AREA

March 2022

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS	3
1. INTRODUCTION.....	4
2. REMINDER OF OBJECTIVES	5
3. EXPECTED RESULTS.....	6
4. METHODOLOGY	7
5. REMINDER OF THE LEGAL AND INSTITUTIONAL FRAMEWORK GOVERNING CULTURAL HERITAGE	8
5.1. Legal framework.....	8
5.1.1. International legal framework	8
5.1.2. National legal framework.....	8
5.2. Institutional framework	9
6. HERITAGE POTENTIAL OF THE REGION	10
7. FIELD VISIT RESULTS.....	12
7.1. Description of sites identified by village	12
7.1.1. Village of Tagaza	12
7.1.2. Village de Eghatrak	15
7.1.3. Village of Temilt – Daboss.....	17
7.1.4. Village of Gadoss.....	18
8. GENERAL CONSIDERATIONS ON HERITAGE SITES IN THE PROJECT AREA	20
9. POTENTIAL IMPACTS OF THE PROJECT ON CULTURAL AND ARCHAEOLOGICAL HERITAGE.....	21
10. MITIGATION AND/OR ENHANCEMENT MEASURES	22
11. PROCEDURES IN CASE OF FORTUITOUS DISCOVERY	23
12. CONCLUSION.....	24

LIST OF ACRONYMS AND ABBREVIATIONS

CELTHO:	Centre for Linguistic and Historical Studies by Oral Tradition
CNR:	National Research Centre
CNRS:	Nigerien Centre for Research in Human Science
IRSH:	Institute for Research in Human Science
MCAL/PEA:	Ministry of Culture, Arts and Leisure and promotion of artistic entrepreneurship
MCC:	Ministry of Communication and Culture
MNBH:	Boubou Hama National Museum
ORSTOM:	Office de Recherche Scientifique et Technique d'Outre-Mer
NCCR:	Presidency of the Republic of Niger

1. INTRODUCTION

To comply with the uranium mining project of the "ADRAR EMOLES 3" research permit with IFC performance standards and the principles of Ecuador, it requested the update of the Environmental and Social Impact Assessment (ESIA) of the said project. The latter includes the cultural and archaeological heritage component that will make it possible to assess the situation of the existing potential in the Agadez region in general and at the level of the site concerned by the project in particular. This is the purpose of this report, which is structured around two parts below:

- Reminder of the objectives;
- Expected results;
- Methodology;
- Reminder of the legal and institutional framework governing cultural heritage;
- Heritage potential of the region;
- Results of field visits;
- General considerations on the heritage sites of the project area;
- Potential impacts of the project on cultural and archaeological heritage;
- Mitigation and/or enhancement measures;
- Procedures in case of fortuitous discovery;
- Conclusion.

2. REMINDER OF OBJECTIVES

The main objectives related to the heritage component are:

- Conduct literature searches;
- Conduct community consultations to identify the cultural and archaeological sites existing in the project area and precisely at the level of the exploitation permit;
- Visit cultural sites;
- Visit the site of the rock engravings of Dabouss to geo-reference the site;
- Prepare a report and incorporate all observations made.

3. EXPECTED RESULTS

At the end of the study on the cultural and archaeological heritage component of the project area, the following results are achieved:

- Documentary research is carried out in order to have the situation at the regional level;
- Community consultations are conducted with a view to identifying the cultural and archaeological sites existing in the project area and precisely at the level of the exploitation permit;
- Sites identified during community consultations are visited, photographed and georeferenced;
- The site of rock engravings of giraffes of Dabous is visited and georeferenced;
- A report is prepared and the comments made are taken into account.

4. METHODOLOGY

To carry out this work, the methodological approach used includes the literature search, community consultations on the basis of a questionnaire developed for this purpose and the field visit which concerned all the sites identified.

5. REMINDER OF THE LEGAL AND INSTITUTIONAL FRAMEWORK GOVERNING CULTURAL HERITAGE

5.1. Legal framework

Niger has an important system for the protection and conservation of the rich cultural heritage, both tangible and intangible. This includes the international and national legal framework.

5.1.1. International legal framework

Niger has acceded to several international texts relating to the conservation, enhancement and protection of cultural heritage in all its tangible and non-tangible aspects these include:

- The 1954 Convention for the Protection of Cultural Property in the Event of Armed Conflict;
- The Convention on the Means of Prohibiting and Preventing the Illicit Import, Exploitation and Transfer of Cultural Property adopted on 14 November 1970 in Paris;
- The 1972 Convention for the Protection of the World Cultural and Natural Heritage;
- The 2003 Convention for the Safeguarding of the Intangible Cultural Heritage;
- The 2005 Convention on the Expression of Cultural Diversity;
- The code of local authorities;
- The Cultural Charter of Africa adopted in 1979.

In addition, the International Finance Corporation (IFC) it contains a series of 8 recommendations that define performance standards on sustainable social and environmental development. These recommendations are binding on the World Bank's clients. Performance Criterion 8 recognizes the importance of cultural heritage for current and future generations. The objectives of this criterion are:

- Protect cultural heritage from the negative impacts of project activities and support its conservation;
- Promote the equitable distribution of the benefits of the use of cultural heritage in commercial activities.

Finally, the International Council of Museums (ICOM) Code of Ethics on the acquisition of cultural property by museums and other museum institutions also contributes to the protection of the cultural heritage of a country like Niger.

5.1.2. National legal framework

The national legal framework governing cultural and archaeological heritage consists of:

- Constitution of 25 November 2010: Articles 37 and 41 of this constitution concern cultural and natural heritage: Article 37 states: "National and international companies have the obligation to comply with the legislation in force in environmental matters. They are obliged to protect human health and to contribute to the safeguarding and improvement of the environment. Article 41

states that public property is sacred and inviolable. Everyone must scrupulously respect them and protect them. Any act of sabotage, vandalism, corruption, embezzlement, squandering etc. is punishable by law.

- Law No. 97-022 of 30 June 1997 on the conservation, protection and enhancement of cultural heritage and its implementing decree No. 97-407/PRN/MCC/MERST/IA of 10 November 1997;
- Decree No. 2008-051/PRN/MCALPEA of 28 February 2008 approving the declaration of national cultural policy;
- Ordinance No. 2009-24 of 3 November 2009 on the Orientation Law on Culture.

5.2. Institutional framework

The actors involved in the management of cultural and archaeological heritage are:

- Ministry in charge of culture;
- Ministry in charge of Higher Education;
- Boubou Hama National Museum (MNBH);
- Institute for Research in Human Science (IRSH) and its bases in Agadez and Maradi;
- Centre for Linguistic and Historical Studies by Oral Tradition (CELTHO);
- Regional Museums of Zinder and Dosso;
- National Archives of Niger in Niamey and in the old circles;
- Institute of Isotope Radios (IRI) of the Abdou Moumouni University of Niamey;
- Decentralized services of the Minister in charge of culture;
- Ministry of Mines;
- Local authorities.

In addition to these institutions, we can mention the Nigerien National Commission for UNESCO and the IUCN representation in Niger. Through their material and financial support for the protection and enhancement of the cultural heritage of all member countries, they constitute a second category of institutions responsible for the cultural heritage of Niger.

6. HERITAGE POTENTIAL OF THE REGION

Niger has a heritage of immense richness both in its diversity and in its originality and authenticity located in all regions including Agadez.

Pre-Saharan land, the region of Agadez was green and humid millions of years ago, attests to the presence demonstrated by the various research carried out, skulls of crocodilians, trunks of silicified trees and the cemetery of dinosaurs.

Indeed, the human presence has been attested for several millennia. Thus, prehistoric man left us on the rocks, images through drawings and engravings that allow us to trace the history of ancient settlements.

In Niger from independence to the present day, we note that few inventories have been carried out by the Ministry in charge of Culture in the field of cultural heritage. The most important are those carried out in 1979-1980 and 1989-1990.

Thus, the inventory of 1979-80 focused on the safeguarding of the archaeological cultural heritage and that of 1989-90 on sites, historical monuments, movable objects, sacred places of worship, mystical tombs, festivals and traditional sports.

In the region of Agadez, the Paleolithic industry is mentioned at the level of several areas including Kawar and Djado between 30 thousand and 17 thousand years before today.

Concerning the Neolithic, it was discovered on Mount Bagazan, a 10 thousand year old Neolithic deposit that is one of the oldest in the domestication of nature by man.

During this Neolithic period, the lithic industry reached its peak, especially in the perfection of the tools produced in the countless workshops of the desert areas. It was during this period that engravings and cave paintings made their appearance.

The mastery of metallurgy in the region is of great importance and one of the great moments of human civilization.

The results of the research carried out have made it possible to attest to the presence of a 4000-year-old copper metallurgy (Afunfun, tigidit cliff). To the east of the Tigidit valley, it was noticed, the presence of a bronze metallurgy.

The considerable achievements of the ancient populations who had lived in the desert in terms of metallurgy, Neolithic, lithic industries, art and rock painting show how much this space was truly an important hotbed of civilization.

The main axes of archaeological research have concerned paleontology, prehistory, post-Neolithic, the age of metals of the ancient period and the contemporary period.

In all these areas, research and discoveries have been carried out under the administrative guidance and/or scientific and technical collaboration of the Institute for Research in Human Science (IRSH).

Among these discoveries we can note:

- Dinosaur and crocodilian deposits among the most important in the world dating from 150 million to 100 million years ago in the south of the Air Massif, notably in

Gadafoua southeast of Agadez by Philippe TAQUET of the Museum of Natural History in Paris from 1965 to 1975, by Neumann in 1983 and by Paul SERENO from 1993;

- Environmental pale and climatic pale deposits of the Air and Ténéré, Tafassasset, Kavar and Djado massifs by researchers from ORSTOM, CNRS;
- Aterian Paleolithic deposits in the Adrar Bous and especially in the Kavar and Djado;
- Acheulean Paleolithic deposits dating from 34 thousand years to 60 thousand years;
- Prehistoric research in the Ténéré, the eastern edges of the Massif de l'Air on the paleoclimate, the Acheulean, the Neolithic, rock art and the beginnings of iron metallurgy;
- Rock art stations of the Massif de l'Air and Djado by Christian SINCE from CRNS;
- etc.

7. FIELD VISIT RESULTS

The visit to the project site made it possible to identify the existing heritage in certain villages in perfect consultation with the local communities.

In view of the richness and diversity of the cultural heritage existing in the region and especially in the project area, hypotheses can be made that during major works fortuitous discoveries can be obtained.

Incidental discoveries are governed by Law No. 97-22 of 30 June 1997 on the protection, conservation and enhancement of the national cultural heritage and its implementing decree No. 97-407/PRN/MCC/MERST/A of 1 November 1997.

7.1. Description of sites identified by village

The sites identified at the village level where the consultations were held with their geographical coordinates are given in Table 1 below.

Table 1 Identified Sites

NAME OF THE VILLAGE	SITE NAME	TYPE OF SITE	GEOGRAPHIC COORDINATES
Tagaza	Gani (Mouloud)	Cultural space	N : 17°43.88' E : 07°33.53'
	Engravings (Ali Gourane)	Prehistoric	N : 17°43.76' E : 07°37.30'
	Old Cemetery	Cultural	N : 17°45.40' E : 07°38.75'
	Dinosaur tracks	Paleontological	N : 17°47.85' E : 07°36.36'
	Old well location with trough supports (stone blocks)	Historical	N: 17, 77217° E: 07.68478°
Eghatrak	Rock carvings	Prehistoric	N : 17°49.71' E : 07°37.32'
	Ancient mosque (ruins)	Cultural	Number : 17°48.60' E : 07°35.88'
	Dinosaur tracks	Paleontological	Number : 17°42.85' E : 07°35.81'
Temilt -Dabous	Rock engravings (Giraffes of Dabous)	Prehistoric	N : 17°53.23' E : 07°37.70'
Gados	Rock carvings (Giraffes)	<u>Prehistoric</u>	N : 17°52.15' E : 07°44.10'
	Rock carvings (tiffinagh)	<u>Prehistoric</u>	
	Old cemetery	<u>Cultural</u>	N : 17°52.45' E : 07°43.62'

7.1.1. Village of Tagaza

The description of the sites identified at the village level of Tagaza is indicated below.

➤ *Gani space*

Gani is a religious festival organized every year in commemoration of the birth of the Prophet Muhammad (peace and blessings be upon him) by the communities in the region of Agadez like the countries. Thus at the level of the village of Tagaza this ritual is organized on a space dedicated to this purpose on a plateau a few kilometers from the

village. All the populations of the village and those surrounding converge on this cultural space to commemorate this great event of importance. This meeting strengthens social cohesion and Islamic culture.

However, communities face a serious water supply problem during religious meetings. Management is carried out by the population.

Photo 1 Gani (Mouloud space)1

➤ *Aligourane*

The engravings of this site are constituted as we see of representations of the fauna with styles that probably existed in the area. There are several patterns on the rocks.

Photo 1 Rock engravings-Aligourane

➤ *Old cemetery*

This ancient cemetery site offers a set of tombs lined up on both sides.

Photo 2 Old cemetery (Islamic-type group of graves)

➤ *Dinosaur footprints*

They probably date back several millennia according to the information provided by the populations. As can be seen, these footprints undergo degradation due to natural phenomena.

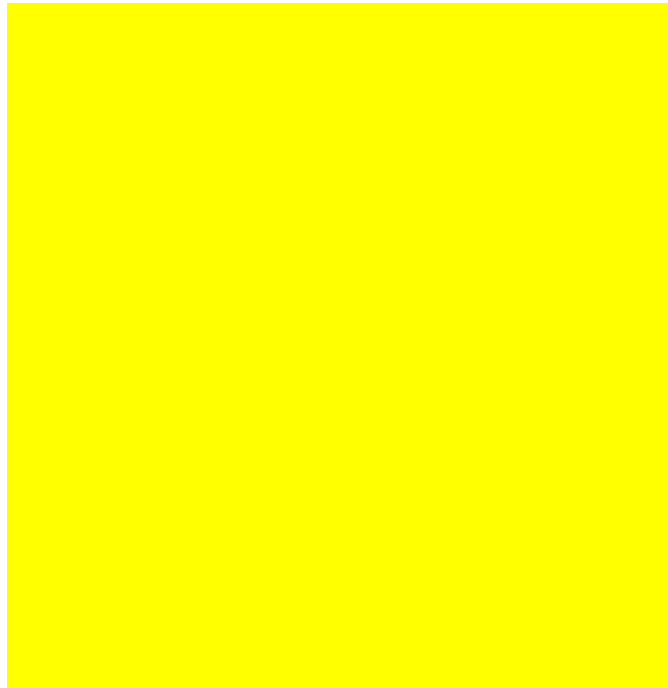


Photo 3 Dinosaur borrowings4

➤ *Old well location*

This well existed long before the arrival of settlers in the area and continued to be operational until the time of the revolt of the great warrior Kaocen in 1926-1917. But the well as such does not exist; there are only a few stones that served as a support for the drinkers. The location of this well is 7 km east of the village.



Photo 5 Ancient well site of Tagaza

7.1.2. Village de Eghatrak

➤ *Old cemetery*

This site includes Islamic-type tombs on a vast area whose date is not established. Mais according to oral traditions, this cemetery had existed for several years.

Photo 6 Ancient cemetery (type tomb group, Islamic)

➤ *Rock carvings*

At this site of rock carvings, are represented giraffes and other animal species that existed in the area throughout these rocks.

Photo 7 Rock engravings

➤ *Old mosque*

This site is an old, ruined mosque built since time immemorial in the area, because the populations do not control the exact date of its construction (See photo 7 below).

Photo 8 Ruins of an old mosque

➤ *Dinosaur footprints*

These traces are those of dinosaurs that have existed for millennia according to the information collected on the spot.

Photo 9 Dinosaur borrowings

7.1.3. Village of Temilt – Daboss

➤ *Daboss giraffe*

Dabouss is a world-famous site because visited by tourists It is one of the important tourist assets of the Agadez region

We find on these rocks several motifs of animal spaces of which giraffes are the most represented, it is a site that is guarded and provides important income to tourist guides and children from the surroundings earn gifts of all kinds from tourists. It is also a site visited by schoolchildren. Photo 9 below illustrates the giraffes of Daboss.

Photo 10 Rock engravings

7.1.4. Village of Gadoss

➤ *Engravings*

This engraving depicts giraffes in a walking position, in picketing, the most remarkable of which has long legs and a long neck, and there is a certain degradation due to natural phenomena.



Photo 11 Rock engravings

➤ *Tifinar*

It is an inscription on this rock of the Tuareg script the Tifinar as shown in photo 12 below.



Photo 12 Rock engravings (tifinar)

➤ *Old cemetery*

This cemetery includes a group of Islamic-type graves that date back several years according to local oral traditions, so the date is not mastered but attests to the human presence in this area for a long time.



Photo 13 Ancient Cemetery (Islamic Tomb Group)

8. GENERAL CONSIDERATIONS ON HERITAGE SITES IN THE PROJECT AREA

Of all the sites identified only that of the large giraffes of Dabous is known and worldwide because attracting the visit of tourists and schoolchildren. The site of Dabouss is also managed by the community because there is even a guard guide.

The other sites are known by the communities but are not visited and have no management mechanism except the cultural space of Gani. All these sites have a public status because they belong to the entire community.

Overall, the state of conservation of these sites is acceptable despite some natural (erosion, wind) and human threats to denaturation.

9. POTENTIAL IMPACTS OF THE PROJECT ON CULTURAL AND ARCHAEOLOGICAL HERITAGE

The main potential negative impacts of the project on infrastructure:

- Site degradation networks due to the immense mobility of vehicles in the area;
- Pollution of the air that can act on the rock engravings;
- Waste (chemicals etc.) that can act on the sites;
- Destruction of fortuitous discoveries during major works.

10. MITIGATION AND/OR ENHANCEMENT MEASURES

The measures proposed to mitigate and/or enhance the impacts of the project are:

- Traffic planning;
- Take into account the probabilities of fortuitous discoveries during the great Tavaux;
- Create a tourist circuit concerning the existing cultural sites in the project area;
- Take the cultural heritage component in the environmental protection plan;
- Communicate with communities to better understand their achievements in the field of cultural heritage.

11. PROCEDURES IN CASE OF FORTUITOUS DISCOVERY

The procedures to be adopted in the event of incidental discoveries are governed and supported by Law No. 97-022 of 30 June 1997 on the protection, conservation and enhancement of the national cultural heritage in Title VII and Chapter 2 which stipulates that when as a result of work or any fact of cultural property that may be of interest to paleontology, prehistory, history, art, archaeology or numismatics are updated, the author of the discovery is required to make an immediate declaration to the administrative authority which notifies without delay the Minister in charge of Culture and the Minister in charge of research.

12. CONCLUSION

The region of Agadez contains a rich and varied cultural heritage and especially in the archaeological, prehistoric, and paleontological fields and the local populations are aware of the presence of this heritage on their territory.

It is also noted that Niger has taken measures to protect this rich heritage through international and national texts and by setting up an institutional framework for this purpose.

Regarding the project area, sites exist all around and deserve to be preserved and enhanced.

In view of the richness and variety of heritage attested by research, missions and expeditions in the field, one can probably project fortuitous discoveries of heritage objects in the area.