



Association Marocaine des Sources thermo-Minérales

Moroccan Association of thermo-minerales waters

Hydrotherapy in Morocco and its socio economic impact on the local population

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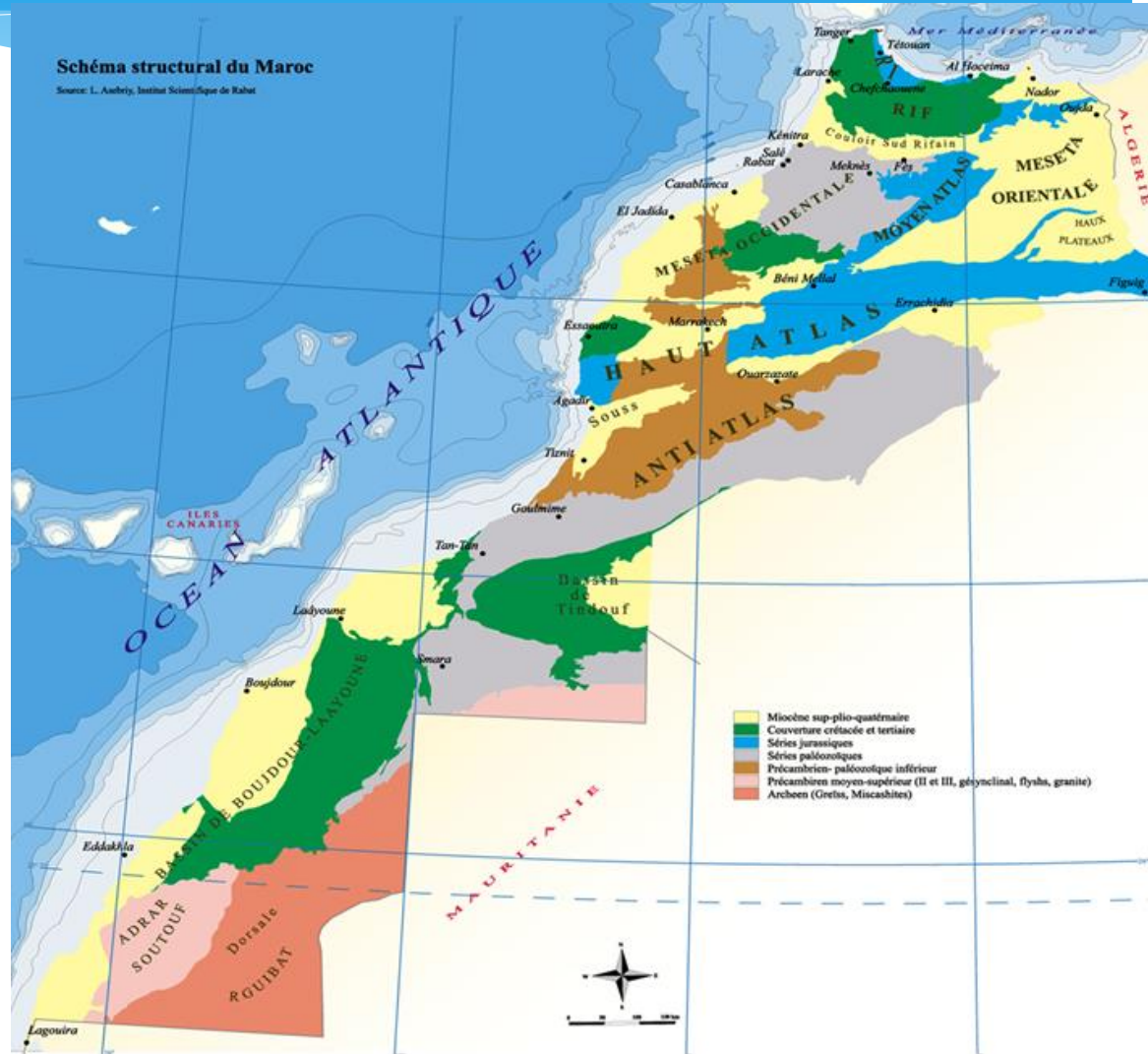
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INTRODUCTION

Morocco has important reserves of thermal waters and geothermal arrangements very advantageous which allow it to diversify its tourism products.

Despite the natural wealth and leverage of the regional economy, the opportunities offered by curative and thermal tourism remain largely untapped.

Thermal tourism mainly comprises traditional curative services and is based on a clientele of elderly people, while throughout Europe, this branch has undergone a multidimensional development which has broadened the range of services offered by targeting several generations and several types Services



INTRODUCTION

Trends in international demand

- An overall increase in demand for curative and health tourism can be expected as a result of the generalization of a lifestyle based on the consumption of natural products and as a result of the demographic evolution of the developed countries .
- Similarly, with the rise in the Maghreb's standard of living, domestic demand is growing steadily.
- As a result, quality criteria will be increasingly highlighted and new products will be more appreciated.

Therme traditional from My Yacoub since 1930



Therme relooke Moulay Yacoub



INTRODUCTION

The objectives

In accordance with the general objectives of tourism development, one can aim at:



increase in tourist revenues of the country of Maghreb through curative and health tourism

Raising awareness of new target groups, retaining a clientele of three generations instead of the current clientele represented by a single generation,



The development of products that can be competitive in the long term at international level,

The extension of the tourist season



Areas of intervention

The main areas of intervention are:

- Development of services by setting up balneotherapy and tourist services, capable of accommodating several types of clientele,
- Infrastructure development: infrastructure for the supply and exploitation of water resources,
- Standardization and regulation of establishments,
- Marketing of curative and health tourism,
- Development of human resources and scientific research.

Main results of the Diagnosis



Antique thermal baths in Volubilis, Morocco.

Socio-economic context:

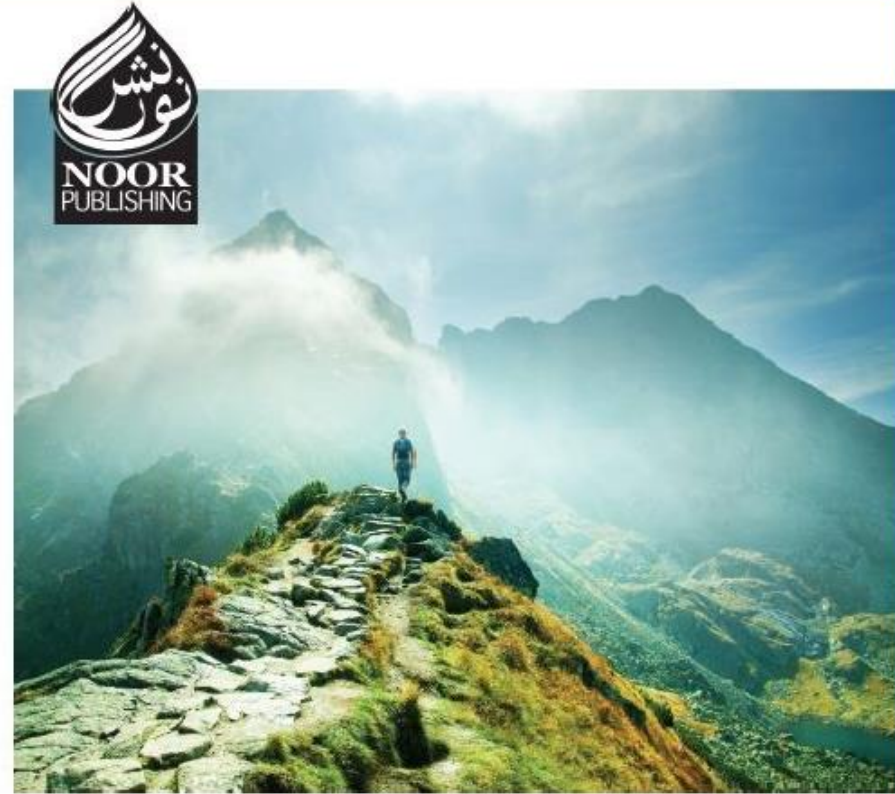
Thermalism, in Morocco as in many other Mediterranean countries, is part of an ancient tradition dating back to Antiquity. It is also worth noting that through the ancestral approach to body care and massages practiced in the hammams and baths during the medieval and modern period, the habits formerly enjoyed by the Romans were perpetuated spas.

Main results of the Diagnosis

Scientific context:

Natural mineral waters, whether used for hydrotherapy or for bottling, are, by definition, waters of underground origin, naturally well protected and bacteriologically sound. These are meteoric waters which, from one or more feeding areas, take underground circuits, sometimes very deep, before reappearing in natural resurgences or artificial catchments such as wells or boreholes . The time of this underground time corresponds to the age of the water, evaluated generally in tens of years and sometimes in centuries.

Sources thermales, Maroc



Mohammed Benmakhoulf

Les sources thermales du Maroc
Septentrional

Main results of the Diagnosis

the chemical analyzes

- The potential exists in thermal waters from natural emergences or boreholes is estimated at a total of 355 l / s.
- The quantity used by thermal establishments, traditional and popular hammams is of the order of 86 l / s, which gives an available and unused potential of the order of 269 l / s.
- Their water temperature is between 30 and 40°C (54° in Morocco) and dry residues between 0.7 and 14.7 g / l.
- The waters of the chemical analyzes showed that most of the mineralized sources acquire their mineralogical characteristics in contact with evaporate Triassic land,

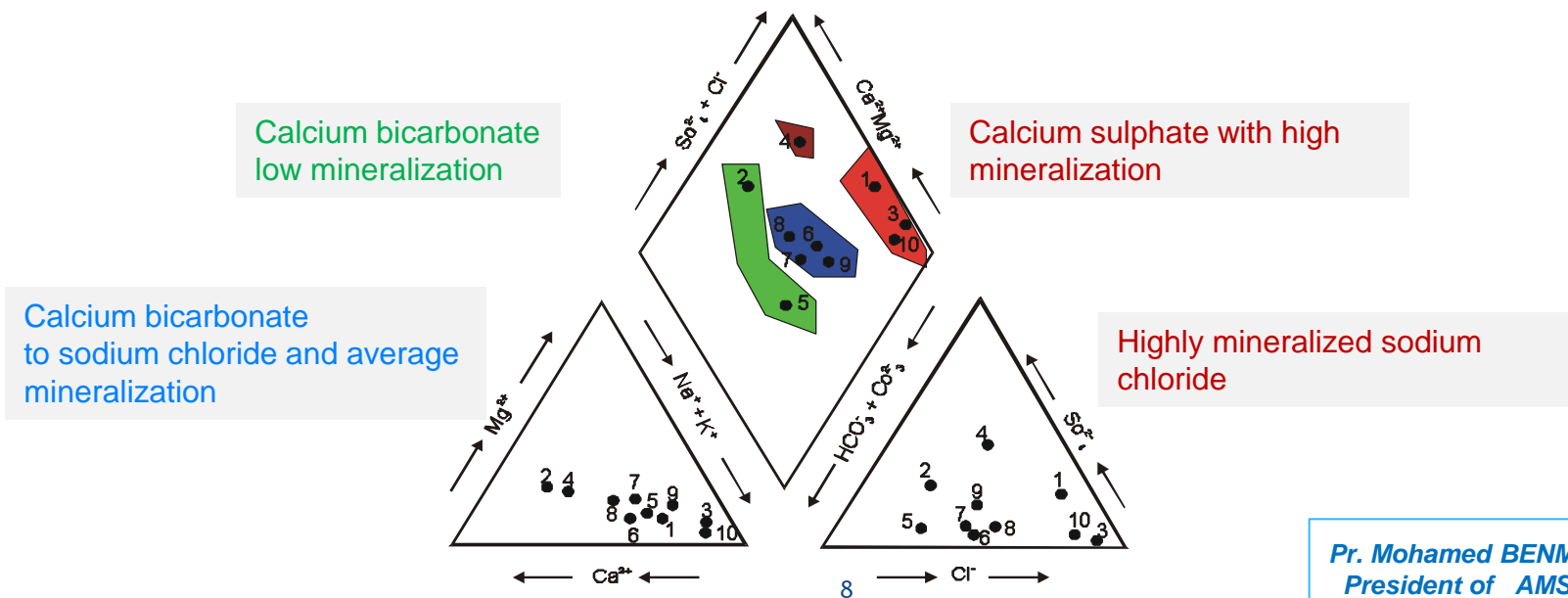


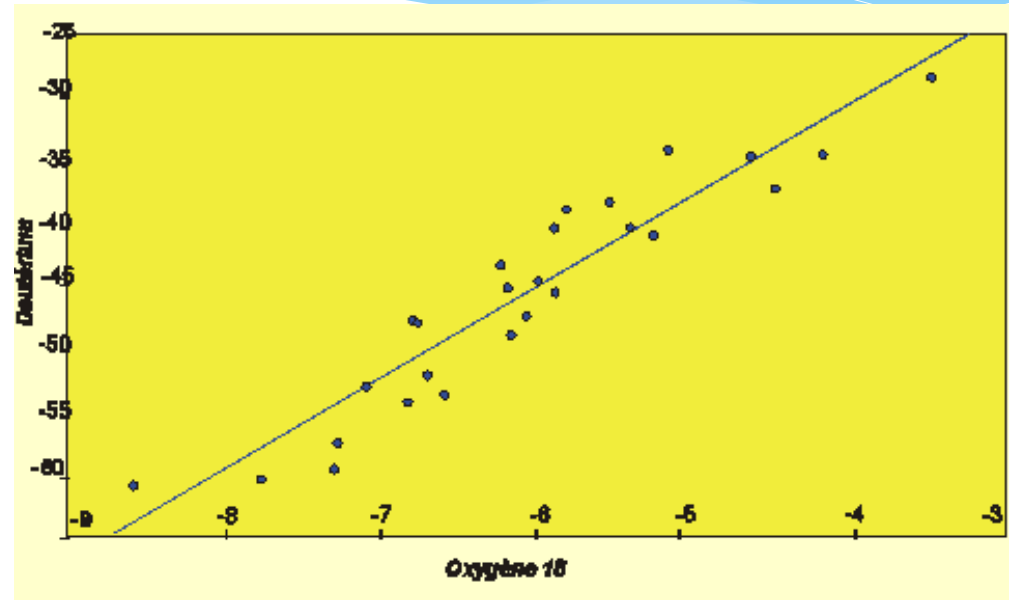
Diagramme de Piper des sources thermales des Rides sud-rifaines

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Main results of the Diagnosis

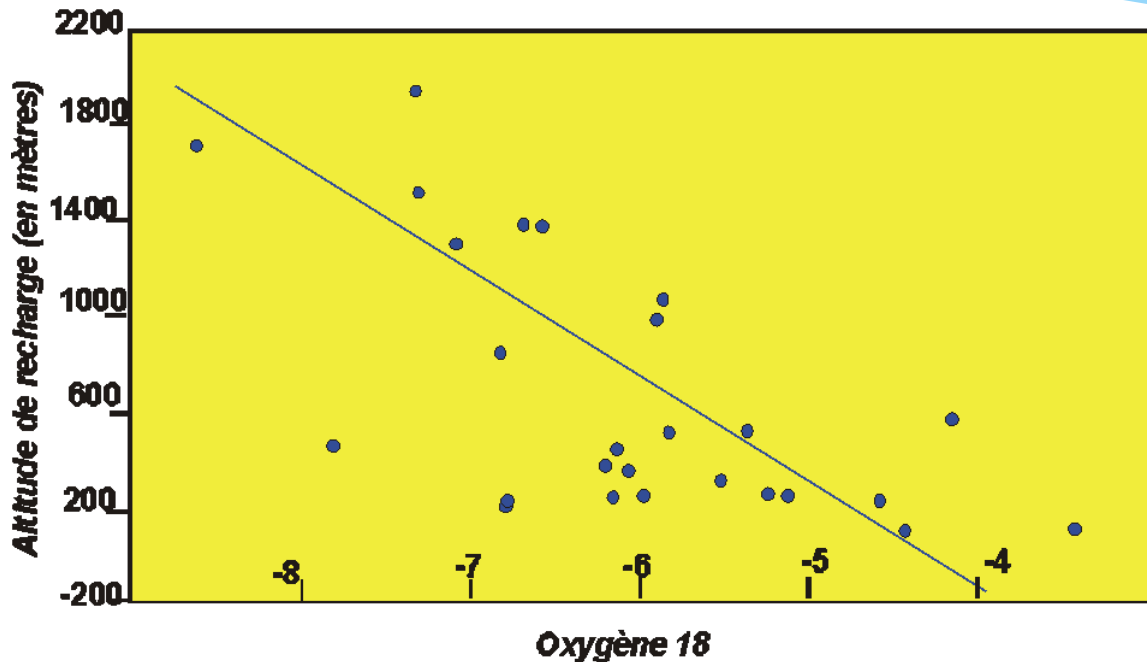
Origin of thermal waters

- The representative points of the thermal waters taken in Morocco are aligned along the regional line previously defined by the surface waters



We note that all the thermal waters are therefore purely meteoric origin of Atlantic origin without Mediterranean influence

Main results of the Diagnosis



Recharging Altitudes

- The determination of isotopic recharge altitude in a given region requires knowledge of changes in stable isotope contents of local precipitation as a function of altitude

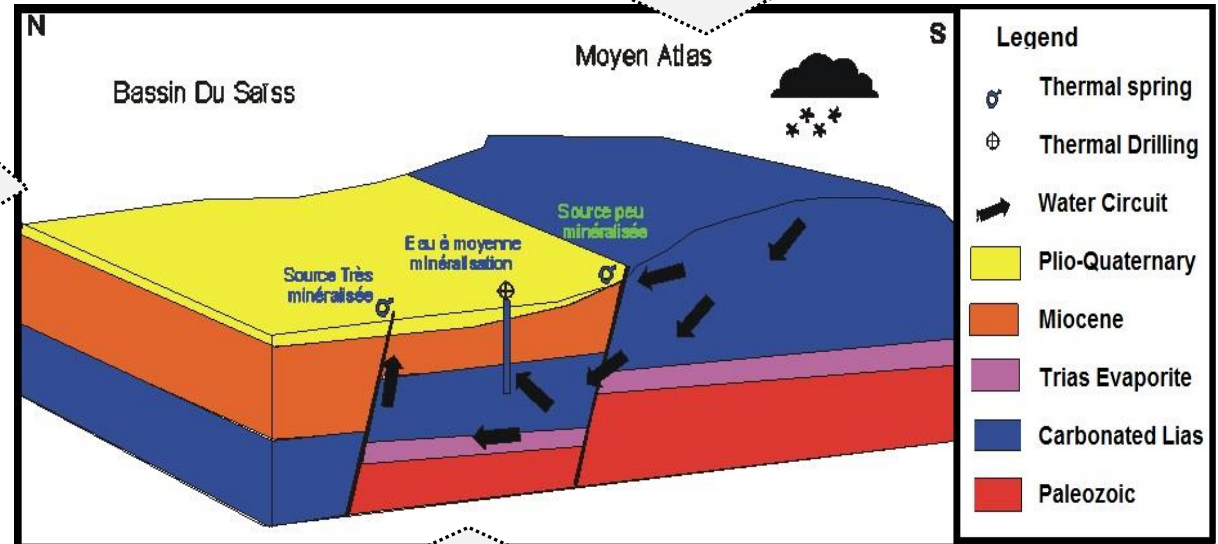


The isotopic analyzes of the waters revealed that all the waters of the thermal springs studied are of meteoric origin which have been recharged on vertices of altitude much higher than that of their emergences

Main results of the Diagnosis

The waters of the hot springs (exmple: the Saïss basin; Morocco) all come from the Middle Atlasic Causse and have infiltrated at altitudes above 1000m.

The waters emerge either from the normal faults that are visible on the seismic sections or captured by soundings that reach the liasic captive aquifer.



The circulation takes place in the carbonate formations of the liasic substratum of the Saïss basin with the leaching of the evaporite triassic land for the only Thermal water of Moulay Yacoub whose chemical composition is different compared to the other sources.

Main results of the Diagnosis



Strength points

- The existence of abundant and good quality resources
- The existence of an institutional framework for coordination and coherence of sector policy
- The existence of relatively efficient thermal units, although 'Medical cures'
- The development, in relation to tourism, of thalassotherapy whose similarity of products with those of hydrotherapy creates important possibilities for synergy
- Favorable demand developments, particularly at the international level, in relation to the demographic structure of the population and the greatest aspiration for well-being



Weak points

- Inadequacies in the regulatory and normative framework allowing for the relevant classification of products and units and a quality / compliance control accordingly
- The absence of an overall plan for prospecting, development and protection of the resource
- Inadequate facilities, infrastructure, human and organizational resources for a large number of 'traditional thermal units'
- The weak perception by potential promoters and financial operators of the economic interest of the sector
- Lack of an appropriate framework for research and development and training of specialized staff
- The insufficient integration of hydrotherapy as an important component of local and regional development

Main objectives of the development of hydrotherapy



Objective 1: Boost investment in the hydrothermal sector

The first objective is to revitalize the spa industry and to boost investment. Significant spillovers to the national economy are expected from the added value generated, the creation of direct and induced jobs, and local development



This source is about 15km east of Fez (Morocco). It is known in the time of the Arab geographer of the sixteenth century, Léon the African. This mineral water rich in calcium is renowned for its healing properties of liver and kidney diseases. The spring attracts many curists throughout the year.

Main objectives of the development of hydrotherapy

Objective 2: Rational exploitation of thermo-mineral resources

Morocco has considerable potential for under-exploited water resources (hot and cold), the development of hydrotherapy offers the opportunity to exploit these resources and create new jobs, particularly at regional and local level.



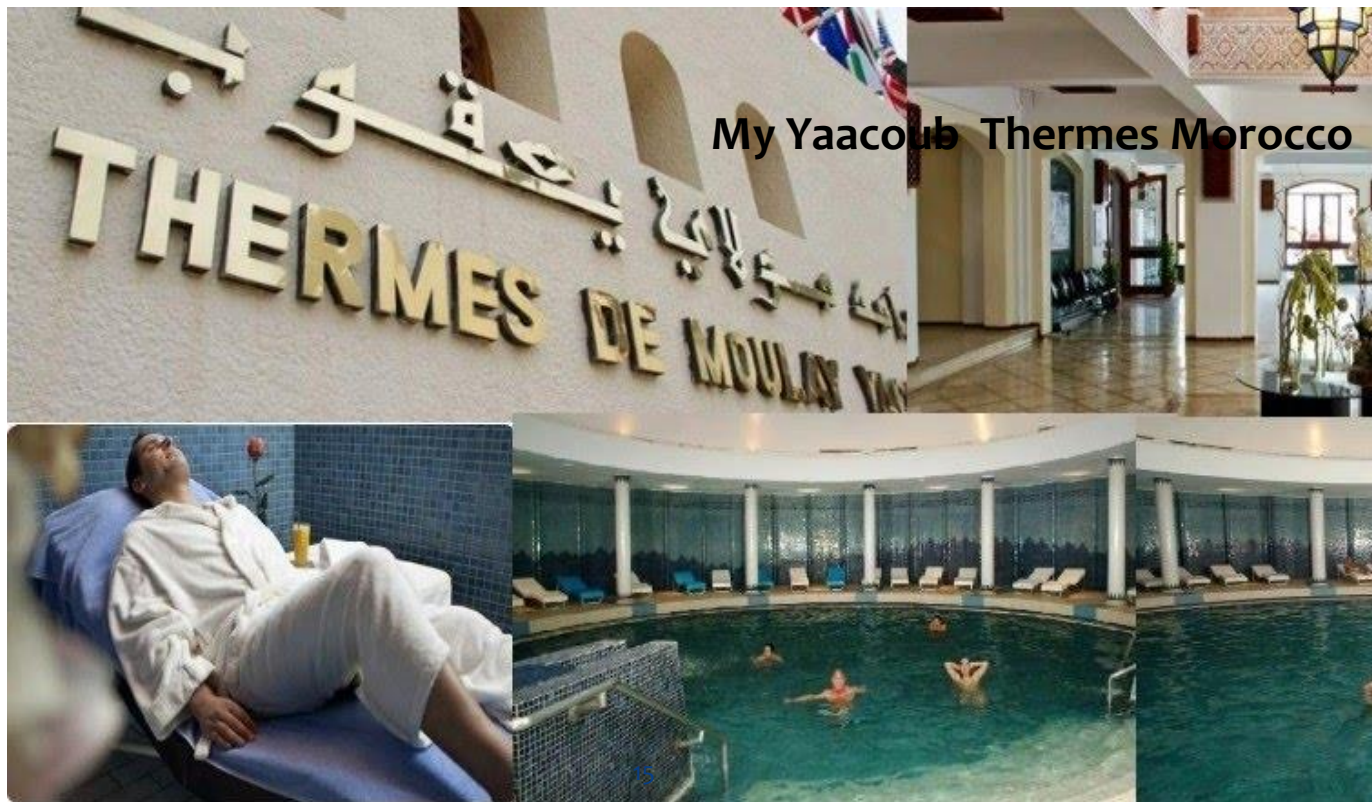
the source is located in the town Skhounat part of the territory of the rural municipality of M'haya, province of Meknes (Morocco).

The town developed in an anarchic way, about 6 hectares, the center of an agricultural area with a hot spring which simultaneously serves for irrigation and for domestic needs of the people whose numbers around 2,000 to 3,000.

Main objectives of the development of hydrotherapy

Objective 3 : To diversify and enrich the tourism product by offering complementary services

Hydrotherapy is able to strengthen the diversification efforts made for tourism and to provide additional services that can encourage tourists to extend their stay in the country.



Main objectives of the development of hydrotherapy



Objective 4. Contribute to job creation and human resource development

The modernization of the existing units and the creation of new thermal units are likely to boost demand for skilled human resources in the different specialties; in order to meet this demand, these specialties should be introduced into the curricula of higher education institutions and vocational training establishments.

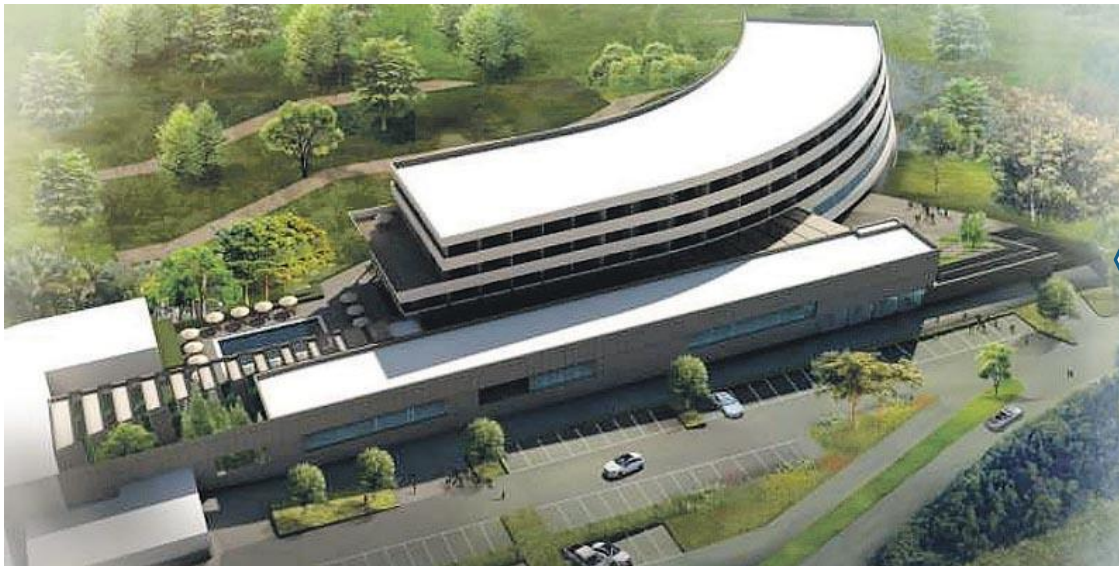
Modern technique of hydrotherapy



Main objectives of the development of hydrotherapy

Objective 5. Contribute to the foreign exchange contribution and relaunch the partnership with foreign investors

To make hydrotherapy a quality product that meets international standards and is able to attract foreign customers and thereby contribute to foreign exchange inflows. For this it is important to promote the thermal product outside and to encourage partnership initiatives.



The development plan of the spa resort of Moulay Yacoub also includes the renovation of the modern thermal baths and the construction of a "Vichy SPA Hotel Thermalia" for an investment of 26 million euros

Main objectives of the development of hydrotherapy

Objective 6: Making thermalism a lever for local development

This objective calls for the empowerment of regional and local institutional levels to make hydrotherapy a lever for development and an economic sector of activity. This objective will be reflected in specific measures at the level of development, financing of investments, but also the involvement of institutional partners and professionals interested in the sector.



Seminar on hydrotherapy in Morocco 2016
Rabat:

Thermalism World 2016 Yinkgou, China

**Thank you for your
attention**