

Таблиця 2 - Потужність на валу турбіни в залежності від кута  $\beta$

Кут переміщення лопатки турбіни	0°	30°	45°	60°	90°
Потужність на валу турбіни $N$ , [Вт]	0	225	454	681	900

Середня потужність при переміщенні лопатки на кут від  $30^\circ$  до  $45^\circ$   

$$N_{cp} = \frac{225 + 454}{2} = 339,5 \text{ Вт}.$$
 Час переміщення на кут від  $30^\circ$  до  $45^\circ$   

$$t = \frac{522 - 234}{339,5} = 0,85 \text{ сек}.$$

Визначимо також час переміщення лопатки на кут від  $45^\circ$  до  $60^\circ$

$$N_{cp} = \frac{454 + 681}{2} = 567,5 \text{ Вт};$$

$$t = \frac{900 - (234 + 522)}{567,5} = 0,25 \text{ сек};$$

і на кут від  $60^\circ$  до  $90^\circ$

$$N_{cp} = \frac{681 + 900}{2} = 790,5 \text{ Вт};$$

$$t = \frac{1800 - (234 + 522 + 900)}{790,5} = 0,18 \text{ сек}.$$

Загальний час переміщення лопатки на кут від  $0^\circ$  до  $90^\circ$  становить

$$t_{cp} = 2,08 + 0,85 + 0,25 + 0,18 = 3,36 \text{ сек}$$

**Висновок**

На основі аналізу гідродинамічних процесів, які відбуваються при взаємодії потоку рідини з лопаткою турбіни, одержано

рівняння для визначення потужності турбіни. Це рівняння дає можливість визначити, з деяким наближенням, час переміщення лопатки турбіни на відповідний кут  $\beta$ .

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**Ben Amara Mensour, Bouchouicha Reguia**

*University of Badji Mokhtar Annaba*

**SUSTAINABLE TOURISM AND DEVELOPMENT REQUIREMENTS IN ALGERIA**

The article scheme: To answer the previous question, we will process the subject in the following points:

1. The concept of sustainable development.
2. The concept of sustainable tourism development.
3. Tourism development in Algeria requirements.
4. Impediments to the development of tourism in Algeria.

5. Conclusion (Conclusions and Recommendations).

**Introduction.** Despite the relative modernity of the idea of sustainable development, it has become an important dimension in the development strategy, it is not enough to be measured development clause GDP as was the case until recently, but it must be added another, which described her to be

consistent with the requirements of sustainability.

Sustainable development requires that the economic growth at the present time is consistent with the interests of future generations, and not at their expense, and other words that may not grow at the present time leads to harm the interests of future generations.

He was driven to the emergence of the advanced development concept, to the resulting models consumption followed from harm and clear scarce resources and biological and cultural diversity of production systems, what has been established in the literature of the economy of that neglect of the environment and assault resulting in substantial costs on the current and future generations.

And derives a component of sustainable tourism importance of sustainable development within the texture of the fact that the last of these internal and external dimensions. Located tourism in the heart of the external dimensions and one of the most essential components, but can be considered as the axis of pivot for the sustainable development, there is fully convinced of the impossibility of having sustainable development overlook the tourist notch, it deliberately to find a balance between tourists on the one hand, tourism and resources on the other hand, that is, they relationship between the present and the future, it is the essence of sustainable development in general. And despite the fact that tourism has become one of the most developed in the world industry, and the most important sectors in international trade for many countries, but with regard to Algeria, which has a lot of tourism potential (tourism beach, mineral baths, and tourism, forestry, exploratory, desert tourism, mountain and archaeological, cultural and natural) that enable them to compete with many countries, the tourism sector is still facing many difficulties that prevent him until now to keep up with other strategic sectors of the economy and access therefore to the desired level commensurate with the real potential, this and Algeria have recently adopted a strategy development Tourism until 2025 to improve

the image of Algeria tourist abroad and attract investment for tourism product marketing.

What is meant by sustainable tourism development and the reality in Algeria?

First, the concept of sustainable development.

For as long as the concept of linking development and economic growth, but it is even in the narrow concept was similar to a large extent the concept of economic growth. With the issuance of the United Nations Development Programed reports, is no longer confined to the concept of development only on economic growth, but also extended to emphasize the need to improve the conditions and quality of life, physical and moral, political freedoms and other aspects related to human life. Thus emerged an additional shift in the definition of the concept of development, adding the dimension of time out of her and must provide justice in the benefit of future generations of development returns.

I've officially been for the first time to address the concept of sustainable development in 1987 through the "Our Common Future" report prepared by the World Commission on Environment and Development under the name of the report (Brandt land) which defined as: «to meet the current generation's needs without compromising the needs of future generations», are: «a set of policies and activities geared toward the future». Sustainable development is not a quantum one, but an ongoing process that enables all members of the community to expand their abilities to the fullest extent possible and employ them in order to ensure the achievement of the outcome of the present generation reap the fruit is also reaping the fruits of future generations .

The report (Brandt land) based on the work of Rio de Janeiro Conference (Brazil), April 1992, and who cared officially this entry through the ratification of the «Agenda 21», who founded the theory of the concept of sustainable development, which takes into account the environmental aspect, humanitarian and development and mutually supportive link between environmental protection and environmental reform on the

one hand and between the development and the eradication of poverty on the other hand.

As has been the adoption of 27 resolutions were on top of that the human being is the center of development, has been the introduction of different definitions all lead to the same meaning and purpose (such as):

- Sustainable development is development that takes into account the effects on the environment and indicators and trying to reduce the destruction;

- Sustainable development: is a set of tools and methods to create economic growth, preserves the environment and reduces the levels of poverty without destroying the natural resources and their ability in the short term at the expense of long-term development.

And 10 years later, held Johannesburg (2002), who continued his research in the same field and said that the pursuit of sustainable development requires a commitment to the adoption of the following policies : modifying consumption patterns wasteful of resources depleted and non-renewable; rationalize the investment of natural resources and the reduction of the lame economic growth; not bequeath future generations, economic or social debts are unable to respond; achieve justice and fairness in the economic relations, social present.

Based on these policies, sustainable development is based on the following principles:

→ *principle of solidarity*: You cannot achieve sustainable development, but to mobilize the cooperation of all parties and of citizens, organizations, local groups, experts, and others. As well as on the level of a single institution, can not achieve sustainable development only through the efforts of all members of the management, workers and ordinary tires at all levels.

→ *principle of participation*: Since pollution is not restricted geographical boundaries, sustainable development requires research in solutions and applications on a global level, not local. The states and non-governmental organizations approved to participate in the Rio de Janeiro summit on the so-called «Agenda» which of its recommendations that all individuals share at

the level of local communities in the stages of preparation and adoption of action plans.

→ *prevention principle*: You must be the solutions adopted by the sustainable development program that allows to protect the environment, improve the quality of life and the application of permanent methods of production. The projects in which the risks are too many in one of the three aspects that have been submitted must be studied again, developed or neglected. Without stand as an obstacle to scientific and technological developments because it is difficult to find a way to assess the risk resulting from the negative impacts of an innovative product or a new method of production.

And thus it can be said that sustainable development is the development responds to the wishes and needs of the various rights with the preservation of the environment and without mortgaging the future of generations to come. This concept has three basic dimensions, namely:

- After economic development;
- After the preservation of the environment and rational exploitation of natural resources;
- After social development aimed at improving the lives of human beings.

It is through these definitions can draw the most important components of sustainable development, namely, :

- a) social component (to achieve social development among different segments of society);
- b) economic element (economic growth and equitable distribution of wealth);
- c) the environmental component (to maintain and protect the environment);
- d) cultural component (respect for cultural diversity in the community);
- e) spatial component (to achieve a balance between urban and rural areas and urban configuration ... etc).

Considering these aspects, we find that there is another axis essential for sustainable development, which Almasssata dimension. Without institutions able to apply strategies and plans for sustainable development, will not be able to move the countries and communities in sustainable development through

sustainable programs applied by individuals and institutions.

And despite the fact that institutions play a pivotal role in achieving sustainable development, but that the existence of effective legal mechanisms as part of the regulatory system is essential for the sustainability of the development, laws investment, social development and labor laws, workers and the environment, systems must be integrated in the legal vision of man law managed at all levels of the developmental process control and paid for before the modern laws emphasize holistic approach to development. This role requires an aware of the importance of this development and legal institutions eligible Pkuadrha and tires for the application and enforcement of legislation to ensure access to the desired goal. In addition, it represents the application of the laws clause relating to sustainable development pillar of the province to achieve this development, which is characterized by the extent to run.

Sustainable development permission broad concept encompasses all fields of political, economic and social reform, aiming in particular to achieve the life of luxury for generations present and ensure a decent life for future generations while protecting the environment and the exploitation of natural resources is rational.

Second, the concept of sustainable tourism development

### **1. General definitions on tourism and tourist:**

1.1 Definition of Tourism: Tourism has numerous definitions, according to the opinions of those interested in studying the nature and Mkontha aspects, according to the views of the world and international organizations interested in international tourism, it can identify the most important definitions:

1.2 Gueyer Frohr definition 1905) GUYER FREULLER: «Tourism phenomenon of modern phenomena that arise from the growing need for rest and recuperation and change the atmosphere and a sense of the beauty of nature and taste and a sense of joy and fun of accommodation in a special nature areas». Hozakr

HUNZIKER and Kraft KRAFT definition (1943): «Tourism is the total number of relationships and natural phenomena that result from the establishment of tourist accommodation and that this does not lead to permanent residence and to exercise any kind of work, whether temporarily or always act in accordance with» World Tourism Organization definition (OMT): «The term given to the flight entertainment and all related activities and to satisfy the needs of tourists».

1.3 Definition of the tourist: There are several definitions about the tourist and remind them of the following: definition of the United Nations Conference on International Travel and Tourism), Rome (1963):

Arrived at a comprehensive definition of visitor that: «Any person visiting a country other than the state, which used to reside there, for any reason other than the pursuit of work is rewarded him in the state he is visiting».

This definition includes two categories of visitors: tourists and travelers quick trips.

-alsaúhon (Touristes): They are temporary visitors who stay at least for 24 hours in the country they are visiting.

- Passengers quick trips:

(Excursionnistes) They are temporary visitors for less than 24 hours in the country they visit.

EFA's Tinar definition (YVES TINARD): «the tourist is each person traveling outside the place of usual residence for a period of not less than 24 hours and not more than 4 months, and for the following reasons: the causes of recreational, health, study, get out of the tasks and meetings».

### **2. The importance of tourism:**

Tourism has become one of the most important phenomena characteristic of our time because of its importance in many aspects, including:

2.1 The economic importance: Can Ibrag during the economic importance of the following points: create jobs: The tourism sector dense tangles associated with many other sectors, and this means the possibility of tourism. To generate employment opportunities so outweigh the tourism sector

boundaries, stretching to reach the limits of the other sectors that supply him the pre-requisites of production.

Tourism has the capacity to generate more than most of the classical industrial activities, work positions, they employ more than 4 times for the auto industry, and 10 times the construction sector, for example, hotel with 50 rooms employ at least 5 permanent members and 10 two seasons workers and 10 temporary workers, workers, and the Group be 12 direct permanent employment position is added to the position of the indirect action, for example, in France, the Tourism employs 800,000 direct jobs except transport distributors at various tourist activities.

Flow of foreign capital: Tourism contributes to the provision of part of the foreign exchange for the implementation of comprehensive development plans, and can be summarized. Some types of flows of foreign exchange resulting from tourism as follows :

- The contribution of foreign capital in the private tourism sector investments.

- Sovereign payments received by the state in exchange for the granting of entry visas to the country.

- Currency conversion differences.

- Daily expenditure of tourists in exchange for tourist services, in addition to spending on the demand for the production of goods and services to other economic sectors.

Improve the balance of payments: tourism as an industry export contribute to the improvement of the balance of your state payments, and achieved this result.

The flow of foreign capital invested in tourism projects, the sovereign state revenues that are collected from the audience of tourists, and the creation of new uses of natural resources, and the benefits that can be achieved as a result of the creation of economic relations between the tourism sector and other sectors.

2.2 Social, cultural and political importance: social terms:

- Tourism, social and psychological important prerequisite for the restoration of human activity and return to work efficiently again.

- Tourism contributes to the reduction of unemployment, and improve the standard of living of the citizens. culturally:

- Tourism is a tool for communication and exchange of intellectual culture, customs and traditions among the peoples and a tool for creating a climate manifold spirit of understanding and tolerance among them , as well as regarded as a tool for knowledge exchange) trading of science and knowledge.

- Tourism is working to spread the cultures of peoples and civilizations of Nations between the different regions of the world, is also working to increase knowledge of peoples to each other, and strengthen cultural relations and closer distances between them.

Political terms:

- Tourism lead to improved relations between the countries.

- The positive results of tourism on the economic and social level contributes to solve a lot of political problems.

### **3. Tourism Development:**

3.1 The concept of tourism development:

There are several concepts for tourism development for some crosses the goal of achieving sustained and balanced increase in tourism resources, or increase productivity in the tourism sector, tourist optimal exploitation of productive resources. «Tourism development is the extent of the base facilities and services in order to converge with the needs of the tourists», and so the tourism development term for the various plans and programs that aim to achieve continuous increase and balanced in tourism resources, and deepen productivity and rationalization in the tourism sector through the creation of balance competitiveness between the conflicting demands and sometimes with limited resources and maximize results and positive effects of tourism development while minimizing negative consequences base.

3.2 Tourism development stages:

This topic has been addressed by many researchers and touched to the stages of the development of tourism and gave the different models to analyze the phenomenon . Model «Meosak» which tourism development stages divided into four stages, namely.

Source: preparation of the student

Through this figure shows us Meosak that tourism development pass four stages, starting with the discovery as where to highlight the tourist capacity of the destination tourism, followed by a stage of growth where is the development of tourism resources of the region gradually, then scurrying Where phase state intervenes and the planning and expansion of tourism, and ends stage of maturity where the region appear to be highlighted on the tourist map and which integrates tourism activity through the availability of the elements of the

tourist attractions and facilities. And taken on this model stopped at the tourist maturity and lack of analysis of any negative factors that may lead to a lack of continued growth, and therefore the possibility of entering the area in phase degradation and decline as a result of draws tourists to the tourist areas of competition, so it was a model "Batler" the year 1980 has identified this form six stages of the development of tourism, namely:

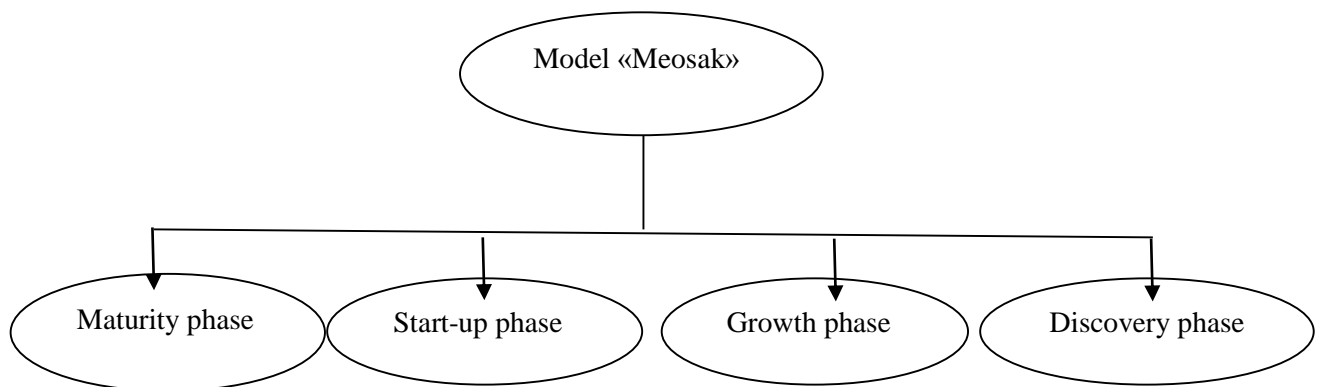


Fig. 1. Model Meosak in the division of tourism development.

- Discovery - Participation - evolution - maturity - stability or stagnation - renewal or deterioration.

Similar model «Batler» with the product life cycle, the first stage is to start to discover new tourist area, and with the increasing demand of tourists to the region, participation phase starts appears a range of services and facilities, and then begin start-up phase, where they are providing services and facilities extensively for tourists to service numbers growing, then comes the stage of development and growth, and if growth continues with the principle of balance, reach the area to maturity and following this phase stability stage there is no region is witnessing increasing growth for tourists, but growth stops at a certain point of the tourists, and at this stage that did not show in the area of new development based on the new tourist elements, they tend to decline and deterioration, so the tourism activity sound management in all stages of development is to spare the region access to the regression phase, and transfer to a new phase of the balanced

development of the ongoing (sustainable development) WLL.

**4. The concept of sustainable tourism development:**

Sustainable tourism is a convergence between the needs of visitors and host them and the region point, which leads to the protection and support future development opportunities, so that all sources management Boutrqh provide economic, social and spiritual needs, but at the same time keeps the reality of the Urban Environment and the style of the destination tourism.

According to the perspective of the World Tourism Organization, «which encourages both the wishes of the tourists and the needs of the host communities so as to ensure the achievement of protecting and improving the tourism prospects in the future through tourism resources managed in a manner responsive to economic needs, social, cultural, and biological diversity, ecological processes and living systems».

On the previous definitions of the concept of sustainable tourism development can get to

develop the concept of the traditional tourism development by adding recipe sustainability, and considering that the tourism development process is to satisfy the needs of tourists and psychological access to their requirements, without prejudice to the rights of future generations of tourists in their needs to enjoy the meaning of the environmental process, the

idea of sustainable tourism does not reflect the specific content tourist it is not a tourist product, and not a new way of selling activity or determine how to pay it is a model of development based on the axes of the strategy can be identified in four axes :As shown in the following figure.

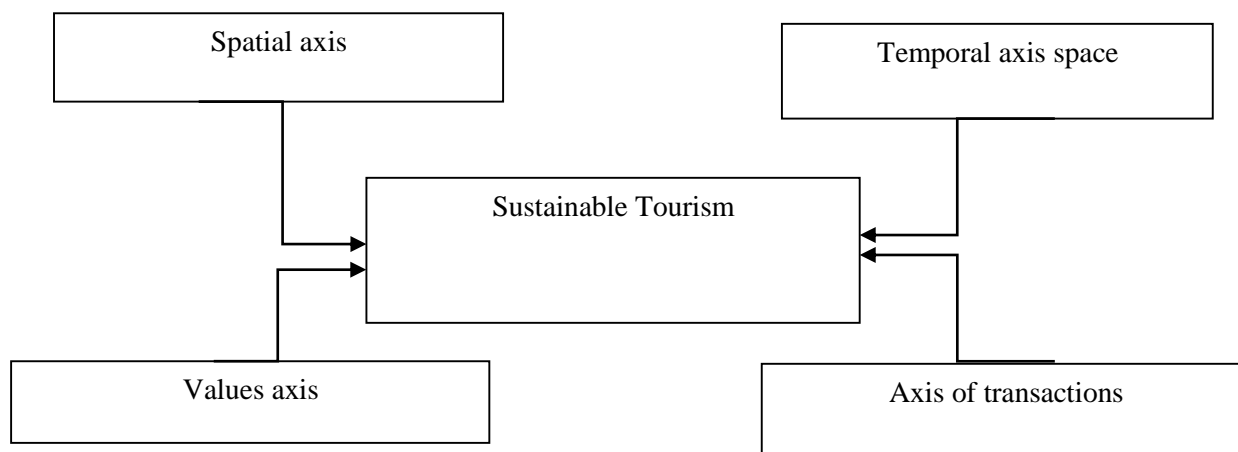


Fig. 2. Strategic Thrusts for sustainable tourism development.

Source: Abdel Basset al-Wafa: «Sustainable development of tourism between strategic and Contemporary Challenges», p. 134

The figure shows that the development of tourism based on four main themes: the first is the time where the space shows the length of time that Sndersha, then the spatial axis, which stands to be promoted tourist areas, as well as the most important of transactions axis depends upon attracting tourists, in addition to the Values axis shows customs, traditions and behaviors both for receiving hand or Soulih themselves.

Third, the development of tourism in Algeria requirements.

Tourism development depends starting on tourism investment, with the intended this investment: «the provision of capital and directed to the establishment of tourism projects both in the tourist offer, such as hotels, resorts and tourist villages, restaurants, parks, tourist sites and religious shrines and businesses tourist transport along ... and others, or on the side of the tourist demand such as exhibitions, corporate marketing and promotion, media, etc., or in the demand and supply sides, as in the companies, travel agencies and tourism, which are dealing with the parties, nor the capital is limited to the

national capital, but foreign capital joins them from out of state, and is associated with providing a favorable climate of the structure is complete basic legislation and soft, and incentives encouraging, and transparency of information available, and sophisticated systems of public administration, as is the provision of feasibility studies for tourism projects a key element in stimulating and attracting investment to it [27].

To achieve the overall objectives of the development of tourism in Algeria must Ministry of Tourism and the National Office for Tourism and well directorates state tourism increase on all of its directly or indirectly related to the tourism sector and works to achieve the comprehensive development of tourism in Algeria, that works through a specific strategy based on the following themes and foundations [28]:

The first requirement: the changing role of the public sector tourism and intensify the role of the private sector. This axis is achieved through the formulation of a new role for the public sector, which is shifting from the owner and the operator planned to exercise the role of

cheerleader and facilitator, and adopt this formulation of the role of the public sector:

1. Provide sophisticated means for integration and coordination of efforts between the government and the private sector.
2. Identification of bias investment priorities need implementation of tourism development processes.
3. Provide technical assistance to private investors.
4. Evaluation of the proposals for tourism development in the framework of the general plans for tourist areas.

The second requirement: the development of the legal and institutional framework.

This process is done by:

1. Review and simplify legislation and steps for investment operations and the allocation of land and contracts, permits and approvals for investment in the tourism sector.
2. The development of environmental and technical standards required for basic services such as water supply and sewage treatment.
3. The updated legislation and processes associated with the operation of the tourist areas within a comprehensive administrative, economic, technical and environmental aspects.

The third requirement: the supply of infrastructure development zones.

Is the most important tourism development objectives of non-load state budget any additional burdens for the provision of infrastructure for new areas for tourism development, and this spirit should be the tourist authorities in Algeria are working continuously to find a practical formula for the application of the concept of the tourist center where the parent company to provide infrastructure for the project facilities development at the level of the tourist center and prove the economic feasibility of this type of projects.

The fourth requirement: preservation of the environment.

Tourism development strategy in Algeria aims to achieve sustained development, which is based on environmental planning, and go to preserve the natural resources that make up the

tourism development capital, and this strategy include the following:

- Preparation of land use plans for priority areas allows the application of different types of tourism development.
- Develop programs to monitor and evaluate the environmental impacts.

Prerequisite V: determining the overall development priorities.

Any identification of priority areas on the basis of considerations relating to the natural characteristics of the current limitations and possibilities of sustainable development, and has been planning the priority areas set up so as to achieve:

1. Give a vision for the future development of tourism based on the analysis of the global tourism market, supply and demand and investment opportunities.
2. Formulate a rational entrance Development is based on the selection of priority sites and areas of special nature.
3. Identify implementation priorities comprehensive regulatory procedures.
4. The scheme for the preparation of priority areas based on the needs of the investment in infrastructure to support private investment in priority areas.

Fourth: tourism development constraints in Algeria.

Vary the ingredients facing the tourism industry varying degrees of economic and cultural progress in the countries of the world, and in Algeria tourism industry beset many obstacles and problems that led to the shrinking role of tourism in the areas of economic development, despite what they contain Algeria of resources and the potential for the advancement of tourism, the tourism industry has not received the attention required, there are a number of obstacles and challenges that are still facing tourism development should be addressed, including: [29].

1. The absence of strategic:

The lack of any clear strategy on tourism and the prospects for its development could indicate required at the regional national and local level in the economic, social and environmental areas and cultural heritage and tourism blurred vision.



2. secondary tourism development in the overall development plan:

Any weakness in the development of tourism site development plans, which reduces the importance of constantly under humility allocated for tourism and financial casings reflecting the lack of projects completed or planned and weak policy performance in the adoption of a clear strategy for tourism.

4. The absence of a tourist database:

Clearly, the lack of any data and information, where the absence of a good system of information and tourism statistics lead to lack of knowledge of the facts involved and thus Palmaumat tourist investments.

5. The failure of tourism infrastructure:

6. Humility quality facilities and services, and weakness or deficiencies in basic facilities and services such as roads, electricity, communications, sanitation, and as well as the weaknesses and deficiencies and irregular land, sea and air transport and the lack of access roads to all the sites and attractions.

Spread of tourism subconscious:

Humility tourist awareness and backwardness public awareness of the importance of tourism to most citizens.

V. Conclusion

The overall objective of government policies in tourism is to increase its contribution to the national economy. And specific objectives: to contribute to an increase in the balance of payments, contributing to a balanced regional development, job creation, re-distribution of income among individuals, contribute to the social and economic services. In most cases, the investment in the travel and tourism sector is based on the same business principles as is the case in the rest of the economic sectors.

When the state must help investors to invest in the tourism sector and the Algerian through:

1. Reduce the cost investment: This includes work on the reduction of tourism projects investment costs by giving support to the capital, and the granting of prices distinct interest loans and allow tax exemptions on construction kits, as well as the sale or lease of land to investors at prices lower than the prevailing market prices.

2. Reduction in operating costs: This can be achieved through tax exemptions and tax and customs exemptions similarities on imported devices to serve the tourism sector and support staff training program.

3. Investment Guarantees: The objective of these guarantees to secure the rights of investors, especially foreign ones, by:

- Ensure the right of redemption of capital and profits, and does this mean for foreigners to ensure their right to re-export their capital and their right to convert their profits abroad.

- Ensure that the loans in some cases.

- Encourage foreign investors reinvest its profits in other tourism projects within the host country.

4. Financial support: which is a certain amount of money awarded by the state for those in charge to implement tourism projects with no demands for basic Brdha. oualemazh for this type of aid is to reduce investment costs and usually provides support in the form of exemptions from the repayment of loans or installments, which directly affects the cost project. Financial support and management processes are generally considered a simple but must be faced and resolved the following matters:

- Report the amount of support for the project specific tourist.

- Ensure that the support used in the same purpose granted him.

- Ensure that the implementation of the tourism project will be on time in advance. Financial support and is of great importance in the face of liquidity needed by the tourism project in the early stages of implementation problems, and that support will contribute to the implementation of tourism projects, which sees the state as having special significance (such as job creation by supporting certain tourism projects).

5. distinctive loans: The loans provided by the government to investors in tourism projects at an interest rate lower than the prevailing market price.

And include a distinctive management processes loans from the government side:

A - detailed feasibility study of the proposed project.

B - the follow-up payment of premiums and benefits.

C - to make sure that the loan was used in the purpose for which it was granted.

D - ensure that the implementation of the project will be on time.

6. Loan guarantees: Governments or subsidiaries to guarantee loans granted by commercial banks for the development of tourism projects specialized bodies tourism project is eligible for a secured loan after the completion of the following steps: (A) evaluate the efficiency of the project under the conditions set by the commercial bank loan with the donor.

(B) the risks that can be exposed to evaluation of the project, or in other words, risk and security required by the Commercial Bank is committed to making the loan in return for the government's commitment to security or other specialized bodies in the case of the project stopped payment evaluate.

7. support low-interest operations: The support here in the government's commitment to pay the difference between the price on the low-interest loan that gets tourism project and the current interest rate imposed by commercial banks, this system allows the financing of the largest number of tourism projects allowing its distinctive loan system. The increasing importance of low-interest operations in the first years of investment operations where the project does not get the revenue in these years.

8. financial methods to support tourism investment: This type of aid is limited to tourism projects, which began in the actual activity and was able to achieve actual profits. There are many forms of financial aid to be different for different countries, including, for example, to allow the project work tourist precautions capitalist consumption of profits earned before taxes downloaded thereby reducing the amount of profits tax.

9. improve tourist services, and so worthwhile configure and train workers in this sector by raising the level of education and rehabilitation, in special centers and colleges specializing in the field of tourism and hospitality. And also the global interest in

languages for mentors, particularly English as a language of globalization undisputed.

10. directing media and publicity to serve the tourism sector and expand the establishment of meetings, forums and the creation of specialized periodicals, books, publications, films, newspapers, TV, radio, the possibility of definition to the product of tourism Algerian and piped to the students (tourists) through these marketing channels at home and abroad.

11. provide security conditions for tourists, and protect them from various forms of attacks which they may be exposed, such as theft, rape, and ill-treatment, which negatively affect foreign arriving in the country, and the resulting negative effects not only on the tourism sector, but the reputation of Algeria.

In spite of the multiplicity of the previous advantages but it is not enough to attract investors as the tourist activity is sometimes exposed to the contraction of the causes of economic and non-economic and therefore investment in the tourist sector risks are usually higher than the risks of investing in many other sectors. Therefore to be sure the aid provided by governments for tourism development and the provision of suitable to reassure investors, attracted by economic and legal environment.

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**Кугаєвська Т.С., Шутьгін В.В.**

*Полтавський національний технічний університет імені Юрія Кондратюка*

### ЛАБОРАТОРНІ ДОСЛІДЖЕННЯ ТЕПЛОВОЇ ОБРОБКИ БЕТОННИХ ЗРАЗКІВ НАГРІТИМ ПОВІТР'ЯМ

**Вступ.** Використання сонячної енергії при тепловій обробці бетонних і залізо-бетонних виробів надає можливість енергозбереження в цьому процесі. Разом з тим інтенсивність і тривалість надходження сонячної енергії до відповідного устаткування є

змінною. Тому в лабораторних дослідженнях необхідно розглядати різні варіанти цих показників.

**Огляд останніх джерел досліджень і публікацій.** У книзі [1] відображено напрями використання сонячної енергії для