



Together
Foundation

Best Practices Database

Subscriber: Vervoorn, IHS

Subscription Expires: 01-AUG-04



Station of purification of the worn-out waters, Al Hoceima City *Morocco*

Good Practice

New for 2002

Categories:

Production and Consumption Patterns:

- consumer awareness
- production/consumption cycles
- resource conservation
- waste reuse and recycling

Environmental Management:

-
- ecological sustainability
- environmental health
- environmental remediation
- environmentally sound technologies
- incentives for sound management
- monitoring and control
- pollution reduction
- resource management
- urban greening

Infrastructure, Communications, Transportation:

- energy use, conservation and production
- sanitation
- waste-management and treatment

Level of Activity: City/Town

Ecosystem: Coastal

Summary

The city of Al Hoceima is situated from 500 kms of the capital Rabat, in the middle of the massif of the Rif*, a giving territory on the Mediterranean and that constitutes a unique ecosystem with an extraordinary biodiversity, rich in natural heritage and to big tourist vocation, by the quality of beaches that are reputed as being most beautiful of Morocco, to even see the Maghreb.

The socioeconomic situation of the city is characterized by an elevated demographic thrust and a sustained enough economic growth that didn't lack to beget an increased urban growth, that is exercised with the time a strong pressure on the natural resources and a multiform deterioration, especially the one of the coastal environment.

Indeed, that says urban agglomeration is said to be a source of pollution, its transfer, and its dismissal, but an inshore city is about as for it implies: dismissal of pollutants of the agglomeration in the coastline. Thus, the direct sewage tipping in the sea without any previous treatment constitutes a

potential threat, for zones of bathing, for the aquatic life (that risks to mislead an inimical impact on the aquatic and biologic environment of the sea), capable thereafter to affect conditions of hygiene seriously within the same agglomeration. To face this situation, it became very urgent to put in room, a system that can stop the propagation of the problem before it touched the even holy others zone, from where the idea came to achieve the station of water purification used Cebadilla, it is a responsible initiative, appreciable to the national and international ladder, that concerned the retraining and the management of the worn-out waters of the way to reduce their negative impact on the environment, and to stop pollutions in perpetual evolutions caused by the direct tipping of sewages in the sea, the initiative came therefore in a worry of protection of the environment, the improvement of conditions of life of the population, and the restoration of the picture of beaches of Al Hoceima.

Narrative

The opening of Morocco on the international stage in matter of environment and more specifically in the domain of the lasting development, is under -tense by an action pluridimensional and continuous of development of strategies and programs of action in favor of the environment and to the improvement of the setting of life of the population.

So and while rallying to the international will to preserve the environment and to translate in act the convention of Rio, Morocco decided work in favor of a better management of the environment. To the level of the urban locality of Al Hoceima, and hence the popular adage " Think global, Act local " the public powers of the city bet on the environment, and it is as well as they conceived and adopted a new approach based on a global and embedded vision, that aimed the development of an environmental conscience, making of the environment a central preoccupation of the socioeconomic development.

Before beginning objectives and the realization of the initiative, we should recall environmental situation of the city before the starting of the initiative. The city of Al Hoceima is situated in the extreme north of the Kingdom of Morocco, on the Mediterranean coast, it overhangs of some measure the beach and the superb semicircular beach of Quemado, the morphology of the city is characterized by a damaged topography and by the natural obstacles formed by cliffs, this made state that the sense of out-flow of the network of purification and the pluvial flows is unfortunately the Mediterranean, and it is as well as the fresh city currently of three dismissals in the sea :

- The dismissal of the slaughterhouse that concerns 8% of the population;
- The dismissal of the harbor concerns 10%;
- The dismissal of Cebadilla that concerns 82% and that is the object of the initiative.

Therefore the site of Cebadilla constitutes the main dismissal of the city, this collector is considered as the dorsal thorn of the network, of the fact that it crosses the city of the south to the west while borrowing the main boulevard way, it drains a basin pouring 266 hectares, and it goes against on its course by the secondary collector mediator, several districts, and clear in the sea to the level of the enforceable of Cebadilla.

The dismissal of the urban sewages and the domestic waters of the city of Al Hoceima, that is characterized by a quantity impressive of oils of drain, of tars and septic sewages, in the coastal middle of Cebadilla, it was before the realization of the station, an important source of pollution of the city and the quality of bathing of its beaches.

The studies done to the time, showed that the worn-out waters rejected in the site of Cebadilla, contained strong concentrations in pathogenous germs, that makes a source of contamination of it capable to infect conditions of hygiene of the city seriously. On the other hand, the dominant winds to direction Northeast to Northwest and that passed by the open sky dismissal Cebadilla, provoked the bad smells and flies in city.

To face this situation, the tourist vocation of Al Hoceima, to essentially bathing character was in peril, because close by some dismissal is a beautiful beach strip to sand, and because of that by reason its bathing zone vocation to develop in the future (tourist amenities, villas...) begins to lose its appeal, and

it was the future of the city in question, because the beach of Cebadilla gave a bad impression on the other beaches of the city that are not affected.

One can summarize and can say that a set of coercive factors that made of the dismissal of Cebadilla a neuralgic point of the city:

- Grasped by hills, the city constitutes a natural pan for the receipt and the drainage of the flowing waters toward Cebadilla, therefore it is impossible to get round the problem, toward another zone of the city.
- The strong erosion of the relief of which one often finds products in the beach, threatened the quality of sands of the Cebadilla beach.
- The outlet natural of sewage being at the sea, therefore there was a big risk of change of the quality of the receiving middle.

Therefore, the only solution stays the realization of a purification station that is going to filter the worn-out waters in order to minimize damages and to restore the picture of the city so that it recovers its national and international touristy value. Hence of this brief diagnosis priorities of the initiative were focused on the following points:

- The improvement of the setting of life of the population by setting up a purification station that will purify air and that will restore the Northeast part of the city.
- The initiative put the protection of the environment in uphill and downstream its preoccupations, so it contributed to efforts of the riparian countries of the Mediterranean, in favor of this sea in view to create a more healthful environment in the auspicious Mediterranean region to the development.
- The protection of the beach of Cebadilla presented itself like a primordial priority to achieve, in the goal to improve the picture of the city and especially to prepare the land for the future tourist vocation of the zone.

One can say that the project has pulled out a new dynamics to the site, of the fact that-it constitutes the exit of the population currently for walks the long of the coast. It is the fruit of several studies, that concerned the aquatic and terrestrial environment of the site, of dialogue between the different actors, and it is in a responsible and appreciable optics to problems put by the Cebadilla dismissal, and these future implications, that are going to hinder all lasting development politics or future extension of the city (especially when one knows that the city doesn't incline any lands to open to the urbanization because of the damaged topography), that the public powers (local advice, prefecture, ministry of urbanism .territory adjustment and the environment, the civil society...) conceived and adopted a global, responsible, and prospective approach, emanating all composants of the society, and that aims to make of the environment the key of arch of the Socioeconomic development of the city.

The initiative answered to principles of the development of the lasting environment, in the court, the means and the long term, and this while adopting the following party:

- To repair in firstly damages and deteriorations caused by the free dismissal in the coastline.
- To develop an environmental conscience close to the population so that it supervises the quantity of greases and oils to the level of the source, and this in the goal to optimize costs of exploitation of the station, and to make promote a culture that respects the environment.
- To integrate the project in the process of the development, because the healthful environment, implies a healthful land for the investment and the lasting development.

The station has been achieved at 16.09.1995, the exploitation began in September 1996, it is a station of type mud activated, that treats sewage collected from a network of purification of the unit type, the station understands all works of the worn-out water treatment :

- Of spillways of storm by blade.
- Station of raising
- Of sableur combined deshuileurs
- Wring of sands by pump
- Thimble primary storyteller by reactor of bottom

- Cool mud extraction
- Biologic treatment
- Thimble secondary storyteller
- Stabilization aerobie of muds
- Epaississeur
- Beds of drying

So sewage that arrive to the station are urban type (worn-out waters) containing strong loads of septic sewage, they pass then by the different phases of the treatment to leave in end of the amount of waters containing pathogenous germs that are not harmful to marine life, as well as of the organized strong garbage essentially of scales of fishes and seeds of fruits and vegetables, and that are mixed to the dehydrated mud thereafter, give fertilizers that agriculturists use free for the fertilization of their agriculture.

To the topic of the two other dismissals that is to say the dismissal of the harbor and the one of the slaughterhouse, the first been endowed of a pump that transmits its debit to the network of Cebadilla, the second summer as the object of a small station of treatment.

The project, met at the time of its realization several problems, first to the level of financing (the budget of realization passed means of the township), the acquirement of the Cebadilla land (it is about a private land of which the owner didn't want in the beginning to sell it to the township), and the problem of sewages extracts in oils and greases that binders the good working of the station because they must make the object of one considerable treatment time.

But thanks to the will of all actors, the initiative that transformed constraints in potentialities in the setting of the lasting development, of the protection of the terrestrial environment and submarine, and of the natural resource economy (pitch, fertilizers, tourist product etc...) It reached a better coordination and integration also between the different actors and administrations, and has a change of attitudes and behaviors of people, while developing an ethics that integrates environmental dimension in all economic scheduling project.

In short recall it, the initiative expresses a will that came against the undergone of the bad convenient, and it is a challenge to see a sacrifice on behalf of the advice of the fact that this last repays the debt of the financing of the project again.

The financing of the station was possible thanks to a loan of the Local equipment Bottom (FEC), of the order of 59.100.000.00 DHSS (59 100 00 US \$) About 120.000.000.DH (120 000 00 US \$)with benefit, this loan is not repaid again, it remains 1 233 330,487 DHS along 15 years. The budget of management of the station is the order of 3 000 000 DHS (300 000 US \$) per year, one can say that this loan paralyzed the budget of the local advice of the fact practically that it passes these means, and in spite of this situation the advice chose to invest itself in a lasting order project.

SUSTAINABILITY

The project in its totality develops a responsible practice to requirements of an appreciable domain that is the lasting environment, that aims the natural resource conservation. The notion of durability is integrated in the project in uphill and downstream, the initiative is an utilization rational of the natural resources and more especially of soil, because it aims to warn and to avoid the negative impacts of the urban growth not controlled on the natural resources, it is not at all about a prompt action but of course of an action hard in the time and in the space, and whose population harvests fruits currently, by the whole of fallen again them beneficial on the local and national economy, and on the setting of life of the population.

So the lasting character of the initiative arrives of the three following notions:

- The cost: the harvested profits pass the cost from afar vests to the departure it is not only about costs of realization, but also of costs of working to long term.

- The security: the full project have a well function in the time and in the space (the project contributed to avoid risks that are harmful to the environment a lot, and that are bound to the human activity.
- The value: it is about the global value of the project, so much on the plan of its social and environmental mission
- The time: it is about foreseeing the future extension of the project, in order to answer to requirements of a population in perpetual growth (currently its capacity of 60 000 habitants tomorrow it must be capable to treat sewage of a population appraised to 80,000 inhabitants, it is why a future extension is programmed in 2014.

LESSONS LEARNED

The lesson that can be picked from this experience remains the necessity to integrate the dimension environment in all plan of action, because the environment is the main piece of the lasting development.

Constraints change in potentialities, and these last guarantee the optimization of the project and the increase of the quality of its benefits. So the transfer of such an experience must already take in consideration the process quoted either to the level of priorities that of the strategy.

A project of purification station is a primordial work to the life of an inshore locality, in the setting of the improvement of its environment. For the case of the station of Cebadilla, it receives too much concentrated sewage currently with regard to the nominal values, and especially a quantity too troubling to replicate such an experience, therefore of oils and greases that disrupt the quality of mud activated, the inventor must after the realization of the station, to lead a countryside of sensitization close to populations, so that they supervise the level of greases and oils to the source, he must besides foresee some supplementary facilities for the treatment in period of tip (for example the station receives a big debit during the summery period because of the abroad Moroccan resident return, and tourists), as well as the space is sufficient for a possible extension, because the station must come with the demographic growth of the agglomeration imperatively

On the other hand, the management of the station must be confided to an organism of the department of the environment and not by the township, especially country is about as for it in development, in short it is desirable to endow the station of an independent electric cabin, because the frequent cuts of electricity intervening mainly the night, provoke heavy aftermaths of the fact that they drag a stop of the station and therefore a by-pass of the treatment.

Key Dates

- 16.09.1995 Beginning of the works of realization
- 01.10.1996 End of works
- September 1996 Inauguration
- September 1996 Exploitation
- Year 2014 Extension

Contact

Mr JILOULI Mohamed
Station d'Epuration Des Eaux Useees Cebadilla
Rue Tariq Ibn Ziyad, B.P 1146
32000 Al Hoceima

MOROCCO

Tel / Fax: 00 212 39 98 04 00

Type of Organization: Local Authority**Partners**

Conseil Communal De La Ville D'Al Hoceima

Mr El BAADIOUI Abderhamane

BP64

32 000 Al Hoceima

MOROCCO

Tel.- 00212 39 98 23 83

Type of Organization: Local Authority

L'Inspection Regional de l'Amenagement du Territoire de l'Urbanisme

Mr. Khalid EL ADOULI

Inspection Regionale de L'Amenagement d

Territoire de l'Urbanisme de L'Habitat et d

l'Environnement

B.P339

32 000 Al Hoceima Centrale

MOROCCO

Tel/Fax : 00212 39 84 15 51/00212 39 84 15 52

Type of Organization: Central Government**Financial Profile**

YEAR	TOTAL BUDGET (US\$)	Ministry of the Interior (100% of the Budget)
98/99	28,7280	For 12 months
1999	152,000	For 6 months
2000	216,000	For 9 months

[Main Menu](#)[Search Database](#)[Sponsors](#)[To Order](#)Email questions or problems to help@bestpractices.org.Copyright © 1996-2002 [The Together Foundation](#) and [UNCHS](#). All Rights Reserved.