

## **CHAPTER 3     ACTIVITIES AND AWARENESS HEIGHTENING TOOLS OF THE PROJECT**

This chapter is a detailed report of the major activities and awareness heightening tools that have contributed to the execution of the Safi demonstration project of public awareness and education. It is a thematic summary of the main lines of the program, which completes and specifies the global summary that has been presented in the precedent chapter. The activities described in this chapter are regarded as being those activities that were planned or executed up to February 1997, and not later.

Additional information is given in appendix in Vol. 12, namely:

- Schedule of activities as planned in February 1997;
- Pictures;
- A complementary report of the state of execution of the project in May 1997;
- Other documents.

### **3.1     Summary of the Project: "Posters"**

#### **3.1.1   Description of the Project**

##### **1)     Objectives**

The objective of posters is to reach all types of social groups by a clear and artistic presentation of a series of messages. The basic idea of posters has been to pass on messages of awareness of problems, messages of formulation of objectives (clean cities, better think of one's waste for the future), and messages of positive action and attitude contributing to waste management.

In order to accomplish the targeted objectives to a larger extent, the posters should present the following advantages:

- The legibility of messages for all categories of the population;
- The artistic quality in order to arouse interest and, therefore, avoid the possibility that these posters can end up in being a visual nuisance in the landscape;
- A strong and lasting impact, especially by size and time of display as well as by the quality and choice of sites.

This is the reason why the "posters" project has had as the major activity the preparation and display of giant posters. More academic posters have permitted the completion of this project, especially the completion of the geographical and social coverage of the sites of display.

##### **2)     Giant Posters**

There are 3 complementary series of giant posters with 2m x 2,5m format. Every series has 10 units.

The giant posters are intended for an outside and a long-term display. They are plastic coated in both sides by using numerical printing through an electrostatic process with resistant pigments ink.

The principal characteristics of these posters are the following:

- An unusual dimension;
- A restricted printing compensated by a strategy of public questioning;
- A presentation of messages that privileges the graphic expression;
- A conception that is directly realized by local artists within the framework of a competition of drawing.

### **3) Standard Posters**

There are 2 complementary series of standard posters with a format of about 0,5 x 0,6m. Every series is printed in 700 units, which gives a total of 1400 units.

These posters are intended for inside media on a fixed or movable site (bus). The display on waste collection trucks has been added as an option. They are realized on 135g of art paper by the four-colors printing.

The major characteristics of these posters are the following:

- A language that is at the same time textual and full of imagery
- An expression that is more intellectual than that concerning the giant posters
- A conception that is directly realized by local artists through drawings.

#### **3.1.2 The Activity of Preparation of the Drawings of Posters**

##### **1) Drawing Competition**

##### **a) Preparation of the Competition**

A drawing competition has been launched on November 15th, 1996 for local artists to be achieved on December 9th. This competition has aimed at the creation of the drawings of posters, on the hand, and at the creation of the mascot of Safi on the other hand.

The local artists who have participated are especially teachers of plastic art and most of them are members of a local plastic art association, namely the "Râ" association. There have been 17 registrations for this competition. Among the participants, 12 persons have submitted their drawings before the competition deadline, December 9th.

The artists have met 2 times with the representatives of work committee in order to determine what has been expected from them. The first meeting (November 15th) has permitted us to launch the competition, explain the project, and explain the drawings and the types of messages expected. The second meeting (November 26th) has ended in new adjustments and complementary explanations concerning the messages and the different drawings.

## **b) Competition Rules**

The rules of competition have been the following:

- Produce either a drawing of mascot or a set of 3 drawings of posters, or both at the same time.
- Formulate messages within the limits of 3 themes having different bases, with 1 theme per poster. Examples of messages have been given and the "main-topics" have been explained. This approach has allowed a certain freedom of expression of messages by trying to maintain them in well defined frames. The approach is explained further on.
- The drawing of the mascot is presented in the form of logo accompanied with a written message that summarizes a philosophy, an attitude, or ethic. Some examples have been discussed such as "Me, I keep my city clean" or "Me, I'm concerned with the waste in my city".

## **c) The Problem of the Mascot**

The problem of whether to include or not the mascot in the drawings of posters has been well. The ideal step would have rather been to precede the competition of the drawings of posters by that of mascots. Such a step has been unrealizable with respect to time schedule of the study team. The 2 competitions have, therefore, been launched at the same time by allowing the artists to include, if they want, typical character in their drawings of posters. Concerning the mascot, it should be presented in the form of a logo in such a way that it can be used freely in the different media of information and increase of awareness concerning this program or, if necessary, the later programs.

## **2) Proposed Messages**

### **a) Identification Method of Messages**

Every series of drawings should, as far as possible, answer the following questions:

- What is the problem (report on the situation)?
- What do we aim at (objectives)?
- What should be done (ethic, action)?

Every one of these questions represents a major and basic topic that can serve as a frame for the definition of a message. These "main topics" have been presented in a way that is quite theoretical and they have taken shape by some precise examples. The "main topics" have been presented in the form of diagrams and discussed with artist (Fig. 3.1-1, 3.1-2, and 3.1-3).). For instance, a message concerning the maintenance of the beauty and the cleanliness of the city makes part of the topic "objective" (to have a clean city). A message concerning the cooperation between waste collectors and residents is part of "ethic / attitude". Similarly, there is a message about the duty to "think of one's waste".

These diagrams show that the messages concerning waste are in keeping with the problems of improvement of waste management and with the problems of protection of urban environment and environment. These messages can have different degrees of materialization that are illustrated by using the circles in the diagrams according to the

axes of arrows. Concerning the levels of messages, the drawing can represent many levels at the general level (the squares in figures) as well as at a large level (the circles in figures).

## **b) Examples of Messages**

The topics and types of messages expected have been explained in such a way to leave a relative freedom for the artists to express them. However, artists have been asked to keep in mind the fact that:

- Posters should be a communication movement that concerns waste (and not the protection of nature or the urban environment, for instance);
- The message is aimed at the general public and it deals with the everyday life waste of this public (in the city).

An example of the use of the theoretical plans of the identification of messages and of their frame has been presented for the precise case of a poster about the cooperation between the Commune and residents for the better manage of waste. Two cases concerning this topic have been discussed:

- 1st case / general plan: a charter of actions between the Commune and resident for a better collection of waste. On the one hand, the Commune is represented through a drawing of what it does and things it likes to improve. On the other hand, the resident is represented through a drawing of what he should do. In the poster, references to environment plan as environmentally friend citizenship ("eco-citizenship") occur.
- 2nd case / large plan: The waste collector near his truck with a positive and jovial speed, ready to communicate with residents and help them improve his service. The resident is represented as being ready for a discussion to act usefully and showing a sense of curiosity ("think of waste").

## **c) Examples of Slogans**

In addition to the examples of messages, some slogan examples have been presented during these meetings:

- For posters:
  - "React and think of "waste""
  - "The right of a clean city"
  - "In Safi, we react against waste, we think of the future"
- For the mascot:
  - "Me, I think of protecting my city"
  - "I react for the cleanliness and beauty of my city"

## **3) Drawings Selection**

### **a) The Jury**

The jury of the drawings competition has had a meeting in the premises of the Urban Community of Safi on Dec. 11th and 12th, 96 in order to initiate the selection of drawings. The jury's work has been preceded by a meeting of finalizing and official launching. The meeting has been presided over by the President of the Urban

Community and the First Khalifat (deputy) of the Governor, in the presence of the Presidents of Communes of Boudheb, Zaouia and Biada, the Heads of District and also the members of the jury, namely:

- Province (1),
- Urban Community (1)
- Urban Communes (3)
- Delegation of the Ministry of Youth and Sports (1),
- Delegation of the Ministry of Public Health (1),
- Delegation of the Ministry of National Education (1)
- Delegation of the Ministry of Cultural Affairs
- Delegation of National Mutual Aid
- Culture and Leisure Association (ACL) (1),
- Environment and Development association (1)

#### **b) Selection Procedure**

The procedure of selection has been divided into 3 stages:

- Discussion with artists: Artists can express themselves and give their opinions concerning all the drawings presented. This session has turned out to be difficult and not decisive;
- Preliminary selection by the jury that has taken into consideration the possible remarks of artists and has made a decision concerning the deserving persons;
- Final selection made by the decision of the First Khalifat, Presidents, and the Representatives of authorities.

The jury has, therefore, initiated the following selections:

- The drawing of the mascot;
- The first 3 sets of drawings of posters;
- The drawings reserved for the 5 series of posters descended, in principle, from the first 3 sets of drawings and complementary of one another according to the method of choice of messages.

#### **c) Selection Criteria**

The criteria of selection are presented in the table below (Table 3.1-1). Each criterion has been endowed with a maximal grade. It is the total of grades that has permitted us to decide the participants in the competition. Concerning the drawings of posters, every one of them has been marked on the basis of these criteria in a way to take into consideration the series of 3 drawings that have been required from every participant.

**Table 3.1-1. Criteria for Selection of Posters Drawings**

	Marked out of
1. Respect of the conditions of competition: number of drawings, topics, objectives	6
2. Visual message responding to the question and clearly expressed	8
3. Textual message responding to the question and expressed clearly	8
4. Harmony of colors	2
5. Harmony of forms	2
6. Dynamism, optimism, "possessiveness" of the message	8
7. General aspect: increase of awareness and comprehension	6
<b>TOTAL</b>	<b>40</b>

#### **4) Competition Results**

The series of drawings that have been sent to the Urban Community at the end of the competition constituted the object of a public display from February 20th to March 2nd in relation to the itinerary display about the urban environment of the Ministry of Environment.

During the selection of drawings meant to be published as posters, the jury has been faced with the problem of dissociating the drawings that clearly constitute part of the general logic of every set. It has, therefore, been aware of the importance of not dissociating the drawings in every set, especially in the set of the 1st prize.

It has been advisable to modify the conditions of display in order to take into consideration these problems. It has been decided to preserve the 3 drawings of the first set for the giant posters and 2 drawings of the second set for the standard posters.

It is this step that has permitted the redefinition and finalizing of a certain number of points as the number of series and the final size of posters. The number of the series of posters has been raised to 5 rather than 3 at first. An initially planned series of 1000 posters has been transformed to a double series of 700 posters. The double series of 12 giant posters each has been transformed to a triple series of 10 posters each. Besides, the size of posters has also been modified so that the mascot can be inserted appropriately. The size of the giant posters has been raised to 2m x 2.50m instead of 2 x 2m initially. That of standard posters has been raised to 0.5m x 0.625m instead of 0,5 x 0,5 at the beginning.

In short, the 3 drawings reserved for the giant posters belong to the same set (1st set). The same thing for the 2 drawings of standard posters (2nd set). This easiness has been possible thanks to the quality of these 2 series of drawings.

Once selection is made, a certain number of adjustments proved to be essential, following the discussion by the group of the jury and the coordination with all local authorities, especially the Governor. The modifications has dealt with the vocabulary used, certain drawings themselves and with adjustment between drawings and the mascot.

## 5) Recompense Prizes

The prizes meant to recompense the competition prize winners are granted within the framework of JICA budget intended for this project. An official ceremony for the awarding of prizes has also been organized within the framework of the opening ceremony of the campaign expected on February 27th, 1997. Concerning the prize giving, it has been made by the Urban Community of Safi.

The prizes have been awarded per sets of 3 drawings on the basis of one prize per set. The 3 prizes thus correspond to 3 sets, i.e. to a total of 9 drawings.

Following the discussions with the artists and by considering the importance of their contribution to the working out of these posters, an amount of 30000DH has been devoted to these prizes in a priority manner in the budget allowed by JICA. The prize giving has been made in the following way:

- 1st mascot prize: 8000DH
- 1st poster prize: 9000DH
- 2nd prize: 5000DH
- 3rd prize: 3000DH
- 5 participation prizes for 5 persons: 1000DH x 5 = 5000DH

### 3.1.3 Posters Description

#### 1) Giant Posters

The first poster represents a street scene that shows the state of damage of the urban environment due to the presence of a black point. The leachate is flowing out in the manholes of sewers and dustbins are full of waste. The mascot constitutes a part of the scene and it points out the responsibility of the resident, represented by a woman character having an expression of guilt.

The second poster poses the question, in the form of a big question mark, of the way of dumping of waste. All the elements of the preceding poster are found in this poster. Yet, these elements become the centers of questions: the collection means in contrast to the black point and the action of the woman who throws her waste in the street in contrast to the mascot that poses the question.

The third poster provides the answer: waste is stocked and disposed of appropriately and, consequently, cleanliness and beauty are found again. The mascot is delighted.

These 3 posters are reproduced in this report by using colors (Fig. 3.1-4, 3.1-5, and 3.1-6), and with translation of the terms used, in appendix.

## **2) Standard Posters Description**

The 2 standard posters first give guide marks: the silhouette of the city together with the greenery and the presence of the sea. The link that is made in these posters between waste, city and sea is ingenious and very interesting.

A first poster expresses the advantage of a clean and elegant city as a result of the good control of waste. The mascot presents the message together with a personified dustbin that expresses satisfaction.

A second poster illustrates, also in a symbolic way, the cooperation between collection services and residents.

These 2 posters are reproduced with colors in this report (Fig. 3.1-7 and 3.1-8), with the translation of the terms used, in annex. The second poster has also been used as an illustration in the folder.

### **3.1.4 Display Sites**

#### **1) Giant Posters Sites**

The problem of display sites has been related especially to the giant posters. The problem of the giant posters is that they require possibilities of display that have not been anticipated in Safi city. Every one of the 3 communes of Safi has got the job of setting 10 posters covering the 3 series.

The list of display sites has been drawn up on the basis of the following criteria:

- Strategic places, i.e. at great visibility and great frequency by the public;
- Places that have to be public so as to avoid the problems of authorization;
- Places that are highly secured in order to avoid the problems of vandalism.

On this basis, the possibilities of display have been listed:

- Display by direct pasting on a wall;
- Display by hanging up a board on a wall;
- Display by presentation on a trestle structure.

The result of this evaluation has been the choice of 10 sites per commune, all requiring a stand structure per wall board or per raised board (Table 3.1-2). Some photos have been taken in sites to show some examples of the result (in appendix).

#### **2) Sites for Standard Posters**

The display sites for the standard posters have been identified as follows:

- Premises of ministerial delegations;
- Premises of associations;
- Communal and Provincial premises;
- Hospitals;
- The city buses;



- Collection trucks.

### **3.1.5 Giant Posters Setting Up**

#### **1) Choice of Stands**

The choice of materials to realize the stands and finalize their characteristics have posed serious problems of finalizing. A order of 2 series of wood and metal samples has been made before the final choice.

The advantages of metal stands are numerous:

- Limitation of the risks of materials theft;
- Limitation of the possible effects of vandalism;
- Good resistance of the local climate;
- Good stability and good esthetic.

The principal disadvantage is the weight of the equipment. For instance, there are no carrier walls that can hold up appropriately and with security the weight of wall boards that are made of iron. This disadvantage has been behind the delay in setting up the boards; 2 of 3 communes have not taken this problem into consideration during the choice of sites and the order of boards.

The major disadvantages of wood are:

- High risk of theft;
- Weak resistance of plywood to the effects of the local climate;
- Great weakness of fixing to the ground.

To sum up, only metal stands have been realized with the exception of 2 wood stands.

#### **2) Public Security Problem**

In addition, the question of the minimal norms of security against the risks of accidents has been raised. Having given the dimensions of these equipments, their location in a much visited place as well as the long duration of display, it has been necessary to give a special care to stability and to fixing.

Thus, solid fixing has been planned for wall boards as well as for trestle boards. And the quality of posture has constituted the concern of communes.

#### **3) Vandalism Problem**

The problem of the high risk of vandalism, that regards the display stands or posters themselves, has been a persistent subject of concern for the durability of display. The prevention of vandalism has taken different forms:

- By the choice of sites;
- By the choice of boards that are anchored to the ground;
- By fixing closing sticks around posters by screwing on boards.

#### 4) Accomplishment of Stands

The displaying of giant posters has been planned to last for more than 6 months, from January to September 1997. In fact, the start has been on February 27th, the date of the official launching. This display has required the accomplishment of wall and raised boards in order to make up for the non-existence of such stands on desirable sites.

These boards have been financed by JICA except for a part that has been taken charge of by Boudheb in its territory. In general, the communes have not been enthusiastic with respect to the matter of been responsible for a part of the costs of the boards making. That is why the total number of display stands, that had been at first 30 posters, has been reduced to 25 units in total. The final distribution of display stands has been as described in Table 3.1-2.

Concerning the setting up, the communes have been in charge of the preparation of the necessary foundations for trestle boards and the fixing of fixing of boards.

**Table 3.1-2. Display Boards Final Distribution per Commune**

Urban Communes of	Wall Board	Trestle Board	Total
Zaouia	5	3	8
Biada	3	5	8
Boudheb	0	9	9
<b>TOTAL</b>	<b>8</b>	<b>17</b>	<b>25</b>

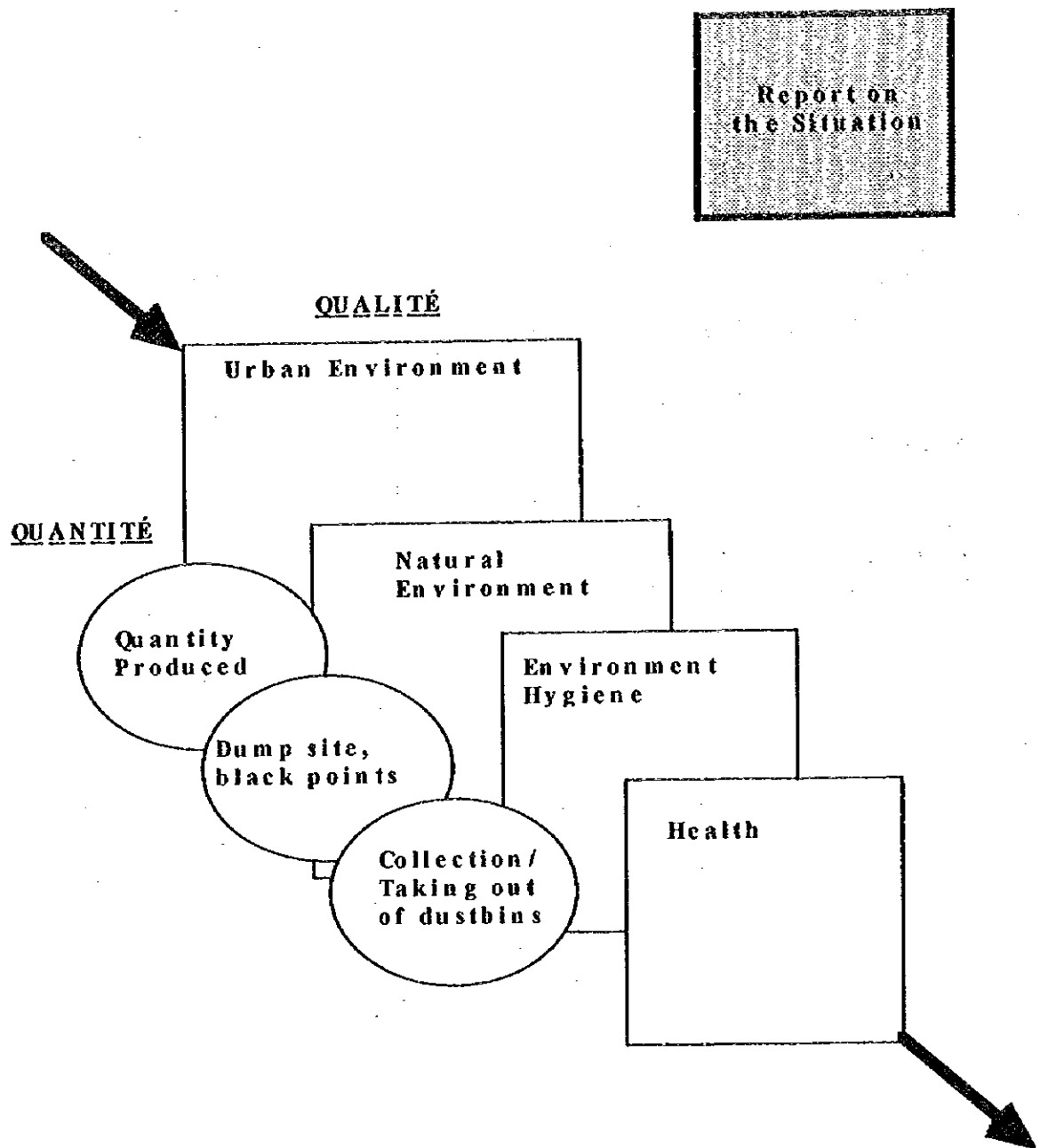


Fig. 3.1-1 Diagram Illustrating the Different Messages of Posters (1)

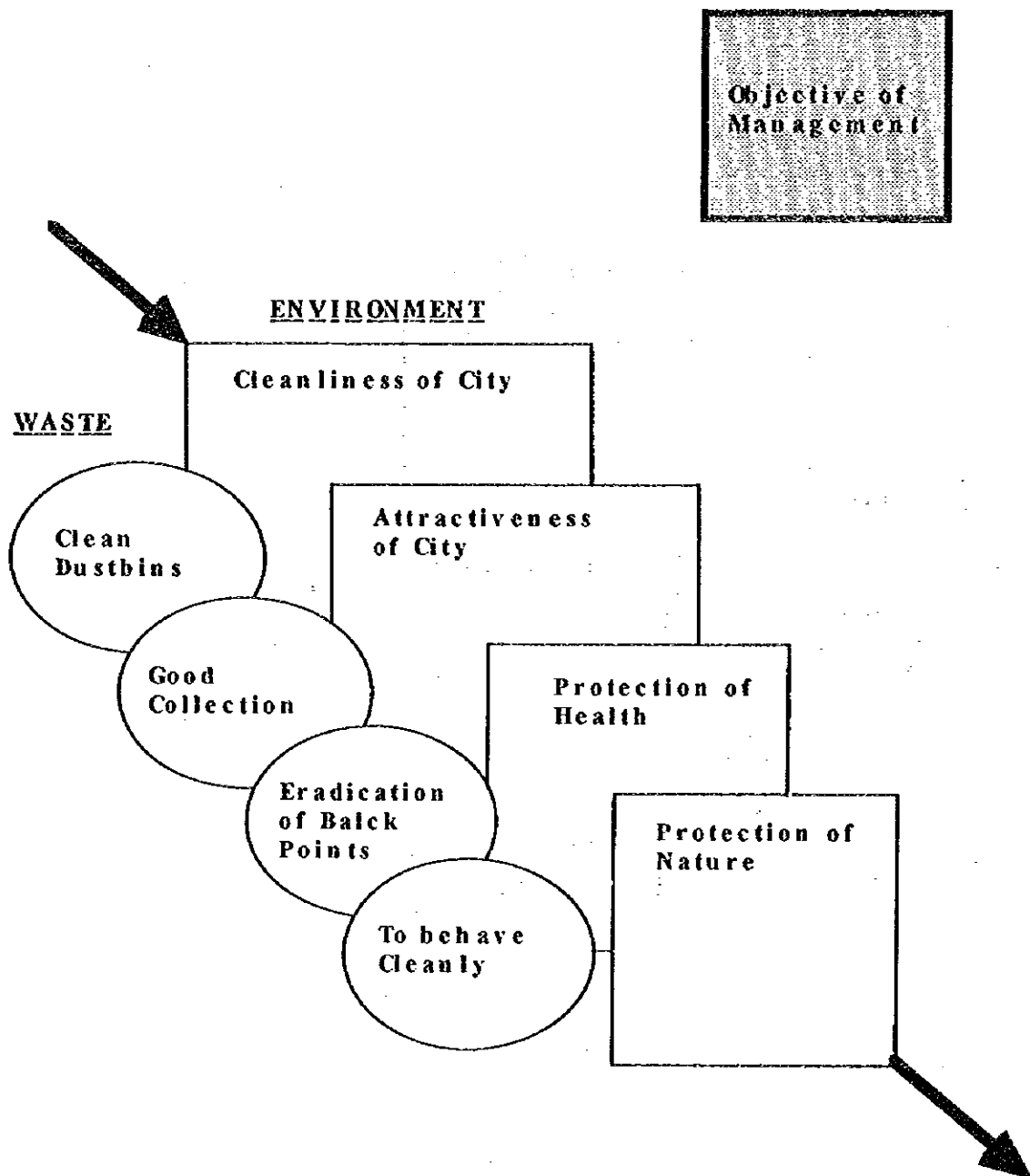


Fig. 3.1-2. Diagram Illustrating the Different Messages of Posters (2)

3

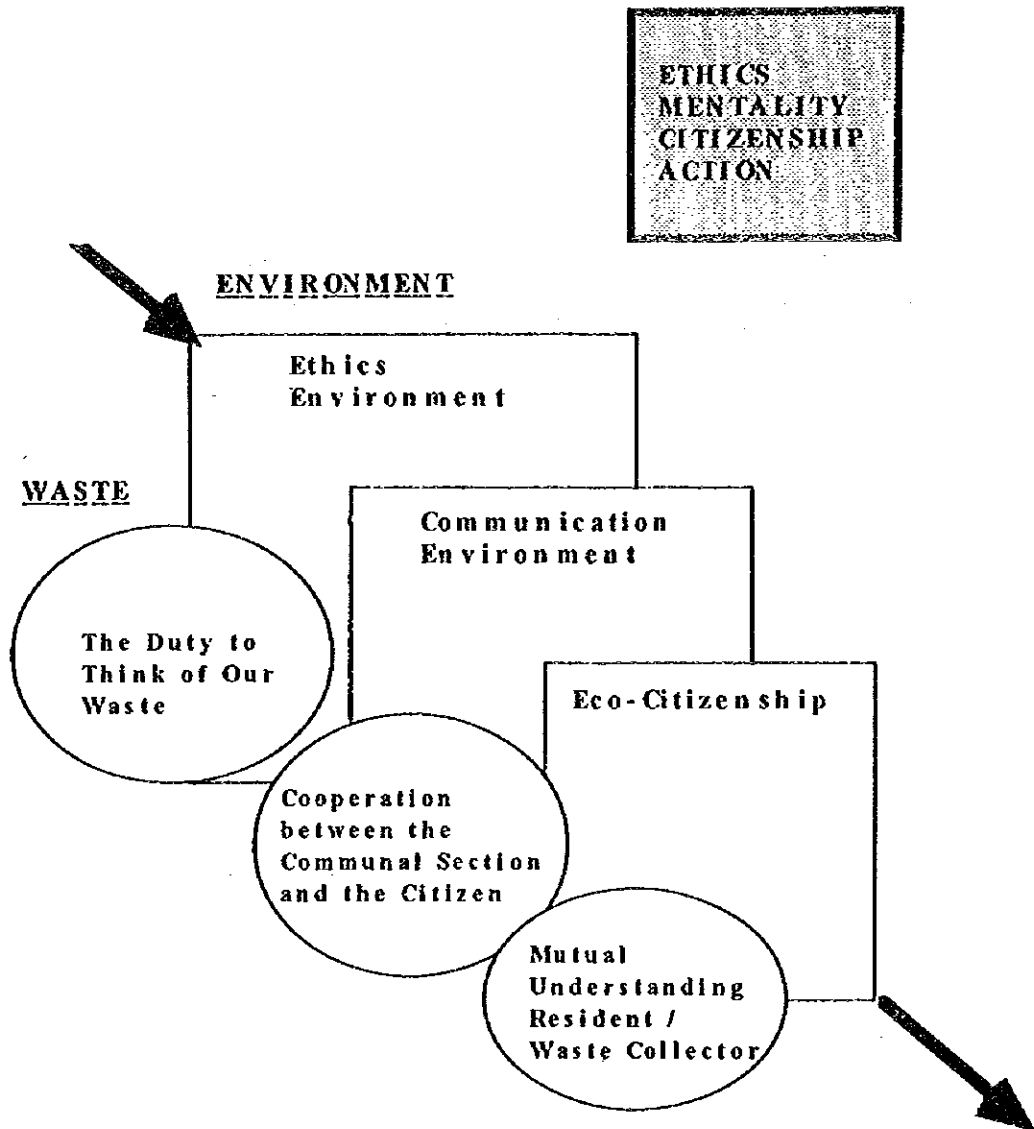


Fig. 3.1-3. Diagram Illustrating the Different Messages of Posters (3)





Fig. 3.1-4. Giant Poster / 1st Series - Actual Size 2m x 2,5m (a)







Fig. 3.1-5. Giant Poster / 2nd Series - Actual Size 2m x 2.5m (b)



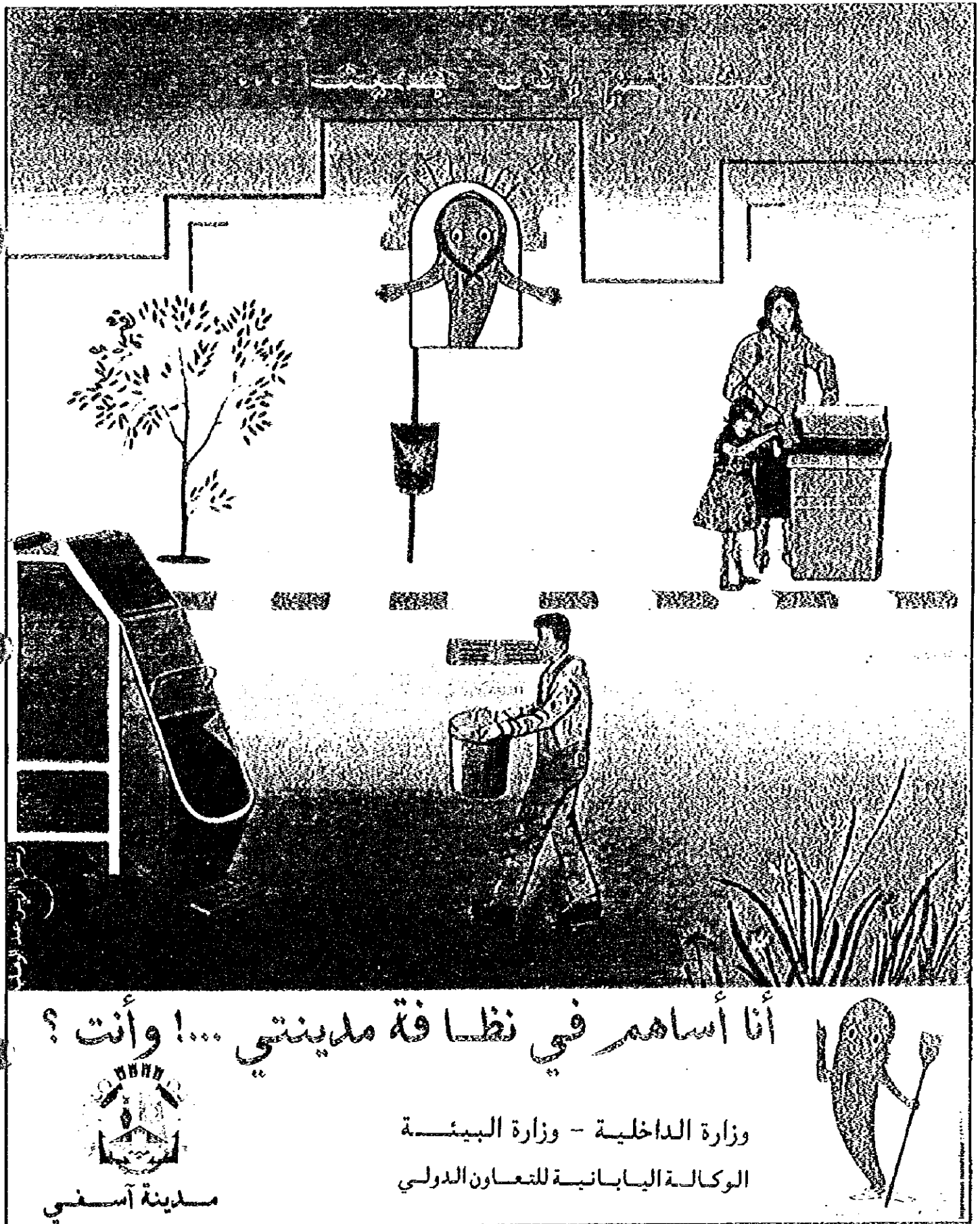


Fig. 3.1-6. Giant Poster / 3rd Series - Actual Size 2m x 2,5m (c)



القضاء على الأوساخ  
راحة للبركة



## اتفاقية حيّنا بين أيدينا

أنا أساهم في نظافة مدينتي ... وأنت؟



وزارة الداخلية  
مدينة أسفي

وزارة البيئة  
الوكالة اليابانية للتعاون الدولي



Fig. 3.1-7. Standard Poster / 1st Series - Actual Size 0,5m x 0,6m





# جميعاً معنيون بنظافة مدينتنا

أنا أسامر في نظافة مدينتي ... وأنت؟



وزارة الداخلية  
مدينة أسفي

وزارة البيئة  
الوكالة اليابانية للتعاون الدولي



Fig. 3.1-8. Standard Poster / 2nd Series - Actual Size 0,5m x 0,6m





## **3.2 Summary of "Folder and Postcard" Project**

### **3.2.1 Folder and Postcard Objectives**

#### **1) Folder**

A periodic information about the efforts made to better manage the waste and control the nuisances is useful for communication between communes and residents. The folder is situated in this long-term prospect of a better communication between the population and communes. The aim of the folder is, in principle, the educated public, adults and children. It is this public that can profit better from the information presented in the folder.

The folder aims to:

- Be attached to a continuity procedure to keep the resident informed; this folder should be considered as the first element of a sequence;
- Complete the other awareness means by specified information; and more particularly to complete the posters messages;
- Inform residents in a synthetic way (multiple entries);
- Reinforce the coordination of the different parties concerned at the level of the necessary organization for conception, realization and distribution;
- Make the members of the committee contribute as far as possible to the accomplishment of the product, and the communes representatives as a priority.

#### **2) Postcard**

The importance of the postcard is to give a strong message, through the picture, that is within all the population's reach, whether wee-read, illiterate, adult or infantile. It is equivalent to the poster and has in addition a personal appropriation and a durability by "adoption" in the house. The aim is therefore the family unity.

The durability of this means and its periodic consultation are favored by the following factors:

- Insertion in a collection of picture and conservation in a box or a drawer;
- Possibility of being archived with letters;
- Wall decoration or on a desk.

### **3.2.2 Folder and Postcard Description**

#### **1) Folder Content and Format**

The folder is a sheet of paper with a format of A4 wide and B4 long. It is folded into 3 parts according the Moroccan standard model (opening from the part on the right side). Printing is made on 170 g of glazed paper, by four-colors printing of both sides. It is a format which is pleasing to the eye and practical, offering an appropriate communication space for quite detailed information.

The slogan that personalizes the folder on the first page is: "In Safi, we think of waste, we act against waste, we think of the future". The idea is to mobilize residents against the nuisances caused by waste not only to improve the present urban environment but also to ensure the quality of the future life. The awareness of this principal dimension of the future has been considered as an additional motive for the dynamics against waste and for the great responsibility of residents.

## **2) Graphic and Textual Elements of the Folder**

The folder includes different elements and tools of communication that are capable of affecting the awareness of the public:

- The drawing that already makes part of the 2nd series of standard posters;
- The messages carrying drawings: A series of eloquent drawings that complete the text by giving clear messages and balance the whole folder;
- Calligraphy: Some slogans have been prepared by a calligrapher;
- Text and data: This concerns the specific data to Safi in most cases. These data are generally derived from the study of JICA Study Team in Safi;
- Quotations and slogans of a religious, royal or political origin.

## **3) Technical Organization of the Folder**

The 6 pages of the folder are used in the following way:

Recto:

- The presentation page: the drawing of the poster; the logo of the mascot; the slogan that gives the general tone of the folder;
- A reference page: A small glossary of waste;
- An information page in the form of an answer to 3 questions.

Verso:

- A page devoted to the role Communes and Urban Community with respect to waste management and the corresponding activities;
- A reflection page on the role that the resident can play in order to improve SWM;
- A central page concerning the basic principles of cleanliness and waste management according to sources that constitute an authority (religious judgments, extract from H.M. the King's Letter addressed to the communes in 1996 and extracts from the National Strategy for Environment Protection and Sustainable Development).

A reduced copy of the folder is proposed in Fig. 3.2-1 and 3.2-2.

## **4) Postcard**

The postcard presents a strong picture showing the city damaged by waste, which no one likes. It, therefore, concerns a very negative message that expects from the user a positive reaction by refusing such a situation and thus a reflection. The very artistic side of the drawing gives value to this product and expresses well the negative aspects of the message. Fig. 3.2-3 constitutes a reduced illustration of the recto / verso postcard.

### 3.2.3 Materials Preparation

A work group has been constituted in order to prepare these materials. This concerned the direct involvement of the communes in the preparation of folders with an awareness objective. This objective has not been considered and the intervening parties of the work group have finally been the following:

- The National Education Delegation;
- The Youth and Sports Delegation;
- The Public Health Delegation;
- The ACL Association
- JICA.

The mounting of the folder has been presented as and when it is drawn up with the intervening parties in the program during the general meetings. Remarks have been taken into consideration in such a way to improve the mounting. The mounting has been presented to the Presidents and to the First Khalifat of the Governor for its finalizing.

The postcard has been realized by combining the mascot of Safi and a child's drawing, realized within the framework of a competition of drawing at school. It has recompensed the best drawing among the 3 ones reserved for the realization of awareness materials.

### 3.2.4 Materials Distribution

#### 1) Distributed Quantities

The number of folders has been evaluated by taking into consideration 2 factors:

- The higher rate of illiteracy in Safi;
- The time of distribution that rests on many years possibly.

The folder has been produced in 20.000 copies. The postcard has made the object of 50.000 copies. The quantities distributed are specified in Table 3.2-1.

**Table 3.2-1 Inventory of Quantities for the Distribution of Folders and Postcards**

	<b>Folders (20000)</b>	<b>Postcards (50000)</b>
Urban Community and Communes	2900	19800
Province	100	500
National Education Delegation	7000	10000
Public Health Delegation	5000	5000
Youth and Sports Delegation	1000	2000
Cultural Affairs Delegation	200	500
National Mutual Aid	1000	1000
ACL (Culture/Leisure Association)	2000	10000
Environment and Development Association	600	1000
JICA / MOE	200	200
<b>TOTAL</b>	<b>20000</b>	<b>50000</b>

## 2) Distribution Means

The means of distribution have been made diversified in such a way to ensure an extended broadcasting. The following means have been considered:

- Distribution during the awareness activities such as the starting ceremony, the public display and video showing;
- Distribution in the different networks taken charge of by the provincial delegations; For example, the Delegation of Public Health ensures the distribution in health centers and hospitals. The Provincial Delegation of National Mutual Aid has joined with the committee of planning and execution of the program during the execution stage and on the committee members' request.
- Distribution in the different networks taken charge of by the associations.

The distribution network is presented in Table 3.2-2.

**Table 3.2-2 Distribution System of Awareness Materials**

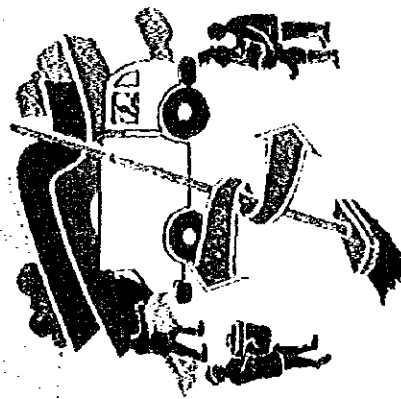
	Distribution Network Elements
During awareness activities	Urban transportation, waste collection trucks, launching ceremony
Province	The Province center
National Education Delegation	The delegation center Primary and secondary schools (the 5th and 8th years)
Public Health Delegation	20 sanitary groups
Youth and Sports Delegation	The delegation center, 5 women's centers, 3 nursery schools, 4 youth club and arts centers, professional groups (hairdressing salons, typing, sewing, computer science, parties in power)
National Mutual Aid Delegation	7 centers of work education, 5 centers of social education, 1 Islamic Charitable Association, 1 children's home.
Cultural Affairs Delegation	The delegation center
ACL (Culture and Leisure Association)	The association center, EST, ISTA, maritime school, private schools, social service of the OCP
Environment and Development Association	The association activities

بأسفنى

نفكر في المستقبل

نعمل على تدوير النفايات

النظافة تربية وثقافة



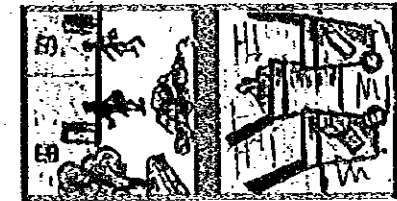
أنا أساهم في نظافة مدينتى... وأنت؟



وزارة الداخلية - وزارة البيئة  
المملكة العربية السعودية

### تصريفات

التصريفات المنزلية : وهي نفايات المنزل : الأسراق ، الأثاث والدمار وتصل النفايات المنزلية على مراد مختلفة منها ما هو عام ونوع ضيق .  
التصريفات الصناعية : وهي النفايات التي تنتجها المصانع ، ومنها السامة والعدية ، والراب أن تصل المصانع معالجة لنفاياتها ولكن الواقع غير ذلك ، إذ يأسنى تتكاثف البلدية بجمع هذه النفايات وجمعها مفرقة في الرملة السمية .



التصريفات التجارية : وهي مختلفات حيوانات الرعي والأراضي والمصانع التجارية ، وتسمى بجمع هذا النوع مشاكل عديدة .  
التصريفات الصناعية : وتعتبر عن المصانع وهي إما خسر ذات حفرية أو سامة ، والراب أن تتكاثف العامل بجملة نفاياتها ولكن لعدم المسؤولية والرأفة بجمع هذه النفايات تخرج بالرملة السمية .

### معالجة النفايات

توجد طرق متعددة للمعالجة أي إزالة النفايات المنزلية : الترميد ، التسميد أو الإزراع بالثروة ، وهذه الطريقة الثالثة هي المستعملة بالمغرب لسهولتها وانخفاض تكلفتها ، ولكن يجب معها المراقبة ولا تنبعث منها أضرار كبيرة .

أخير هذا المظوى من طرف مدينة أسفنى

تحت إشراف : MBH - لاس  
رقم : 0293.00 - الفاكس : 0293.00

هنا هي كميات النفايات المنزلية يومياً ؟  
إذ كمية النفايات التي يتم جمعها من طرف المصانع الثلاث بأسنى تتجاوز 40 ألف طن في السنة ، أي ما يعادل حصة 15 ألف طن . وتقدر الكمية التي تنتج يومياً بحوالي 130 طن ، وحالياً يلقى جزء مهم من هذه الكمية ، أي أكثر من الثلث ، لا يتم جمعها . ومع التطور الاقتصادي وتحسن ظروف الحياة تزداد كمية النفايات ، وقد تصل إلى 3/5 طن حسب آخر التقديرات .

### كم تتكاثف مصالحة النفايات ؟

التكاثف الإحصائي لتغير النفايات البلدية بآسنى تدر بحوالي 1.1 مليون درهم سنوياً ، وتضم عمليات الكس ، التجميع والإزراع بالثروة السمية ، وتخرج تكلفة النفايات بعد جمعها ومعالجتها إلى حوالي 300 درهم من كل طن ( حسب الدراسة الأخيرة من طرف مدينة أسفنى والوكالة اليابانية للتعاون الدولي تحت إشراف وزارة البيئة ) . ولا يمكن تقدير التكاثف الحقيقية إذا أخذنا بعين الاعتبار الآثار السلبية كالتأثير على الصحة مثلاً ، فمن المعروف أن تكاليف الوقاية أقل شأناً من تعرض المراتب السلبية ، فنعلمنا بجمع النفايات وأنها وسدركا يومياً ، فإنه يساهم في نقص تكاليف خدمات الاعتناء .

### لماذا لا ننتهز بالتمهات المنزلية ؟

تحدث التمهات المنزلية أضراراً يومية للسكان ، وهي تزداد وتزداد ، فبالإضافة إلى طرق سبيلها منها العديد من الأضرار على صحة السكان كالتأثيرات على إنبات إنبات إلى التأثير السليم على صيانة المدينة وسلامة البيئة .

ولا يختلف أثنان في أن هذه الآثار الضارة بالبيئة لها تأثيرات وأضراراً كبيرة على صحة الإنسان .

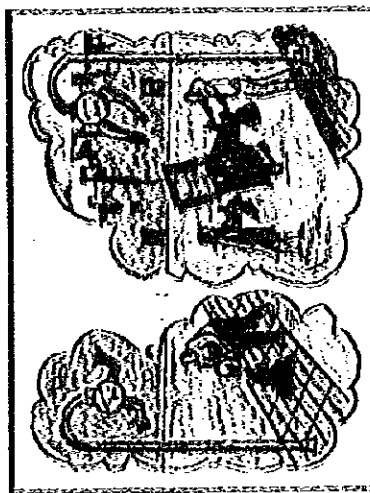
Fig. 3.2-1.

Reduced Reproduction of the Folder Recto Page



## كيف يساهم المواطن في حل مشكل «الأزبال» ؟

بالفكر أكثر في نفاياته ، مقاييس التخلص من النفايات بدون أرض تساؤل عنها ، ولكن على كل واحد منا أن يأخذ بعين الاعتبار أن المجتمع يتحول ، فينتالي فهو ينتج ثم يستهلك أكثر من السابق ، فلا يمكن أن نتعامل مع الأزبال كأنها غير موجودة ولا نأخذنا نترك تحقد المشاكي يتجاوزنا وبالتالي نطاطر بالتطور الحضري بشكل غير لائق ، فالمرتب الإجمالي حاليا هو التفكير في نفاياتنا بدون حرج ولا غرور.



## نخافة مدينتنا بين أيدينا

الرسم : عبد الرحيم الشرفادي  
المعروض : محمد إمامي

## «ظن القصار في البر والبحر ما كسبت أيدي الناس».

سورة الزم - الآية 41

## «وأما طة أاذنى عن الطريق صدقة».

حديث شريف

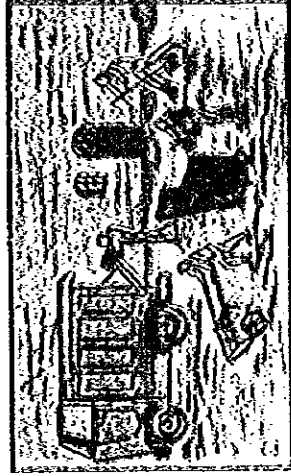
« ولنا كبر المستعين أن نعاينا الأوقياء من السكار في التلذذات والجماعات الحضرية والتروية على استعلاء دائم للتعجبة من أجزاء الحياة ظلمي تخطا قمة مدينتهم »

من الرسالة المكية 30-10-96

ضمن أهداف «الاستراتيجية الوطنية للبيئة والتنمية المستدامة» :  
\* تحسين تدوير النفايات  
\* الرافق من معدات لجمع النفايات وإعادة استعمالها  
\* الإلقاء التدريجي للنفايات الغير المراقبة.

## من يتألم النفايات الحضرية ؟

الوثيقة الممنوعة للجماعات المحلية تقدم معالجة النفايات في جميعها كمنصة أساسية من خدمات الجماعة.



## الجماعات والمجموعة الحضرية بأسفلي ؟

تتكلف هذه الجماعات من أنشائها لتأمين تدوير النفايات ، فهي تشمل حوالي 400 شخصا يبيع الأزبال المتروكة وتطيق الأزبال والشوارع ، مستعملة 30 شاحنة ، ويعترف المسؤولون بأن هذه الرسائل تبقى غير كافية ، ومنذ مدة قصيرة تستعمل جماعات بوالذهب شاحنتين مستطويتين ، وكنا 200 صندوق قمامة جماعي ، وقد استطاعت هذه التجهيزات أن تؤدي إلى فاعلية أكثر في جمع الأزبال بفضل مساهمة السكان.

وتجري حاليا دراسات لثمنة كميات نفايات المنازل قصد تحسين خدمات جمعها ، كما تعمل الجماعة الحضرية على تحديد منطقة لائحة كمونة عمرية غير مغطاة بالسكان والبيئة.

## النخافة من الإيمان

وأخيرا تظم حملات النظافة وأزالة البقع السوداء ، وآخرها حملة يونيو 1996 والتي أعطت نتائج مرضية.

Fig. 3.2-2. Reduced Reproduction of the Folder Verso Page







رسم: السعدي خالد (إعدادية سيدي وأصل)

Reproduction interdite - Imp. M. S. H. - Tél: (04) 62.68.21 / 74.74



وزارة الداخلية  
مدينة أسفي

وزارة البيئة

الوكالة اليابانية للتعاون الدولي

Fig. 3.2-3. Reduced Reproduction of the Postcard, Recto and Verso



### **3.3. “School Activities” Project**

#### **3.3.1 Context and Objectives**

The role of awareness at schools is very important thanks to the following reasons:

- To educate the society residents' mentality and attitude for the coming generation;
- To ensure the continuity of long-term education;
- To increase the awareness of adults through children.

Within the framework of the project, the school activities are those that are organized by the Provincial Delegation of National Education in coordination with the Urban Community. The objectives of the project of the increase of awareness at schools are the following:

- To make students and secondary schools participate in the preparation of awareness materials that are the educational notebook and the postcard;
- To create an appreciable relation with students between the public part and the academic part of the awareness project, especially by through materials (postcard), the public display of children's drawings and during the official ceremony of prize giving;
- To make students think of the problems of solid waste by a special lesson about the subject organized by teachers, on the one hand, and video showing, on the other;
- To make the chemistry course students of the technical secondary school participate in the activity of thinking about the scattered quantities of toxic waste.

The realization of these objectives is based on the preparation and the execution of the following steps:

- The competition of drawings;
- The preparation of the academic notebook;
- The pre-awareness of teachers;
- The video showing together with the distribution of postcards and folders.

#### **3.3.2 Target Groups**

The target groups are the following:

- Primary schools, 5th and 6th years (10 years old students);
- Secondary schools (11 secondary schools in Safi), 7th year (12 to 14 years old students);
- Technical secondary school, 3 classes of chemistry, about 40 students who are 16 years old.

The target groups that are classified according to the types of activities are the following:

- The competition of drawing : 7th years classes;
- The distribution of the educational notebook: 5th to 7th years classes;
- The distribution of postcards: 5th to 7th years classes;
- The video showing: 5th to 7th years classes;
- The increase of awareness concerning the toxic waste: chemistry class students.

### 3.3.3 Drawings Competition

The drawings competition has been aimed at students of the 7th classes representing 7 secondary schools in Safi city. The secondary schools, that have participated, are classified per secondary schools per commune in Table 3.3-1. In total, 380 children have participated in the competition and 336 drawings have been sent to the delegation.

The preparation of the competition has been made thanks to coordinating teachers who depend on the Office of Socio-Pedagogical, Cultural and Educational Activities. These teachers have organized awareness sessions for voluntary students in the competition. Each teacher has taken the initiative in increasing the awareness of students in his own way. The sessions have taken place at the beginning of December. They have been preceded by a meeting of the increase of awareness of teachers in the presence of JICA.

To make the competition easier and prepare the best conditions for the displaying of drawings with lesser price, pre-imprinted sheets of drawing paper with frame and identifying elements have been distributed to students.

**Table 3.3-1 List of Secondary Schools That Have Participated in the Competition of Drawing, per Commune**

Boudheb	Biada	Zaouia
1. Oued Eddahals 2. Idriss II	1. Al Fihriya 2. Moulay Youssef 3. A. Tayeb Benhima	1. Sidi Ouassel 2. Bir Inezarane

### 3.3.4 Drawings Selection and Prize Giving

The objective of the competition has been to select 3 drawings intended to serve as a fully-qualified means of communication (postcard) or to be integrated into one means (the students' notebook). The selection has been made by coordinating teachers, Socio-Pedagogical, Cultural and Educational Activities Office, and the JICA Study Team.

The recompense prize have been divided in the following way:

- 1st prize: Postcard (50.000 units);
- 2nd prize: Folder (20.000 units);
- 3rd prize: Educational notebook (10.000 units).

In addition to the awarded prizes, some fifty drawings have been reserved to be displayed in public and at schools.

The recompense prizes have been given to students with a double participation of JICA and the Delegation of National Education with the aim to recompense the first 3 prizes as well as a certain number of participants. Prizes giving has been organized within the delegation on January 29th, 1997 in the presence of the representative of the delegate of National Education, of the head of the Socio-Pedagogical, Cultural and Educational Activities Office, the coordinating teachers and of JICA Study Team. This has

concerned the temporary prize giving for the first 3 prizes, having given that fact that the official prize giving had been planned according the activities starting ceremony.

### **3.3.5 Educational Notebook**

#### **1) Characteristics of the Notebook as a Means of Awareness**

The point of the school notebook is to provide the student with a useful means that he can consult constantly in his daily life. The notebook cover constitutes the means used to pass on messages, pieces of information and data of reflection.

The advantages of the notebook as a means of communication are numerous:

- The student finds himself with a familiar material that makes part of his daily life and to which he can get used to easily;
- The fact of devoting the cover pages to printed drawings permits us to personalize the notebook, motivate the students and give them a very strong feeling of appropriation. The play aspect of the cover of the notebook facilitates a personal use;
- The notebook has a certain durability in the student's life especially if it has a personalized use. The choice of classes for the distribution of notebooks has, moreover, been made by taking into consideration this criterion;
- The notebook does not go unnoticed at home. This, it is going to be aimed at the parents as well, either directly or through the dialogue between the child and adult.

#### **2) Notebook Objectives**

The objectives of the notebook are the following:

- To constitute an information tool about the municipal waste, in general;
- To arouse the interest of children under the control of teachers by giving them comparative data. The role of teachers is essential for the quality and significance of reflection;
- To provide behavior messages in a pleasing way.

#### **3) Notebook Description**

The educational notebook is meant to be used by children at schools. Its cover has been used as an awareness and information means. The cover recto pages are illustrated by using colors and they propose visual messages on waste. The children's drawings have been printed on them. The verso pages are purely textual and they constitute the means of information to be used during the awareness lessons.

The notebook cover pages are reproduced in Fig 3.3-1 and 3.3-2, and with translation in appendix. The verso pages are presented in the following way:

- A page of comparative data between 4 countries, namely Morocco, Tunisia, Japan and France;
- A reflection page on the problem of municipal waste in the form of questions. Messages of attitude are added.

The pieces of information give the required knowledge to take interest in these data. The international comparative approach permits us to better situate the case of Morocco, arouse curiosity and at the same time to show the situations diversity.

### **3.3.6 Increase of Secondary School Students' Awareness**

#### **1) Context**

The secondary school students, who belong to scientific classes, use chemical products in laboratories. The waste of these products constitute problems of stocking, disposal and even of treatment since a part is put in containers before being collected by the commune to be disposed of in the dump site. The 3 chemical classes of the technical secondary school are the most directly concerned.

The Provincial Delegation of National Education has decided to take off from the demonstration project of public education in order to develop a project of the increase of awareness of secondary schools students of the topic of toxic waste.

This project permits the completion of other household waste awareness activities at schools in the following way:

- It aims at secondary schools at first;
- It has as an objective the increase of the students' awareness of toxic waste;
- It is an advisability to continue the awareness actions already undertaken;
- At long-term, this type of project create favorable conditions to consider an action of education.

This project can give the impression of the example of continuity of awareness actions that are developed at school thanks to the willingness of coordinators of the National Education Delegation. It can snowball and have a training effect in Safi or in relation to other communes of Morocco.

#### **2) Objectives**

The objective is to increase the students' awareness of the following aspects:

- The dangers and harmfulness associated with the substances used in the laboratory;
- The methods of security stocking;
- The risks related to the methods of discharge, especially the throwing of substances at sink or the collection of waste by the communes in order to discharge it in the disposal site;
- The sanitary and environmental problems posed by the waste of such substances.

#### **3) Method**

The point of the project is to increase the students' awareness in a series process by starting from chemistry, classes that come first, in the following way:

- The increase of the students' awareness of the problem of waste in general in the 3 chemistry classes of the technical secondary school by using the educational materials that are the folder, the notebook and the postcard;

- The increase of the students' awareness of specific problems of toxic waste in the 3 chemistry classes of the technical secondary school by using a pre-existent document described in section 3.6.6;
- The increase of the students' awareness of the specific problem of toxic waste in the other classes of secondary schools by using a document realized by the chemistry class students.

#### **4) Project Stages**

The project should be spread over many months on the initiative of National Education Delegation. It comprises the following stages:

- Planning and coordination in agreement with the teachers concerned and the administration (end of February 1997)
- Selection and the increase of awareness of the chemistry classes students interested in the project (March 1997);
- Animation of a research activity lead by students (March / April 1997);
- Preparation by students of a document or folder by taking into consideration the results of the their survey (April 1997);
- Increase of the awareness of students of general teaching secondary schools by using the folder prepared by students (May 1997).

#### **5) Research/Survey Activity**

The coordinators and teachers will guide students in order to make them realize a survey work. This will concern an inventory of the substances used, the state of stocking, the potential dangers related to stocking and to the method of discharge of substances.

#### **6) Awareness Document**

The document that will be used at first in the 3 chemistry classes of the technical secondary school is a document that has been created by the Regional Directorate of Energy and Environment, Rhone-Alps region. It has been published for the secondary schools of the Rhone-Alps region. This directorate has accepted to put at the students' disposal copies of this document within the framework of the awareness project of Safi..

The document gives a general and good presentation of the scattered quantities of toxic waste such as the case in one secondary school. The information provided by the document includes a glossary, a classification of substances, an illustration of the labeling of dangers and the harmfulness of substances, and recommendations of collection and stocking.

Beyond some general quantitative data that are specific to France, the document, in general, is well adapted to usage without particular geographical re-attachment. It corresponds perfectly to the objectives that the project coordinators devote themselves to.

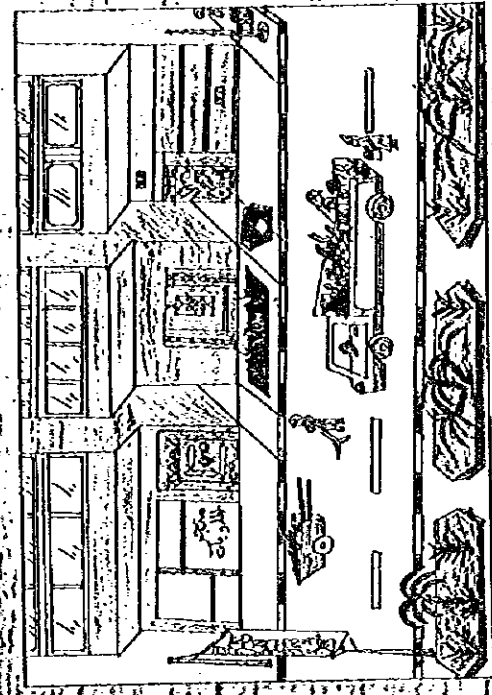




خبر القادسيه البرونزيه في كسبت احدى القادسيه

سوق الوهم - الاله 41

رسم عادل حاتم (الاعداده سبكي اصل)




باسم  
تعمل على تدبير النفايات  
عكس في المستقبل



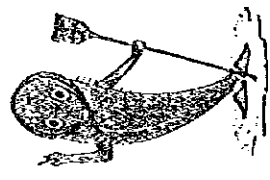
واما طرطري عن طريق صدق

حديث شريف



مدينة آسفي  
وزارة الداخلية

أنا أسامر في نظافة مدينتي... وأنت؟



وزارة البيئة  
الوكالة العامة للتجارة الداخلية

طبعة MBH - كسبي  
الناشر : 62.74.74 / 62.68.01  
الناشر : 62.93.00

Figure 3.3-1 Reduced Reproduction of the 2 pages of the Educational Notebook Cover, Recto



## لو فكرونا قليلا في النفايات البلدية؟



ما هي؟

النفايات البلدية، ما هي؟  
تشمل النفايات ما يجمع من الشوارع، الأسواق، المدارس والمنازل، وتضم هذه النفايات الأخيرة مواد مختلفة مثل نفايات الخبز، القمامة، الزجاج والبلاستيك، وكذلك المواد السامة، ولو بكميات قليلة كالبطاريات والأدوية القديمة.



النفايات التي نلقي بها في صناديق القمامة، ما مصيرها؟

يلقي بها في الزبالة العمومية، وهي طريقة جيدة إذا كان التوقع مراقبا من حيث كمية النفايات وتطورها. وتغطي الكميات المفرطة بالنسبة لقضايا جذب الحشرات وأضرار أخرى. كما تتخذ الإجراءات لمعالجة سائل النفايات وفازاتها، مع تجنب تلوث المياه الجوفية. إذا كان موقع الزبالة العمومية مراقبا بطريقة جيدة، فإنه لا يشكل أي خطر أو ضرر على الإنسان والبيئة. ينشأ عند المواقع الغير المراقبة مصدر خطر ومضرة.

فينبه المواقع الغير المراقبة، تتحلل وتتغير النفايات؛ ينسرب السائل إلى الأرض مما يلوث المياه الجوفية إذا كانت قريبة قابلة للتدفق، وفي مثل هذه الحالة تصبح مياه الآبار الجاورة غير صالحة للشرب. تتكون الغازات وتشتعل، وهذا ما يفسر تواجد الدخان برفق الإبراق، وبالتالي يتلوث الهواء. والأخطر، هو وجود نفايات خطرة، للأسف، ناتجة عن الصناعات والمستشفيات. وهناك مشكلة النفايات التي لا يتم تحميمها أبدا، إذ على إثر رمي بعض السكان للنفاياتهم في زاوية من الشوارع أو مناطق فارغة، فهم يساهمون. ومن أجل خلق مواقع مصفرة لإبراق النفايات، ومثل هذه التصرفات اللاعقلية، لا تسبب في إفساد منظر المدينة وعدم رضى القاطن أو الزائر فقط، بل تساهم في تكاثر الحشرات والقوارض مما يهدد صحة السكان.



ما الذي يجب فعله للمحافظة على المدينة من الأبرار؟

تزداد كمية النفايات المنتجة، فإذا استمر كل واحد منا في التخلص من أزياله برصها في الشوارع، فستتكاثر مواقع الأبرار المصفرة، ويكثر حجمها. ولا أحد منا يرضى بأن تكون مدينته مليئة بالأبرار وغير نظيفة ولذا فعلى كل واحد منا أن يساهم لتفادي مثل هذا المصير.

في البداية، يجب أن نتجنب رمي أزيالنا - مهما كانت قليلة - في الشوارع. نهي نرمى في صناديق القمامة، وليس في أي مكان آخر.  
- عندما نذهب إلى فسحة في الغابة أو على شاطئ البحر، فلا يجب أن نترك قاذوراتنا هناك بل علينا أخذها معنا لرميها في الأماكن المخصصة لذلك.  
- علينا وضع صندوق القمامة في المكان المخصص له حتى نتسكن شاحنات المصفاة من جمعه، فأبراق صندوق القمامة في بقعة فارغة أو في البحر عمل مضلل للجميع. نأجل عن معاقبة القانون لمثل هذا العمل.

- عند إبراق أزيالنا صندوق القمامة العمومي، يجب مراعاة إحكام ذلك حتى لا يتسبب الأبرار بعد مرور الشاحنة.  
- ثم إن كل واحد منا يعرف خطورة النفايات ونسبها للأضرار، فالواجب إذن أن نتخلص منها بشكل مسؤول.

## اليابان

مجموع السكان: 124 مليون نسمة  
كمية النفايات البلدية في السنة: 50 مليون طن.  
في اليابان، يتم إحراق 75% من النفايات البلدية المجمعة، وبقية 25% منها في أماكن التبريد. ويعد استعمال 4% منها، في الواقع، يعتبر عملية إعادة استعمال النفايات عملية مهمة. ويعمل بإيجاز هذه العملية كل من الدييات والشركات الخاصة. حوالي 10 مليون من النفايات المنزلية (دوق) قارورات زجاجية، الأوسيم... تمت إعادة استعمالها خلال 1998. حيث أعيد استعمال نصف الدوق المنتج. نصف الدييات تقريرا تقوم بعملية الجمع الانتقائي، ويوجد في اليابان 120,000 جمعية بولاية للسكان من أجل تغطية كمية الانتقائي للنفايات، حيث يقوم كثيرا في عملية الجمع الانتقائي للنفايات، حيث يقوم هؤلاء بوضع هذه النفايات بسلامة في قمامة مختلفة حسب نوع النفايات (زجاج، علب ألبوم أو دوق الجرائد مثلا).

## تونس

مجموع السكان: 8.4 ملايين نسمة (السكان الحضريون 5.4 مليون نسمة).  
كمية النفايات المنزلية في السنة: 1.3 مليون طن من السنة.  
في تونس، تغطي معظم النفايات في أماكن التبريد، هذه الأماكن غير مراقبة. في تونس المدينة تم انتفا، مكان تبريد مراقب سنة 1984، لكن لم يتم تدميره بطريقة جيدة. وقد اعتدت تونس برنامجا وهي لتدمير النفايات المنزلية التي يهدف إلى التخلص من 200 أماكن طرقت مراقبة.  
في الواقع، لا زالت إعادة استعمال النفايات مجرد عملية استخلاص للنفايات وهي غير مدروسة وبدون قوانين تنظيمية.  
إلا أن برنامج تدمير النفايات المنزلية يتضمن مشروع تدمير النفايات من المصدر لتنظيم إعادة استعمال موادها بطريقة أفضل.

## فرنسا

مجموع السكان: 56 مليون نسمة  
كمية النفايات البلدية في السنة: 24 مليون طن، 15 مليون طن منها هي عبارة عن نفايات منزلية.  
يتم جمع عملية النفايات المنزلية (98%)، 65% منها في مكان التبريد، وتبقى 30%، يلقى في فرنسا، تغطي الأولوية حرق أو إعادة استعمال النفايات. حاليا، تحرق أو تلقى في مكان التبريد أغلب النفايات المنزلية، ويصعب مكان التبريد عبارة عن مكان للنفايات المنزلية أي "مركز الدفن الدقيق". لكن هذا التطور صعب التحقيق، لأنه يتطلب الكثير من الوقت ويحمل من تدمير النفايات عملية باهظة الثمن. يعتبر الجمع الانتقائي لإعادة استعمال النفايات من أساس المواجهة الأكثر كفاءة والأكثر صرامة، فالجمع الانتقائي يكون بالخصوص في أماكن القمامة وكذلك في صناديق القمامة التي توضع في الشوارع ومن إدارة السكان بحيث يضمنون فيها القارورات والخرائد وذلك من أجل استعمالها واستخراج الزجاج والدوق.

## المغرب

مجموع السكان: 26 مليون نسمة، أكثر من 50% حضريون.  
كمية النفايات المنزلية في السنة: 5 ملايين طن في السنة.  
تقل نفايات المطبخ أكثر من نصف النفايات المنزلية، 5 ملايين طن من النفايات في السنة يقل ما يقرب من 5000 شاحنة محملة بالنفايات تغطي كل يوم المدن المغربية من الأبرار. 85% من السكان يتلقون خدمة جمع النفايات ما يعني أن 15% من النفايات لا تجمع. هذه النفايات تبقى في مكانها (الشوارع) الأراضي القارية) وتتكاثر ما يسمى "القط السوداء" في المغرب، جل نفايات الحماصات تلقى في مكان التبريد، لكن للأسف، لا يوجد بعد أي مكان للتبريد مراقب، الشيء الذي يجعل معالجة النفايات سببا في المخاطر والأضرار. إن إعادة استعمال النفايات غير مدروسة، لكنها تكن الكثير من مستخلصي النفايات من كسب عيشهم، يجب إذن التحدث عن عملية استخلاص النفايات التي تسبب في الكثير من المشاكل، مثلا كخطر الأضرار التي يتسبب فيها مستخلص النفايات.

Figure 3.3-2 Reduced Reproduction of the 2 pages of the Educational Notebook Cover, Verso



### **3.4 "Video" Project**

#### **3.4.1 "Video" Project Context and Objectives**

##### **1) Video Cassette**

The video cassette is not dependent of the public education demonstration project in Safi, but it completes it. The objective of the project is to have at the national level a modern and popular tool of awareness of solid waste. The video is co-produced by the Ministry of Environment and JICA.

The importance of producing a video can be explained by the following reasons:

- The video is a popular and effective means of awareness;
- It is a tool had been lacking in the existing set of means of awareness of solid waste topic in Morocco.

At first, the idea was to produce a video cassette to increase the public awareness of the problems of solid waste and its management. The project of making a film on public awareness has developed gradually and has extended to cover also the awareness of the municipal actors, namely engineers, technicians, and elected representatives. As a result, two films have been accomplished with different uses:

- A film for the general public use;
- A film for the communes use.

##### **2) Video Projection**

The projection of the video film is the basic activity for the organization of meetings between the communes and the public on the topic of waste. The video is therefore a medium that can directly induce the participation of the public, in the sense of the direct dialogue with the commune and other residents with a view to understand and solve certain problems of waste. This form of participation of important for making mentality and attitudes develop.

#### **3.4.2 Video Film Accomplishment**

The accomplishment of the video film has been made by a communication agency in Casablanca, which works regularly with the Ministry of Environment. The financing has been ensured by JICA budget.

#### **3.4.3 Video Film Description**

##### **1) General Description**

The style of the video film is documentary and pedagogical. The documentary is structured of many parts. It is accompanied by written information or explaining diagrams. The types of messages aimed at the target public are the following:

- Awareness messages about the problems of waste such as the public health or the potential environmental effects;

- Messages concerning the residents' behavior towards household waste;
- Recommendations concerning management, especially in terms of the control of disposal sites.

The information points are the following:

- What is solid waste;
- Who generates it;
- What is made of it (collection, recycling, treatment);
- Problems;
- What has been made to solve these problems;
- To present the difficulties with respect to the complexity of the intervening parties concerned;
- What can be improved if every one holds his responsibilities;
- The good actions by means of cleanliness.

## **2) Video Film for the General Public Use**

The film which is meant to be used by the general public last for about 10 to 15 minutes and it is composed of the following parts:

- Urban waste in Morocco;
- Waste collection;
- Recommendations concerning the residents' behavior.

## **3) Video Film for Municipalities Use**

The time of this film is about 20 to 25 minutes. It includes identical parts to those of the film aimed at the general public without recommendations about the residents' behavior. A great part of the film is devoted to the problems of waste disposal and to the technical recommendations for the improvement of disposal.

### **3.4.4 Video Films Showing**

#### **1) Showing Method**

The video film showing is an essential stage for making out of the video a tool of communication and participation between the audience and the actors of awareness. The video can reach all the categories of the public and it has the advantage of making a connection between the different persons. The showing, however, should be animated and accompanied.

The animation of the video sessions has been ensured by the stimulating persons or coordinators of provincial delegations and by those of BMH in the case of communes. The available resources have been the following:

- National Education Delegation;
- Public Health Delegation;
- Municipal Hygiene Office (BMH);
- Youth and Sports Delegation;
- National Mutual Aid Delegation;

- Associations.

The accompaniment means the presence of waste actors, officials or elected representatives, during the projection. If the role of the stimulating person is to start and maintain the debate, that of the accompanist is to give precise information and favor the step of dialogue between the commune and residents. The accompanist is a cleanliness engineer, a collector, a technician of waste sector, or an elected representative.

## 2) Showing Places

The projection places of the video film during the awareness campaign have been the following:

- Enclosure of itinerary display on urban environment;
- Premises of the ACL association;
- Centers of Youth and Sports Delegation (women's centers, youth club and arts centers);
- Centers of Public Health Delegation;
- Centers of National Mutual Aid Delegation;
- Schools;
- Municipal libraries.

## 3) Showing Plans

The plans of showing include the dates and time of projections, places, the topics of discussion considered, the types of public expected, the names of stimulating persons and accompanists.

The plans of showing should be prepared by communes in coordination with delegations. These plans have finally been accomplished and then executed by delegations. The communes have brought their resource persons as accompanists. Pre-awareness of stimulating persons and accompanists as well as co-ordinators in the case of schools has been necessary.

The showing sessions, that have been planned, include different types of target public:

- Internal showing: Elected representatives, technicians, collectors;
- Intermediate showing: Stimulating persons, coordinators;
- External showing: The general public.





## **CHAPTER 4. EVALUATION OF THE PROJECT**

### **4.1 The Objectives of Evaluation**

The evaluation of the results of public education activities and the execution of these activities aims to achieve the following objectives:

- To identify the potential problems in order to improve the implementation of the educational programs in the awareness campaign;
- To evaluate the effectiveness of the measures taken to increase the awareness of the public;
- To improve and complete the national SWM guidelines;

Within the framework of the awareness campaign, the evaluation of the results should be considered as a means to improve the realization of the objectives and consequently to justify the usefulness of such campaigns. Within the general context in which there is a lack of financial resources of communes, the success of campaign planning and the effective realization of the objectives expected from the campaign are very important.

### **4.2 Method of Evaluation**

The general evaluation of the demonstration project should deal with the following aspects:

- The organization and implementation of the awareness program;
- The communication media, their use and their impact on the public;
- The general response of the public (reaction, participation in activities).

The evaluation which is presented in this report does not take into consideration the first element. This concerns the principal evaluation at first and with a view to the objective of improving the national guidelines of SWM. We can call this evaluation the evaluation of the project.

The other elements can be evaluated only through a series of tools such as the reaction of the media, opinion polls or other indices of public participation. The right evaluation of the impact with the public is possible only by successive comparisons of conditions before and after the campaigns. We can call this evaluation of the campaign.

The evaluation of the campaign is an integral part of the project which should be managed by the Urban Community. The accomplishment of this activity requires a certain follow-up on the part of the Urban Community or more exactly of the follow-up section that should ensure the continuity of the project. Given the schedule of the campaign, the results of this evaluation are not available yet.

The evaluation of the campaign should comprise the following aspects:

- Rates of public participation in the video sessions and in the display: number of visitors, category, origin (student or adult, man or woman, commune of origin);

- Comparison of public perception before and after the opinion survey on the basis of the opinion survey carried out by JICA in November 1996;
- Opinion survey during the campaign especially during the itinerant exhibition.

### **4.3 Evaluation of Project Stages**

#### **4.3.1 Organization**

The planning of activities necessitated the coordination of numerous partners under the responsibility of the Urban Community. The organization has been in general satisfactory, but the lack of a clear and satisfactory allocation of the responsibilities has been the major problem.

In certain cases, communes have not well understood the importance of their role in the organization and in the project. It has been apparently difficult for the communes to clearly assume some responsibilities, which has resulted in some misallocation of the tasks among the actors involved in the project. As examples, we can state the preparation of the folder or the video showing plan. The provincial delegations and the associations have taken a larger part than expected in making decisions. The Urban Community has found itself sometimes overworked.

#### **4.3.2 Planning Stage**

The committee set up for planning of activities has had regular meetings. The participation of delegations and associations has been regular and motivating. On the other hand, with the exception of Biada, the lack of assiduity on the part of the communes to the meetings has induced their limited participation in decision making and led to lack of coordination between the communes and the other members of the committee. This insufficiency has sometimes led to the questioning of decisions that had already been made and more generally to the delays in the schedule.

The lack of availability on the side of communes has been felt as a problem for getting the best consensus as possible about the project, although it certainly has justified reasons such as:

- The difficulty of integrating the project into their already heavy schedule;
- The constraints of the schedule of the realization of the project;
- The institutional aspects, especially the lack of responsibility for the aspects of awareness at the level of communes;
- The insufficiency of motivation for the awareness project;
- The difficulties faced during the project that have sometimes demotivated the communes;
- The possible bureaucratic heaviness, that is inconsistent with the necessary flexibility or availability for this type of project.

#### **4.3.3 Preparation Stage for Educational Materials**

The drawing competition proved to be an elegant, useful and certainly effective method for the preparation of educational materials and their appropriation by local actors.

The preparation of giant posters has been the object of exceptional participation and has profited from the general consensus. The follow-up and preparation of the folders and notebooks have been possible thanks to the provincial delegations and associations in coordination with the Province. The communes have not participated in these works with the exception of Biada to a certain extent, which is inconsistent with the objective of making out of this preparation work a procedure for participation and awareness of the communes.

#### **4.3.4 Execution Stage**

The execution of activities has not respected the initial schedule, which has necessitated successive modifications as and when there are constraints. However, the causes are varied and most of them are related to the evolution of the "video" project. It is therefore difficult to evaluate globally the quality of execution. We can however consider that the execution has been in conditions that have been rather normal with inequalities according to the communes. The communes are the principal actors of execution of activities. The problems of execution have principally concerned the commune of Zaouia.

#### **4.3.5 Public Awareness Stage**

The evaluation of this stage will be made by the Urban Community after the launching of the campaign, from February 27th. It has not been carried out on time for this report. The evaluation comprises the following aspects under the responsibility of a follow-up section:

- Reactions of the public;
- Reactions of the media;
- Results of the opinion survey.

### **4.4 Evaluation of the Major Aspects of the Campaign**

#### **4.4.1 The "Video" Project**

The video film has been assumed to represent one of the essential media in the program for Safi, a fact which makes it appreciated by local decision makers as an education medium.

The evaluation here has to do only with the use of the video cassette and not with the preparation of this cassette, which is a project apart. The first aspect of the evaluation deals with the gap existing between the expectation of the communes in terms of the video medium and the level of showing that is normally available. The second aspect deals with the preparation of the plans to show the video.

The mode of showing has been a subject of disagreement with two very different views. The communes have expected a showing in the form of popular animation on a big screen in a much frequented place. The other view has been that of showing on a

standard screen supported by public awareness promotion through coordinators and professionals in the cleansing sector.

The first alternative involves higher costs, which is inconsistent with the idea that the project should be financed locally. This method should be used in part thanks to the projection system of the High Institute of Technology. However, these projections concern only the communal actors.

In the second alternative, we find the problem of achieving the necessary coordination to draw up plans with the delegations of the ministries concerned. However, this solution has a considerable advantage, namely the feasibility and flexibility and especially the opportunity of increasing the awareness of decision-makers and of encouraging a direct dialogue with the population.

The preparation of the plans for showing the video have posed the problem of lack of initiative on the part of communes to organize the necessary coordination with the provincial delegations. Responsibility for planning the showing, which was at first devolved to the communes, has finally been transferred to the delegations. The coordination work of the communes has therefore been facilitated by asking them to provide to the provincial delegations all the necessary guiding staff selected among the professionals of the cleansing sector, and to prepare them through awareness sessions.

#### **4.4.2 Giant Posters**

The diversity of the steps involved in producing the giant posters has been potentially a condition of difficulty at many levels such as coordination and achievement of consensus, the selection of drawings and the editing work, the choice of messages, the choice of sites, as well as many technical details.

In spite of these difficult conditions, the project has in general been well carried out and it has even aroused a general enthusiasm. The process of selecting drawings and of proper editing of these drawings into posters has mobilized all the members of the jury over more than 12 hours in 2 successive half days. It has also included the participation of presidents, authorities, the first Khalifat and the Governor.

#### **4.4.3 Awareness Heightening in Schools**

Awareness in schools has been planned in detail by the Delegation of the National Education. The coordinators have ensured on-the-spot execution of these activities. This part of the campaign has been well carried out.

The Delegation of National Education has even exceeded the limits of the demonstration project by initiating a complementary project that should be executed starting in March 1997. This concerns the awareness project concerning the subject of toxic waste in secondary schools. This project is described in the appendix of the report.

#### **4.4.4 Awareness Heightening for Communal Actors**

Awareness heightening for communal actors has been insufficient within the limits of the project, because of both delay in the schedule and of underestimation of the needs in this area. As the evaluation of the project has shown, the increase in the awareness of the communes should be strong and deep, about the necessity of public awareness to improve SWM, and not simply about the solid waste problem itself. This observation is in fact one of the conclusions of the demonstration project and it should find a beginning of solution in the project of the national guidelines on SWM.

#### **4.5 Summary of Evaluation Results**

##### **4.5.1 Success of the Campaign**

The objectives of the campaign have been a multi-targetted awareness heightening action concerning SWM in Safi, and the launching of an information action program by communes. The campaign has been carried out in view of these objectives and by following a certain number of ideas and principles in order to better ensure the effectiveness of the means used. The adequacy of the means with regard to the objectives has been a success. The result at the level of public reaction and the real impacts with a view to the improvement of SWM cannot be estimated at the moment.

Major elements explaining the success of the preparation of the campaign are the following:

- The contribution of local artists and secondary school students to the preparation of the educational materials used during the campaign, beyond the video;
- The adequacy of the general organization, directed by the Urban Community with the support of the Province;
- The contribution and dynamic participation of 5 provincial delegations and 2 associations, one cultural and the other environmental, which has served as an effective support for the communes;
- The good field work of the team of coordinators and stimulating persons and their availability in order to put into shape the objectives of the campaign;
- The availability, flexibility, good motivation and the dynamism of the commune of Biada to achieve as best as possible the objective of the campaign on its own territory;
- The mechanisms of continuity such as the information folder, the existence of the mascot and the establishment of a follow-up section;
- The development of the awareness program in schools and the launching of the project for the students of secondary schools under the responsibility of the Delegation of National Education.

##### **4.5.2 Problems of the Campaign**

The difficulties found during the planning and execution of the campaign should be identified in order to improve the preparation of future campaigns. The principal difficulty has been the adjustment between the "video" project and the campaign project of Safi, which have been complementary but found themselves unsynchronized. The

consequences have been important with respect to the schedule and the execution of the awareness campaign. The fact that the video has been meant for a national use has made the constraints in its preparation heavy, sometimes at the expense of the Safi program.

Within the more precise framework of the organization of the campaign and the involvement of communes in the project, there has been a certain number of difficulties, as follows:

- Lack of dynamic participation of communes in order to assume the allocation of responsibilities within the committee, for reasons that are certainly very different from one commune to another;
- Weaknesses of communes to plan global actions in coordination with the delegations within the framework of awareness;
- Lack of participation and flexibility of communes can be behind the ineffectiveness. In the case of the giant posters display boards, for instance, the evaluation of exhibition conditions on walls has been incomplete, which has rendered the use of existing boards difficult. The lack of flexibility for the financial participation of communes in the production of display boards has moreover led to the reduction of the number of boards that had initially been targeted. Then, the number of posters, being higher than the number of boards, the result has been a loss of the posters exhibition potential, which means a lack of efficiency in managing the program and its costs. Adjustments should be made in order to reduce such losses.
- The relative weakness of participation of the elected representatives in the project, namely the municipal councilors and eventually the presidents of communes, in spite of the fact that they are the main persons concerned with the project, whose objective is to develop information and communication. The elected representatives are the ones who can influence communes in order to be very aware of the usefulness of the public awareness actions.

#### 4.5.3 Lessons to be Drawn

- The budget devoted to the campaign is in general very reasonable, but relatively high for the particular case of "giant posters". However, these posters have been an essential motivation in the preparation of the campaign and we expect very positive reactions from the public. The quality and the reach of this project should largely compensate for its cost. In addition, the project has shown that the use of local resources has been a complete success. On the basis of a good organization, the choice of appropriate awareness materials, the better availability of educational materials which are costly (like the video), the campaign can be carried out within the scope of a reasonable budget.
- The provincial delegations and the associations are valuable resources for their competencies and their know-how. The development of a strategy of awareness on the part of the communes should be based upon these institutions. The organization of a follow-up section by the Urban Community is an opportunity to develop these local capacities and exercise a training function for the communes. It will serve in the short-term to maintain communication between the agencies concerned and to define the objectives and the projects. However, in the long-term, it is desirable to develop technical management, which presently is lacking, to take charge of awareness creation.

- The establishment of an intermediate body between the communes and the Ministry of Environment is needed to facilitate the motivation of communes and the technical support to them. The communes need popular educational materials, which are appropriate and easy to use, but whose production may be expensive, as it is for video tapes. The Communication and Training Directorate of the Ministry of Environment should take the initiative to provide information about its activities and to develop its ability to answer questions raised by the communes about public awareness. Maintaining contact between this Directorate and the cultural and environmental associations should be considered as an important task for the development of awareness activities at the local level.
- The video film meets a real expectation on the part of local decision-makers as a tool to promote public awareness in the streets, on the one hand, and as a tool of public debate, on the other. The use of video in such conditions is difficult for the communes due to its high cost. The Ministry of Environment should therefore consider two types of assistance for the development of such awareness tools. The first type of action is to produce an environmental series in the form of slides, and specially about solid waste. Then, it should provide screening materials such as video or slide shows on big screens.
- In the same way in which this has been achieved in the city of Safi, it would be better for the Ministry of Environment to encourage local public awareness projects. The giant posters project that has aroused much interest in Safi and from which we expect good results, deserves to be considered, discussed, reproduced and broadcasted, improved or even take a different form. For example, the idea of the giant posters, if turned out to be useful, can be grafted on the idea of the itinerant exhibition and become a new way to promote public awareness about solid waste in cities.
- The need to increase the awareness of decision-makers and elected representatives about SWM, but also about the usefulness of awareness, has been underestimated in the demonstration project. This increase of awareness can however be the result of indirect factors such as the exchange of information between the communes, the creation of good conditions for the public awareness, and the motivation of the local associations. The Communication and Training Directorate of the Ministry of Environment has a very important role to play in the development of such factors.

#### 4.6 The follow-up for the evaluation of the project

The following evaluation approach is recommended for Safi and for the Ministry of Environment in order to follow up the public demonstration project and to find conclusions that could be useful for the improvement of such actions. The 3 following steps of evaluation are recommended. Actually, only the 1st step can reasonably be implemented, while the second and third steps should be considered as later objectives of evaluation.

#### **4.6.1 Evaluation of the impact of the activities and awareness tools upon the public**

Beside the statement of the activities, this step includes the following main aspects:

- participation of the citizens to the awareness activities;
- reactions of the public to the activities and the awareness tools, specially regarding the giant posters which have been the main aspect of the preparation of the campaign;
- mediatic impact (articles in newspapers, others)
- efficiency of distribution and use of awareness tools;

Some indicators of evaluation can be:

- the rate of public participation in awareness sessions (meetings);
- the number of persons reached by door to door awareness, by showing of the video film, and through distribution of the awareness materials;
- public opinion survey for identifying how people have been reached by the campaign messages, what is the level of diffusion of messages among the citizens (% of persons who know about the campaign, perceived messages of the campaign, appreciation about the campaign); The questions concerning the public awareness aspects in the households survey of the JICA study team can be usefully reconducted.

#### **4.6.2 Evaluation of the impact of the awareness campaign upon the state of quality of SWM conditions and upon the quality of life of the citizens**

This evaluation is more focusing on the impacts after the campaign, which is an answer to the question: how much have the objectives been reached due to the campaign? There is no indicator specific to the awareness heightening field for such an evaluation.

The indicators are as follows:

- evolution of the rate of waste collection;
- reduction in the number of black points;
- state of improvement of cleanliness of streets;
- state of improvement of cooperation of citizens in waste collection;
- better cooperation of citizens in cleansing campaigns;

Such an evaluation would be better if implemented in selected areas, like for example in quarters where public participation is low, or where cleanliness level and salubrity are critical aspects.

#### **4.6.3 Evaluation of the levels and capacities of awareness heightening by the urban communes in the field of SWM**

This evaluation is a long term evaluation which aims at measuring the progress which has been made by the communes in their awareness level about the need and usefulness of public education in the field of SWM, and also the capacities to develop awareness activities. Main points of evaluation are the following, as examples:

- do the follow-up committee have regular meetings and what are the concrete actions taken?



- are there further developments of the public education demonstration project, and are these developments part of strategic objectives of public awareness? if results are not as expected, is there any assessment to understand the problems?
- how are the recommendations made in the study of guidelines taken into account in order to improve public awareness in the field of SWM?
- have the cleansing campaigns (eradication of black points) effectively integrated public awareness actions or not?
- do the communes have a direct and regular contribution to the awareness activities during specific operations like public meetings, video showing, exhibitions, visits to schools, door to door visits?

