ECOLOGICAL MARKET MODEL, EMM GENERAL DESCRIPTION

This report is targeting a large, public audience and has the purpose of giving a general description of an Ecological Market Model developed Food Markets in the greater Bucharest Area. The model has been developed in the project ECOMARKET - a pilot innovative and demonstrative project implemented in the framework of the European Union's Financial Instrument for the Environment – LIFE.

1. BACKGROUND

The Bucharest Municipality is currently (2003-2005) implementing the ECOMARKET project. The objective of the project is to minimize the environmental impact of food markets (FM`s) that permanently operate in open or partially open spaces, and to demonstrate how eco-labels can be an effective instrument towards environmental sustainability. In relation to food markets the ECOMARKET project has the following specific objectives:

1. To design, test and evaluate an environmental assessment method (EAM) for Food Markets and Retail shops situated within food markets using sustainability parameters and indicators.
2. Based on the EAM, a food market ecological model (FMEM) for food markets and a voluntary ecolabelling scheme (VES) for the retail shops within the food markets is being developed and implemented, describing rules and criteria for becoming a certified Ecological Food Market or an Eco-labelled Shop
3. Furthermore the Bucharest City Hall, who is going to administrate these criteria for the FMEM and the VES, is implementing an environmental management system (EMS) in conformance with the ISO 14001 in order to minimize the environmental impact from the largest local public administration in Romania.

2. EMM – BASIC DESCRIPTION AND PURPOSE

The Food Market Ecological Model is basically an Eco-labelling scheme for the Food Market area including all business areas, business related areas and technical installations (such as waste handling facilities and water supply network etc.) and administrative areas controlled directly by the Food Market management – that is all the Food Market except separate rented business areas (shops) which are not controlled by FM management.

Ecolabelling is a market-based instrument, which primarily seeks to stimulate the supply and demand of products and/or services with a reduced environmental impact.

Most often, Ecolabelling is related to products and is then a substantial strategy to ensure consumers the possibility of choosing products with less environmental impact. A further step towards ensuring the consumers optimum possibilities is ecolabelling of retail trade or in case Food Market trade. By that, the consumers is guaranteed that not some of the products, but also the services affiliated (which Food Market trade offers the consumers), are reduced to a minimum as regards to environmental impact.

The EMM is a local administrated label or certificate, as the level of environmental impact and the FM`s ability to comply with the EMM standards are assessed by the environmental specialist from the Bucharest City Hall and the certificates issued for EMM compliance are approved by the General Council of Bucharest City.

PURPOSE OF THE FMEM.

The ecological model of food markets (FMEM), aims to limit the main environmental impacts from the three phases of the life cycle of food market trade (purchasing, provision of the service through daily operation of the food market and waste disposal). In particular they aim to:

- limit energy consumption,
- limit water consumption,
- limit waste production and increase/improve recycling ,
- avour the use of renewable resources and of substances which are less hazardous to the environment,
- Promote environmental communication and education.

The measures to reach the objectives are to set up maximum acceptable levels for the consumption of energy and water, and to set up minimum requirements for the implementation of various environmentally sound initiatives and minimum requirements for the presence of standards and/or routines that have an impact on qualitative and quantitative issues of environmental interest.

3. ENVIRONMENTAL PARAMETERS

To be able to comply with the EMM standards the FM has to meet specific requirements for each of the following environmental parameters:

- **Energy** (annual consumption)
- **Water** (includes annual drinking water consumption, initiatives to reduce the consumption, sewage facilities and waste water handling)
- **Waste** (sorting, facilities, handling etc.)
- **Noise/Sell** (focuses on identifying the sources for un-wanted smell and noise in order to improve the general appearance of the FM for customers and the surrounding residential areas)
- **Assortment** (focus on the presence environmentally preferable products and the elimination of environmentally hazardous products in the assortment)
- **Internal consumption** (focus on the use environmentally preferable products and the elimination of the consumption of environmentally hazardous products)
- **Occupational Health and Safety** (stimulates the systematic work for better health and safety conditions for employees)
- **Environmental Management**

The latter parameter Environmental Management is a core parameter in improving the over all environmental performance of the FM, and will be discussed deeper in the next chapter.

4. ENVIRONMENTAL MANAGEMENT – BASIC DESCRIPTION AND DEMANDS IN THE EMM

Environmental Management enables any organisation or business unit you to control the environmental impact of activities, products, or services.

Environmental management is about taking a systematic approach to minimise the impact on the environment and surrounding community. Moving away from ad hoc processes gives you an overview that makes environmental programs easier to manage, measure, and improve. An effective Environmental Management System can reduce the organisations impact on the environment, improve operational efficiency, identify opportunities for cost savings, and reduce environmental liability.

Environmental Management Systems:

- Takes a structured approach to the setting of environmental objectives and the means to achieve them.
- Helps Identifying environmental risks and opportunities to improve your environmental performance.
- Initiates continual improvement of the environmental performance.

This is some of Environmental Management issues that are in focus in the ECOMARKET EMM:

- Formulation of a written Environmental policy
- Formulation of written Environmental objectives
- The recording of consumption data and waste amounts
- Formulation of a Programme of action for environmental improvements
- Implementation/presence of routines that secures a minimum level of environmental awareness
- Implementation/presence of written guidelines for certain environmentally important daily operations
- Level of knowledge on environmental issues for the employees
- To require a level of performance that ensures the avoidance of complaints from customers and commands of improvements from environmental authorities.

5. COMPLIANCE TEST

To test a Food Markets ability to comply with the requirements of the EMM the Food Market administrator has to deliver a variety of information. This information is gathered by the use of questionnaires that uses environmental indicators within each of the parameters listed above in section 3. For each indicator the FM is then assigned a number of points depending on the environmental soundness of the given situation in the FM in question. The points scored is used to assess the environmental impact of the FM by giving a score for environmental performance for each parameter. The score is given in form of a Mark from A to M by using scoring systems in which an interval of points scored (or level of consumption in the case of consumption of water and energy) refers to a Mark. The Mark "A" equals the best possible environmental performance compared to other Food Markets (and a low level environmental impact in general), while "M" equals the poorest possible performance. The use of the scoring systems is best illustrated by an example of a scoring system:

Scoring system for water indicators (based on a minimum score of 13 points)			
Mark	**X = points scored**		
A	93,5	≤ X ≤	100

B	87	≤ X <	93,5
C	80,5	≤ X <	87
D	**74**	**≤ X <**	**80,5**
E	67,5	≤ X <	74
F	61	≤ X <	67,5
G	54,5	≤ X <	61
H	48	≤ X <	54,5
I	41,5	≤ X <	48
J	35	≤ X <	41,5
K	28,5	≤ X <	35
L	22	≤ X <	28,5
M		X <	22

The minimum requirements in the EMM is based on setting criteria for a minimum performance in each parameter, i.e. in the parameter "Water" the collected data for water indicators must correspond to the mark "D".

Beyond the mandatory criteria consisting of the minimum Mark for:

- total annual energy consumption,
- total annual water consumption,
- waste indicators,
- assortment indicators,
- internal consumption indicators,
- occupational Health and Safety indicators and
- environmental Management indicators,

the EMM certificate criteria consist of optional point scoring criteria that involves also the Noise/Smell parameter.

These optional sums up to be a mix of severe measures by pointing out special issues in each parameter that are of vital importance for the environmental performance. To comply with the optional criteria the FM has to score at least 45 % of the total obtainable points. In this way the FM can select the optional criteria that fit their practical conditions. Either way the optional criteria ensures an improved overall environmental performance compared to implementation of the mandatory criteria itself.