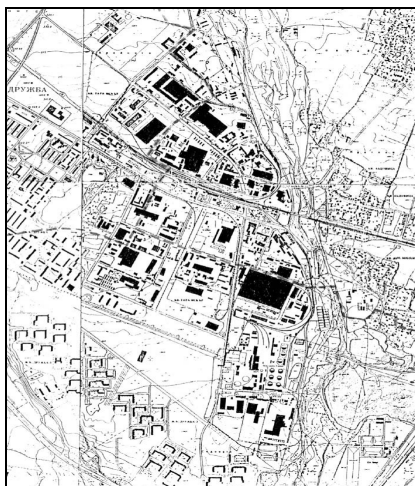


## RECONSTRUCTION AND TECHNICAL RENEWAL OF INDUSTRIAL ZONE “ISKAR” – DISTRICT ISKAR

### General part

The pilot project is included in the frame of the Environmental management plan of Ecozone “Sofia-East” within the PHARE Programme Project BG 9310-03-05-05. The Structural Scheme for Functional Zoning is approved by Sofia Municipality, Department Urban Planning and Architecture – protocol N: 144 from 17.12.1998. The project is included in the “Local Agenda 21” programme package - Sustainable Sofia”, which is approved within the Sofia Regional Development Plan - №20, code 6-SOFXX-226, as well as a separate project №12, code 6-SOFXX-219.



The Science-Production Zone “SPZ Iskar (North and South) is one of the biggest such zones not only in Sofia, but also in Bulgaria as well. There are more than 70 companies, on an area of about 80 ha, belonging to different branches of the industry, and the most important are:

- Metallurgy and heavy industry – the main/major representative is PNFM – Privately owned (PO) PLC (production zone Iskar - South);
- Production of building materials and structures - the major representative is the company for Steel-concrete structures Sofia – Station Iskar (South);
- Chemical and paper industry – the biggest company is the Plant for Polycellulose and cardboard (production zone Iskar - South);

- Energetics – TPP “Sofia - East”.
- Transportation and transport depot
- Food industry.

The territory of the Industrial zone consists of two parts:

- Existing industrial complex;
- Free sites for new industrial and commercial development;

### Environmental problems and conflicts

This city zone is an example of an industrial territory with a mosaic build up structure, comprised of residential area (district) with public works, schools and children's garden, companies of the heavy and light industry, burdened with transport services, lack of investment, degradation of the state-of-art of the technological development, unemployment, low standard of living, polluted and degraded environment crossed by visible engineering equipment, areas/places for rest with few vegetation. The infrastructure is old, worn out and should be renewed.

The data and the made-up environmental study from 1989 of district Iskar place this territory in the 5<sup>th</sup> city, characterized with dangerous /inadmissible/ dwelling conditions, with damaged HHP between houses and manufacturing.

Here, at the same time, is concentrated, large and vital for Bulgaria human, intellectual and professional potential that has to be preserved. The territory is an important crossroad of national importance.

The main pollutants are CO<sub>2</sub>, SO<sub>x</sub>, dust, NO<sub>x</sub> and lead:

- PNFM - PLC /Plant for Non-ferrous metals/- CO<sub>2</sub>, SO<sub>x</sub> and lead;
- TPP “Sofia - East” - CO<sub>2</sub>, SO<sub>x</sub> and noise.

In the production area/complex **The water consumption** is more than 50 000 m<sup>3</sup>/daily, of which 15m<sup>3</sup> per day are extracted from local sources, the rest is extracted from the Pancharevo. The quantity of **polluted water** is more than 30 000 m<sup>3</sup> per day. Most of the companies have their own wastewater treatment plants, but

most of them do not work efficiently and an assessment and review of the real amount of polluted water inflowing in the river Iskar is. Generally speaking, the polluted waters are more than 5500 kg/daily - or 2000 t/per year (and the pollution coming from the Metallurgical Plant is Kremikovtzi” is disregarded) The obtained information is insufficient, mainly due the following reasons:

- Numerous changes of the top management of the industrial enterprises;
- Lack of data and refusal of information provision, because of the ongoing privatization.



### Aims

#### Main aim:

Achievement of environmental friendly and economically stable management of the companies and territory in the area, especially towards the introduction of systems for environmental management and ISO 14001.

#### Sub goals:

- Adherence to the requirements of environmental friendly development of the territory and achieving conformability between the functions of living, production and rest;
- Reconstruction through application of policy for energy-efficiency, decrease of raw material and non-renewable resources consumption;
- Wastes and wastewater recycling;
- Re-cultivation of degraded terrain's and polluted soils;

- Infrastructure renewal, aimed at environmental protection and clean technologies;
- Transfer of new technologies, knowledge and training;
- Bring in/implementation of new mechanisms for investment support – business incubator, technopark
- Development of new zones for rest with increased recreational protection functions;
- The convert the zone in a model – standard for all similar territories in the country;

## Tasks:

Elaboration of a strategic program for Environmentally appropriate and economically stable management and introduction of new technologies, for which :

- Inquiry and actual data /by passport/ for clarification of property and privatization procedures of the companies.
- Preparation of a comprehensive base plan and for the state and territory capitalization of all subsystems and functions;
- Update of the building and urban planning plan, with an environmental urban planning analysis
- Elaboration of a detailed programme, development plan, implementation stages, budget
- Projects and implementation of rehabilitation of polluted land and infrastructure, decrease of harmful emissions, decrease and waste recycling and energy effective reconstruction.
- Monitoring of the environmental quality, territory status and application of the rehabilitation measures
- Attraction of the individual companies and enterprises in a voluntary association for introduction of environmental protection systems;

industrial capital is maintained according to the environmental requirements. Together with the renewal of the existing enterprises, development of new economical structures/ technopark with an Incubator for high technologies is proposed.

Environmental: The project resolves the created environmental problems in the zone. The programme will be developed on the basis of updated study and complete EIA, as well as audits for individual companies. Build up of a green system with environmental and recreational functions.

Social: The people, directly or indirectly influenced by this project may reach from 75 000 up to 700 000. Environment for working and living.

**Budget** (uncompleted – depends on the approved size of activities)

## Implementation stages (uncompleted)

- Updated urban planning base and data base for the companies;
- Preparation of an Environmental Impact assessment /EIA/ for the entire industrial zone "Iskar";
- Energy-efficiency programme, action plan and energy audit;
- Change of the engineering infrastructure- plan by stages and implementation;
- Construction of a specialized green system for environmental protection.

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## Expected outcomes

The proposed measures for renewal, should achieve economical, environmental and a social effect:

Economical: The effect can be calculated after preparation of the preliminary project. The created