

"VRANA" BOTANICAL PARK: ECOLOGICAL CONDITION OF THE PARK "VRANA", AS A BASE FOR ITS REHABILITATION AND DEVELOPMENT".



The Park "Vrana" has been created end of the last century, on 80 ha land, by the first king from the III Bulgarian kingdom. This unique park for the Balkans has more than 400 plant species and is an example of very high artistic park design. It is situated East of Sofia suburbs, close to the Iskar industrial zone and river Iskar. It is a

(nematodes fungi, bacteria viruses). Parts of them evidently are imported by seeds and seedlings coming from other places. Because of very long monocultural growing they reach very high population level.

The analysis shows that the park needs good strategy and finding financial support for rehabilitation and development of this unique potential. It will be used as a buffer zone helping air purification, and for rest and rehabilitation. People may visit of the park, the palace and the greenhouses.

The park may be used for education and practice of students - botanists or ecologists.

Aims

Rehabilitation, management and development of the park "Vrana", as a part of Ecozone "Sofia - East".

Expected results:

1. Improvement of the phytosanitary status of the plants.
2. Conservation of biodiversity - unique for the Balkans.
3. Substitution of dying plant species and creation of one strong ecological buffer.
4. Appropriate park



green oasis, playing important role in Sofia Region.

The Park is nominated by the government as a national monument of park history and art.

State of art of Park Vrana

The park "Vrana" is in a very bad ecological condition because of dying of many unique plant species. Preliminary investigations on the "phytosanitary status", showed that the damage only on woody plants caused by different factors goes in parts of this large park from 12 till 30%. More drastic is the "status" of flowers and alpineums, where park composition is really destroyed because of declining of large amount of them (30 - 50%). The expert valuation shows that this is related to pathogenic stressors

management practice.

Description of the activities

Preparing of action plan for rehabilitation of Park "Vrana" including:

- phytopatological, nematological and entomologoccal studying;
- analysis of soil and underground waters;
- dendrochronological assessment .
- list of measures, business plan and time schedule;

Requirements

1. The project is in accordance with the principles of the Master Plan of Sofia, Ecozone "Sofia - East" and Local Agenda 21.
2. The stages of realization, as well as the technical implementation details will be coordinated with the Sofia

Municipality and the Ministry of Environment.

Terms

I Stage - 6 months: Phytosanitaries and dendrochronological studies of the plant diversity of park "Vrana"

- Analyzing of the soil structure and the status of underground water;

II Stage- 12 months: Investment for realization of the phytosanitary programme on the base of :

- a) ecological measures for control with pathogenes;
- b) substitution of dying plants with resistant ones;
- c) change of some flowers in flower areas and alpineums according to the park' s composition.
- d) rehabilitation of park infrastructure and elements;

Proposed Budget

Total : 96 400 Euro

Procedure and management

The pilot project is in the framework of the Pilot Environmental Plan of Ecozone "Sofia - East". The realization of this project will be managed by Sofia Municipality with the participation of the Agency for Sustainable Development and Eurointegration "ECOREGIONS" and the Ministry of Environment and Waters.

BALANCE OF THE TERRITORY

I. PARK ZONE

1. Built area:	0.421ha
Palace and additional buildings	0.337ha
Greenhouses	0.084ha
2. Alley network:	3.102ha
Asphaltbeton	1.038ha
Filz(river gravel) covering	3.150ha
Sand covering	1.722ha
Sidewalks(pavement)	0.027ha
3. Water basins	0.432ha
4. Vegetation area	86.329ha
Forestry park and massifs	43.204ha
Lawns and alpineums	20.632ha
Clearings & groups of trees	22.493ha

II. FARM AND

PRODUCTION ZONE

1. Production zone(Seed-bed)	8.152ha
Open school and service roads	2.600ha
Sprouting school	0.460ha
Other plantations	5.092ha
2. Farm zone	1.564ha
Built area	0.178ha
Open area	1.386ha

TOTAL 100.0ha

