

## **CHAPTER 3**

### **THE REMP – SUPPORTING PLANS**

For effective implementation of the **REMP's Core Measures**, most of which relate directly to the management of various environmental resources and have been described in Chapter 2, it is considered important that a number of **Supporting Measures** are also adopted as a part of the plan. It is the view of the Study Team that some of the recommended supporting measures are in fact essential for successful implementation – especially those relating to Institutional matters, and also to Community Participation and Environmental Monitoring. These Supporting Measures are summarised below.

#### **3.1 INSTITUTIONAL MEASURES**

##### **3.1.1 EXISTING ENVIRONMENTAL PLANS AND INSTITUTIONS**

###### **(1) Environmental Action Programmes (EAPs)**

At present, action programmes (consisting of many projects related to the improvement of the environment, but often not clearly linked into a programme or with priorities justified) are prepared at different levels of the governments as follows:

- 1) NEAP (National Environmental Action Programme), by MZP
- 2) REAP (Regional Environmental Action Programme eg for Central Hron), by SAZP
- 3) KEAP (Kraj Environmental Action Programme), by Kraj Office
- 4) OEAP (Okres Environmental Action Programme), by Okres Office

###### **(2) Related Plans**

Many of the actions/projects in the above EAPs are created or derived from the following plans in various fields:

- Territorial Development Plans for Banska Bystrica and Nitra Kraj and other Territorial Development Plans for Okres, Municipalities and special areas
- Water Management and Hydro-ecological Plans, by MP, MZP and water management bodies (Povodie Hrona, StVak, ZsVak, etc.)
- Forestry Management Plans
- Plans for Nature and Landscape Protection, by SAZP (COPK)
- Plans for Environmental Assessment and Eco-labelling, by SAZP (CEHOVT)
- Plans for Environmental Management and Education, by SAZP (CEEV)
- Plans for the Territorial System of Ecological Stability for the Nation, Okres and Municipalities, including Biocentres, Biocorridors, National Ecological Network of Slovakia and Ecological Landscape Planning, by MZP/SAZP (CUPER)
- National Programmes for Waste Management by the Ministry of Environment and Regional and District Plans by the Kraj and Okres offices respectively.
- Village Improvement Programmes by SAZP (CUPER)
- Regional Development Plans, by Kraj/Okres Offices
- National Park Plans by National Park Administration by SNP (MZP)

- Plans for Caves, by Slovak Cave Administration

Plans with close linkages to the REMP include the Hydro-ecological Plan, which has the Hron River Basin as the unit for planning and management of water environment, various *Kraj* and *Okres* Environmental Action Programmes and the SAZP (CUKOO) Programmes for the Polluted Area of the Central Hron. There is considerable overlap in the content and recommendations of these various plans, which could be very confusing to local/regional, national and international funding sources when integrated programmes are to be implemented and priorities set.

Many of these plans are 'statutory', their scope and content are determined by legislation, but this does not prevent overlap or guarantee support from stakeholders or funds for implementation from State, local government or the private sector. The REMP is a pilot 'non-statutory' plan (and could remain non-statutory, with MZP issuing guidelines for REMP preparation); this provides it with more flexibility, yet still gives scope for obtaining funds for implementation as long as the preparation process remains participatory and the stakeholders/consultees are ready to support the proposals.

### **(3) Institutions with Environmental Responsibilities**

The Ministry of Environment (MZP) has the main responsibility for environmental policy and regulation in Slovakia. The MZP is supported in implementing these responsibilities by several institutes, including the State Environmental Fund, Slovak Environmental Inspectorate, Slovak Environment Agency, Slovak Hydro-meteorological Institute, Geological Service, and National Parks Administration. All regional administrations (*Kraj* and *Okres*) and municipalities are supported by Departments of Environment, whose reporting responsibilities are ultimately to the Ministry of Interior rather than to the MZP.

#### **3.1.2 MAIN ISSUE - COMPLEX INSTITUTIONAL STRUCTURES AND POOR CO-ORDINATION**

The existing arrangements for environmental planning, environmental management and gathering of environmental data are diverse and not always clearly defined. The technical aspects of some activities are the responsibility of State agencies such as SIZP, SAZP (Ministry of Environment), Povodie Hrona and Lesoprojekt (Ministry of Agriculture), while the *Kraj* and *Okres* offices of the Ministry of Interior often have overlapping responsibilities, of a more administrative nature, for the same activities. There are similar, related overlaps in the system of regional government, with two tiers of state government (*Kraj* and *Okres*) plus an independent system of municipal local self-government (*Obec* and *Mesto*).

This very complexity makes both inter- and intra-institutional co-operation difficult - even within Ministries and their agencies the office arrangements and geographic areas of responsibility do not facilitate close-working – the various departments of the SIZP in Banská Bystrica operate out of different offices and cover different areas. This creates a major obstacle for the preparation and implementation of plans (such as the REMP) in a co-ordinated manner, such that they have the support of government and non-government stakeholders. This situation is not unique to Slovakia (see frontispiece), but as has been identified in the UK Environmental Assistance Strategy for Slovakia, the need to reform responsibilities for environmental planning, management and enforcement is a priority given the requirements associated with EU accession. There is a need for an environmental management structure that:

- generally facilitates closer co-ordination between stakeholders (state government, local self-government, private sector, NGOs, the public etc;
- is more responsive and accountable to local people;
- is more responsive to the data and other information that is already available;
- is more transparent in its prioritisation and decision-making processes.

### **3.1.3 RECOMMENDED INSTITUTIONAL MEASURES**

To address some of the institutional issues that have been identified the following recommendations are made (IM: Institutional Measures). Most will need to be adopted and applied at a national level, but there may be scope for starting with initiatives in the Hron Basin on a pilot basis. IM2 has already been proposed as SW4.4 in Table S – 2, but is covered here also because of its key significance.

#### **IM1 It is recommended that the system of regional/local and sectoral ‘Environmental Planning’ in Slovakia is rationalised.**

One way of doing this, which gives a prominent role to a River Basin REMP, is set out in Figure S – 1. The advantage of a River Basin as a geographical area for environmental management planning is that it is not subject to change whenever there is a re-organisation of local government. Local Environmental Agency Plans (LEAPs), based on River Catchments, are being adopted in the UK and it is believed that the Slovak Republic could usefully follow this example. REMPs would then provide the overall environmental strategy for whatever system of local government existed and could be developed further by each into suitable ‘sectoral’/local action plans and implementation programmes for waste, air etc by the responsible national and local authorities.

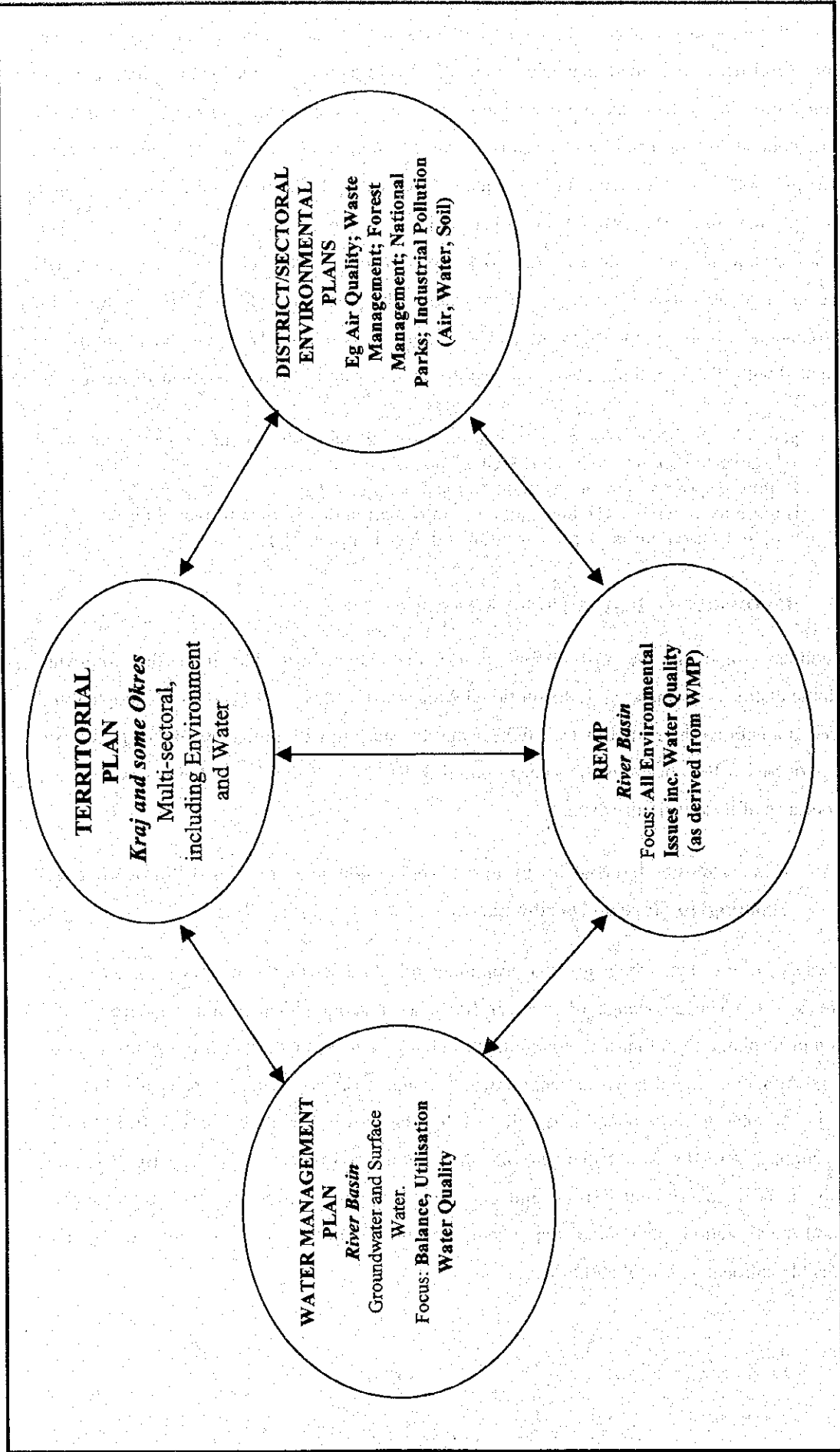


Figure S - 1 Proposal - Simplified Environmental (and Water) Planning at Regional and District Levels in Slovakia and Relationship to Regional Environmental Management Plan (REMP) for River Basins

**IM2 It is recommended that an inter-institutional Hron River Basin Management Board or Commission is established in order to facilitate co-ordinated planning and management activities.**

There is a draft EU Framework Directive Water that requires member states to have a Competent Authority for River Basins at a national and international level. Slovakia already has the Slovak Water Management Authority, of which Povodie Hrona is a part, under the Ministry of Agriculture. Whether its responsibilities, according to Slovak Law, are in full compliance with the directive will need to be reviewed in due course. Experience with the preparation of the REMP has emphasised the need for a co-ordinating body, to include StVaK, ZsVaK and many other organisations as listed in Table S – 2 against measure SW4.4. The body would represent a partnership between existing institutions. The creation of a new, separate institution, to undertake the preparation of REMPs and to oversee their implementation, is considered unnecessary at a time when there is pressure to reduce the state administration – the priority is to develop mechanisms for bridging gaps and enhancing co-operation between existing institutions.

**IM3 It is recommended that re-organisation of the Ministry of Environment, and its agencies/institutes, takes into consideration some of the institutional and legal issues that have been raised in the REMP, especially those relating to internal and external co-ordination of its activities and the requirements of EU directives (eg for Integrated Pollution Prevention and Control). The review should include, but would not be restricted to data sharing, information availability, monitoring, inspection activities, management of National Parks and Protected Landscape Areas, environmental education and community participation.**

It is understood that the Ministry of Environment is in the process of reviewing its organisational structure and that changes have already been made during 1999 eg the establishment of the Centre for the Protection of Natural and Cultural Heritage (COKPD) within the SAZP. The review should take into account that frequent institutional changes (it seems that changes have taken place on a regular basis) can be disruptive, so change for its own 'sake' should be avoided.

**IM4 It is recommended that the Ministry of Environment, in co-operation with other Ministries where appropriate, adopt a policy of encouraging the establishment of local Task Forces, Working Groups etc to investigate and address specific issues raised by monitoring and other studies (eg the contamination of groundwater with nitrate) to ensure that information that it has been gathering is put to effective use. The Task**

Forces etc should in general include a wide selection of representatives (eg state government, municipalities, NGOs, industry).

This step should help to facilitate improved intra- and inter-ministerial co-ordination and action prior to formal re-organisation of the Ministry of Environment. The Task Forces should consider implementing their recommendations on a pilot basis wherever this is appropriate eg with the ecologisation of forestry.

**IM5** It is recommended that the Ministry of Environment support moves to re-organise regional and local self-government in such a way that rural Municipalities are formally merged into larger units (eg based on micro-regions or *Okres*), in order to facilitate environmental investments and programmes that are beyond the means and/or scope of smaller municipalities.

Within the last 10 years, significant changes in local government/administrative areas have already been made and it is understood that changes to *Kraj*, *Okres* and Municipalities (in terms of geographic area and responsibilities) are likely to be made, in part to facilitate accession to the EU. High-level discussions on this Local Government re-organisation are already well-advanced through the preparation of a National Strategy for Sustainable Development and in the Conception for Reform of Public Administration. Changes are required, from an environmental perspective, because the smaller Municipalities do not have the technical or financial resources to deal satisfactorily with matters such as the establishment of sewerage systems and drinking water supplies – and these often require co-ordinated action by several villages to be cost-effective. Even some *Okres* office Environment Departments feel they are under-resourced, in terms of qualified staff and equipment, and cannot carry out fully their responsibilities, including environmental planning, inspections and other work with/for the public – and that the situation will become worse with pressures to reduce staffing in the State Administration.

If *Kraj* and *Okres* offices are re-organised at the same time as the Municipalities, there is scope for the technical staff of the *Okres* offices to form the executive of a locally elected council (which would replace the smaller municipalities). This could reduce duplication of effort by *Okres* and Municipalities and strengthen environmental capacity, encourage greater transparency and accountability and allow a better response in meeting the requirements/priorities of the local communities. If the technical staff report to an elected council, not the Ministry of Interior, it will still be necessary for environmental advice and guidelines to be provided by the Ministry of Environment.

### **3.2 COMMUNITY PARTICIPATION AND INFORMATION DISSEMINATION PLAN : RECOMMENDATIONS**

#### **CP 1 Legislation and Policy**

- CP1.1 It is recommended that the Slovak Government ratifies the Aarhus Convention on Public Participation as soon as possible, and amends the Slovak Legislation as appropriate to allow the convention to become part of Slovak law.
- CP1.2 It is recommended that the Slovak Government establishes an independent cross-Ministry Commission to review current legislation on public participation and that this Commission has the remit both to identify areas where public participation legislation requires strengthening and to put forward suggestions for legislation.
- CP1.3 It is recommended that at a Kraj level, Public Participation Task Forces are established.
- CP1.4 It is recommended that each Kraj and Okres produce a strategy statement of public participation.

#### **CP 2 Training and Capacity Building**

- CP2.1 It is recommended that guidelines, in the form of a handbook, be developed and issued to local authorities to encourage local administrations (state and self-government) to both inform the community more actively about environmental issues and in decision making through consultation and taking account of views.
- CP2.2 It is recommended that the guidelines as in CP2.1 above are accompanied by training for local authority staff and others Agencies such as Povodi Hron and SHMU that are involved in working on environmental issues.
- CP2.3 It is recommended that specific training be provided for the Media and possibly NGOs, to strengthen their role in the provision of information and involvement of the community.
- CP2.4 It is recommended that a high level conference be held on the role of the Media in promoting public participation.
- CP2.5 It is recommended that a high level conference for business be held on Environment and Business, possibly as part of one of the business environment exhibitions.

#### **CP 3 Information Provision**

- CP3.1 It is recommended that each Kraj produce a local State of the Environment Report on an

annual basis, and that environmental goals and improvements are shared or two-yearly with the local community.

CP3.2 It is recommended that each Kraj and Okres produce a leaflet informing people about where they can get hold of environmental information, and that these leaflets are made widely available.

CP3.3 It is recommended that a number of Environmental Information Centres are established to provide "one stop shops" for local communities, businesses and other organisations wishing to get hold of environmental data.

CP3.4 It is recommended that each Kraj and major Okres (or groups of Okres) appoint a local community liaison officer with the responsibility of working with communities and encouraging the development of local community groups.

#### **CP 4 Funding**

CP4.1 It is recommended that funding be provided to establish a small grants scheme for local groups in urban and rural areas to develop community improvements.

#### **CP 5 Demonstration Projects**

CP5.1 It is recommended that one or two communities are selected as demonstration communities for the implementation of the key elements of the public participation projects listed above. This could be part of a Local Agenda 21 Process or a development of the Village Renewal Scheme.

CP5.2 It is recommended that a "big publicity" awareness raising event should be developed to take place on an annual basis.

### **3.3 ENVIRONMENTAL EDUCATION PLAN: RECOMMENDATIONS**

#### **EE1 Elements of the Environmental Education Action Plan for Schools**

##### **Support**

EE1.1. It is recommended that the Slovak Government establish a National Centre for Environmental Education.

EE1.2 It is also specifically recommended that at least one, but preferably two environmental education centres be established in the Basin, specifically for schools and communities



### **Resources and Information**

EE1.3 It is recommended that a basic set of environmental education resources are developed for basic Schools in Slovakia.

EE1.4 It is recommended that a termly Schools EE Newsletter is produced.

### **Training and People**

EE1.5 It is recommended that an environmental co-ordinator be appointed in each school

EE1.6 Training for teachers should be enhanced. A course should be developed specifically for Environmental Coordinators in all Schools and also for classroom teachers of different subjects.

EE1.7 It is recommended that all students training to be teachers in Basic Schools experience one module on environmental education related to their subject.

### **Projects**

EE1.8 It is recommended that a Hron River Basin Water Quality Project is undertaken over a three year period.

### **EE2 Elements of the Environmental Education Action Plan for Universities and Further Education**

EE2.1 It is recommended that the individual Universities establish an Environmental Committee with sufficient status to review the provision of environmental education within different subject areas.

EE2.2 It is recommended that the Universities throughout Slovakia establish an Inter-University Environmental Committee, chaired at the highest level and with sufficient status for recommendations to be implemented

EE2.3 It is recommended that the first task of the I-UEC is to review current provision for environmental professionals and make recommendations for the development of new course approaches and structures that are more in tune with future professional needs.

EE2.4 It is recommended that an environmental education and information web site is established for Universities, Businesses and other professionals to ensure easy and up to date access to information.

### **EE 3 Elements of the Environmental Education Action for Professional Training and Business**

- EE3.1 It is recommended that Universities work with other professional bodies to establish a series of short courses for Professionals and Business to enable the development of further professional training.
- EE3.2 It is recommended that those networks, which are established to support professional development in environmental matters, of such as ASPEK, are supported through funding being made available for their activities.
- EE3.3 It is recommended that the Ministry of Environment produce publicity and develop some form of incentive system to encourage appropriate businesses to adopt ISO 14000.

### **3.4 ENVIRONMENTAL INFORMATION NETWORK PLAN: RECOMMENDATIONS**

For the improvement of the current environmental information system in Slovakia, the following measures are recommended.

#### **EN1 Infrastructure Development**

- EN1.1 Hardware and Software: It is recommended to continue the development of a multi-user computer environment for both hardware and software (client-server) support for both inter- and intra-network usage.
- EN1.2 Networking: It is recommended to improve the accessibility of the Environmental Network by establishing new nodes with direct network connections. Dial-up network connections should be replaced by direct network connections in the existing network, whenever feasible.

#### **EN2 Database Development**

- EN2.1 Data sources: It is recommended to strengthen existing co-operation and establish new links with possible sources of environmental data and information (eg SIZP and private companies for pollution sources, StVaK for water and wastewater infrastructure, NGOs for public interest issues, etc.). This might be done by establishing an Environmental Data Task Force (Working Group) that meets on a regular basis (eg four times per year) to explore and implement ways of sharing and using environmental data.
- EN2.2 Data formats: It is recommended to have agreement on and enforce the use of

interchangeable data formats. Different type of data formats should be converted to one of the commonly used type (ie TOPOL GIS formats should be converted to Arc/Info Export Files).

- EN2.3 Data processing: It is recommended to provide each data set with an accompanied description file, in addition to the metadata file, that gives detailed information on the data manipulation and processing steps, methodologies and assumptions used, etc. This description file is especially important for simulation models and scenarios used in deriving data and information.
- EN2.4 Data validation: It is recommended to carry on the proposal that SAZP CEEV becomes a "cleaning house" of environmental related data and information. Although for most of the data and information SAZP functions as a mirror site, CEEV should check the reliability of any new data or information that is going to be placed into the Environmental Information System (ISZP). The Centre should request the origin (metadata) and processing steps (description file) from data providers. Based on this information the data and information provided must be evaluated and then classified by an appropriate "quality scale" to inform the users about the reliability level of the data. It is essential that the evaluation process involves both data producers and users.
- EN2.5 Data dissemination: In addition to the meta-catalogue system it is recommended to publish annually (both printed and digital versions) the list of available data and information about the state and changes of the environment. The material should include the sources and methods of ordering data and information. The list should be sent via mail and/or e-mail to all stakeholders. In addition it might be included as an appendix in the State of the Environment publications.
- EN2.6 Data accessibility: It is recommended to introduce an Open GIS system (often referred to as Internet GIS or WEB GIS) at SAZP CEEV to provide easy access to GIS based data for a wider range of users.

### **EN3 Expertise**

- EN3.1 Non-specialists: It is recommended to broaden the variety of GIS training offered by SAZP CEEV to promote the use of digital databases in studying, analysing, and evaluating the state of the environment. Training should be introduced to target non-GIS specialists as well. GIS promoting training should be set up for decision-makers, the public and other interested bodies.

(Note: Two GIS workshop training sessions for non-expert users were held successfully by the Study Team and SAZP on 29th and 30th November at SAZP CEEV.)

- EN3.2 Technical support: It is important to provide technical support for specialists between training periods. ISZP technical discussion groups (eg databases and GIS applications) could be established and Frequently Asked Questions (FAQ) lists should be circulated in both digital and printed forms.
- EN3.3 DLP: In addition to intensive courses a Distance Learning Programme (DLP) should be introduced for those specialists and non-expert users who cannot afford a longer intensive training at SAZP CEEV. DLP could be used as a complementary training between intensive courses as well.

### 3.5 ENVIRONMENTAL MONITORING PLANS

#### 3.5.1 INTRODUCTION

In 1992 the Government of the Slovak Republic introduced a major monitoring programme for the whole of the country, together with an integrated environmental information system, under Government Order No. 449/1992. This includes investigative operations by the Ministries of Environment, Agriculture and Health, covering 13 environmental aspects, under a major environmental monitoring system consisting of 13 Partial Monitoring Programmes (PMPs). The systems include the following features, operated by the accompanying organisations:

• Air	Slovak Hydrometeorological Institute (SHMU);
• Water	SHMU;
• Biota (Fauna and Flora)	Slovak Environment Agency (SAZP);
• Waste	SAZP;
• Settlement	SAZP;
• Land Use	SAZP;
• Geological Features	Geological Survey of the Slovak Republic (GSSR);
• Soils	Soil Science and Conservation Research Institute (VUPOP);
• Forests	Forest Research Institute (LVU);
• Food Standards	Food Research Institute;
• Pollution Effects	State Health Institute (SZU);
• Radiation Effects	SZU;
• Meteorology and Climate	SHMU.

The SAZP are responsible for the control of four of the monitoring programmes together with the overall co-ordination of the data that are produced by the PMPs. They are also charged with the creation of the information system (section 3.4) and to create a programme for monitoring the PMPs. The latter proposal has still not been approved however.

The PMPs together constitute the basic source of data on the condition of the environment, and some of the factors affecting it. The data are collated and presented by SAZP in GIS format, with access being afforded to members of the PMP data gatherers, regional, district and local

authorities, government bodies and the public. It is noted that no one PMP member has access to all databases, access to data being restricted to the area that is of direct interest to the investigators, according to SAZP sources. Some details of the data which are available through the Environmental Information System are provided in the Main Report.

### **3.5.2 EXISTING MONITORING PROGRAMMES**

The range of issues covered is given in detail in several SR publications, including 'The Environment of the Slovak Republic' and SAZP documents on the PMP system. It is therefore unnecessary to reproduce a detailed review of the full monitoring programme. Specific monitoring requirements are also addressed within each specialist area. However, for information purposes, the most significant aspects of the system are presented below.

#### **(1) Air Quality Monitoring**

Air quality is monitored on both a local and regional basis. Five of the 32 local automatic stations in the national network were located in the Study Area (1998). Parameters monitored include SO<sub>2</sub>, NO<sub>x</sub>, TSP, O<sub>3</sub> and CO. SHMU operates one regional air quality station in the area, although it is not part of the trans-European atmospheric mixing layer monitoring, that forms part of the Environmental Monitoring and Evaluation Programme (EMEP). In addition, the SZU and the LVU both monitor for different types of pollutants.

The number of sampling points is insufficient to provide a clear picture of air quality in the Study Area, so that modelling is utilised to try to provide a clearer interpretation of the existing conditions. Occasional 'spot sampling' is undertaken, but this is insufficient to identify all major pollution sources and also to build up a picture of ambient air quality for the major urban areas.

#### **(2) Water Quality Monitoring**

Surface water sampling is undertaken at 23 locations (1997) in the Study Area reduced recently from 27 (1991). SHMU test 66 sites for groundwater quality, 97 boreholes for groundwater levels and 16 for spring rates, but these do not correspond with sites originally examined by the GSSR Geochemical Atlas project in the early 1990s, which undertook a one-off assessment of 1 965 groundwater samples.

Tap water and drinking water sources are analysed by the SZU and StVak / ZsVak respectively. However the collated data do not appear to be included in the PMP system.

### **(3) Waste**

Waste statistics that are reported in the PMP system are restricted to quantity data of wastes arising, categories of wastes and disposal methods to which such wastes are subjected. There is a legal requirement for recently licensed municipal landfill sites to undertake chemical analysis of groundwater samples from upstream and downstream of the facility, the data being supplied to the municipality and Okres as a check on the performance of a site's integrity. These data are supplied to SIZP for review on performance, and they will then take random samples themselves, to ensure performance figures are valid. These data are not readily available to the public.

### **(4) Soils**

VUPOP are responsible for checking soil quality, with around 20 samples annually being taken in the Study Area. These appear to be part of the basic network of sites that are analysed at 5 year intervals. It is not clear if there are any of the key monitoring sites in the Study Area (21 in Slovakia) which are sampled annually. Agricultural plots are also evaluated, possibly by the Central Controlling and Testing Institute, Zvolen, (UKSUP), for a range of contaminants. These include heavy metals, polycyclic aromatic hydrocarbons, trace elements and the nutrient status of soils.

SAZP makes use of UKSUP heavy metal and PCB data but it is not clear if and how these data are presented in the PMP. Data are supplied on the basis of data-sharing, with the LVU to investigate the condition of soils in forest areas.

### **(5) Biota**

Data for this topic area are collected by SAZP, particularly in connection with National Parks and Protected Landscape Areas. LVU is responsible for assessing the ecological condition of forests in the Study Area, covering nearly 49% of Banská Bystrica Kraj and nearly 40% for the Study Area. There is no ecological monitoring of the water courses in Slovakia, either to determine general condition or as part of an overall water quality assessment programme.

### **(6) Forestry**

LVU are responsible for monitoring a number of sites throughout Slovakia, to assess the condition of growth, effects of acidification, soil issues such as nutrient status and heavy metals. There are also 4 sites in the Study Area where ozone (O<sub>3</sub>) is analysed, together with other parameters and meteorological data, as part of a European network of intensive monitoring

sites. Data are additionally provided regarding the forestry value of the main species including evaluation of the economic status (girth, height and crown) for relevant tree species.

VUPOP (soil data), GSSR (weathering and erosion) and SAZP (land use) provide information through the data-sharing system that operates between PMPs. SHMU also have an interest in the acid rain deposition investigations, but it is understood that there is no significant interplay between the organisation and the LVU.

#### **(7) Other Areas**

Monitoring of issues relating to pollutant loading on human populations (SZU) make use of a number of sources, under the data-sharing exercise, as do the Geological Factors and Foodstuffs PMPs.

The SZU has responsibility for a number of areas, including ionising and non-ionising radiation and noise, but budgetary restrictions limit the extent to which the organisation is able to complete its tasks.

Monitoring of land use and settlements is presently undertaken by SAZP, but this monitoring role is soon to be removed from the PMP system.

#### **3.5.3 ISSUES AND RECOMMENDATIONS**

A summary of the following recommendations is presented in Table S-3.

At present, a number of organisations provide information to the PMP system, but there is no one organisation with overall responsibility for making use of these data, other than to produce a periodic 'state of the environment' report. Where there is data-sharing within the PMPs, then one organisation has overall responsibility for collating the various data sources. However, it appears that there are also a number of other bodies collecting data, which do not go into the PMP system. It is also noted that no one organisation has access to the full range of PMP elements, so that no decision maker has an overview of the existing conditions upon which to make judgements for the prioritisation of environmental needs.

Some of the monitoring data appears to be used to evaluate the performance of industrial operations, namely by the SIZP, eg for air and water issues. These data are also used for identifying the present conditions (State of the Environment Report), but not for devising water quality objectives for various stretches of river. To some extent, data collection appears to be undertaken as an end in itself, but with no clear purpose as to why the data are being collected. Given the time and financial effort that goes into the sampling and production of the data, it would seem appropriate to make better use of it, through more detailed evaluation.

A good example is that of forestry, where the LVU provides information to the European network on the condition of forests in Europe. Even here, however, some caution is necessary, since data presented in the Interim Report suggested a serious issue with acid rain impacts, while the latest set of data indicates that the situation is in fact, much less of a problem, than originally thought. Nevertheless, although the data are supplied as part of the wider network, it is not clear if the data are optimally used to support resource management proposals.

In the case of air and groundwater quality, the number of sampling sites and their locations are considered to be too few and perhaps not best placed, to develop an overall picture of the environmental conditions in the Study Area. As soon as the data from GSSR ground water quality survey became available, SHMU could have considered adjusting their monitoring sites to include problem areas identified by the survey. Moreover, even the provision of additional sampling points will not necessarily serve any useful purpose, unless detailed interpretation of data is undertaken and specific management proposals and actions result from the analyses.

It is also noteworthy that there are a number of data sources that are not included within the PMP system and whose data are not published. For instance data on municipal infrastructure (water supply and wastewater connections) are essential data for environmental management programmes. Also there are major gaps in the data on Waste, for example, with no reference points for the public to review the performance of modern landfill sites, and the complete absence of a monitoring database on the condition of old licensed landfills and OELs. This latter issue is important for the municipal authorities if they are to help prioritise and / or pay for the cost of reclamation or treatment of OELs.

Given that some of the monitoring programmes are not fulfilled, due to lack of financial resources, it is important that the system should be rationalised, and duplication of effort removed. Some parameters or issues, eg groundwater and air, may need to have additional monitoring in order to obtain a clearer picture of the existing situation and an assessment of the trends in pollution. However, such decisions should not be made without considering very carefully how the collected data are to be used in relation to the overall management of the environmental resource.

As the PMPs are part of a national plan, the recommendations for such modification to the system need to be undertaken at a national, not just regional level. It will also require an element of rationalisation of the institutional arrangements for monitoring of environmental quality. It is believed that it is necessary to consider changes to the ways in which the data are used by the PMP co-ordinators, in association with the SIZP and municipal and Okres authorities, when considering the control of pollution from industry and the development of targets for the long term protection of the environment.



Table S-3 Monitoring: Summary List of Issues, Objectives and Recommendations

GOAL: To develop an integrated monitoring programme for the Study Area that detects environmental trends and areas of environmental risk, such that decision makers have information for identifying and prioritising investment requirements for environmental protection measures.

Issue	Objective	Target	Measures	Implementing Agency
(M1) Lack of Clear Objective in the Collection of Data	To develop a series of PMPs that have a clear usage by decision makers	Review of each PMP by the relevant managers, to provide a rationalised scheme by end 2000	(M1) Review data collected, use to which put and assess effectiveness in assisting decision makers in identifying and prioritising risks. Propose appropriate costed changes	MZP, MP, SAZP, SHMU, LVU, GSSR, SZU, VUPOP, LVU, PH, Okres and Municipalities
(M2) Lack of Co-ordinated Approach to Overall Use of the Data	To make more effective use of the collated data	Develop a single agency with overall responsibility for the practical implementation of environmental protection proposals by 2003	(M2) Review of present PMP responsibilities by Min of Environment, with a view to either choosing the best manager for overall responsibility or creating a new co-ordinating agency	MZP, MP
(M3) Insufficient Sampling Programmes to Identify Effectively Environmental Issues	Develop a comprehensive but cost effective monitoring system	Rationalise the monitoring programmes against specific management objectives for each major environmental area by end 2000	(M3) Have each agency review their PMPs, discuss the application of data with other managers and local authorities and revise as necessary to be more effective aid in decision making and prioritisation process	MZP, MP, SAZP, SHMU, LVU, GSSR, SZU, VUPOP, SVP OZ PH, Okres and Municipalities
(M4) No Coherent Approach to the Overall Management of Environmental Issues	Establish a coherent and demand-led approach to environmental monitoring	Prepare the Plan by mid-2001	(M4) Preparation of an agreed co-ordinated Monitoring Plan for the Study Area, tailor-made to assist decision makers in prioritising management measures relating to WWTPs, OELs, Quality Objectives etc	MZP, MP, SAZP, SHMU, LVU, GSSR, SZU, VUPOP, PH, Okres and Municipalities



## **CHAPTER 4**

### **IMPLEMENTATION OF THE REMP – FINANCIAL STRATEGY**

#### **4.1 INTRODUCTION**

For a significant proportion of the projects and programmes of the REMP to be implemented, a number of issues must be addressed; the Ministry of Environment, and others with an interest in seeing environmental improvements in the Basin, will need to make sure that action is taken on these issues. Four of the major issues are as follows:

- The status of the REMP in relation to several other 'environmental' plans covering parts of the Study Area and also requiring implementation;
- Need for consensus and co-operation on priorities and scheduling;
- Limited availability of public sector financial resources in Slovakia;
- Need to undertake Feasibility and Detailed Design Studies for selected Projects and Programmes.

The first two issues have been discussed briefly in the previous chapter under the heading Institutional Measures (Section 3.1) and corresponding recommendations were made. Furthermore, with reference to the second issue, it is hoped that the REMP, through its data analyses and consultations, will:

- have identified the major environmental issues in the Basin and
- have indicated the types of project and programme required to address those issues and therefore
- represent a set of priority measures and a schedule that are generally acceptable to the stakeholders.

The REMP should therefore constitute a guiding document (i) for those with responsibility for providing funds for implementation and (ii) for those with direct responsibility for implementation.

This chapter now addresses briefly the last two issues raised above, namely the need for funding and for follow-up feasibility and design studies, the two issues being closely related.

#### **4.2 REQUIREMENTS FOR FUNDING AND FURTHER STUDIES**

Some of the proposals of the REMP, eg those relating to institutional changes, policy and legislation, may require no special funds nor further study prior to implementation, but can be dealt with by the existing administration. Other priority projects (eg some of those identified in previous Environmental Action Programmes) may already have been the subject of feasibility and detailed design studies and could be ready for implementation as soon as finance is available. Nevertheless it is believed that many of the locally prepared studies would not meet the requirements of international funding agencies, which insist on well-

justified and costed proposals. Some project proposals can perhaps be adopted by existing programmes eg the Programme for Village Renewal of CUPER (SAZP). However for many of the more 'concrete' projects and programmes identified in the REMP, it may not be possible to proceed immediately with project implementation, even if funds are available. The project proposals may require further study and development (especially by economists, engineers and other experts). The recommended measures set out in Table S – 2 include some of the preparatory studies and data gathering exercises where the Study Team consider these to be essential.

As mentioned in Chapter 1 of this summary, estimates of the costs of the various recommended measures in the REMP have not been made by the Study Team (for lack of the necessary information and local expertise on the team). Nevertheless, initial cost estimates are very important for some of the recommendations of the study to be taken forward for national and international funding. It is recommended (see FS2 in Section 4.4) that such cost estimates are prepared, with some care, by means of a short follow-up study to be conducted by a team with access to the best information. To put forward very inaccurate, unsubstantiated cost estimates (either too high or too low) would reduce the credibility of the document and could put at risk the prospects of securing funding for REMP implementation.

#### **4.3 SOURCES OF FINANCE FOR IMPLEMENTATION**

##### **4.3.1 AVAILABLE OPTIONS**

Needless to say, the availability of finance for implementation of EAPs and the REMP is of critical importance. Until now, the major financial sources for implementation of the EAPs have been the State Environmental Fund (SFZP), funds of related ministries, Municipal taxes, private investment and sponsorship, and international assistance. The newly created funds for regional development and village improvement projects are also available for the implementation of EAPs. However, government funding to the environment sector has declined significantly over the past 6 years (from 1.3% GDP in 1993 to just 0.2% GDP in 1998). This is considerably less than commitments made in other EU accession states. This trend will need to be reversed for the major REMP components to be implemented; even if international funding agencies make useful contributions, much of the finance will still have to come from state and local government resources. The State Environment Fund and international donors are discussed further below, as sources of funding for the REMP.

##### **4.3.2 STATE ENVIRONMENT FUND**

Of the above sources, the State Environmental Fund used to be considered the first that should be approached for financing of 'local' environmental improvement projects eg for the

installation of gas supplies, sewers and sewage treatment plants in villages and the hundreds of Projects listed in National, Regional and District Environmental Action Programmes. However, for the time being this source of finance is very limited; the fund overspent its resources by 900 million SK (£60 million) or J¥ 2 430 million in 1998 and will be unable to support any new projects until 2000 at the earliest. Therefore the SFZP cannot be depended upon until new funds can be added to it by the State or other bodies. It is therefore recommended that the provision of additional finances to the SFZP is treated as an urgent priority.

It is also recommended that closer attention is paid to the process by which the SFZP selects projects for funding ie that the process is transparent and allows successful completion of the projects. This is necessary in the light of past experience. Since the fund was limited and unable to meet the very large number of requests from Municipalities, it is understood that project components were sometimes started with finance from the SFZP, but that adequate funds were not always made available for completion of these projects. This is a result of attempts to distribute financial resources evenly instead of prioritising projects.

#### **4.3.3 INTERNATIONAL SOURCES**

##### **(1) Funding from the Japanese Government**

The Japanese Government provides soft loans to developing countries to assist their efforts for development of social infrastructure and the stabilisation of the economy. The loans (mostly Japanese Yen credit) have been provided by the Overseas Economic Co-operation Fund of Japan (OECF). Recently OECF and the Export-Import Bank of Japan (EXIM) merged to become Japan Bank for International Cooperation (JBIC), but the policies and scheme of the former OECF loans remain unchanged under JBIC. In 1998 OECF made a pledge to the Government of Slovakia to provide a soft loan up to the amount of about 11 billion Yen for a highway construction project. JBIC funds are accommodated to relatively large projects that benefit a large number of general public.

##### **(2) European Union Funds**

###### **1) ISPA**

The main focus for ISPA (Instrument for Structural Policies for Pre-Accession) in the environment sector is for measures that enable beneficiary countries to comply with the objectives of the Accession Partnerships and the priorities indicated in the 'National Programmes for the Adoption of the *Acquis*' (ie the programme to bring Slovakia's legislation, policy and practices into compliance with EU legislation and policy). The

measures should relate to the identification and selection of projects in the wastewater treatment, drinking water supply, air quality and waste management sectors and support compliance with the following directives:

- 'Drinking Water Directive' (80/778/EEC and its amendments) to be replaced in November 2003 by Directive 98/83/EC;
- 'Urban Wastewater Directive' (91/271/EEC);
- 'Framework Air Directive' (96/62/EC) together with the new related Directives for specific pollutants;
- 'Large Combustion Plant Directive' (88/609/EC);
- 'Municipal Waste Incineration Directive' (89/369/EEC);
- 'Hazardous Waste Incineration Directive' (94/67/EC);
- 'Integrated Pollution Prevention and Control Directive' (96/61/EC).

Candidate countries have been advised to develop strategies for implementing these directives and to focus their resources on complying with the directives. Projects proposed are to be of a sufficient scale to have a significant impact in the field of environmental protection, with emphasis on the most costly (i.e. investment-intensive) and difficult to implement.

All investments supported by ISPA must be economically efficient. Social cost and benefit analysis must prove the net benefit for the society resulting from the investment. The total cost of each project will in principle be not less than Euro 5 million although, in exceptional cases, projects with a total cost of less than Euro 5 million will be considered (eg groups of related projects and the REMP provides just such a linkage). Community assistance under ISPA may take the form of non-repayable grants, loans or any other form of assistance. Preferred beneficiaries of ISPA will be public sector units, such as state enterprises acting for public utilities and local communities, and municipal enterprises registered under commercial law but totally owned by local communities. The rate of Community assistance granted under ISPA will in most cases be up to 75% of the total cost of expenditure by public bodies. In exceptional cases, ISPA may finance preliminary studies and technical support measures at 100% of the total cost (up to 2% of the total ISPA allocation), including:

- Economic/financial feasibility studies
- Environmental Impact Assessments, according to EU rules
- Reviews of design and project costing
- Assistance in the preparation of tender documentation
- Project management

For the first few years of ISPA funding (eg 2000 to 2003) it is the Ministry of Environment's intention to make proposals just for larger infrastructure projects (> ECU 5 000 000). A proposal for year 2000 ISPA funding to complete the wastewater collection system and upgrade the Sewage Treatment Plant in Banska Bystrica has already been made by the

Ministry of Environment. The results of the REMP study support the conclusion that wastewater collection and treatment in Banska Bystrica should be a funding priority. Single/larger projects will be easier to manage (because only one or two institutions are involved) and also easier to start quickly because some of the necessary feasibility studies, detailed designs etc may be available already ('off-the-shelf') - or at least ready very soon or straightforward to prepare

The Study Area for the REMP, the Hron River Basin, is large and may also provide opportunities for ISPA funding for groups of (environmental) infrastructure projects – since groups of related projects are eligible provided that they exceed the minimum grant/loan of ECU 5,000,000. For example several sewerage projects, from different parts of the Basin, could easily be justified under the umbrella of a larger project to improve the water quality of the River Hron and its tributaries. This approach could have the added advantage of benefitting the less prosperous rural areas of the Basin, not just the larger towns. Nevertheless, groups of projects will require more co-ordination and preparation, and the preparatory studies could be undertaken over the next 3 years, using the REMP as a framework.

## 2) SAPARD

This is a similar fund to ISPA, but for the rural sector - Special Accession Programme for Agriculture and Rural Development. In Slovakia this scheme is a responsibility of the Ministry of Agriculture. Measures for structural and rural development in the Study Area that would be eligible to receive SAPARD funding and which are consistent with the recommendations REMP include:

- promoting agricultural production methods that aim to protect the environment;
- renovating villages and preserving the rural heritage;
- developing and improving rural infrastructure;
- water resources management;
- promoting forestry.

Four out of the nine Measures that have been adopted by the Ministry of Agriculture as the basis of their SAPARD programme could support REMP projects. These are:

- Measure No.6 Village development and renewal
- Measure No. 7 Agricultural production methods designed to protect the environment and maintain the countryside
- Measure No. 8 Management of water for agricultural utilisation
- Measure No. 9 Land Consolidation

Local communities and institutions in the Study Area, and the Ministry of Environment, need to co-operate with the Ministry of Agriculture in order to ensure that projects that are

consistent with the REMP, obtain the maximum benefit from SAPARD funding.

#### **4.4 STRATEGY FOR OBTAINING FUNDS FOR REMP IMPLEMENTATION**

Since government financing resources are stretched, it is important that REMP implementation makes maximum use of support from international funding sources and involves the private sector. Some larger projects (eg Banska Bystrica Wastewater System and integrated water supply and wastewater schemes for small to medium sized towns) may be funded by ISPA and some of the rural schemes by SAPARD, but many smaller projects also need to be undertaken and the government should fund some of these. However, new approaches to funding also need to be explored, including private sector investment – in addition to the use of loans and grants from international institutions. However, some of the institutions with responsibilities for implementation (eg obec and mesto) have limited experience of making applications to the international agencies that provide grants or loans, or of obtaining private sector investment. The UK 'Know How Fund' is intending to fund a 'training project' to strengthen capacity in environmental project development in Slovakia, and this will be helpful to municipalities in the medium to long term.

New approaches to funding infrastructure, environment and other projects using private/commercial investment and international assistance, etc are in fact already being investigated within the Basin, in the *Okres* of Ziar nad Hronom, Banska Stiavnica and Zarnovica. This is by means of another UK 'Know How Fund' Project - the Regional Development and Institutional Strengthening Project (REDISP) – which is being carried out by UK Consultants (GHK) in association with Slovak specialists - and a large number of local partners / stakeholders. Proposals for investment in sewerage, waste management, housing, tourism and other development projects have been made by REDISP in conjunction with their various partners – including the Municipalities and private sector.

However the REDISP project area is relatively small, such that the small infrastructure projects that have been identified may not be eligible for some of the larger international funding programmes eg ISPA and SAPARD.

**FS1 It is therefore recommended that the approach to partnership and investment being adopted by the REDIS Project with (i) close co-operation between all relevant Slovak institutions and (ii) financial management plans, whereby the cost of environmental investments can be acquired and recovered, is expanded to Environmental Projects/Programmes in the whole Hron River Basin, with the REMP acting as a guiding, framework document.**



To start this process it is necessary to obtain a clearer picture of the costs of implementing the REMP – as a whole and its individual components.

**FS2** A follow-up Investment Study is therefore recommended as an urgent priority, to be undertaken over a period of a few months by a small team of engineers, economists and environmental specialists (Slovak and international), working in close collaboration with the concerned implementing institutions (StVak, Povoide Hrona, obec/mesto, industry etc).

Part of this process would be a review of existing project proposals, to determine the extent to which the proposals are adequate for the project(s) to proceed, or whether further 'pre-investment' studies (feasibility etc) are still required (see below).

#### **4.5 NEED FOR PRE-INVESTMENT STUDIES - FEASIBILITY AND DESIGN**

There may be an expectation that it will be possible to proceed immediately to implementation of many projects directly from a plan, such as the REMP. In the past this may have been possible in Slovakia and other pre-accession countries with a supply driven economy and most funding from state government, without the need for Feasibility Studies etc to justify the expenditure. Experience of feasibility studies and the 'Project Cycle' (as recognised by funding agencies: eg plan, project identification, pre-feasibility study, feasibility study, detailed design, construction etc.) appears to be limited in Slovakia. However, the execution of such pre-investment studies will be a requirement of most international financial institutions (public and private) before funds are provided for a project.

This further development of the REMP recommendations might take the form of feasibility studies, detailed engineering and design studies, pilot projects and even studies to devise cost recovery mechanisms for infrastructure and other investments (eg in tourism). Especially if international funding is being requested (eg ISPA, SAPARD) convincing proposals will be required. Environmental impact assessment studies will also need to be carried out for some projects, where required by Slovak legislation and the funding agencies. Most of this 'project / programme development' will be the responsibility of the Slovak implementing institutions, both government and private sector, but the international funding agencies (eg EU, UK Know How Fund) should also be approached to provide technical assistance.

#### **4.6 USE OF REMP BY OTHER PROJECTS**

One way of taking some of the REMP projects forward to implementation, is for the REMP issues and recommendations to be integrated within policies and plans at national, regional and local level. Three projects have been identified which provide an opportunity for this to

be done.

Two of the Projects are linked as one, under the title 'Support to Sustainable Development in the Slovak Republic' and are being carried out under the supervision of the MZP and Regional Environmental Centre (in Bratislava), with financial support from UNDP:

- Regional Agenda 21;
- National Strategy for Sustainable Development in the Slovak Republic.

The Regional Agenda 21 project, starting in early 2000, is being co-ordinated by local consultants and has the central part of the Hron River Basin as the pilot area. With both the REDIS Project and the REMP covering this area, this project provides an excellent opportunity to build on (i) the data that has been collated and analysed, (ii) the recommendations made and (iii) the institutional co-operation and community participation that has been initiated. Local support, and thus financial assistance, and further development of REMP measures should emanate from this exercise.

Similarly, the National Strategy for Sustainable Development can incorporate, into the national policy and plan making process, some of the conclusions of the REMP that need to be addressed at a national level, such as changes in legislation and institutional reform.

The third project, REDISP, is already taking forward some of the priority proposals in the REMP, specifically those for domestic wastewater treatment. REDISP, in conjunction with Municipalities and other concerned parties, is using the information on surface water quality etc in the REMP, to develop funding proposals to ISPA for improvements to the sewerage systems of several small- to medium-sized towns in the Basin.

