

5.6.3 MANAGEMENT OF HERITAGE AND TOURISM RESOURCES – LEGAL AND INSTITUTIONAL SYSTEM

The Tourism Strategy for the Stredne Pohronic Region (Ref. 24-18, section 3.1.1) describes some of the responsibilities of government organisations (Ministry of Economy, *Kraj* and *Okres*) and private and semi-private institutions involved in developing the tourist sector. This section of the REMP report focuses on those organisations with responsibility for managing and protecting those resources (natural and cultural heritage) on which much of this tourism is based.

(1) National Parks and Protected Landscape Areas

As discussed in Chapter 5.5, the national parks and protected landscape areas are managed by the National Parks Administration, the Slovak Environment Agency and the Forest Management Institute of the Ministry of Agriculture, Food, Forestry and Water Management. None of these agencies however is specifically concerned with tourism development and management, although each prepares some materials eg information leaflets (not widely available) or structures (eg signposts, information boards) of use to tourists. Such commercial activities as exist eg skiing, hotels, restaurants are owned and run by the private sector with little or no financial payments to the protected areas and forest agencies.

These important areas are not adequately managed for their tourism resources. Consequently there are the risks of over-exploitation and damage in some areas and under-exploitation of the attractions in other localities. At the moment there are no comprehensive tourism development plans for the Hron valley's national parks, protected landscape areas and other forested areas. The agencies that manage these areas have insufficient staff to undertake such activities and in general have no legal authority to do so. Additionally, tourism development may be seen as incompatible with the primary functions of wildlife and landscape protection and timber production of much of the middle and upper Hron. However, as the pressures for tourism and recreation activities increase, the protected and forest areas of the Hron will come under growing pressure to develop multi-uses in a planned and coordinated way. Such multi-uses must inevitably include increased tourism developments.

(2) Caves

All caves in Slovakia are under the control and management of the Slovak Caves Administration, a department of the Ministry of Environment based in Liptovsky Mikulas. Its principal function is to provide protection and management for Slovakia's 12 show caves. Every cave in the

country is protected to Level V standards by Act No. 287/1994 (*On Nature and Landscape Protection*). The Slovak Caves Administration however has insufficient financial, technical and staff resources to fully carry out all its responsibilities. It does carry out limited monitoring of air quality in show caves, the results of which are used to determine visitor carrying capacities for these caves and thereby to determine the numbers and rates of visitor admission.

In 2000 a new law is expected to be passed which will enable protection zones to be established around Slovakia's caves. Such protective zones will be determined by the Slovak Caves Administration and are intended to protect the area around each cave from influences which could harm the cave. In practice such protection zones will be, for subterranean caves at least, the immediate hydrological watershed eg stream, seepages, groundwater. Potentially damaging activities will be prohibited in the cave protection zones.

(3) Hron River

The principal agency responsible for management of the Hron river is Povodie Hrona, a part of the Ministry of Agriculture, Food, Forestry and Water Management based in Banska Bystrica. Its main functions are concerned with the planning and management of water uses (surface and groundwater) in the Hron basin (and adjoining areas). These plans are presented in its Water Management Plan and Hydro-ecological Plan for the Hron. None of these plans however are concerned directly with the development or management of tourism on the Hron river. At present, no agency has any responsibility for this.

Cultural Heritage

As well as being important in their own right to the Slovak people, Slovakia's monuments and other elements of the country's cultural heritage, are of considerable interest (and therefore value) to the tourism industry - national and international. Tourism has become a major force in the world economy and it is understood that it is the policy of the Slovak Government to ensure that domestic and international tourism make a significant contribution to the national economy. It is therefore important that the legal and institutional system relating to the protection and management of listed monuments support this goal. This aspect was not studied in detail by the Study Team, but a description is provided below.

1) Legislation

The Protection of Monuments is covered by Legal Code No. 27/87. This is considered, by the Institute of Monuments, to be insufficient to meet the present requirements of the sector. One

problems lies in the fact there are conflicts between the conservation requirements (the maintenance of a monument's original appearance, the use of traditional materials etc) and various technical standards eg for installation of gas supply facilities on the front wall, the use of wooden materials in stairs where they may constitute a fire exit. Other problems relate to the procedures (and available resources) for permitting and checking building works on listed monuments.

2) Institutions

The main government organisation responsible for gathering data and providing technical advice on the conservation of cultural heritage in Slovakia, in the form of the built environment, is the Institute of Monuments, in Bratislava. This falls under the Ministry of Culture. There is a National Committee for ICOMOS (International Council on Monuments and Sites, Paris), with a representative from the Institute of Monuments.

The Institute of Monuments has divided the country into 19 regions for the purposes of a 1997-1998 inventory (Programme for the Conservation and Utilisation of Traditional Folk Architecture in the Regions of Slovakia, Ref. 24-16). It is understood that the activities of the Regional Centres of the Institute of Monuments also correspond broadly to these regions. Of these, the Pohronie (Upper Hron) region (No. 10) covers the largest portion of the Hron River Basin, while the remaining parts, mostly in the lower basin, are covered by regions 1 (Podunajsko), 11 (Dolny Tekov), 12 (Hont) and 14 (Gemer).

Nearly all the Pohronie region is the responsibility of the Institute of Monuments' Regional Center in Banska Bystrica, though a small part of the region falls within Revuca *Okres* and is the responsibility of an office in Roznava. Accordingly, the following *Okres* and their monuments are the responsibility of the Banska Bystrica Regional Centre:-

Banska Bystrica, Brezno, Zvolen, Detva

Krupina is also the responsibility of the Banska Bystrica Regional Centre, but is outside the Basin. There is a separate office of the Institute of Monuments in Kremnica, with a subsidiary office in Banska Stiavnica.

The Institute has close linkages with the Departments of Education and Culture of the *Kraj* and *Okres* offices. These are the main authorities with respect to the protection of monuments, with direct responsibility for permitting, monitoring and enforcement of developments at listed

monuments, the *Kraj* offices having responsibility for National Monuments and the *Okres* offices for (local) Monuments.

Where listed monuments are affected, the *Kraj* and *Okres* offices issue building permits (Conservation Consents) in accordance with advice from the specialists of the Institute of Monuments, including advice on restoration. The *Okres* offices have formal responsibility for monitoring these building and restoration activities, but in practice may not be able to do this, due to shortage of suitably qualified personnel. The Institute of Monuments' staff may therefore undertake such inspections on an informal basis. However, it is not compulsory for an owner to invite Institute of Monuments' staff to make inspection visits, so they do not regularly attend inspections, including inspections when final approval is given on completion of the work.

For some re-building or restoration works, the project documentation requires that the applicant goes first to the Institute of Monuments and then to the *Okres* office for the necessary permissions.

In addition to overseeing building work on monuments, the State Government offices have other cultural heritage related responsibilities. For instance, *Okres* offices can obtain state contributions to assist private owners in restoration activities. However the funds available are decreasing eg in Banska Stiavnica Sk 500 000 was available in 1992, but only Sk 136 000 in 1998. Finally, some Museums eg the Slovak Mining Museum and the Manor House Museum in Banska Stiavnica are managed by the *Kraj* office of Banská Bystrica.

Specific responsibility for World Heritage Sites has recently been given to a new Centre for the Protection of Natural and Cultural Heritage (CPNCH/COKPD), under the auspices of the SAZP and the Ministry of Environment. It was established in April 1999 with offices in Banska Stiavnica and approximately 20 staff. The new Centre co-operates with the Ministry of Culture and Institute of Monuments, partly through the Slovak Committee for World Heritage, which also includes representatives from other Ministries. Slovakia is a member of UNESCO's World Heritage Bureau, based in Paris. The Centre has responsibility for all four World Heritage Sites in Slovakia, three Cultural and one Natural (Caves). Responsibility for two Protected Landscape Areas (PLA) has been transferred from the Centre for Nature and Landscape Protection to the Centre for World Heritage, since they include World Heritage Sites. One of these, the Banska Stiavnica PLA falls partly within the Study Area.

The new Centre was established as a response to perceived problems in the management of World Heritage Sites in Slovakia. During 1999 the Centre has been preparing a detailed analysis of the existing state of the four World Heritage Sites. It is intended that the results of this analysis will indicate the nature of the problems (eg financial/economic; management; legislative; institutional) and that actions will be taken in the light of the conclusions.

The role of local self-governments in the management of individual monuments, monument reserves and zones and other forms of cultural heritage, has not been investigated in any detail during this study, but is believed to be significant, especially in urban areas (*Mesto*). For instance in 1993 the *Mesto* of Banska Bystrica, Banska Stiavnica, Brezno, Kremnica, Sliac and Zvolen together established the Nadacia Pohronie (Upper Hron River Valley Foundation) to promote tourism in this part of Central Slovakia and have produced brochures in foreign languages, including English (Ref. 24-2); the current status of this Foundation is not known by the Study Team. Cultural and Information Centres or similar offices are operated by Banska Bystrica and other *Mesto* in the Study Area. *Mesto* and *Obec* can obtain funds from the State Budget to assist with the proper restoration of municipal-owned buildings that are listed monuments.

Of particular relevance to the institutional development of the tourism sector are the activities of the UK Know How Fund 'Regional Development and Institutional Strengthening Project' (REDISP), since it has been working with *Mesto* and other stakeholders in the *Okres* of Ziar nad Hronom, Zarnovica and Banska Stiavnica. In accordance with the Action Plan (Ref. 24-19) for the tourism component of the Project, the REDISP has undertaken a tourism survey and prepared a Tourism Development Strategy (Ref. 24-18) for the Stredne Pohronie (Central Hron) Region. The local co-operation that has taken place between those involved in the development of this Strategy, through the Tourism Branch of the Association for Regional Development, could usefully be extended to a larger area of the Basin – either through the establishment of new partnerships (eg in the *Okres* of Banska Bystrica and Brezno) or through the expansion of the existing partnership. Such partnerships must involve both those wishing to promote tourism and those wishing to protect the resources on which the tourism is based (including Institute of Monuments, National Park Administration etc).

NGOs are also active in the field of cultural (and natural) heritage. They are involved in a wide range of activities, ranging from urban conservation in Banska Stiavnica to the running of the Cierny Balog railway and the promotion of cycling routes, the Amber Trail Greenway etc. Some such NGOs are mentioned in Chapter 3.4 and Annex K of the Supporting Report.

5.6.4 HERITAGE AND TOURISM RESOURCES: ISSUES AND RECOMMENDATIONS

National Parks and Protected Landscape Areas

ISSUE (H 1) LACK OF TOURISM DEVELOPMENT PLANS

Discussion and Recommendations

The principal issue is the lack of comprehensive tourism development plans for the Hron valley's national parks and protected landscape areas. These need to be prepared and implemented so that tourism can develop in them in a coordinated and sustainable way. Such tourism plans must be entirely compatible with the primary functions of these areas ie wildlife and landscape protection and management and timber production, so they may need to make provision for limiting visitor numbers where pressure is threatening to damage the resource. Accordingly, their development must be in full cooperation and agreement with the relevant forest, National Park and protected areas management authorities. The main priority areas requiring such tourism development plans are the Nizke Tatry and Muranska Planina National Parks and the Pol'ana and Vel'ka Fatra Protected Landscape Areas. Such plans should find and recommend ways in which the agencies responsible for these areas (National Parks, Environment Agency and Forestry) can benefit financially from tourism development. The planning studies should investigate the possibility of charging entry fees to each protected area, and/or selected attractions and facilities within them, both as a means of generating revenue and of controlling visitor pressure on the more sensitive resources. The availability of such revenue should increase the commitment of the management authorities to promoting tourism development, as well as providing funds for conservation and management/development activities. The private sector and local communities should participate in the preparation of these plans since both may be able to contribute to and benefit from the successful management of the Parks and PLAs.

There is considerable potential for increasing tourism in the forests of the Hron basin. Forest-based tourism is actively encouraged and developed in many countries eg Poland and the UK and such an approach could readily be integrated into tourism development plans for the Hron valley's protected areas. In Poland, the forests in which tourism is encouraged are known as Promotional Forest Complexes and have the following goals (Ref. 24-20):

- identification of all forest communities and changes occurring in them;
- permanent preservation or reconstruction of valuable features;
- integration of the goals of sustainable forestry management and nature conservation;

- promotion of multi-functional and sustainable forest management;
- research for eco-development;
- organization of training courses in forest ecology.

For tourism in forest areas to be successful, a considerable expansion of facilities and available infrastructure is required in the Hron valley. For example, consideration should be given to all of the following: educational trails, educational centres with good information and exhibits, roads, car parks, accommodation such as inns, lodges, huts and campsites, outdoor theatres, arboretums, forest gardens, cycling and horse-riding trails, forestry methods demonstration sites. The forested areas of the Hron valley already have a very good network of roads, which in general the public cannot use. Some of these could be opened to the public as a component of planned tourism development in the forests.

(2) Caves

ISSUE (H 2) LACK OF PROTECTION FOR CAVES

Discussion and Recommendations

The principal issue is the lack of legal means to adequately protect the areas surrounding all caves, though those in Levels II-V protected areas have the protection afforded to such localities. Legislation is due to be passed that authorises the establishment of protection or buffer zones around caves. This is intended to restrict potentially damaging activities from occurring in their vicinity. Once the legislation is enacted, such zones should be established, by the Slovak Caves Administration around the most important caves of the Hron valley. The Administration has identified 58 such caves in the valley. These zones should be made known to the Kraj and Okres development authorities to assist in the decision-making process for proposed developments near caves. Additionally, the Slovak Caves Administration should notify all the local development authorities of the precise locations of caves. These are not well known at present, and accidental damages could well occur without knowledge of where caves are located.

(3) Hron River

ISSUE (H 3) POOR MICROBIOLOGICAL QUALITY OF RIVER WATER

Discussion and Recommendations

The main issue is the poor microbiological quality (Class V) of the Hron river. This makes water contact sports a health hazard for participants. Water quality needs to be improved to at

least Class III and the only way to do this is to improve the quality of domestic waste water emissions from urban and village areas. Recommendations for such measures are included in Chapter 5.1.4

(4) Cultural Heritage

Most of the cultural heritage issues that exist correspond to the pressures identified in section 5.6.1 (4) and can be grouped under the same three broad headings, with recommendations made accordingly. Though the issues identified mostly represent problems that must be solved to protect the Hron Basin's cultural heritage, the heritage resources of the Basin should be regarded as a rich resource worthy of investment, both to improve the quality of life of its inhabitants and to develop what is believed to be the significant economic potential of tourism for the region.

ISSUE (H4) PRESSURES FROM ECONOMIC CHANGE

Main Elements

- 1) Damage to monuments associated with economic reform and rapid redevelopment, with inadequate studies prior to developments.
- 2) Changes in rural way of life leading to abandonment of homes with valuable 'folk architecture' or desire to modernise for those who do find alternative employment in rural areas.
- 3) Frequent changes of ownership.
- 4) Decline in industry/mining (technical monuments).
- 5) Air pollution damaging stone buildings, though perhaps less than in the past.

Discussion and Recommendations

(H4.1). Since the exact nature of the pressures will vary from place to place within the Study Area it is believed that the best approach to addressing the issues on an area specific basis will be through the preparation of Management or Action Plans, where they do not already exist. Priority should be given to those areas with a concentration of monuments ie the Monument Reserves and Zones and especially the Banska Stiavnica World Heritage Site (WHS).

For a number of reasons the SAZP Centre for the Protection of Natural and Cultural Heritage (COKPD) has already recognised the need for such a Management Plan for the Banska Stiavnica WHS. For instance the Center believes that its is unable to give satisfactory advice to investors who do have funds to restore and develop the buildings and other monuments of the

site, and the diverse stakeholders need to agree the issues and priorities and take action in a co-ordinated manner. As well as going to a sufficient level of detail to be useful to respond to detailed questions, the Management Plan for Banska Stiavnica WHS needs to be broad in its scope, because of the size and diverse attributes of the area and the need to meet the requirements of the many stakeholders. The area includes numerous technical monuments (mines, reservoirs, water channels and associated structures), historic buildings (castles, churches, town houses, folk architecture) and complex landscapes – as well as modern infrastructure and industrial, commercial and recreational activities, not all of them in keeping with a World Heritage Site nor in sound condition. Therefore, if it is to cover all the issues, the plan is likely to need a multi-disciplinary team, co-ordinated by a planner and including landscape, tourism, environmental, architectural, mining, economic investment and other specialists. To ensure that the scope and team are comprehensive, the Terms of Reference for the plan will have to be prepared carefully with the agreement of the major stakeholders (see below). The preparation of a management planning study of this nature, for such an important site, would be a good candidate for international funding. In turn, a good management plan is likely to attract further international funding for implementation.

These heritage management or action plans will need to take into account existing territorial plans for the locality in question. However, if the territorial plans have not taken monument protection, heritage and tourism issues fully into account the heritage plans should not be constrained by these limitations and should recommend changes to the territorial plans.

(H4.2). To obtain the support and agreement of stakeholders to management proposals, the Management and/or Action Plans must be prepared in a participatory manner. Already the Centre for Heritage has held meetings with NGOs, the *Okres* office etc and is proposing a permanent Working Group for the Banska Stiavnica WHS. This would need to include the *Mesto*, *Povodie Hrona* (which has been undertaking a restoration programme for some of the *Tajeh* reservoirs associated with mining).

(H4.3). To provide some economic justification for the preparation and implementation of the above plans, it will be necessary to promote cultural and rural tourism such that appreciation of the Basin's heritage is enhanced and rural livelihoods (and thus monuments etc) are supported. A strategy and action plan to do this therefore needs to be prepared, on a basin-wide basis, and could possibly be undertaken with support from SAPARD.

ISSUE (H5) PRESSURES RELATED TO INSTITUTIONAL ISSUES, LEGISLATION AND COMPLIANCE

Main Elements

- 1) Inadequate appreciation in some quarters of the economic/tourist value of monuments, such that entry fees are small or not charged and visitor statistics are not kept.
- 2) Weaknesses and gaps in legislation on the Protection of Monuments (No. 27/87 of the Legal Codes).
- 3) Weaknesses in the institutional systems related to the management of monuments, including complicated procedures.
- 4) Non-compliance with conditions for building work.

Discussion and Recommendations

(H5.1) Improve awareness, of the public and decision-makers, of monument conservation and promote its importance in the Hron Basin through (i) the media (TV, radio and newspapers) (ii) involvement of NGO's, youth and children in conservation and restoration activities for carefully selected monuments and (iii) the provision of educational courses and seminars.

(H5.2) Tightening, simplification and updating of the legislation to protect monuments, with clear provision for (i) closer involvement of Institute of Monuments staff in inspection activities (ii) higher penalties for those who deliberately damage cultural monuments and (iii) incentives to encourage restoration - in accordance with both the original appearance of the monuments and their significant details (iv) charging of entry fees. The present law is perceived in some quarters as being so restrictive that owners of historic buildings, which are protected monuments, are discouraged from repairing them, such that the buildings deteriorate further. The amended legislation needs to strike a balance between being realistic and motivating in what is expected of owners, yet tough enough to act as a deterrent to those owners and developers who might deliberately damage historic property.

(H5.3) Harmonisation of various technical standards with legislation on the protection of monuments, such that exceptions are permitted where the conservation of architectural or other valuable monument details requires this.

(H5.4) Stricter monitoring and enforcement of monument legislation and conservation consents.

ISSUE (H6) RESOURCE AND SKILL SHORTAGES

Main Elements

- 1) Lack of financial resources for the Institute of Monuments and other responsible

- institutions (eg *Kraj* and *Okres*) to carry out their duties for the protection and management of cultural heritage.
- 2) Inadequate resources for maintenance and restoration -- especially urgent repairs to endangered monuments.
 - 3) Shortage of skilled craftsmen in traditional carpentry and woodcarving, and of architects specialising in the conservation and restoration of historic buildings.

Discussion and Recommendations

(H6.1) Increased use of State Funds and Municipal Taxes to contribute to the costs of (i) the professional and supervisory activities of state and local self-government and (ii) the restoration and maintenance costs of monuments.

(H6.2) Tax concessions for owners of buildings/entrepreneurs who wish to undertake restoration work and of suppliers of special timber and other traditional materials (eg hand-crafted shingle roofing) and technologies.

(H6.3) Voluntary supplementary charges at hotels (with the receipts going to a special Hron Basin Heritage Fund, to be administered by a representative group of stakeholders) so that tourists help to pay for the protection and upkeep of the Hron Basin's natural and cultural heritage.

(H6.4) Charge or increase entry fees to selected monuments to help pay for restoration and maintenance.

(H6.5) Rapid provision of state funds for the most urgent repairs to Endangered Monuments, especially in Banska Stiavnica, Zarnovica and Ziar nad Hronom.

(H6.6) Investment in the restoration of key historic buildings and monuments with significant tourism potential (eg Slovenska Lupca Castle near Banska Bystrica and completion of the repairs to the reservoirs/tajchy and other components of the Banska Stiavnica water management system) and the development of associated visitor facilities, including interpretation.

(H6.7) Marketing programmes to promote tourism within the basin, especially by foreign visitors, to help increase the revenues for maintenance and restoration of cultural monuments.

(H6.8) Improve the skills of state and local self-government employees (especially *Kraj*, *Okres*, Institute of Monuments, *Mesto/Obec*), builders and developers and other interested parties (eg NGOs, students of architecture and art history), through a range of training, facilities, campaigns and programmes - including the promotion of international exchanges, seminars etc. In particular a School of Handicrafts should be considered, either within an

existing technical training establishment or as a new enterprise, perhaps in a building that requires restoration eg at Banska Stiavnica.

(H6.9) Special training courses and licensing system for architects wishing to undertake design work on historic buildings/designated monuments.

Summary List of Recommendations

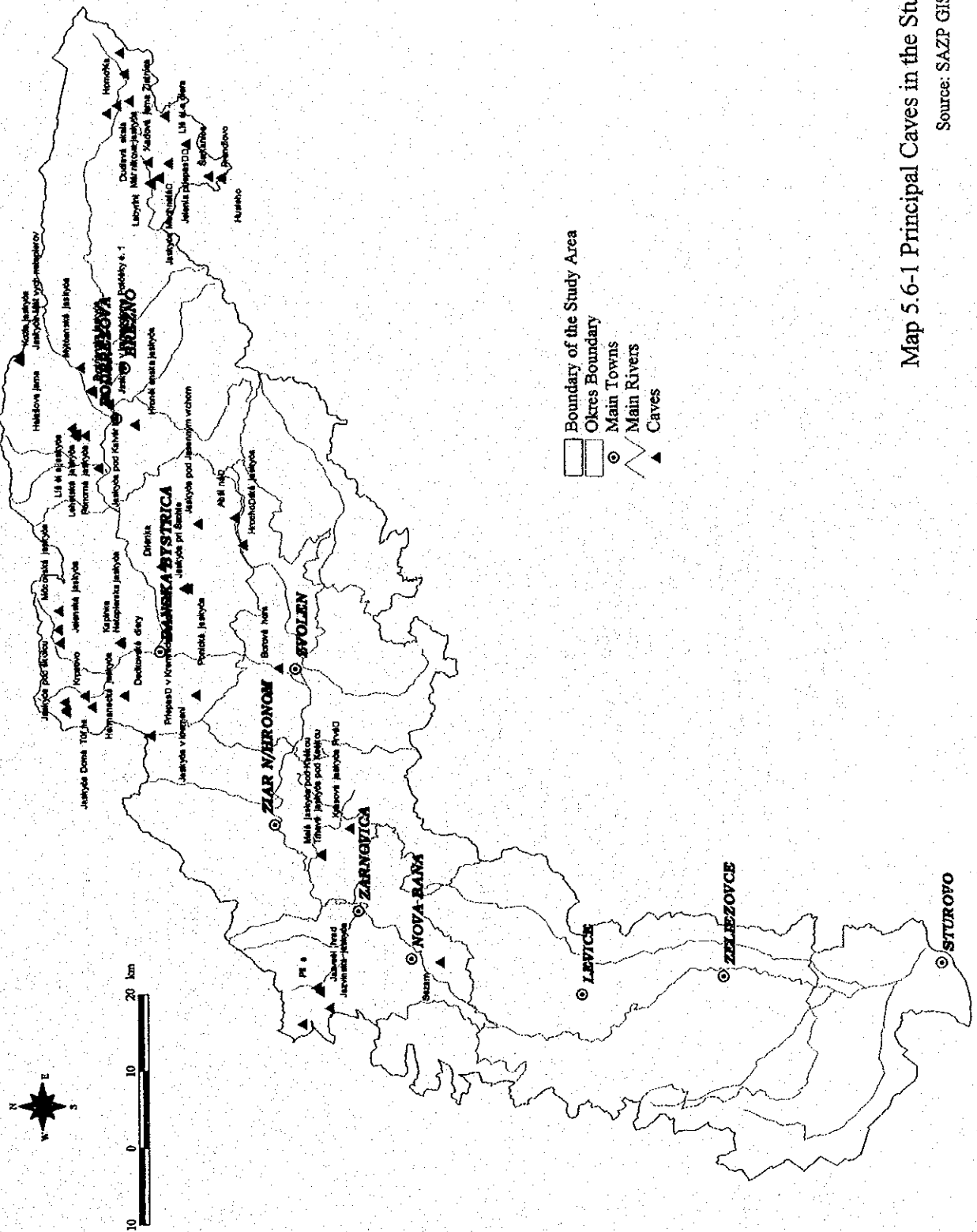
The Goal of all recommendations is the protection and improved management of major tourism and heritage resources as the basis for their sustainable use and economic development.

Table 5.6 - 3 Summary List of Objectives and Recommendations

Sector and Issue	Objective	Target	Measures	Key Agency
(H1) National Parks and Protected Landscape Areas: lack of tourism development plans	Improved management of tourism in NPs and PLAs	Preparation of tourism developments plans for key areas by 2002	H1.1) Preparation of tourism plans for Nizke Tatry and Muranska Planina NPs and Vel'ka Fatra and Pol'ana PLAs	MZP (National Parks Administration and COPK) with <i>Okres</i> Forest Section, Municipality, Lesoprojekt and other key stakeholders
			H1.2) Preparation of detailed plan for forest-based tourism at one site in a PLA or NP	<i>Okres</i> Forest Section in association with COPK or National Parks Administration etc as for H1.1
(H2) Caves: lack of full protection	Improved protection and management of caves	Implementation by 2001 of legislation expected in 2000	H2.1) Establishment of protection zones around 10 of the Hron's most important caves	Slovak Caves Administration
			H2.2) Within six months of legislation, notification of all the Hron cave sites to Kraj and Okres territorial development offices	Slovak Caves Administration
(H3) Hron river: poor microbiological water quality	Water quality suitable for all water contact sports	Improvement of Hron river to at least Class III microbiological standard by 2005	H3.1) Improved quality of wastewater emissions. See Chapter 5.2.4	MZP, MP, StVak, ZsVaK, Povodie Hrona, Kraj and Okres environment and health sections
(H4) Negative effects of economic change on listed monuments	Protection of Cultural Heritage from Negative effects of economic change	Preparation of Management Plans for Key Areas by 2003	H4.1) Preparation of Management Plans for Banska Stiavnica WHS and all Monument Reserves and Zones	SAZP, Institute of Monuments, Kraj, Okres and Mesto

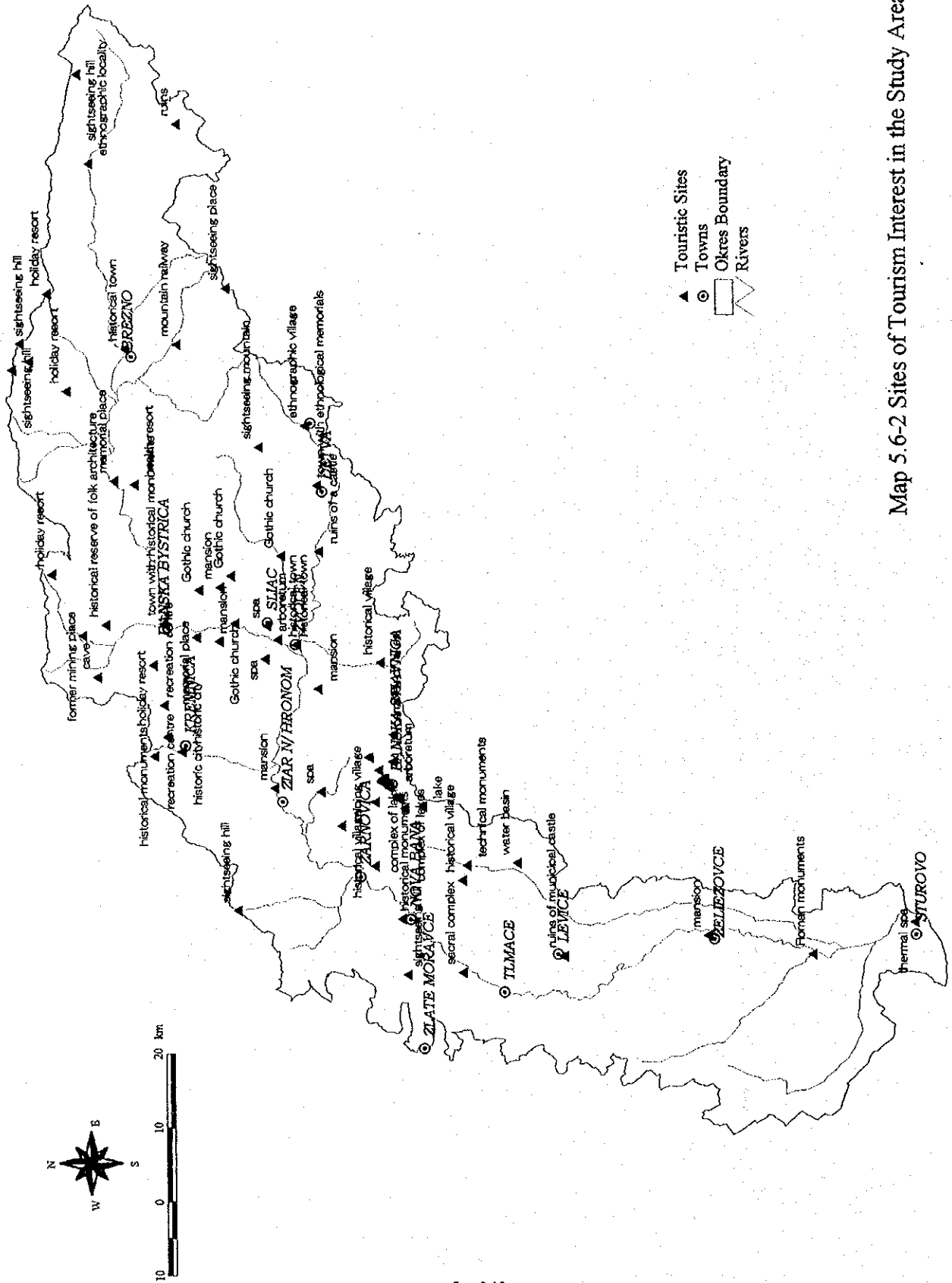
Sector and Issue	Objective	Target	Measures	Key Agency
	As above and to ensure consensus on the management proposals and priorities	End of year 2000	H4.2) Establishment of Permanent Working Groups for each WHS, Monument Reserve and Zone	SAZP, Institute of Monuments, Kraj, Okres, Mesto, NGOs
		End of year 2001	H4.3) Strategy and Action plan for Cultural and Rural Tourism in the Hron Basin	Ministries of Agriculture, Environment, Economy, and Culture, SAPARD
(H5) Deficiencies in Institutional System and Legislation for the Protection of Monuments	Improve decisions and actions by state and self-government administrators	End of year 2000 and ongoing	H5.1) Programme to Improve Awareness, of the Public and Decision-makers	Ministries of Culture, Economy and Environment
	To streamline and strengthen legislation and procedures for the protection of monuments	Legislation revised by end of 2000	H5.2) Revision of Legislation for Protection of Monuments	Ministry of Culture
	As above	Technical Standards revised by end of 2000	H5.3) Harmonisation of Technical Standards with Monument Legislation	Ministries of Culture, Environment and Interior
	Stricter Monitoring and Enforcement of Conservation Consents	Year 2000 onwards	H5.4) Agreements to improve co-ordination between Institute of Monuments and Okres staff	Okres Offices and Institute of Monuments
(H6) Monument Protection and Development: Resource and Skill Shortages	Increase the available funds for conservation	Year 2001 onwards	H6.1) Increased use of State Funds and Municipal Taxes to fund the management and maintenance of Monuments	Ministry of Finance, Mesto/Obec
	Increase the available funds for conservation	Year 2001 onwards	H6.2) Tax concessions for monument owners and suppliers of restoration services and materials	Ministry of Finance
	Increase the available funds for conservation	End of year 2000	H6.3) Establishment of Hron Basin Heritage Fund, to be fed by Voluntary Supplementary Charges at Hotels and other sources	Various stakeholders, including State Government, Mesto, Obec, NGOs, Hotel Associations etc

Sector and Issue	Objective	Target	Measures	Key Agency
	Increase the available funds for conservation	End of year 2000	H6.4) Charge or increase entry fees to selected monuments, based on review of existing charges	Ministry of Culture and other responsible authorities
	Ensure the conservation / integrity of the most Endangered Monuments	Provision of state and/or other funds by 2001 for the most urgent repairs to Endangered Monuments	H6.5) Repairs to Endangered Monuments, especially in Banska Stiavnica, Zarnovica and Ziar nad Hronom	Ministry of Culture, Donors, Investors
	Promote tourism development within the basin	Complete the restoration and development for tourism of one historic monument by the end of 2002 and one per year onwards	H6.6) The restoration of key historic buildings and monuments with significant tourism potential (eg Slovenska Lupca Castle near Banska Bystrica, reservoirs / tajchy at Banska Stiavnica) and the development of associated visitor facilities.	Ministry of Culture, Ministry of Economy, Ministry of Agriculture, PH
	Promote tourism development within the basin	Year 2001 onwards	H6.7) Marketing programmes to promote tourism within the basin	Ministry of Economy, Regional Tourism Associations
	Improve the skills of state and local self-government employees, builders, developers etc involved in Monument Conservation	Year 2001 onwards	H6.8) Training facilities, campaigns and programmes – including the promotion of international exchanges, seminars etc	Ministry of Culture
	As above	Year 2002 onwards	H6.9) Training courses and licensing system for architects working on historic buildings	Ministry of Culture

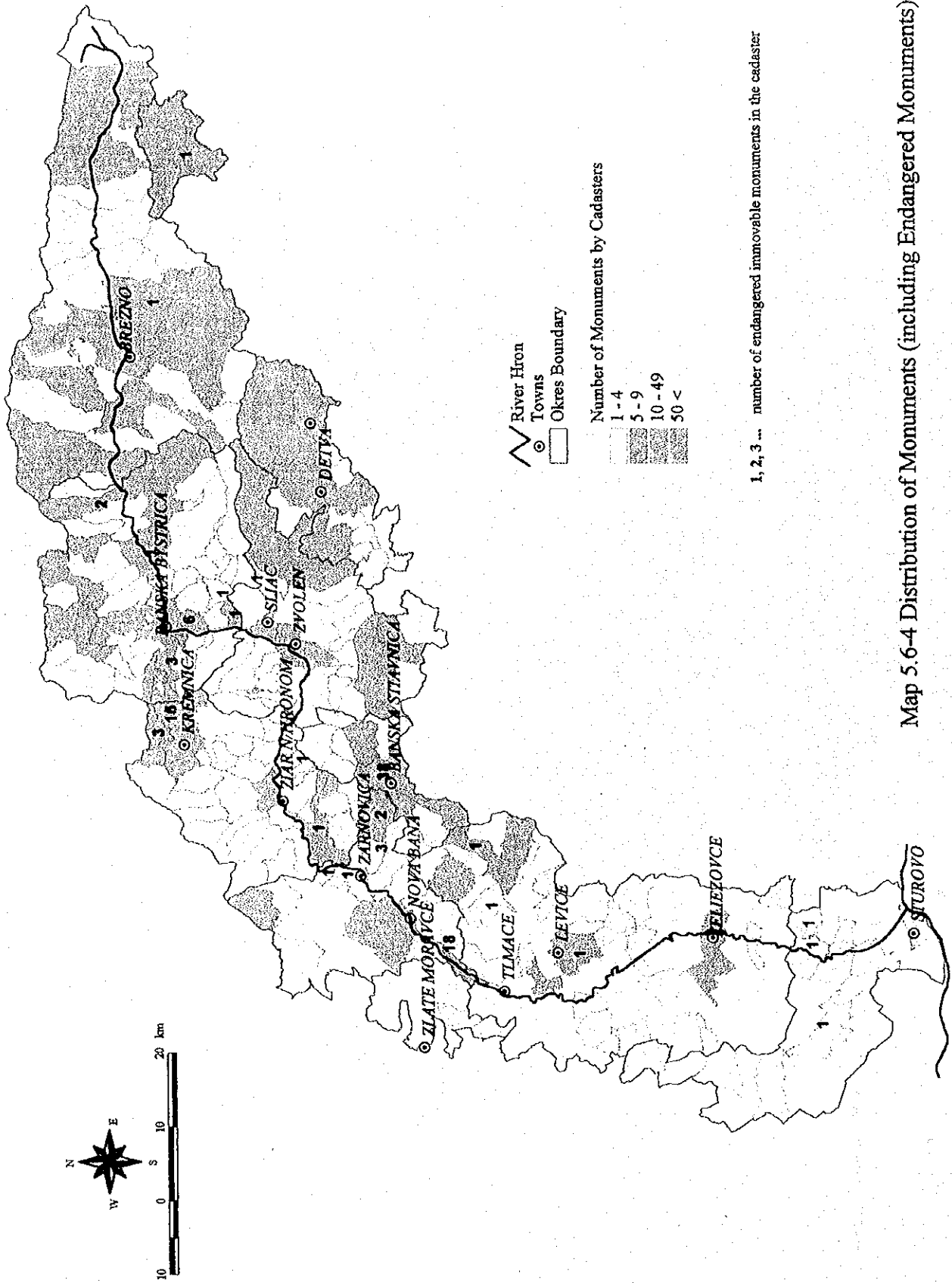


Map 5.6-1 Principal Caves in the Study Area

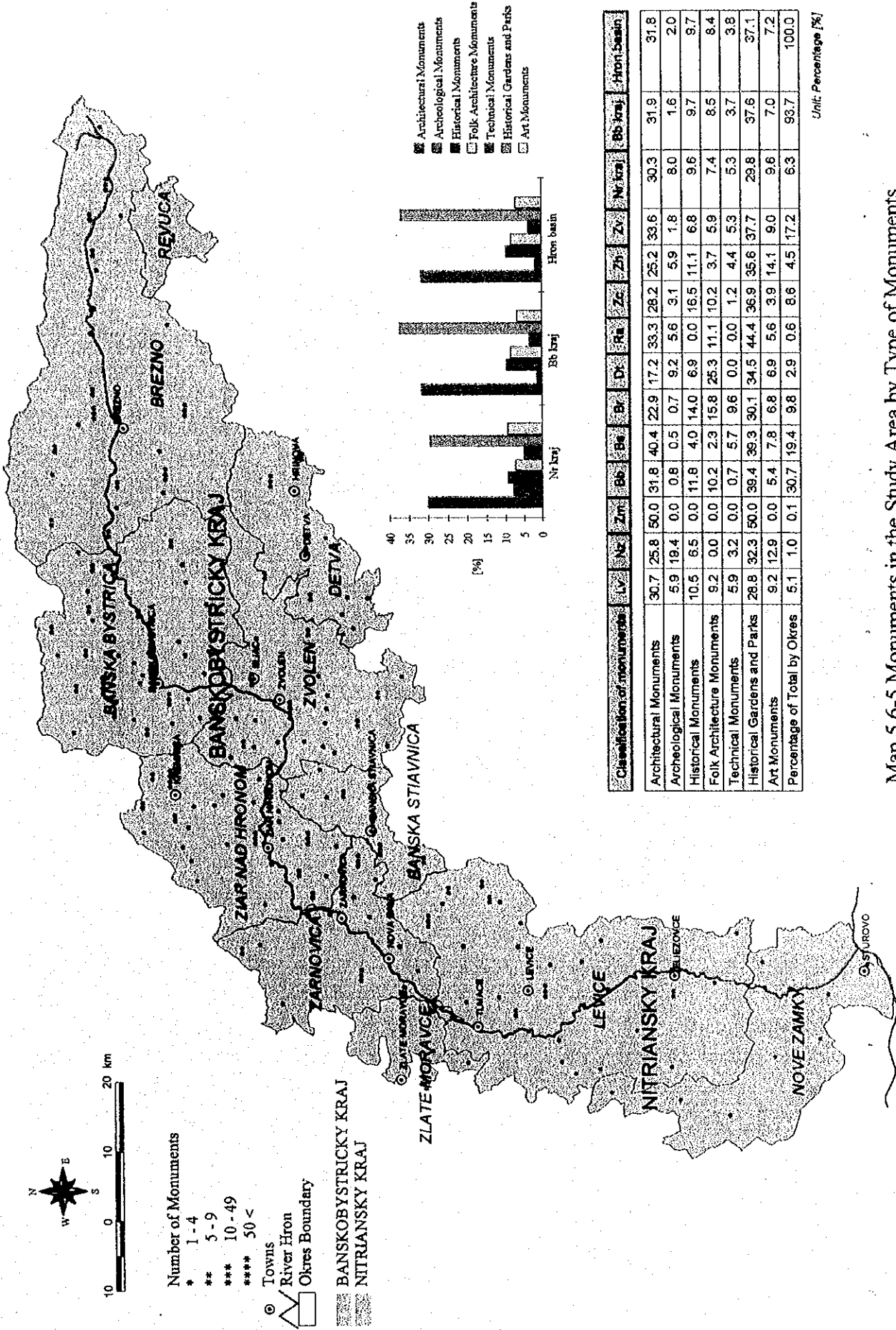
Source: SAZP GIS Laboratory, 1999



Map 5 6-2 Sites of Tourism Interest in the Study Area



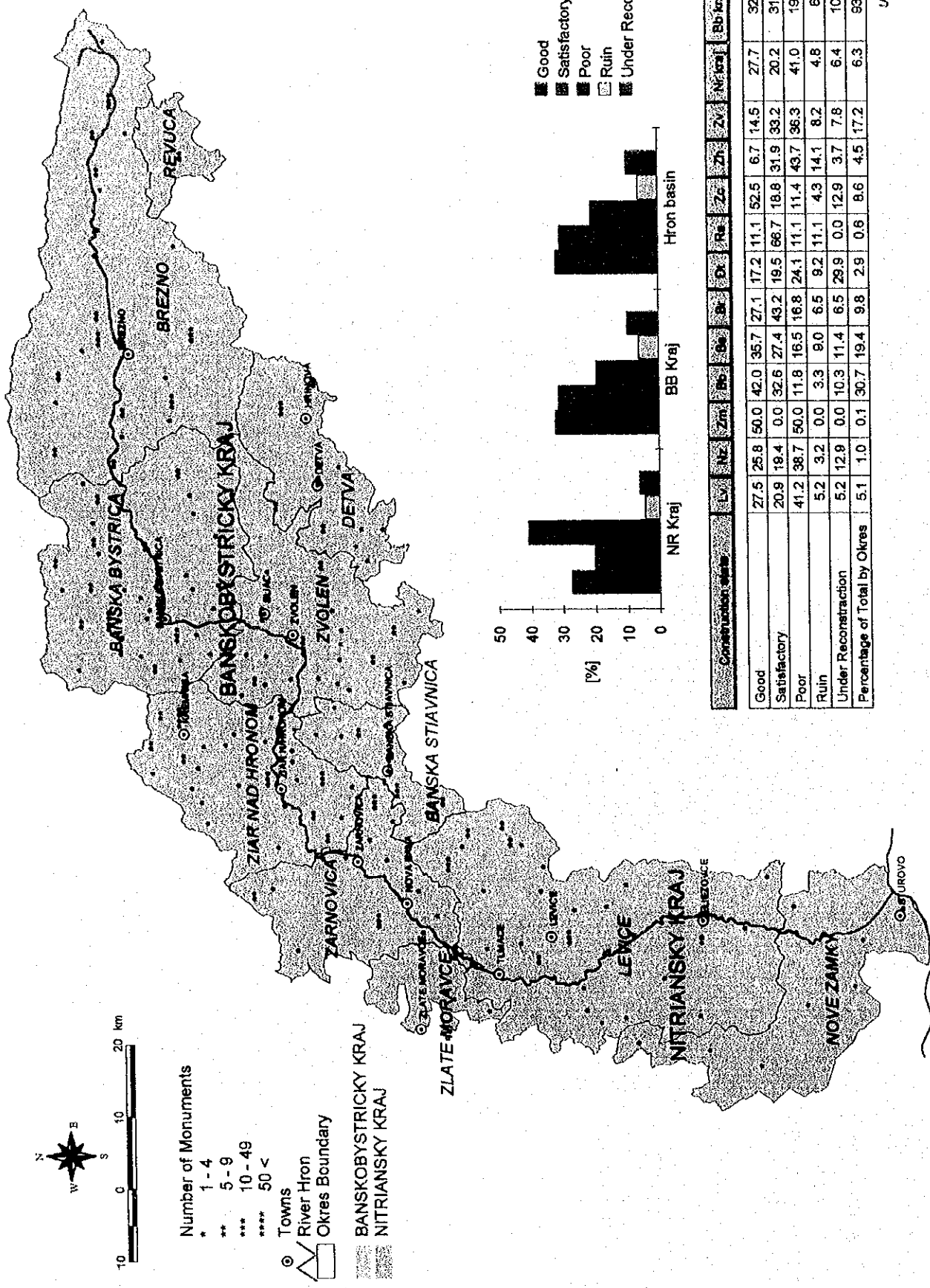
Map 5.6-4 Distribution of Monuments (including Endangered Monuments) in the Study Area



Classification of monuments	Nitra kraj										Banská Bystrica kraj										Hron basin									
	Lv	Nz	Zm	Bb	Bs	Bt	Ds	Ra	Zc	Zh	Lv	Nz	Zm	Bb	Bs	Bt	Ds	Ra	Zc	Zh	Lv	Nz	Zm	Bb	Bs	Bt	Ds	Ra	Zc	Zh
Architectural Monuments	30.7	25.8	50.0	31.8	40.4	22.9	17.2	33.3	28.2	25.2	33.6	30.3	31.9	31.8	1.6	2.0	9.7	8.0	1.8	5.9	33.6	30.3	31.9	31.8	1.6	2.0	9.7	8.0	1.8	5.9
Archeological Monuments	5.9	18.4	0.0	0.8	0.5	0.7	9.2	5.6	3.1	5.9	1.8	8.0	1.6	2.0	9.7	8.0	1.8	5.9	3.1	5.9	1.8	8.0	1.6	2.0	9.7	8.0	1.8	5.9	3.1	5.9
Historical Monuments	10.5	6.5	0.0	11.8	4.0	14.0	6.9	0.0	16.5	11.1	6.8	9.6	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	6.8	9.6	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
Folk Architecture Monuments	9.2	0.0	0.0	10.2	2.3	15.8	25.3	11.1	10.2	3.7	5.9	7.4	8.5	8.4	8.5	8.4	8.5	8.4	8.5	8.4	5.9	7.4	8.5	8.4	8.5	8.4	8.5	8.4	8.5	8.4
Technical Monuments	5.9	3.2	0.0	0.7	5.7	9.6	0.0	0.0	1.2	4.4	5.3	5.3	3.7	3.8	3.7	3.8	3.7	3.8	3.7	3.8	5.3	5.3	3.7	3.8	3.7	3.8	3.7	3.8	3.7	3.8
Historical Gardens and Parks	28.8	32.3	50.0	39.4	39.3	30.1	34.5	44.4	36.9	35.6	37.7	29.8	37.6	37.1	37.6	37.1	37.6	37.1	37.6	37.1	37.7	29.8	37.6	37.1	37.6	37.1	37.6	37.1	37.6	37.1
Art Monuments	9.2	12.9	0.0	5.4	7.8	6.8	6.9	5.6	3.9	14.1	9.0	9.6	7.0	7.2	7.0	7.2	7.0	7.2	7.0	7.2	9.0	9.6	7.0	7.2	7.0	7.2	7.0	7.2	7.0	7.2
Percentage of Total by Okres	5.1	1.0	0.1	30.7	19.4	9.8	2.9	0.6	8.6	4.5	17.2	6.3	93.7	100.0	6.3	93.7	100.0	6.3	93.7	100.0	17.2	6.3	93.7	100.0	6.3	93.7	100.0	6.3	93.7	100.0

Unit: Percentage [%]

Map 5.6-5 Monuments in the Study Area by Type of Monuments



Map 5.6-6 Construction State of Monuments in the Study Area

5.7 CONCLUSION – MAIN POLLUTED AREAS, ENVIRONMENTAL CHALLENGES AND PROJECTS

5.7.1 DISTRIBUTION OF POLLUTION SOURCES AND AREAS OF DEGRADATION

The location of some of the major pollution sources and areas of degradation in the Study Area are shown in Map 5.7 – 1. It can be seen that many of the point sources of pollution (water, air and waste) occur close to the River Hron and its tributaries. This is not unexpected given the mountainous nature of the terrain and that development has therefore been focused along the valley bottoms – but even in the flatter lower part of the Basin, pollution sources and especially the old environmental loads are closely associated with the river system.

Other than a short stretch between Zvolen and Ziar nad Hronom, the overall quality of surface water (the River Hron) is poor for much of its length - from approximately 20km upstream of Banska Bystrica to approximately 10km south of Levice. This can be attributed to the combined effects of industry and inadequate municipal wastewater treatment. A small number of the major polluting industries, which make the most significant discharges to both surface water and air, are highlighted on Map 5.7 -1. These should be the subject of greatest attention with regard to improvement in their environmental performance and are the most likely to be subject to the EU's IPPC Directive 96/61 EC.

Map 5.7 – 1 also shows that there are significant areas of soil contamination, mostly in the hills to the north of Banska Bystrica, but also in the Zarnovica-Banska Stiavnica area. Though there are localised areas of groundwater contamination in the Central Hron area, contamination is particularly evident in the agricultural areas of the lower part of the Basin, and high application rates of fertiliser leading to high nitrate levels is believed to be the main cause. Areas where there is both significant soil and groundwater contamination occur in the Nova Bana, Zarnovica and Banska Stiavnica areas. These areas should be a priority for closer investigations.

The remaining sections of this chapter summarise the main pollution sources and causes of degradation, which constitute the challenges the REMP must meet, and the picks out some of the main proposals for dealing with these challenges.

5.7.2 MAIN POLLUTION SOURCES

Surface water quality along much of the Hron river and its major tributaries fails to meet legislative standards. This is particularly the case for coliform bacteria, BOD and some heavy metals. The major causes are discharges of untreated and partially treated domestic and

industrial wastewaters particularly in the Banska Bystrica and Zvolen area as well as such discharges from more rural areas and smaller towns with low connection rates to sewage treatment plants (STPs), (eg Brezno and Levice). Poor water quality minimises its options for use, increases water treatment costs, reduces landscape values and is a health hazard for water contact sports. Wildlife and ecology may also be adversely affected.

Groundwater pollution is widespread both in the alluvial sediments by the main Hron river channel as well as in the wider valley itself, particularly in the lower Hron. Such pollution can be attributed to excessive fertiliser use in the past (nitrate pollution), leachates from old mining sites (heavy metals) and old environmental loads (OELs), as well as from inadequately treated domestic and industrial wastes (heavy metals, high salt contents). Agricultural and domestic sources are the main causes of pollution in the lower Hron area, whilst industrial, domestic and mining sources are the major polluters in the middle and upper Hron areas. Poor quality groundwaters are a health hazard when used as a drinking water source and pollute surface waters into which they flow.

Soil contamination is mainly limited to the mountainous areas of the upper and middle Hron valley. Such contamination is due to heavy metals from old mining sites (especially copper and arsenic) as well as naturally occurring high levels. Nickel, lead, mercury, zinc and cadmium also exceed limits in some places. Limited arsenic and copper contamination occurs in the lower Hron area. It has not been possible to collect enough information to quantify any risks, particularly to human health, due to soil pollution.

Although ambient air quality has improved in the Study Area in the 1990s, some ambient air quality standards (NO_x and TSP) are exceeded on occasions in Banska Bystrica Town. Such air pollution is due to industrial, domestic and mobile (eg car, rail) sources and possibly areas of bare soil within the town. The effects on health of failure to meet all air quality standards are unknown. Air pollution, mainly from sources outside the Hron, adversely affects tree health but its effects on other ecosystem components are unknown.

The levels of pollution arising from the disposal of solid wastes are unknown and may become apparent for some years. The major threats are to groundwater and risks are highest in areas where groundwater is used as a drinking water supply. OELs (many of which are located in the valley bottoms of the Hron river system and therefore are in unsuitable locations as demarcated on landfill suitability maps) were not designed to prevent leachates (in which hazardous materials may be present) reaching groundwater. OELs therefore present a significant threat to

human health.

5.7.3 OTHER FACTORS CONTRIBUTING TO ENVIRONMENTAL DEGRADATION

Water quality management is a complex issue and some institutional aspects may create difficulties for improving the water pollution situation. For example it can be difficult to obtain information on sources of pollution since it is held by many agencies which do not always share it with each other. Other institutional problems include the lack of Water Quality Objectives for the Hron, the small number of SHMU water monitoring points and measured parameters, lack of compliance of large industries with the EU's IPPC Directive 96/61 EC (not yet in force in Slovakia) and the lack of environmental management systems in smaller industries.

Except in the Ziar Valley area, the conditions of groundwater and soil in the Hron Basin are not the subject of recent, comprehensive studies and this could be an indirect cause of degradation. Thus the most recent comprehensive information on soil and groundwater quality is at least five years old. The status of previously detected contamination areas is not known. More recent contamination could be undetected, since SHMU's present monitoring system is very restricted, especially in areas of known high vulnerability. The present monitoring system does not include VOCs, so any contamination of soil or groundwater by this likely potential pollutant is unrecorded. There is also poor definition of the groundwater areas vulnerable to pollution. Thus pollution in these areas could be increasing, with risks to health if these are water supply areas.

There are also institutional and financial difficulties in air quality monitoring. These could prevent a full realisation of the extent of air pollution and thereby lead to further degradation. Additionally, the number of SHMU's operable air quality monitoring stations is decreasing due to financial constraints. There are only two local stations now in the Study Area.

There are a large number of issues that require consideration for improving the management, and thereby reducing or eliminating environmental risks, of solid wastes. These include the needs for improving the data on waste production and collection, the further development and implementation of regional or sub-regional plans for waste management, improved management of OELs and medical wastes, improved monitoring at landfill sites and the development of appropriate alternative methods for waste disposal and treatment. A large-scale investment programme is required to meet all these needs.

Ecology and biodiversity are generally in good condition in the Study Area, particularly in the

upper and middle Hron basin. Past developments however have led to extensive deforestation in the lower Hron and the development of intensive agriculture. Because of this, large areas of the Hron lowlands have poor ecological conditions. Some forestry methods (eg planting tree species not best-suited to the locality, clear-felling, removal of dead timber) reduce biodiversity in some forest areas and increase ecological instability. Conflicts, between the forestry and protected areas management authorities, over the management of forest areas inside national parks and protected landscape areas also prevent some areas from being best-managed for ecology and biodiversity. Additionally, the National Parks Administration and SAZP-CHKO have insufficient funds and personnel to prepare and implement management plans. Thus ecology and biodiversity can be adversely affected by lack of management of, for example, tourists, endangered species or threatened habitats. Fish, fauna and wetland habitats by the Hron river have been adversely affected by river engineering works. These have either restricted fish breeding migrations (eg Vel'ke Kozmalovce dam) or reduced water tables and flooding regimes, especially in the lower Hron.

The Hron valley has many resources to provide the basis for an expanded tourist industry. This potential is not presently realised for a number of reasons including

the lack of tourism development plans for the major national parks and protected landscape areas;

the health hazards of river water in the Hron, which prevents the development of water contact sports such as canoeing;

issues related to the management of cultural resources, including damage to cultural monuments through lack of repair or poorly planned repairs, weaknesses in the institutional and legal management of monuments, insufficient appreciation of the tourism and cultural value of monuments and shortages of finances and skilled personnel for management of cultural resources.

5.7.4 PRIORITY ENVIRONMENTAL MEASURES

To improve surface water quality, particularly by reduction of coliform bacteria, it is essential to implement capital projects to upgrade urban and rural sewerage systems and sewage treatment plants. These measures are particularly needed at Banska Bystrica, Zvolen and Levice. Similarly, improvements are required at industrial wastewater treatment plants, particularly for the removal of heavy metals, organics and hazardous substances.

Recommended institutional and legal measures relate to:

- the need for municipalities to co-operate and share the capital costs of sewage treatment infrastructure;
- the development of a legal requirement for large industrial plants to comply with the EU's IPPC Directive 96/61/EC and for smaller industries to develop environmental management systems (ISO 14001);
- the establishment of a River Basin Management Board to co-ordinate the activities of the many agencies concerned with water resource and water quality management in the Study Area.

Remediation of groundwater and soil by capital projects is difficult and expensive, particularly as there is insufficient information to develop such projects at the present time. Required priority institutional measures are:

- to undertake a survey of groundwater quality in hydrogeologically vulnerable areas used as water supply areas;
- to increase the extent of the routine water monitoring scheme (particularly in the lower Hron);
- to establish a Task Force to investigate the requirements for the supply of safe drinking water especially in the lower Hron followed by implementation of its recommendations;
- to monitor the presence of VOCs in groundwater;
- to undertake carefully targeted studies to evaluate the environmental risks associated with contaminated soils and groundwaters in mining areas.

Urban air quality issues can be tackled by implementing a number of capital projects. These include expansion of the gas supply system to replace low quality coal, expansion of the trolley bus system and rail electrification and construction of a bypass around Banska Bystrica. Air quality improvements may not be the primary reason for these measures, but such benefits will result. Institutional measures include the need to improve and expand the air quality monitoring system.

It is recommended that solid waste management issues are, initially at least, tackled by a variety of institutional and legal measures. These include:

- the need for legislative changes to ensure that only one organisation collects and collates waste information;
- the development of Regional and Sub-Regional Solid Waste Management Plans that build upon existing Kraj and Okres plans;
- the identification of 'priority' OELs to enable reclamation and treatment of the most risky sites;
- the development of a regional strategy for the treatment of medical wastes;
- the development of legislation to ensure the monitoring of landfills operational before the 1991 Waste Act;
- a study to investigate alternative waste disposal methods.

Following such legal and institutional measures, the necessary capital projects need to be implemented to ensure the satisfactory treatment and disposal of solid wastes.

For ecology and biodiversity issues the principal recommended measures involve monitoring, institutional and capital projects. To assist the ongoing policy of forestry ecologisation the continuation and expansion of ongoing research and monitoring programmes are proposed with incorporation of their results into the methodology for preparing forest management plans. This requires improved co-operation between forestry and protected area agencies, as does the recommendation for the establishment of forestry 'close-to-nature' demonstration sites in a national park or protected landscape area.

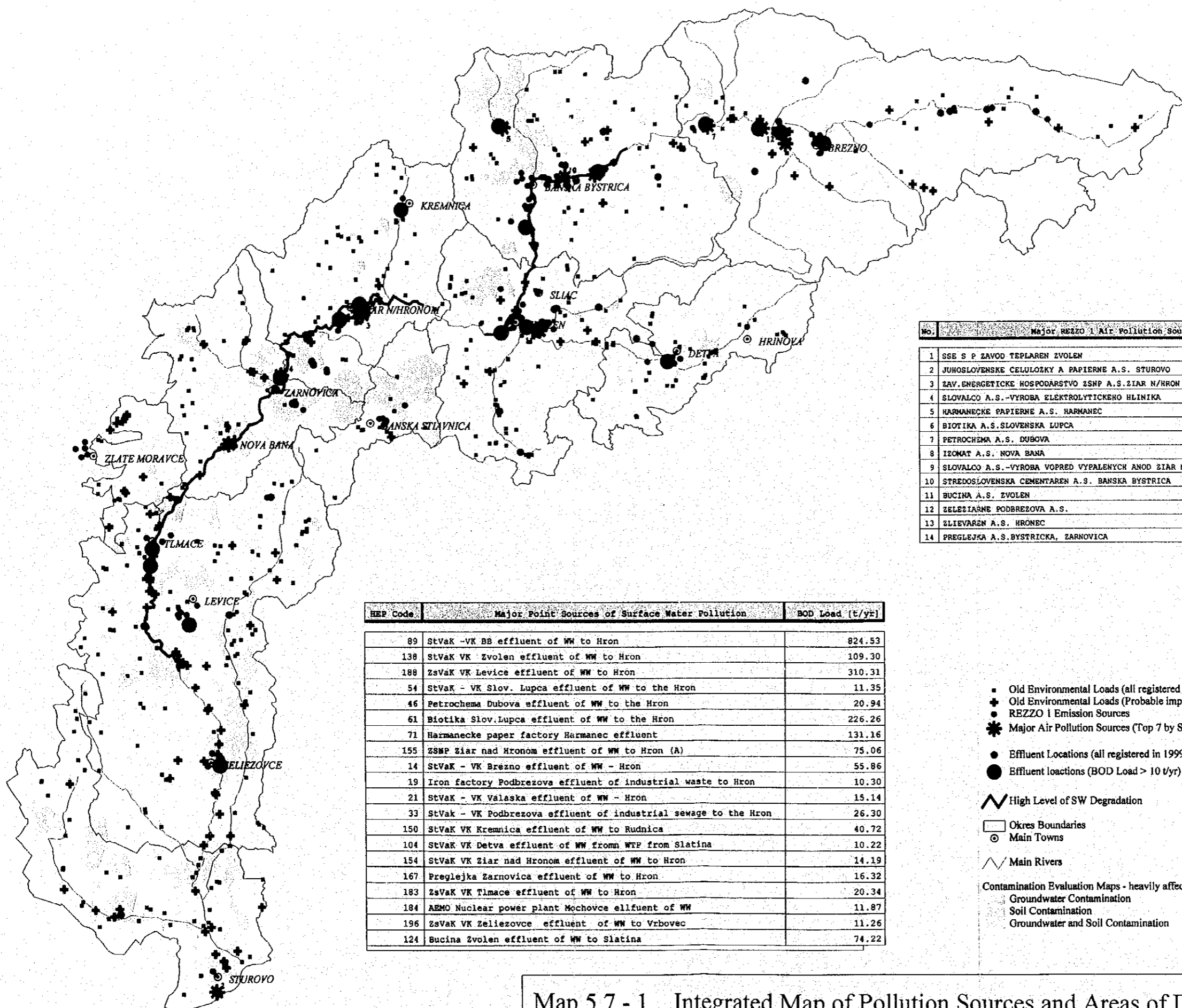
The agricultural lands of the lower Hron have few protected areas and it is recommended that suitable additional sites are located and declared. It is also essential that the Hron's national park and protected landscape area authorities prepare detailed management plans for them. These are completely lacking at the moment. Subsequent implementation is essential. To rectify ecological problems resulting from past river engineering works, a survey to identify all such problems and develop remedial measures is recommended, followed by their implementation.

The Hron's tourism resources require improved planning for their future development. Thus detailed tourism development plans for national parks, protected landscape areas and other forested areas need to be prepared and implemented. This will require improved co-operation between the protected areas authorities and those from forestry. The requirement to improve Hron river water quality to enable the development of such activities as canoeing and swimming will be met by improved sewage treatment facilities for urban and rural areas along the river.

Cultural heritage resources require the preparation and implementation of management or action plans, with priority being given to the zones where there is a concentration of these requiring attention, especially Banska Stiavnica. There is also a need to tighten, simplify and update the legislation on protection of monuments, as well as to ensure the stricter monitoring and enforcement of existing laws. Finally, there is an urgent need for increased financial resources to enable the Institute of Monuments, other agencies (eg Kraj, Okres), the private sector and the owners of historical property:

- to carry out their duties to protect monuments through maintenance and restoration;

- to train their staff;
- to market the Hron River basin to visitors;
- to promote cultural tourism.



NO.	Major REZZO I Air Pollution Sources	Among top 7 by
1	SSE S P ZAVOD TEPLAREN ZVOLEN	SO2 NOx
2	JUHOSLOVENSKE CELULOŽKY A PAPIERNE A.S. STUROVO	SO2 NOx PM
3	ZAV. ENERGETICKE HOSPODARSTVO ZSNP A.S. ŽIAR N/HRON	SO2 NOx PM
4	SLOVALCO A.S. - VYROBA ELEKTROLYTICKEHO HLINIKU	SO2 PM CO
5	HARMANECKE PAPIERNE A.S. HARMANEC	SO2 NOx
6	BIOTIKA A.S. SLOVENSKA LUPCA	SO2 NOx
7	PETROCHEMA A.S. DUBOVA	SO2 NOx PM
8	IZOMAT A.S. NOVA BANA	SO2 PM
9	SLOVALCO A.S. - VYROBA VOPRED VYPALENYCH ANOD ŽIAR N/HRONOM	SO2
10	STREDOSLOVENSKA CEMENTAREN A.S. BANSKA BYSTRICA	SO2 NOx PM
11	BUCINA A.S. ZVOLEN	NOx PM
12	ZELEŽIARNE PODBREZOVA A.S.	NOx
13	ZLIEVAREN A.S. HRONEC	PM
14	PREGLEJKA A.S. BYSTRICKA, ZARNOVICA	NOx PM

HEP Code	Major Point Sources of Surface Water Pollution	BOD Load (t/yr)
89	StVaK -VK BB effluent of WW to Hron	824.53
138	StVaK VK Zvolen effluent of WW to Hron	109.30
188	ZsVaK VK Levice effluent of WW to Hron	310.31
54	StVaK - VK Slov. Lupca effluent of WW to the Hron	11.35
46	Petrochema Dubova effluent of WW to the Hron	20.94
61	Biotika Slov. Lupca effluent of WW to the Hron	226.26
71	Harmanecke paper factory Harmanec effluent	131.16
155	ZSNP žiar nad Hronom effluent of WW to Hron (A)	75.06
14	StVaK - VK Brezno effluent of WW - Hron	55.86
19	Iron factory Podbrezova effluent of industrial waste to Hron	10.30
21	StVaK - VK Valaska effluent of WW - Hron	15.14
33	StVaK - VK Podbrezova effluent of industrial sewage to the Hron	26.30
150	StVaK VK Kremnica effluent of WW to Rudnica	40.72
104	StVaK VK Detva effluent of WW from WTP from Slatina	10.22
154	StVaK VK žiar nad Hronom effluent of WW to Hron	14.19
167	Preglejka Zarnovica effluent of WW to Hron	16.32
183	ZsVaK VK Tlmace effluent of WW to Hron	20.34
184	AEMO Nuclear power plant Mochovce effluent of WW	11.87
196	ZsVaK VK Zeliezovce effluent of WW to Vrbovec	11.26
124	Bucina Zvolen effluent of WW to Slatina	74.22

- Old Environmental Loads (all registered sites)
- + Old Environmental Loads (Probable impacts on SW or/and GW)
- REZZO I Emission Sources
- * Major Air Pollution Sources (Top 7 by SO2, NOx and dust)
- Effluent Locations (all registered in 1999 by PH)
- Effluent locations (BOD Load > 10 t/yr) - Monitored by SHMU (1997 Data)
- ~ High Level of SW Degradation
- Okres Boundaries
- Main Towns
- ~ Main Rivers
- Contamination Evaluation Maps - heavily affected (5) and affected (4) areas
 - Groundwater Contamination
 - Soil Contamination
 - Groundwater and Soil Contamination

Map 5.7 - 1 Integrated Map of Pollution Sources and Areas of Degradation

Data Source: Counterpart Organisations (SHMU, GSSR) and Povodia Hrona
 Map Prepared by JICA Study Team

