Methodology for defining the indicators

Interreg V-A Romania– Hungary

Part 1 – Result indicators

Overview of investment priorities, specific objectives and the related result indicators

Ip	Specific objective	Result indicator	Quantification based on
6/b Investing in the water sector to meet the requirements of the Union's environmental acquis and to address needs, identified by the Member States, for investment that goes beyond those requirements	Improved quality management of cross-border rivers and ground water bodies	Water quality (ecological condition) of cross-border rivers at the measurement points in the eligible area	available database
6/c Conserving, protecting, promoting and developing natural and cultural heritage	Sustainable use of natural, historic and cultural heritage within the eligible area	Tourist overnight stays in the eligible programme area	available database
7/b Enhancing regional mobility through connecting secondary and tertiary nodes to TEN-T infrastructure, including multimodal nodes	Improved cross-border accessibility through connecting secondary and tertiary nodes to TEN-T infrastructure	Cross-border population served by modernized infrastructure leading to TEN-T	available database
7/c Developing and improving environment-friendly (including low-noise), and low-carbon transport systems including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility	Increased proportion of passengers using sustainable - low carbon, low noise – forms of cross-border transport	Ratio of people to motorized road vehicles crossing the border	available database

Ip	Specific objective	Result indicator	Quantification based on
8/b Supporting employment-friendly growth through the development of endogenous potential as part of a territorial strategy for specific areas, including the conversion of declining industrial regions and enhancement of accessibility to, and development of, specific natural and cultural resources	Increased employment within the eligible area	Employment rate in the eligible area as a percentage of the working age population	available database
9/a Investing in health and social infrastructure which contributes to national, regional and local development, reducing inequalities in terms of health status, promoting social inclusion through improved access to social, cultural and recreational services	Improved preventive and curative health-care services across the eligible area	Average service level in health care institutions in the eligible area	survey
5/b Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems	Improved cross-border disasters and risk management	Quality of the joint risk management	survey
11/b Enhancing institutional capacity of public authorities and stakeholders and efficient public administration by promoting legal and administrative cooperation and cooperation between citizens and institutions	Intensify sustainable cross-border cooperation of institutions and communities	Intensity level of the cross-border	survey

6/b Investing in the water sector to meet the requirements of the Union's environmental acquis and to address needs, identified by the Member States, for investment that goes beyond those requirements

Priority axes	Specific objective	Result indicators	Measurement unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA1	Improved quality management of cross-border rivers and ground water bodies	Water quality (ecological condition) of cross-border rivers at the measurement points in the eligible area	Weighted average ecological quality (average, no unit) at the measurement points in the eligible area	2.4	2013	2.2	National Environmental Authorities / National Environmental Protection Agencies / Romanian Waters National Administration	2019, 2021, 2023

Definition of the indicator

Weighted average water quality (ecological condition) at the measurement points in the eligible area on rivers and water flows crossing the border, based on database measuring the ecological condition of cross-border rivers in the eligible area. The weighting factor is the number of measurement points falling in the respective class.

Relation to the specific objective and actions

The programme is aimed at improving the quality management of cross-border rivers and ground water bodies in the eligible area. The planned actions contribute to better coordination and implementation of the water management tasks. Better water management will result in improved water quality of water bodies. This objective is in line with the Water Framework Directive of EU aiming at reaching "good" ecological quality (at least the second best classification from 5 classes) in all rivers and water flows in the EU. The water management tasks will be implemented on the basis of the territorial water management strategies developed in harmony with the Water Framework Directive of the EU. The regional water management organisations measure the water quality of rivers and surface water bodies at the existing measurement points and provide reports about the results at least yearly. In the cross-border region, the ecological conditions of the rivers is measured in reliable way at the all relevant measurement points. The total value of the rivers and water flows

can be quantified by the aggregation of quality values of individual measurement points weighted with the number of the points. Given the limited funding available for this intervention and the character of this programme, the interventions focus on improving the quality of cross-border rivers, thus only the measurement points on cross-border rivers and flows are considered when the value of the indicator is measured.

The output indicator is “number of measurement points positively affected by the interventions” (after the completion of the project). Positively affected means that the interventions delivered contribute to improving the ecological quality of the water measured at the given measurement point(s).

The result indicator is highly affected also by external factors: the improvement of water quality can be achieved by interventions implemented outside the CBC programme; on the other hand, unexpected industrial hazards may suddenly deteriorate the quality status of major river sections.

PA5 intends to improve disaster management, and risk prevention and emergency response in the eligible area which can also contribute to reducing the likelihood of anthropic hazards. On the other hand, the better quality of the rivers and water flows contributes to improved touristic attractiveness of the natural values, natural parks of the eligible area which can be supported under the other specific objective of PA1.

Detailed data for the calculation of the baseline value of the indicator

Table1. Number and ecological condition quality of the measurement points of the cross-border rivers in the eligible areas

Class	**Quality**	**Ranking factor**	**Measurement points / stations (no.)**								
			Szabolcs-Szatmár-Bereg	**Hajdú-Bihar**	**Békés**	**Csongrád**	**Satu Mare**	**Bihor**	**Timis**	**Arad**	**Summary**
I	Very good	1									0
II	Good	2			2		8	25		20	55
III	Moderate	3	2	3	1	3	7	11		9	36
IV	Weak	4	2		1	1					4
V	Bad	5									0
Summary			*4*	*3*	*4*	*4*	*15*	*36*		*29*	*95*
Weighted average			3.50	3	2.75	3.25	2.47	2.31	0.00	2.31	2.42

Source of data

Hungary		Romania[1]	
Organisation	**Year of data collection**	**Organisation/report**	**Year of data collection**
VM National Environmental Institution, see Annex I-A.[2]	2013	National Environmental Protection Agencies / Romanian Waters National Administration	2013

The relevant data are annexed in tabular form for reference (See Annex I-A and I-B)

The steps of calculation of the indicator:

1. Collection of information from the relevant national authorities responsible for water management *for the same measurement points* as used in the baseline value calculation.
2. Summarize the data to calculate the value.
3. Calculation of the indicator: Let N_i be the number of measurement points on cross-border rivers and water flows falling in the I - the ecological quality class, and q_i the ranking factor (the quality class associated with the ecological quality) than the weighted average ecological quality – q_{av}- can be calculated using the following equation:

$$q_{av} = \frac{\sum_{i=1}^{5} N_i * q_i}{\sum_{i=1}^{5} N_i}$$

The calculation gave 2,42, rounded to 2,4 for the **baseline value**.

The formula will be calculated by the following steps:

a) the number of measurement points falling in the respective quality class is multiplied by the relevant ranking factor of its quality

[1] The Romanian data was extracted from the *Annual Reports on the State of Environment*, issued by the Environmental Protection Agencies, based on specific data provided by the Water Basins Administrations (Administraţia Bazinală de Apă). Missing data were asked for and provided by ANAR (Administrația Națională "Apele Române"). See Annex 1-B.

[2] The data set summarized by VM National Environmental Institution (Nemzeti Környezetügyi Intézet) of Hungary contains the data provided by the relevant water management directorates and environmental and nature protection authorities.

b) The weighted quality of the measurement points is simply summarized

c) the summarized water quality data will be divided by the total number of the measurement points

The same measurement points will be used for the repetition of calculation based on the annual reports issued by the national authorities responsible for water management in both countries.

*Explanation regarding the set **target value**:*

It is expected that the ecological condition of the rivers water flows crossing the border in the eligible area will improve as a result of the interventions, proportionate to the size of financial envelope available. This is in harmony with the environmental objective of the Water Framework Directive setting the aim of reaching “good” ecological status by 2015, with exemptions also defined in the directive.

To the calculation of the target data, the expected number of the interventions was taken into consideration. The number of measurement points included in the baseline calculation within the eligible area is 95 from which some measurement points (Y) fall within the river sections affected by interventions under this CP.

Together with the other interventions of the two countries involved (financed from other sources), we can set the aim of reaching a quality improvement characterized by a 0.2 improvement in the average quality ranking number, meaning a target value of 2.2 by 2023. A 0.2 quality increase means quality improvement with 1 unit in case of 19 measurement points. We can suppose that about half of the improvements will be reached by other interventions, and about half will be caused by measures within the INTERREG V-A RO-HU for 2014-2020.

Obviously, any industrial pollution hazard would negatively influence the realisation of the expected result.

6/c Conserving, protecting, promoting and developing natural and cultural heritage

Priorit y axes	Specific objective	Result indicators	Measuremen t unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA1	Sustainable use of natural, historic and cultural heritage within the eligible area	Tourist overnight stays in the eligible programme area	visitor nights	4 885 294	2013	5 485 294	National Statistical Offices: KSH, INS	2019, 2021, 2023

Definition of the indicator

The number of overnight stays covers the nights that tourists spent at registered tourist accommodations in the reference year. The county level data are summarized to produce data for the eligible area.

> *Note: No exact statistical data is available in both countries on county level that differentiates between overnight stays of business travellers and tourists. Nevertheless, we can suppose that the ratio of business travellers would not change significantly over time. Therefore, the total number of overnight stays indicated by the statistics runs parallel with the number of tourist overnight stays.*

Relation to the specific objective and actions

The specific objective is the sustainable use of joint natural, historic and cultural heritage within the eligible area. If joint historic, cultural and natural heritage elements are improved, they become more attractive for tourists, resulting in increase in the number of tourists visiting.

In order to ensure all aspects of sustainability, it is important to stress in the calls for proposals that the supported sites and facilities need to be used in a sustainable manner for touristic purposes, and this has to become part of the project selection criteria.

The sustainable touristic use may be best measured using the number of overnight stays – this is a widely accepted statistical indicator measuring the results of tourism-related activities. The indicator has a close link to the activities and to the output indicator. If the number of visitors to specific sites is increasing, as well as the number of sites worth visiting, tourists spend a longer time in the area and are motivated to stay for more than one day. This expectation certainly highlights the importance of the integrated development of tourist destinations instead of the development of individual sites not linked to each other.

Detailed data for the calculation of the baseline value of the indicator

Table2: Number of overnight stays in tourist accommodation in the cross-border region

year	Number of overnight stays in tourist accommodation in the eligible programme area in Hungary[1]					Number of overnight stays in tourist accommodation in the eligible programme area in Romania[2]					Total
	Szabolcs Szatmár-Bereg	Hajdú-Bihar	Békés	Csongrád	Hungary Total	Satu Mare	Bihor	Timis	Arad	Romania Total	
2008	318 591	1 573 224	513 787	454 864	2 860 466	158 489	1 128 159	655 604	337 116	2 279 368	5 139 834
2009	274 589	1 425 588	507 167	388 153	2 595 497	160 714	998 638	521 234	333 313	2 013 899	4 609 396
2010	272 288	1 391 646	500 262	361 702	2 525 898	162 398	885 453	506 385	304 879	1 859 115	4 385 013
2011	286 417	1 283 503	510 201	435 053	2 515 174	150 721	1 004 366	560 565	345 634	2 061 286	4 576 460
2012	277 107	1 258 069	556 793	467 349	2 559 318	130 447	1 004 366	600 224	342 406	2 102 301	4 661 619
2013	**333 946**	**1 346 970**	**607 841**	**502 260**	**2 791 017**	**161 216**	**952 163**	**642 038**	**338 860**	**2 094 277**	**4 885 294**

Source of data: National Statistic Offices: HSCO in Hungary and INS in Romania

The steps of calculation of the indicator:

1. Gathering the data from the national statistics database
    a. The county statistics for Romania can be extracted from the TEMPO database of the Romanian INS (8. Economy/ 8.16 Tourism/ TUR105E - Staying overnight in the establishments of touristic reception by counties and localities)
    b. The county statistics for the Hungarian counties can be derived from the "Information database" of the territorial statistics of the Hungarian Statistical Office, aggregating the number of overnight stays at commercial and other types of accommodation, county by county[3].
2. Summarizing the county level data to calculate the baseline value. The calculation gave 4 885 294 guest overnight stays in 2013.

[3] The classification of accommodations in Romania and in Hungary is slightly different. Nevertheless, the figures presented cover the same types of accommodations in both countries.

Methodology to the determination of the target value of the result indicator

The **target value** is calculated based on the expected outputs of the programme, and also taking into account past trends. The expected number of new visits (output indicator 6c-1) to the supported sites of cultural and natural heritage and attractions is up to 53,000 persons/per year in 2023 (target value of the direct related output indicator of CP). It is reasonable to assume that 33 % of the visitors additionally attracted in the region will spend overnights in the eligible area each year.

The average time a visitor stays in the eligible area is 2.8 days, which means that approx. 17.490 visitors of the supported tourist sites will spend 2.8 overnights on the average in the region. Based on this assumption it is expected that the number of overnight stays would increase by slightly more than 48,900 overnight stays in 2023 compared to 2013 as a result of the interventions of the programme.

Further important factors affecting the change in overnight stays are the development of other tourism attractions and tourism accommodations, the intensity of the marketing of the newly developed tourism attractions, the change of the income spent for leisure actions of the households.

Looking at the trends in Table 2, it is clearly visible that between 2008 and 2010, a sharp decline took place, mainly as a result of the global crisis. The figures also show that between 2010 and 2011 the trend turned, and the figures show clear signs of recovery: there is a slow but steady increase in the number of tourist overnight stays in the eligible area, resulting a 500 000 strong increase between 2010 and 2013 (that is more than 160 000 increase per annum on average, but still not compensating for the severe decline from 2008 to 2010). Taking into account these figures, and calculating with a very conservative 60 000 average annual increase in the number of overnight stays (that is lower than the lowest year-to-year increase between 2010 and 2013), the projection shows that the number of overnight stays could increase up to 5 485 294 by 2023 – an increase of 600 000. The contribution of the programme to this increase is 8.15 %.

7/b Enhancing regional mobility through connecting secondary and tertiary nodes to TEN-T infrastructure including multimodal nodes

Priority axes	Specific objective	Result indicators	Measurement unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA 2	Improved cross-border accessibility through connecting secondary and tertiary nodes to TEN-T infrastructure	Cross-border population served by modernized infrastructure leading to TEN-T	Number of people	356 076	2014	446 424	Project monitoring, National Statistical Offices: KSH, INS	2019, 2021, 2023

Definition of the indicator

The indicator is the total number of the inhabitants served by the modernized infrastructure leading to the TEN-T network. The modernized infrastructure means road sections modernized /upgraded/newly built either with the support of the HU-RO 2007-13 CBC Programme (providing the baseline value) or with the support of the RO-HU 2014-2020 Interreg Programme (contributing to the target value). In calculating the baseline and target value of the indicator we take into account all the inhabitants of all settlements that are either located on the modernized road section, or are located within 3 km distance from the modernized road section.

Relation to the specific objective and actions

The specific objective under this Ip is “Improved cross-border accessibility through connecting secondary and tertiary nodes to TEN-T infrastructure”. Improved cross-border accessibility requires modernized infrastructure available to the cross-border population – so the proposed result indicator “Cross-border population served by modernized infrastructure leading to TEN-T” has a direct connection to the specific objective and properly measures its attainment.

Eligible actions include the reconstruction / upgrading of existing roads and the constructions of new roads. As a result of reconstructing / upgrading existing road sections and building new road sections, more people in the eligible area will be served by modernized infrastructure, and for them these interventions improve cross-border accessibility of TEN-T network elements.

Detailed data to calculate the baseline value of the indicator

As presented above, the baseline value of the result indicator is the number of population served by modernized infrastructure as a result of the HU-RO 2007-13 CBC Programme.

In order to calculate the baseline value, we have collected all road sections developed in the frame of the programme (and also the length of road sections developed). Then we have identified the settlements that:

a) are located on the modernized road sections
b) are located within 3 km distance from the road sections

Then the number of inhabitants of these settlements has been identified and aggregated. The total population of these settlements is the baseline value of the indicator. The data are presented in the table below.

Table 3. **Road connections and the number of the inhabitants of the concerned settlements**

Name of supported projects (HU-RO CBC Programme 2007-13)	**Length of road section developed (km)**	**Settlements located on the developed road sections**		**Settlements within 3 km distance from the relevant road sections**	
		Name	**Number of inhabitants (2014)**	**Name**	**Number of inhabitants (2014)**
Elek - Graniceri connecting road	15,72	Elek	4 797	Kétegyháza	
		Graniceri	2173	-	-
Dombegyház – Variasu Mic connecting road	23,09	Dombegyház	2 070	Kevermes	2043
		Variasu Mic	141	Variasu Mare Iratosu	2432 2277
Cross-border connecting road between Körösnagyharsány-Border - Cheresig	4,78	Körösnagyharsány	538	Biharugra Kőrösszakál Kőrösszegapáti	948 821 1020
		Cheresig	1065		
Connecting road between Dénesmajor and Zerind	8,65	Dénesmajor	186		
		Zerind	1434	Iermata Neagra	568
Eastern Gate - solid pavement connecting road between Garbolc and Bercu	2,15	Garbolc	146	Nagyhódos Méhtelek	113 756
		Bercu	586	Nisipeni Pelisor	831 304
Removing barriers to cross-border transit – development	10,9	Socodor	2340	-	-
		Kétegyháza	3622	Elek	

of road between Socodor and Kétegyháza					
Building hard covered road between Bagamér and Voivozi	4,47	Bagamér	2 509	Álmosd Nyírábrány	1663 3774
		Voivozi	453		
Improving the road transport infrastructure at the rural level of the cross border area represented by Nojorid and Nagyrábé communes	6,77	Nojorid	5000		
		Nagyrabe	2167	Bakonszeg Bihartorda Sáp Biharnagybajom	1210 955 975 2845
Pocsaj and Roşiori by-pass rehabilition and construction	14,09	Pocsaj	2666	Kismarja Esztár	1289 1347
		Roşiori	3073	Vaida Miha Bravu	561 1127
Connecting road between Sanislău and Ömböly	11,18	Sanislău	3456		
		Ömböly	401	Penészlek Bátorliget	985 669
Road infrastructure development at the level of Osorhei and Berettyóujfalu local authorities	5,68	Osorhei	6268	Alparea	1026
		Berettyóújfalu	15221	Bakonszeg Szentpéterszeg Váncsod Mezősas	1210 1119 1215 666
Road traffic relief and improvement of the population mobility on the cross border link corridor Oradea-Biharkeresztes	5,72	Oradea	183123	Sinmartin	8798
		Biharkeresztes	4 098	Ártánd Mezőpeterd Bojt	496 581 547
Removing barriers of the cross-border transit between Lazuri and Zajta	6,6	Lazuri	5373		
		Zajta	425	Rozsály Méhtelek Gacsály	809 756 937
Improving the transport infrastructure with cross-	5,74	Sanmartin	8798	Cihei Haieu	949 701

border impact between Sanmartin and Püspökladány localities				Rontau Baile Felix	1402 673
		Püspökladány	14815	Báránd Kaba Bucsa Szerep	2635 5946 2223 1604
Connecting road between Csanádpalota-Nadlak	8,5	Csanádpalota	2879	Magyarcsanád Kövegy Csanádalberti Pitvaros	1429 386 434 1385
		Nadlak	7185	Csanádpalota Nagylak	589
Total	**134**		**28 8 047**		**68 029**

Altogether ***356 076*** people were served by ***134 km*** new or improved road sections.

Source of data

Supported road sections	JTS of HU-RO CBC Programme 2007-13 - IMIS
Number of inhabitants	HCSO – Hungarian Central Statistical Office, http://statinfo.ksh.hu/Statinfo/haDetails.jsp?query=kshquery&lang=en
	Romanian National Institute of Statistics http://statistici.insse.ro/shop/index.jsp?page=tempo3&lang=en&ind=POP108D

Steps to calculate the baseline value of the indicator:

1. Gathering data from HU-RO 2007-13 CBC Programme: database of the newly built and modernised road sections in the border area
2. Defining those settlements which are located on the developed road sections or within 3 km distance of the relevant road sections
3. Gathering the latest available data from the national statistical offices to define the number of inhabitants of the selected settlements
4. Summarizing the number of the inhabitants of all relevant settlements. That will provide the baseline data of the result indicator.

The target value of the result indicator will be calculated applying the same steps, but using the database amended with the data of the newly built or modernized/upgraded roads supported by the RO-HU 2014-2020 Interreg Programme.

Methodology of the determination of the target value of the result indicator

As the roads to be developed (either reconstructed / upgraded, or newly built) will be selected in the frame of calls for proposals, at the moment the exact roads are not yet known. Therefore, in calculating the target value of the indicator we have taken the following steps:

- checking the total length of modernized roads providing the basis for calculating the baseline value of the result indicator (xxxx km)
- checking the total number of inhabitants served by the modernized roads– this is actually the baseline value of the result indicator (yyyy people)
- aggregating the target values of 7b1 and 7b2 output indicators – the total length of newly built roads and the total length of upgraded / reconstructed roads – altogether providing the length of modernized roads to be achieved in the frame of the programme (zzzz km);
- based on the assumptions that 1 km modernized road will serve at least as many people as it did in the previous period, we calculate the target value of the result indicator using a projection:
    - 134 km of modernized roads serve 355 890 people
    - assuming a proportionate increase, 134 km + 34 km of modernized roads will serve 446 190 people – that is the target value of the result indicator.

Given the nature and objective of the investment priority, it is important to clearly communicate in the relevant CfP, that:

- support may be only granted to the upgrading / reconstruction or construction of road sections that clearly contribute to improved cross-border accessibility, and to connecting secondary or tertiary nodes to TEN-T infrastructure;
- projects that contribute to serving more people with modernized infrastructure should be preferred.

In addition, it is assumed that the organisations responsible for the management of the roads maintain the pavement of the roads properly and the status of the roads not affected by developments will not significantly deteriorate.

7/c Developing and improving environment-friendly (including low-noise), and low-carbon transport systems including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility

Priority axes	Specific objective	Result indicators	Measurement unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA2	Increased proportion of passengers using sustainable - low carbon, low noise – forms of cross-border transport	Ratio of people to motorized road vehicles crossing the border	Ratio of persons to motorised road vehicles	2.5	2014	2.65	National Statistical Offices: KSH	2019, 2021, 2023

Definition of the indicator

The indicator is the ratio between the number of people crossing the border and the number of motorized road vehicles crossing the border. The indicator considers all passengers using all forms of road transport, including cars, buses, trucks, motorbikes and bicycles. Increased value of the indicator shows increased number of passengers using different forms of transport per road vehicle. The target can be attained if more passengers use bus transport, bicycle or more persons travel in one passenger car. Any of these changes contribute directly to lower carbon and noise emissions from cross-border transport.

Relation to the specific objective and actions

Increase in the ratio of people to road vehicles crossing the border can be reached if an increased proportion of passengers use public transport (bus) and bicycle for border crossing. These are sustainable (low carbon, low noise) forms of transport, are less polluting and create less noise as individual passenger cars and motorbikes.

The improved cross-border public transport services (programme specific output indicator) attract more people to use the services. Public transport, even if it is based on a road vehicle (bus transport) has a much higher people to motorised road vehicle ratio than cars or motorbikes. This would lead to a higher value of the result indicator.

Similarly, newly build bicycle roads or lanes (programme specific output indicator) will create a safe way to cross the border by bicycle. If more people select this form for crossing the border, the number of people crossing the border rises without any rise in the number of motorised road vehicles crossing the border. Thereby, it contributes to the desired increase in the result indicator.

Detailed data to calculate the baseline of the indicator

Table 4. Key border crossing data in Romanian-Hungarian border, 2008-2014

Property	2008	2009	2010	2011	2012	2013	2014
Number of people crossing the Hu-Ro border by road vehicles	15 582 459	14 668 720	14 090 375	14 126 285	14 222 362	14 107 439	15 894 173
Motorized road vehicles crossing the border	6 342 998	5 924 703	5 798 524	5 678 913	5 853 664	5 867 885	6 358 487
Number of persons crossing the border per one motorized road vehicle	2,46	2,48	2,43	2,49	2,43	2,40	2,50

Source of data: The data is provided by the Hungarian Statistical Office (HSCO), which measures the traffic in both directions of the border crossings (entry into the country and leaving the country), http://statinfo.ksh.hu/Statinfo/haViewer.jsp

The steps of calculation of the indicator:

1. The actual value of the result indicator is calculated by using the relevant data in the Information Database of the Territorial Statistics of the Hungarian Statistical Office, measuring the cross-border personal and road vehicle traffic through the border in both directions. (National Statistical Office in Hungary, http://statinfo.ksh.hu/Statinfo/haViewer.jsp)
2. The ratio of the number of people crossing the border to road vehicles crossing the border will provide the relevant value. The average value the number of people per one road vehicle is 2.5 in 2014.

Methodology to the determination of the target values of the result indicator

The CP lists – among others - the development of intelligent cross-border public transport systems and services, passenger information system, on-line schedule, e-ticketing, mobile apps, and the related infrastructure (e.g. low emission vehicles, bus) amongst the indicative actions. These actions make the use of public transport more attractive for passengers for crossing the border. Public transport contributes to lower transport-related GHG emission on the one

hand and higher people to motorised vehicle ratio on the other. Construction and upgrading bicycle roads, path or lane makes bicycle traffic an attractive alternative to using motorised vehicles for short-term trips across the border. This again contributes to the promotion of sustainable regional and local mobility. Having a quick look to the trends (time series) of the ratio of people to road vehicles crossing the border) proves that the value fluctuates between 2.4 and 2.5. In the coming years, a slow but steady shift towards less polluting forms of transport is expected. This requires investments parts of which will be co-financed by the programme, and also increasing awareness / intention of passengers to use less polluting forms of transport – to this, the programme can also contribute. Overall, taking into account trends from the past years and also the expected effects of the programme, as well as other interventions promoting the use of ecological means of transport we envisage a modest increase to 2.65 by 2023.

8/b Supporting employment friendly growth through the development of endogenous potential as part of a territorial strategy for specific areas, including the conversion of declining industrial regions and enhancement of accessibility to and development of specific natural and cultural resources

Priority axes	Specific objective	Result indicators	Measurement unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA3	Increased employment within the eligible area	Employment rate in the eligible area as a percentage of the working age population	%	56.31%	2012	56.51%	National Statistical Offices: KSH, INS	2019, 2021, 2023

Definition of the indicator

Employment rate in the eligible area as a percentage of the working age population (15-64 years old)

Relation to the specific objective and actions

The specific objective of this priority axis is increased employment in the eligible area. Due to demographic reasons the increase can only be measured as related to the number of the working age population. The employment rate in the eligible area as a percentage of the working age population measures just that trait of the labour market.

Increasing employment requires the availability of more job opportunities on the labour market (demand side) and also the availability of labour force suitable for meeting the criteria of potential employers (supply side). Both are equally important, if either of them is lacking, increasing employment is not possible. The eligible actions to be implemented with the programme's contribution address both aspects.

Targeted actions facilitating the creation of local products/services and related infrastructures based on the local potential, as well as improving business environment with the aim of increasing employment can make a contribution to increase demand on the labour market.

The implementation of cross-border training and employment initiatives, cross-border cooperation between relevant stakeholders of labour market, on the other hand, can have a positive effect on the supply side by creating a workforce that have the proper knowledge, skills and qualifications, while also facilitates better bridging the demand and supply.

Altogether the actions can support the increasing of the employment rate in the eligible area.

Detailed data to calculate the baseline of the indicator

Table 5. Employment data of the working age population (15-64 years) of the counties in 2002 and 2012 and the changes between 2002 and 2012.

Counties	2002			2012			Changes between 2002 and 2012		
	Number of employed people	Population of working age (15-64 years old)	Employment rate (15-64 years old)	Number of employed people	Population of working age (15-64 years old)	Employment rate (15-64 years old)	Number of employed people	Population of working age (15-64 years old)	Employment rate (15-64 years old)
Satu Mare	149 533	260 382	57,4%	125 985	259 275	48,6%	-23 548	-1 107	-8.8%
Bihor	274 258	412 320	66,5%	268 128	495 111	54,2%	-6 130	82 791	-12.4%
Timis	301 819	465 774	64,8%	334 214	504 646	66,2%	32 395	38 872	1.4%
Arad	193 117	314 493	61,4%	191 825	319 109	60,1%	-1 292	4 616	-1.3%
Romanian side total	918 727	1 452 969	63,2%	920 152	1 578 141	58,3%	1 425	125 172	-4.9%
Sz-Sz-Bereg	176 622	388 907	45,4%	189 405	376 338	50,3%	12 783	-12 569	4.9%
Hajdú-Bihar	142 908	276 811	51,6%	140 712	254 722	55,2%	-2 196	-22 089	3.6%
Békés	133 198	263 985	50,5%	127 898	236 485	54,1%	-5 300	-27 500	3.6%
Csongrád	158 219	285 395	55,4%	158 899	283 787	56,0%	680	-1 608	0.6%
Hungarian side total	610 947	1 215 098	50,3%	616 914	1 151 332	53,6%	5 967	-63 766	3.3%
Total	**1 529 674**	**2 668 067**	**57,3%**	**1 537 066**	**2 729 473**	**56,3%**	**7 392**	**61 406**	**-1.0%**

*Source of data: N*ational statistical offices: HSCO in Hungary and INS in Romania
http://www.ksh.hu/mpiacal9807_tablak and https://statistici.insse.ro/shop/

The steps of calculation of the indicator:

1. Gathering the data from the national statistics database
    a. Using the relevant county data of the Hungarian and Romanian statistical offices, measuring Number of employed people in the working age population and Population of working age (15- 64 years). (National Statistical Office in Hungary, (http://www.ksh.hu/mpiacal9807_tablak) and INS in Romania (https://statistici.insse.ro/shop)

2. Summary of the county level data both for the *Number of employed people in the working age population* and for the *Population of working age (15- 64 years old)*.
3. Calculation the ratio of employed people and the working age (15- 64 years) population provides the employment rate of the eligible area. This value is 56.3% in 2012 (down from 57.3% in 2002).

Methodology for the determination of the target value of the result indicator

For the period examined (2002-2012) the following remarks can be concluded:

- The working age population (15-64 years) increased in three Romanian counties (Bihor, Timis, Arad) and decreased in all Hungarian counties and slightly in Satu Mare. The working age population on the Romanian side increased by 125 172 persons, whereas on the Hungarian side decreased by 63 766 persons.
- The number of employed people increased only by 7 392 persons in the cross-border region, mostly in Timis, Szabolcs-Szatmár-Bereg, Csongrád.
- Despite the 7392 increase in the number of employed people, the employment rate decreased by 1 pp to 2012 compared to 2002 in the entire eligible area
- Supposing the same demographical trends, that will result in about a 2 778 600 strong working age population by 2020.

The National Reform Programmes of both countries also target a considerable rise in employment rate.

To satisfy the job demand of this rising number of people in working age, and in harmony with the National Reform Programmes of the countries involved, we set the target to increase employment rate by 0.2 pp.

9/a Investing in health and social infrastructure which contributes to national, regional and local development, reducing inequalities in terms of health status, promoting social inclusion through improved access to social, cultural and recreational services and transition from institutional to community-based services

Priority axes	Specific objective	Result indicators	Measurement unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA4	Improved preventive and curative health-care services across the eligible area	Average service level in health care institutions in the eligible area.	Rate of service level of the health care institutions	3,19	2015	3,40	Survey among hospitals and outpatient institutions	2019, 2021, 2023

Definition of the indicator

The proposed indicator measures the quality improvement of the average service level in health-care institutions.

Definition of service level: average service level in health care institutions is an indicator reflecting the average quality level of health-care services. In order for a health-care institution to be able to provide good quality services, various conditions need to be in place, including:

- Basic general infrastructure (buildings, facilities) in good conditions, with proper capacity;
- Basic diagnostic and curative equipment, having sufficient capacity and up to appropriate technological standards;
- Specialized diagnostic and curative equipment, having sufficient capacity and up to appropriate technological standards;
- Professional and support staff, with proper capacity and appropriate level of training;

The average service level will be examined based on a survey examining the key conditions of providing quality health-care services, carried out among the organizations in the area – hospitals and outpatient institutions – delivering health-care services. Through filling in the questionnaire, the institutions will provide information – based on self-assessment – on the key conditions of delivering good quality services. The survey will provide a quantified value – a scale indicator – reflecting the average service level in the area.

Type of organisations to be asked by the questionnaire

All hospitals and outpatient institutions / polyclinics will be invited to take part in the survey. The exact institutions will be nominated by the National Authority / County councils.

Survey delivery and quantification

The envisaged duration for the completion of this survey and defining the baseline and target values is 3 weeks from receiving the proposed list of the organisations to be asked.

Method for survey delivery: web-based questionnaire.

The link to the questionnaire is sent to the selected organizations (contact details identified and provided by the county councils / relevant line ministries). County councils are asked to support the process also by standing behind the survey and encouraging the relevant organizations from their county to fill in the questionnaire.

In the questionnaire, there is a short introduction describing the context (the programme and that it is foreseen to support the improvement of preventive and curative health-care services, and the purpose and use of the survey, as well as the importance of all organizations invited to participate.

Following the introduction a set of questions are presented. Questions 1 to 5 as well as 15-16 are for information purposes, collecting data that can help future programme implementation, but do not affect the quantification (for instance the level of cross-border cooperation). Answers to questions 6 to 14 are used for the quantification of service level.

Calculating the baseline value

When the questionnaires are filled in the data are automatically collected in a simple database, and the quantification is done using the following process:

- Answers to questions 6 to 14 are used for the quantification of service level. In those questions the participating organizations are asked to self-assess various important conditions of providing quality services on a scale of 1 to 5.
- The average value of the answers by all respondents is calculated for each question (the sum of values of all answers is calculated and divided by the number of answers); this average value falls between 1 and 5.
- The average values of the answers to all questions are then aggregated and divided by the number of respondents – that gives the average service level value – and for the purpose of the survey this will be the baseline value of the indicator for the eligible area

The survey has to be repeated whenever necessary using the same questionnaire and asking the same target group. Thus the level of services can be compared over time.

Calculating the target value

The target value has been calculated based on the following expectations:

- Considerable amount of funding has been allocated to developing the conditions of health-care services, so measurable improvement of various aspects is foreseen.

- Interventions will both involve the development of basic equipment and the specialized equipment, with slight shift towards specialized equipment.
- Therefore, we have calculated with a 0,2 increase in case of average values describing the basic equipment and a 0,3 increase in case of average values describing specialized equipment.
- Interventions will be more focused on the development of equipment than of general infrastructure. Therefore, in the case of general infrastructure we have calculated a 0,1 averaged increase. As the overall conditions both involves equipment and general infrastructure, we have calculated with a 0,2 average increase.
- Although the interventions may make some contribution to improving the staff's capacity, there are many factors outside the programme's scope that have a bigger impact. Therefore, in the case of the average value describing staff capacity we have calculated with a 0,1 average increase.

In order to deliver the envisaged level of improvement (0,21), 21% of all respondents shall report an average 1.0 improvement (for instance from 3 to 4), also assuming that the rest of the respondents at least stay at the baseline level.

The following table provides the aggregated data from the survey used for quantification:

Original question	Short tag	Average - all institutions (Baseline value)	Expected improvement	Target value
Q6: How would you describe the overall condition of your health care institution? (condition of diagnostic and curing equipment, other facilities)	Overall condition of institution	3,29	0,2	3,49
Q7: How would you describe the condition of the general infrastructure (buildings, other facilities) of your institution?	Condition of general infrastructure	3,12	0,1	3,22
Q8: Do you have the necessary BASIC diagnostic and curing medical equipment in place?	Availability of BASIC equipment	3,39	0,2	3,59
Q9: How would you describe the capacity of BASIC diagnostic and curing medical equipment of your institution with regard to the existing needs?	Capacity of BASIC equipment	3,08	0,2	3,28

Original question	Short tag	Average - all institutions (Baseline value)	Expected improvement	Target value
Q10: How up-to-date are the available BASIC diagnostic and curing medical equipment of your institution?	Recency of BASIC equipment	3,24	0,2	3,44
Q11: Do you have the necessary SPECIALIZED diagnostic and curing medical equipment in place?	Availability of SPECIALIZED equipment	3,08	0,3	3,38
Q12: How would you describe the capacity of SPECIALIZED diagnostic and curing medical equipment of your institution with regard to the existing needs?	Capacity of SPECIALIZED equipment	3,02	0,3	3,32
Q13: How up-to-date are the available SPECIALIZED diagnostic and curing medical equipment of your institution?	Recency of SPECIALIZED equipment	3,18	0,3	3,48
Q14: Do you have sufficient capacity (number) staff (professional and support) to deliver quality services?	Capacity of staff	3,27	0,1	3,37
	Average of all criteria	**3,19**		**3,40**

The survey questionnaire

Introduction

The Interreg V-A Romania-Hungary is co-financing cross-border cooperation in eight counties (NUTS III regions) in Romania and Hungary: Satu Mare, Bihor, Arad and Timiş in the former; Szabolcs-Szatmár-Bereg, Hajdú-Bihar, Békés and Csongrád in the latter. Following its approval by the European Commission,

the programme is expected to start in autumn this year. In order to finalize and submit the programme to the European Commission for approval we need your valuable support by filling in this questionnaire.

Improving the health status of the population requires good quality health services, which necessitates appropriate conditions – including buildings, facilities, equipment and human resources. As the conditions of delivering good quality health-care services are important aspects of also cross-border cooperation in the eligible area, one of the priorities of the programme will support actions to improve conditions for preventive and curative health-care services.

In this context it is important to have a general overview of the conditions of good quality service provided by health care institutions in the eligible area at the programme start, and also later, in order to identify the positive effects of the programme's contribution. For this purpose a survey is carried out among the health care institutions in the eligible area.

This simple survey consists of 16 questions. Questions 1-5 and 15-16 are for information purposes, collecting data that can help future programme implementation. Answers to questions 6-14 are used for quantifying the current status of key conditions for providing services. In those questions you are asked to self-assess various important conditions of your entity' service provision on a scale of 1 to 5. By answering the questions please provide an overall general assessment of the entire institution.

Please be informed that the survey is anonymous, the data provided are only used for the programme's purposes, and only in aggregated form. To have a realistic overview, it is crucial that you provide an honest self-assessment.

It is of utmost importance and highly appreciated that your organization contributes to this survey. Filling in the questionnaire requires maximum 15 minutes of your valuable time.

Thank you for your cooperation!

<u>The questions</u>

1. Please indicate the type of your institution
   Please mark the appropriate answer and press continue.

   Hospital
   Outpatient institution / polyclinic

2. What is the official service area of your organization? (Size of population covered by health care institutions)
   Please give the approximate number of persons.

Number of population (persons) [ ]

3. Did your organisation participate in cross-border health-care cooperation activities at the Romanian-Hungarian border in the past? (Such as experience exchanges, joint training programmes, joint development of equipment, etc.)
   Please mark the appropriate answer.

1	2
Yes	No

4. Would you consider cooperation in this area in the future useful?
   Please mark the relevant answer and press continue.

1	2	3
Yes	No	I don't know

5. What is the average age of major equipment (original value is above 20 000 EUR) at your organisation?
   Please indicate the estimated average age in years and press continue. If your institution do not have major equipment, please skip this question - do not enter any value and press continue.

average age [ ]

6. How would you describe the overall condition of your health care institution? (condition of diagnostic and curing equipment, other facilities)
   Please mark the appropriate value and press continue.

1	2	3	4	5
Poor				Excellent

7. How would you describe the condition of the general infrastructure (buildings, other facilities) of your institution?
   Please mark the appropriate value and press continue.

1	2	3	4	5

Poor Excellent

8. Do you have the necessary BASIC diagnostic and curing medical equipment in place?
Please mark the appropriate value.

1	2	3	4	5
We lack many basic diagnostic and curing medical equipment				We have all the necessary diagnostic and curing medical equipment in place

9. How would you describe the capacity of BASIC diagnostic and curing medical equipment of your institution with regard to the existing needs?
Please mark the appropriate value.

1	2	3	4	5
The capacity is far from sufficient, we struggle to meet even the basic needs				The capacity of these equipment is appropriate, we can meet the needs in our service area

10. How up-to-date are the available BASIC diagnostic and curing medical equipment of your institution?
Please mark the appropriate value and press continue.

1	2	3	4	5
They are completely outdated				They are of appropriate technological standards and in

very good condition

11. Do you have the necessary SPECIALIZED diagnostic and curing medical equipment in place?
Please mark the appropriate value.

1	2	3	4	5
We lack many SPECIALIZED diagnostic and curing medical equipment				We have all the necessary SPECIALIZED diagnostic and curing medical equipment in place

12. How would you describe the capacity of SPECIALIZED diagnostic and curing medical equipment of your institution with regard to the existing needs?
Please mark the appropriate value.

1	2	3	4	5
The capacity is far from sufficient, we struggle to meet even the basic needs				The capacity of these equipment is appropriate, we can meet the needs in our service area

13. How up-to-date are the available SPECIALIZED diagnostic and curing medical equipment of your institution?
Please mark the appropriate value and press continue.

1	2	3	4	5
They are completely outdated				They are of appropriate technological

				standards and in very good condition

14. Do you have sufficient capacity (number) staff (professional and support) to deliver quality services?
    Please mark the appropriate value and press continue.

1	2	3	4	5
We lack many people, we struggle to provide appropriate services				We have appropriate capacity of staff

15. How would you describe the level of cross-border cooperation of your institution for service specialization with your counterparts across the border?
    Please mark the appropriate answer and press continue.

1	2	3	4	5
There is practically no cooperation				We have excellent cooperation

16. Please rank the public awareness regarding the importance of health screening in your health care area?
    Please mark the appropriate answer and press continue.

1	2	3	4	5
Very weak				Excellent

5/b Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems

Priority axes	Specific objective	Result indicators	Measurement unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA5	Improved cross-border disasters and risk management	Quality of the joint risk management	Rate of preparedness	3,02	2015	3,19	quantitative survey (scale of 5) among the relevant organisations responsible for disasters and risk management in the eligible area	2019, 2021, 2023

Definition of the indicator

The proposed indicator measures the quality increase of the joint risk management, expressed in the rate of preparedness.

Definition of preparedness: quality of the joint risk management is a straightforward indicator for improving cross border disaster and risk management services. The quality of the joint risk management will be defined by those organisations that have responsibility in the risk prevention and disaster management actions in the cross-border regions. The organisations assess their level of preparedness in the most relevant disaster and risk management actions and capacities, including:

- ability and equipment to forecast natural hazards and detect anthropic hazards,
- status, condition of their equipment, tools and vehicles for disaster and risk prevention actions;
- capacity and preparedness to inform and mobilise the population in case of emergency situations;
- availability and implementation of risk and disaster management plans, protocols.

The level of preparedness of the disasters and risk management services will be defined using a survey that provides data values enabling quantification.

Types of organisations having responsibility in risk prevention and disaster management activities in the eligible area are as follows:

- In Romania, all bodies that are members of the county level emergency response and disaster management committees

- In Hungary, disaster management and emergency response activities are organized in a more centralized manner. The following organizations - that are present on county level - have a clear responsibility in the field of disaster management and risk prevention:
    - County level emergency response and disaster management directorates
    - County level professional fire protection organisation
    - County level water management organisation
    - County level ambulance organisation
    - Environmental protection institutions / agencies on county level
    - County level road management (maintaining) organisation
    - County Police
    - County level organization responsible for public health

Relation to the specific objective and actions

The result indicator under this Ip is "Improved cross-border disaster and risk management" – the proposed result indicator – "Improved quality of the joint risk management" provides a proper measurement for the specific objective - there is a close and direct link between the specific objective and the result.

The actions foreseen under this Ip are aimed at improving the most important conditions – physical and other - of disaster and risk-management, clearly and directly contributing to the better quality of joint risk management activities.

Type of organisations to be asked using the questionnaire

All county level organizations that have a responsibility in the field of emergency response and disaster management (see above for the definition of these organizations) are invited to fill in the survey. The exact organisations are nominated by the National Authorities/County councils.

Survey delivery and quantification

The envisaged duration for the completion of this survey and defining the baseline and target values is 3 weeks from receiving the proposed list of the organisations to be asked.

Method for survey delivery: web-based questionnaire.

The link to the questionnaire is sent to the selected organizations (contact details identified and provided by the county councils). County councils are asked to support the process also by standing behind the survey and encouraging the relevant organizations from their county to fill in the questionnaire.

In the questionnaire, there is a short introduction describing the context (the programme and that it is foreseen to support the development of emergency response capacities) and the purpose and use of the survey, as well as the importance of all organizations invited to participate in the survey.

Following the introduction a set of questions are presented. Questions 1 to 4 and 13 are for information purposes, collecting data that can help future programme implementation, but do not affect the quantification (for instance the proportion of organizations already involved in CBC emergency response activities).

Calculating the baseline value

When the questionnaires are filled in, the data are automatically collected in a simple database, and the quantification is done using the following process:

- Answers to questions 5 to 12 are used for the quantification of rate of preparedness. In those questions the participating organizations are asked to self-assess various important aspects of their emergency preparedness on a scale of 1 to 5.
- The average value of the answers to questions 5 to 12 is calculated for each question (that gives a value between 1 to 5 for each question);
- These average values are aggregated and then divided by the number of questions (8) – that gives the average rate of preparedness – and for the purpose of the survey this will be the baseline rate of preparedness for the eligible area.

The survey has to be repeated whenever necessary using the same questionnaire and asking the same target group. Thus the rate of preparedness can be compared over time.

Calculating the target value

The target value has been calculated based on the following expectations:

- Overall, the amount allocated to this Ip is fairly modest, so no major increase in the rate of preparedness may be realistically achieved.
- We have also assumed, that other interventions (mainstream and/or national programmes) shall also contribute to the improvement foreseen.
- Focused interventions can improve all aspects of rate of preparedness at the institutions affected by the interventions, which is expected to be a relatively small percentage of the potential beneficiaries.
- Taking all these into account we envisage a 0,2 increase at all but two aspects; one of them is the availability of important major equipment, given the volume and value of necessary equipment we expect a smaller change (0,1) here; the other aspect is the level of preparedness and training of population - given the size of the population covered by the institutions, again, only a smaller change (0,1) may be expected here.
- The target value of the indicator has been calculated taking into account these improvements.

In order to deliver the envisaged level of improvement (0,17), 17% of all respondents shall report an average 1.0 improvement (for instance from 3 to 4), also assuming that the rest of the respondents at least stay at the baseline level.
The following table provides the aggregated data from the survey used for quantification:

Original question	Short tag	Average - all respondents (baseline value)	Expected improvement	Target value
Q5. How do you assess the availability of the most important major equipment, tools and vehicles necessary for effective disaster and risk prevention actions, based on past experiences?	Availability of important major equipment	2,56	0,1	2,66
Q6. Please assess the overall condition of the equipment / facilities of your organization necessary for forecasting natural hazards and identifying anthropic hazards (forecasting emergency situations)	Overall condition of equipment / facilities (Forecasting emergency situations)	2,49	0,2	2,69
Q7. Please assess the overall condition of the equipment / facilities, tools and vehicles of your organization necessary for risk prevention	Overall condition of equipment / facilities (Risk prevention)	2,70	0,2	2,90
Q8. Please assess the overall condition of the equipment / facilities, tools and vehicles of your organization necessary for emergency response (addressing emergency situations).	Overall condition of equipment / facilities (Emergency response)	2,87	0,2	3,07
Q9. How effectively can your organization inform and mobilize the population in case of emergency situations, based on past experiences?	Effectiveness of informing and mobilizing population	3,21	0,2	3,41
Q10. Please assess the level of preparedness / training of the covered population to deal with emergency situations.	Level of preparedness and training of population.	2,79	0,1	2,89
Q11. How up-to-date the risk and disaster management plans / protocols of your organization are?	Recency of disaster management plans / protocols	3,87	0,2	4,07
Q12. How appropriate do you consider the general level of preparedness and training (including practical exercise) of your staff to effectively address emergency situations?	Level of preparedness and training of staff	3,63	0,2	3,83
	Average of all criteria	**3,02**		**3,19**

The survey questionnaire

Introduction

The Interreg V-A Romania-Hungary is co-financing cross-border cooperation in eight counties (NUTS III regions) in Romania and Hungary: Satu Mare, Bihor, Arad and Timiş in the former; Szabolcs-Szatmár-Bereg, Hajdú-Bihar, Békés and Csongrád in the latter. Following its approval by the European Commission, the programme is expected to start in autumn this year. In order to finalize and submit the programme to the European Commission for approval we need your valuable support by filling in this questionnaire.

As disaster management and emergency response are important aspects of cross-border cooperation in the eligible area, one of the priorities of the programme will support actions to improve the key conditions of risk prevention, disaster management and emergency response activities.

In this context it is important to have a general overview of the rate of preparedness of emergency response organizations in the eligible area at the programme start, and also later, in order to identify the programme's benefits. For this purpose a survey is carried out among the emergency response organizations in the eligible area.

This simple survey consists of 13 questions. Questions 1 to 4 and 13 are for information purposes, collecting data that can help future programme implementation. Answers to questions 5 to 12 are used for the quantification of rate of preparedness. In those questions the participating organizations are asked to self-assess various important aspects of their emergency preparedness on a scale of 1 to 5.

Please be informed that the survey is anonymous, the data provided are only used for the programme's purposes, and only in aggregated form. To have a realistic overview, it is crucial that you provide an honest self-assessment.

It is of utmost importance and highly appreciated that your organization contributes to this survey. Filling in the questionnaire requires maximum 15 minutes of your valuable time.

Thank you for your cooperation!

The questions

1. In what kind of disaster management and risk prevention actions does the organisation have relevant competence?
   Please mark the relevant type of hazard and press continue. You may select multiple options

	Type of hazard	1 (Yes) or 2 (no)
1	Extreme heat waves	
2	Droughts	
3	Wildfires	
4	Extreme thunderstorms; windstorms	

5	Floods	
6	Sudden unexpected flooding (flash flood)	
7	Inland excess water (higher than normal groundwater level)	
8	Landslides (mudflows, shallow landslides etc.)	
9	Industrial pollution	
10	Environmental pollution	
11	Water pollution	
12	Transport accidents	
13	Others	

2. What is the service area of your organization from disaster management and emergency response point of view? (Size of population covered by the risk and disaster management activities of your organization)
   Please give the approximate number of persons.

3. Did your organisation participate in cross-border disaster and risk management actions at the Romanian-Hungarian border in the past?
   Please select the relevant answer from the drop-down menu and press continue. (Please note that if you answer NO to the question, you are taken to Question 5 after pressing continue.)

1	2
Yes	No

4. Please indicate what kind of cross-border disaster management and risk prevention actions has your organisation participated in the past?
   Please mark the relevant types and press continue. You may select multiple options.

	Type of hazard	1 (Yes) or 2 (no)
1	Extreme heat waves	
2	Droughts	
3	Wildfires	
4	Extreme thunderstorms; windstorms	

5	Floods	
6	Sudden unexpected flooding (flash flood)	
7	Inland excess water (higher than normal groundwater level)	
8	Landslides (mudflows, shallow landslides etc.)	
9	Industrial pollution	
10	Environmental pollution	
11	Water pollution	
12	Transport accidents	
13	Others	

5. How do you assess the availability of the most important major equipment, tools and vehicles necessary for effective disaster and risk prevention actions, based on past experiences?
   Please mark the appropriate value and press continue.

1	2	3	4	5
Most of the key equipment, tools and vehicles are lacking				We have all necessary key equipment, tools and vehicles in place

6. Please assess the overall condition of the equipment / facilities of your organization necessary for forecasting natural hazards and identifying anthropic hazards (forecasting emergency situations).
   Please mark the appropriate value.

1	2	3	4	5
They are completely outdated				They are of appropriate technological standards and in very good condition

7. Please assess the overall condition of the equipment / facilities, tools and vehicles of your organization necessary for risk prevention.

Please mark the appropriate value.

1	2	3	4	5
They are completely outdated				They are of appropriate technological standards and in very good condition

8. Please assess the overall condition of the equipment / facilities, tools and vehicles of your organization necessary for emergency response (addressing emergency situations)?
   Please mark the appropriate value and press continue.

1	2	3	4	5
They are completely outdated				They are to are of appropriate technological standards and in very good condition

9. How effectively can your organisation inform and mobilize the population in case of emergency situations, based on past experiences?
   Please mark the appropriate value. If the question is not relevant for your organization, please skip and progress to the next question.

1	2	3	4	5
Not effectively at all				Very effectively

10. Please assess the level of preparedness / training of the covered population to deal with emergency situations.
    Please mark the appropriate value and press continue. If the question is not relevant, please skip and progress to the next question.

1	2	3	4	5
Poor				Excellent

11. How up-to-date are the risk and disaster management plans / protocols of your organisation are?

Please mark the appropriate value and press continue.

1	2	3	4	5
Not up-to-date at all				Completely up-to-date

12. How appropriate do you consider the general level of preparedness and training (including practical exercise) of your staff to effectively address emergency situations?
    Please mark the appropriate value and press continue.

1	2	3	4	5
Totally inappropriate				Totally appropriate

13. What is the average age of disaster and risk management vehicles and major equipment (with original value above 20 000 EUR) at your organisation? Please indicate the estimated average age (approximate number of years) and press continue.

    average age [ ]

11/b Enhancing institutional capacity of public authorities and stakeholders and efficient public administration by promoting legal and administrative cooperation and cooperation between citizens and institutions

Priority axes	Specific objective	Result indicators	Measurement unit	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
PA6	Intensify sustainable cross-border cooperation of institutions and communities	Intensity of cross-border cooperation	Rate of intensity of cross-border cooperation	3,46	2015	3,57	Survey among the public institutions operating in the eligible area	2019, 2021, 2023

Definition of the indicator

Cooperation intensity or degree of cooperation is an abstract term, referring to the quality of cooperation between two or more partners. Although cooperation is a process that evolves over time (or fades, for that matter), it is possible to seize its level of intensity or degree at any given moment.

The intensity of any cooperation may be described by a small number of key characteristics, including:

- The frequency of meetings and communication between the partners involved – how often do they actually meet;
- The existence and number of joint initiatives / projects / actions – do they actually have joint initiatives, do they act together? How often?
- The existence of documented record of cooperation – like for instance a cooperation agreement / cooperation action plan or joint protocols.
- Joint capacity development, training – do the partners have joint training or other capacity development programmes? How often?
- Exchange of knowledge or best practices – do the partners mutually support each-other by know-how transfer?
- Existence of a joint organizational structure and joint service provision

In addition to these characteristics that describe the cooperation intensity, it is also important how the partners themselves perceive the quality of cooperation. Do they think it is a good cooperation?

Using these key features of cooperation, it is possible construct a simple survey that leads to a scale indicator, measuring cooperation intensity.

Relation to the specific objective and actions

The specific objective is to intensify sustainable cross-border cooperation of institutions and communities. This literally means increase in the level of cross-border cooperation of the public institutions and non-profit organizations.

The increased value of the two output indicators (number of institutions directly involved in cross-border cooperation initiatives and number of people participating in cross-border cooperation initiatives) means higher intensity of cooperation: the more institutions take part in the direct cooperation and the more people are involved, the higher the cooperation intensity is.

The proposed sample

186 local authorities, public institutions, schools, and universities from the eligible area. It is proposed that those organizations are selected that are located closer to the border. In each category, the counties nominate the institutions meeting the criteria to be involved in the survey.

Details about the target institutions of the survey:

Type of Organization	Romania	Hungary	Total	Criteria
1. County seat cities	4	4	8	
2. Medium-sized towns (2/ county)	8	8	16	Towns with at least 10 000 inhabitants
3. Small towns (4/ county)	16	16	32	Towns with less than 10 000 inhabitants
4. Villages (4/ county)	16	16	32	Villages
5. County councils	4	4	8	
6. Primary, secondary or high schools (Ro) Primary or secondary grammar schools (Hu) (6/ county)	24	24	48	Preferably from the immediate neighbourhood of the border
7. Higher education institutions (universities and technical schools in Romania, universities and colleges in Hungary)	36	6	42	All from the eligible area
Total:	**104**	**74**	**186**	

Survey delivery and quantification

The envisaged duration for the completion of this survey and defining the baseline and target values is 3 weeks after receiving the proposed list of the institutions to be asked.

Method for survey delivery: web-based questionnaire.

The link to the questionnaire is sent to the selected institutions (contact details identified and provided by the county councils). County councils are asked to support the process also by standing behind the survey and encouraging the relevant organizations from their county to fill in the questionnaire.

In the questionnaire, there is a short introduction describing the context (the programme and that it is foreseen to support cooperation for institutions and cooperation for people) and the purpose and use of the survey, as well as the importance of all organizations invited participating.

Following the introduction a set of questions are presented. Question 1 is for categorising the type of organization, question 2 and 3 are for assessing the relevance of the organization for the survey's purposes. (If the answers both to questions 2 and 3 are no – meaning the given organization does not have in the present and did not have in the past partner(s) in the other country), the institution is asked to stop filling in the questionnaire, navigated to the submit page and that questionnaire is not used for the purpose of calculation). The rest of the questions are necessary for quantification.

Calculating the baseline value

When the questionnaires are filled in, the data are automatically collected in a simple database, and the quantification is done using the following process:

- Answers to questions 4 to 9 are used for the quantification of cooperation intensity. In those questions the participating organizations are asked to self-assess various important aspects of their cooperation intensity on a scale of 1 to 5.
- The average value of the answers to those questions of all respondents has been calculated for each question (aggregating all the values, then dividing the sum by the number of answers);
- The average values of all questions have then been summed up and divided by the number of questions – that gives the average rate of intensity of cooperation – and for the purpose of the survey this is the baseline rate of cooperation intensity for the eligible area

The survey has to be repeated whenever necessary using the same questionnaire and asking the same target group. Thus, the rate of intensity of cooperation can be compared over time.

Calculating the target value

The target value has been calculated based on the following expectations:

- Altogether the allocation to this Ip is modest, affecting a fairly small number of beneficiaries; therefore, even if considerable increase is expected in the case of the participating institutions, the overall improvement is still expected to be modest.
- The baseline score of meeting frequency is fairly high, so we expect a modest, 0,1 increase as a result of the interventions.
- In the case of the supported projects better documentation of the cooperation is foreseen - we expect a 0,1 increase there.

- The funding will make a measurable contribution to the delivery of joint actions - a 0,2 increase is foreseen.
- In the case of joint training / capacity development and know-how / best practive exchange we expect modest improvement of 0,1, as not all projects may involve these types of interventions.
- The perceived quality of cooperation is already at a promisingly high level, therefore we only expect a slight - 0,1 - increase regarding this criteria.

In order to deliver the envisaged level of improvement (0,11), 11% of all respondents shall report an average 1.0 improvement (for instance from 3 to 4), also assuming that the rest of the respondents at least stay at the baseline level.

The following table provides the aggregated data from the survey used for quantification:

Original question	Short tag	Average - all institutions (baseline value)	Expected improvement	Target value
Q1 How often do you have meetings with your cross-border partners?	Frequency of meetings	**3,96**	0,1	**4,06**
Q5 Do you have any written record (cooperation agreement, cooperation action plan, joint protocol, etc.) of your cooperation?	Written records of cooperation	**3,62**	0,1	**3,72**
Q6 Have you had projects / actions that you have implemented jointly?	Joint projects / actions	**3,47**	0,2	**3,67**
Q7 Have you had joint training programme or other form of joint capacity development?	Joint training / capacity development	**2,64**	0,1	**2,74**
Q8 Do you exchange know-how or best practices to help each-other's work?	Know-how / best practice exchange	**3,09**	0,1	**3,19**
Q9 How do you perceive the quality of cooperation with your partners?	Perceived quality of cooperation	**3,95**	0,1	**4,05**
	Average - all criteria	**3,46**		**3,57**

The survey questionnaire

Introduction

The Interreg V-A Romania-Hungary programme is co-financing cross-border cooperation in eight counties (NUTS III regions) in Romania and Hungary: Satu Mare, Bihor, Arad and Timiş in the former; Szabolcs-Szatmár-Bereg, Hajdú-Bihar, Békés and Csongrád in the latter. Following its approval by the European

Commission, the programme is expected to start in autumn. In order to finalize and submit the programme to the European Commission for approval we need your valuable support by filling in this questionnaire.

As cooperation of institutions and cooperation of citizens are crucial aspects of cross-border cooperation, one of the priorities of the programme will support actions to intensify sustainable cross-border cooperation of institutions and communities.

In this context it is important to have a general overview of the level of cooperation intensity at the programme start, and also later, in order to measure the programme's positive effects. For this purpose a survey is carried out among various institutions in the eligible area.

This simple survey consists of 9 questions. Questions 1 is for categorizing your organization, question 2 and 3 are for deciding whether or not the questionnaire is relevant for you. Answers to questions 4 to 9 are used for the quantification of cooperation intensity. In those questions you are asked to self-assess various important aspects of the intensity of your present or past cross-border cooperation on a scale of 1 to 5.

Please be informed that the survey is anonymous, the data provided are only used for the programme's purposes, and only in aggregated form. To have a realistic overview, it is crucial that you provide an honest self-assessment.

It is of utmost importance and highly appreciated that your organization contributes to this survey. Filling in the questionnaire requires maximum 15 minutes of your valuable time.

Thank you for your cooperation!

The questions

1. Please categorize your organization. Select the appropriate category and press continue.

County council	
County seat city	
Town	
Village	
Primary, secondary or high school (Ro) Primary or secondary grammar school (Hu)	
Higher education institution (universities and technical schools in Romania, universities and colleges in Hungary)	

2. Currently do you have partner organization(s) in Romania (for Hungarian organizations) / Hungary (for Romanian organizations)? (Partnership may mean having projects together, having sister-city relationship or twinning, etc.) Select the answer from the drop-down menu and press continue. (Please note that if your answer is YES, you are taken to question 4.)

1	2
Yes	No

3. Did you have partner organization(s) in Romania (for Hungarian organizations) / Hungary (for Romanian organizations) in the PAST? (Partnership may mean having projects together, having sister-city relationship or twinning, etc.) Select from the drop-down menu and press continue. If you had past partnerships, answer the following questions based on the experience of that partnership. (If you haven't had a partnership in the past, you will be taken to the "submit" page to finish the survey.)

1	2
Yes	No

4. How often do you have meetings with your cross-border partners? Please mark the appropriate value and press continue.

1	2	3	4	5
We meet very rarely				We have regular meetings, at least one meeting per year

5. Do you have any written record (cooperation agreement, cooperation action plan, joint protocol, etc.) of your cooperation? Please mark the appropriate value and press continue.

1	2	3	4	5
We do not have any written agreement or plan				We have documents that provide the framework for our joint actions and we update them regularly

6. Have you had projects / actions that you have implemented jointly? Please mark the appropriate value and press continue.

1	2	3	4	5
We have never implemented projects / actions jointly				We have multiple joint projects / actions every year

7. Have you had joint training programme or other form of joint capacity development? Please mark the appropriate value and press continue.

1	2	3	4	5
We have never had joint training or capacity development				We have regular joint training programmes and capacity development

8. Do you exchange know-how or best practices to help each-other's work? Please mark the appropriate value and press continue.

1	2	3	4	5
No, we have never shared knowledge or exchanged best practices				We regularly exchange know-how and good practices between us

9. How do you perceive the quality of cooperation with your partners? Please mark the appropriate value and press continue.

1	2	3	4	5
Poor				Excellent

Annex I-A

The ecological status/ecological potential of the natural /highly modified and artificial water bodies, rivers in the Hungarian side of the eligible area of the Interreg Programme V Romania-Hungary - Year 2013

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
Csongrád County					
The Tisa hydrographic basin					
I	very good				
II	good				
III	moderate	***Tisza***	***NWB***	***1/84.02 km***	***Szeged, Tápé ferry***
		Tisza	***NWB***	***1/84.02 km***	***Tiszasziget, state border***
		Paphalmi main canal	***NWB***	***1/6.68km***	***Röszke***
IV	weak				
V	bad				
Total Tisa hydrographic basin				3/90,7	
The Maros Hydrographic basin					
I	very good				
II	good				
III	moderate				
IV	weak	***Maros, east***	***NWB***	***1/22.21 km***	***Nagylak, state border***
V	bad				
Total Maros Hydrographic basin				1/22.21 km	
Csongrád County total				4/112.91 km	

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
Békés county					
Triple Kőrös hydrographic basin					
I	very good				
II	good	***Fekete-Körös***	***HMWB***	***1/20.493 km***	***Sarkad state border***
		Sebes-Körös upper section	***HMWB***	***1/44.142 km***	***Korosszakal state border***
III	moderate	***Feher-Körös***	***HMWB***	***1/9.74 km***	***Gyulavari state border***
IV	weak				
V	bad				
Triple Kőrös hydrographic basin total				3/74.375	
Maros hydrographic basin					
I	very good				
II	good				
III	moderate				
IV	weak	***Cigányka stream-canal***	***NWB***	***1/19.33 km***	***Battonya***
V	bad				
Maros hydrographic basin total				1/19.33	
Békés County total				4/93.705	
Hajdú-Bihar					
Kőrösök hydrographic basin					
I	very good				

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
II	good	Kis-Körös-main canal (from state border to Barát-stream)	HMWB	1/7.754 km	n.a
III	moderate	***Ér-main canal (from state border to outfall)***	***HMWB***	***1/8.482 km***	***Pocsaj***
		Berettyó (from state border to Ér- main canal)	***HMWB***	***1/6.111 km***	***Kismarja***
		Ér-main canal (from state border to outfall)	***HMWB***	***1/8.482 km***	***Border section Pocsaj***
IV	weak				
V	bad				
Hajdú-Bihar total				4/30.829 km	
Szabolcs-Szatmár-Bereg					
Tisa hydrographic basin					
I	very good				
II	good	Túr- lower section	AWB	1/12.00 km	n.a
		Keleti-belt-canal	AWB	1/24.799 km	n.a
III	moderate	Sár-Éger-canal	AWB	1/8.947 km	n.a
		Kraszna	***NWB***	***1/46.163 km***	***Mérk***
		Szamos	***NWB***	***1/50.133 km***	***Csenger***
		Túr-upper	HMWB	1/18 km	n.a

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
		Károlyi-stream	AWB	1/13.732 km	n.a
IV	weak	***Penészleki-I.-canal (-> state border)***	***HMWB***	***1/21.984 km***	***Fülöp-Penészleki road***
		Túr upper section	***NWB***	***1/18.448 km***	***Kishódos***
		Kraszna	HMWB	1/46.48 km	n.a
		Lápi-main canal and Lápi-side canal	AWB	1/20.400 km	n.a
V	bad	lower section-Öreg-Túr	AWB	1/37.496 km	n.a
Szabolcs-Szatmár-Bereg total				12/318.582 km	
Hungarian eligible area total				24/556.026	

Note: Although water quality is given for 24 river sections, only 15 measurement sections were nominated and taken into account in the calculations. These measurement points are indicated with bold and cursive letters.

Legend:

Ecological potential: very good – maximum ecological potential
good – good ecological potential
moderate – moderate ecological potential, tolerable
weak – weak ecological potential, polluted
bad – bad ecological potential, heavily polluted

Water Body categories:
HMWB – highly modified water bodies
NWB – natural or slightly modified water bodies
AWB – artificial water bodies

Source: Data is aggregated and provided by VM National Environmental Institution (Nemzeti Környezetügyi Intézet)

Annex I-B

The ecological status/ecological potential of the natural /highly modified and artificial water bodies, rivers in the Romanian side of the eligible area of the Interreg Programme V Romania-Hungary - Year 2013

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
SATU MARE county					
The Someş-Tisa hydrographic basin					
I	very good				
II	good	***Tarna Mare***	***NWB***	***1/17 km***	***Tarna la Bocicău captare***
		Tur-izvoare-captare Negreşti Oaş	***NWB***	***1/12 km***	***Negreşti/Tur***
		Tur -aval ac. Călineşti-Oaş-cf. Turţ	***NWB***	***1/17 km***	***av. ac. Călineşti/Tur***
		Tur -cf. Turţ-border Ro-Hu	***NWB***	***1/22 km***	***Micula (frontiera)/Tur Păşunea***
		Talna-av.cf.Racşa-cf.Tur	***NWB***	***1/20 km***	***Mare/Talna***
		Turţ	***NWB***	***1/24 km***	***Turţ amonte mina Turţ***
		Tur-av.capture Negreşti Oaş-am. ac. Călineşti	***HMWB***	***1/13 km***	***Turţ amonte confluenţa Tur amonte. ac. Călineşti/Tur***
		ReaValley and the affluents	***HMWB***	***1/91 km***	***captare Negreşti/Valea Rea, am. ac. Călineşti/am. Certeze/ Valea Albă***
III	moderate	***Racts and affluent***	***NWB***	***1/44 km***	***Egher- am. Livada***
		Someş-cf. Homorodul nou- border with Hungary	***NWB***	***1/22 km***	***râul Someş la Dara***

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
		Wine valley and the affluents	***NWB***	***1/33 km***	***amonte Poiana Codrului/Valea Vinului***
		Crasna -ac. Vârșolț-border Ro-Hu	***NWB***	***1/104 km***	Moiad/Crasna*, ***Supuru de Jos/Crasna, Berveni (frontiera)/Crasna***
IV	weak				
V	Bad				
Total Someş-Tisa hydrographic basin				12/419 km	
The Crişuri hydrographic basin					
I	very good				
II	good				
III	moderate	***Chechet --> izvor - cnf. Timis + the affluents***	***NWB***	***1/21.42 km***	***Sacaseni***
		Ier --> izvor - cnf. Rit	***NWB***	***1/60.23 km***	***Andrid –statie hidro***
		Santau --> cnf. Orbau - vars. in Ier + the affluents	***NWB***	***1/41.75 km***	***Amonte Sudurau***
IV	weak				
V	bad				
Total Crişuri hydro-graphic basin				3/123.4 km	
Total Satu Mare county				15/542.4 km	

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
BIHOR county					
The Crişuri Hydrographic basin					
I	very good				
II	good	***Bistra --> izvor - cnf. Cuzap***	***NWB***	***1/27.500 km***	***- am. Budoi - am. Pădurea Neagră***
		Bistra --> cnf. Cuzap - vărs. în Barcău	***NWB***	***1/19.133 km***	***- Chiribiş staţie hidro***
		Crişul Băiţa --> izvor - vărs. în Crişul Negru	***NWB***	***1/21.887 km***	***Baiţa Plai - Ştei***
		Crişul Negru --> cnf. Valea Mare -cnf. Nimăieşti	***NWB***	***1/13.245 km***	***-amonte Beiuş***
		Crişul Negru --> cnf. Poclusa -cnf.Valea Nouă	***NWB***	***1/39.508 km***	***-Tinca***
		Crişul Negru --> cnf. Valea Nouă – border Ro-Hu	***NWB***	***1/47.086 km***	***- Zerind***
		Crişul Pietros --> izvor - cnf. Boga	***NWB***	***1/11.016 km***	***-amonte conluenţa Boga***
		Crişul Pietros --> cnf. Boga -vărs.în Crişul Negru +Affluents	***NWB***	***1/51.830 km***	***-C. Pietros -cfl. C. Negru -Ştei-Aleu***
		Crişul Repede-- Def.Crişu Repede -->cnf.Iad -av. Def. Crişu Repede+Affluents	***NWB***	***1/26.970 km***	***-aval Suncuiuş***

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
		Crişul Repede --> out Def. Crişu Repede -în Ac.Lugaşu	*NWB*	*1/17.975 km*	*-amonte Aleşd*
		Dobrineşti --> izvor - vărs. în Crişul Repede	*NWB*	*1/11.018 km*	*-Cacuciu Vechi*
		Finiş --> cnf. Balateasa - vărs. în Crişul Negru	*NWB*	*1/17.06 km*	*Finiş*
		Meziad --> izvor - vărs. în Valea Roşie	*NWB*	*1/19.040 km*	*-am. Remetea*
		Nimăieşti --> izvor - cnf. Burda + Affluents	*NWB*	*1/26.670 km*	*- Budureasa staţie hidro*
		Pârâul Domnului --> izvor - vărs. în Holod	*NWB*	*1/11.184 km*	*-amonte conf. Holod*
		Sărand --> izvor - vărs. în Crişul Repede + Affluent	*NWB*	*1/26.060 km*	*-aval Sărand*
		Sighiştel --> izvor - vărs. în Crişul Băiţa	*NWB*	*1/15.429 km*	*-valea Sighiştelului*
		Şoimul --> izvor - vărs. în Poclusa + Affluent	*NWB*	*1/25.630 km*	*-aval. Şoimi*
		Valea Fâneţelor --> izvor - cnf. Corbeni + Affluents	*NWB*	*1/17.163 km*	*-Corbeni - aval Sacalasău*
		Valea Rece --> izvor - vărs. în Mnierea	*NWB*	*1/7.700 km*	*Ţeţchea*
		Crisul Negru --> izvor - cnf. Valea Mare + Affluent	*HMWB*	*1/53.810 km*	*Susti statie hidro*
		Crisul Repede --> cnf. Bonor – border Ro-Hu	*HMWB*	*1/34.416 km*	*- am. Oradea - Tarian - Cheresig*

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
		Holod --> izvor - cnf. Cornet	*HMWB*	*1/31.649 km*	*- capt. Drobresti*
		Iad --> out Ac.Lesu - vars. in Crisul Repede	*HMWB*	*1/20.949 km*	*Iad-Bulz (am. Red)- statie hidro*
		Ier --> cnf. Rit – border Ro-Hu	*HMWB*	*1/42.095 km*	*- Tarcea - Diosig*
III	moderate	*Barcău --> out Ac.Suplacu de Barcău - cnf. Bistra + Affluent*	*NWB*	*1/35.910 km*	*aval Suplacu de Barcău*
		Barcău --> cnf. Bistra – border Ro-Hu	*NWB*	*1/45.165 km*	*-aval Marghita (Sanlazar) - Parhida*
		Borumblaca --> izvor - vărs. în Barcău	*NWB*	*1/12.414 km*	*-Suplacu de Barcău*
		Chet --> izvor - vărs. în Barcău	*NWB*	*1/11.780 km*	*- amonte Marghita*
		Inot --> cnf. Patalusa - vărs. în Barcău	*NWB*	*1/7.888 km*	*-Marghita -amonte. cfl. Barcău*
		Mouca --> izvor - vărs. în Salcia	*NWB*	*1/12.386 km*	*- Şimian*
		Nimăieşti --> cnf. Burda - vărs. în Crişul Negru	*NWB*	*1/13.289 km*	*Nimăieşti - Beiuş*
		Uileac --> izvor – vărs. în Crişul Repede + Affluent	*NWB*	*1/23.600 km*	*-Ineu de Criş*
		Valea Nouă --> izvor - cnf. Fonau + Affluents	*NWB*	*1/48.770 km*	*Husasău de Tinca*
		Peta --> in Lac Peta - cnf. Hidisel p.	*HMWB*	*1/2.415 km*	*-Sânmartin - Lac Peta – mijloc*

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
		Peta --> cnf. Hidisel p. - vars. in Crisul Repede	***HMWB***	***1/12.707 km***	***- Peta av. Oradea***
IV	weak				
V	bad				
Total Crişuri Hydro graphic basin				36/862.347 km	
Total Bihor county				36/ 862.347 km	
ARAD county					
The Crişuri hydrographic basin					
I	very good				
II	good	***Bodesti --> izvor - vars. in Crisul Alb***	***NWB***	***1/15.340 km***	***Cil***
		Cigher --> av. Ac.Taut - vars. in Crisul Alb	***NWB***	***1/42.160 km***	***- Cigher- Zarand***
		Cleceova --> izvor - vars. in Crisul Alb	***NWB***	***1/13.290 km***	***- Buteni***
		Crisul Alb --> cnf. Chisindia - cnf. Cigher	***NWB***	***1/66.652 km***	***- Ineu statie hidro***
		Crisul Alb --> cnf. Cigher – border Ro-Hu	***NWB***	***1/38.980 km***	***Varsand***
		Hontis --> izvor - vars. in Sighisoara	***NWB***	***1/13.815 km***	***Hontisor***
		Mustesti --> izvor - vars. in Crisul Alb	***NWB***	***1/14.060 km***	***- Bontesti***
		Sebis --> cnf. Valceaua - vars. in Crisul Alb	***NWB***	***1/6.956 km***	***- Prajesti - Sebis statie hidro***
		Tacasele --> izvor - vars. in Crisul Alb + Affluents	***NWB***	***1/32.660 km***	***Avram Iancu***

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
		Teuz --> cnf. Grosei - vars. in Crisul Negru	***NWB***	***1/78.796 km***	***Teuz – Tamasda***
		Valea Mare --> izvor - vars. in Cigher + Affluents	***NWB***	***1/44.740 km***	***- Tarnova***
		Banesti --> izvor - vars. in Crisul Alb + Affluents	***HMWB***	***1/60.620 km***	***- Sarbi - Banesti Halmagiu***
III	moderate	***Chisindia --> izvor - cnf. Ciolt***	***NWB***	***1/15.810 km***	***Chisindia***
IV	weak				
V	bad				
Total Crişuri hydro-graphic basin				**13/443.879 km**	
The Mureş hydrographic basin					
I	very good				
II	good	***MURES, sector confl. Dobra-Lipova***	***NWB***	***1/78.52 km***	***Savarsin***
		MURES, sector Lipova-Arad	***HMWB***	***1/60.95 km***	***Soimos, Arad amonte***
		MURES, sector Arad-Romanian/Hungarian border	***HMWB***	***1/89.87 km***	***Nadlac***
		TROAS	***NWB***	***1/22.5 km***	***Savarsin/Temesesti***
		Pestis	***NWB***	***1/2.83 km***	***Caprioara***
		VALEA MARE	***HMWB***	***1/8.25 km***	***Nicolae Balcescu***
		BARZAVA	***NWB***	***1/16.46 km***	***Barzava***
		CLADOVA + Affluents	***HMWB***	***1/26.95 km***	***Baratca***
III	moderate	***IER***	***AWB***	***1/59.22 km***	***Turnu***
		FIAC	***NWB***	***1/10.92 km***	***Fiac***

Quality Class	Ecological status in 2013	Name of water body	Water body category	Number of water bodies/ length	Name of measurement point
		PARAUL MARE + Affluents	***NWB***	***1/30.0 km***	***Dorgos***
		SOIMOS	***HMWB***	***1/10.52 km***	***Soimos/Lipova***
		RADNA	***HMWB***	***1/6.75 km***	***Radna/Lipova***
		ZADARENI	***NWB***	***1/8.95 km***	***Zadareni***
		CRAC	***NWB***	***1/19.97 km***	***Nadlac/Crac***
		NWBAL MURES MORT	***AWB***	***1/24.07 km***	***Pecica***
IV	weak				
V	bad				
Total Mureş hydro-graphic basin				16/476.73 km	
Total Arad county				29 / 920.609	
Total eligible area situated in Romania				80/2325.356 km	

Note: all 80 nominated measurement sections were taken into account in the calculations

**- outside the program area*

Legend:

Ecological potential: very good – maximum ecological potential
good – good ecological potential
moderate – moderate ecological potential, tolerable
weak – weak ecological potential, polluted
bad – bad ecological potential, heavily polluted

Water Body categories:
HMWB – highly modified water bodies
NWB – natural or slightly modified water bodies
AWB – artificial water bodies

Source: National Environmental Protection Agencies / Romanian Waters National Administration