Integrated Land Development

(ILD)

Comparative assessment of the legal framework in riparian countries along the river Tisza in relation to changes in land use patterns

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This paper has been prepared as part of the UNDP/GEF-ICPDR 2009/2011 project entitled *Integrated land development (ILD) program to improve land use and water management efficiency in the Tisza basin*

The purpose of this comparison

The reason why the ILD programme included a comparative assessment of the land use patterns and the legal framework providing the opportunities to effectuate changes in land use methods in the Tisza countries was that the expert group of the project holds the view that extreme water management situations causing ever growing concern and huge damages along the Tisza can be derived from inappropriate land use practices. Inappropriate land use practices should be understood as the fundamental discovery of the programme, i.e. these days land is used and farmed in many areas by disregarding the key properties of physical geography and as a consequence the water surplus dealt with by the original natural water system is now considered to be a drag of the system due to the heavily modified land use methods.

The programme intends to integrate the river basin management approach, a key concept of the Water Framework Directive into the system by presenting current land use practices and the potential for an alternative use within the riparian countries along the Tisza. A complex and comprehensive approach would be necessary for reasons of achieving good state of the waters. This however can only be accomplished when an optimum land use pattern could be implemented within the entire river basin catchment where periodical excess waters can be accommodated and preserved for other seasons with less natural water replenishment. Such wise management of temporary water surpluses could represent a significant level of environmental, social and economic values and benefits.

In this comparative assessment the following conditions determining actual land use in the respective countries will be presented.

- Official registries and databases which not only record, but also mandatorily order the type of land use within any area, that is the purpose of that piece of land recognised by the state, including the related sets of rules.

- Procedural steps which theoretically ensure the communication between various land use categories and determine the room of movements within any one category.
- Water related damage relief operations which intend to serve the current method of land use within the area concerned, including subsequent compensation for damages in various forms.
- Subsidies and aid programmes from the European Union and the national subsidies having an impact on land use patterns and directions.

If you want to explore the potential for possible land use changes, the basic rules governing current land use and the factors influencing such rules have to be identified first. This paper has been commissioned by the UNDP/GEF – ICPDR ILD Tisza project in order to provide an overview on the current legal situation in the riparian countries of the Tisza river. The basis of the comparative assessment was a former study covering the Hungarian legal framework and incorporated into the ILD Manual, the main output of the ILD project. This review capitalised on the former results and compared them to the newly revealed in formation from the other countries. Of the riparian countries, information was received on the legal context of land use in Romania and in Serbia from contributing project partners, while the coordinating organisation UNDP Bratislava was instrumental in connecting us with the other ongoing projects along the Tisza, where project staff and local experts answered a questionnaire developed by the authors to provide information for the purposes of the assessment.

The object of land use

The object of land use in all the countries assessed is a clearly defined part of the surface of the Earth, used for some purpose of the society. Such social objectives, functions and purposes are reflected in Hungary in the land registry. This is an authentic public set of records which includes the key parameters for all landed property (ownership structure, size of land).

One of such basic data can be called a purpose of the respective piece of land. This can be broken down into two main categories. You can talk of agriculturally productive (cultivated or farmed) land and non cultivated or unfarmed land.

Unfarmed land

Unfarmed land can be further broken down into additional sub-categories. These sub-categories in Hungary include areas withdrawn from cultivation in relation to settlements, areas withdrawn from cultivation in relation to production and services, areas withdrawn from cultivation in relation to traffic and telecommunication, areas withdrawn from cultivation in relation to water management and areas withdrawn from cultivation in relation to defence.

All these are complex categories encompassing a number of areas with different names which can only be interpreted within the framework of the complex collecting category.

Land registries – i.e. a database arranging landed property in accordance with the ownership and proprietary relations – similar to that in place in Hungary can be found in all the other countries reviewed and their architecture is also very similar.

In Romania, landed property is distinguished according to its qualification as agricultural land, forested land, built-up land or even special purpose land.

In Serbia landed properties may be categorised as agricultural land, areas withdrawn from cultivation in relation to settlements, areas withdrawn from cultivation in relation to production and services, areas withdrawn from cultivation in relation to traffic, areas withdrawn from cultivation in relation to water management and areas withdrawn from cultivation in relation to defence.

In Ukraine, the registry differs from the ones listed for the other countries, yet the distinctions are assumed to cover similar land use categories after all to those in the other countries. Just like in the other countries involved in the comparative review,

agriculturally productive, farmed land is distinguished from unproductive or unfarmed land, where areas related to the settlements, areas not farmed due to nature conservation or environmental protection purposes, areas not farmed due to reasons of the common good, and areas not farmed due to recreational purposes are all included. Additionally, the forested land– which can be found within the category of agricultural land in the other systems –, areas related to water management are distinguished separately while industrial, traffic-related, energy related areas, areas serving communication and military purposes are included in a single collective category. And, provided any special area could not be categorised into any of the aforementioned categories, there is denomination called area with other purposes of use.

The legal possibilities for land withdrawn from cultivation with regard to water management purposes to put to agricultural use

In line with the objectives set by the ILD project, the assessment conducted within the riparian countries of the Tisza also covered land withdrawn from cultivation with regard to water management purposes. Here we investigated whether such land could be used for certain agricultural production, in other word whether it was legally permitted to take advantage of the same area for both water management and agricultural benefits.

In Hungary, there is a possibility for the fishing authorities to declare the open waters of a water reservoir managed by the water administration to be a fisheries area and thus multipurpose use for that area was possible. The same opportunity can be exploited in Slovakia, while in Romania there are no areas serving water management purposes which could be used for agricultural interests at the same time.

Both the water management law and the land management law deny the possibility to carry out agricultural activities in areas affected by water management operations. No such opportunity is known in Serbia.

The potential for using agriculturally productive land for water management purposes

At the same time it would be expedient to have a look at the opposite situation when productive land is used for water management goals. In Hungary, the recent programme launched a few years ago under the name the further development of the Vásárhelyi Plan (VTT) the respective law (the so-called VTT Act) provides the opportunity to water management authorities to use agriculturally productive land for water management purposes in order to establish flood safety.

Tapping the floods is envisaged by the VTT through controlled lateral discharge of flood water onto the fields. These fields are within so-called „emergency reservoirs", water retention structures based on flood polders in the inactive flood plain where otherwise agricultural operations are carried out routinely.

For this reason a number of water reservoirs have been completed or are currently under constructions. Completed structures include the Tiszaroff and the Cigánd reservoirs, two others are currently under construction.

Such emergency reservoirs are only inundated under extreme flood conditions as a rule, in other words when floods exceeding the design flood levels in effect from time to time can be expected. The land registry title deed of the land parcels situated within the water storage area of the reservoir were annotated and the parcels qualified the legal status of emergency flood relief reservoirs, which is deemed to be a limitation to some extent for the common good. Initially, certain agricultural activities were not permitted or permitted only at own risk in these areas, but several of these restricting rules and bans were lifted in 2010.

Additional objective of the VTT was to use these areas for the purposes of landscape management, in other words to establish a kind of agricultural land use pattern which is well adapted to the eventual temporary water surplus. Land owners were granted a one bullet payment as a compensation amount for their land being enclosed within the reservoir area. In case of inundations they are supposed to be given compensation again each time to reimburse the losses suffered due to the water cover on the land. This is

however such a large amount in the case of several reservoirs that the government is considering rather to expropriate these areas in order to avoid the huge expenses associated each time with the use of the reservoir.

In a similar spirit like the legal status of flood control reservoir area, the legal status for the so called high water river bed was also established for the respective areas, which was also annotated on the title deed sheets filed in the land registry. These areas would serve the purpose of increasing the water carrying capacities of the river under the VTT but they are to be associated with such severe restrictions in their potential for use, that no such area was exactly delineated as of yet.

In Hungary these areas can be considered as land of multiple use. There are such land parcels of multiple use in Slovakia as well, such as the agriculturally productive plots which are put to additional military or water management use. There are areas which resemble to those in Hungary which were qualified as flood relief reservoirs, and in the case of these areas the land owner is also entitled to receive compensation payments. The Slovak government intends to purchase such areas but no sufficient amount of resources were allocated for this purpose yet.

In Ukraine the agriculturally productive land parcels can be used for water management purposes provided they are situated in the floodplain of the rivers. It is not known if there were any compensation payments available to the owners for such kind of use.

In Romania, agriculturally productive land parcels are restricted to a single use, and in Serbia there is also no possibility available at the time being for multiple use of land.

Cultivated land

Agriculturally productive land which is cultivated by farmers is a category encompassing quite a large amount of land in all of the countries assessed. These areas are typically utilised by operations of crop production, livestock farming, fisheries, fish breeding,

production of reproductive seeds, wildlife management, forestry management, or mixed husbandry.

Agriculturally productive land put to cultivation and included in the Hungarian land registry files can be distinguished according to their type of cultivation, which is category defining the main direction of their use. The term type of cultivation provides the definition for the use of the landed property in question over a time span of several years.

Cultivation type categories	Hungary	Slovakia	Romania	Serbia	Ukraine*
Plough-land	**X**	**X**	**X**	**X**	
Vineyard	**X**	**X**	**X**	**X**	
Meadow	**X**		**X**	**X**	
Pasture (grassland)	**X**	**X**	**X**	**X**	
Garden	**X**	**X**		**X**	
Orchard	**X**	**X**	**X**	**X**	
Reed bed	**X**			**X**	
Forest	**X**	**X**	**X**	**X**	
Woodlot	**X**			**X**	
Fish pond	**X**			**X**	
Hop cultivation plot		**X**			
Intensive vegetable garden			**X**		

*Cultivation types recognised in Ukraine are listed under Article 19 of the Ukrainian Land Act.

Arable land

Any agriculturally productive land registered in any of the cultivation type categories listed above and situated in the outskirts of any settlement, i.e. being typically an area dedicated for agricultural or forestry purposes shall be deemed to be arable land in Hungary. This is a legal category associated with - among others - various restrictions on acquisition of property or obligations of use.

The acquisition of the property rights of arable land is restricted because of the interests of the national strategy related to it. Any natural person in Hungary shall only be entitled to possess maximum 300 hectares of land or land in a value of not more than 6000 Golden Crowns, while domestic legal persons are excluded from acquisition of arable land entirely, with the exception of the Hungarian State, local governments and public foundations. No such maximised land ownership structure exists in Slovakia, Romania or Serbia. There is no maximum size of land ownership in Ukraine, either, but it is determined that agricultural production shall only be carried out by a person in possession of land larger than 2 hectares.

Although no natural persons or legal entities of foreign nationality are allowed to acquire the property rights of Hungarian arable land, this prohibition can be violated in several ways. Arising from the EU membership of this country all citizens from other Member States would have been entitled to the same legal rights from 2011 on as the domestic citizens, but the Hungarian government was keen to extend this time limit with an additional three years in the course of the year 2010. One of the reasons why it was seen expedient to retain the moratorium is that domestic land prices are significantly lower than the EU average and therefore it can be feared that they fall victim to speculations and afterwards local farmers will have no chance left any more to compete against the agriculture of the other Member States.

Both Romania and Slovakia are members of the EU, thus the 7 years long land purchase moratorium is in effect for them. For Romania this period runs out on 1st January 2014, while in the case of Slovakia, which joined the EU the same time as Hungary did, the ban expires in 2011.

In Serbia or Ukraine neither foreign nationals, nor foreign legal entities are entitled to purchase agriculturally productive arable land.

A similar legal institution like arable land exists in Serbia and Slovakia as agriculturally productive land, but nothing similar is there in Romania. In Ukraine, all agriculturally productive land parcels and plots are covered by a uniform legislation, irrespective of

their category of cultivation type, therefore, in spite of not constituting a separate legal category presented as a regulatory category, they can still be regarded as a uniform category of landed property.

Obligation of cultivation

Users of landed property falling into the arable land category – regardless whether they use the area in their capacity as owners, tenants or leaseholder, maybe under any other title – are subjected in Hungary to use the land in accordance in the category of cultivation types it is registered under in the respective land registry. This obligation of cultivation is intended to serve the preservation of the quality of arable land as a national treasury.

For vineyards and orchards actually production according to the cultivation type concerned is a must, while for the others – except forests – it is sufficient for the user to maintain the condition of the land suitable for eventual cultivation without actual production. In the case of forests the rules of utilisation are laid down in a separate piece of legislation.

Failure of meeting the obligation of cultivation results by the property administration authority imposing a land conservation fine ranging up to two thousand times (!) of the so called Golden Crown value indicated in the land registry referring to the potential income which could be derived from the parcel concerned.

No obligation is prescribed with regard to cultivation in Ukraine. In Serbia and Slovakia agricultural land must be farmed in accordance with the respective type of cultivation they are registered in. Meadows and pastures are exceptions in Serbia because they may be left untilled. In Slovakia, this obligation mainly refers to the maintenance of the ecological status of the area, without however defining the way how to do it.

In Romania, land owners are obliged to cultivate agricultural land which includes the conservation of the soil as well. Provided the owner fails to meet this requirement, the

local government or the mayor will send a notice to him or her calling upon to rectify the situation. Having warned, the owner may also be subjected to the payment of a fine. Additionally the possibility exists that the owner will be officially confiscated his or her land. However, the Romanian partners were unaware of any such incidents so far.

The person subjected to land cultivation – the land user

Obligation of cultivation must be met in the case of arable land in Hungary by the user of the land. Land user is a person who actually physically uses the piece of land concerned. This may obviously be the owner, a tenant, a leaseholder or any other person using the land under a legal title.

Lease holding is possible in Romania, Serbia and Slovakia and no territorial limits exist. In Although not prohibited land leasing is not typical in Ukraine.

In Serbia, there is a range of legal persons who are entitled by the government to use land for free. Such entities include schools, agricultural service providers, universities or certain social institutions. Land leased by the government agencies can be taken for minimum one and maximum 20 years, which is increased to a maximum period of time of 40 years for fish ponds and orchards.

Land use registry

In parallel with the land title registry (properties and real estates) there is also a registry for land users in Hungary, which does not handle properties according to the ownership and proprietorship relations, but on the basis of their actual users. Anybody farming land in a size in excess of one hectare – irrespective whether it is in a single parcel or several parcels – must be reported in the land use registry, even if the owner and the user are the same. Forest managers are recorded in a separate registry in the National Forestry Database.

No such land use registry exists in Slovakia, but local governments hold a database related to taxation which is based on the tenancy agreements concerning the landed property within the administrative area of the local government in question. Additionally, users must be entered into this cadastre database which corresponds to the Hungarian land use registry. However, this reporting obligation is sometimes not met, therefore the records of this database are incomplete from this point of view.

No special registration systems are in place in Serbia and Romania for land use, yet in the latter case there must be a kind of registration system which is essential in order to take advantage of the agrarian subsidies and aids provided by the European Union. Unfortunately, the details of these records could not be identified by the Romanian partner.

In Hungary, yet another database exists for the purposes of agricultural aid payments, called the Agricultural Parcel Identification System (MePAR), recording land users and the respective land used by them. The latter however is not filed per topographical numbers as it is done in the land registry, but by the so called physical blocks. The Agricultural and Rural Development Agency would only and exclusively take into account the particulars and data recorded in this registration system for the purposes of aid applications and payments. There is a recording system something like MePAR in Slovakia, but the data included in it are not public. In Hungary, MePAR can be accessed by anybody for certain particulars by visiting the www.mepar.hu homepage.

There is also no land use registry Ukraine, since land ownership is usually not parting with land use, in other words the owner of the land is the same person who actually farms the land. Serbia is also mainly characterised by owners using their own land themselves.

The land lease system is well established and thriving in Slovakia, just as it does in Hungary. In Hungary, the reason for this is that the property structure is far from optimal. Fragmentation is widespread and typically a land owner has several little parcels physically at a distance from each other which can not be economically farmed together. Therefore, even land users who have a sufficient amount of land are still forced to lease

further plots because their plots are scattered around. Which apparently means that smaller parcels of the first owner can only be put to good use when another leaseholder takes them.

The make-up of Hungarian land ownership could be improved by a comprehensive land consolidation procedure. Until such a project is not completed, parcels farmed in a single piece are being formed using the lease holding system. This size of these pieces can be regarded as viable from the European Union perspective, i.e. eligible for aids and also can be farmed profitably by the user.

The current state of the Hungarian land ownership structure can be attributed – in addition to the misplaced restitution process – to the fact that no land consolidation law exists. Although the Hungarian Act on Arable Land back in 1994 refers to the creation of such a piece of legislation but the actual legal regulation is still in the pipeline. Legislators provide the opportunity to voluntary land swaps at the time being, which however has not got the potential to substantially improve the structure.

No land consolidation acts are in place in Ukraine and Romania. In the latter state land consolidation was sparsely observed nevertheless. In Ukraine the average size of a parcel is merely 0.14 hectare, while the average size of landed properties in Romania ranges up to 3.37 hectares, physically divided up in average in 3.73 parcels. Romania otherwise is characterised by a double fold approach in terms of land use in agriculture as extremely tiny parcels are common in the mountains while the typical size of the large farms in the plains is more than 100 hectares. The overall size of agriculturally productive land in Romania is 14.7 million hectares, which keeps on declining due to an afforestation programme in effect and self triggered forestation is also common. According to our Romanian partners holdings consisting of several minor pieces may also be beneficial when an eventual flood, drought or other natural disaster hits the region and not all of the pieces are affected the same way, thus continuing to provide a kind of livelihood.

Serbia has no rules on land consolidation but a land consolidation process took place back in time between 1961 and 1965. At the time this was triggered by the fragmented and

scattered location and the irregular shapes of the pieces, by the construction of water drainage and irrigation structures as well as by setting up dirt roads, railroads and public roads. In the course of the consolidation process the prevention of soil erosion was also a priority set. Even though no land consolidation law exists, arable land parcels shall not be smaller than 1 hectare. This rule however defined the smallest size as 0.5 hectare in the areas subjected to land consolidation efforts earlier on.

Holding sizes in Serbia					
less than 1 ha	between 1 and 5 ha	Between 5 and 10 ha	Between 10 and 50 ha	Between 50 and 100 ha	more than 100 ha
20%	20%	40%	10%	8%	2%

As opposed to the other countries, Slovakia has a land consolidation act in place yet only a small number of project were started and even less completed. Maybe one of the consequences can be seen in the fact that minor holdings and scattered locations characterise the Slovak land ownership structure as well. Typical farm sizes are between 1 and 5 hectares, but there are also larger pieces which are however less than 50 hectares. Considering the location of pieces and parcels in holdings, scattered locations characterise Serbia and Ukraine as well.

Separate land consolidation legislation				
Hungary	Slovakia	Romania	Serbia	Ukraine
none	**exists**	none	none	none

The ILD project team carried out an assessment on the possibilities of a small scale land consolidation project in the Hungarian pilot site, but in lack of legal regulations such an objective could be implemented only based on the goodwill of the affected owners and users or by making them interested in some way – typically through financial benefits. The approach of Hungarian farmers may have something to do with their receiving incomes through the EU funded single area payment scheme and are therefore not encouraged to establish the most efficient agricultural operation arrangements with the help of land consolidation measures.

Agricultural aid schemes

Hungary, being a Member State of the European Union, is a beneficiary of the Common Agricultural Policy (CAP). The largest part of the CAP is made up of aid schemes granted to agricultural producers of the Member States. The key sources of these funds include the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD), as well as the European Fisheries Fund.

Single area payment schemes (SAPS) are financed from the EAGF. The point in this scheme is that beyond a certain size of area the producer, who must be registered with the Agricultural and Rural Development Agency – MVH – shall complete an application form indicating for which pieces of his or her areas he or she requests financial aids. Although this process is somewhat more complicated than this from the administrative perspective, yet the point is that an application form dedicated for this purpose, the so called uniform application sheet must be completed. In order to become eligible to this amount, land users are only requested to carry out agricultural activities meeting the requirements of a more simple set of land use criteria defined as the Good Agricultural and Environmental Conditions.

It has to be noted in relation to the single area payment schemes that although all of the current Member States are entitled to such schemes, yet the payment level of countries already being Member States at the time of the 2004 enlargement is higher than that of the new coming states. This can not be compensated for by the new Member States using their own national resources, only a certain amount of supplementary aids (top up) can be granted to their own producers. The system is intended to break even by the end of the 2007-2013 EU budgetary period, in other words the subsidies given to the EU 15 is also diminishing gradually from 2007 on, while that of the new Member States is increased continuously. Whether or not there will be any area based payment in the next 7 years budgetary period starting with 2014 – and if yes, in which form –, is a function of the review of the CAP to be completed by that time, but attempts are made to separate aids from production.

The rules governing the use of EU funded aid schemes are based on the Community legislation, therefore such rules are similar for three Tisza countries, Hungary, Romania and Slovakia.

EAGF funds in Hungary could be applied for in respect of certain activities specified in the New Hungary Rural Development Programme (ÚMVP). The programme is built on four axes. The first axis supports various investment projects, and the second provides subsidies to environmentally sound husbandry methods. This is not a *per se* aid, more of a kind of compensation paid to the producer to use less destructive methods of agricultural production, assuming that this way his or her revenues will be reduced radically. The third axis deals with rural development and intends to strengthen the population retention potential of rural areas while the fourth axis supports local initiatives, organised in Hungary through the LEADER groups.

Environmental management

Resources for the implementation and maintenance of the landscape management methods suggested by the ILD project can be obtained under the current subsidy system by applying for the environmental management aids and compensation payments available under the second EAGF axis. The aid schemes available under the agro-environmental management system, support given to the maintenance of Natura 2000 grasslands, aids available for the renewal of agroforestry systems, subsidies given to the forestation of agricultural land, and the support granted to the farming of livestock which is significant from the agricultural perspective must be highlighted here. Part of the aids is not bound by physical location, it can be used anywhere. This is called the horizontal support schemes, while there are also zonal target programmes, which are available only for special areas. Zonal target programmes are for instance the aids available for the purposes of maintaining Natura 2000 grassland, which can only be used in areas qualified as Natura 2000 areas.

The Romanian agro-environmental programme was defined in the (Romanian) National Rural Development Plan, under which financial aids can be applied for in the form of

zonal targeted programme to maintain HNV grasslands (no artificial fertilisers and pesticides for 5 years, one grass cutting annually), traditional meadow harvesting (manual hay cutting), and to manage grasslands valuable for bird species [corn crake (Crex crex), shrike (Lanius minor)]. The National Rural Development Plan does not include organic farming in particular, but national subsidies can be applied for, even though only negligible size of land is affected by it. Mainly vegetables and fruits are produced this way, with grains and forage crops slowly gaining ground.

Farmers are not entitled to EU aids in Serbia and Ukraine, they can only reckon with national state subsidies. In Serbia owners receive an amount equivalent to 130 Euros from the state provided they pay their social and health contributions in a specified manner. There is no such subsidy which could be aimed specifically at the preservation of environmental assets such as the agro environmental programme. Organic farming may be supported by applications for subsidies but both the amount and the physical area concerned are insignificant. The economically substantial amount of produces are grown conventionally.

In Ukraine environmentally sound farming is subsidised using national resources but unlike the other countries the producer is given the aids proportionally in relation to the amount of produces produced and not according to the amount of land farmed.

In Slovakia no special aids are available for organic farming but there is an agro-environmental program in place, under which farmers are granted area based payments pursuant to the effective regulations of the European Union. Additionally, subsidies may be applied for as well for the purposes of maintaining Natura 2000 areas. The amount of payments is the highest where soil conditions are poorer and the area can be qualified as a disadvantaged (least favoured) area pursuant to the effective law. The amount of aid which available for the maintenance of grasslands under the agro-environmental programme is quite low, it is insufficient even to cover the additional costs arising from the special management practices. Farmers get less than they do under the single area payment scheme, or under the rules applicable to certain special grasslands, therefore the

amount received would not cover the costs of land use changes necessary for the ILD project.

Agricultural subsidies and the force majeure events arising due to natural disasters and extreme weather incidents

For a significant part of the agricultural aids the user of the land would undertake compliance with a set of criteria. In return for the agro-environmental compensation payments and aids agricultural producers must refrain from conducting certain operations and must carry out others in the appropriate manner and at the appropriate time. With regard to investment supports, they have to build certain facilities and procure certain machinery. Such commitments must be met by the producers, but there are situations in life when the legislator acknowledges that under such circumstances the commitments undertaken are difficult or impossible to comply with. Such cases are deemed to be force majeure, that is conditions, acts or incidents which can not be foreseen and the consequences of which can not or can only be prevented by unrealistic sacrifice in the given situation even when due diligence is exercised. Natural disasters and extreme weather conditions falling into this category include earthquakes, floods, storms, droughts, incidents of excess surface water and fire, hailstorms, and frost.

The ILD programme proposes landscape development and management just for the purposes to mitigate the extent of damages arising from extreme water management incidents, which may result in reduction of the adverse effects of floods, excess water stagnation and drought – qualifying as force majeure events with respect of aids – and the size of the area affected by them. Reporting a force majeure situation means that the farmer was unable to meet his or her obligation due to causes beyond his or her control, therefore the aid is still paid or should not be returned as ineligible payment. So it can be stated that such life situations provide exemption under certain circumstances.

However, the changeable weather patters of these days produce incidents where such a situation can not be properly tackled. For instance, you may recall the agro-environmental target programme where eligible and subsidised farmers have undertaken the commitment

for a five years period and there is only two business years when he or she may report a force majeure event – eventually, several times during that year – and when he or she is still granted the aid payment in spite of the fact that the commitment undertaken is not complied with. The current programme commenced in 2009 in Hungary and due to the flood and water stagnation incidents in 2010 and expected for 2011 many farmers will have to take advantage of the exemption provided pursuant to the rules concerning force majeure events. In fact, the force majeure regulation offers only a subsequent financial compensation of water related damages but it is not well suited to prevent such damages.

This type of damage relief and damage prevention related to European Union aid schemes can only be applied to those Tisza countries which are Member States of the EU. In Hungary there are additional measures available to mitigate agricultural losses.

Mitigation of agricultural losses

There is a partially voluntary and partially mandatory financial loss mitigation fund, which is dedicated to mitigate the elemental damages and losses incurred on arable land. The government would top up the amount in this fund with at least as much as it was received from farmers' payments. In this system the risk factors overlap force majeure conditions. In the system of agricultural loss mitigation, damages caused by hailstorms, drought, stagnating water and frost are deemed to be elemental losses.

The system of agricultural loss mitigation is not available to users of land registered in the cultivation categories of meadows or pasture land (grassland), and they are not bound to pay. On the other hand, users of vineyards and orchards pay more assuming that plantations are more prone to certain kinds of elemental damages. In other words, the size of the losses caused to arable land may vary according to the respective type of cultivation and use.

In the event the elemental damage in question happens to be excess water stagnating on arable land, it has to be drained from agriculturally productive land in a certain order, starting with plantations and followed by the fields under crop, plough land, forests and

finally grazing land. Reverting the order it can be stated that least severe damages occur on land cultivated as grazing land. It has to be noted that damages in this context are understood only in economic terms as water cover for a certain period of time does not really cause any environmental damages. It is prohibited to drain surface waters (excess water) from grassland (meadow and pastures or grazing land) under the Natura 2000 scheme, that is belonging to the EU habitat conservation or bird protection areas because this operation is in conflict with the nature conservation targets. Natura 2000 areas exist in Romania and Slovakia beside Hungary, Serbia has identified areas which will qualify as Natura 2000 areas while there is no such area in Ukraine, at least in the legal sense.

There is a compensation scheme in place in Slovakia to mitigate losses caused by natural events. In line with the EU rules, when losses suffered by farmers and fishermen exceeds 2.000 Euros, that of forest managers 5.000 Euros, they will receive compensation. Provided the applicant had an insurance policy in place, 80-90% of the losses, if no insurance was in place, approximately 50 % of the losses are covered for the producer, who does not need to pay any contribution for this to the Slovak loss mitigation fund.

In the case of the other countries investigated no such loss mitigation system exists. In Romania government subsidies may exist but the state encourages farmers to take out insurance policies instead. In Ukraine the government provides compensation at the cost of the budgetary reserves only in case of necessity. In Serbia, budgetary subsidies are exceptional cases. When the damage was caused by water, it is more typical that taxes payable in the current year or water drainage fees are remitted. Which also entails that land owners in Serbia pay for the drainage of stagnating excess water, and the fee includes continuous maintenance of the water management systems as well.

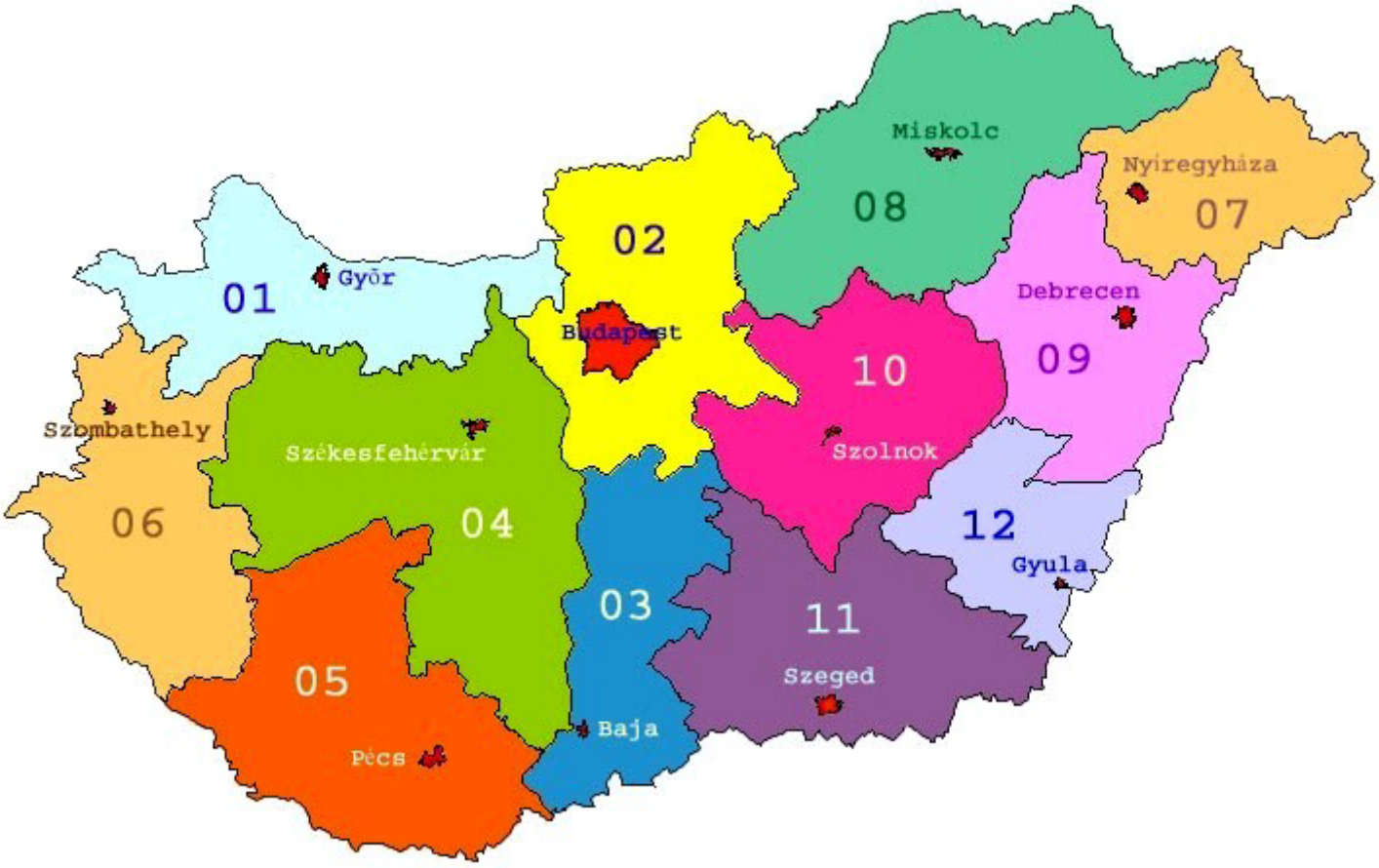
Water related damage mitigation

Both the arrangements mentioned in the section on force majeure and the systems of agricultural loss remediation intended to mitigate or reimburse the financial losses related to the damage subsequently. Water related damage mitigation may be a subsequent technical operation but the fundamental aim of water related damage relief is prevention.

Water related damages encompass damages and losses arising from excess and surplus water – floods and stagnating water –, as well as from water shortages – drought. This basically includes the completion of three different tasks. Task one includes the drainage of floods, that is the periodical surplus water flow of rivers reined between the flood control works constructed purposefully for this reason, and localisation and returning the discharged water volumes in and from the inactive floodplain into the receiver as soon as possible. Task two includes drainage of stagnating water, that is periodical excess water originating from various sources of precipitation and groundwater from areas where water cover is undesirable and task three involves the operations providing water supply to areas affected by water shortages.

In Hungary mitigation of water related damages is included in the notion of water management and administration and a significant organisation was built up to provide relief in case of water related damages. Water related damages occur typically in areas with indented uses other than water drainage or storage. The competence of the organisations in the protected side (the inactive floodplain) depends on who owns the water management structures in question. Flood control is basically a function of the government, taken care of by the state through water directorates. The national water administration consists of 12 regional water directorates in Hungary, but they are not organised overlapping the respective catchment areas like in Romania. Hungary is situated within the Danube river basin and includes four sub-basins within the country. These are the direct catchment of the Danube, the sub basins of the Tisza, Drava rivers and the Lake Balaton. Water directorates are geographically organised as follows.

01. – Northern Transdanubian Environmental and Water Management Directorate
02. – Middle Danube Valley Environmental and Water Management Directorate
03. – Lower- Danube Valley Environmental and Water Management Directorate
04. – Middle- Transdanubian Environmental and Water Management Directorate
05. – Southern- Transdanubian Environmental and Water Management Directorate
06. – Western- Transdanubian Environmental and Water Management Directorate
07. – Upper-Tisza-Region Environmental and Water Management Directorate
08. – Northern-Hungarian Environmental and Water Management Directorate
09. – Over the Tisza Environmental and Water Management Directorate
10. – Middle- Tisza-Region Environmental and Water Management Directorate
11. – Lower- Tisza-Region Environmental and Water Management Directorate
12. – Körös-Region Environmental and Water Management Directorate



Source: http://www.vkki.hu/index.php?mid=69

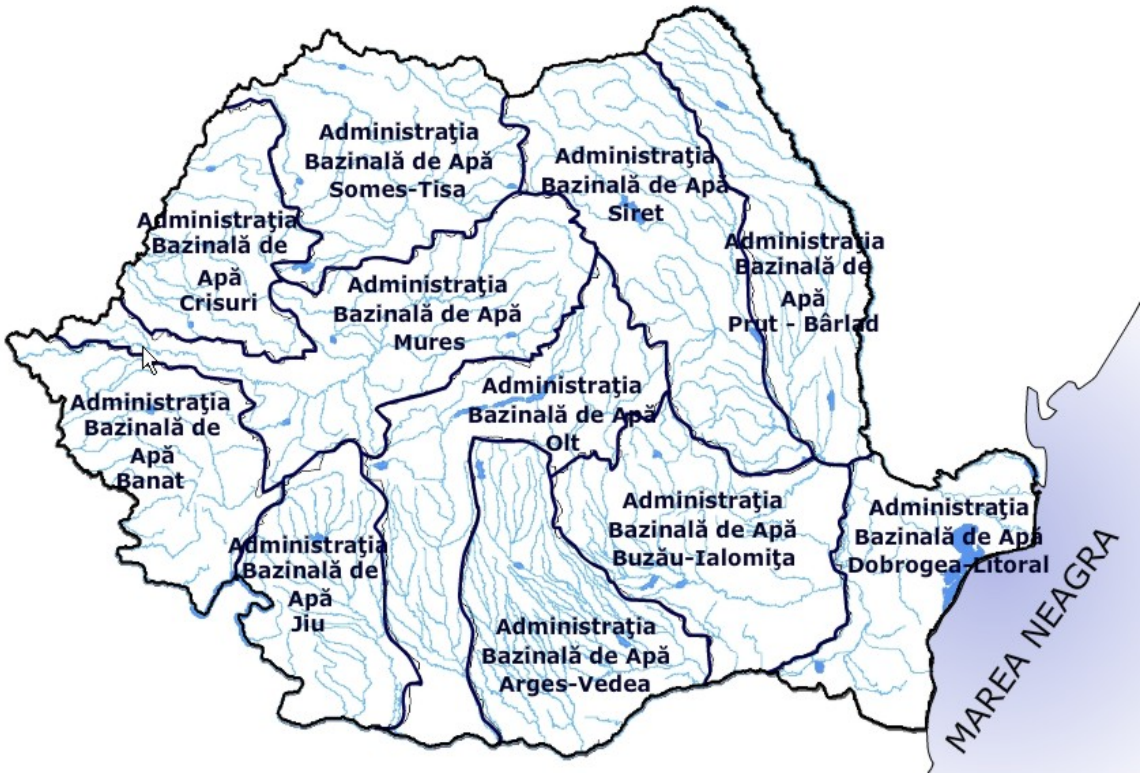
Water administration directorates carry out flood control operations on flood control structures owned by the state. There are however flood control works owned by local governments where control operations is basically the responsibility of the respective municipalities. Local governments are also charged with the task of controlling water stagnation caused by excess water in the built up areas within their respective administrative boundaries. In order to do so local governments are expected tom maintain water control works such as ditches and canals within the built-up areas. Excess water control in the outskirts is the function of the water associations. Water associations are organised geographically and each of them conducts their operations within their own jurisdiction, including drainage of stagnating water and providing irrigation water. Members of the water management associations are the land users within their areas of jurisdiction and members may include local governments as well. Financial resources for the water associations is provided exclusively by the state from 2011 on, since the stakeholder contribution payable by the land users was abolished.

Control activities are carried out on the basis of the flood control and excess water control plans, respectively. Various states of emergency can be ordered as a function of the actual water level, which has three grades ranging from I to III. Should the need arise, special emergency can also be ordered. Control operations are organised in the respective flood control sections along the river course and in the respective excess water systems.

Following the general elections in 2010 Ministry of Environmental Protection and Water Management, which hosted the flood control administration earlier on, was merged with the Ministry of Agriculture and Rural Development, which in turn was in charge of excess water control and irrigation. These two ministries jointly form the Ministry of Rural Development, where all tasks associated with the control of water related damages are thus unified – less, of course, local governments and the also another idea was raised that the functions of the local governments would be taken over by the unified water administration structure, since local governments and municipalities are lacking resources and properly trained staff.

The functions of the water authority in Hungary are exercised by the National Environmental Protection, Nature Conservation and Water Management Chief Inspectorate on a nation-wide mandate (OKTVF), and the regionally cognisant Environmental Protection, Nature Conservation and Water Management Inspectorates corresponding to the areas of the water directorates. Control of water related damages is the task of the water directorates as a rule, but establishment and operation licenses with regard to water rights for instance to construct reservoir spaces or other types of control works are issued by the OKTVF, or the competent inspectorate.

In Romania the national water administration authority (National Romanian Waters Conservancy) is supervised by the environmental department, controlling 11 water directorates organised in line with the catchment areas concerned (water conservancies). Conservancies consists of section engineering offices and water systems.



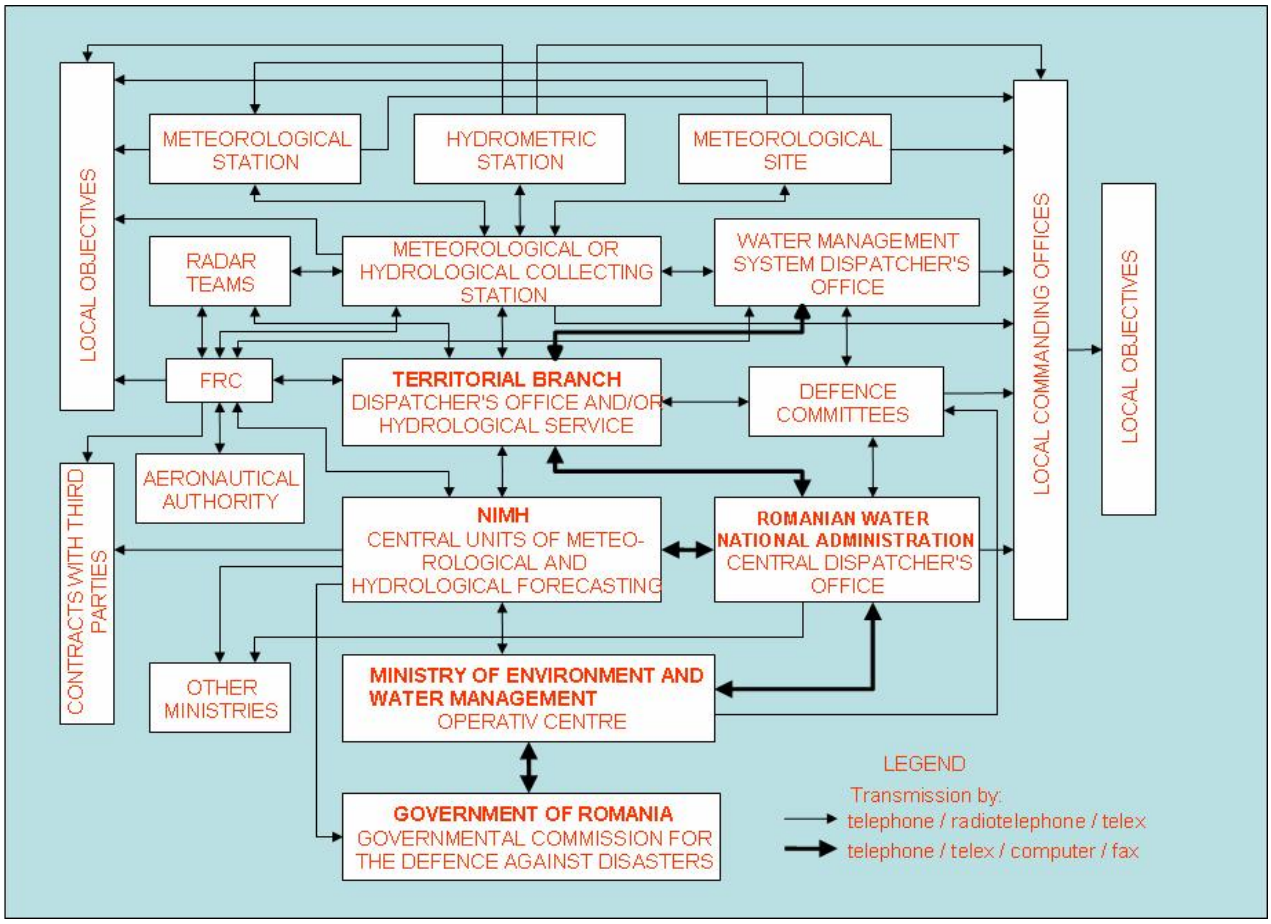
Water directorates (water conservancies) in Romania
www.rowater.ro

Flood control and hence, water related damage mitigation in Romania is not associated with the water administration – and hence, not with the respective sub basins –, but with administrative unit such as counties or communities. The body in charge is the disaster

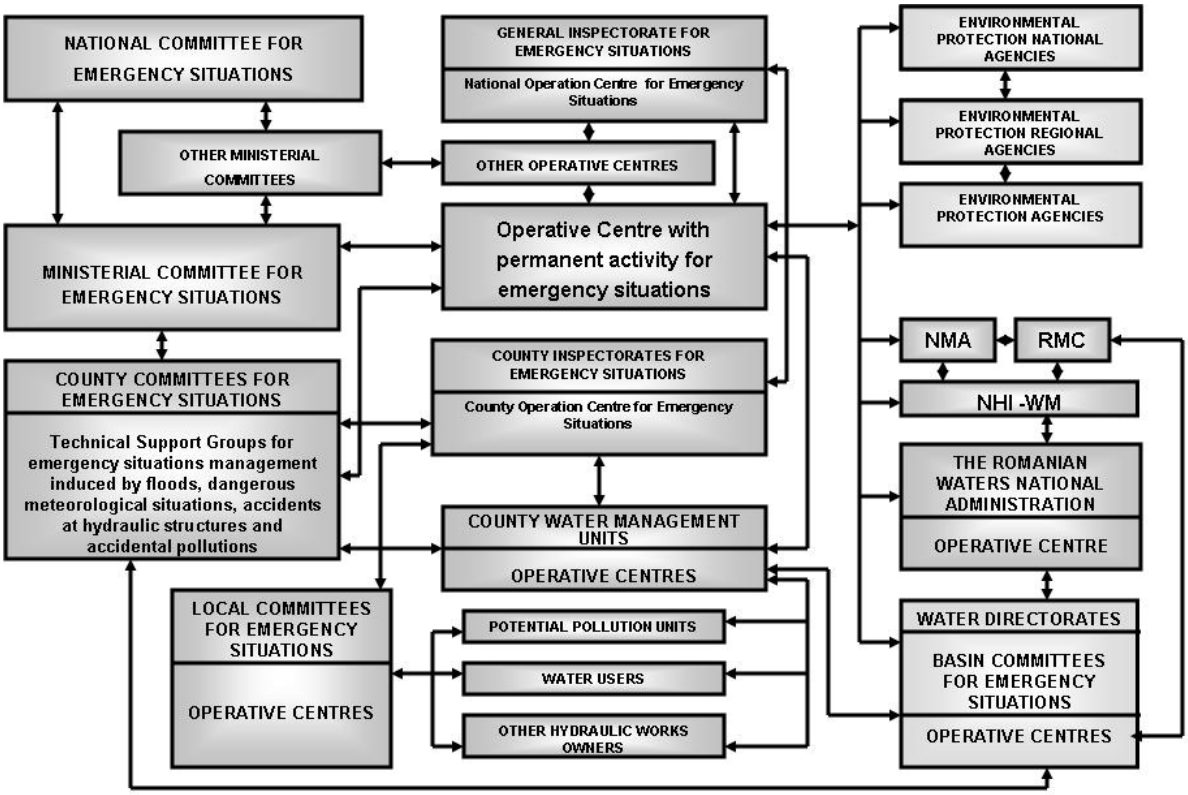
relief committee chaired by the mayor in settlements and the prefect in the counties, respectively.

Flood control legislations are included in a single disaster relief law in conjunction with control function related to other disasters and natural calamities such as dangerous weather conditions, disasters of hydrotechnical structures and contamination incidents arising from accidents or operating troubles. The body in charge of preventive measures and damage mitigation is the county disaster relief committee as mentioned before. This committee develops the prevention action plans and actions plans to be put in effect in case of calamities, where community and county level tasks, functions, actions and responsible persons are specified in details.

County level disaster relief plans are used by water directorates to set up their own disaster relief plans for the respective river basins, which concerns the entire catchment area, but are applied only when the emergency situation is extended to the entire river basin such as big floods.



Information flow in case of floods in Romania (Source: www.rowater.ro)



A special feature related to the water rights licensing procedures and system is that in Romania the water authorities request such a license the issue of which is also within their own competency.

Upon accession to the European Union Romania transposed the complete Community legislation related to water administration and management including the Water Framework Directive, therefore she can be considered to conform to the EU.

In Serbia the currently effective Water Management Act entered into force in March 2010, in which legislators took notice of the EU framework of requirements in spite of the fact that Serbia is not a Member State of the EU.

The Act provides for the legal status of both surface and underground waters, management of waters and water management structures, financing the related activities and the supervision thereof. However, the water administration failed to accommodate entirely the novel framework of regulations.

Water issues in Serbia are currently dealt with by three horizontally organised public companies providing the same services and tasks: SRBIJA VODE (Serbia proper), BEOGRADVODE (Beograd and surroundings) and VODE VOJVODINE (the Voivodina area). Within the Voivodina region systems are operated and maintained by independent companies which are subsidiaries to VODE VOJVODINE.

River regulation, flood control works and the establishment of irrigation and drainage schemes is the responsibility of the public companies. Irrigation and excess water drainage canals are constructed on the basis of a land consolidation plan so that water carriage works are built and installed in the vicinity of arable land with the best quality soil. Maintenance is carried out by the owner of the canals, the Water Administration Agency, in cooperation with the users of agriculturally productive land. Flood control

includes operations to control any kind of surplus water, including floods and stagnating excess water. Control may be standard and exceptional (emergency).

Control operations are organised by the public company in line with the operative plan in effect from time to time. Operative plans are prepared for the river sections with control works and for river sections where – although not having control works – control operations are economically justified and where drainage systems and networks are established. The operative plan contains all data necessary for the purposes of control operations: section denominations, structures and facilities, official water gauges, criteria to be met before ordering of control operations can be made and the particulars of the physical and legal persons in charge of the flood control operations.

Land owners are expected to pay a contribution fee towards water drainage (reclamation fee). The amount depends on the size and category of the land concerned.

In Ukraine there is a single organisation (State Committee for Water Management) dealing with flood and excess water control and the same body manages irrigation issues as well.

Water management administration in Slovakia consists of three pillars. On one hand the Environmental Ministry and its organisational structure, and the Agricultural Ministry and its organisational structure on the second hand, and the local governments on the third.

The Agricultural Ministry consists of two main organisational units, one being responsible for agriculture and the other for forestry. The responsibility of the Agricultural Ministry includes

- water quality control,
- designation of areas which can be inundated when necessary,
- development of the set of criteria governing good agricultural practices,
- regulation of agricultural and farming operations,
- management of fisheries,
- hydrotechnical melioration

A key background institution of the Agricultural Ministry is Hydromelioration, a fully state owned company.

The Environmental Ministry consists of regional and district environmental offices. The responsibilities of the ministry include government run water management functions such as

- water rights licensing,
- protection and monitoring surface and underground water quality,
- water management, flood control,
- maintaining drinking water supply and the sewer system,
- fisheries.

The Environmental Ministry encompasses the following institutions.

- Slovak Hydrometeorological Institute
- Slovak Environment Inspectorate
- Slovak Environment Agency
- Water Research Institute
- Water Engineering Construction
- Slovak Water Management Enterprise

The latter is in charge of the following tasks:

- river basins, water courses (water courses important for the water management and another purposes) and water constructions administration,
- administration of transboundary water courses,
- ensuring of water protection and water constructions protection,
- provision of surface water supply from water courses and water reservoirs, including its utilisation for electric energy production,
- operation and maintenance of waterways,
- flood protection,
- monitoring and water quality assessment,

- monitoring of water abstraction and water disposal,
- collection of payments according to particular legislation

In Slovakia the official flood control administration is set up of the Environmental Ministry, regional and district environmental offices and local governments.

Flood control reservoirs mentioned earlier on with regard to Hungary may theoretically serve the purpose of remediation and prevention of water scarcity by providing water retention potentials, yet the notion of water retention did not really gained ground in the practical protocol of the water trade as of yet. Neither Romania, nor Serbia have relevant provisions in place and appropriate territories designated or constructed which would require or serve the purpose of retaining a part of the surplus water arising from the occasional floods. On the other hand, in Ukraine a part of the flood surplus is supposed to be retained, while in Slovakia the functions of the Slovak Water Management Enterprise include making sure that a part of the flood surplus water is stored.

Practical implementation of land use changes and the change of the cultivation type

The type of cultivation is a concept dedicated to indicate the way of systematic utilisation of an area of arable land. The way of utilisation, that is the cultivation type can be changed. Since however the type of cultivation is an information filed in the respective land registry, the change of the land use method in practice must be accompanied by an administrative action as well. Changing of the cultivation type, that is when the land registry authority requalified the category, has several examples.

Changes in certain cultivation types are entered into the registry upon meeting the reporting obligation of the user, while in the case of forests and fish ponds the condition precedent to the entry into the records is an appropriate permit from the forestry and water authorities, respectively. In lack of such permits the land registry will not entry the changes on the records.

Up to May 2010 there was an intermediate category, where official approval was requested, but the entry was made by the land registry without such approval and the land registry notified the cognisant authority thereof. For instance landed property holding the legal status of Natura 2000 were included in these. To change the cultivation type on these parcels the approval of the nature conservation authorities was required. However, the lack of such approval did not prevent the property authority in entry into the records having regard to the fact that the land registry must reflect the current effective data. Had the authority waited for the permission and in the meantime the owner executed the change, there will be a difference in the natural physical state of the property and the data recorded in the land registry.

In Slovakia cultivation types can be changed upon the approval of the official authorities. In Romania, if the change of the type of cultivation is requested by a legal entity, it has to be licensed with the country agricultural directorate concerned, if it is a natural person, reporting is enough. This reporting can be made at the local agricultural rapporteur or at the time of the next agricultural census.

In Serbia, similarly to the Hungarian regulations, the case may be subjected to reporting only or licensing, with the difference that an expert opinion is needed for reporting as well. Official permission is required in the case of forests and fish ponds. However, there are limits with regard to the changes in the cultivation type. Firstly changing the cultivation type of forests is not possible or possible only within a very narrow range of opportunities, while only plough land registered in quality category No 4 or No 5 can be converted into meadows or pastures. In Serbia, there are 5 quality categories for land and soil types, while in Hungary 8, in Slovakia 9 and in Romania 10 quality classes are distinguished based on the soil conditions. In Ukraine the type of cultivation on any land can be changed.

Partial change of type of use / cultivation – sub parcels

It is possible in Hungary to shift the cultivation type for only a part of a parcel registered in the land registry. This area, differing from the original parcel only in its type of

cultivation is called the sub parcel. Maximum 20 sub-parcels can be formed on any one parcel. Should there be more than that, the parcel has to be divided up. In other words, the sub-parcel is an area of arable land the ownership structure of which is identical with the parcel it has been pegged out from, but the cultivation type differs or eventually is withdrawn from cultivation altogether.

For the purposes of record keeping a sub-parcel must be at least 400 m^2, otherwise it shall not be recorded. In May 2010 the rules have changed, formerly the minimum are requirement being 1.500 m^2 for forests. In the event the size of an area within any parcel with different cultivation type falls short of 400 m^2, and thus can not be featured in the land registry as a separate sub-parcel, such area must be recorded in conjunction with the adjacent larger area – or area withdrawn from cultivation.

Upon establishing a sub-parcel or changing the contours of an already existing sub-parcel a change management drawing must be drawn up and submitted to the property authority, which – in the case the owner or user holds the appropriate license for cultivation types subjected to such licenses – shall enter the change in the records. Therefore, the establishment of sub-parcels means the partial change – and the recording of such a change – of the cultivation type in the parcel concerned.

In relation to sub-parcelling the countries under review reflect a varied picture. In Slovakia, the property area can be divided up and a new land parcel will be created with new identification code and a different cultivation type. This corresponds mostly to parcelling in Hungary. In Romania and Ukraine there is no possibility to partial changes in cultivation types or to form sub-parcels.

In Serbia, partial changes are possible. No upper limits are determined for the maximum number of sub-parcels. Changes are made by the property authority surveying the area and a specialist in the official agricultural establishment provides the division scheme based on which the Serbian property authority later on records the changes in the central database.

In the light of the selected pilot area, upon designing the land use changes under the ILD project the most promising approach seemed to be the setting up of sub-parcels. In the case of the pilot site the current parcels are situated perpendicular to the river bed section to be reactivated, therefore in each of those parcels sub-parcelling and the preparation of a change control drawing is necessary, because this is the only way how you can manage to reflect the depression stretching across the parcels in the form of a series of sub-parcels on the land and property registry maps, then to create the possibility of a uniform land use pattern on it.

Upon drawing up the boundaries of the sub-parcels the possibility was investigated whether the boundaries of the sub-parcel could be pegged out by the surveyor along the physical contours of the area. In Hungary, surveying along the contours is not a feasible option. Natural infrastructure, or human made fixed line facilities may be considered, but not the contours. The surveyor is requested to prepare a change control drawing which fits into the government benchmark data. Provided some benchmark points have to be taken up in order to present the graphical representation, such points can not be connected in an arching curve. However, contours are running mostly along arching curves. No example exists on a change control diagrammatic drawing drawn up according to the contours and the establishment of a sub-parcel accordingly in any of the countries.

Use for other purposes and withdrawal from cultivation

The use of arable land for purposes other than production – withdrawal from cultivation – means the change of the basic purpose of that piece of land. This entails that the land – qualified as arable land and used formerly accordingly - shall be recorded and used temporarily or permanently as a property withdrawn from cultivation for reasons associated with settlements, production, traffic, water management or for other reasons.

Use for other purposes shall be any temporary or final deviation from the cultivation obligation – that is, production in the respective category of cultivation – by which the arable land is rendered unsuited to agricultural production. Arable land can only be used for other purposes in exceptional cases and mainly and primarily at the cost of poorer

quality soil, but even in this case the approval of the property authority should be sought. Poorer quality of the arable land can be determined by comparison to the corresponding Golden Crown values of other plots situated in the administrative area of the same community and included in the land registry records with the same type of cultivation.

When arable land is used for purposes other than agricultural production, the applicant shall be liable to pay a single soil conservation contribution payment.

In Slovakia, agricultural land can be withdrawn from cultivation temporally or permanently. This may be proposed by the owner or the user, but official endorsement is needed. In the event the land withdrawn from cultivation on a permanent basis – which may be categorised in any of the 9 quality classes of soil – falls into any of the four best categories, a fee is payable for it. The amount of this fee is 15 euros/m^2 for Class 1, 12 Euros for Class 2, 9 Euros for Class 3 and 6 Euros for Class 4 land. Payment is also due when using for other purposes on a temporary basis, if the land falls into any of the four best categories, the due rate is 1 euro per metre square.

In Romania, when agricultural and forested land is withdrawn from cultivation (on a temporary or permanent basis), a levy is payable which is to be used by the government to maintain existing agricultural and forested land. Temporary withdrawal involves a legal procedure within the jurisdiction of the agricultural directorates, while the agricultural directorate makes a decision on a case by case basis in the case of final withdrawals. Provided the land is intended to be withdrawn from cultivation exceeds a certain size, the Agricultural Ministry is in charge. The amount of levy to be paid is a certain percentage value of the market value of the property, which can be established at as a high level as 400% thereof, but it usually corresponds to the full market value. Administration is a pretty complicated issue, the agricultural and rural development agency, the land registry office and soil improvement agency are all involved, but there is a need to involve a surveyor and eventually a design engineer.

In Serbia, agricultural farmland is possible to be used for other purpose when holding the respective permission. When agricultural land is converted into non productive uses, a

levy is payable in an amount ranging up to 50% of the current market price. The licensing procedure involves decisions made with regard to withdrawal and the amount of the levy. Surveying and an expert opinion on appraisal are also necessary which will serve as the basis for determining the levy on the basis of the value of the property. In Ukraine, arable land can be used for other purposes upon official approval.

Summary

The most feasible way for administrative implementation of land use changes is to establish sub-parcels, that is a method of land use based on administrative foundations which does not affect the current ownership and holding structure. It is possible to set up a single uniform land use pattern from the chain consisting of distinct sub-parcels – and put it to grassland or meadow cultivation type – which is properly adapted to former river bed sections, depressions and other deeper lying, interdependent areas, which are typically prone to periodical inundation by stagnating excess surface water rendering current land use methods conducted in the fields impossible. Of the countries investigated, only in Serbia seems to be possible to carry out partial change of cultivation types in a similar manner as in Hungary. In the other countries, similar outcome could be produced by a procedure which is mostly like the parcelling process in Hungary, whereby the fragmentation of the holdings which is all too typical in all the countries reviewed anyway would be further aggravated.

In summary, there is no explicit procedure or land use category in the five riparian countries which could offer an appropriate solution to the challenges represented by climate change and extreme weather conditions along the Tisza river, albeit a certain kind of land use change may be effectuated to a varying degree in the individual countries.

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