Land consolidation in Hungary: lessons learned from the Bereg FAO pilot project¹

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1. Land consolidation (LC) in Hungary

1.1 Introduction

In countries where the agricultural sector plays an important role such as in Hungary, issues related to agriculture need higher attention. The efficiency of the sector mainly depends on the careful planning and utilization of land, landscape resources.

In Hungary, after 16 years of democratization and re-privatization of state owned properties, land use and parcel structures are still not suitable for proper resource management, including soil, water and nature related processes, issues (e.g., ecological network, flood risk and stagnating water problems, water infrastructures) as well as rural, regional development challenges and needs. Land consolidation issues must be inserted into a much broader context, where EU directives, programs implementation efficiency rely on a carefully designed and implemented LC program.

LC is not an objective but a tool or instrument which could lead to—besides of an effective agricultural production—a more sustainable rural development, nature protection and efficient infrastructure development. It cannot be delayed due to political debates or financial constraints since this is one of the most important constraints of the effective implementation of programs with national, regional importance.

In Hungary after transition LC pilot projects (TAMA, PRIDE) were executed. In the Munich declaration (2002) it was stated that Central and East European countries should have taken land consolidation as an important tool of the rural development. FAO has also been supportive to land consolidation in the region with policy guidelines and help to implement pilot projects. The experience showed the absence of legal background, insufficient financial resources, and lack of technical and organizational conditions for land consolidation. The outcomes of the pilot programs, however, proved that procedure can be performed, and linked to rural development. Although it would have been possible to implement land consolidation within rural development programmes (SAPARD, ARDROP) measure of land consolidation (e.g., re-parcelling) was not involved due to long process periods (5 to 10 years), and the insufficient legal, institutional, financial conditions, and lack of interest of political decision-makers and also land users.

1.2 Land consolidation strategy

In the framework of land consolidation initiative Technical Assistance on Land Consolidation in Hungary (TALC) proposal for the Hungarian Land Consolidation Strategy was elaborated

¹ The National discussion paper is formulated in the frame of FARLAND Interreg III/C project.
The Bereg Strategy project is supported by: FAO TCP program, FVM – Ministry of Agriculture and Rural Development, ÖTM – Ministry of Local Governmental and Regional Development.
The paper is based on national LC strategy prepared by AKII, and FAO report from Szabolcs Biró.
with the aim to establish land use and property structure which assists competitive agricultural production and rational, sustainable landscape management. It prioritized further tasks as the preparation and approval of legal background (law on land consolidation), necessary amendments (regulations for heritage, land lease, pre-emption), instructions of access to information, elaboration method of property exchange proportional to value. Considering organizational conditions creation of coordinating institution and improvement of the technical-technological and information technology is necessary, with the establishment of adequate financial resources and other conditions (databases, training). Recognizing the lack of sufficient resources available, the proposal suggests focus on implementation in the surrounding of large projects and environment protection, strengthening awareness for social acceptance and intensification land market in the frame of the NLFMO².

Rural development and the agricultural policy should be implemented in harmonization with the needs of the environment. The reservoir approach of environmental protection should be changed by a modern, dynamic and protective way with the use of nature. The comprehensive protection will be ensured by the creation of the National Ecological Network consisting of nature conservation areas (reservoirs), Natura 2000 (natural) areas, ecological corridors, protective areas and the semi natural areas. The course of implementation is preservation biodiversity and landscape protection with the development of land use. Protection and rehabilitation of natural ecosystems is supplemented by environment quality development in rural areas. The legal instrument for environmental land development is the 2nd National Environmental Program for 2003-2008, which forms attachment of Parliament Decision No. [132/2003. (XII.11.)].

1.3 Ownership and land use

The change to market economy forced the privatization of production factors (among them the land) and the restructuring land ownership and land use. Land market became open, so state and cooperative property was available to buy for private persons and enterprises. Land purchase became restricted for foreigners and for enterprises in 1991. Privatization helped restoring private property, provided basis for private farming and partially restituted for damages in assets arose out of nationalization. As a result almost 2.6 million people had 5.6 million hectares, usually in fragmented parcels. Land ownership and land use are separated to a large extent. Overwhelming majority of the private owners do not connect to agriculture or use their lands themselves, but they lease them to farmers, so the structure of fragmented land ownership and the structure of more concentrated land use are significantly different.

Ownership statistics for agricultural land is based on ownership of parcels, lacking report of (at least) owned area by size classes. Ownership of outskirt productive land divided mainly among private persons (72.5%) and the State (21.9%). Selling land is still moderate against the expansion of land market. Due to the strong asset preserving function of land, sales are just in case of living hardships. In the case of state ownership the protected areas and areas designated for protection from which the majority used as forests stay permanent state property, almost third of further state land (420 thousand ha) is rented out for agricultural production purposes. So the State has considerable role in stabilizing the present land use system. Land ownership of business enterprises and cooperatives considerably reduced, own possession in their land use does not exceed 10%. Ownership of the agricultural land

² National Land Fund Management Organization
characterized mainly by natural persons\(^3\) (83%), while state and cooperative ownership significantly reduced to 10% and 3%. State-owned agricultural land is rented out for business enterprises or used by national parks or state owned enterprises mainly for longer term. Businesses own only 4% (derogation on land purchase applies). The land use of cooperatives exclusively based on leased land, the ratio of leased land overwhelming among the enterprises as well. The share of leased area in production differs by the type of private farms, full time entrepreneurs lease almost half, part time farmers only third and primary producers just quarter of their cultivated area. Significant element of the leased land is the commonly owned shared land originated from restitution. The undivided parcels take one fifth of productive land, and usually rented out as a whole parcel, due to small ratios of ownership rights.

Considering land use in Hungary the number of private farms reduced 31% to 707 thousand, while the number of enterprises grew 47% to 7.9 thousand between 2000 and 2005. Average land use of productive area at private farms is 3.4 ha, growing rapidly (25.8%) in five years. Enterprises cultivate 487 hectares on average. Concentration of productive areas is significant, altogether 12.5 thousand farms (1.8%) cultivates 77% of total land. The concentration process goes on along with the growing ratio of private farms producing for market. Taking into consideration the distribution of land use by holding size, it can be seen that most of the private farms (73%) use less than 1 hectares, these part-time farms serve basically subsistence purposes they keep a few animals mostly for their own consumption and not for income earning. Their owners are usually not employed in agriculture but in other sectors, are old-age pensioners or unemployed. The small size private farms cultivated with traditional methods cannot provide sufficient income. A solution can be making products with greater added value and finding complementary income sources.

### 1.4 The broader environment

Nevertheless, land consolidation has not been applied as an independent measure in Hungary; numerous elements of development programs tend towards the creation of sustainable land use and land ownership structure. Support for land purchase is a direct national measure for concentrating land and parcels of farmers. In 2004 3.0 thousand ha land purchase was supported. Three-hundred and twenty applications have been accepted with the average of 9.4 ha (resulted 19% increase of the farmer owned land). In 2005 5.6 thousand ha land purchase was supported.

As part of the treasury assets, the National Land Fund Management Organization (NLFMO) manages State land (6.7% of the total agricultural area and 37.8% of total forest area) in Hungary. The main activity of NLFMO is to ensure utilization of state-land (except the areas under nature protection) with taking into consideration the pre-emption rights of land users, the Directives of Land-policy, and the demands of local governments to manage social land programs. Additionally, NLFMO purchased land over 55 thousand hectares in the annuity (retirement) program, and purchased more than 2.1 thousand ha land in the framework of contract of sale as well. Further pilot project is the sale of 5 thousand hectares state land on public announcement and on auction.

The land market situation is demand driven in the areas of good quality land and of land with favourable conditions, while supply is characteristic in the areas of unfavourable conditions

\(^3\) Data based on parcel ownership. Co-ownership is wide spread.
and poor quality (where the share of uncultivated area is high). Insistence on ownership and moderate demand are both typical for small-size, scattered properties. Land lease still provides regular additional income to old farmers who do not wish to cultivate their land. Gradual intensification of land market expected with the increase of land prices.

Land consolidation associated with rural development and additional measures can take full advantage of improved land ownership and land use structures. These associated elements are operational. In the Agriculture and Rural Development Programme assistance to investments in agriculture concentrated on the development of (viable) farms over the size of 5 European Size Unit, follows the criteria of Good Agricultural Practice and complies with the environmental standards. Support for Setting up of Young Farmers is important from the future of agriculture, that well-prepared farmers establish economically viable businesses. Support for land purchase is accessible up to 10% of the total amount. The measure of Development and Improvement of Infrastructure Connected with Agriculture helps upgrading the bad condition of agricultural roads and the associated infrastructure (irrigation, melioration, draining) as an adjustment to the conditions of changing land ownership and land use structure.

The National Nature Protection Baseline Plan consists of the tasks of re-nationalization (expropriation) of most valuable areas, and the rehabilitation and development of natural habitats. Among the aims of National Forestry Strategy enhancing biodiversity of forests as a part of ecological network and raising the proportion of the area under semi-natural forest management have special importance on land consolidation. Integrated water management plans and sustainable flood control aim the rehabilitation of flood areas, organization mosaic landscape structure of flood plains with change of cultivation (extensive grassland, agro-forestry systems water habitats) based on water retention and water supplement. The EU funds for nature protection (Life Environment and Life Nature) provides further framework for planning and development sustainable land use ensuring habitat management on designated sites.

1.5 Challenges

In Agriculture the most urgent task is to create the right conditions to increase the ratio of viable private farms as well as sustainable landscape management. With securing ownership and land use rights, development of farms could be started in an organic framework. Competitiveness makes use of the comparative advantages and based on strengthening the efficiency of viable farms. Land consolidation could make good use of the internal resources of farms, land management circumstances improve, remaining of smaller farms can be ensured for longer term as well. The support for setting up young farmers connected with the measure of early retirement improves the situation of continuation of land use. Creation condition for long-term leasing system is the interest mainly of the competitive farms but also the whole agriculture. Sustainability improves with forming contiguous parcels harmonized with the production infrastructure and the location of farm buildings. Short-term task is to prevent the further division of parcels, while the arrangement of the situation of undivided parcels also needs proper solution. On half of private forests, forest management is not based on planning, formation of further forest management associations needed. The role of associations also could be increased in pasturing, water management and land lease.

Among the environmental and ecological challenges protection considerations stimulate the expansion land use adjusted to local conditions. The significant differences among the quality
of the arable lands, soil types, climatic conditions and the requirement of preservation biodiversity and landscape values highlights the needs for differentiation, extensification of production methods mainly in areas of poor production conditions. Use of sites of periodical internal waters, frequently flooded areas also should be adjusted to the risks. The greatest soil degradation factor in Hungary is water and wind erosion, caused by inappropriate cultivation methods, negligence of topographical conditions, inappropriate parcel allocation, large table monoculture plant growing. Erosion processes should be reduced significantly through agri-environmental measures, (soil protection agricultural technologies, the establishment of lines of trees, forest belts and anti-erosion hedges in the vicinity of fields and the application of continuous soil cover) complement with consolidation of land (proper size, shape, direction of parcels). Forestation is also recommended on some 700 thousand hectares of arable land on the longer-term (30 to 50 years).

In rural development (with the aim of enhancing the quality of life), land consolidation can take its part primary on diversification of land use with reorganizing the surface of the rural areas, assisting for more efficient agricultural production and formation extensive farming in line with the requirements of nature protection to create jobs and improve the subsistence and the living conditions of rural population. In the integrated approach apart from rural development, other fields of development conceptions, plans (regional development, infrastructure) are also important. To have measurable impact land consolidation should concentrate on launching pilot projects (VTT^4, Natura 2000 areas, NLFMO), and on the areas of construction linear infrastructure, projects related to LEADER and village renewal, in settlements affected by Regional and Territorial Development projects. Following the implementation results of pilot project, it should be communicated to possible stakeholders for increase of interest towards land consolidation. Proposal for solutions for land consolidation also have to set up.

Land banking, involvement of state land in land banking could provide land swaps for land use change, acquisition of private areas under nature protection. Land banking activities with the involvement of NLFMO also would be essential for carrying out successful land consolidation with increasing land mobility. At first land banking activities could provide agricultural land for voluntary exchange and land for special goals (social purpose, education, nation-wide development projects, local land reserves for the development purposes of local governments). Creating sufficient financial background for land to exchange is essential. Land purchase of the State also gives opportunity for executing land market interventions, influencing land prices.

In the integrated approach coordination of rural development, regional and spatial, territorial development and other sectoral policies should be harmonized towards land management development. In case of highlighted tasks and projects, the framework is the Inter-ministerial Commission consisting of the representatives various ministries responsible. Difficulties mainly derive from the lack of definite priorities (among the sectors or policies).

1.6 Existing instruments

Private farms can enlarge their area only with purchasing land on land market besides land lease, while enterprises can only increase their size with leasing arrangements. Law on Agricultural Land (1994. LV.) regulates the priority of land tenure/purchases and prohibits

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4 Further Development of the Vásárhelyi Plan, protection against the floods on Tisza river, emergency reservoirs, and flood plains.
that on the area of a settlement one farmer or one enterprise has the monopoly on land use/ownership. Domestic private person may acquire ownership of arable land only up to the limit of 300 hectares (or six thousand GCs\(^5\) in term of quality). Domestic private persons, legal entities or organizations without legal entities are eligible to lease arable land altogether 300 hectares or 6 thousand GCs. Business entities (companies) and cooperatives are eligible to lease altogether 2500 hectares or 50 thousand GCs. The limitation does not apply for cases, when arable land is leased from the owners of the companies and cooperatives or leased from the NLFMO. Foreign private persons and legal entities are allowed to lease arable land up to 300 hectares in terms of size or 6 thousand GCs. Domestic legal entities, organizations may not acquire ownership of productive land (with the exception of the State, local governments, and public foundations). Foreign persons and legal entities may not acquire ownership of productive land either.

**Legal regulation of land acquisition** (ownership and tenure) serving land development indirectly. Upon the sale of productive land (not in case of close relatives) pre-emptive right of land purchase shall be available primary for the person leasing, share leasing, and share farming for at least 3 years the productive land (in case of economic organizations the local member, or shareholder). Secondary for the neighbour living at the location (in order of registered family farmer, registered primary producer or agricultural entrepreneur, in case of economic organizations the local member, or shareholder), thirdly to the person living at the location (in the same order mentioned before), finally for the State (as in Law on National Land Fund (2001. CXVI). Pre-emptive right of land tenure on productive land and farm-building available primary for the former lessee (either private person or economic organizations with legal entity) or livestock-farming and for operator of fish pond in business at least a year with the location in the settlement concerned (or from 15 kilometres at most). Secondary for the neighbour living at the location in the order of registered family farmer, registered primary producer or agricultural entrepreneur, economic organizations. Finally for the person living at the location in the same order mentioned above.

Parliamentary Decision of 48/2002 (VII.19) on **Land Policy Guidelines** declaring the most important objectives (stabilization and promotion land users, strengthen family farms and environment-friendly agricultural production). Establishment of rational land property and land lease structure, land parcel sizes (suitable for EU support), encouragement of the founding of family and medium-scale corporate farming (limit of 300 hectares) and small-scale farming (limit of 100 hectares) and support agricultural and qualified entrepreneurs to start up with farming are also important issues. The Land Policy Guidelines provides fundamentals of land assets management and utilization carried out by NLFMO.

**Expropriation right** is based on law decree (24. of 1976.) on expropriation. Application of the instrument is only accessible if purchase of land is not possible. Expropriation is exceptionally available for the interest of the public only. The State or the local government obtains ownership of land. Other person rights and registered facts cease on the property. Easements, right of use and property restrictions should be disposed according to necessity. Expropriation could intend (inter alia) establishment of public institution, town or settlement development, mining, national defence, water resources development, nature protection if the protection can not be ensured other way. Expropriation based on Law on National Land Fund (Act 116. of 2001.) also can be used on land for three years after the purchase for the **claims of local residents** and family farms to productive land and for repressing speculation

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\(^5\) Golden Crown
on land prices.

Among the direct instruments of land development (general) land consolidation is proposed by Law on Agricultural Land to concentrate the divided outskirt productive land of owners, to adjust production conditions to the natural conditions, to evolve more favourable farm sizes, to aggregate commonly cultivated family farms in the whole area (or part) of a settlement. The procedure for General land consolidation shall be based on separate law, till then voluntary land exchange can be initiated.

Execution of voluntary land exchange by Law on Agricultural Land aiming concentration parcels and land⁶ is a fast simple procedure to amalgamate scattered parcels of landowner or to satisfy the necessary needs of livestock-farming. In case of exchange of land differences of value, and value of investments, agricultural works, buildings shall be paid.

Support for voluntary land exchange aiming concentration parcels and land. The legal ground for assistance is Articles 35-38 of MARD⁷ decree 25 of 2004. (III. 3.). Aid intensity is up to 40% of the direct cost of works. Agricultural producer natural and legal persons are eligible for this measure with registered land use, who own or rent productive land. All the landowners affected with exchange of land shall submit applications for the measure jointly. Application submitted by the land user should involve the declaration of landowner as well.

Support for land purchase for concentrating land and parcels. The legal ground for assistance is Articles 39-41 of MARD decree 25 of 2004. In case of forest the acquired land should connect to the owned forest with the same forest management plan on the same settlement. In case of other productive land situate in the same slope. The private landowner [agricultural producer natural person (primary producer or entrepreneur) or private forest manager registered at the Forestry Authority] eligible for this measure if with the acquired land ownership or land use not exceeding the limits set up by Law on Agricultural Land and the owned land exceeds 1 hectare. The original land and the acquired land exceed 6 hectares. Beneficiary should accept to use land for 5 years, follows good agricultural practice and exceed the economical size limit of 2 ESU, furthermore has agricultural qualification. The Land purchase among close relatives or support for voluntary land exchange should be judged from another standpoint. Aid intensity is up to 20% of the contract price of land but maximum 8 thousand Euros for each application. One beneficiary can submit two applications in the same year.

At present NLFMO utilize State land assets by lease or sale. Annuity program of the NLFMO aims land purchase from elderly land owners. The program is based on the governmental Decree of 255/2002. (XII. 13.). Natural persons over 60 years are eligible to offer for sale productive land of 1 to 20 hectares (with the total value from 4 thousand to 12 thousand Euros). The pilot project of the sale of State land on public announcement and on auctions in several settlements also aims to execute the land policy guidelines, with the total area of 5 thousand hectares. NLFMO also can initiate land swap or buy land.

### 1.7 Procedures and processes

In the procedure of voluntary land exchange, organization of simultaneous amalgamation of

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⁶ Voluntary exchange of lands for the formation of consolidated estates  
⁷ Ministry of Agriculture and Rural Development
fragmented parcels of many owners can initiate from the land office. The exchange is established by the agreement of stakeholders. The land office certifies in a resolution that the consolidation aimed land exchange. Informs the parties concerned with indicating the available parcels for the swap with a deadline to modify or finalize their request in exact knowledge of land registry situation and to provide for preparation of contracts needed (legal situation of new parcels, settlement of differences in value, agreement of taking possession of parcels, other issues). On behalf of the request of stakeholders, land survey works is made by the land office against a fee and takes exchanged land into possession.

In the procedure of **support for voluntary land exchange** applications are handed in to the territorially competent county land offices. After adequacy checked, applications are directed to MARD⁸ with the expert's reports. The Committee of Land Protection revises applications. MARD decides on acceptance of applications considering proposition of the Committee. In case of acceptance, MARD makes out disbursement document. Based on the document, land office contracts the subsidy. Execution of works continuously checked by MARD and the land offices. Completion must be communicated to the land office. Founded on the record of examination on the spot, disbursement of support is initiated.

In the route of **support for land purchase** (for concentrating land and parcels), applications are sent to MOARD. After the decision of acceptance candidates are informed and supports are paid through the Hungarian Treasury. Land offices arrange for recording 5 years of prohibition of alienation and burden on the properties concerned in the land registry.

**Utilization of land assets of NLFMO** occurs by sale or lease within the frame of public tender process. Preference is given to Land Policy Guidelines of parliamentary Decision of 48/2002 (VII.19.). NLFMO also can initiate land swap or buy land to consolidate land, provide land for livestock farming or implement other important objectives of public interest (e.g. flood control). Utilization activities have to be based on the land assets utilization plan of NLFMO. There are no special rights assigned for NLFMO as the owner of the land on behalf of the State, the contracts and agreements are subject of the Civil Code. Pre-emptive rights of purchasing or leasing land also have to be taken into consideration to validate contracts.

Though procedure of land consolidation can change upon the arrangement methods, the orders of tasks are usually common. The **proposed tasks and the implementation institutions**⁹: the land consolidation procedure could be **initiated** by local residents, land owners, local governments or the NLFMO and exceptionally by governmental decree. The **announcement** is based on preliminary data collection of the land office and the local government, while detailed information is given to possible stakeholders on audience and meetings. The **base of assessment** of preliminary demand is the expectations of individual land users and owners compared to each other and to the possibilities defined by the territorial development plan. Based on the information collected for the duration of determination the demand, preparation of **feasibility study** starts on arrangement and the connected costs of land consolidation. Experts’ and competent authorities’ opinion is also included. **Decision** of the minister or the land office could order execution of land

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⁸ Ministry of Agriculture and Rural Development

consolidation. **Executive phase** starts when general assembly of related land owners elects the Land Consolidation Committee, which is responsible for legality of the procedure and the representation of the interest of stakeholders. Land office prepares **appraisal plan** of the parcels concerned, the land consolidation plan and the relevant **compensation plan**. Land Consolidation Committee discusses the proposed plans and comments opinion as congregate general assembly to introduce the plans. **Adopted plans** (with the contracts ensured by the stakeholders) are implemented by the land office, changes can be registered in the land registry.

1.8 Institutions

It is favourable that the basic **institutions of land administration** on which land consolidation can be built, the land office network, which belongs to the Department of Land and Geo-information of MARD and the Institute of Geodesy, Cartography and Remote Sensing do exist and operate. At this later institution, all information and information systems (aerial and space imagery, land and property registration systems, land use registration systems) are available to be used for land consolidation purposes. There are useful projects (National Cadastre Programme, National Topographic Programme) in various remote sensing themes. The existing institutional system has successfully implemented the pilot projects concerning land consolidation, and is properly managing the relatively few, locally initiated voluntary land exchanges. The **coordination at national level** is performed by MARD and it is reasonable to base this on a present organization (e.g. the **Secretariat of the Commissioner**).

In the **coordination at local level**, Land Consolidation Committees could have the most important role; their work is assisted by the cooperating experts and information providers as well as by professional authorities, but unfortunately they do not exist.

**NLFMO** with its organized county-level network is existing, managing the state-owned agricultural areas (except areas under nature protection, but not directly involved directly in land consolidation. NLFMO is an independent budgetary institution operating under the Minister’s supervision. The organization is not an authority and it can not be taken as part of the public management with regards of its legal status. NLFMO is organized into a central office and 19 local offices in each county. NFLMO performs the tasks arising locally with the participation of the county agricultural offices and the local land registry offices. Local Land Asset Utilization Committees can be formed in any settlements having land of NLFMO. The Committee shall be involved with the right to comment in the evaluation of public tenders announced by NLFMO for leasing or sale of state land. As a budgetary institution, NLFMO is financed mainly from the State budget, but earns its own revenues from land leasing fees, sales of land and other contracts. The Treasury land assets for property administration, as well as revenues and expenditures related to the utilization of this property has to be separated from the revenues and expenditures related to the own institutional assets of NLFMO.

1.9 Conclusions

The experience showed the **absence of legal background**, **insufficient financial resources**, and **lack of technical and organizational conditions for land consolidation**. The outcomes of the pilot programs however proved that procedure can be performed, and linked to rural development.
- **Hungarian Land Consolidation Strategy** was elaborated with the aim to establish land use and property structure, which assists competitive agricultural production and rational, sustainable landscape management. The Strategy proposes legal regulation for arranging consolidations exceeding voluntary land exchanges. Necessary precondition is the creation of the missing financial resources, the improvement of the institutional background, and strengthening the awareness of the society towards land consolidation. With launching pilot projects, as a part of voluntary land consolidation and land exchange gaining further experience also a priority, while involvement of the National Land Fund should be further analysed.

- **Rural development** and the **agricultural policy** should be implemented in harmonization with the **needs of the environment**. The comprehensive protection will be ensured by the creation of the National Ecological Network consisting of nature conservation areas (reservoirs), Natura 2000 (natural) areas, ecological corridors, protective areas and the semi natural areas.

- Private farms can enlarge their area only with **purchasing land** on land market besides land lease, while enterprises can only increase their size with leasing arrangements. Legal regulation of **land acquisition** (ownership and tenure) serving land development indirectly. Upon the sale of productive land **pre-emptive right** of land purchase shall be available.

- **Expropriation** is exceptionally available for the interest of the public only. The State or the local government obtains ownership of land. Other person rights and registered facts cease on the property. Expropriation could intend establishment of public institution, town or settlement development, mining, national defence, water resources development, **nature protection** if the protection can not be ensured other way.

- Among the direct instruments of land development **general land consolidation** is proposed by Law on Agricultural Land to concentrate the divided outskirt productive land of owners, to adjust production conditions to the natural conditions, to evolve more favourable farm sizes, to aggregate commonly cultivated family farms in the whole area (or part) of a settlement. The procedure for General land consolidation shall be based on separate law. Till then only voluntary land exchange can be initiated.

- Execution of **voluntary land exchange** aiming concentration parcels and land is a fast simple procedure to amalgamate scattered parcels of landowner or to satisfy the necessary needs of livestock-farming. **Support for voluntary land exchange** aiming concentration parcels and land. All the landowners affected with exchange of land shall submit applications for the measure jointly. **Support for land purchase** is for concentrating land and parcels also. Private landowner or private forest manager are eligible for the measure.

- The changes to be implemented based on full-scale voluntary participation are usually fated to fail under the present circumstances and the problems of land use can only be solved in the cases of enacted expropriation. By **creating the Act on General Land Consolidation** and enacting the obligatory sale without voluntary
participation the problems of land use (agricultural, nature conservation and environmental use) could be solved by setting the **requirement of obligatory cooperation** (a certain share of the area, for example 5-10% are to be rented or sold, decreasing this way the number of land owners or users) and this could provide an effective method, which takes **into account the social interests (in a more democratic way)** too.

**1.10 Future challenges, innovations**

Analysing the situation we would suggest the following steps, measures:

- **Strengthening awareness of the issues of land development:** The competitiveness of agricultural production, the state of the environment and the development of rural areas make it equally necessary to determine the policy of land development for the longer term. The harmonized formation of development programs (national and regional) ensures to obtain social agreement on land development issues. The wide-ranging communication of objectives and measures for land development ensures to inform and involve stakeholders. The communication campaign also serve for convincing decision makers on the importance on land consolidation.

- **Integrated realization of land consolidation (land development) with the rural development program (EAFRD):** Realization of land development in harmonization of the rural development program and Operational Programs of the Structural Funds with establishing direct connection between agriculture, rural development, regional development and regional policy in the regions/territories involved. In the current programming period the opportunity is provided to launch pilot projects of land consolidation by EU financing.

- **Launching pilot projects to gain experience mainly in the following fields:**
  - Testing innovative approaches (especially collected and elaborated during the FARLAND project)
  - programs related to certain rural development measures (especially LEADER and village renewal),
  - designated NATURA 2000 protected areas,
  - the Further Development of the Vásárhelyi Plan (protection against the floods on Tisza river - emergency reservoirs, and flood plains),
  - in settlements affected by Regional and Territorial Development projects.

- **Preparation of the legal and institutional background for land consolidation:** As land consolidation is an indispensable tool for achieving the objectives for rural development it is necessary to accept with immediate effect the law on general land consolidation and the required amendments of certain connecting regulations (heritage, land lease, right of pre-emption, Civil Code). The institutional background of country level coordination and local implementation also should be set up based on the experience of pilot projects.

**2. Proposed land consolidation for the Bereg**

To underline the following statements the FAO TCP Bereg project preliminary results are presented. The project team - with the leadership of Mártas Konkoly, MARD and Attila Filep Bereg Office leader – as well as national and international experts opinion is presented here.
2.1 General purpose of the project

In the Bereg, the general aim of the project is to facilitate the elaboration of feasible plans for the formation of sustainable countryside and water management and rural development in the areas endangered by serious natural disasters, promoting better subsistence for the rural population in this way. The project intends to identify a new approach and propagate the experiences about sustainable land management, the related integrated water management, environmental protection and regional development.

The direct objectives of the project:

- Planning and elaborating a land use and rural development strategy that is widely accepted and supported by the society and economically sustainable with respect to the regions stricken with its natural risks (flood, inland waters, drought) and having a high natural value.
- By improving the skills of the people involved in the region and the forming of regional affairs with special attention to the disadvantaged rural population, facilitating the realization of countryside management resting upon various activities and supporting resources management.

In order to achieve these objectives, the project aims to apply different means and alternatives in a combined way: institutional development, organizational development, planning of participation, change of land use for the purpose of better land management, nature conservation, income raising, the extension of employment facilities, village development. The thorough and high-level application of the above results in the continuous active support and participation of the affected people in the region.

Land consolidation closely connecting to land use strategy and pilot projects to contribute to new approach and promote sustainable land management.

The proposal:

- Reveal of the background and present conditions land consolidation in Hungary.
- Introduce the land consolidation possibilities of the Vásárhelyi National Flood defence and rural development plan.
- Points contradictions, inconsistencies and possibilities of solid execution of land consolidation in Hungary.
- Propose land consolidation solutions for the Bereg area.
- Introduce the chosen pilot projects and their results in the Bereg area.
- Designate methodology for continuation of land consolidation
- Gives recommendation on land consolidation for sustainable land use.

The proposed land consolidation for the Bereg was based on (and supplements) the Revitalisation Programme and Strategy\(^{10}\) of Bereg, which provides information on the overall land use of the region.

The following aims have been identified:

\(^{10}\) Permanent landscape use, multifunctional farming on the flood plains, healthy and safe environment.
Creation of natural, diversified, mosaic landscape structure
Land use transition in order to safeguard the landscape:
- Transformation of arable lands into forests and grazing lands.
- Development of wet habitats corresponding to the geographical area.

Profitability of the traditional landscape management
- Protection of (wet) habitats and the landscape elements.
- Livestock farming based on grazing.
- Forest management.
- Indigenous fruit plantations (gene bank of special species) corresponding to the geographical area.
- Organic farming, cultivation by small parcels (in the flood plains banks and ditches).
- Production of medicinal plants and herbs.

Cooperation, common structures
- Production cooperation, joint organisation of water management, grazing land associations, forest proprietorship.
- Introduce labelling of the products and services provided by the area.
- Use and development of the infrastructure (maintenance and construction of roads and sewage systems).
- Village development, eco-tourism, social employment, land programme.

Land consolidation - by the active participation of the local organisation – assists the strengthening of the multi-functionality of agriculture and rural areas; the aim of land use is – corresponding to the conditions of the region – has become more varied.

In order to implement the land consolidation in a successful and efficient way – by legal regulations – the forms of discussions and the rules of procedures have to be established. Proper information has to be provided to the landowners on the ways of land consolidation. The concepts and the requirements to be met by land consolidation have to be collected and adjusted to the territorial and land use plans of the regions.

2.2 Proposed procedure of LC in Bereg

The procedure of land consolidation with the steps to be taken and the participants:

- Preparatory Phase
  - Landscape rehabilitation, assessment of the potential re-conversion of water cycling in the landscape, determination of the target areas of intervention and the fields of impact, options of water management, land use and land use transition if required, presentation of the related subsidy schemes.

- Agreement Phase
  - Preliminary information of the local government, local population, land owners, and land users on the opportunities provided (presentation of the Preparatory Phase)
  - Decision on the implementation.

- Implementation Phase
  - Detailed design.
  - Settlement of the ownership and use.
Landscape rehabilitation, re-conversion of water cycling, implementation of the land use transition.

In all the three phases the participants are the owners and the users of the lands involved, come from the water management associations, from local governments and civil organisations taking an active part in the organisation as well as from the team of experts cooperating in the design and from the authorities involved (e.g., the authorities of water management, environment protection and land registration).

The key question is the organisation, the planning and the implementation of the tasks of water management, as well as to ensure the conditions for the operation, the determination and control of the role of water management associations and of the environment protection. The task of the land users and farmers is the conversion, maintenance and management of the areas. The determination and implementation of the usage and the actual land use depend significantly on the subsidies provided; therefore, this uncertainty means a certain risk of the farming. One part of the land owners thinks that a risk may be inherent in the land use transition as the market value of the areas may decrease (e.g., from arable land converted into grazing land or wet habitat).

In order to be successful the implementation can only be based on voluntary participation as in accordance with the legislation in force the land owner or land user have a free choice concerning the land use and the type of cultivation (obligation of land use can only be applied).

2.3 Bereg – Jánd water rentention and village renewal pilot project

In 2001 dramatic flooding has destroyed almost the total area of Bereg in Upper Tisza region. The Hungarian government has rebuild the villages but risk remained, even increased in the last years Local citizens are aware of the flood risk and also that weather extremities cause large fluctuation in water regime. Jánd municipality has especially a unique situation having three oxbows in its territory with high potential for water retention, nature protection and rural development. But ownership and shape of utilization of land and water infrastructure was not providing framework for actions. Besides a 240 ha grazing area could not be utilized by local farmers due to unfinished land privatization, which blocked the grazing development.

11 Except the restrictions in force (e.g. environment protection on the areas of nature conservation).
12 In accordance with Act No. LV of 1994 besides the obligation of land use (and soil protection) official permission is required only in the case of other types of use (provisional or final withdrawal from agricultural production, the change of rural areas into urban areas and the afforestation not with the aim of soil protection), however, plantations can only be used as vineyards or orchards, accordingly.
13 Statutory rule No. 24 of 1976 on the procedure of alienation.
The municipality – closely cooperating the with Bereg Office and the experts involved – had initiated the pilot project with multi purpose aims:

- Enable the Halvány oxbow to store water and utilize the water body for local and tourist purposes.
- Renew the water management infrastructures and create better management involving private owners to lower the flood risk (from the river and from the inland water flow).
- Create new space for village centre development by utilizing “Virág street” as a local land reserve for land exchange and for financial cover of land purchases. To improve the attractiveness of the village (new families, investors, tourist)
- To define further long term steps to create a better livelihood in the village, improve the facilities for agriculture (mainly grazing and husbandry) and eco-tourism.

E-misszió Environmental Association (NGO located in the near city Nyíregyháza) provides full GIS support for the community, as well as trainings and process facilitation in collaboration with INSI-RÁCIÓ Association. The highly motivated Bereg local team plays and important role to use all kinds of mean for communication to harmonize the opinions, reach those groups, minorities who usually do not show up in meetings, public hearings. Their acceptance has increased during the implementation of the project.

Based on the first outcomes of the pilot project, sustainable grazing is ensured with settlement of ownership rights and land utilization with creation of grazing association.
between former land users. On the other side, water retention is ensured in the oxbow, but agreement was only reached on up keeping the existing water level. Further development is needed to enhance the area of the oxbow and the creation of adjoining community area with application procedure of compulsory participation of few owners not cooperated. The implementation of the pilot projects also can serve as a sample for the organisation of landscape rehabilitation and landscape water recycling. The project checked whether the procedures can be implemented, reveals the difficulties deriving from the organisation and makes recommendations for the required modification of the legal background (law for land consolidation) as well as for the sufficient subsidies to be provided. The landscape rehabilitation should serve the long-term interests and development of the whole society. During landscape rehabilitation the opportunities corresponding to the conditions of the area has to be determined, the areas involved have to be identified and then the use of the land bordered and the potential transition of the use have to be planned. In the land use planning, special attention has to be paid to the application of traditional land management methods.

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