Even before providing the European Landscape Convention, landscape was essential part of regional and urban planning documents in Croatia. Due to its long tradition of planning, part of the landscape was protected by spatial planning documents (like county spatial plans and spatial planning of towns and municipalities) in the spatial planning system. The need for identification of landscape types and regions (Landscape Map/Atlas) has been recognised in national documents even before the adoption of the European Landscape Convention 2000, and landscape as an important spatial development factor which was an indispensable element of planning.

The preparing of the Landscape Map of Croatia as the basis for the integral protection of the diversity and landscape identity was foreseen by the Spatial Planning Strategy of the Republic of Croatia (1997) and the Spatial Planning Program (1999). Such a substrate will enable the identification of common areas features (landscape units) and their synthetic evaluation which provides an insight into the benefits, sensitivity or endangering of certain areas of the landscape regarding to possible uses and interventions in the space. Only the Methodical Basis of the Landscape Map of Croatia (1999) has been produced so far.

By adopting the Act on the Ratification of the European Landscape Convention (Official Gazette - International Agreements, No. 12/02), Croatia is committed to contribute in the achievements like:
promoting protection, landscape management and planning, participation in European co-operation on landscape issues. With the publication of the entry into force of the European Landscape Convention (Official Gazette - International Agreements, No. 11/04), it entered on 1 March 2004.

The Ministry of Environmental Protection and Physical Planning was responsible for the implementation of this Law. Following the redeployment of the ministries in the state administration system, there is no central state administration body, which would only be undoubtedly responsible for landscape issues and the implementation of the European Landscape Convention. Since the activities of spatial planning are within the competence of the Ministry of Construction and Physical Planning, environmental and nature protection under the competence of the Ministry of Environmental Protection and Energy, and this topic was partially considered in the spatial planning / planning system of counties, cities and municipalities, and through the protection of registered protected landscapes under the jurisdiction of the Ministry of Culture.

Fundamental landscape protection exists in the system of protected areas under the Nature Protection Act, and on the Act on the Protection and Preservation of Cultural Goods. Ordinary, living landscapes, according to the European Landscape Convention, are previously cultivated and cultural landscapes that are now neglected and a part of endangered areas by construction. Valuable landscape areas are very often highly appealing for construction which causes their loss by inappropriate construction. Valuable landscapes of rural areas, especially in coastal, mountainous and riverine areas, are included into particularly vulnerable areas. The introduction of new activities and functions (change in land use, tourism, recreation) implies changing the original values of traditional historical landscape elements. Apart from the ambiguous unmatched (and / or unplanned) urbanization there are additional major threats to infrastructure (traffic, energy, water management), intensification of agricultural production, etc.

**Article 4 – Division of responsibilities**

Besides the Act on the Ratification of the European Landscape Convention there is no single law that regulates the matter of landscape. The questions of landscape are directly connected with the activities of several ministries and expert bodies: Ministry of Construction and Physical Planning, Ministry of Energetic and Environment and Ministry of Culture, and several public institutions: Croatian Institute for Spatial Development and Croatian Agency for Environment and Nature Protection. The establishment of a joint coordination body, National Landscape Committee, consisting of experts from afore mentioned bodies is currently underway.

**Article 5 – General measures**

5.a *Landscape recognition through legislation*

The current legal protection of the landscape is based on several laws which results in different approaches to the landscape issue, each one in favour of the sectorial needs. The most important are: Act on Physical Planning, Environmental Protection Act, Nature Protection Act and Act on Protection and Preservation of Cultural Goods. There are other laws, like Forest Act, Water Act, Act on Regional Development, Agricultural Act, Act on Energy, Act on Roads, which do not consider the landscape at all but their implementation have an impact on it.
Physical Planning Act (Official Gazette 153/13, 65/17), defined landscape protection and its integration in spatial planning documents. The goals of spatial planning, including the creation of a high-value built space with respect to the specificity of individual units and respect for the natural and urban landscape and cultural heritage were set by the Spatial Planning Act (Official Gazette No. 153/13). They are achieved by applying the principle of spatial planning in the design and implementation of spatial plans and their enforcement.

Environmental Protection Act (Official Gazette 80/13, 153/13, 78/15) also includes landscape issues. Act on the Protection and Preservation of Cultural Goods (Official Gazette 69/99, etc.) which also includes landscape; Nature Protection Act (Official Gazette 80/13) with definition of landscape from the ELC and defined landscape diversity. Article 9 ensures protection of significant and characteristic features of landscape important for wild species in spatial development and management of natural goods. It is prescribed that landscape protection is based on classification of landscape into landscape types, and structuring/setting up of mutually connected and multifunctional networks of green infrastructure on local, regional and national level.

5.d Integration of landscape in department policies

These sectors which recognised the role and the significance of landscape in law have adopted their sector strategies and plans. Spatial Development Strategy of Croatia, 2016, recognised and emphasized the significance of landscape. An expert study: the Landscape, Factor of Spatial Development was conducted as a basis for Spatial Development Strategy, in which was emphasized preservation of natural, rural and urban landscapes. The priorities and strategic directions of sustainable development are recognised in the affirmation of characteristics and the values of landscape. As a priority measure, it stressed the need to create a new Croatian Landscape Atlas which will contain: landscape typologies, landscape quality objectives and methodological guidelines for the implementation on regional level. The Strategy also serves as a foundation for the development of the State Physical Plan.

Draft Environmental Protection Plan of Croatia for the period of 2016 to 2023 as priority activities proposes the adoption of expert and legislative documentation with the objective to define the landscape management policies on all levels, the adoption of Croatian Landscape Atlas and the Landscape Strategy and its implementation in legislation and strategic physical planning documents, Environment Impact Assessment and such..

Ministry of Environmental and Nature Protection and Ministry of Agriculture have been worked on preparation of incentive measures in agriculture for Fund for Rural Development, regarding the protection of landscape elements that are important for the protection of biological diversity (dry-stone walls, terraces, hedges…).

Ministry of Construction and Physical Planning and Croatian Institute for Spatial Development carry out activities in order to integrate landscape in spatial (regional) and urban (town) planning. Croatian Institute for Spatial Development as a coordinator has carried out activities regarding making and adopting physical plans for areas with special characteristics. Physical plans for these protected areas include measures for protection of natural and cultural values, which also contained measures of protection of landscapes. Physical plans that were enacted are as follows: Plitvice Lakes National Park, Telašćica Nature Park, Medvednica Nature Park, Žumberačko-samoborsko Hills Nature Park, Biokovo Nature Park and Papuk Nature Park. Some Landscape Character Assessment Studies (2015
and 2016) were developed as baseline documents for Physical und Management plans of several Parks of Nature (Brioni, Krka, ..)

Article 6 – Specific measures

A. Awareness-raising

In 2012-2015 the Institute for physical planning of Dubrovačko-neretvanska County launched a project “Heritage –Driver of Development” as a part of EU IPA project of cross-border cooperation between Croatia and Montenegro, which also follows European Landscape Convention. As a part of project’s activities, a series of manifestations were organized, as well as exhibitions and workshops about landscape, which all aimed to raise awareness on landscape values among citizens, private organizations and public authorities, and their active role in decision-making process concerning changes in landscapes.

As a part of “Living with the park” manifestation (2014) organized by Karlovačka County, the Ministry of Environmental and Nature Protection held presentations regarding ways of implementing the Convention by means of Nature Protection Act.

A web site www.Suhozid.hr has been launched, which is a participating landscape observatory in the form of a web portal for public data collection on dry-stone walls throughout Adriatic east coast. It is based on interactive Web GIS interface and Android application, which enable collecting multimedia data (photos, descriptions, illustrations etc.). It aims to build a public data base as well as to promote the subject of dry-stone walls landscape.

B. Training and education

Masters and undergraduate studies of Landscape Architecture are held at the Faculty of Agriculture, University of Zagreb. Graduate courses on protection and landscape planning are held at Faculty of Architecture, Faculty of Philosophy and Faculty of Science University of Zagreb, as well as at the Faculty of Humanities and Social Sciences of University of Zadar. A course Landscape Protection is focused on identification of landscape values and application of methods that enable their protection via planning.

As a part of Heritage-Driver of Development project, in 2013 the Institute for physical planning of Dubrovačko-neretvanska County organized workshops to train professionals in GIS application for landscape recognition and evaluation.

C. Identification and assessment

Several landscape studies have been produced for various levels of physical plan documentation:

- landscape study of City of Zagreb, (2011) expert base for physical and urban planning and management;
- landscape study of Zagrebačka County (2013) – expert base for Physical Plan;
- overview of landscapes in Istarska County (2012) – expert base for Istarska County Physical Plan;
- landscape base of Krka National Park, (2015);
– landscapes of Primorsko-goranska County – landscape base, analysis and development framework;
– study of spatial and landscape identity of Veliki Brijuni Island, (2015);
– Island of Cres Landscape study, since a part of the Island of Cres Local Development Pilot Project is funded by the Council of Europe, (2015);
– conservation base for Starogradsko Polje Cultural Landscape – World Heritage Site, (2014-2018);
– identification and valorisation of Natural and Cultural Landscapes in the pilot area of the City of Dubrovnik (2015), a part of a cross-border Croatia-Montenegro EU project: Heritage, driver of development;
– Landscape Characterisation of Dubrovnik-Neretva County (2016.) – expert base for the Amendment of the Physical Plan of Dubrovnik-Neretva County and other documents;
– Identification and Assessment of Cultural Landscapes of Dubrovnik-Neretva County (2016) – with the aim of recognising, assessing and protecting the cultural landscapes of Dubrovnik Neretva County. 85 areas were identified and the areas of coverage or the protection zones of the recognised cultural landscapes were defined and mapped. As a part of this study, a Catalogue of Cultural Landscapes of Dubrovnik-Neretva County was developed in Geographic Information System (GIS) Register of rural landscapes of the littoral Croatia, 2013/2014 as a part of scientific projects “Mediterranean landscape as an identity factor of Croatia – its protection and development”, and “Protection, planning and management of Croatia’s rural landscape”.

D. Landscape quality objectives

Landscapes of extraordinary value, over 80 sites in the category of significant landscapes have been registered pursuant to the Nature Protection Act. Eleven cultural landscapes have been protected pursuant to the Act of Protection and Preservation of Cultural Goods. These landscapes were identified and protected as cultural heritage whose value is a result of natural features and human activity. Most landscapes were on the Adriatic coast and islands. The protected landscapes are: the landscape of the island of Palagruža – today an uninhabited island with a lighthouse and valuable archaeological sites; organically evolved terraced landscapes of vineyards of Primošten, Takala, Lun, etc. The protection of these landscapes implies maintenance and preservation of their specific qualities and characteristics.

Article 9 – International programmes and transfrontier landscapes

Dubrovačko-Neretvanska County and the Municipalities of Tivat and Boka Kotorska Bay in Montenegro have carried out a joint implementation of the IPA project, Heritage – Driver of Development, Dubrovnik and Boka Kotorska region, joint cross border activities in applying new methodologies in natural and cultural heritage protection and management (2012-2015). The areas of Dubrovnik and Boka Kotorska, which have cultural and natural heritage and overall landscape with similar characteristics, face the same problems when it comes to protecting and managing these valuable resources. Cultural and natural heritage, with landscape in particular, are at risk of being inadequately managed, and thus devastated.

The cross-border Mura-Drava-Danube Biosphere Reserve between Croatia and Hungary is carrying out activities regarding joint area management, based on biological and landscape values which acknowledge the cultural values of the area.
Conclusions

The European Landscape Convention emphasises the need to establish a balance between landscape management, planning and conservation. Landscape is the holder of spatial identity at local, regional and national level, while its elements are also a resource for economic use. The Republic of Croatia was among the first countries to sign (2000) and ratify (2002) the European Landscape Convention. Nevertheless, after so many years the landscape issue is still not being tackled holistically, in accord with the idea behind the European Landscape Convention.

The absence of a national body responsible for landscape issues is the main reasons for insufficient performance of obligations assumed from the European Landscapes Convention in Croatia. A priority should be to adopt expert and legislative backgrounds with a view to defining landscape management policy at all levels, from administrative to professional-scientific level. The given measures relate primarily to the need of establishing the necessary national system responsible for issues of sustainable landscape management, as well as the adoption of implementing mechanisms.

Establishing a clear policy for the conservation of landscape features is a task that should be taken on by the National Landscape Strategy regarding sustainable development that is compatible with landscape quality. The fundamental task of the National Landscape strategy would be to co-ordinate the activities of different sectors that have a direct or indirect impact on landscape structures, or interest in the use of landscapes as resources or values, namely: energy, industry and infrastructure, agriculture, water management, construction and tourism in the framework of the existing administrative system: environmental, natural and cultural heritage policy.

For the purpose of adopting a National Landscape Strategy, it is necessary to ensure the implementation and application of the anticipated methods of recognising and evaluating the landscape character. It is necessary to establish the Landscape Map/Atlas of Croatia and the criteria for implementing the landscape classification and landscape assessment of the territory at all levels (national, regional, local).

It is important to establish a professional body (National Landscape Commission, NLC) for the implementation of the European Landscape Convention at national and regional level; the NLC would have the task to organise research, documentation development, promotion, information and public education on landscape issues.