URBAN FORESTS. EUROPEAN ADMINISTRATIONS' CONCERN FOR THEIR ESTABLISHMENT AND MAINTENANCE

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Abstract:
In recent decades there has been increasing talk about global warming and its devastating effects. In recent summers, the whole of Europe has felt trapped in unbearable heatwaves, with countries like Greece. Spain and Portugal have felt the full impact of temperatures of at least 40 degrees in the shade. Against the backdrop of these types of problems, several European institutions and state public authorities have decided to launch afforestation or reforestation programs, generating a degree of satisfaction both at the general level, the state, but also at the level of local communities involved in projects to create what we call urban forests.
This study aims to assess what efforts have been made in recent years by countries such as Romania, Hungary or Poland in this regard, what have been the steps taken by the governments of these countries, how NGOs or foundations have been involved in the emergence and development of urban forests and what amounts of money were needed to launch, run and maintain these efforts.
Keywords: *Urban forests, authorities, government, projects.*

I. Introduction

Looking at the planet's biodiversity, many species are on the brink of extinction, while others no longer exist. Ecologists insist that urban environments suffer from an acute lack of biodiversity and that there is a need to create those spaces in urban areas that are not disturbed by humans, such as urban forests [1].

Today, many EU Member States have provisions related to nature restoration and maintenance in their own legislation, reflected in the EU Birds Directive (2009/147/EC), the EU Habitats Directive (92/43/EEC), the EU Water Framework Directive (2000/60/EC), the EU Floods Directive (2007/60/EC) and the EU Marine Strategy Framework Directive (2008/56/EC) [2].

As a response to the whole issue of biodiversity and climate neutrality, the European Commission has come up with the solution of an EU forest strategy. This

involves planting more than 3 million trees in the EU by 2030, based on basic ecological principles. Afforestation and reforestation support biodiversity and ecosystem restoration to be promoted through CAP strategic plans and cohesion funds [3].

International bodies have also recognized the relevance of urban forests. The Sixth Assessment Report of the 2022 IPCC Intergovernmental Panel on Climate Change (IPCC) revealed the importance of sustainable urban planning from an infrastructure design perspective. Green roofs, urban parks and forests, urban agriculture are useful tools to mitigate the effects of climate change [4].

II. History and evolution of the concept

The urban forest concept has its roots in the 1960s in North America. Initially in Europe, it took shape in the United Kingdom and Ireland in the 1980s, and was later taken up and developed in the Netherlands and Northern Europe [5], [6], [7].

Looking at things historically, most cities in Europe did not have green spaces, but in those days cities were not large and most of the population lived in rural areas. From this point of view the relevance of green spaces for city dwellers was only recognized in the 1850s. [8], [9], [10].

In Canada, for example, the term urban forest emerged late, not until 1965 as the title of a graduate thesis on the success and failure of tree planting in Toronto [11[, [12].

Subsequently, in the period 2000-2006 there was an increase of green spaces in the urban area, whereas in the period 1990-2000 no significant evolution in this sense took place. This increase occurred particularly in cities in Western and Southern Europe, while in Eastern Europe there was a decrease in interest in green spaces due to the decrease in the number of inhabitants in these areas [13].

Recently, in a specialized article focusing on the situation in at least 300 European cities, it was analyzed that between 20 and 40 percent of urban green spaces are found in northern and central areas of Europe, while less than 10 percent of urban green spaces are found in southern Europe [14], [15].

According to EUROSTAT, in the 398 European cities analyzed in the aforementioned study, the share of green urban areas ranges from 0.1% (Matera, Italy)

to 26.3% (Karlovy Vary, Czech Republic), with an average of 7.1%, this percentage covering all green areas and not only the forested ones [16], [17].

In recent years the European Parliament has recognized the existence of a certain climate urgency, and the European Council has recognized that climate change is "an existential threat. As such, the EU has decided to endorse a program called the 2020 Leaders' Commitment, which prioritizes the climate and diversity crises [18], [19].

Another important program (and focused on this theme) at European level is the Green City Accord. This is in fact a movement of European mayors who impose on their mandates to transform the cities they manage into "cleaner and healthier" cities. Its aim is clearly to increase the quality of life throughout the European area, but also to speed up the implementation of relevant European environmental legislation. By joining the agreement, the signatory cities have committed themselves to manage five particularly important areas in the future, namely "air, water, nature and biodiversity, circular economy and waste and noise" [20].

By adhering to the above-mentioned pact, cities will make additional efforts to cover 5 environmental areas, which are needed by 2030, taking into account the Green Deal requirements. The signatory cities have committed to making considerable progress on maintaining and improving the biodivesity of cities and restoring urban ecosystems [21].

For the same purpose the EU has also created Natura 2000, which is the world's largest coordinated network of protected areas [22].

III. Romanian situation

In Romania, the MMAP - Call C2/I.1.C "Creation of urban forests" - call for projects entitled "Creation of urban forests" financed from the component C2: Forests and biodiversity protection within the National Recovery and Resilience Plan (NRRP) [23].

The role of this call is to set up urban forests that can add value to the already existing green environment but insufficient in terms of surface area and diversity, thus creating real 'green lungs' that can bring several benefits such as cleaner air, less noise, less anxiety and raise the level of public health [24], [25].

In the framework of this project, the applicant or its members shall provide evidence to demonstrate ownership or possession (public or private) of the land where the investment is to take place, i.e. to demonstrate the right of management or concession or free use for a period of at least ten years from the date of the last payment under the project [26], [27].

In the case of projects submitted under the PNRR, the amount of VAT related to eligible expenditure will be charged to the state budget, from the budget of the coordinator of reforms and/or investments for Component C2 - FORESTS AND BIODIVERSITY PROTECTION, in accordance with the legislation in force [28].

In the city of Cluj-Napoca, for example, an urban-type forest is to be created in the area Blvd. Muncii, 21.3 hectares, Youth Park - Cluj Forest. This type of green space is intended to meet the needs of schools or NGOs that promote the idea of nature and quality environment, the total value of the project is 22.861.202, 24 lei. The European funds were obtained under the Regional Operational Programme 2014-2020, Priority Axis 4 - Supporting sustainable urban development, Os. 4.2. Conversion and refunctionalization of degraded, vacant or unused land and areas in the municipalities of the county residence [29].

It is intended that Cluj municipality will have the largest Romanian biodoversity park, called East Park, an area of 54 hectares of urban forest composed of natural meadows and eco-sustainable paths. This project in Cluj intends to create educational and cultural facilities, the appearance of thematic gardens and information centers on biodiversity. All this will have as a fundamental role to raise awareness of the importance of maintaining a quality environment in particular and its protection in general.

On the basis of this initiative in 2019 Cluj-Napoca City Hall obtained a European funding of 10 million euro for this park. The total amount of investment for the realization of the East Park is 743.437.082, 11 lei, including VAT (149 million euro) [30].

In the same context, the URBFORDAN project aims to capitalize on the sustainable management of natural heritage and green areas in the Danube region and in this respect it was agreed by the local decision-makers that a "transnational approach" will be needed. Therefore, URBFORDAN is designed to provide a change of vision on urban and peri-urban forest management and ecosystem utilization in 7 partner cities of

the project: Ljubljana, Budapest, Cluj-Napoca, Vienna, Zagreb, Belgrade, Ivano-Frankivsk.

In the city of Cluj the project was promoted by the Cluj City Hall which has allocated a budget of 145.682,15 Euro, of which the ERDF contribution is 123.829,82 Euro, the co-financing of the Ministry of Regional Development and Public Administration is 13% (18.938,68 Euro) and the own contribution is 2% (2.913,65 Euro [31].

In another western city in Romania, Timisoara, the Act for Tomorrow Association, together with the Timisoara City Hall had an urban regeneration initiative in the neighborhood called Fabric, where they want to transform an unused land into an urban forest, useful for the inhabitants of the area. This welcome initiative is intended to be a first step in terms of collaboration between local authorities and civil society, the aim being the planting on a 750 square meters of land of trees and perennial plants selected to improve the quality of the environment and to serve the Timisoara community. Among the aims of this project would be to lower temperatures, filter the air and provide protective space for pollinating insects and birds [32].

Another idea of setting up miniature forests in Timisoara is one of the eight projects declared as winners in the 2022 participatory budgeting program and aims to reduce pollution, noise and dust levels in the city by creating small "green oases" in certain heavily trafficked places. The municipality wants to have seven such mini-urban forests in Timisoara in the next two years, and the Foundation for Protected Areas Propark is working to this end to start such a project on the land provided by the Timisoara City Hall, in the East Railway Station area. The second miniature urban forest looks set to take hold in the East Station area [33].

IV. Hungary

European Union on climate neutrality, a position also maintained at the December 2019 European Council. At the same time, Hungary has maintained that it will strive to achieve climate neutrality by 2050. Based on the National Energy and Climate Plan and the National Clean Development Strategy 2050 the government in Budapest wants to give value to complex climate, energy and environmental policies to support the Hungarian state on low-carbon and greening as symbols of an economy of the future [34].

In 2010 the Hungarian Minister of State mentioned that the state forestry enterprises manage one million hectares of forest and since the same time the government has spent HUF 33 billion to invest in forest ecotourism. As a result of these efforts by the Hungarian central authorities, the forests have become one of the most visited domestic tourist destinations.

Thus, as an effect of the above-mentioned projects, thousands of people in Hungary are taking advantage of a cleaner and greener environment, enjoying the green spaces ween end to weekend, which has exponentially increased the number of hikes in mountain areas, which is expected to reach 40-50 million in 2023 [35].

In 2024 the local authorities of Budapest implemented a project aiming for an urban park of about 7 hectares on the Danube bank, north of the Római side, in cooperation with Főkert, and when the character of the new park was determined, "an innovative, ecological, nature-oriented design was chosen instead of the 'traditional' development of urban parks". One of the pillars behind the creation of this type of park was the circular economy, which is useful both in terms of creating and maintaining the park. The concrete foundation of the footpaths was abandoned, its remains being used as a foundation for the streets. The development of the site was achieved by balanced earthworks to minimize the amount of soil delivered and transported [36].

Community forums were held during the design process to assess the needs and expectations of park users. The scope of users was broadened to include different age groups as well as cyclists, dog owners, people with disabilities and lovers of different sports.

During the course of the design process citizens were also consulted, the community forums played a defining role in establishing and assessing the needs and expectations of future park users. These groups included a variety of potential users such as the elderly, cyclists, dog owners, people with disabilities and sports enthusiasts, whose opinions were taken into account by the project developers [37].

Recently, as part of a new initiative in this area of urban green space development, the Great Forest (Nagyerdő) in Debrecen won a public internet vote in a competition organized by the Ministry of Agriculture; and the Minister of Agriculture, István Nagy, presented the certificate attesting to the qualities of the aforementioned forest.

Against this background, the Ministry of Agriculture initiated a public vote on the internet in which more than 61 000 people participated, and the result was in favor of the Debrecen Forest, which is in a leading position as the first nature reserve in the country, and has also acquired the status of the most beautiful Hungarian forest [38].

On the other hand, the Budapest 2030 Strategy aims to transform Budapest into one of the greenest capitals in the EU by 2030, which means improving transportation infrastructure, increasing the number of bicycle lanes and creating green spaces [39].

As a conclusion, a land use plan up to 2026 was established based on Urban Atlas Data after studying several rural settlements in Hungary. Unfortunately, with some exceptions, in terms of local strategies of cities dealing with climate issues, it can be concluded that local governments do not consider land occupation and land use change as significant concerns and therefore no large-scale projects are carried out in this respect and not in all the evaluated localities significant measures have been taken by the authorities to protect the environment. Efforts are however being made in large cities, including electrification of urban transportation, increased energy efficiency of public buildings etc. [40].

V. Poland

In Poland, the legislative basis for the management and maintenance of forest land is provided by the 1991 Act on Forests (Act of September 28, 1991), and in case of a change in land use, the 1995 Act on the Protection of Agricultural and Forest Land (Act of February 3, 1995) [41].

The Polish State Forestry Policy was launched in 1997 and the program for increasing forest mass in 1995 are aimed at increasing the evident interest in the development of green areas (forests in particular) in the state. The National Program for Increasing Forest Cover as well as the State Forestry Policy assumed an increase of Poland's forest cover to 30% in 2020 and 33% after 2050 [42].

However, the European Commission has so far found that the Polish forest legislation as amended by the government authorities is not compatible with the EU Birds and Habitats Directives. It also accused Poland of not allowing communities to challenge forest management and the authorities' forest management plans in court [43].

Currently, Polish forest governance is clearly dominated by the state, which owns about 80% of Poland's forests, while 96% of these state forests are managed by the SFH - an influential organization with almost 25 000 employees that combines aspects of a public authority and a quasi-corporation [44].

Today, about 60 percent of the Polish population lives in urban areas, and the cities are quite different in terms of demographics, population size and density, as well as environmental quality in urban areas. The Ministry of Climate and Environment is working on the implementation of legislation in the field of urban trees and forests. Respectively on the amendment of the Environmental Protection Act in order to strengthen the climate dimension of urban policy and proper coordination of adaptation activities at urban level. [45].

The state climate ministry has presented a strategy for the establishment of 14 "community forests" that will lead to the creation of so-called "green rings" around major cities. The creation of community forests is planned around Warsaw, Krakow, Gdansk, Gdansk, Sopot, Gdynia, Wrocław, Łodź, Poznań, Katowice, Bydgoszcz, Toruń, Szczecin, Kielce and Bielsko-Biała. They are intended to be available to some 13 million of Poland's 36 million inhabitants [46].

The Community Forests Project is created with the help of 150 NGOs that have made a significant contribution to the preparation of this project. Minister Hennig-Kloska expressed her gratitude to the participants of the National Forest Council for their contribution to the mapping [47].

Another large-scale project in this field has been launched in consultation with experts from the University of Life Sciences in Warsaw, and it aims to create so-called "connected Polish forests", taking into account that the foundation that launched the project - Las Na Zawsze Foundation - is already taking care of more than 40 hectares of ecologically valuable land in Poland. At the moment, the foundation aims to create an area of over 2000 ha of forest land equivalent to the area of the Ojców National Park, and in the long term, the plan is to establish a network of mature forests throughout the country [48].

VI. Conclusions

Without doubt, the above mentioned shows, in part, the efforts made by the Romanian state, but also by some neighboring states for the development and implementation of a concept that, until the 60s, was just an isolated term mentioned in a bachelor's thesis by a student.

We can consider that in the last 10 years most local and central public authorities as well as some European institutions - the European Council and the Commission - have not remained impassive to the increasingly acute needs of city communities that are surrounded by huge concrete blocks or tall glass buildings, which does not guarantee a climatic comfort for the inhabitants of large or small European cities.

What is important as a conclusion of the above study is that not only have the states themselves made legislative or financial efforts to ensure that these urban forests and parks appear and develop, but there has been a real effort by the communities directly concerned and even by other structures passionate about greening or interested in better harmonizing the urgent interests of citizens with the investments of local administrations.

References:

[1] Asociatia Romana SMART City, Care sunt cele mai reușite ”păduri urbane” din lume și cum pot influența calitatea aerului din orașe, https://arsc.ro/care-sunt-cele-mai-bune-paduri-urbane-din-lume-si-cum-pot-influenta-calitatea-aerului-din-oras/, consulted in 26. 04. 2025, 14, 07).

[2] COMISIA EUROPEANĂ, COMUNICARE A COMISIEI CĂTRE PARLAMENTUL EUROPEAN, CONSILIU, COMITETUL ECONOMIC ȘI SOCIAL EUROPEAN ȘI COMITETUL REGIUNILOR, Strategia UE privind biodiversitatea pentru 2030, Bruxelles, 20.05.2020, at https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX:52020DC0380, consulted in 21. 02. 2025, 18, 55).

[3] COMISIA EUROPEANĂ, COMUNICARE A COMISIEI CĂTRE PARLAMENTUL EUROPEAN, CONSILIU, COMITETUL ECONOMIC ȘI SOCIAL EUROPEAN ȘI COMITETUL REGIUNILOR, Strategia UE privind biodiversitatea pentru 2030, Bruxelles, 20.5.2020, at https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX:52020DC0380, consulted in 21. 02 2025, 18, 55).

[4] CLIMATE ADAPT, SHARING ADAPTATION KNOWLEDGE FOR FOR A CLIMATE- RESILIENT EUROPE APUD. https://climate-adapt.eea.europa.eu/ro/metadata/publications/urban-forests-a-global-perspective, consulted in 26 04 2025, 13, 43).

[5] Thomas Randrup .; Cecil Konijnendijk,.; Michele Kaennel Dobbertin, Renatte Prüller,. The concept of urban forestry in Europe. In Urban Forests and Trees; Konijnendijk, C., Nilsson, K., Randrup, T.B., Schipperijn, J., Eds.; Springer: Berlin/Heidelberg, Germany, 2005; pp. 9–21.

[6] Cecil Konijnendijk, Robert M. Ricard, Andy Kenney.; Thomas Barfoed Randrup, Defining urban forestry—A comparative perspective of North America and Europe. Urban For. Urban Green. 2006, 4, 83–103.

[7] Silvija Krajter Ostoić, Dijana Vuletić, Špela Planinšek, Urša Vilhar snd Anže Japelj, Three Decades of Urban Forest and Green Space Research and Practice in Croatia and Slovenia in Forests, 2020, pag. 2)

[8] Anna Dankowska, Dagmar Haase and Anegrette Haase (2017) ‘Urbane Gärten – Alles Kraut und Rüben?’, Garten und Landschaft, 3, pag. 12– 19.

[9] Carys Swanwick, Nigel Dunnett, and Hellen Woolley, 'Nature, role and value of green space in towns and cities: an overview', Built Environment, 29:2, 2003, pag. 94– 106

[10] Dagmar Haase, Diana Dushkova, Annegret Haase and Jakub Kronenberg, Gren infrastructure in post socialist cities, Evidence and experiences from Eastern Germany, Poland and Russia, Post-socialist Urban Infrastructures, 2019, Routlege, pp.105-124.

[11] Mark Johnston , A brief history of urban forestry in the United States. Arboricultural Journal 20, 1996, 257–278.

[12] Cecil C. Konijnendijk, A decade of urban forestry in Europe, Forest Policy and Economics 5 (2003), pag. 175.

[13] Nadja Kabisch, Dagmar Haase, Green spaces of European cities revisited for 1990–2006, Landscape and Urban Planning, Volume 110, February 2013, pag. 113-122.

[14] Richard Fuller and Kevin Gaston, The scaling of green space coverage in European cities, Biology Letters, febr. 2009, nr 5, pag. 352 and next.

[15] Nadja Kabisch, Dagmar Haase, Green spaces of European cities revisited for 1990–2006, Landscape and Urban Planning, Volume 110, February 2013, pag. 113-122.

[16] Stephen Pauleit, Nerys Jones, Signe Nyhuus, Pirnat, J.; Fabio Salbitano, Urban Forest Resources in European Cities. In Urban Forests and Trees; Konijnendijk, C.C., Nilsson, K., Randrup, T., Schipperijn, J., Eds.; Springer: Berlin/Heidelberg, Germany, 2005; pp. 49–80.

[17] Ewa Referowska-Chodak, Pressures and Threats to Nature Related to Human Activities in European Urban and Suburban Forests, in Forests, 2019, 10, pag. 1.

[18] https://www.leaderspledgefornature.org/, in EN ENEUROPEAN COMMISSION, EN ENEUROPEAN, COMMISSION Brussels, 24.0.2021, 2021.

[19] COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGION. Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change, pag. 2.

[20] European Commission, Green City Accord A European Commission initiative to make cities greener, cleaner and healthier. https://environment.ec.europa.eu/topics/urban-environment/green-city-accord_en consulted in 21. 02. 2015, 17,36).

[21] EC, Five Priority areas, at https://environment.ec.europa.eu/topics/urban-environment/green-city-accord/five-priority-areas_en, consulted in 21 02 2025, 17, 55).

[22] 9 EC, Nature and biodiversity, at https://environment.ec.europa.eu/topics/nature-and-biodiversity_en , consulted in 22 02 205, 18, 13).

[23| (https://pnrr.mmap.ro/wp-content/uploads/2023/09/GHID_PNRR_2023_C2_I.1.C_CREAREA-DE-PADURI-URBANE.pdf, consulted in 26.04. 2025, 15. 50).

[24] GHID SPECIFIC - CONDIȚII DE ACCESARE FONDURILOR EUROPENE AFERENTE PNRR ÎN CADRUL APELULUI DE PROIECTE PNRR/2023/C2/I.1.C - CREAREA DE PĂDURI URBANE, pag. 8.

[25] https://pnrr.mmap.ro/wp-content/uploads/2023/09/GHID_PNRR_2023_C2_I.1.C_CREAREA-DE-PADURI-URBANE.pdf, consulted in 27. 04. 2025, 15, 54).

[26] GHID SPECIFIC - CONDIȚII DE ACCESARE A FONDURILOR EUROPENE AFERENTE PNRR ÎN CADRUL APELULUI DE PROIECTE PNRR/2023/C2/I.1.C - CREAREA DE PĂDURI URBANE, pag. 14.

[27] https://pnrr.mmap.ro/wp-content/uploads/2023/09/GHID_PNRR_2023_C2_I.1.C_CREAREA-DE-PADURI-URBANE.pdf, consulted in 27. 04. 2025, 15, 54).

[28] https://pnrr.mmap.ro/wp-content/uploads/2023/09/GHID_PNRR_2023_C2_I.1.C_CREAREA-DE-PADURI-URBANE.pdf consulted in 27. 05. 2025, 17, 17).

[29] Consiliul local CJ Napoca, A început plantarea primilor 150 arbori în Pădurea Clujenilor – proiect european pentru realizarea unei noi păduri-parc, 29 septembrie 2020, apud. https://primariaclujnapoca.ro/informatii-publice/comunicate/a-inceput-plantarea-primilor-150-arbori-in-padurea-clujenilor-proiect-european-pentru-realizarea-unei-noi-paduri-parc consulted in 27. 04. 2025, 18, 38).

[30] din Padure.ro, Cel mai mare parc de biodiversitate din România va fi amenajat la Cluj, 15 01 2025, apud. https://dinpadure.ro/cel-mai-mare-parc-de-biodiversitate-din-romania-va-fi-amenajat-la-cluj, consulted in 27. 04. 2025, 17, 42).

[31] Primaria mun. Cluj Napoca, Proiecte europene. Mediu, spatii verzi, apud. https://primariaclujnapoca.ro/proiecte-europene/mediu-spatii-verzi, consulted in 27. 04. 2025, 17, 56).

[32] MARIUS POPESCU, Timișorenii, invitați să ia parte la plantarea unei mini-păduri urbane în cartierul Fabric, 8. 04. 2025, apud. https://www.pressalert.ro/2025/04/timisorenii-invitati-sa-ia-parte-la-plantarea-unei-mini-paduri-urbane-in-cartierul-fabric, consulted in 27. 04. 2025, 18, 52).

[33] Adriana Mit, A doua pădure urbană în miniatură prinde viață la Timișoara, 27. 03. 2022, apud. https://expressdebanat.ro/a-doua-padure-urbana-in-miniatura-prinde-viata-la-timisoara, consulted in 28. 04. 2025, 19, 05).

[34] Hungary Green Bond Framework, 2020, pag 2, apud. https://www.akk.hu/download?path=94683575-7419-40d8-9172-9366c4c17478.pdf consulted in 26. 05. 2025, 16, 11).

[35] NM INNOVATION, Urban forest - a green oasis for everyday life, valabil la https://nminnovacio.hu/urban-forest-a-green-oasis-for-everyday-life, consulted in 25. 05. 2025, 14, 07).

[36] Green cities Europe, Candidate Hungary, https://award.thegreencities.eu/award-2023/hungary, consulted in 25. 05. 2025, 14, 16).

[37] Green cities Europe, Candidate Hungary, https://award.thegreencities.eu/award-2023/hungary, consulted in 25 05 2025, 14, 16).

[38] Visitdebrecen,The Great Forest is named Hungary's most beautiful forest, https://visitdebrecen.com/hot-now/the-great-forest-is-named-hungarys-most-beautiful-forest, consulted in 25. 05. 2025, 14, 36).

[39] ReBuilt, Green Public Procurement and the State of Green Cities in Hungary, 18.11.2024, apud. https://www.interreg-central.eu/news/green-public-procurement-and-the-state-of-green-cities-in-hungary, consulted in 25. 05. 2025, 16, 02).

[40] A sacrifice for the greater good? On the main drivers of excessive land take and land use change in Hungary, Gyorgy Csomos, Adam Szalai, Jeno Zsolt Farkas, A sacrifice for the greater good ? On the main drivers of excessive land take and land use change in Hungary, in Land Use Policy 147/2024, https://pdf.sciencedirectassets.com/271740/1-s2.0-S0264837724X00095/1-s2.0-S0264837724003053/main.pdf?X-Amz-Security-Token=IQoJb3JpZ2luX2VjEGQaCXVzLWVhc3QtMSJIMEYCIQC30FwGUTCALKGBwS%252BzkI1aWc5awkas129PLu4M68ygnQIhAKViVfa7rMnfSY%252B6V%252BO2bZp00%252FvZ1bsPI3uwtwhV2lXJKrMFCCwQBRoMMDU5MDAzNTQ2ODY1IgyfXuJdUZNGCfwTMhYqkAWR4dfe%252FzXlPjbQD2btW5ATG3QvtVeNs%252BF7ODOaEBEjgpxlcW1QwqYIpsPEp3Zjl7gW%252BfwTjTveYVvxsCC9DlyQmYHBqUVyJA7pKwzTfE83OFcXS3QEwxyPa86MI5TYruHme9JzPtKX27s0Gilc5apTaDFoT09GWgge8Ha4vb3PeWKzMIyfSZR4IWtU%252FqSAitgGuZhNWUQO5KHt0n2fY1OgAcV%252BAF6Kn61EX2%252Fq7SwJOtf1OzTNj%252Blpkgq445jDSJiyyz9RYl5YFOGgfewR%252FTaJCurr1cE0seVw6FA1rZcdA0KSbdGL%252FT7fLsBCr5Pa7mp1InjxIwRI7Q3bztFZMz%252Fp1J1nwY11fwgxXxHaB5fZtuDfkeWzLzWrzP5NpIxfBgcNY0lQz2D3J%252BPFT5yXjiuDqYiuOUOZ1%252Bh1Mn6KZSkG5GkYZXkzglcd0wGWRdO3jb8TisKXZ, consulted in 25. 05. 2025, 15,36).

[41]. Dagmara Kociuba, Leszek Gawrysiak, Waldemar Kociuba, Changes in Forest Cover of Municipalities in Poland in 1990–2018, Sustenaibility, 9 mai 2024, apud. https://www.mdpi.com/2071-1050/16/10/3954#B34-sustainability-16-03954 consukted in 28. 05. 2025, 13, 46).

[42] Hubert Szramka, Krzysztof Adamowicz, Forest development and conservation policy in Poland, Folia Forestalia Polonica Series A – Forestry, 2020, Vol. 62 (1),/2020, pag. 35.

[43] Notes from Poland, Polish law does not adequately protect forests, finds EU court, 2 martie 2023, https://notesfrompoland.com/2023/03/02/polish-law-does-not-adequately-protect-forests-finds-eu-court, consulted in 5. 06. 2025, 7, 25)

[44] Statistics Poland, Statistical Yearbook of Forestry, Statistics Poland, Warszawa (2021) in Forest Policy and Economics Volume 154, September 2023, https://www.sciencedirect.com/science/article/pii/S1389934123001041#bb0345, consulted in 27. 05. 2025, 15, 20).

[45] Statement of Poland Item 8.1 FAO's work on urban Forestry and its contribution to urban agrifood system transformation, https://www.fao.org/assets/COFO27/Statements/COFO27_Item8.1_Poland.pdf, consulted in 26. 05. 2025, 16. 31).

[46] Jul 30, 2024 | Energy & Climate, Poland to create "community forests" around large cities to protect nature and serve residents, at https://notesfrompoland.com/2024/07/30/poland-to-create-community-forests-around-large-cities-to-protect-nature-and-serve-residents, consulted in 25. 05. 2025, 16, 38).

[47] Water Issues, Social forests for 13 million Poles, 1 August 2024, apud. https://wodnesprawy.pl/en/social-forests-for-13-million-poles, consulted in 28. 05. 2025, 16, 31).

[48] Zespół Redakcyjny, Connected Polish Forest – is it possible to link forests together? Publisehed in 24 may 2025, Water Issues, available at https://wodnesprawy.pl/en/connected-polish-forest-is-it-possible, consulted in 5.06. 2025, 7, 41).