The importance and use of forest areas in local development

Abstract. Forest areas and related resources are significant determinants of local development. Especially in regions characterized by considerable forest cover, the forest may constitute the basis and determine the pace and direction of socio-economic development. The study presents local development issues and discusses the diverse role and potential impact of the presence of forest areas on this development. The analysis of the scientific literature in this field allows us to conclude that this impact is highly significant, complex, and multifaceted and that conscious and responsible forest use planning can be the basis for the sustainable development of many territorial units.

Key words: forest, forest areas, local development, sustainable development

Introduction

Local development is an essential element of the socio-economic development of the country and the region and an indicator of the standard of living of the local community. Every territorial unit’s primary goal is to strive for the highest possible level of living conditions for its inhabitants through effective social activity and prudent management of local resources. It is a complex process and concerns many economic, political, social, and cultural life levels. Therefore, local development is integral and is reflected in many dimensions: socio-cultural, environmental, infra-technical, economic, and spatial.

The level of development of individual communes or poviats in the scale of the country, and even of the voivodeship, is not the same, and sometimes even comparable.

1 J. Orłowska: Czynniki i bariery rozwoju lokalnego. Współczesne problemy ekonomiczne w badaniach młodych naukowców. T. 1. Wzrost, rozwój i polityka gospodarcza. E. Gruszewska, K. Karpińska, A. Protasiewicz (eds.). Polskie Towarzystwo Ekonomiczne, Warszawa 2018, p. 44-56; J.J. Parysek: Podstawy gospodarki lokalnej. Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza, Poznań 2001.
2 A. Frączkiewicz-Wronka (ed.): Zarządzanie publiczne w lokalnej polityce społecznej, Wydawnictwo Wyższej Szkoły Pedagogicznej, Warszawa 2007, p. 23.
In many regions, this differentiation is significant, and a lower level of development is often noticed in rural areas or small towns, e.g., in the eastern part of the country. This causes many consequences, including the outflow of the younger generation to larger centers in search of work and better living conditions.

Few municipalities in Poland can show a significant abundance of raw materials (e.g., in Upper Silesia) or a favorable geographical location (such as seaside resorts). Therefore, many communes are forced to seek and diagnose other, often unique, resources or conditions that may constitute the basis of their socio-economic development. One of such specific internal conditions is the presence of a forest in a given area, which may be a unique and significant stimulus determining the socio-economic development of this area. Poland’s forest cover index is almost 30%\textsuperscript{3}. This feature, both quantitatively and qualitatively, is often significantly different for individual communes or poviats and can constitute a significant potential and stimulate their development\textsuperscript{4}, which, given the diverse nature and specificity of particular forest areas, can be initiated and implemented on many fields.

**Purpose and method of research**

The study aimed to present the concept and essence of local development and discuss the diverse role and potential impact of forest areas on this development. The benefits of using the forest are discussed in the economic as well as socio-cultural context. For the work, the method of analyzing the literature on local development, forestry, tourism and recreation, and other fields was used, and the analysis of existing data (desk research). The obtained results and authors’ thoughts are presented descriptively.

**The concept and essence of local development**

The issue of local development, which is repeatedly discussed in economic literature, is pervasive and analyzed in various contexts\textsuperscript{5}. Local development can be defined as development in a local system, i.e., in a commune or poviat. It is a process of positive changes, quantitative growth, and qualitative progress taking place in a local system, taking into account the needs, preferences, and hierarchy of values appropriate to this system. However, in the case of socio-economic development on a local scale, the approach to development is complicated because each area functions as an integral part of a larger whole (the economy of a country, region), and it is difficult to consider development in a given local system in isolation from a larger whole\textsuperscript{6}. Therefore, development should be understood “in the sense of a complex of qualitative changes concerning a given area in terms of the standard of living of people living here and the conditions of

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\textsuperscript{3} Rocznik Statystyczny Leśnictwa 2020, GUS, Warszawa 2020, p. 36.

\textsuperscript{4} B. Porter, M. Tyra, A. Wojewódzka-Wiewiórska: Las jako czynnik rozwoju lokalnego, „Studia i Materiały CEPL” 2016, no 18 (49B/5), p. 20.

\textsuperscript{5} A. Sekuła: Koncepcje rozwoju lokalnego w świetle współczesnej literatury polskiej – zarys problemu, „Zeszyty Naukowe Politechniki Gdańskiej. Ekonomia” 2001, no 40 (588), p. 89-95.

\textsuperscript{6} L. Wojtasiewicz: Czynniki rozwoju lokalnego – nowe ujęcie metodologiczne, „Biuletyn KPZK PAN” 1997, no 177, p. 7-18.
functioning of economic organisms located here.” This definition emphasizes the local character of development, and at the same time, broadly covers its determinants (factors, conditions, tools), which can be both local and external. Moreover, local development can be considered on several levels: political, social, cultural, and economic. In literature and research on local development, it is often equated with socio-economic development. It seems that this is because if we call local development positive changes in quantitative growth and qualitative progress, then these changes can be seen in the fullest (and also the easiest) way precisely at the socio-economic level.

The issues of local development, understood as a process of positive changes and transformations in a given area, are gaining importance in theoretical and practical aspects. This is related to the differences in the level of development occurring in various countries, including Poland, particularly with the search for causes and ways of stimulating it. The most crucial goal of local development is to provide the community with the highest possible standard of living. Partial goals are also adopted, including guaranteeing jobs, ensuring appropriate material living conditions, enabling one to stay in an unpolluted environment, ensuring access to places of education, culture and entertainment, rest, and ensuring a sense of security.

Three essential and most important features should be taken into account in local development. They are subjectivity, multidimensionality, and continuity. The first of these features emphasize the importance of local development entities, i.e., local government authorities, various types of public institutions, and entrepreneurs that participate in its creation. Local communities that, in cooperation with the local government and local leaders, carry out activities in various fields, creating a community with common goals, deserve special attention.

The multidimensionality of local development is related to three spheres of human life: economic, social, and natural. Changes taking place in the economic sphere relate to long-term changes taking place in the economy of a given area. The social sphere is mainly dependent on the people living in a given area. It is them who, by creating a network of connections with each other, can expand the development possibilities of the area.

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7 L. Wojtasiewicz: Planowanie rozwoju lokalnego, [in:] Rozwój regionalny. Rozwój lokalny. Samorząd terytorialny. Vol. 22. Rozwój gospodarki lokalnej w teorii i praktyce. B. Gruchman, J. Tarajkowsk (eds.). Uniwersytet Warszawski. Instytut Gospodarki Przestrzennej, Warszawa 1990, p. 37-47.
8 B. Jałowiecki: Lokalizm a rozwój (szkic z socjologii układów lokalnych), [in:] B. Jałowiecki (ed.), Problemy rozwoju regionalnego. Studia z gospodarki przestrzennej, Uniwersytet Warszawski, Warszawa 1988, p. 17-64; B. Jałowiecki, M.S. Szczepański: Rozwój lokalny i regionalny w perspektywie socjologicznej. Podręcznik akademicki. Śląskie Wydawnictwa Naukowe Wyższej Szkoły Zarządzania i Nauk Społecznych, Tychy 2002.
9 M. Derek: Funkcja turystyczna jako czynnik rozwoju lokalnego w Polsce. Rozprawa doktorska, Wydział Geografii i Studiów Regionalnych. Uniwersytetu Warszawskiego, Warszawa 2008, p. 25.
10 B. Porter, M. Tyra, A. Wojewódzka-Wiewiórska: Las jako czynnik rozwoju lokalnego..., op. cit., p. 21-22.
11 E. Nowińska: Strategiczne planowanie rozwoju gmin na przykładzie gmin przegranicznych, [in:] B. Gruchman, F. Walk, E. Nowińska (eds.), Strategie rozwoju lokalnego na przykładzie gmin pogranicznych polsko-niemieckiego, Wydawnictwo Akademii Ekonomicznej, Poznań 2000, p. 54.
entire group\textsuperscript{12}. The natural sphere is the environment in which a given community lives and in which social and economic ties are formed\textsuperscript{13}. Therefore, multidimensionality comes down to the compliance of the interests of these spheres by implementing the idea of sustainable development.

Continuity is an essential feature of local development, which can be achieved by means of a strategy developed jointly by the community and local authorities. Local development should be planned, and a long-term concept may enable more effective use of resources and may stabilize the development directions chosen in the strategic planning process. Among the instruments that municipal governments use for this purpose, the following should be mentioned: the local development strategy for the municipality; long-term investment plan; a study of the conditions and directions of spatial development; local spatial development plans, which are an indispensable instrument for managing local development, because they determine the forms of land use. It is also necessary so that the community’s interests, which is the primary goal of local development and its overriding value, are not affected\textsuperscript{14}.

Commonly in the literature, attention is drawn to the multitude of factors of local development\textsuperscript{15}, where, depending on the adopted classification, factors are listed, i.e., utility values created by nature (mineral resources, natural elements, soil, water etc.), utility values created as a result of human activities (infrastructure facilities), workforce (qualifications, efficiency), institutions supporting the promotion and development of the area, culture and economic traditions of a given area or attractiveness of places to stay (culture and traditions of inhabitants, land development).

Development factors differ geographically depending on the natural, economic, social, and cultural conditions\textsuperscript{16}. It is possible to distinguish factors specific, characteristic only to given conditions or a particular territory, or factors of a universal nature\textsuperscript{17}. According to the basic division, factors are classified into internal and external. Undoub-
tedly, external factors are of great importance for local development. Currently, however, more important in this respect are internal conditions, i.e., endogenous, which are typical for a given place and often unique. Their proper use and sometimes activation (e.g., human resources) conditions and determines the effectiveness of local development from an endogenous perspective. Therefore, the main task of development managers on a local scale is to identify endogenous factors and take them into account in the development policy pursued to improve the living conditions of local communities.

Importance of forest areas for local development

Today, forestry should be understood and treated not only through the prism of the development and use of forest resources, but – perhaps above all – as an element that significantly shapes the overall economic and social development of many Polish regions, affecting both non-urbanized areas and urban agglomerations.\(^{18}\) Smaller communities, to a greater extent than those living in large cities, depending on the proximity of the forest and its resources and the benefits associated with them, are often available potentially at no cost. The standard of living of the rural population, seen through the prism of family budgets, is often significantly lower than that of residents of large cities. At the same time, the possibility of additional employment, and thus increasing the purchasing capacity of a family, is smaller in rural areas.\(^{19}\) Another issue necessary for the development of small, local activities is maintaining both knowledge, skills, practices, and regional traditions. This goal can be achieved by initiatives supporting associations or non-governmental organizations operating in the region. Cultivating the habits of using forest products and training in this field can strengthen the strength of local manufacturing activities.\(^{20}\)

The forest as a workplace

Forest and forestry create jobs in three categories of employment and economic activity. Forest districts and forest service plants, whose activities are related to forest management, the production of wood products (pallets, wooden packaging, elements of building structures, etc.), and furniture production are often places of employment mainly for representatives of local communities.\(^{21}\) Changes in the spatial development of a commune are related to the relationship between the development of entrepreneurship and local development. The creation of new industrial plants involves the

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\(^{18}\) W.Ł. Nowacka, M. Woźnicka, P. Staniszewski: Znaczenie pożytków leśnych dla funkcjonowania rodziny – case study. „Studia i Materiały Centrum Edukacji Przyrodniczo-Leśnej” 2014, no 16(38), issue 1, p. 54-60.

\(^{19}\) W.Ł. Nowacka: Kobiety w polskim leśnictwie – wybrane problemy. „Leśne Prace Badawcze” 2007, no 1, p. 77-95.

\(^{20}\) W. Nowacka: Funkcje lasu z punktu widzenia rozwoju lokalnych społeczności, [in:] S. Zając, K. Rykowski (eds.),Współdzialeńie. Las i gospodarka leśna jako międzysektorowe instrumenty rozwoju. Instytut Badawczy Leśnictwa, Sękocin Stryj 2015, p. 76.

\(^{21}\) http://prod.ceidg.gov.pl, access: 02.11.2021.
allocation of additional space for this purpose. If the development takes place at the expense of naturally valuable areas, this may cause numerous conflicts and threats to the natural environment. It should be borne in mind that the obligation to agree on draft studies of the conditions and directions of spatial development and draft local spatial development plans is imposed on local governments by the Nature Conservation Act\textsuperscript{22}. This is especially important in a situation when potential intentions may have a significant negative impact on the surrounding areas, for example, a nature reserve, landscape park, or “Natura 2000” area\textsuperscript{23}.

**Use of the forest by representatives of local communities**

The use of forest products is rooted in Polish culture and tradition. The forest is a source of many benefits, food, and medicinal raw materials\textsuperscript{24}. In addition to wood, the forest can be a source of four categories of goods: plant origin (forest fruits, herbs, bark, or resin), animal origin (game animals, bee products), edible mushrooms, and minerals (peat, sand, gravel). According to the law, the collection of undergrowth crops for industrial purposes requires the conclusion of an agreement with the forest district office\textsuperscript{25}. The same procedure applies to the location of apiaries in forests free of charge. On the other hand, the limitations for private persons who want to use the undergrowth for their own needs may be only periodic or permanent prohibitions from entering the forest\textsuperscript{26}. This is particularly important because many people living in the vicinity of the forest use it for the needs of, among other things, harvesting undergrowth, beekeeping, obtaining cheaper firewood\textsuperscript{27}. Research on the frequency and methods of using the goods offered by forest areas indicates the non-declining importance of forests and the benefits derived from them for the sustainability and development of families living near forests. According to research conducted by W. Nowacka, the forest is an essential source of additional income, increasing the family’s standard of living. The forest gifts are also a significant supplement to nutritional products (fruit, mushrooms, herbs, spices) for healthy eating\textsuperscript{28}. A. Barszcz came to

\textsuperscript{22} Ustawa z dnia 16 kwietnia 2004 r. o ochronie przyrody, Dz.U. 2004 nr 92 poz. 880.
\textsuperscript{23} B. Porter, M. Tyra, A. Wojewódzka-Wiewiórska: Las jako czynnik rozwoju lokalnego..., op. cit., p. 27.
\textsuperscript{24} E. Majewska: O marnotrawstwie i skąpstwie, lasom szkodliwych... – a współczesne dylematy dotyczące zagadnień racjonalnego użytkowania leśnych surowców niedrzewnych. „Studia i Materiały Centrum Edukacji Przyrodniczo-Leśnej” 2014, no 38 (1), p. 31-39.
\textsuperscript{25} Ustawa z dnia 28 września 1991 r. o lasach, Dz.U. 1991 nr 101 poz. 444 art. 27.
\textsuperscript{26} B. Porter, M. Tyra, A. Wojewódzka-Wiewiórska: Las jako czynnik rozwoju lokalnego..., op. cit., p. 27; Z. Muszyński, L. Koźioł: Innowacyjność w zrównoważonym rozwoju sylwaturystyki. „Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie. Prace z Zakresu Zarządzania” 2012, no 2 (21), p. 101-112.
\textsuperscript{27} W. Nowacka: Funkcje lasu z punktu widzenia..., op. cit., p. 2.
\textsuperscript{28} W.L. Nowacka: Wykorzystanie dóbr lasu – punkt widzenia społeczności lokalnej. „Studia i Materiały Centrum Edukacji Przyrodniczo-Leśnej” 2012, no 14, issue 32 (3), p. 159.
similar conclusions, mentioning that the additional income from the sale of undergrowth fruits may even account for nearly one-third of the total income of rural families\(^\text{29}\).

**Forestry as a stabilizer of sustainable and multifunctional rural development (with particular emphasis on the tourist function)**

The critical role of rationally and responsibly managed forestry, nowadays regarded as one of the stabilizers of sustainable development (especially in relation to rural areas), is perceived by improving the prosperity and standard of living of local communities, increasing the competencies and qualifications of people employed in forestry, as well as a stable workplace for representatives of local communities. Operating on a local and even regional scale, industry based on the processing of wood raw material for decades was (and in many cases still is) a factor that determined the maintenance and development of the local economy and the prosperity of the local community living in many non-urbanized areas. However, it should be noted that in many cases, timber harvesting and processing are now (at least partially) replaced by the promotion and implementation of other functions performed by forest complexes\(^\text{30}\). It may be, among others providing forests for environmental education and its protection\(^\text{31}\). Moreover, forests are an exceptionally attractive element of the natural environment, hence they are commonly used as a place to meet the needs of rest and recreation. Moreover, these areas have unique and one-of-a-kind predispositions and conditions for developing certain forms of tourism\(^\text{32}\). Among them, the sylvatourism\(^\text{33}\) and numerous forms of qualified tourism should be distinguished\(^\text{34}\). Due to its specific properties, a forest also

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\(^29\) A. Barszcz: The influence of harvesting of non-wood forest products on the economic situation of households in Poland. „Electronic Journal of Polish Agriculture Universities” 2006, no 9 (2), http://www.ejpau.media.pl/volume9/issue2/art-08.html, access: 02.11.2021.

\(^30\) P. Blombäck, P. Poschen, M. Lövgren: Employment Trends and Prospects in the European Forest Sector. Geneva Timber and Forest Discussion Papers. ECE/TIM/DP/29. United Nations, New York, Geneva 2003.

\(^31\) J. Pietrzak-Zawadka, J. Zawadka: Edukacyjne i rekreatywne funkcje leśnych ogrodów botanicznych, [in:] A. Bąbińska, J. Zawadka (eds.), Wielowymiarowość rekreacji i turystyki oraz ich funkcje, „Turystyka i Rozwój Regionalny” no 13, Wydawnictwo SGGW, Warszawa 2020, p. 127-137; J. Pietrzak-Zawadka, J. Zawadka: The forest arborets and their activities for forest and nature education. „Ekonomia i Środowisko” 2018, vol. 64, no 1, p. 121-131.

\(^32\) L. Koziół, Z. Muszyński: Atrakcyjność rewiórów leśnych jako obszarów recepcji turystycznej. „Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie” 2009, no 13 (2), p. 317-327.

\(^33\) Z. Laurów: Sylwaturystyka. „Zeszyty Naukowe WSKFiT” 2007, no 5, p. 73-79; S. Graja-Żwolińska, A. Sychal: Sylwaturystyka w świadomości potencjalnych creatorów ruchu turystycznego. „Studia i Materiały Centrum Edukacji Przyrodniczo-Leśnej” 2011, no 13 (3), p. 227-231; M. Jaliniak: Promocja w rozwoju sylwanoturystyki. „Turystyka i Rozwój Regionalny” 2017, no 7, p. 13-23; S. Bell, L. Tyrväinen, T. Sievänen, U. Pröbstl, M. Simpson: Outdoor Recreation and Nature Tourism: A European Perspective, “Living Reviews in Landscape Research” 2007, no 1 (2), p. 1-46.

\(^34\) J. Pietrzak-Zawadka, J. Zawadka: Dobre praktyki z zakresu turystyki zrównoważonej na obszarach przyrodniczo cennych, [in:] M. Jaliniak, S. Bakier (eds.), Turystyka na obszarach przyrodniczo cennych:
enjoys a great interest in practicing various forms of health tourism and forest therapy\textsuperscript{35}. These areas are also widely used in many other types and forms of tourism, such as rural tourism and agritourism or birdwatching. Therefore, the State Forests in their subordinate areas introduce newer and more adapted to the needs and requirements of visitors to the forest tourist infrastructure facilities. The tourist and recreational function of the forest, crucial both from an economic and social point of view, is often an important and even a priority direction of local development. Tourism market entities (enterprises, tourism organizations, local authorities, etc.) can compose and promote many tourism products for various groups of recipients\textsuperscript{36}. Moreover, it seems reasonable that due to the significant interest in forest areas as a place to meet recreational and tourist needs (especially in the vicinity of large urban centers), forests, most commonly accessible thanks to the provisions of the Act, should be appropriately prepared for such a function\textsuperscript{37}.

Summary

Forest areas are treated as a precious resource determining the pace and direction of local development. Their presence contributes to the creation of various functions of a given area, and the forest itself can be a value used both in the economic and business dimension and the socio-cultural dimension. The multidimensionality, complexity, and variety of the use of forest areas are often determined by their location and diversity, both in quantitative and qualitative terms, which, taking into account a responsible and rational vision of their management and use, may translate into multiple benefits for the local community. There are many directions and ways of using the potential of forest areas. They can provide the raw material for the development of numerous industries based on wood and dealing with its processing. Moreover, the forest is a source of many products used for food processing (fruit, mushrooms, herbs, etc.). It is impossible not to mention the numerous benefits of the presence of the forest for local communities. In addition to creating new jobs and contributing to an increase in the level of income and quality of life of the local population, the forest is also a source of many valuable raw materials and products for their own needs.

In addition to typically economic functions, consisting of acquiring and processing goods obtained from forest areas, the forest also performs numerous socio-cultural functions. It is a place of ecological and natural education and a place of rest, psychophysical regeneration, recreation, sports, and a destination for tourist trips. However, it

\textsuperscript{35} J. Pietrzak-Zawadka, J. Zawadka: A valuable natural area as an implementation place of innovative health forms of tourism on the example of forest therapy, „Studia Ekonomiczne i Regionalne/Economic and Regional Studies” 2016, vol. 9, no 3, p. 112-120; J. Pietrzak-Zawadka, J. Zawadka: Forest therapy jako forma turystyki zdrowotnej, „Ekonomia i Środowisko” 2015, no 4(55), p. 199-209.

\textsuperscript{36} Z. Muszyński, L. Kozioł: Atrakcyjność turystyczna dóbr przyrody w lasach Polski, „Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie” 2013, vol. 22 (1), p. 100-101.

\textsuperscript{37} Z. Muszyński, L. Kozioł: Innowacyjność w zrównoważonym rozwoju sylwaturystyki..., op. cit.
should be borne in mind that irresponsible, too intensive, or irrational use of the forest and its goods may, in the long run, contribute to the deterioration of its quality, size, or, finally, to its complete disappearance in a given area. The same is true of tourism. At this point, it is worth mentioning one of the most attractive forest complexes in the vicinity of Warsaw, which is the Kampinos National Park. This area is visited by approximately one million visitors and tourists each year. Such high levels of tourism can have catastrophic consequences for an area that is not properly managed and does not have an adequately adapted tourism infrastructure. Responsible behavior by visitors is also of great importance here. Hence, the priority seems to be proper planning, organization, and management of forest areas by the principles of sustainable development. Such activities should make it possible for many future generations to take advantage of their benefits.

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38 Turystyka KPN: ponad milion gości rocznie, https://ikampinos.pl/artykul/turystyka-kpn-ponad/258433, access: 02.11.2021.
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