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THE ROLE OF SOCIAL ENTERPRISES IN THE CIRCULAR BIOECONOMY

TODOR STOYANOV
Forest Research Institute – Bulgarian Academy of Sciences
Sofia, Bulgaria
toti13@abv.bg

Abstract
According to unofficial data based on the principles of social entrepreneurship in Bulgaria, over 85 non-governmental organizations are already operating at the local level. In most cases, they sell services that are associated with a high economic risk and do not generate a profit. An important feature of all social enterprises is the special symbiosis they establish a priori between financial profitability and the ability to achieve social impact. In this way, they achieve an economic, financial and social objective that brings them even more value and benefit for society. Depending on the sector in which they operate, social enterprises may function as providers of social and health services, educational and training institutions, employers of people from marginalized groups or of people with disabilities, or as entities engaged in production and marketing. Depending on their objectives, a social enterprise can aim to achieve economic development – through job creation and improving the well-being of target groups, work integration of socially disadvantaged people or marginalized groups, business orientation, and social protection. In this paper we explore the role of the forestry cooperative as a social enterprise in the circular bioeconomy.
Keywords: *social enterprise; forestry cooperative; circular bioeconomy; marginalized groups.*
JEL Classification: L31, Q01, Q57

1. INTRODUCTION

The transition toward a circular bioeconomy has emerged as a central element of the European Union's Green Deal and global efforts to address climate change, biodiversity loss, and resource scarcity. This paradigm shift seeks to replace the traditional linear economic model – based on extraction, consumption, and disposal – with regenerative systems that retain the value of products, materials, and resources in the economy for as long as possible. At its core, the circular bioeconomy emphasizes the sustainable use of renewable biological resources – such as forests, agricultural residues, or aquatic biomass – to produce food, materials, energy, and ecosystem services. However, realizing this vision requires more than technological innovation or regulatory intervention. It demands inclusive economic models that actively involve communities, promote equity, and build local resilience.

In this context, social enterprises are increasingly recognized as key agents of transformation. These organizations blend business operations with a social mission, reinvesting profits to advance community well-being, environmental protection, and social inclusion. Unlike traditional profit-driven companies, social enterprises place people and purpose at the center of their activities. Their hybrid nature – operating between the market, the public sector, and civil society – positions them to respond effectively to local needs, particularly in marginalized rural and forest-dependent regions.

Socially driven business models are indispensable for ensuring that the bioeconomy serves not only environmental and economic objectives but also contributes to social sustainability. By fostering community ownership, enhancing access to employment and education, and enabling participatory governance, social enterprises can help anchor circular practices in the everyday lives of citizens. In contrast to large-scale bioeconomic initiatives that may risk recentralizing control over natural resources, grassroots social enterprises offer a bottom-up approach grounded in territorial knowledge and social cohesion.

In Bulgaria, the landscape of social enterprises is still emerging but demonstrates considerable potential. Although there is no formal legal definition of "social enterprise" in Bulgarian legislation, more than 85 registered non-governmental organizations (NGOs) function as de facto social enterprises. Many of these are small, community-based organizations working in rural or mountainous areas where state presence is limited and market opportunities are scarce. They typically provide services in areas such as social assistance, informal education, cultural preservation, environmental restoration, or employment of marginalized populations. Importantly, their activities are often characterized by high economic risk, limited financial return, and strong reliance on volunteer labor or public goodwill.

Despite these constraints, social enterprises in Bulgaria continue to fill vital social and environmental gaps. For instance, cooperatives in forest regions support firewood provision, forest maintenance, and local employment – services that would otherwise be inaccessible to vulnerable populations. In other cases, NGOs have initiated training centers for youth in remote areas, combining vocational education with ecological literacy and civic engagement. These initiatives demonstrate that profit is not the sole driver of economic activity – value creation in the circular bioeconomy can and should encompass social and environmental dimensions.

Globally, there is growing evidence that social enterprises contribute to all three pillars of sustainability: economic viability, social equity, and ecological responsibility. Studies from the OECD (2023), FAO (2021), and CIRIEC (2016) suggest that social enterprises are particularly effective in mobilizing local assets, strengthening social capital, and promoting inclusive governance structures. In forest-based regions, where land and resource management is often contested, the legitimacy and accountability of social enterprises make them attractive partners in circular economy transitions.

Yet, the potential of social enterprises to contribute to the circular bioeconomy remains underexploited. One key reason is the lack of integrated policy frameworks that explicitly link the social economy with the bioeconomy and circularity agendas. While the EU's Social Economy Action Plan (2021) and the updated Bioeconomy Strategy (2018, revised in 2022) recognize the need for more inclusive approaches, national implementation in many member states – including Bulgaria – lags. Moreover, financial instruments designed to support innovation and green transition often fail to reach small, community-based actors due to bureaucratic barriers, limited awareness, or lack of technical capacity.

To overcome these challenges, a systemic approach is needed – one that embeds social enterprises in the design and governance of circular bioeconomy policies. This includes legal recognition of their status, tailored funding mechanisms, and cross-sectoral partnerships with municipalities, research institutions, and private sector actors. In the forestry sector, for example, cooperatives and community enterprises can play a central role in sustainable forest management, non-timber product development, and local energy systems. By integrating social innovation with circular practices, these organizations offer replicable models that align ecological integrity with social justice.

In summary, the transition to a circular bioeconomy is not merely a technical or industrial shift – it is also a social transformation. It challenges us to rethink not only how we produce and consume but also how we govern and share resources. Social enterprises, and particularly those embedded in forest and rural communities, have the potential to make this transformation more equitable, participatory, and enduring. Their role must be more than complementary – it should be central to the transition.

1. LITERATURE REVIEW

The integration of social enterprises in the circular bioeconomy has gained attention across Europe, particularly in rural and forest-based regions. According to the European Commission (2018), the bioeconomy encompasses the sustainable use of renewable biological resources for industrial and energy purposes, requiring inclusive governance and localized innovation. Social enterprises, defined by their dual mission to generate economic value and social impact, have been recognized as drivers of sustainability and community resilience (OECD, 2023).

Forest-based social enterprises, such as cooperatives, have been effective in addressing the 'triple bottom line' – economic viability, social equity, and environmental stewardship (FAO, 2021). They engage in sustainable forest management, develop value chains from timber and non-timber products, and provide employment in marginalized rural areas. In the context of Central and Eastern Europe, studies show that such enterprises often emerge where state capacity is limited and civil society organizations step in to fill social and ecological service gaps (Borzaga & Galera, 2016).

Challenges include limited policy recognition, restricted access to financing, and lack of technical capacity. However, instruments under the European Green Deal, such as the Circular Economy Action Plan (EC, 2020), offer new opportunities for support.

Nicholls (2010) defines social entrepreneurship as the pursuit of social objectives through market-based approaches. Pires *et al*. (2021) argue that social enterprises are well-suited to address the challenges of sustainability transitions due to their hybrid nature. Studies from the Baltic region and the Balkans confirm the viability of cooperative forestry models in advancing both environmental and social goals.

2. DEFINING SOCIAL ENTERPRISES IN THE CONTEXT OF BIOECONOMY

Social enterprises are hybrid organizations that pursue both social and economic objectives. They operate in the space between traditional businesses and nonprofit organizations, combining the entrepreneurial spirit with a mission to create positive social and environmental outcomes. In practice, this means that social enterprises reinvest their profits back into their mission-driven activities rather than distributing them to shareholders. This reinvestment is often aimed at addressing systemic challenges such as poverty, unemployment, social exclusion, and environmental degradation.

In the context of the bioeconomy, social enterprises have a unique and strategic role. The bioeconomy relies on renewable biological resources from land and sea, such as forests, agricultural waste, algae, and organic residues. Social enterprises contribute by creating value from these resources in ways that are socially inclusive and environmentally sustainable. They often work at the grassroots level to support circular practices – extending the life cycle of materials, promoting zero waste systems, and enabling decentralized production models that benefit local communities.

Moreover, social enterprises bring participatory governance into the core of bioeconomic practices. Their community-based structures make them more responsive to local needs and environmental conditions. By engaging citizens in planning, production, and monitoring activities, social enterprises contribute to democratizing the green transition. This is especially important in rural areas, where top-down policy approaches may fail to recognize specific local constraints or opportunities.

Depending on their specific mission and operational model, social enterprises in the bioeconomy typically fall into the following categories:

• Providers of social and healthcare services: These organizations deliver essential services to vulnerable populations, often in underserved regions. In the bioeconomy, they may integrate health and nature-based services, such as therapeutic horticulture or eco-social farming.

• Educational and training institutions: These social enterprises provide vocational training, ecological education, and lifelong learning opportunities. They are key actors in building the green skills needed for the circular bioeconomy, from composting and permaculture to biomass processing and eco-design.

• Employers of marginalized or disadvantaged groups: One of the defining features of many social enterprises is their commitment to inclusive employment. In the forestry and bio-based sectors, this can involve training and employing long-term unemployed individuals, Roma communities, or people with disabilities in meaningful, sustainable work.

• Producers and marketers of goods and services linked to the green economy: These enterprises create eco-friendly products, such as organic food, herbal cosmetics, recycled wood products, or renewable energy solutions. Their business models are often built on principles of circularity, local sourcing, and transparency.

3. FORESTRY COOPERATIVES AS SOCIAL ENTERPRISES

Forestry cooperatives are a distinctive form of social enterprise that have historically contributed to rural development, natural resource stewardship, and community resilience. They are typically community-owned organizations that manage forests for the benefit of their members and local populations, often balancing multiple goals – economic viability, ecological sustainability, and social inclusion.

In many European countries, including Bulgaria, forestry cooperatives emerged in response to fragmented land ownership, marginalization of rural areas, and the need for collective action in forest management. These cooperatives are rooted in principles of democratic governance, member participation, and local accountability. They provide services such as forest thinning, harvesting, fire prevention, and reforestation, while ensuring that revenues stay within the community.

What sets forestry cooperatives apart is their ability to integrate circular economy principles into practice. For example, residues from wood processing are often repurposed for pellet or biochar production, contributing to renewable energy solutions. In some cases, cooperatives engage in agroforestry, sustainable tourism, or the collection and marketing of non-timber forest products (NTFPs) like mushrooms, herbs, and forest fruits.

In addition to economic activities, these cooperatives play an important social role. They often employ individuals from vulnerable backgrounds, provide on-the-job training, and foster intergenerational knowledge exchange about forest stewardship. Their embeddedness in the local context gives them the flexibility to adapt to changing ecological and social conditions.

The governance structure of forestry cooperatives usually includes an elected board of directors, general assemblies, and working groups or commissions on specific issues. Decision-making is typically transparent and participatory, reinforcing social cohesion and trust within the community. Furthermore, many cooperatives engage in partnerships with municipalities, NGOs, and research institutes to access funding, build capacity, and implement innovative practices.

4. ECONOMIC AND SOCIAL CONTRIBUTIONS

The contributions of forestry cooperatives as social enterprises are multifaceted. Economically, they generate income for members and employees, stimulate local value chains, and enhance rural development. Their operations often lead to the creation of stable, year-round jobs, especially in areas where employment opportunities are scarce.

Through activities such as sustainable logging, firewood production, and eco-tourism, cooperatives provide both direct and indirect income streams. They also support the development of small-scale enterprises and cottage industries, such as woodworking, beekeeping, and herbal processing, which further diversify rural economies.

Socially, forestry cooperatives are key actors in promoting equity and inclusion. They often prioritize the employment of disadvantaged groups, including ethnic minorities, long-term unemployed individuals, and people with disabilities. By providing training and educational opportunities, they enhance local capacities and enable residents to participate more fully in the bioeconomy.

Many cooperatives reinvest a portion of their profits into community development projects – such as road improvements, school renovations, or reforestation initiatives – thereby generating positive externalities that extend beyond their membership. Their role in preserving cultural landscapes, local traditions, and biodiversity further underscores their societal value.

Overall, forestry cooperatives contribute not only to economic growth but also to the social fabric of forest-dependent communities. They embody a localized, inclusive, and regenerative model of development that aligns closely with the goals of the circular bioeconomy.

5. CHALLENGES AND OPPORTUNITIES

Despite their growing relevance, social enterprises – particularly forestry cooperatives – face numerous challenges that hinder their development and scaling. One of the most significant barriers is the lack of formal recognition in national legal and policy frameworks. In Bulgaria, for instance, there is still no specific legal definition or status for social enterprises, which creates uncertainties regarding taxation, access to public funding, and participation in government programs.

Additionally, many social enterprises struggle with financial sustainability. Unlike conventional businesses, they often operate in high-risk sectors with thin profit margins. This is especially true in forestry, where upfront investments in equipment, training, and certification can be substantial. Access to finance remains limited, as traditional banks may view them as risky borrowers due to their social missions and limited collateral. While EU funding programs exist, navigating their application processes requires administrative capacity that many small cooperatives lack.

Institutional support structures – such as incubators, technical assistance providers, and social finance intermediaries – are underdeveloped in many rural regions. Social enterprises are frequently isolated, lacking networks or platforms to share knowledge, advocate for policy change, or form partnerships. This weakens their ability to innovate, attract investment, or scale their impact.

Human capital also presents a challenge. Many cooperatives rely on aging leadership, volunteer labor, or informal governance systems that are not easily transferable to younger generations. The limited availability of training in cooperative management, forest entrepreneurship, and circular bioeconomy practices further constrains their potential.

Despite these obstacles, significant opportunities are emerging. The European Union's policy landscape is increasingly supportive of both the social economy and the green transition. The Green Deal, the Circular Economy Action Plan, and the Social Economy Action Plan explicitly call for the inclusion of community-based and mission-driven enterprises in climate adaptation and rural revitalization strategies.

Funding instruments such as the European Social Fund+, Horizon Europe, and the LIFE program offer targeted support for innovation, skills development, and environmental sustainability. At the national level, rural development measures under the Common Agricultural Policy (CAP) can be tailored to include forestry cooperatives as beneficiaries for public investment, training, and technical support.

There is also a growing interest in impact investing and blended finance mechanisms that combine public and private capital to support social enterprises with measurable outcomes. Tools like social impact bonds, revolving funds, and cooperative banks can be adapted to the specific needs of forestry-based enterprises.

Moreover, digitalization and green technologies open up new pathways for transformation. For example, cooperatives can adopt GIS-based forest monitoring, mobile applications for worker coordination, or online platforms for marketing local products. These innovations can enhance transparency, efficiency, and market access, especially for younger entrepreneurs attracted to sustainability-driven models.

In summary, while the road ahead is complex, forestry cooperatives and other social enterprises in the bioeconomy are well positioned to capitalize on a wave of supportive policies and technological advancements. Unlocking their full potential will require a multi-level approach involving legal reform, financial innovation, capacity building, and inclusive governance frameworks.

6. POLICY IMPLICATIONS

To fully leverage the transformative potential of social enterprises in the circular bioeconomy, targeted policy support is essential. Effective policy frameworks can address systemic barriers and create an enabling environment that fosters innovation, resilience, and inclusive development. These frameworks must reflect the hybrid nature of social enterprises, acknowledging both their economic role and their societal contributions.

First and foremost, there is a need for legal recognition. In many countries, including Bulgaria, the lack of a formal legal status for social enterprises hinders their ability to access public procurement, social investment, and state-supported programs. Establishing a legal definition and status – either through standalone legislation or amendments to cooperative laws – would provide clarity, visibility, and legitimacy to social enterprises. It would also allow governments to monitor and support their growth and ensure that they benefit from relevant policy instruments.

Second, access to finance must be improved. Social enterprises require tailored financial instruments that account for their unique business models. These may include patient capital, low-interest loans, grant funding, and blended finance solutions. National governments can support this through public guarantee schemes, impact investment incentives, and partnerships with cooperative banks or credit unions.

Third, capacity building is vital. Many social enterprises lack the managerial, technical, or strategic skills needed to thrive in the bioeconomy. Public agencies, universities, and civil society organizations should collaborate to deliver training in areas such as green entrepreneurship, circular business models, impact measurement, and cooperative governance. Technical assistance programs should also support digitalization and innovation adoption.

Fourth, social enterprises must be integrated into broader rural development and forest policy planning. They should be explicitly included in national and regional strategies related to forestry, climate adaptation, and sustainable development. Local authorities can facilitate this by creating territorial partnerships, offering co-working spaces or resource centers, and supporting multi-stakeholder platforms for dialogue and coordination.

At the EU level, Member States should make full use of available tools such as the Social Economy Action Plan, the updated Bioeconomy Strategy, and the EU Rural Observatory. Cross-sectoral synergies can be enhanced through joint programming between environmental, agricultural, and social policy departments.

Finally, monitoring and evaluation mechanisms should be strengthened. Policymakers need robust data on the impact of social enterprises to guide funding, regulation, and replication. This requires developing national registries, supporting research, and encouraging participatory evaluation methods that reflect both quantitative and qualitative dimensions of social value.

In conclusion, policy interventions that combine legal clarity, financial innovation, skills development, and strategic inclusion will empower social enterprises to become key actors in the transition toward a circular and socially just bioeconomy.

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