

FORMATION OF THE MECHANISM FOR THE DEVELOPMENT OF AGRICULTURAL COOPERATION UNDER CONDITIONS OF INSTITUTIONAL TRANSFORMATIONS

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Abstract.

This study analyzes the formation of mechanisms for the development of agricultural cooperation under conditions of institutional transformations. Agricultural cooperatives represent fundamental organizational mechanisms enabling farmers to overcome market imperfections, reduce transaction costs, and enhance collective bargaining power. The research employs a mixed-methods approach grounded in New Institutional Economics, combining theoretical analysis with comparative institutional examination. The study identifies three primary categories of institutional transformations affecting agricultural cooperation: regulatory, market-oriented, and socio-cultural transformations. A comprehensive mechanism for cooperative development is proposed, operating at macro, meso, and micro levels, integrating policy environment creation, support infrastructure development, and internal organizational improvements. Key success factors include institutional environment clarity, governance-member interest alignment, financial resource access, and management capacity quality. The findings contribute to academic literature by synthesizing new institutional economics insights into a unified framework while providing practical guidance for policymakers and practitioners seeking to promote sustainable agricultural cooperation under changing institutional conditions.

Keywords: agricultural cooperation; institutional transformation; cooperative development mechanism; new institutional economics; transaction costs; rural development

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1. Introduction.

The transformation of agrarian structures under contemporary conditions of global economic instability and institutional change has brought agricultural cooperation to the forefront of scientific discourse. Agricultural cooperatives represent a fundamental organizational mechanism that enables farmers to overcome market imperfections, reduce transaction costs, and enhance their collective bargaining power in increasingly competitive agricultural markets [12]. The formation of effective mechanisms for the development of agricultural cooperation under conditions of institutional transformations has become a critical challenge for policymakers, researchers, and practitioners worldwide.

The relevance of this research is determined by several interconnected factors. First, agricultural cooperatives play a crucial role in rural socio-economic development, food security, and poverty alleviation, particularly in regions where agriculture serves as the primary source of employment and income [2]. Second, the ongoing institutional transformations in many countries require a comprehensive reassessment of cooperative development mechanisms that can adapt to changing regulatory environments, market conditions, and technological innovations [15]. Third, the successful integration of smallholder farmers into modern value chains largely depends on the effectiveness of cooperative institutions and their ability to respond to external challenges [3].

Numerous scholars have contributed significantly to understanding various aspects of agricultural cooperation and its development mechanisms. Shpykuliak and Sakovska [11] examined agricultural cooperation as an innovation for rural development, emphasizing the need for institutional adaptation of cooperation as a mechanism of market self-regulation. Bijman, Muradian, and Schuurman [2] analyzed agricultural cooperatives and producer organizations as institutional innovations with the potential to reduce poverty and improve food security. Kassem [7] investigated partnerships between agricultural cooperatives and development actors, highlighting the importance of coordinated efforts by all stakeholders for achieving sustainable development goals. Sykuta and Cook [12] applied new institutional economics approaches to contracts and cooperatives, contributing to understanding how property rights and transaction costs influence cooperative functioning.

Furthermore, research by Chen, Li, and Wang [3] explored the impact of agricultural cooperatives on farmers' agricultural revenue, demonstrating how cooperatives can reduce transaction costs and stabilize contractual relationships between farmers and enterprises. Studies by DiMaggio and Powell [6] on institutional pressures and their effects on organizational behavior have provided valuable theoretical frameworks for understanding cooperative development. Meyer and Rowan [8] contributed insights into how organizations respond to institutional environments, which is particularly relevant for understanding cooperative adaptation strategies.

Despite the substantial body of literature on agricultural cooperation, significant gaps remain in understanding the comprehensive mechanisms for cooperative development under conditions of institutional transformations. Most existing studies focus on specific aspects of cooperative functioning rather than providing an integrated framework that addresses the multifaceted nature of institutional change and its impact on cooperative mechanisms [1]. This research aims to fill this gap by developing a comprehensive mechanism for agricultural cooperation development that accounts for the complex interplay between formal and informal institutions, policy frameworks, and market dynamics.

The purpose of this study is to analyze the formation of mechanisms for the development of agricultural cooperation under conditions of institutional transformations and to propose practical recommendations for enhancing cooperative effectiveness. The research addresses the following objectives: to systematize theoretical approaches to understanding agricultural cooperation mechanisms; to analyze the current state of institutional transformations affecting agricultural cooperation; and to develop a comprehensive framework for cooperative development that responds to contemporary challenges.

2. Materials and Methods.

2.1. Theoretical Foundation.

The theoretical framework of this research is grounded in New Institutional Economics (NIE), which provides a comprehensive lens for analyzing the development of agricultural cooperation under conditions of institutional transformations. The NIE approach, pioneered by Ronald Coase [4], [5] and further developed by Douglass North [9], [10], Oliver Williamson [13], [14], and others, offers valuable insights into understanding how institutions shape economic behavior and organizational forms, including agricultural cooperatives.

The central premise of NIE is that institutions matter for economic performance and that transaction costs play a crucial role in determining the structure of economic organizations. According to North [10], institutions are humanly devised constraints that structure political, economic, and social interactions, ranging from formal rules such as constitutions, laws, and property rights to informal constraints including sanctions, customs, traditions, and codes of conduct. This definition provides a foundation for understanding how both formal and informal institutions influence the formation and development of agricultural cooperatives.

Transaction cost economics, as conceptualized by Williamson [13], focuses on the costs of defining, enforcing, and trading property rights. The choice of coordinating mechanisms in economic activities is conditional on the institutional environment, meaning that changes in property rights, contract laws, judicial credibility, norms, and customs induce changes in the comparative costs of markets, hierarchies, and hybrid organizations [14]. Agricultural cooperatives represent a form of hybrid organization between markets and hierarchies, making transaction cost analysis particularly relevant for understanding their development mechanisms [12].

Table 1. Comparative Analysis of Theoretical Approaches to Agricultural Cooperation Development*

Theoretical Approach	Key Concepts	Application to Cooperatives	Main Scholars
Transaction Cost Economics	Transaction costs, asset specificity, opportunism	Explains why farmers form cooperatives to reduce market transaction costs	Coase, Williamson
Property Rights Theory	Ownership rights, residual claims, control rights	Analyzes governance problems arising from collective ownership	Alchian, Demsetz
Institutional Economics	Formal and informal institutions, path dependence	Examines how institutional environment shapes cooperative development	North, Ostrom

Table 1 (continued)

Theoretical Approach	Key Concepts	Application to Cooperatives	Main Scholars
Agency Theory	Principal-agent relationships, monitoring costs	Addresses management-member relationships in cooperatives	Jensen, Meckling
Collective Action Theory	Free-rider problem, group size, heterogeneity	Explains conditions for successful collective organization	Olson, Ostrom

**Source: Compiled from [4], [5], [9], [10], [12], [13], [14]*

2.2. Research Design.

This study employs a mixed-methods research design that combines theoretical analysis with empirical investigation. The research approach integrates systematic literature review, comparative institutional analysis, and synthesis of best practices in agricultural cooperation development [1]. The mixed-methods approach allows for comprehensive examination of both quantitative indicators of cooperative performance and qualitative aspects of institutional transformations.

The research design follows an iterative process comprising four main stages: conceptualization and framework development, data collection and analysis, mechanism formulation, and validation through comparison with existing models and practices. This approach ensures that the proposed mechanism for agricultural cooperation development is both theoretically sound and practically applicable.

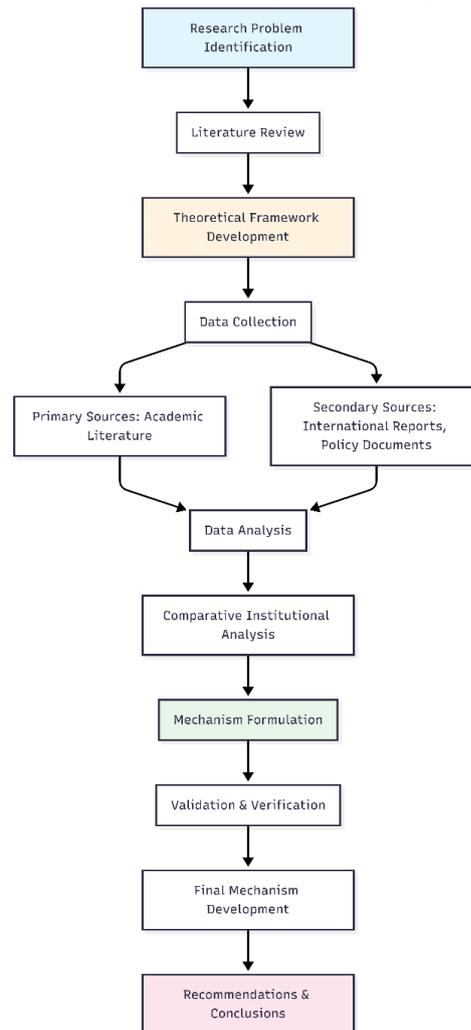


Figure 1. Research Methodology Framework*

**Source: Developed by the Author*

2.3. Data Sources and Collection Methods.

The study draws on multiple data sources to ensure comprehensive coverage of the research topic. Primary sources include academic literature on agricultural cooperation, institutional economics, and rural development published in peer-reviewed journals over the past two decades [2], [7]. Secondary sources encompass reports from international organizations such as the Food and Agriculture Organization (FAO), Organisation for Economic Co-operation and Development (OECD), and the International Cooperative Alliance (ICA), as well as national statistical data and policy documents.

The literature review process followed systematic protocols to identify relevant studies on agricultural cooperation mechanisms and institutional transformations. Database searches were conducted using key terms including agricultural cooperation, cooperative development mechanisms, institutional transformation, transaction costs, property rights, and rural development. The selection criteria focused on studies that addressed theoretical frameworks, empirical evidence, or policy recommendations related to the formation and development of agricultural cooperation mechanisms.

2.4. Analytical Framework.

The analytical framework employed in this study builds upon the institutional analysis and development framework, which examines how institutions shape the behavior of actors within agricultural systems [9]. The framework considers three levels of analysis: the operational level, which focuses on day-to-day decision-making within cooperatives; the collective-choice level, which addresses governance structures and rule-making processes; and the constitutional level, which encompasses the broader institutional environment including legislation, policies, and societal norms.

The analysis of agricultural cooperation mechanisms incorporates several key dimensions. First, the property rights dimension examines how the definition and distribution of rights among cooperative members influence incentives, participation, and investment decisions [5]. Second, the transaction cost dimension analyzes the costs associated with coordination, monitoring, and enforcement within cooperative structures [4]. Third, the governance dimension evaluates the effectiveness of decision-making processes, accountability mechanisms, and conflict resolution procedures [6]. Fourth, the policy dimension assesses the role of government interventions, regulatory frameworks, and support programs in shaping cooperative development trajectories [8].

2.5. Methodological Considerations.

The research acknowledges several methodological considerations that influence the interpretation of findings. The diversity of institutional contexts across different countries and regions necessitates careful attention to context-specific factors that may affect the generalizability of conclusions [15]. Additionally, the dynamic nature of institutional transformations means that the analysis captures a particular moment in an ongoing process of change.

To address these considerations, the study employs comparative analysis across multiple contexts to identify common patterns and context-specific variations in agricultural cooperation development [11]. The triangulation of data sources and methods enhances the reliability and validity of findings. Furthermore, the proposed mechanism is designed with sufficient flexibility to accommodate variations in institutional environments while maintaining core principles of effective cooperative development.

3. Results and Discussion.

3.1. Analysis of Institutional Transformations Affecting Agricultural Cooperation.

The analysis conducted within the framework of this study reveals that agricultural cooperation development is significantly influenced by multiple dimensions of institutional transformation. In our opinion, understanding these transformations requires a systematic examination of both formal and informal institutional changes that shape the operating environment for agricultural cooperatives.

We identified three primary categories of institutional transformations affecting agricultural cooperation: regulatory transformations, market-oriented transformations, and socio-cultural transformations. Regulatory transformations encompass changes in legislation governing cooperative formation, operation, and dissolution, as well as modifications in taxation policies, property rights regulations, and financial sector rules. Market-oriented transformations include the liberalization of agricultural markets, integration into global value chains, and the emergence of new market actors and intermediaries. Socio-cultural transformations involve shifts in rural community structures, changes in farming practices and traditions, and evolving attitudes toward collective action and cooperation.

Table 2. Classification of Institutional Transformations Affecting Agricultural Cooperation*

Category	Type of Transformation	Impact on Cooperatives	Policy Implications
Regulatory	Legal framework changes	Alters formation and governance rules	Requires adaptation of cooperative statutes
Regulatory	Taxation policy modifications	Affects financial viability	Influences member incentives
Regulatory	Property rights reforms	Impacts asset ownership structures	Shapes investment decisions
Market-oriented	Trade liberalization	Increases competition and opportunities	Demands improved competitiveness
Market-oriented	Value chain integration	Creates new partnership possibilities	Requires quality upgrading
Market-oriented	Digital transformation	Enables new business models	Necessitates technological investments
Socio-cultural	Rural-urban migration	Reduces membership base	Calls for youth engagement strategies
Socio-cultural	Changing farming practices	Alters service demands	Requires service diversification
Socio-cultural	Trust and social capital shifts	Affects collective action capacity	Demands trust-building initiatives

**Source: Developed by the Author*

The empirical evidence from various countries demonstrates that the success of agricultural cooperation development is closely linked to the coherence between formal institutional frameworks and informal social norms. In regions where cooperative traditions are deeply embedded in local culture, formal institutional support has proven more effective in promoting cooperative growth. Conversely, in areas lacking cooperative heritage, even well-designed formal institutions may fail to stimulate meaningful cooperative development without concurrent efforts to build social capital and trust among potential members.

3.2. Formation of the Mechanism for Agricultural Cooperation Development

Based on our comprehensive analysis, we grouped the key elements of the mechanism for agricultural cooperation development into five interconnected components: institutional foundation, organizational structure, economic incentives, governance framework, and support infrastructure. Each component, justified by us through theoretical analysis and empirical evidence, plays a specific role in ensuring effective cooperative development under conditions of institutional transformations.

The institutional foundation component encompasses the legal and regulatory framework that defines the parameters for cooperative formation and operation. In our view, an effective institutional foundation must provide clear property rights definitions, establish transparent rules for membership and participation, and create mechanisms for dispute resolution. The analysis reveals that countries with well-developed cooperative legislation that balances member autonomy with appropriate oversight mechanisms tend to have more successful cooperative sectors.

The organizational structure component addresses the internal architecture of agricultural cooperatives, including membership composition, governance bodies, and operational units. We grouped organizational structures into three main types: single-tier cooperatives operating at the local level, federated structures linking primary cooperatives through regional or national unions, and networked models involving horizontal cooperation among cooperatives and vertical integration with other value chain actors. Each structural type, in our opinion, has distinct advantages and limitations depending on the specific context and objectives of cooperative development.

The economic incentives component focuses on the financial mechanisms that motivate farmer participation and investment in cooperatives. Our analysis indicates that effective incentive structures must address both short-term benefits such as access to inputs, credit, and markets and long-term value creation

opinion, represents an integrated approach that addresses the multidimensional nature of cooperative development challenges while remaining adaptable to diverse institutional contexts.

The mechanism operates at three interconnected levels: macro, meso, and micro. At the macro level, the mechanism emphasizes the importance of creating an enabling policy environment that supports cooperative development without excessive state intervention. This includes establishing clear legal frameworks, providing appropriate fiscal incentives, and ensuring consistent policy implementation.

At the meso level, the mechanism focuses on developing support infrastructure for agricultural cooperatives, including training and capacity building programs, technical assistance services, market information systems, and financial intermediation facilities. We grouped these support services into public, private, and civil society provisions, recognizing that effective cooperative development requires coordinated efforts from multiple stakeholders.

At the micro level, the mechanism addresses the internal organizational and operational aspects of agricultural cooperatives. This includes guidance on governance best practices, member engagement strategies, financial management procedures, and business development approaches. The mechanism provides flexible templates that can be adapted to specific cooperative types, sizes, and contexts.

3.5. Implementation Challenges and Solutions.

The implementation of the proposed mechanism faces several challenges that must be addressed to ensure its effectiveness. In our view, the most significant challenges include: limited institutional capacity for policy implementation and enforcement, resistance from established interests benefiting from the status quo, coordination failures among multiple stakeholders involved in cooperative development, and resource constraints limiting the scale and sustainability of support programs.

To address these challenges, we propose several solutions justified by us through analysis of successful intervention models. First, building institutional capacity requires sustained investment in training government officials, developing monitoring and evaluation systems, and establishing feedback mechanisms for policy adjustment. Second, overcoming resistance from established interests necessitates careful stakeholder engagement, demonstration of mutual benefits, and gradual transition approaches that minimize disruption.

Third, improving coordination among stakeholders can be achieved through establishing multi-stakeholder platforms, clarifying roles and responsibilities, and creating incentives for collaborative action. Fourth, addressing resource constraints requires innovative financing mechanisms, efficient resource allocation, and leveraging private sector and civil society contributions to complement public funding.

4. Conclusion.

This study has analyzed the formation of mechanisms for the development of agricultural cooperation under conditions of institutional transformations, providing both theoretical insights and practical recommendations for enhancing cooperative effectiveness. The research has demonstrated that agricultural cooperatives remain vital institutional innovations capable of addressing contemporary challenges in the agricultural sector, including market imperfections, smallholder vulnerability, and rural development needs.

The analysis reveals that effective agricultural cooperation development requires a comprehensive approach that addresses multiple dimensions of institutional transformation simultaneously. The proposed mechanism, structured across macro, meso, and micro levels, provides an integrated framework for coordinating policy interventions, support services, and organizational improvements. The mechanism emphasizes the importance of coherence between formal institutional frameworks and informal social norms, recognizing that sustainable cooperative development depends on both regulatory support and social capital.

Key findings indicate that the clarity and stability of the institutional environment, alignment between governance structures and member interests, access to adequate financial resources and technical support, and quality of leadership and management capacity represent critical success factors for agricultural cooperation development. The research identifies specific challenges associated with institutional transformations, including regulatory uncertainty, market liberalization pressures, and socio-cultural changes, while proposing targeted solutions for each challenge category.

The study contributes to the academic literature by synthesizing insights from new institutional economics, transaction cost theory, and cooperative governance research into a unified framework applicable to diverse contexts. The practical implications extend to policymakers, cooperative practitioners, and development organizations seeking evidence-based guidance for promoting agricultural cooperation under conditions of institutional change.

Future research directions include empirical validation of the proposed mechanism across different country contexts, longitudinal studies tracking cooperative development trajectories during institutional transitions, and comparative analysis of alternative policy approaches for supporting cooperative growth. Additionally, further investigation into the role of digital technologies in transforming cooperative business models and governance structures would enhance understanding of emerging trends in agricultural cooperation.

In conclusion, the formation of effective mechanisms for agricultural cooperation development requires sustained commitment from multiple stakeholders, adaptive policy frameworks responsive to changing conditions, and continuous investment in cooperative capacity building. The proposed mechanism provides a foundation for such efforts while acknowledging the need for context-specific adaptation and ongoing refinement based on implementation experience.

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