




## ARTICLE

# The Dynamics of Multi-Stakeholder Collective Action in Organic Tea Cooperatives

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## ABSTRACT

Cooperatives are a form of collective action where members work together to achieve greater economic or social benefits than they could individually. Yet, establishing cooperatives that benefit all members in the long term is notoriously challenging. This research examines the factors leading to the failure of collective action among multiple stakeholders (government, private sector, and farmers) in the organic tea producers' cooperative in Solok Regency, West Sumatra, Indonesia. This research employed a mixed-methods approach including surveys with 48 cooperative members, 12 key informant interviews, and direct observation. Data were analyzed using content analysis methods and numerical triangulation. The study found that, while physical and spiritual solidarity among cooperative members was high, the tangible benefits compared to the costs incurred remained low. Affective and normative commitments were high, but continuity and tangible benefits were very low. Additionally, interactions among parties did not support the formation of a strong collective identity. To enhance the success of collective action, improvements can be made by refining the reward system and encouraging the formation of a strong collective identity through programs that promote shared goals and cooperative values among members.

**Keywords:** Collective Action; Cooperatives; Failure; Multi-Stakeholders; Organic Tea

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### ARTICLE INFO

Received: 24 February 2025 | Revised: 15 April 2025 | Accepted: 2 September 2025 | Published Online: 5 January 2026  
DOI: <https://doi.org/10.36956/rwae.v7i1.1772>

### CITATION

Hariance, R., Noer, M., Ridwan, E., et al., 2026. The Dynamics of Multi-Stakeholder Collective Action in Organic Tea Cooperatives. *Research on World Agricultural Economy*. 7(1): 232–246. DOI: <https://doi.org/10.36956/rwae.v7i1.1772>

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# 1. Introduction

Collective action is the process by which a group of individuals works together to achieve goals they cannot accomplish individually<sup>[1-4]</sup>. Collective action has several advantages, such as enhancing effectiveness and efficiency, fostering innovation, building trust and collaboration, and increasing accountability among the involved parties. It can be a solution to various societal problems by enabling different stakeholders to complement and strengthen each other to achieve shared objectives<sup>[5-7]</sup>. Although collective action has the potential to yield significant benefits for the group, implementing it often faces challenges. For example, individuals are often reluctant to participate in collective efforts if they can obtain benefits without contributing<sup>[8]</sup>.

Cooperatives are a form of collective action where members work together to achieve greater economic or social benefits than they could individually<sup>[9,10]</sup>. The number of cooperatives in Indonesia is currently estimated to reach 130,119 units by 2023, and is expected to continue to grow. This growth is inextricably linked to the government's 2025 policy, the "Merah Putih Cooperatives" program. This program aims to establish 80,000 cooperatives in every village across Indonesia<sup>[11]</sup>. For 80 years, cooperatives have been a pillar of the economy, but their contribution to economic growth has been insignificant, remaining below 5%<sup>[12]</sup>. One of the weaknesses of cooperatives is the limited capital they have, which cannot be met independently; therefore collaboration with various parties is required.

Collaboration is a cooperative relationship undertaken to achieve organizational goals that cannot be accomplished independently, whereas collective action is the cooperation among parties that results in the creation of a collective identity to achieve common goals. In Indonesia, cooperatives play a crucial role in various sectors, including agriculture, fisheries, and micro-finance<sup>[13-15]</sup>. Cooperatives are an important means for farmers and fishermen to increase their bargaining power and improve their economic conditions<sup>[5]</sup>. However, many cooperatives in Indonesia face significant challenges in maintaining long-term sustainability, especially when involving multiple parties with different interests.

The Sebelas Jurai Saiyo Organic Tea Producers Cooperative in West Sumatra, Indonesia, exemplifies the challenges and potential of collective action within a cooperative context. This cooperative entered the organic tea market through a multi-stakeholder collaboration involving local government and private sector companies processing the tea. This collaboration, known as "Tungku Tigo Sajarangan," reflects an effort to integrate sustainability principles with agricultural practices through multi-stakeholder cooperation. The name of this collaboration is derived from the cultural philosophy of the Minangkabau tribe, which signifies interconnected leadership roles that play an essential part in the community's governance<sup>[16]</sup>. After a decade of operation, this collaboration experienced setbacks, leading to a decline in cooperative membership and overall activity. Preliminary research indicates that one of the main factors contributing to this failure is the misalignment between the benefits received by each party and their expectations. This finding is in line with the rational choice theory.

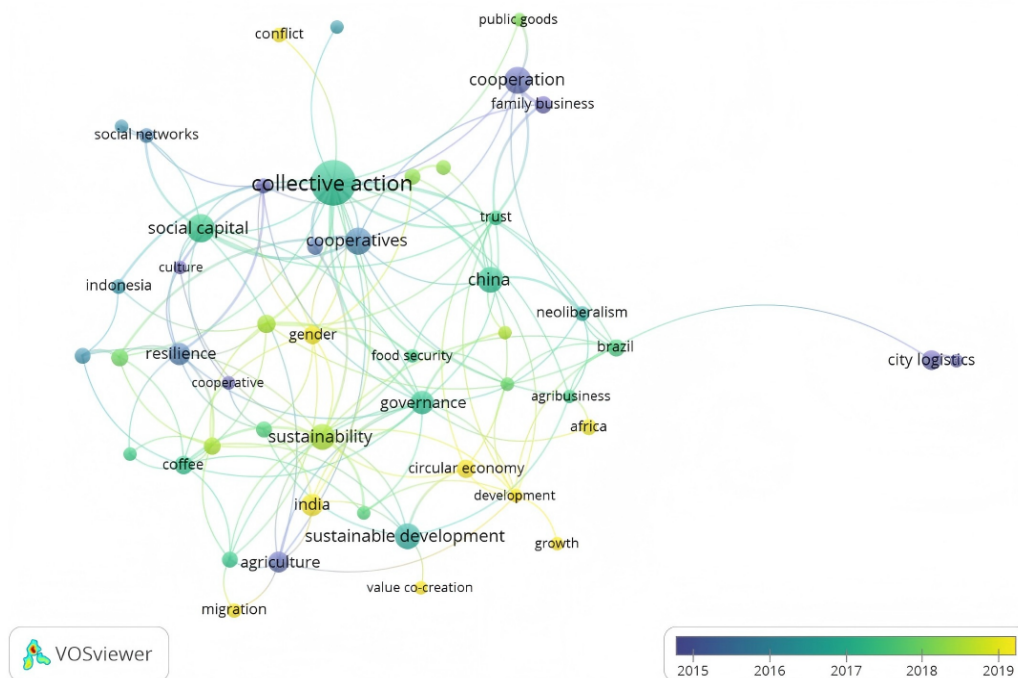
Rational choice theory asserts that individuals will always seek to maximize their personal gains in every action they take<sup>[17]</sup>. This leads to the emergence of the rationality dilemma in collective action, where individuals may choose not to participate if they feel they can reap benefits without contributing. Adam Smith, in his invisible hand theory, stated that individual actions oriented towards personal interest could result in collective welfare through a perfectly functioning market mechanism. However, in reality, market failures often occur due to the lack of effective collective action in production and consumption<sup>[18]</sup>.

In the context of agriculture and environmental sustainability, collective action is crucial for managing resources efficiently and equitably<sup>[19-21]</sup>. The Sebelas Jurai Saiyo Organic Tea Producers Cooperative exemplifies efforts to integrate sustainability principles with agricultural practices through multi-stakeholder collaboration. However, the failure to sustain this collaboration underscores the need for a deeper analysis of the factors leading to the discontinuation of collective action. This research aims to understand the interaction dynamics between stakeholders and the factors that contribute to the

failure of collective action. We explore the roles of both the state and NGOs in facilitating cooperation. The findings have the potential to make a significant contribution to the development of collective action theory, particularly in the context of cooperatives in Indonesia. They are also expected to provide practical guidance for policymakers, cooperative managers, and other stakeholders in designing effective strategies to support sustainable collective action.

Previous research on sustainable collective action in the agricultural sector, particularly related to multi-stakeholder collective action within cooperative institu-

tions, is still limited. This is evident in the following literature review conducted using the VOS Viewer application, which analyzed 818 articles on collective action, cooperatives, agricultural development, agribusiness, and sustainable development. The VOS Viewer results in **Figure 1** show that over the past 10 years, studies on collective action within agricultural cooperative institutions have been limited to 2015 and 2016, as indicated by the dark purple colour. This indicates that this research remains relevant and provides a new approach to the study of collective action.



**Figure 1.** Results of Vos Viewer Analysis for Literature Study on Multistakeholder Collective Action in Cooperatives.

## 2. Materials and Methods

We used a predominantly qualitative research design to understand the dynamics and complexities of collective action within cooperatives<sup>[22–24]</sup>, but supported this with descriptive quantitative analyses.

Data were collected in three ways. First, a survey was conducted with 48 members of the KPTO-SJS cooperative in Solok Regency, West Sumatra, Indonesia. This survey was designed to examine collective action at the level of the cooperative and used seven indicators from Ostrom Principles<sup>[25–27]</sup>:

1. Participation in the establishment of the coopera-

tive:

2. Equal positions for all members.
3. Member involvement in decision-making.
4. Benefits received from cooperative involvement.
5. Group members have a clear understanding of the benefits.
6. Transparency and absence of hidden information.
7. Members individual benefits correspond to their investments.

Details of indicators and statements for analyzing the level of collective action in cooperatives can be seen in **Table 1**.

**Table 1.** Indicators and statements for collective action at the cooperative level.

No	Indicators	Statement
1	<b>Participants: Participation in the establishment of the cooperative</b>	Member involved in envisioning the cooperative. Member participated in the general meeting to form the cooperative. Participated in the formation of the organizational structure As a member involved in the establishment of the cooperative's bylaws (AD/ART) As a member involved in the cooperative's management As a member aware of the cooperative's collaborations with other parties
2	<b>Position: Equal positions for all members</b>	Every member has equal rights in the cooperative Every member has equal obligations in the cooperative Every member has equal opportunities to become cooperative administrators Every member has equal opportunities to work in the cooperative
3	<b>Action: Member involvement in decision-making</b>	Full-time involvement in the cooperative's business activities Full involvement in the cooperative's capital activities Willingness to allocate land resources for cooperative business Willingness to allocate labor resources for cooperative business Willingness to allocate livestock resources for cooperative business Willingness to allocate facilities and infrastructure for cooperative business
4	<b>Outcome: Benefits received from cooperative involvement</b>	Members receive profit sharing in cash Members receive profit sharing in kind Some members receive incentives for their role as cooperative administrators Some members receive incentives for managing the cooperative's business Some members receive incentives for their role as cooperative supervisors
5	<b>Transformation: Clear understanding of benefits</b>	Members know the benefits of joining the cooperative Members know the benefits before joining the cooperative Members know the benefits after joining the cooperative Members can identify benefits from the cooperative's basic/household budget (AD/ART)
6	<b>Information: Transparency and absence of hidden information</b>	Members are always informed about cooperative activities Members are always included in decision-making processes Members are always aware of decisions made by cooperative administrators Members always receive information according to meeting outcomes Members receive the same information as other members Members receive different information from cooperative administrators
7	<b>Benefit: Correspondence between costs and benefits</b>	Members receive profit sharing according to their effort in the cooperative Profit sharing corresponds to the capital invested by members Profit sharing corresponds to members' savings Profit sharing corresponds to the labor and time allocated by members
<b>Total Score</b>		

Second, twelve in-depth interviews were conducted with key informants to examine the wider multi-stakeholder context that supported the cooperative. Three criteria were used to assess the multi-stakeholder context: collective identity, solidarity, and commitment. Key informants were selected through snowball sampling and included cooperative members, cooperative managers, local government officials, and representatives from private companies involved in the multi-stakeholder context collaboration. Details of indicators and statements for analyzing the level of collective action in multi-stakeholder can be seen in **Table 2**.

**Table 2.** Indicators and statements for collective action at the multi-stakeholders level.

No	Variable	Indicators	Statement
1	<b>Collective Identity</b>	<b>Boundaries</b>	Using the cooperative's name as a form of collaboration influences the spirit of cooperation The existence of the cooperative significantly impacts business development The "Tungku Tigo Sajarangan" philosophy is important for cooperative movement There is no status difference in the cooperation
		<b>Awareness</b>	Joining the cooperative can achieve organizational goals Joining the cooperative makes it easier to implement regulations Joining the cooperative provides personal benefits for members Joining the cooperative benefits the members' organizations/institutions Joining the cooperative can increase members' income

Table 2. Cont.

No	Variable	Indicators	Statement
1	Collective Identity	Negotiation	Using a specific symbol is important as a symbol of unity Decisions are made collectively Every activity is conducted transparently Every activity involves members Solutions to obstacles are deliberated together Actions of members of other groups affect the actions taken Participation depends on the group members' decision
2	Solidarity	Physical and Spiritual Devotion	Willing to allocate time for the cooperative Willing to dedicate effort for the cooperative Willing to contribute thoughts and opinions for the cooperative Willing to allocate funds for the cooperative Willing to fight for the advancement of the cooperative
		Enthusiasm physically and spiritually	Enthusiastic about working for common interests Enthusiastic about striving for common goals
		Affective: The desire to join in action	Consciously and confidently joining the cooperative Committed to striving to achieve common goals
		Continuity: The need to join because of the benefits to be received	Joining the cooperative is an advantage Joining the cooperative is necessary to achieve shared success/benefits Joining the cooperative can increase business profits
		Normative: The reason for joining is a sense of obligation	Joining the cooperative at the request of the leader Joining the cooperative is a must for the organization
3	Commitment	Status and Authority	Joining the cooperative increases social status Joining the cooperative can enhance authority as a leader in the group Joining the cooperative improves leadership abilities
		Money (Profit)	Joining the cooperative increases income Joining the cooperative increases profits Joining the cooperative increases sales Joining the cooperative increases the number of customers (relations)
		Leadership	Joining the cooperative makes members leaders Joining the cooperative enhances the ability to lead groups Joining the cooperative makes it easier for members to accept others' opinions Joining the cooperative enables members to manage groups Joining the cooperative enables members to make difficult decisions

Statements are measured on a Likert scale of 1–5, with the following categories:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

Third, participatory observation was used to directly observe activities and understand the dynamics involved. This stage also included a review of documents such as cooperative activity reports, meeting minutes, and collaboration agreements.

A Likert scale was used to measure respondents' responses to indicators of the level of collective action. To measure the numerical values, formulas were used:

- The equation to measure the score and average score for each indicator is:

$$Score = \sum (Score \text{ of Each Respondent})$$

$$Score \text{ Average} = \frac{Score}{Number \text{ of Statement}}$$

- The equation to measure the class interval is:

$$Interval = \frac{Highest \text{ score} - Lowest \text{ score}}{Number \text{ of Statement}}$$

This formula helps in categorizing and interpreting the respondents' responses effectively. The number of classes established was five: very high, high, medium, low, and very low. This analysis was conducted by evaluating institutional analysis factors, including participants, positions, actions, outcomes, transformations, information, and results<sup>[25–27]</sup>. The analysis of the level of collective action by multiple stakeholders was carried out by measuring collective identity, solidarity, commitment, and benefits<sup>[28]</sup>.

### 3. Results

#### 3.1. Collective Action within the Organic Tea Producer Cooperative

The success of collective action depends on the ability of all parties to identify themselves as part of a unified entity with a common goal<sup>[1,8,29]</sup>. Likert scale values for each indicator (**Table 3**) showed that the cooper-

ative places a very high/high value on information transparency (#6), members understanding the benefits of involvement in the cooperative (#5), egalitarianism — equal positions for all members' (#2), and member's involvement in decision-making (#3). The lowest scores were observed for the correspondence between members' investment and their benefits (#7), members' benefits (#4), and whether they participated in the establishment of the cooperative (#1).

**Table 3.** Assessment of the Level of Collective Action by Cooperatives.

No	Indicators	Statement	Score	Score (Average)	Categories*
1	Participants: Participation in the establishment of the cooperative	Member involved in envisioning the cooperative.	107	145.167	Medium
		Member participated in the general meeting to form the cooperative.	119		
		Participated in the formation of the organizational structure	143		
		As a member involved in the establishment of the cooperative's bylaws (AD/ART)	169		
		As a member involved in the cooperative's management	154		
		As a member aware of the cooperative's collaborations with other parties	179		
Total Score			871		
2	Position: Equal positions for all members	Every member has equal rights in the cooperative	194	199.5	High
		Every member has equal obligations in the cooperative	208		
		Every member has equal opportunities to become cooperative administrators	201		
		Every member has equal opportunities to work in the cooperative	195		
Total Score			798		
3	Action: Member involvement in decision-making	Full-time involvement in the cooperative's business activities	194	163.333	High
		Full involvement in the cooperative's capital activities	137		
		Willingness to allocate land resources for cooperative business	208		
		Willingness to allocate labor resources for cooperative business	190		
		Willingness to allocate livestock resources for cooperative business	61		
		Willingness to allocate facilities and infrastructure for cooperative business	190		
Total Score			980		
4	Outcome: Benefits received from cooperative involvement	Members receive profit sharing in cash	95	109.6	Low
		Members receive profit sharing in kind	80		
		Some members receive incentives for their role as cooperative administrators	129		
		Some members receive incentives for managing the cooperative's business	128		
		Some members receive incentives for their role as cooperative supervisors	116		
Total Score			548		
5	Transformation: Clear understanding of benefits	Members know the benefits of joining the cooperative	195	200.5	High
		Members know the benefits before joining the cooperative	192		
		Members know the benefits after joining the cooperative	197		
		Members can identify benefits from the cooperative's basic/household budget (AD/ART)	218		
Total Score			802		
6	Information: Transparency and absence of hidden information	Members are always informed about cooperative activities	198	226.2	Very High
		Members are always included in decision-making processes	216		
		Members are always aware of decisions made by cooperative administrators	215		
		Members always receive information according to meeting outcomes	214		
		Members receive the same information as other members	207		
		Members receive different information from cooperative administrators	81		
Total Score			1131		

Table 3. Cont.

No	Indicators	Statement	Score	Score (Average)	Categories*
7	Benefit: Correspondence between costs and benefits	Members receive profit sharing according to their effort in the cooperative	91	84.5	Very Low
		Profit sharing corresponds to the capital invested by members	83		
		Profit sharing corresponds to members' savings	82		
		Profit sharing corresponds to the labor and time allocated by members	82		
Total Score			338		

\* Explanation of the categories value:

- Very High: 203–240
- High: 164–202
- Medium: 125–163
- Low: 86–124
- Very Low: 48–85

Cooperative members were not fully engaged in every aspect of the establishment, management, and collaborative activities of the cooperative (Indicator #1: 145.167). More emphasis is needed to increase member participation in all critical processes, from inception to management and collaborative activities. More active and inclusive participation could help strengthen the collective identity and commitment of members, thereby supporting the sustainability and effectiveness of the cooperative.

The category for equal positions among all members was rated as high. This indicates that the cooperative principle regarding each member having the same status and rights within the cooperative has been well implemented<sup>[30,31]</sup>. Cooperative members have a high level of trust that collective action can provide equal opportunities for all members to attain positions according to their rights.

Member involvement in decision-making falls into the high category. This indicates that decisions related to the allocation of time, capital, resources, and facilities within cooperative activities are already part of the collective action undertaken by the farmers. The majority of cooperative members are willing to participate in cooperative activities that require the allocation of their resources. Based on these points, it can be concluded that collective action by the farmers in decision-making within cooperative activities is functioning quite well.

The outcome evaluated in this study is the benefit received by members due to their involvement in collective action within the cooperative. The assessment was conducted by providing statements related to profit sharing, both in monetary and non-monetary forms, and

incentives from activities as administrators or other engagements. The research results indicate that members perceive the outcome they receive to fall into the low category. Based on these findings, it can be concluded that the outcome received from collective action is still not optimal.

The next process in collective action at the cooperative level is transformation or change. This transformation refers to a clear depiction of the benefits members will receive from their activities with the cooperative. The statements measured pertain to the clear depiction of benefits as outlined in the cooperative's basic/household budget (AD/ART) or other information provided to farmers both before and after joining. According to **Table 1**, the depiction of the benefits to be received is rated by members in the high category. This is corroborated by interview statements indicating that members feel the benefits are clearly outlined, as agreed upon in the cooperative's founding meeting. This aligns with the cooperative principle that the value of the profit share members will receive is detailed in the cooperative's AD/ART.

The AD/ART of a cooperative is a document that regulates the cooperative's operational procedures<sup>[9,10,32,33]</sup>. Typically, the AD/ART includes provisions related to the distribution of profits or revenue sharing to members. These provisions are usually based on several factors, such as the capital contributed by members, the volume of business conducted by members, and the length of membership. With these provisions in place, members can accurately know the amount of profit or revenue share they will receive from the cooperative. This can enhance members' trust in the coop-

erative and encourage them to participate more actively in cooperative activities. Based on these points, it can be concluded that a cooperative with a clear depiction of benefits will be more trusted by its members. This can increase member participation in cooperative activities and improve the overall welfare of the members.

In the information section, the focus is on the information received by members, including decisions made collectively or by the management and the transparency of information as seen from the consistency of information received by members compared to the management or other parties within the cooperative. The value of information transparency falls into the very high category. This indicates that there are no issues related to information transparency in the collective action.

The benefit discussed in this section differ from the outcomes previously mentioned. Here, the focus is on the alignment between the benefits received by members and the costs they have incurred in the activities (actions). This alignment refers to the business profits obtained from the activities conducted. The statements measured include the match between the dividends received and the contributions paid, the costs incurred, involvement in cooperative activities, and the resources allocated by members. The benefit received by members falls into the very low category. This indicates that the costs or resource allocations provided by members do not yield the expected results or are not proportionate, essentially not providing benefits to the members.

According to the assessment of the collective action indicators at the cooperative level, two variables have low and very low scores: outcomes and results. The very low scores on these collective action indicators indicate that the collective action undertaken by the farmers has not successfully achieved its goals. Consequently, the failure of the sustainability of the collective action is due to the benefits received by the farmers from the actions not aligning with the cost they have made. Therefore, increasing the benefits could improve the effectiveness of collective action. In addition, despite other indicators scoring high and very high, if the two crucial indicators of outcomes and benefit received by members are very low, the collective action fails to be sustainable.

## 3.2. Multi-Stakeholders Collective Action

In this study, collective action by multi-stakeholders was evaluated based on collective identity, solidarity, and commitment (**Table 4**). Collective identity is the sense of togetherness and unity shared by various parties involved in collective action<sup>[3,8,29]</sup>. Collective identity can be measured through boundaries, awareness, and negotiation. Boundaries refer to group members' perceptions of who is included and excluded from the group. Awareness refers to the extent to which group members recognize that they share a common collective identity. Negotiation refers to the process by which group members negotiate the meaning and symbols of their collective identity. This negotiation process can help maintain the relevance of the collective identity and its adaptability to change.

The research results indicate that the indicators for collective identity are still at a moderate level. Based on the evaluated statements, the use of the cooperative's name as an institution is rated as moderate in influencing the spirit of cooperation. This means that a strong social identity has not yet been established among the parties involved in the collective action. The parties feel that the collective identity they share is not very important for cooperation, in other words, each party still maintains the identity of its respective organization.

Solidarity is measured by evaluating physical and spiritual dedication and enthusiasm toward collective action. The research results show that the value of solidarity is high, indicating that the level of solidarity to achieve goals is already in the high category. Each party is willing to allocate time and resources for collective action through the cooperative and is willing to work together in achieving common goals. The statements measured for each indicator include the willingness to allocate time and funds, provide opinions, and contribute labour to the cooperative. Enthusiasm, both physical and spiritual, is assessed through statements about the eagerness to strive for the cooperative's goals and interests and the enthusiasm to work for the cooperative's progress. Thus, each party fundamentally has high solidarity towards the collective action carried out through the cooperative.



**Table 4.** Assessment of the Level of Collective Action by Multi-stakeholders.

No	Variable	Indicators	Statement	Score	Average of Score	Categories*
1	Collective Identity	Boundaries	Using the cooperative's name as a form of collaboration influences the spirit of cooperation	32	33.5	Medium
			The existence of the cooperative significantly impacts business development	29		
			The "Tungku Tigo Sajaringan" philosophy is important for cooperative movement	27		
			There is no status difference in the cooperation	46		
			<b>Total Score</b>	<b>134</b>		
		Awareness	Joining the cooperative can achieve organizational goals	47	38.6	Medium
			Joining the cooperative makes it easier to implement regulations	46		
			Joining the cooperative provides personal benefits for members	34		
			Joining the cooperative benefits the members' organizations/institutions	31		
			Joining the cooperative can increase members' income	35		
			<b>Total Score</b>	<b>193</b>		
		Negotiation	Using a specific symbol is important as a symbol of unity	42	40.29	Medium
			Decisions are made collectively	35		
			Every activity is conducted transparently	40		
			Every activity involves members	41		
			Solutions to obstacles are deliberated together	42		
			Actions of members of other groups affect the actions taken	42		
			Participation depends on the group members' decision	40		
			<b>Total Score</b>	<b>282</b>		
2	Solidarity	Physical and Spiritual Devotion	Willing to allocate time for the cooperative	38	42.8	High
			Willing to dedicate effort for the cooperative	45		
			Willing to contribute thoughts and opinions for the cooperative	38		
			Willing to allocate funds for the cooperative	45		
			Willing to fight for the advancement of the cooperative	48		
			<b>Total Score</b>	<b>214</b>		
		Enthusiasm physically and spiritually	Enthusiastic about working for common interests	43	43.5	High
			Enthusiastic about striving for common goals	44		
		<b>Total Score</b>		<b>87</b>		
3	Commitment	Affective: The desire to join in action	Consciously and confidently joining the cooperative	50	50.5	High
			Committed to striving to achieve common goals	51		
			<b>Total Score</b>	<b>101</b>		
		Continuity: The need to join because of the benefits to be received	Joining the cooperative is an advantage	29	33.67	Medium
			Joining the cooperative is necessary to achieve shared success/benefits	43		
			Joining the cooperative can increase business profits	29		
			<b>Total Score</b>	<b>101</b>		
		Normative: The reason for joining is a sense of obligation	Joining the cooperative at the request of the leader	43	43	High
			Joining the cooperative is a must for the organization	43		
		<b>Total Score</b>		<b>86</b>		

Table 4. Cont.

No	Variable	Indicators	Statement	Score	Average of Score	Categories*
3	Commitment	Status and Authority	Joining the cooperative increases social status	15	17.33	Very Low
			Joining the cooperative can enhance authority as a leader in the group	16		
			Joining the cooperative improves leadership abilities	21		
			<b>Total Score</b>	<b>52</b>		
		Money (Profit)	Joining the cooperative increases income	25	20	Very Low
			Joining the cooperative increases profits	26		
			Joining the cooperative increases sales	27		
			Joining the cooperative increases the number of customers (relations)	27		
			<b>Total Score</b>	<b>80</b>		
		Leadership	Joining the cooperative makes members leaders	15	27.6	Low
			Joining the cooperative enhances the ability to lead groups	15		
			Joining the cooperative makes it easier for members to accept others' opinions	42		
			Joining the cooperative enables members to manage groups	22		
			Joining the cooperative enables members to make difficult decisions	44		
			<b>Total Score</b>	<b>138</b>		

\* Explanation of the categories value:

- Very High: 52–60
- High: 42–51
- Medium: 32–41
- Low: 22–31
- Very Low: 12–21

In Table 2, it is evident that the affective and normative indicators are rated high, indicating that each party has a strong desire to join the cooperative. Joining the cooperative occurs normatively due to a strong sense of obligation. Meanwhile, the values for continuity and profit are very low, meaning that each party perceives that joining the cooperative has not yet brought sustainable benefits. Hu et al. [34], mentioned a similar situation in a public-private partnership in China, where the partnership between the government and private sector is not sustainable because the return on investment does not match with the expectations. Additionally, the indicators for status and authority are very low, and leadership is rated low, indicating that joining the cooperative does not impact the social status, authority, or leadership of the respective parties.

### 3.3. Factors Influencing the Failure of Collective Action

Based on the analysis of collective action at the cooperative level and among multi-stakeholders, the failure of collective action is attributed to:

1. At the cooperative level, collective action failed because the benefits received by the farmers were not commensurate with the costs they had incurred. As a result, the outcome indicator was rated low, and the results received by members in the collective action were rated very low.
2. At the multi-stakeholder level, collective action failed due to very low ratings for continuity and anticipated profits. Additionally, there were no changes in the status, authority, and leadership of the parties involved, which also received very low ratings.

Efforts to achieve sustainable collective action can be made by addressing the indicators related to the factors mentioned above that are rated moderate, low, and very low. This aims to increase the participation of all parties in the collective action. Additionally, it is essential to strengthen communication and coordination among all parties involved in the collective action to achieve the desired goals.

Achieving sustainable collective action underscores the importance of addressing various indicators

related to member participation and actor collaboration. The success of collective action is not only determined by joint commitment but also by how well the supporting factors are identified and managed. Indicators showing moderate, low, and very low values must be carefully identified to overcome barriers and strengthen individual participation in the collective action. For example, factors such as infrastructure support, community involvement, and clarity of roles and responsibilities need to be closely examined.

Strengthening communication and coordination among all involved parties is also key to achieving the goals of collective action. Open and transparent communication will help build trust and mutual understanding among the actors. Effective coordination ensures that all parties work towards the same goals and minimizes the potential for conflicts or misunderstandings<sup>[35]</sup>. In the context of collaboration between cooperatives, partner companies, and the government, this means there must be a platform or mechanism that allows for ongoing dialogue, rapid and accurate information exchange, and inclusive decision-making.

It is also important to build the capacity of individuals and groups for understanding and implementing collective goals. This can be done through training, workshops, and educational programs designed to enhance the technical and managerial skills of the actors. By strengthening this foundation, collective action can proceed more smoothly and sustainably<sup>[34]</sup>. Additionally, regular evaluations of the collaboration processes and outcomes are necessary to ensure that all parties remain on the right track and are prepared to make adjustments if needed.

By addressing and managing key indicators and strengthening communication and coordination, sustainable collective action can be more easily achieved. All involved parties must commit to working together to achieve common goals and ensure that every step taken supports the achievement of the collective vision.

## 4. Discussion

The factors that influence the failure of collective action can be seen from the results of the analysis of collec-

tive action at the cooperative level and collective action by multi-stakeholders. First, at the cooperative level, collective action fails to materialize because the benefits received by farmers are not commensurate with the sacrifices they have made; thus, the value of the outcome indicators and the results received by individuals in collective action is very low. Second, at the multi-stakeholder level collective action failed to materialize because the value of continuity and the financial or benefits to be obtained were also low, in addition there was no change in status, authority, and leadership for each party so that the value was very low. Efforts to realize sustainable collective action can be done by paying attention to the indicators related to the factors above which have medium, low, and very low values. This aims to increase individual participation in collective action. In addition, it is also important to strengthen communication and coordination among all parties involved in collective action in order to achieve the desired goals.

Efforts to realize sustainable collective action underscore the importance of paying attention to various indicators related to individual participation and collaboration among actors. The success of collective action is determined not only by shared commitment but also by how well the factors that support such collaboration are identified and managed. Indicators showing moderate, low, and very low values must be carefully identified to overcome barriers and strengthen individual participation in collective action. For example, factors such as support for facilities and infrastructure, community involvement, and clarity of roles and responsibilities need to be considered. Strengthening communication and coordination among all involved parties is also key to achieving collective action goals. Open and transparent communication will help build trust and mutual understanding among actors. Effective coordination ensures that all parties are working towards the same goal and minimizes the potential for conflict or misunderstanding. In the context of collaboration between cooperatives, partner companies, and the government, this means that there must be a platform or mechanism that allows for ongoing dialogue, rapid and accurate information exchange, and inclusive decision-making.

It is also important to build the capacity of indi-

viduals and groups for understanding and implementing collective goals. This can be done through training, workshops, and educational programs designed to improve the technical and managerial skills of actors. By strengthening this foundation, collective action can run more smoothly and sustainably. In addition, regular evaluation of the processes and results of collaboration is also needed to ensure that all parties remain on track and are ready to make adjustments if necessary. Through the management of key indicators and strengthening communication and coordination, sustainable collective action can be more easily achieved. All parties involved must commit to working together to realize common goals and ensure that every step taken supports the achievement of the collective vision.

James C. Scott in *The Moral Economy of the Peasant*<sup>[36]</sup> emphasized that farmers act on the basis of subsistence values and social solidarity. However, this view was criticized by Samuel L. Popkin in *The Rational Peasant: The Political Economy of Rural Society*<sup>[37]</sup>. Popkin argues that farmers are not only moral actors who prioritize collective welfare, but also rational agents who consider benefits and risks in every economic decision they make. In the context of this study on smallholder plantations and agricultural cooperatives, Popkin's approach further explains why many farmers choose to leave cooperatives. According to Popkin, farming communities do not always operate in a moral economic system that emphasizes mutual cooperation, but rather as corporate communities in which individuals evaluate their participation based on the benefits they receive. This is in line with the results of research conducted by Tirivayi, Shumeta, Su, et al.,<sup>[38-40]</sup>, which state that cooperative members get more benefits if they join a cooperative. If the cooperative system does not offer strong enough incentives, such as greater market access, increased productivity, or income stability, farmers tend to withdraw and seek other, more profitable alternatives.

The findings of this study indicate that the failure of collective action in smallholder plantation cooperatives occurs due to an imbalance between the contributions and benefits received by farmers. Many farmers feel that the cost of cooperative membership is greater than the benefits obtained, especially if the cooperative

fails to provide better access to production facilities or more competitive selling prices. In the context of rational choice proposed by Popkin, the decision to leave the cooperative is a form of economic rationality, where farmers seek strategies that provide maximum benefits for themselves individually.

However, this does not mean that cooperatives cannot be an effective instrument. In order for smallholder cooperatives to be sustainable, a stronger incentive system is needed to increase the attractiveness of cooperatives for farmers. This can be in the form of wider access to capital, technology, and more profitable market networks. In addition, cooperatives need to develop reward mechanisms that take into account individual economic interests while maintaining sustainable collective action.

Thus, combining Scott's moral economics and Popkin's rational choice approaches in this study helps explain why collective action in smallholder cooperatives often fails. While Scott highlights the importance of social values in building farmer solidarity, Popkin emphasizes that the sustainability of cooperatives is highly dependent on real economic incentives. Therefore, the institutional design of cooperatives needs to accommodate both perspectives to create a system that is both socially just and economically profitable for farmers.

## 5. Conclusions

This study revealed that a strong collective identity among the involved parties has not yet been formed in the dynamics of interactions between collaborating parties. This finding is supported by research results showing that the use of the cooperative name as a symbol of cooperation and its underlying philosophy has not created a strong spirit of collaboration. Parties still tend to maintain their respective organizational identities, which results in obstacles in the formation of a solid collective identity. Although the level of solidarity in the form of physical and spiritual devotion is considered high, this is not enough to guarantee success in collective action. High solidarity scores also indicate the willingness of parties to allocate their time and resources, this willingness is not accompanied by tangible benefits from

their participation in the action. These results are further strengthened by the assessment from the perspective of the level of collective action, where affective and normative commitment scores are rated high, indicating that the involved parties have a strong desire to join the cooperative driven by a sense of obligation. However, this is still not enough to encourage the sustainability of collective action if the actors involved do not receive tangible benefits from their participation. Thus, the sustainability and benefits scores are very low, indicating that collective action has not been able to provide sustainable benefits for the actors involved. Furthermore, social status, authority, and leadership did not significantly improve, so members felt they received no added value from their involvement in the action.

Therefore, it can be concluded that the failure of collective action was caused by an imbalance between the sacrifices and benefits received by the actors involved. At the cooperative level, collective action failed because the benefits received by farmers were disproportionate to the costs incurred, as reflected in the low yields and output of cooperative members. Furthermore, at the multi-stakeholder level, the failure of collective action was caused by the low sustainability and benefits from involvement. There were no positive changes in the status, authority, and leadership received by the parties involved, so their participation in the action did not have a significant impact. These findings suggest that achieving sustainable collective action requires improvements in creating a strong collective identity and providing tangible benefits commensurate with the costs incurred. This will help increase the commitment and participation of all parties involved. Several steps can be taken to improve the success of collective action, including increasing benefits for members, both financial and non-financial. This can be done by improving the profit-sharing system to make it more equitable and transparent, and increasing access to facilities and infrastructure that can provide tangible benefits to members. Second, the formation of a strong collective identity can be encouraged through programs that promote the shared goals and values of the cooperative among its members.

## Author Contributions

R.H., M.N., E.R., and H.H. played a role in designing the study. R.H. wrote the manuscript. M.N., E.R., and H.H. provided input in revising the manuscript. R.H. conducted the research. M.N., E.R., and H.H. provided advice on the interpretation of the research findings. All authors read and approved the final manuscript.

## Funding

The Research and the APC of this article was independently funded by the author.

## Institutional Review Board Statement

Not applicable. These studies do not involve humans or animals.

## Informed Consent Statement

Not applicable.

## Data Availability Statement

Not available.

## Acknowledgments

Thanks are extended to the Sebelas Jurai Saiyo organic tea producer cooperative, the local government of Solok Regency, and the representatives of private companies for their willingness and time in the research process. Gratitude is also expressed to the Graduate School of Andalas University for their assistance in the administrative process of this research. Thank are also given to all those who assisted in the fieldwork of this research, who cannot be mentioned individually.

## Conflicts of Interest

No conflict of interest.

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