

## Collaborative Governance Strategy in Increasing Production and Strengthening Food Diversification in Rokan Hulu Regency, Riau Province, Indonesia

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**Abstract:** This research aims to analyze Collaborative Governance strategies in food diversification efforts in Rokan Hulu Regency, focusing on the regional food policy context. Utilizing qualitative analysis with the Nvivo 12 Plus tool, it systematically processes interview and online media data, revealing key factors such as coordination (47.06%), trust (29.41%), and commitment to common goals (23.53%) that influence collaborative governance. The novelty lies in highlighting the low level of stakeholder commitment, linked to a lack of participation forums, which impacts local food consumption patterns still dependent on rice. While leadership and institutional design are identified as critical aspects of collaborative governance, this study advances the discourse by emphasizing the dominance of the government sector and the need for more balanced stakeholder involvement in program implementation. It also underscores the importance of developing alternative commodities like corn and cassava to enhance food diversification. This research contributes to the state of the art by offering timely insights into the practical challenges of collaboration, advancing both theoretical and applied aspects of governance in rural food security strategies.

**Keywords:** Collaborative governance; production; food diversification

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## INTRODUCTION

Food availability is one of the most basic needs for humans, and it affects survival (Barman et al., 2021; Ningsih et al., 2016). Food is a basic human need that both the government and society must meet according to Law No. 7 of 1996 (Elizabeth, 2011). Then, according to the 1996 Rome Declaration, one of the human rights is the right to food. The issue of food security is not only a concern for a particular country or region but also a global issue that is of concern to the G20 meeting. Various world efforts have been initiated by regional and international organizations to address the challenge of food security, such as the UN Global Crisis Response Group (GCRG), the G7 Global Alliance for Food Security (GAFS), the Global Agriculture and Food Security Program (GAFSP), International Finance Institutions Action Plan, and Global Development Initiative, as well

as individually by several countries (Gursoy, 2020). In the Indonesian context, Indonesia has a wide variety of foods. However, rice is the most popular and is identified as a food because rice is Indonesia's main staple food, so rice has strategic relevance as the country's main staple food. Rice has a significant impact on the economy, including employment and rural economic growth (Lantarsih et al., 2011).

Currently, food security is a major problem for every nation, including Indonesia (Erwandari, 2017). Many previous studies have raised the idea of food diversification, which is an effort to improve the quality of human resources, agricultural development in the food sector, and community nutrition (Hutagaol & Sinaga, 2022). Food diversification includes three related fields of study: food consumption diversification, food availability diversification, and food production diversification (Ita, 2022). In the Indonesian context, the low level of variety in food consumption is caused by the failure to achieve food availability targets, difficulties in accessing food, lack of public awareness of the variety of food available, and the lack of information related to food marketing (Defri et al., 2022; Zevic et al., 2022). Then, in general, Indonesia can maintain food security as evidenced by the availability of sufficient food in the market to avoid price increases. However, in the process, some food ingredients and their availability still depend on other countries, so they have to be imported, which adds complexity to efforts to strengthen food security (Ula, 2021). Therefore, food diversification needs to be emphasized. Food diversification, which includes local food innovation, is needed not only regarding quality, nutrition, and safety but also in terms of customer preferences. Thus, food diversification is intended to play a role in increasing the added value of local food products that can create local food products that attract customers (Ikhram & Chotimah, 2022; Rusli et al., 2022).

Based on data from the Central Statistics Agency (BPS), from January to May 2021, rice production in Indonesia reached 17.51 million tonnes. This figure is the result of a combination of all rice-producing regions in Indonesia (Bps.go.id, 2021). As for Riau Province, in 2020, the rice harvest area was recorded at BPS as 64.73 thousand hectares with a production of 243.69 thousand tons of GKG. Based on these production results, Riau Province is only able to provide 33% (percent) of Riau's rice consumption needs (Riau.bps.go.id, 2021). Then, in Riau Province, several districts are categorized as food insecure areas. Some of these areas are the Regencies of Rokan Hulu, Bengkalis, Meranti Islands, Indragiri Hulu, and Kampar (Detik.com, 2020). Furthermore, in Rokan Hulu Regency, several villages fall into the category of food insecurity according to the Food Security Council (DKP), including Menaming, Kepayang, Marga Mulya, Rambah Samo, and East Tambusai Villages. Most of these villages are near Pasir Pangaraian, which is the capital of Rokan Hulu Regency (Mediacenter.riau.go.id, 2018).

One of the Indonesian government programs aimed at overcoming the food crisis is the food diversification program. This program is confirmed through Government Regulation No. 68 of 2002 concerning Food Security to realize rice self-sufficiency by minimizing rice consumption so that it does not exceed production (Rosita & Ikomatussuniah, 2022). Food diversification is an effort to encourage people to vary the staple foods they consume so they don't focus on just one type. The concept of diversification is only limited to staple foods, so food consumption diversification is interpreted as a reduction in rice consumption, which is compensated by additional consumption of non-rice food ingredients (Elizabeth, 2011; Rosita & Ikomatussuniah, 2022). Basically, food diversification includes three interrelated scopes of understanding, namely food consumption diversification, food availability diversification, and food production diversification. Food diversification is also beneficial for obtaining nutrition from more diverse and balanced nutritional sources (Boratyńska & Huseynov, 2017; Rahayu et al., 2020).

In the process, this food diversification program is also a priority program of the Rokan Hulu Regency Government, which is listed in the Rokan Hulu District Food Security and Fisheries Service Strategic Plan for 2021-2026 (Distanhor.rokanhulukab.go.id, 2021). The government of Rokan Hulu Regency, with its food diversification program, must, of course, be able to maximize other food commodities so that people are not dependent on rice alone and Rokan Hulu Regency can overcome the food crisis that has occurred. The commodities used as alternatives to rice can be seen in Table 1 below:

**Table 1.** Production Development of Food Commodities in Rokan Hulu Regency in 2016-2021

No.	Commodity	Production year					
		2016	2017	2018	2019	2020	2021
1	Rice Fields	18.488,83	21.010,47	18.258,80	19.502,83	18.177,21	17.015,29
2	Upland Rice	32.859,53	20.922,98	20.617,20	25.682,75	27.204,43	16.025,26
3	Corn	3.748,24	5.541,96	5.780,09	6.976,89	6.370,87	4.602,93
4	Cassava	4.665,41	4.784,78	3.936,53	4.861,22	4.730,63	5.417,84
5	Soya bean	2.010,79	881,34	2.124,74	153,58	385,22	193,52
6	Sweet potato	1.203,36	1.341,01	1.033,61	1.032,52	504,93	444,07
7	Peanuts	513,92	285,16	338,94	137,10	169,58	206,64
8	Mung beans	459,30	285,63	197,78	103,11	58,62	77,07
9	Chilli	665,60	1.503,20	1.762,80	2.501,10	2.987,90	915,38
10	Red onion	-	4,5	-	-	-	21,20

Source: (*Distanhor.rokanhulukab.go.id, 2021*)

Table 1 shows that commodities such as corn and cassava, which are large productions, can be used as a choice for the community in meeting their daily food needs other than rice. The Government of Rokan Hulu Regency must carry out the collaborative governance process as a policy implementer in increasing food production and strengthening through a food diversification program, where the private sector and the community as stakeholders must also be involved to support the implementation of this program because the collaborative governance process is expected to be an important answer in efforts to improve performance in the agricultural sector (Asran, 2018; Azis et al., 2022; Rukmana, 2020). Fundamentally, Collaborative Governance is an effort made by many parties to achieve the same goal or an idea used to characterize the cooperative relationship of certain parties (Ardiansyah et al., 2023; Utami et al., 2022; Rivelino, 2020).

Collaborative governance is believed to be an answer to resolving social conflicts by involving various stakeholders and formulating local development policies for environmental protection through self-organization among stakeholders that are creative, deliberative, and mutually beneficial to one another (Azis et al., 2022; Okereke & Stacewicz, 2018). According to research by Zevic et al. (2022), it is explained that to accelerate diversification targets and increase food consumption, of course, real work is needed through the collaboration of various parties, especially multi-sectoral and multi-stakeholder. Then, the collaborative governance process in food diversification is influenced by several factors, such as a commitment to a common goal, the existence of trust between the participants involved, and the existence of coordination between stakeholders (Asran, 2018; Rukmana, 2020).

From the literature reviews above, it is evident that investigating collaborative governance strategies in food diversification is crucial, as it lays the groundwork for any food security initiatives undertaken by the government. In this context, the Government of Rokan Hulu Regency must actively engage the private sector and local communities through a series of discussions on food security, establishing joint agreements, and fostering collective commitment to its achievement. A novel aspect of this approach is the emphasis on inclusive, multi-stakeholder collaboration that integrates private sector contributions directly into government-led food security programs. As part of their efforts, the Government of Rokan Hulu Regency has shown strong commitment, particularly through the 2020 Hybrid Corn Joint Planting Movement. The district head's active participation in this initiative—symbolized by the ceremonial planting with the HKM Rawa Seribu Farmer Group in North Tambusai Village—underscores the region's readiness to implement sustainable food diversification strategies. Moreover, this activity is further bolstered by private sector involvement, with PT Torganda providing essential agricultural equipment and support, enhancing the capacity of local corn farmers. This synergy between government, private, and community stakeholders marks a significant step towards achieving long-term food security (Rokanhulukab.go.id, 2020). This research offers fresh insights by highlighting how collaborative governance in food diversification not only mobilizes resources but also fosters accountability among stakeholders.

## RESEARCH METHOD

This research used a qualitative approach as a contextual study in visualizing a certain phenomenon, carried out systematically (Fadli, 2021). The data in this study came from primary and secondary data, where the primary data includes observations and interviews with respondents (government, private, farmers, and communities). Meanwhile, secondary data was obtained from various government websites, books, journals, and some local online news media content (Halloraiu.com and Haluanriau.co).

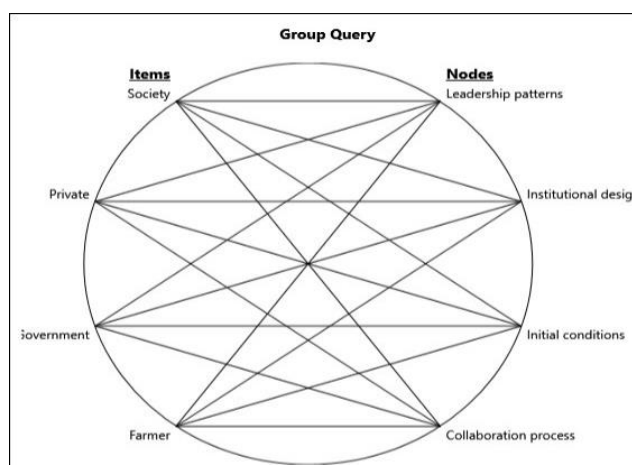
Then, data collection techniques include in-depth interview techniques and documentation techniques using the Nvivo Ncapture feature. Furthermore, this research data analysis technique used the Nvivo 12 Plus application through the Group Query and Crosstab Query analysis features to visualize and find the percentage of concepts (nodes) used and explain research variables that affect the object and research focus (Woolf & Silver, 2018). Therefore, this article attempts to explain how the collaborative governance strategy works in increasing production and strengthening food reserves.

## RESULTS AND DISCUSSION

Over the coming decades, every country will face unprecedented difficulties related to food security, economic development, and global environmental changes (Berchin, 2019; Gursoy, 2020). The challenge relates to how to produce enough food to feed everyone while protecting and developing natural resources for future generations (Lakerveld, 2020; Rafi et al., 2021; Rusli et al., 2022). As a result of this complexity, the agricultural sector needs to adapt to climate change in the future to secure an adequate food supply (Suriadi & Arsjad, 2015; Rafi et al., 2021). Therefore, it is important to strengthen social capital by realizing a collaborative governance strategy that will increase a sense of responsibility, cooperation, and social care (Ardiansyah et al., 2023; Cahyono, 2020; Caraka et al., 2021). In analyzing the collaborative governance strategy in food diversification, we will discuss the process of collaborative governance in food diversification and the factors that influence the collaborative governance strategy in increasing production and food reserves in Rokan Hulu Regency, Riau Province.

### ***Collaborative Governance Process in Food Diversification in Rokan Hulu Regency***

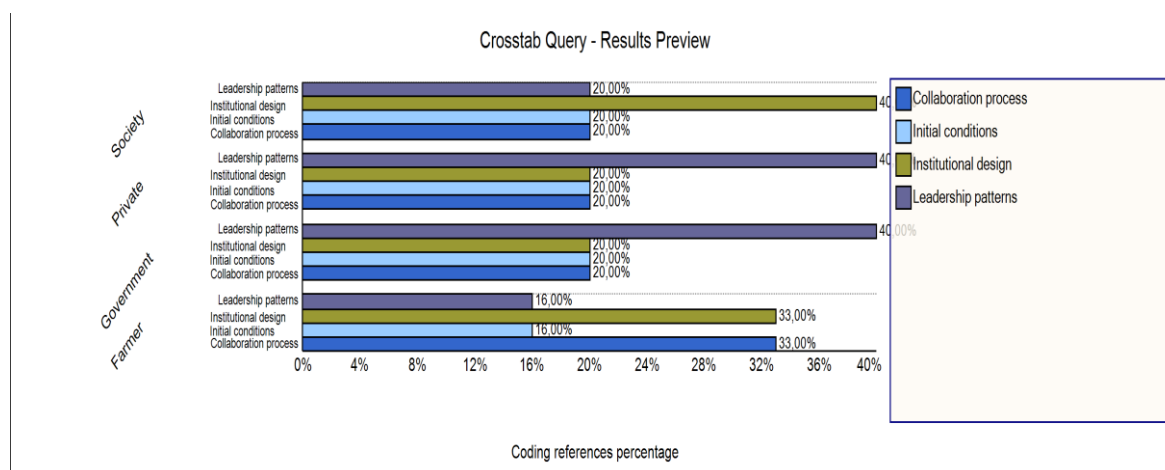
Fundamentally, the collaborative governance process in food diversification can be reviewed on the initial conditions, institutional design, leadership patterns, and collaborative processes carried out by each stakeholder (Azis et al., 2022). Based on the results of the group query analysis in Figure 1, the results of the collaborative governance process in food diversification in Rokan Hulu Regency were found:



**Figure 1.** Collaborative Governance Process in Food Diversification in Rokan Hulu

Source: Group Query Analysis Using Nvivo 12 Plus (2023)

Figure 1 above is a group query analysis that maps the perceptions of each stakeholder visualized on each connected line and node. Then, each collaborative governance process has an arrow area indicating recommendations from each respondent, where each respondent (government, private, farmers, and society) believes that the collaborative governance process in food diversification in Rokan Hulu Regency consists of initial conditions, design institutions, patterns of leadership and collaboration processes that are carried out. Then, based on the results of interviews with each actor who has been analyzed through the crosstab query feature in Figure 2, it is found that each respondent has varying views on the process of collaborative governance in food diversification in Rokan Hulu Regency:



**Figure 2.** Perceptions Between Actors on Collaborative Governance Process in Food Diversification in Rokan Hulu Regency  
 Source: Crosstab Query Analysis Using Nvivo 12 Plus (2023)

From Figure 2 above, it can be seen that several actors have diverse tendencies in highlighting the collaborative process in food diversification in Rokan Hulu Regency, which can be traced in the following description: *First*, according to the society, institutional design (40%) is the most dominant aspect so highlighted because the food diversification program in Rokan Hulu Regency is still not solid, this is because there are still potential food commodities other than rice such as sweet potatoes and corn which the government has not paid much attention to and are only self-help farmers and the community. Therefore, of course, institutional design needs to be strengthened again in the process of collaborative governance in Rokan Hulu Regency.

*Second*, private actors place the leadership pattern (40%) as the dominant aspect because the local government of Rokan Hulu Regency has tried to collaborate with the private sector to formulate policies for the 2020 food diversification program. In addition, this collaborative activity has also been supported by the private sector, namely PT Torganda, which supports and provides assistance with agricultural equipment facilities to cultivate land for the community or corn farmers in Rokan Hulu Regency.

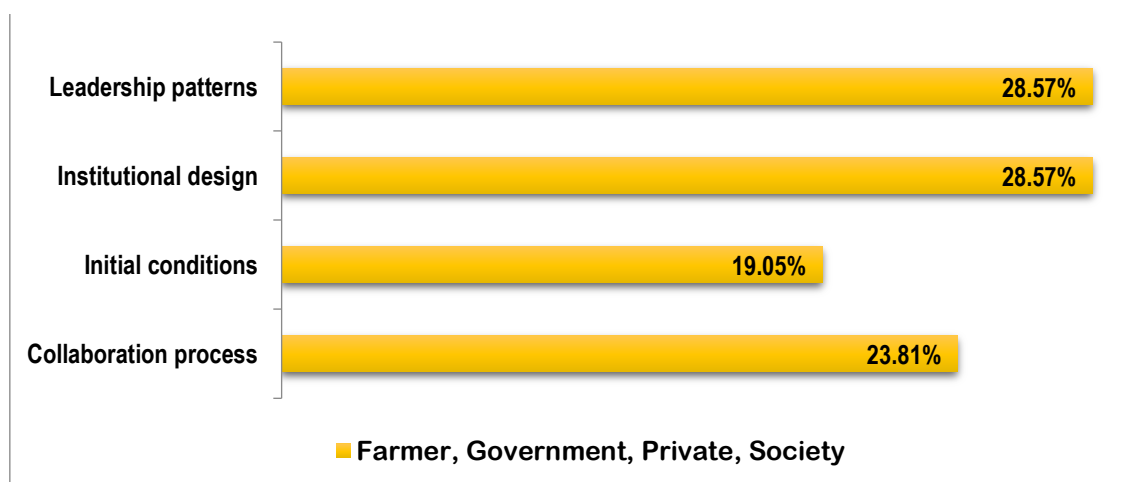
*Third*, in line with the perceptions of private actors, the government also sees leadership pattern (40%) as the dominant aspect because, as an effort to support Food Security, the Government of Rokan Hulu Regency is very supportive and ready to succeed the 2020 Hybrid Corn Joint Planting Movement, where the Regent of Rokan Hulu has participated in the first hybrid corn planting marked with Menugal and planting corn with the HKM Rawa Seribu Farmers Group, in North Tambusai Village, North Tambusai District. This activity was then also supported by the private sector, namely PT Torganda, which supported and provided assistance with agricultural equipment facilities to cultivate the land for the community or corn farmers in Rokan Hulu.

*Fourth*, the farmers highlighted two dominant aspects of the collaborative process in food diversification in Rokan Hulu Regency, namely aspects of the collaboration process (33%) and aspects of institutional design (33%). In the aspect of the collaboration process, the farmers emphasize that the collaboration process must run well by having a shared understanding of the vision, mission, and ways to find solutions to the problems encountered and identifying common

values in collaboration so that the actor's interests can find out the inhibiting factors and supporting factors in the collaboration process carried out. Then, in the aspect of institutional design to improve the performance of the agricultural sector in Rokan Hulu Regency, a participatory forum is formed between the government, the private sector, farmers, and farmer organizations. However, this is still minimal in Rokan Hulu District, which requires strengthening a systematic institutional design.

Based on perceptions between actors on the process of collaborative governance in food diversification in Rokan Hulu Regency, it can be seen that collaborative governance is expected to be the answer and strategy in food diversification in Rokan Hulu Regency. However, the collaboration process requires proof of commitment related to improving the performance of the agricultural sector. For example, farmers and communities in Rokan Hulu Regency still complain about aspects of institutional design that are still not solid because there are still potential food commodities other than rice, such as sweet potatoes and corn, which have not been given too much attention by the government and is only self-help farmers and the community. Thus, in the aspect of institutional design to improve the performance of the agricultural sector, a systematic and solid participation forum is needed between the government, the private sector, farmers, and the community in the food diversification program in Rokan Hulu Regency.

Furthermore, from the four collaborative governance processes in food diversification that have been described above, the following will explain the dominant aspects of the collaborative governance process in food diversification in Rokan Hulu Regency, as seen in Figure 3.



**Figure 3.** Dominant Aspects of the Collaborative Governance Process in Food Diversification in Rokan Hulu Regency

Source: Crosstab Query Analysis Using Nvivo 12 Plus (2023)

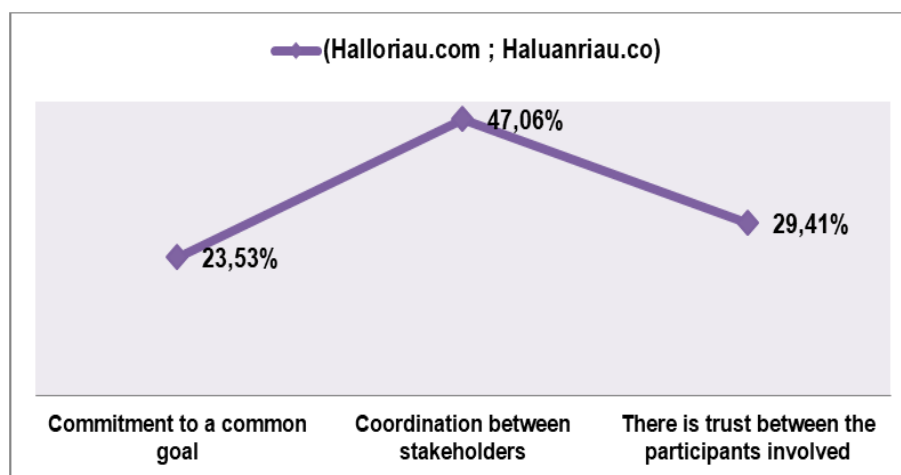
Figure 3 shows that the dominant aspects of the Collaborative Governance process in food diversification are dominated by aspects of leadership patterns (28.57%) and institutional design (28.57%), followed by aspects of collaborative processes (23.81%) and initial conditions (19.05%). In essence, aspects of leadership patterns and institutional design are believed to be the most influential dimensions because the Rokan Hulu Regency Government is very committed to food diversification activities, which are also supported by several private parties who assist with agricultural equipment to cultivate land to the community and corn farmers in Rokan Hulu Regency. However, in practice, there are still problems related to the dimensions of the collaboration process and initial conditions, where the government sector is the strongest actor and other actors are only involved in activities that utilize the potential and interests of each actor. Thus, the dominance of the power structure by the Rokan Hulu Regency Government in the food diversification program tends to give rise to social disparities and membership complexity, which still occur because other actors such as farmers, communities, and the private sector have quite large role gaps in realizing sustainable food sovereignty in the Rokan Hulu Regency.

Based on this explanation, in each dimension of the Collaborative Governance process in the food diversification program in Rokan Hulu Regency, aspects of leadership patterns and

institutional design are considered dimensions that have been running because the Rokan Hulu Regency Government is committed to Food Diversification activities and is also supported by several private parties provide agricultural equipment to cultivate land to the community and farmers in Rokan Hulu Regency. However, these two aspects (leadership patterns and institutional design) still require improvement due to the government sector, which is still the strongest actor and other actors only being involved in some food diversification activities in Rokan Hulu Regency. This issue has an impact on the low level of food consumption in Rokan Hulu Regency, which is caused by the failure to achieve the food availability target. Therefore, the solution needed to overcome this is to improve and strengthen each collaboration process, especially in the aspect of balancing roles between actors, so that a joint commitment can be created to develop food diversification programs in Rokan Hulu Regency in a sustainable manner. Azis et al. (2022) explained that in the collaboration process, it is crucial to build a shared commitment to developing food diversification in an area by paying attention to four important aspects of the collaboration process, which include initial conditions, institutional design, pattern of leadership and a systematic process of collaboration.

### **Factors Influencing Collaborative Governance Strategies in Increasing Production and Strengthening Food Reserves in Rokan Hulu Regency**

Fundamentally, the collaborative governance strategy will have a positive impact on increasing food production and reserves if it is implemented optimally and sustainably (Asran, 2018; Rukmana, 2020; Zevic et al., 2022). Based on data from several online media that have been coded through the Nvivo 12 Plus software, several factors influence the collaborative governance strategy in increasing production and strengthening food reserves in Rokan Hulu Regency, as shown in Figure 4.



**Figure 4.** Factors Influencing Collaborative Governance in Increasing Production and Strengthening Food Reserves in Rokan Hulu Regency  
*Source: Crosstab Query Analysis Using Nvivo 12 Plus (2023)*

From Figure 4, the factors that influence the collaborative governance strategy in increasing production and strengthening food reserves in Rokan Hulu Regency include aspects of coordination between stakeholders (47.06%), followed by trust between the participants involved (29.41 %). There is a commitment to a common goal (23.53%). If examined further, the coordination factor between stakeholders is considered dominant because of the form of participation and support between stakeholders for the development of food security in the Thousand Suluk Country, where the Indonesian National Army (TNI) in Rokan Hulu Regency together with the Agricultural Extension Center (BPP) of Rambah District Samo has planted paddy rice which was carried out in Rambah Baru Village, Rambah Samo District, Rokan Hulu Regency as a form of TNI support for food security in Rokan Hulu Regency (Haluanriau.co, 2022). Table 2 below will describe several actors who are known to play a role in Collaborative Governance in increasing production and strengthening food reserves in Rokan Hulu Regency:

**Table 2.** The Role of Actors in Collaborative Governance in Increasing Production and Strengthening Food Reserves in Rokan Hulu Regency

No	Actors	The Role of Actors
1	Government Actor: Riau Provincial Government, Rokan Hulu Regency Government, Rokan Hulu Regency DPRD, TNI, Food Crops and Horticulture Service (TPH), Food Security and Fisheries Service (DKPP), Agricultural Extension Center (BPP), Village Head, Sub-District Head and TP-PKK Rokan Hulu.	Regional governments at the district/city and provincial levels, as well as other government elements, play a role in drafting legislation and supervising and, supporting and facilitating the realization of food diversification programs.
2	Private Actor: PT Torganda.	Support and provide assistance with agricultural equipment facilities for cultivating land for the community or corn farmers in Rokan Hulu Regency.
3	Farmer Actor and Society Actor: Farmers Group (POKTAN) Rokan Hulu Regency, Micro, Small and Medium Enterprises (UMKM), and Rokan Hulu Society.	Manage agricultural land, increase agricultural production and food availability, and supervise food security programs.

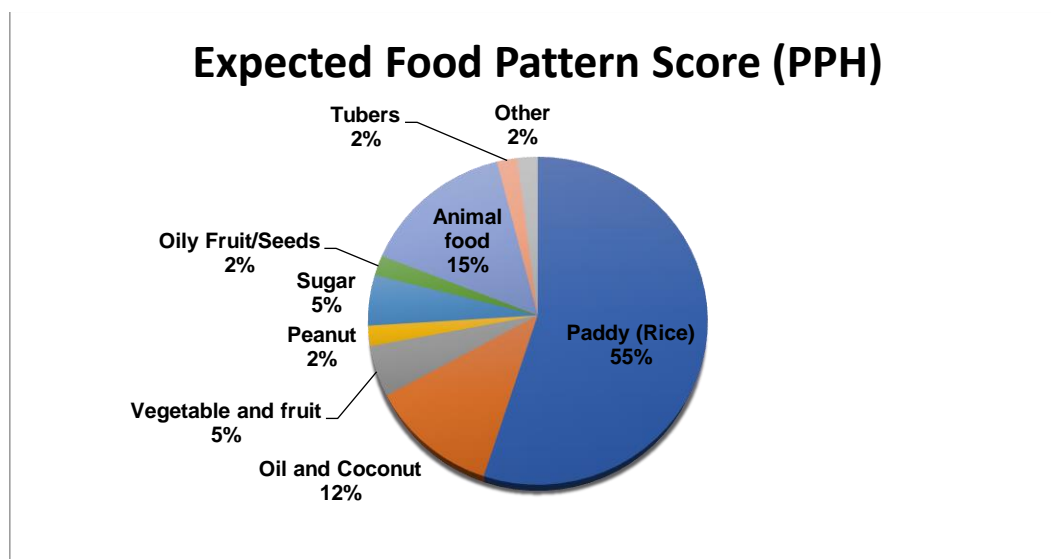
Source: Compiled by authors from various sources (2023)

Table 2 above shows that actor involvement in Collaborative Governance was attended by various elements, namely government, private sector, community, and farmers. Then, each public and private actor collaborates in various ways and focuses on different potentials. In improving the performance of the agricultural sector in Rohul Regency, the regional government has instructed relevant agencies regarding the importance of protecting agricultural land in order to provide food security and progress in the performance of the agricultural sector and has carried out dialogue with relevant agencies regarding the design of sustainable food agricultural land. However, the coordination factor between stakeholders is not yet optimal due to the structural domination of power from government actors, which then has an impact on (the government) rarely listening to recommendations or discussing them with other stakeholders. Apart from that, social disparities also still occur related to the ambiguity and complexity of membership, which tends to be unequal and shows large gaps in duties and responsibilities.

Then, on the existence factor of trust among the participants involved, the Rokan Hulu (Rohul) Regency Food Security and Fisheries Service (DKPP), together with the Family Welfare Development Mobilization Team (PKK), continue to invite the public to cultivate the consumption of non-rice food based on local food. Where although public awareness of cultivating food made from non-rice-based local food is still low, to continue to foster trust among participants involved in food security, the socialization to use non-rice raw materials (yam, wheat, breadfruit, and corn) as food based on local food continues to be carried out (Halloriau.com, 2019). Despite this, agricultural problems in Rohul Regency have not received much response from the regional government, where potential commodities such as sweet potatoes and corn are still processed only because of the enthusiasm that comes from independent farmers and the community.

Apart from that, to improve the performance of the agricultural sector in Rohul Regency, a participation forum is needed between the government, the private sector, farmers, and the community. However, it is still minimal in Rokan Hulu Regency, which requires systematic improvement in order to increase and maintain the trust factor between the participants involved, which will then support the availability of food diversification in the region. However, in this case, the ideal score for the Expected Food Pattern (PPH) in Riau Province has not been achieved because in Riau Province, there are still many people who consume rice as a staple ingredient, namely as much as 55% which confirms that the people of Riau Province are still dependent on the commodity rice as the staple food and has not yet achieved the ideal PPH score according to the central government, namely 50% as shown in Figure 5.





**Figure 5.** Expected Food Pattern Score (PPH) in Riau Province  
 Source: (Bps.go.id, 2021)

Furthermore, on the factor of commitment to common goals, the Government of Rokan Hulu Regency has shown a commitment to supporting and succeeding in the government program to realize National Food Self-sufficiency in special efforts (Upsus) to increase rice, corn, and soybean (Pajale) production in 16 districts throughout Rohul. The corn harvesting activity owned by the Berkah Tani Farmers Group covers an area of 5 hectares. It was attended by the Head of the Riau Province Food Crops Development Center, the Acting Regional Secretary of Rokan Hulu, Chair of Commission II DPRD Rohul, Members of the Rohul DPRD, Head of the Food Crops and Horticulture Service (TPH), Head of the Food Security and Fisheries Service, Head of TP PKK Rohul, Head of Suka Maju Village, Head of the Berkah Tani Koptan of Suka Maju Village and hundreds of local people (Halloriau.com, 2018). The Joint Planting Movement for Hybrid Corn is a breakthrough in the factor of a shared commitment to achieving goals that are expected to be able to contribute to the support and realize National Food Security, especially in the Rokan Hulu District. In essence, commodities such as corn and cassava with large production in Rokan Hulu Regency (see Table 3) can, in the process, be used as choices for the community in meeting their daily food needs other than rice.

**Table 3.** Potential Food Commodities in Rokan Hulu Regency

No.	Commodity	Production year					
		2016	2017	2018	2019	2020	2021
1	Corn	3.748,24	5.541,96	5.780,09	6.976,89	6.370,87	4.602,93
2	Cassava	4.665,41	4.784,78	3.936,53	4.861,22	4.730,63	5.417,84

Source: (Distanhor.rokanhulukab.go.id, 2021)

Table 3 illustrates that the development of corn and cassava production has good prospects if they are developed optimally, even though in the 2020-2021 range, it tends to fluctuate because, during the Covid-19 pandemic, these two commodities (corn and cassava) essentially have good potential if it continues to be developed so that it can support the food diversification program in Rokan Hulu Regency. In this case, although commodities (corn and cassava) have great potential if developed optimally and can be used as an alternative commodity to replace rice by local communities to meet daily food needs in Rokan Hulu Regency, in practice, the commitment factor towards a common goal is the lowest aspect (see Figure 4) which is caused by the absence of a systematic institutional design where participation forums between the government, private sector, farmers and local communities are still very minimal and not yet solid in Rokan Hulu Regency. It has an impact on the lack of creation of local food innovations that attract public interest as well as the low level of variation in food consumption of local communities who still depend on rice as a staple food commodity in Rokan Hulu Regency.

Therefore, the crucial solution that needs to be taken is for the Rokan Hulu Regency Government, as a policy maker, to improve the collaborative governance process in the food diversification program by implementing policies to increase and strengthen food production. Through the food diversification program, the private sector, farmers, and the community as stakeholders must be involved more intensely so that they can participate directly and have an equal role in supporting the implementation of the food diversification program by jointly strengthening the commitment factor towards common goals and developing commodities (corn and cassava) which already have great potential and are very potential to be used as alternative commodities to replace rice for local communities in Rokan Hulu Regency.

## **CONCLUSION**

The findings indicated that the collaborative governance process in food diversification in Rokan Hulu Regency can be seen from the aspects of leadership pattern (28.57%), institutional design (28.57%), collaborative process (23.81%), and initial conditions (19.05%). In the process, aspects of leadership patterns and institutional design are assessed as dimensions that have been running in the Collaborative Governance process in the food diversification program in Rokan Hulu Regency. However, these two aspects (leadership patterns and institutional design) still require improvement because the government sector is still the strongest actor and other actors are only involved in some food diversification activities, which then has an impact on the low level of food consumption in Rokan Hulu Regency due to the failure to achieve food availability targets.

Furthermore, the factors that influence the Collaborative Governance strategy in increasing production and strengthening food reserves in Rokan Hulu Regency include the coordination factor between stakeholders (47.06%), followed by trust between the participants involved (29.41%), and the commitment factor to common goals (23.53%). Essentially, the factor of commitment to common goals is the lowest aspect because there is no systematic institutional design available where participation forums between the government, private sector, farmers, and local communities are still very minimal and not yet solid in Rokan Hulu Regency. It then has an impact on the lack of creation of local food innovations that attract public interest as well as the low level of variation in food consumption of local communities who still depend on rice as a staple food commodity in Rokan Hulu Regency. Therefore, the crucial solution that needs to be taken is for the Rokan Hulu Regency Government, as a policy maker, to improve the collaborative governance process in the food diversification program by implementing policies to increase and strengthen food production.

Through the food diversification program, the private sector, farmers, and the community as stakeholders must be involved more intensely so that they can participate directly and have an equal role in supporting the implementation of the food diversification program by jointly strengthening the commitment factor towards common goals and continuing to develop commodities (corn and cassava) which already have great potential and are very potential to be used as alternative commodities to replace rice for local communities in Rokan Hulu Regency. This research has limited respondent interview data, which is limited to classifications based on profession and position. Therefore, it is necessary to carry out further research to explore primary data comprehensively by increasing the number of respondents who can fully represent each argument from each actor.

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