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The Resilience of the Banjar Seminai Villagers in Implementing the Stunting Reduction Program

Resiliensi Komunitas Kampung Banjar Seminai dalam Menjalankan Program Pengentasan Stunting

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Abstract

This study aims to analyze how a community manages its resources to address the issue of stunting, which is defined as impaired growth in children due to chronic malnutrition and repeated infections (based on Indonesian Presidential Regulation No. 72 of 2021). Stunting is a serious problem that affects both the physical and psychological development of children. The community studied is Kampung Banjar Seminai, Dayun District, Siak Regency, which claims to have successfully reduced stunting rates in 2023. This is notable because, while the overall stunting rate in Siak Regency slightly increased by 0.33% between 2013 and 2023, the rate in Riau Province dropped significantly from 36.8% to 14% during the same period. The research method involved interviews with people actively involved in tackling stunting at the village level, including the village head, village health workers, and Posyandu volunteers. The results show that the community's ability to manage resources, along with active participation and good coordination among village actors, played a key role in reducing stunting in Kampung Banjar Seminai. This study highlights the importance of local community involvement in stunting prevention programs and recommends strengthening support and empowering resources at the village level to improve health intervention outcomes.

Keywords

Stunting; Stunting Prevalence; Community Resilience; Sustainable Development Goals.

Abstrak

Penelitian ini bertujuan untuk menganalisis kemampuan komunitas dalam mengelola sumber daya guna mengatasi masalah stunting, yaitu gangguan pertumbuhan anak akibat kekurangan gizi kronis dan infeksi berulang (Peraturan Presiden RI No. 72 Tahun 2021). Stunting merupakan masalah serius yang berdampak pada perkembangan fisik dan psikologis anak. Objek penelitian adalah Kampung Banjar Seminai, Kecamatan Dayun, Kabupaten Siak, yang mengklaim berhasil menurunkan angka stunting pada tahun 2023 meskipun tren prevalensi stunting di Kabupaten Siak secara umum meningkat sebesar 0,33% antara 2013 dan 2023, sementara Provinsi Riau mengalami penurunan dari 36,8% menjadi 14% dalam periode yang sama. Metode penelitian menggunakan wawancara dengan pihak-pihak yang terlibat langsung dalam upaya penanggulangan stunting di tingkat desa, seperti kepala desa, mantri desa, dan kader Posyandu. Hasil penelitian menunjukkan bahwa keberhasilan pengelolaan sumber daya komunitas, termasuk partisipasi aktif dan koordinasi antar elemen desa, menjadi kunci penurunan angka stunting di Kampung Banjar Seminai. Penelitian ini menyoroti pentingnya peran komunitas lokal dalam program pencegahan stunting dan merekomendasikan peningkatan dukungan dan pemberdayaan sumber daya di tingkat desa untuk memperkuat efektivitas intervensi kesehatan.

Kata Kunci

Stunting; Prevalensi Stunting; Resiliensi Komunitas; Tujuan Pembangunan Berkelanjutan.

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1. Introduction

This research will analyze the capacity of a community in managing existing resources to address the issue of stunting. Stunting is a serious public health problem as it affects not only individuals but also the development of a nation. The Vice President of Indonesia, Ma'ruf Amin, stated in 2022 that the potential economic losses due to stunting are estimated at IDR450 trillion per year, or 2-3 percent of Indonesia's total gross domestic product (Manik, 2022). According to data collected by UNICEF, WHO, and the World Bank (UNICEF et al., 2023), Indonesia has a relatively high prevalence of stunting. The trend of stunting prevalence in Indonesia has experienced fluctuations. The National Research and Innovation Agency (BRIN) noted that from 2010 to 2013, there was an increase in stunting prevalence, followed by a decline from 2014 to 2018. Although government interventions have positively impacted the reduction of stunting prevalence, efforts must continue to achieve a 14% reduction by 2024 (BRIN, 2023).

What makes this study particularly interesting and timely is not just its focus on a new location—Kampung Banjar Seminai in Siak Regency—but its fresh approach to understanding how community resilience directly influences efforts to reduce stunting. While previous research has often concentrated on broad national-level trends or isolated health interventions, this study dives deeper into the local dynamics and social structures that empower a community to confront stunting challenges collectively. The application of the community resilience framework in this context is relatively new and offers valuable insights into how various social, economic, and cultural resources interact within a village setting to support sustainable health outcomes. By highlighting the roles of village leaders and grassroots actors like Posyandu cadres, this study sheds light on how localized leadership and community-driven strategies can accelerate health programs, making it an important contribution to both academic discussions and practical policymaking in public health.

Research increasingly shows that building strong community resilience can have a significant and lasting impact on reducing stunting and improving child health. Communities with higher resilience tend to recover better from shocks, adapt to ongoing challenges, and maintain effective health and nutrition practices despite economic or environmental stresses. Strengthening resilience can improve access to nutritious food, health information, and social support—key factors in preventing stunting. Studies have emphasized that interventions focusing solely on medical or nutritional factors often fall short without the backing of empowered, well-organized communities. By examining how resilience functions as a process—through economic development, social capital, communication, and collective competence—this study reinforces the view that stunting reduction is not just a health issue but also deeply rooted in community strength and adaptability. These findings can inform more holistic and sustainable strategies to combat stunting, particularly in rural and vulnerable areas.

This study will employ community resilience as its conceptual framework. Resilience originates from the natural sciences, such as physics and mathematics. In the context of natural sciences, resilience refers to the ability of an object or system to return to its original state after experiencing shock or pressure (Norris et al., 2008). The concept of resilience has been adopted by other fields, particularly those dealing with human and environmental interactions. The application of resilience in the context of humans and the environment is increasingly garnering attention as the issues faced by humanity grow more complex (Wulff et al., 2015). When adopted by other sciences, the meaning of resilience evolves. It is a complex phenomenon that emerges from the interaction of biological, psychological, social, and cultural factors when an individual encounters stress (Southwick et al., 2014). This stress

need not be limited to major disasters, diseases, or other traumatic events but also includes the capability of communities to address everyday problems.

Regarding community resilience, which is the focus of this research, it is important to note that there is currently no singular definition for this concept. This is due to interpretations stemming from various perspectives. Some view community resilience as the capacity of society to confront crises (Dawes et al., 2004; Department for International Development, 2011); others see it as social capital (Aldrich, 2017; Rodriguez-Llanes et al., 2013); and some regard it as a resource (Coles & Buckle, 2004). Despite these differing viewpoints on resilience, two commonalities emerge in discussions about it: resilience is considered as 1) a process rather than an outcome, and 2) the ability to adapt rather than merely achieving stability (Norris et al., 2008).

This study will analyze the management of stunting in Kampung Banjar Seminai, located in Dayun District, Siak Regency. The conceptual framework employed will be community resilience in addressing problems and challenges. To investigate community resilience in Banjar Seminai, this research will utilize the community resilience framework developed by Norris et al. (2008), which posits that community resilience emerges from a networked set of adaptive capacities. Resilience relies on resources and the dynamics associated with those resources. According to Norris et al. (2008), four essential resources are required to foster community resilience: economic development; social capital; information and communication; and community competence. In line with the National Strategy for Accelerating Stunting Prevention, this research will focus on several key actors, such as village leaders and Posyandu cadres. Key aspects examined in this study will include how community resilience is formed; how village leaders create a policy environment that supports the acceleration of stunting prevention efforts; and how Posyandu cadres play a role in implementing stunting reduction programs.

2. Methods

This research is part of a series of activities conducted by the Functional Position Group of Lecturers (KJFD) from the Department of International Relations, Universitas Riau, focusing on the village of Banjar Seminai, Dayun District, Siak Regency. The data used to analyze community resilience in addressing stunting comes from two primary sources: first, primary data obtained from Focus Group Discussions (FGDs) and in-depth interviews with respondents; second, secondary data derived from books, journal articles, and documents published by both government and non-governmental institutions.

The research employs several data collection techniques:

a. Focus Group Discussions (FGD): These discussions involve selected individuals with direct knowledge about stunting cases and their management in Banjar Seminai. Informants are chosen using purposive sampling to ensure participants have relevant experience and insights related to the research topic.
b. In-depth Interviews: Interviews are conducted with a diverse range of respondents, including the village head, Posyandu officers, and parents of children affected by stunting. These one-on-one, semi-structured interviews aim to explore informants' perspectives, experiences, and roles in depth, allowing for a detailed understanding of community resilience and stunting management at the village level.
c. Document Analysis: This involves reviewing information and official records obtained from relevant government and non-government organizations concerning stunting prevention and community health programs.

This research uses a methodological triangulation or mixed-methods approach, combining multiple data collection techniques to study the phenomenon comprehensively. The triangulation applied here is across methods, integrating both qualitative and quantitative data sources to enrich the analysis (Bekhet & Zauszniewski, 2012).

3. Results and Discussion

3.1. Stunting and Its Governance in Indonesia

Stunting is defined as "the condition of impaired growth in children under five years of age (infants and toddlers) resulting from chronic nutritional deficiencies and recurrent infections, especially during the critical period known as the First 1,000 Days of Life (the period from conception to 23 months of age)" (Secretariat of the Vice President of the Republic of Indonesia, 2019, p. 10). Other terms used to describe children suffering from stunting include dwarfism or short stature. A child is considered to be stunted if their height for age is more than two standard deviations below the median of the Child Growth Standards established by the World Health Organization (WHO, 2015).

The causes of stunting in children are multifaceted and extend beyond maternal health. Key contributing factors include the nutritional adequacy of the child, sanitation conditions in the living environment, and more. According to WHO (2016), the following factors impact the condition of stunted children. The first group pertains to maternal factors, including inadequate maternal nutrition during preconception, pregnancy, and breastfeeding; short maternal stature; infections; adolescent pregnancies; short birth intervals; Intrauterine Growth Restriction (IUGR); premature births; poor mental health; and hypertension. The second group pertains to breastfeeding practices, such as delayed initiation of breastfeeding; non-exclusive breastfeeding; and early cessation of breastfeeding. The third group relates to poor caregiving practices, characterized by inadequate stimulation and activities for the child and non-responsive feeding practices. The fourth group covers inadequate complementary feeding practices, which include infrequent feeding; inadequate nourishment during and after illness; providing thin consistency foods; and insufficient portion sizes. The fifth group includes household conditions, which encompass poor sanitation and access to clean water; low socioeconomic status; food insecurity; low status of women; low educational levels of caregivers; and uneven food distribution. The sixth group pertains to low food quality, characterized by inadequate nutritional quality; low dietary diversity and intake; non-nutritious foods; and low-energy complementary foods. The seventh group addresses food and water safety issues, which include contaminated food and water; poor hygiene practices; and inadequate food preparation and storage. The final group pertains to infections, which may include enteric infections like diarrhea; respiratory infections; malaria; inflammation; and decreased appetite due to infections. It is evident that the causes of stunting are not solely derived from maternal health conditions but also involve factors such as children's nutritional adequacy and hygiene.

The impact of stunting on children is profoundly detrimental and potentially fatal. If not addressed seriously, stunting can impede cognitive, motor, and language development in children and may even lead to death (Myatt et al., 2018). Stunting also has several long-term consequences. The most obvious physical manifestation is that stunted children are shorter and weigh less compared to their well-nourished peers. Besides affecting the stature of children as they grow into adulthood, individuals who experienced stunting are at a higher risk of obesity and reproductive health issues (Keino et al., 2014; Myatt et al., 2018). Those who were stunted in childhood are likely to have offspring who are also stunted (Prendergast & Humphrey, 2014). The impediments to the physical and mental growth of stunted

individuals will undeniably affect their future. Due to hindered cognitive and motor abilities, stunted children typically exhibit lower academic performance (Woldehanna et al., 2017). With below-average intelligence levels, stunted individuals are not regarded as high-quality human capital possessing adequate knowledge and skills.

Data collected by UNICEF et al. (2023) indicates that the trend of stunting has decreased since 2000. The number of countries with high prevalence rates has reduced from 46 to 28 since 2012. Nevertheless, stunting remains a serious concern, particularly in low- and middle-income countries. Reports from these three organizations indicate that approximately 64% of children under the age of five in lower-middle-income countries suffer from stunting. In middle-income countries, the prevalence of stunting affects around 26% of children under five.

Research findings indicate that the causes of stunting in Indonesia are multifactorial. Key contributors to stunting in children include the lack of exclusive breastfeeding during the first six months, premature birth, and the young age of mothers during pregnancy (Beal et al., 2018; Hadi et al., 2021; Sugiyanto et al., 2019). Additionally, poor and insufficiently varied dietary patterns are significant contributors to child stunting in Indonesia (Basri et al., 2021; Mahmudiono et al., 2017). Another focal point in the study of stunting in Indonesia is the examination of family conditions and the surrounding environment. Factors such as family size, parental educational background, access to clean water and adequate sanitation, and the family's socioeconomic status play critical roles in determining whether a child experiences stunting. Research conducted by Titaley et al. (2019) indicates a higher likelihood of stunting among children from larger families (those with 5-7 children). Furthermore, a study by Utami et al. (2019) found that higher parental education levels lead to greater attention to family health, particularly in terms of meeting children's nutritional needs. This positively impacts the reduction of stunting rates. The inadequacy of children's nutritional intake is influenced not only by the parents' educational backgrounds but also by their socioeconomic status. Research by Ernawati et al. (2021) suggests that the prevalence of stunting is notably high among communities with low economic income. Furthermore, limited access to clean water and sanitation facilities is also correlated with increased stunting rates (Rah et al., 2020; Torlesse et al., 2016).

Stunting is often linked to issues of poverty, as families living below the poverty line struggle to provide adequate nutrition and access quality health services for their children. Nutritional inadequacies correlate with lower cognitive abilities, leading to reduced productivity over time. Thus, it is not surprising that malnutrition and poverty are considered part of a vicious cycle, where individuals become trapped in a challenging situation. As Prendergast and Humphrey (2014) state, stunting exacerbates what is known as the "intergenerational cycle of poverty," as individuals who experience stunting in childhood are likely to have descendants who also suffer from stunting.

Because the repercussions of stunting affect not only individuals but also a nation's development, the international community has reached a consensus to collaboratively address this issue. The fight against stunting is integrated into the Sustainable Development Goals (SDGs), a set of internationally agreed-upon targets established by all member states of the United Nations during the UN Summit in 2015. Within Goal Two, Zero Hunger, nations worldwide aim to "end all forms of malnutrition by 2030, including achieving internationally agreed targets on stunting and wasting in children under five by 2025, and addressing the nutritional needs of adolescent girls, pregnant and lactating women, and older persons" (Department of Economic and Social Affairs, n.d.). The 2025 targets stem from agreements made at the World Health Assembly, a forum for member states of the WHO, in 2012. In the

Comprehensive Implementation Plan on Maternal, Infant, and Young Child Nutrition, the Assembly agreed to reduce stunting in children under five years of age by 40% by the year 2025 (WHO, 2014).

In Indonesia, the implementation of the SDGs is articulated in the Regulation of the Minister of National Development Planning (PPN)/Head of the National Development Planning Agency Number 7 of 2018 concerning Coordination, Planning, Monitoring, Evaluation, and Reporting of Sustainable Development Goals (SDGs). To achieve Goal Two, Zero Hunger, with an indicator of prevalence of undernutrition (underweight) in children under five, the Indonesian government has planned several programs, including: 1) the Aisyiyah welfare and orphanage initiatives; 2) family resilience programs; and 3) Infant & Young Child Feeding (IYCF) initiatives. Each of these programs encompasses various activities, such as providing vitamin supplements and family support; promoting the Movement to Encourage Fish Consumption (Gerakan Memasyarakatkan Makan Ikan, GEMARIKAN); conducting training, campaigns, developing behavior change communication materials, and organizing IYCF practice competitions for parents and caregivers to enhance knowledge and practices; facilitating training and meetings for community leaders, local leaders, and religious leaders to improve local government policies on Maternal and Child Health and Nutrition (MCHN); and developing disaster preparedness for health and nutrition initiatives.

The approach to tackling stunting in Indonesia is grounded in legal frameworks established long before the SDGs were formulated. Some of these legal foundations include:

a. Law No. 36 of 2009 on Health, which delineates the direction and objectives of improving public nutrition;
b. Law No. 18 of 2012 on Food, which regulates community nutritional status;
c. Presidential Regulation No. 42 of 2013 on the National Movement for Accelerated Nutritional Improvement (Gernas PPG), which serves as a local manifestation of the Scaling Up Nutrition (SUN) movement initiated in 2011;
d. The National Medium-Term Development Plan (RPJMN) 2015-2019, which includes indicators and targets for stunting prevention;
e. Presidential Regulation No. 59 of 2017 on the Implementation of Sustainable Development Goals (SDGs).

The implementation of these regulations is carried out through the establishment of the National Strategy (Stranas) for Accelerated Prevention of Stunting in Children. Within this framework, the Indonesian government adopts a multi-sectoral approach by synchronizing national, local, and community programs at both central and regional levels to expedite stunting prevention (Secretariat of the Vice President of the Republic of Indonesia, 2019). This multi-sectoral approach is structured around five pillars for accelerating prevention efforts:

a. Commitment and Leadership Vision

   The implementation of stunting prevention strategies and policies, informed by the World Health Assembly's 2024 resolutions and the Sustainable Development Goals (SDGs), is conducted from the central government under the coordination of the Secretariat of the Vice President of the Republic of Indonesia to local governments, village authorities, the private sector, universities/academics, professional organizations, media, and other community groups.

b. National Campaign and Behavior Change Communication

   The objective of this second pillar is to encourage behavioral changes that can prevent stunting through various activities initiated by a national campaign, interpersonal communication, and ongoing advocacy targeting decision-makers at various levels of government.

c. Convergence of Central, Regional, and Village Programs

   This third pillar requires effective coordination involving cross-sectoral collaboration, intergovernmental levels, and community engagement. The coordinators for this pillar are the Minister of National Development Planning/ Head of Bappenas and the Minister of Home Affairs.

d. Food and Nutrition Security

   The fourth pillar encompasses strengthening policies to meet the food and nutritional needs of families; expanding social assistance programs and nutritious food aid; enhancing food fortification; and improving inter-agency coordination, law enforcement, labeling mechanisms, and food advertising to ensure safety and quality.

e. Monitoring and Evaluation

   Monitoring and evaluation mechanisms utilize existing systems, such as data from the Central Bureau of Statistics (BPS), data from Ministries/Agencies, national and regional budgeting systems, and other sources. This monitoring and evaluation activity is coordinated by Bappenas and the Vice President's Secretariat.

The government has also prioritized specific target groups, namely pregnant women, breastfeeding mothers, and children aged 0–23 months, collectively identified as households in the "1000 First Days of Life" (HPK) program. In addition to the HPK households, women of childbearing age and adolescent girls are also targeted groups.

The Stranas for Accelerated Stunting Prevention outlines two types of interventions: specific nutrition interventions and sensitive nutrition interventions. Specific nutrition interventions are those that provide food and nutritional intake to address the direct causes of stunting. These interventions are implemented by the health sector, including a network of hospitals and other health facilities. Specific nutritional interventions include:

a. Priority interventions, which are identified as having a direct impact on stunting prevention and are aimed at reaching all prioritized target groups.
b. Supporting interventions, which have an indirect effect on stunting prevention and are aimed at reaching all prioritized target groups.
c. Context-specific priority interventions, which are tailored for specific target groups based on circumstances, including during emergency situations (emergency nutrition programs).

In contrast, sensitive nutrition interventions target families and communities and are implemented through various activities by non-health sectors. Sensitive nutrition interventions include: 1) food security (enhancement of access and quality of nutrition and health services); 2) increased access to nutritious food; 3) heightened awareness, commitment, and practices of maternal and child nutrition; and 4) improved provision of clean water, drinking water, and sanitation facilities.

Figure 1, obtained from the Family Planning Coordinating Board (BKKBN) and the Geospatial Information Agency, illustrates the distribution of stunting prevalence across various provinces in Indonesia, indicating that some provinces exhibit notably high stunting rates (≥30%). These regions include Central Papua, East Nusa Tenggara, West Sulawesi, and Southeast Sulawesi. Data from the 2023 Indonesia Health Survey (SKI) show a substantial decline in stunting prevalence in Indonesia, from 37.6% in 2013 to 21.6% in 2022. However, the SKI results indicate that the rate of stunting reduction has stagnated, particularly considering that the prevalence of stunting in several provinces remains relatively high. Serious efforts are necessary to address the stunting issue if the target of a 14% stunting prevalence

Figure 1. Map of Stunting Prevalence Distribution by Province in Indonesia

Source: Stunting Dashboard and Stunting Risk Families

outlined in the National Medium-Term Development Plan (RPJMN) 2020-2024 is to be achieved.

Figure 2 illustrates the distribution of stunting rates across all provinces in Indonesia, derived from the 2023 Indonesian Nutrition Status Survey (SSGI). The prevalence of stunting in Riau Province has decreased from 17% in 2022 to 13.6% in 2023. Consequently, the stunting prevalence rate in Riau Province is now below the Indonesian government's target of 14% for 2024. Although the national target has been achieved, it does not imply that the work is complete; given the continuing cases of stunting, the provincial government of Riau must persist in its efforts to reduce the prevalence of stunting in the region.

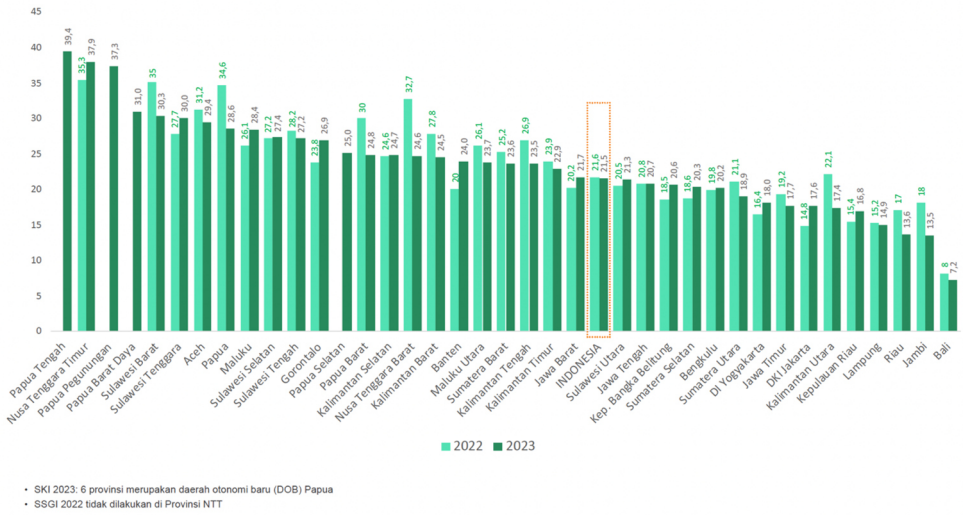

Figure 2. Stunting Rates for 2022 and 2023 in Each Province

Source: Health Policy Agency—Ministry of Health, 2023

According to the Report on the Acceleration of Stunting Reduction by the Local Government of Riau Province (2023), the stunting rate in the province has decreased by 5.3%. The most significant reductions were observed in Rokan Hilir (15%) and Bengkalis (13.5%). However, three districts—Siak, Indragiri Hilir, and Pekanbaru City—experienced an increase in the number of stunting cases. Diagram 2 presents data indicating the stunting rates in the districts and cities within Riau Province. At the district level across Riau Province, five districts have stunting rates above the provincial average: Meranti Islands, Kuantan Singingi, Siak, Rokan Hulu, and Indragiri Hilir. Bengkalis has the lowest stunting rate at 8.4%, whereas Indragiri

Table 1. Targets and Achievements in Stunting Reduction for Riau Province (2022-2024)

District/City	Target 2022	Achievement 2022	Target 2023	Target 2024
Kuantan Singingi	19.07	17.80	16.11	13.09
Indragiri Hulu	19.87	16.70	16.61	13.34
Indragiri Hilir	24.06	28.50	20.23	16.35
Pelalawan	17.28	11.20	13.98	10.87
Siak	15.85	22.00	13.12	10.45
Kampar	21.53	14.50	17.91	14.32
Rokan Hulu	20.54	22.00	16.24	12.34
Bengkalis	18.56	8.40	15.61	12.62
Rokan Hilir	24.82	14.70	20.59	16.42
Kepulauan Meranti	19.90	17.50	16.87	13.75
Pekanbaru City	9.54	16.80	7.93	6.34
Dumai City	19.37	12.80	16.18	13.00
Riau	18.86	17.00	15.59	12.38

Source: Secretariat of the Stunting Reduction Acceleration Team, Riau Province

Hilir exhibits a high rate of 28.5%. As shown in Table 1, Riau Province targets a stunting rate of 12.38% for 2024, which is 1.62% below the national target set by the central government.

3.2. Addressing Stunting in Banjar Seminai

Based on interviews conducted with the Health Department of Siak Regency, the prevalence rates of stunting in Siak Regency have shown fluctuations: 19% in 2021, 22% in 2022, and 10.4% in 2023. Among the fifteen sub-districts in Siak Regency, five sub-districts have prevalence rates above the county average of 2.55%, specifically Siak (10.72%), Sungai Mandau (9.67%), Mempura (6.83%), Lubuk Dalam (5.54%), Koto Gasib (4.00%), and Pusako (3.68%). The Analysis of Stunting Measurements for Toddlers in Siak Regency in 2023 identifies several causes of stunting in the region, including: the impact of household members who smoke (496 cases); incidents of helminth infections (89 cases); pregnant mothers experiencing chronic energy deficiency (106 cases); lack of access to proper sanitation facilities (58 cases); inadequate supply of clean water (56 cases); and participation in health insurance programs, including JKN and BPJS (215 cases) (Government of Siak Regency, 2023).

The governance structure for addressing stunting in Siak Regency follows the organizational framework established by the central government. The region has formed the Stunting Reduction Acceleration Team (TPPS), comprising various stakeholders from both governmental and non-governmental sectors. Key members of the TPPS of Siak Regency include local government representatives tasked with coordinating stunting reduction policies and relevant departments, such as 1) the Department of Women Empowerment, Child Protection, Population Control, and Family Planning (DPPAPPKB); 2) the Health Department; and 3) the Department of Community Empowerment and Villages (DPMK). The DPPAPPKB coordinates a variety of stunting reduction activities, while the Health Department is responsible for implementing specific nutritional interventions and health services. The DPMK provides support to integrated healthcare posts (posyandu) and village cadres. Another crucial governmental body involved is the National Population and Family Planning Agency (BKKBN) of Siak Regency, which is responsible for coordinating

and implementing stunting reduction interventions. Equally important in the implementation of stunting reduction programs are local stakeholders, including village TPPS members and posyandu cadres. In its efforts to address stunting, the Siak Regency government collaborates with private entities, such as Riau Andalan Pulp and Paper (RAPP), which signed a partnership agreement for stunting reduction in 2022, providing community empowerment program assistance (Rasyid, 2022).

Banjar Seminai Village is one of 122 villages in Siak Regency. Administratively, it falls under the jurisdiction of Dayun Sub-district, one of the fifteen sub-districts in Siak Regency. The area of Banjar Seminai Village is 153.85 km², accounting for approximately 1.65% of the total area of Dayun Sub-district. Banjar Seminai is categorized as a self-sufficient village, characterized by a population that predominantly relies on natural resources for daily needs (Statistics of Siak Regency, 2024). The village has a population of 3,274, resulting in a population density of 21.28 inhabitants per km². Health services in Banjar Seminai include one community health post (Pustu), with the nearest health center located approximately 12 km away in Dayun Village. The village is governed by a headman supported by ten village officials.

Regarding the issue of stunting, data from the Directorate General of Regional Development from the Ministry of Home Affairs indicates that Banjar Seminai Village has recorded several cases of stunted children. The number of stunting cases from 2021 to 2024 fluctuated, with the highest percentage of stunted children reported in 2022 (Table 2). After 2022, the stunting percentage trend has declined from 3.2% in 2022 to 1.6% in 2023, and further to 1.5% in 2024.

Table 2. Distribution of Stunting Cases from 2021 to 2024 in Banjar Seminai

Year	Number of Toddlers	Stunting Cases		Stunting Percentage (%)
		Short	Very Short	
2021	208	2	2	1.9
2022	156	5	0	3.2
2023	187	3	0	1.6
2024	203	3	0	1.5

Source: Directorate General of Regional Development—Ministry of Home Affairs

According to the Head of Banjar Seminai Village, the causes of stunting in the village are not primarily due to the economic limitations of the parents, but rather to inadequate parenting practices which result in poor nutritional quality for the children. He stated that the economic status of the Banjar Seminai community is relatively high, as evidenced by home ownership and vehicle possession:

> *"There are no impoverished individuals in Banjar Seminai; most people own cars and have nice houses. The causes of stunting are more related to incorrect parenting practices. Parents do not pay attention to their children's nutritional intake. They often get distracted by their smartphones and give their children unhealthy snacks to keep them quiet." (Interview, September 22, 2024).*

The Head of Banjar Seminai Village emphasized the significance of the postnatal period, which is crucial for determining the overall growth and development of children. During this time, children require optimal nutrition and care, including breastfeeding, especially exclusive breastfeeding, along with supplementary foods rich in both macro and micronutrients. His responses imply that parents lack sufficient knowledge about the link between poor nutritional intake and the risk of stunting. The issue of low-quality food received by children, along with parental

ignorance regarding nutrition and stunting, corresponds with findings from Beal et al. (2018), which identified similar causes of stunting in Indonesia.

Addressing stunting in Banjar Seminai Village demonstrates resilience built from various resource factors, including economic development, social capital, information and communication, and community competence. In terms of economic development resources, Banjar Seminai Village benefits from easy access to healthcare services provided by the community health post (Pustu) located in the village center and the health center in Dayun Village. The presence of this Pustu is critical not only for identifying the target population but also for providing specific interventions, such as for pregnant women. Economic development in Banjar Seminai is also reflected in educational services, with schools ranging from primary to secondary education. The existence of these schools plays a vital role in disseminating stunting reduction programs through education.

Regarding equity in resources and social vulnerability, impoverished community members in Banjar Seminai—as well as in other villages in Siak Regency—receive assistance from the government through the issuance of impoverished status certificates (SKM). This certificate is used to obtain free or subsidized medical treatment at health centers or regional hospitals; social aid such as non-cash food assistance (BPNT) and direct cash assistance (BLT); and education cost relief.

In terms of social capital, the handling of stunting in Banjar Seminai Village benefits from a structured and programmed approach to stunting interventions established by the government, from the national to the local level. As previously described, stunting alleviation programs are formulated within the National Strategy for Accelerating Stunting Prevention, coordinated by the Secretariat of the Vice President of the Republic of Indonesia. The approach used to implement this strategy is collaborative governance, involving many actors. Various ministries and government agencies participate in the National Strategy for Stunting, including the Ministry of Human Development and Culture, the Ministry of Finance, Bappenas (National Development Planning Agency), the Ministry of Home Affairs, the Ministry of Health, the National Population and Family Planning Board (BKKBN), and the Ministry of Women's Empowerment and Child Protection. The implementation of the National Strategy for Stunting is organized in a tiered manner based on government levels, from the TPPS (Team for the Acceleration of Stunting Prevention) at the national, provincial, and district levels down to the village level. Additionally, social capital for stunting reduction receives support from private sectors. For instance, PT RAPP (Riau Andalan Pulp and Paper) provides assistance in the form of medical equipment to several community health posts, including Dayun Health Center, which serves as a referral facility for Banjar Seminai Village. In addition to providing medical equipment, the company also offers community empowerment assistance through training for health workers on delivering primary health services (Adha, 2023). While this collaborative governance model is not without challenges—particularly concerning overlapping coordination and maintaining accountability due to many involved parties—this collaborative approach is essential for holding all stakeholders accountable for collectively addressing the problem. This aligns with the principles of inclusive participation and localizing the Sustainable Development Goals (SDGs).

Social capital in Banjar Seminai Village is significantly influenced by the community bonds present within it. The relationship between village leaders and the community is pivotal in determining the cohesiveness of a community. Strong and caring leadership from the village head has a direct impact on the success of various programs. The Head of Banjar Seminai Village stated that regarding the issue of stunting, he has ensured that all community members are well-informed due to the ramifications it has on the village's resource allocation: "Everyone must know about

stunting. Neighborhood leaders (RT and RW), and religious figures should discuss stunting. This is critical as stunting cases can affect the village fund allocations for stunting interventions." (Interview, September 22, 2024). The sense of community is also fostered through the close relationship between the village head and the volunteers at the Integrated Service Pos (Posyandu), who are key actors in implementing stunting reduction programs. Posyandu cadres are volunteers who receive various training, including measuring height and weight to assess nutritional status (anthropometry) and training for supplementary feeding (PMT). In the stunting acceleration program, Posyandu cadres in Banjar Seminai not only provide information about stunting to the target community but also assist in distributing specific interventions such as nutritional supplements and in collecting and reporting stunting data.

This last point is closely related to two community resilience indicators developed by Norris et al. (2008), specifically 1) information and communication, and 2) community competence. The community requires accurate information regarding stunting and the necessary measures to prevent it. In this regard, Posyandu cadres in Banjar Seminai acknowledge their reliance on regular meetings with target communities to provide information related to child development and nutrition. They also utilize messaging applications like WhatsApp to disseminate information about stunting to the community. An equally critical role is played by the Posyandu cadres in reporting stunting data through the Community-Based Electronic Recording and Reporting System for Nutrition (e-PPGBM) developed by the Ministry of Health. The data inputted by Posyandu is collected and analyzed by the Health Office at the district/city level. It is worth noting that stunting data in Indonesia is also gathered through the Indonesia Nutritional Status Survey (SSGI), conducted monthly by the Ministry of Health. This stunting data is disseminated to the community through reports from the SSGI, the National Socioeconomic Survey (Susenas) conducted by BPS, the Basic Health Research (Riskesdas), and the Stunting Distribution Dashboard developed by the Directorate General for Regional Development of the Ministry of Home Affairs.

At the national level, Posyandu cadres are considered the backbone of successful stunting alleviation efforts in Indonesia, as they have direct access to the community, particularly the target populations for stunting reduction. As part of the community, they have developed unique approaches to encourage the public to accept information about stunting. The Posyandu cadres in Banjar Seminai Village even stated that they avoid using the term "stunting" when speaking to the public to prevent feelings of shame or anger. This persuasive approach is designed to ensure the community follows the advice given by Posyandu cadres and does not avoid Posyandu activities (Interview, September 22, 2024). It is regrettable that, despite their crucial role, the appreciation for Posyandu cadres remains relatively minimal. Their remuneration varies depending on the policies of each region, and payments are often delayed. Nevertheless, the Posyandu cadres remain committed to fulfilling their role in reducing stunting within their communities.

4. Conclusion

This paper has examined the implementation of stunting reduction policies in Indonesia. From the provided explanation, several key points have emerged concerning the stunting reduction program. First, the government is seriously committed to achieving its targets related to the Sustainable Development Goals (SDGs) through stunting reduction initiatives. Second, the implementation of stunting reduction policies involves multiple stakeholders, including government institutions at both national and local levels, as well as private entities. Third, regarding stunting governance at the village level, the success of the program will

largely depend on the commitment of key actors, such as village heads, village officials, and Posyandu cadres. Utilizing community resilience indicators, Banjar Seminai Village has demonstrated several factors that support the decline in stunting cases within the village.

However, this study has some limitations. It focuses primarily on one village, which may limit the generalizability of the findings to other regions with different social and economic contexts. Additionally, the reliance on qualitative data from interviews and FGDs may be influenced by respondents' subjective perspectives. Future research could expand the scope by incorporating larger samples across diverse geographic areas and employing longitudinal designs to track the sustainability of stunting reduction efforts over time. Another promising direction is to explore the impact of specific interventions aimed at strengthening the welfare and capacity of Posyandu cadres, given their critical role in community-based stunting prevention.

As a recommendation for future stunting policy formulation, the government should pay greater attention to the welfare of Posyandu cadres. Their involvement in disseminating information about stunting and supporting prevention activities deserves appropriate recognition and support from government authorities to enhance program effectiveness and sustainability.

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