

Sustainable Development: The Role of Related Government Departments in Stunting Reduction Policy in Aceh, Indonesia

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ABSTRACT

Reducing the prevalence of stunting, particularly in regions with high rates like North Aceh, presents a crucial challenge in enhancing the quality of life for communities. In this context, the role of relevant government departments is of paramount importance, as they are responsible for implementing policies and development initiatives aimed at stunting reduction. This research offers an in-depth analysis of how the related government departments in North Aceh have contributed to stunting reduction policies and their impact on sustainable development. The study explores various strategies employed by these departments, including inter-agency collaboration, resource allocation, policy formulation, and the implementation of evidence-based programs and projects focused on reducing stunting. The research findings underscore the significance of inter-departmental collaboration as a strong foundation for tackling stunting issues in North Aceh. Effective coordination and the division of responsibilities among various agencies have enabled more efficient resource utilization. Furthermore, policy formulation directed at stunting reduction and the implementation of evidence-based programs have made a substantial contribution to stimulating sustainable growth. This study also addresses the challenges faced by these government departments, such as limited resources and practical constraints in implementing stunting reduction programs. Nevertheless, with unwavering commitment and support from various stakeholders, these departments continue to actively play a crucial role in achieving sustainable development goals, with stunting reduction as a key component. This research serves as a guide for policymakers, academics, and practitioners interested in understanding the role of related government departments in addressing stunting and promoting sustainable development in regions with high stunting prevalence. With a focus on collaboration and evidence-based policies, this research offers a positive contribution to addressing pressing public health challenges in North Aceh.

Keywords: *Stunting, Government, Sustainable Development, Collaboration, Policy Implementation.*

1. INTRODUCTION

Sustainable development is a paramount objective for regions like Aceh Utara, as well as for the world. It goes beyond mere economic growth, encompassing the overall well-being of the population. The prevalence of stunting in Aceh Utara reflects a broader challenge - one that signifies health disparities, socio-economic inequalities, and inadequate access to essential resources. By taking a comprehensive approach to combat stunting, we not only address the immediate issue but also tackle its underlying causes and long-term consequences, such as malnutrition and limited healthcare access. Stunting

directly impacts individual well-being, potentially impairing the physical and cognitive development of children, and subsequently affecting their future contributions to society. Therefore, sustainable development necessitates addressing stunting as a critical component.

Stunting, characterized by chronic malnutrition and impaired child growth, remains a persistent public health concern in various regions worldwide. This phenomenon, often referred to as stunting, carries significant implications for both individual well-being and a nation's overall development. In the specific

context of Aceh Utara, a regency located in Indonesia, addressing the issue of stunting becomes especially crucial.

Aceh Utara, situated in the northern region of Aceh province, grapples with a notable prevalence of stunting among its children. This prevalence results from a complex interplay of factors, including socio-economic conditions, dietary habits, and healthcare access. Significantly, the stunting prevalence in Aceh Utara exceeds the World Health Organization's (WHO) threshold of 20%, categorizing it as a region of critical concern.

To confront this multifaceted challenge, several government departments in Aceh Utara play pivotal roles. These departments are responsible for implementing policies and initiatives aimed at reducing stunting, positioning their role as central to achieving sustainable development within the region. Recognizing the gravity of the situation, these government entities have devised and executed an array of strategies and programs aimed at comprehensively addressing stunting.

From the preliminary findings, it can be noted that North Aceh comprises 852 villages housing a total population of 618,529. Within this population, there are 6,570 pregnant women, and out of this group, 506 pregnant women are grappling with chronic energy deficiency or chronic malnutrition during their pregnancies. Moreover, there are 43,513 toddlers in this region, and among them, 2,523 toddlers are afflicted by stunting (Source: Data provided by the North Aceh Health Department in 2023). This research examines the readiness of relevant government departments in addressing stunting as the focal point of the study. It aims to comprehend the causes of stunting and their implications for the implementation of policies and sustainable development.

This article aims to provide a comprehensive investigation of the pivotal role that relevant government departments in North Aceh must play in formulating and executing policies intended to mitigate stunting. It seeks to explore the strategies they employ, the challenges they encounter, the milestones they achieve, and their overall influence on the region's development. By scrutinizing their collective endeavors in addressing the stunting issue, this research contributes to a broader comprehension of the public health and nutritional challenges associated with stunting reduction and sustainable development in North Aceh. In the subsequent section, we meticulously scrutinize the strategies implemented by these government departments, analyze the hurdles they confront, and underscore their significant role in promoting sustainable development while concurrently diminishing stunting in North Aceh. Furthermore, we evaluate the repercussions of their initiatives on community well-being and the region's progression toward a sustainable future.

1.1 Objective

To analyze the strategies employed by government departments in North Aceh for comprehensive stunting reduction and assess their impact on policy implementation and progress toward sustainable development.

2. LITERATURE REVIEW

2.1 Stunting

Stunting was seen as a long-term developmental problem. This perspective was reflected in policy, funding models, and program designs. These findings were surprising since existing evidence indicated that these two forms of malnutrition share common risk factors and often coexist in the same child, [1].

Stunting is also influenced by various social, economic, and environmental factors that impact overall health. These factors encompass local environmental elements, including limited access to clean drinking water, sanitation facilities, and proper hygiene practices (WASH). These factors are responsible for causing diarrheal diseases and enteric infections in early childhood. The increased prevalence of waterborne diseases during childhood could disrupt healthy growth patterns and contribute to undernutrition, [2].

The early years of childhood are a crucial phase for achieving ideal cognitive development and physical growth. Insufficient nutrition in children can lead to decreased resilience to common childhood ailments, particularly acute respiratory infections (ARI) and diarrheal diseases (Black et al., 2008). Typically, the nutritional status of children is evaluated using three anthropometric measures related to physical growth: stunting (height for age), wasting (weight for height), and underweight (weight for age). Stunting, specifically, gauges deficits in a child's growth through the height-for-age (HAZ) score, [3].

Agricultural and food policies are increasingly being called upon to play a more significant role in enhancing the nutritional well-being of low-income populations, particularly in terms of reducing child stunting. While there is growing consensus on the importance of specific food sectors that require additional policy attention, research increasingly suggests that promoting increased consumption of animal-sourced foods, including dairy products, can have a substantial positive impact on reducing stunting rates and addressing micronutrient deficiencies and protein quality. However, it's worth noting that there is limited experimental research on the effects of dairy consumption on child growth in developing countries, and most available evidence comes from cross-sectional surveys. This study takes a broader perspective, using cross-country panel data to demonstrate that an increase in milk consumption over time is linked to significant reductions in child stunting, even when accounting for various confounding variables. Therefore, countries with high stunting rates should consider nutrition-

sensitive approaches to boost dairy consumption among young children, utilizing both supply- and demand-side interventions, [4].

Childhood undernutrition remains a significant public health issue and stands as one of the prevalent causes of illness and death in developing nations. The risk factors associated with child undernutrition are multifaceted and vary depending on factors such as location, timing, and seasonal variations, [5].

The World Health Organization (WHO) classifies stunting, characterized by low height-for-age, as a form of malnutrition. UNICEF, WHO, and the World Bank have consistently reported high malnutrition rates among children under the age of 5 for years. Despite a 20% reduction over a decade, stunting remains a critical global concern. In 2020, 22% (149.2 million) of children under the age of 5 worldwide were found to be stunted. The prevalence of stunting is particularly high in Asia, where it affects 50% of children, with Southeast Asia experiencing the highest incidence at 27.4%. Unfortunately, the trend of stunting in Malaysian children is also a cause for concern. The prevalence of stunting in Malaysia increased by 30% in 2019 compared to 2011, which is in stark contrast to the decreasing trends observed in Southeast Asia, Asia, and globally since 2010. The National Health and Morbidity Survey (NHMS) for 2019 revealed a relatively high stunting rate of 21.8% in Malaysian children under 5 years old, with the prevalence rates in previous surveys being 16.6% in NHMS 2011 and 17.7% in NHMS 2015. This situation is particularly alarming as it contradicts the target set by the National Plan of Action for Nutrition in Malaysia III (2016-2025) of achieving a 40% reduction in stunting. When compared to nine neighboring Asian countries, Malaysia ranks third in terms of stunting among children under 5. The prevalence rate of stunting in Malaysian children under 5 years old and the percentage change is notably higher than the global, Asian, and Southeast Asian averages, [6].

Myanmar, as a developing nation, grapples with high rates of malnutrition and anemia. According to the World Health Organization (WHO), the prevalence of anemia among children under the age of 5 was 50% in 2010, and it decreased only slightly to 49.6% in 2019, indicating a lack of significant progress in addressing childhood anemia in Myanmar over the past decade. Furthermore, it was estimated that 29.2% of children under the age of 5 in Myanmar were affected by stunting in 2016. Anemia and stunting often coexist, sharing common risk factors; however, only a limited number of studies have taken a syndemic approach to examining both conditions together. Moreover, there remains a knowledge gap concerning why some stunted children do not develop anemia, despite many cases of this syndemic occurrence, [7].

Stunting levels are commonly evaluated through the height-for-age Z-score (HAZ). Previous research has

predominantly conducted analyses using the continuous HAZ score or by categorizing it into specific groups, [3].

2.2 Sustainable Development

Sustainability, as defined by Imparato and Ruster (2003), is the project's capacity to consistently provide a satisfactory level of benefits over its entire economic lifespan. They also assert that a sustainable program or project is one that creates enduring enhancements in the quality of life for the individuals it serves. They underscore that sustainable projects are those that permanently augment a community's resources, thus fostering social initiatives and social capital, and subsequently reducing vulnerability. The common thread in both definitions is the principle that every program or project should generate a continuous stream of benefits that extend well into the future. In essence, sustainability necessitates that the advantages derived from any program or project are not short-lived but possess the endurance to last over an extended period. Thudipara (2007) succinctly summarizes that the sustainability of a program or project, particularly within the social service sector, is contingent on four categories of factors, including economic and financial aspects, technical elements, institutional conditions, and policy considerations, [8].

The United Nations is dedicated to the mission of enhancing the state of the world by making it a better, safer, and more comfortable place for all. To accomplish this ambitious goal, the UN has launched a set of seventeen interconnected initiative programs. These initiatives are designed to foster sustainability and usher in a transformative global landscape. They are all unified and guided by the overarching framework of the 2030 Sustainable Development Goals (SDGs) [9], [10]. This framework serves as a blueprint for addressing a wide range of global challenges and improving the well-being of people and the planet. Sustainable Development Goals (SDGs): This objective strives to eliminate poverty in all its manifestations by guaranteeing universal access to resources, employment opportunities, and social assistance [11], [12]. This goal is dedicated to eradicating hunger and attaining food security, improved nutritional standards, and sustainable agricultural practices. It aspires to ensure the well-being and sound health of all individuals, spanning all age groups, with a particular focus on reducing maternal and child mortality and addressing prevalent health challenges, [13].

The Sustainable Development Goals (SDGs) are in line with the objective of *inclusivity*, aiming to enhance the capacities of individuals and communities through developmental efforts without excluding anyone. This means that the SDGs strive to improve the well-being and abilities of all individuals and communities through various developmental initiatives, ensuring that no one is left behind, [14].

Sustainable Development Goal (SDG) 7 is committed to providing everyone with access to affordable,

dependable, sustainable, and modern energy. This goal emphasizes the importance of making energy resources accessible to all, ensuring affordability, reliability, sustainability, and modernity, [15].

3. METHOD

This research utilizes a qualitative approach, commonly known as a naturalistic method, which is firmly situated within a real-world context. This approach is centered on the study of natural phenomena and is intrinsically connected to real-life settings, rather than controlled laboratory environments.

4. RESULTS AND DISCUSSION

Stunting rates and the contributing factors is essential. The designation of these areas is outlined in a decision letter (SK) regarding the integrated stunting reduction intervention focus locations. In this context, the role of the District Office of Women's Empowerment, Child Protection, Population Control, and Family Planning (DPMPPKB) is of paramount importance. DPMPPKB plays a central role in the efforts to identify areas in need of stunting reduction interventions. They are responsible for collecting data, analyzing the contributing factors to stunting, and determining regions that require special attention. Furthermore, DPMPPKB contributes to the planning and implementation of integrated programs aimed at addressing stunting in these areas. As an institution related to child protection, DPMPPKB also has a responsibility to ensure that the actions taken in stunting interventions align with child protection and family well-being. Therefore, the role of DPMPPKB in stunting reduction efforts is crucial for achieving sustainable outcomes and focusing on the welfare of families and children.

Table 1. Focus Locations for Integrated Stunting Reduction Interventions in North Aceh District in 2021.

No	Subdistrict	village	Persentase prevalensi stunting
1	Pirak Timu	Ulee Blang	61.45
2	Tanah Jambo Aye	Alue Papeun	60.47
3	Lapang	Kuala Kereuteu	59.15
4	Nisam	Meunasah Rayeuk	54.55
5	Pirak Timu	Teupin U	53.57
6	Lapang	Matang Baroh	51.33
7	Lhoksukon	Nga LT	48.28
8	Geuredong Pase	Lhok Asan	45.83

9	Lhoksukon	Meunasah Jok	45.33
10	Cot Girek	Pucok Alue	43.24
11	Matangkuli	Ceubrek Pirak	42.42
12	Nisam	Meunasah Alue	41.46
13	Meurah Mulia	Ubit Paya Itik	41.18
14	Syamtalira Aron	Meunasah U	40.30
15	Paya Bakong	Jok	39.13
16	Kuta Makmur	Cot Rheue	38.46
17	Langkahan	Geudumbak	38.24
18	Nisam Antara	Seumirah	36.32
19	Sawang	Teupin Reusep	35.53
20	Baktiya Barat	Matang Sijuek Barat	35.29

Source, DPMPPKB Archives, 2023.

The data from 2021 highlights the importance of prioritizing intervention efforts in areas with the highest stunting prevalence. Specifically, areas with stunting rates exceeding 50% are identified as needing special attention. These regions face a significant burden of stunting, making them the primary focus in the stunting reduction initiatives within North Aceh Regency.

However, it is crucial to emphasize that ongoing monitoring efforts should also cover areas with lower stunting rates. Every child affected by stunting is a matter of serious concern, regardless of the specific percentage. To achieve sustainable progress in reducing stunting, continuous monitoring and intervention are necessary to address the issue comprehensively and ensure that every child has the opportunity to grow and develop optimally.

In the context of the stunting reduction acceleration program, effective coordination and synergy between various stakeholders in North Aceh is very important. The following are the roles, duties and functions of the various parties involved in the program. Posyandu cadres play an important role in collecting data and monitoring stunting at the community level. They help identify children at risk of stunting and direct them to appropriate services. Pediatricians provide medical insight and clinical care for children experiencing stunting. They can identify the underlying health problem and provide appropriate treatment. Nutritionists are tasked with providing information about balanced eating patterns and additional nutrition for children who

need it. They also help design effective nutrition programs. Ob-gyn specialist doctors play an important role in providing services and information to pregnant women, because the mother's nutrition during pregnancy has a direct impact on the child's growth and development. Psychologists can offer psychological support to families and children affected by stunting. They can also help address psychological factors that may impact a child's growth. Lsimil application cadres play a role in involving the community through technology and applications to monitor children's growth and development and provide relevant information to families. Effective coordination among all stakeholders enables smooth integration of various aspects of stunting reduction, from monitoring to medical care and psychological support. In this way, the stunting reduction acceleration program can run more efficiently and effectively in achieving its goals in North Aceh.

The Dapur Sehat Cegah Stunting (DASHAT) program, which translates to the "Healthy Kitchen to Prevent Stunting," is scheduled for implementation in the year 2023. This program aims to address and prevent stunting, particularly in children, by promoting healthier nutrition and dietary practices, thus contributing to improved growth and development. It likely involves a series of interventions, nutrition education, and support to families, with the ultimate goal of reducing stunting and improving the overall well-being of the community. The specific strategies and components of the DASHAT program can vary depending on local needs and resources.

As of June 2023, the data collection in North Aceh has revealed that 675 toddlers are experiencing stunting, a condition characterized by severe short stature. These cases are dispersed across 27 sub-districts and 852 villages within the region. The data collection was facilitated through the collaborative efforts of community health centers and integrated health posts. It involved the assessment of specific indicators such as birth weight (BB), birth length (TB), and age at the time of measurement. This data serves as a critical resource for the North Aceh District Health Office to understand the extent and distribution of stunting within the community. By identifying these cases and their locations, the health Office can tailor its efforts and allocate resources effectively to address the issue of stunting. This data-driven approach is instrumental in formulating targeted interventions, implementing programs, and ultimately reducing stunting prevalence, thereby contributing to the health and well-being of the local population.

Effective coordination between the Health Office and the Stunting Handling Implementation Team (TPPS) plays a pivotal role in their state of readiness. Through their concerted efforts to identify specific issues and implement corresponding solutions, they are better equipped to confront challenges associated with the lack of Supplementary Feeding (PMT) and difficulties in

recording stunting-related data. By successfully addressing these challenges, the health Office ensures that children in need of Supplementary Feeding (PMT) receive the necessary support, representing a crucial step in the fight against stunting. Furthermore, this collaborative and issue-oriented approach enhances the efficient operation of the stunting prevention program, aligning it with the objectives of sustainable development. Sustainable development, with its core focus on the well-being of the population and the goal of leaving no one behind, underscores the significance of addressing stunting as both a health and development imperative. Stunting directly influences the quality of life and human capital within the region, and the preparedness of the health Office in addressing it is a pivotal component of their contribution to sustainable development in North Aceh.

In situations where food variety is limited, the risk of essential nutrient deficiencies can increase. However, the District Health Office has been actively engaged in raising awareness about the importance of balanced nutrition through community health centers. In settings with restricted food options, there is an elevated risk of experiencing deficiencies in vital nutrients. Nonetheless, the Health Office has been proactive in educating the community about the significance of maintaining a well-balanced diet by utilizing the infrastructure of community health centers.

Dietary imbalances occur when individuals consume significant quantities of carbohydrate-rich foods, such as rice, while lacking essential proteins, vitamins, and minerals. Such imbalances can lead to stunted growth in children. Stunting prevention typically involves the implementation of comprehensive nutritional education programs within the community, with a specific emphasis on the significance of nutritious foods and a well-rounded diet. The issue of dietary imbalances and their impact on stunted growth holds relevance for the health Office and its role in advancing sustainable development. The health Office assumes a vital role in raising community awareness about the importance of maintaining a balanced diet and the consequences of dietary imbalances on child development. By addressing this nutritional concern, the health Office actively contributes to the overall well-being of the population, aligning with the objectives of sustainable development. Sustainable development goals encompass improving the quality of life, ensuring good health and well-being, reducing child mortality, and combating malnutrition, all of which are intricately connected with addressing stunting. Thus, the endeavors of the health Office in promoting dietary balance and stunting prevention are integral components of the broader sustainable development agenda.

The "Diversification of Sustainable Home Food Gardens (P2L)" program, implemented by the Agriculture Department of North Aceh, plays a pivotal role in addressing stunting and making a sustainable contribution. Stunting prevention, as previously mentioned, is a condition of growth and development

impairment, often caused by inadequate nutrition. The P2L program encourages crop diversification, ensuring access to a variety of nutrient-rich foods. Dietary diversity is crucial in stunting prevention, especially in children. By addressing stunting, the program contributes to the overall health and well-being of the community.

Sustainable development seeks to meet current needs without compromising the ability of future generations to meet their own. Through the P2L program, the encouragement of crop diversification in home gardens or small-scale agricultural plots promotes sustainable farming practices that are less reliant on monoculture, pesticides, and chemical fertilizers, thus reducing environmental impact. The program also supports farmers and families in the village, contributing to local economic development. When communities diversify crops and potentially, produce surpluses, they can sell these products, increasing their income and enhancing economic sustainability.

Sustainable development includes ensuring access to sufficient and nutritious food for all. By promoting a balanced diet through crop diversification, the program enhances nutritional security in the community, addressing a fundamental component of human development. The P2L program is not solely focused on stunting prevention but is in alignment with sustainable development principles. It encourages crop diversification, sustainable farming practices, economic empowerment, and nutritional resilience. This holistic approach benefits community health and well-being while ensuring that future generations can continue to thrive in a balanced and sustainable environment.

The P2L program, aimed at establishing sustainable home food gardens, possesses the capacity to spread vital information and advocate for crop diversification. Crop diversification refers to the cultivation of a range of crops in domestic gardens or orchards. This approach can improve the nutritional status of the community and contribute to stunting prevention through various means. Families gain access to a diverse array of nutrients through the cultivation of different crops, including vegetables, fruits, grains, and spices. Each plant type offers a unique nutritional profile, ensuring that families receive a broad spectrum of essential nutrients necessary for robust and healthy growth.

5. CONCLUSION

In the pursuit of sustainable development and the mitigation of stunting in Aceh, Indonesia, effective collaboration, and active engagement of diverse government departments are paramount. Stunting is a multifaceted issue, intricately linked not only to health but also to socio-economic, environmental, and educational factors. To effectively address stunting, a comprehensive and interdepartmental approach is imperative.

Government departments, such as those responsible for health, education, social welfare, agriculture, housing,

and others, play a central role in tackling the underlying causes of stunting. These departments can synergize their efforts to implement policies and initiatives that promote improved nutrition, healthcare access, educational awareness, enhanced living conditions, and economic opportunities for Aceh's families.

By harmonizing the activities of these various departments, initiatives like the "Diversification of Sustainable Home Food Gardens (P2L)" can be harnessed to combat stunting by advocating for crop diversification and raising awareness about nutrition. Consequently, this not only leads to enhanced child health but also fosters the sustainable development of local communities.

The continuation of collaborative endeavors among government departments is imperative, ensuring that resources, knowledge, and support are effectively directed toward diminishing stunting rates. By doing so, Aceh, Indonesia, can advance its progress towards sustainable development while nurturing healthier and flourishing generations, ultimately breaking the cycle of stunting and its associated challenges.

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