



Theme: A Critical Analysis of Budget Priorities for Nutrition and Health in Mozambique (2018-2020)

Author: *Stélio Bila*
USTM

Abstract

This study examines the budget allocations for Nutrition in Mozambique from 2018 to 2020, set against the backdrop of the country's ongoing struggle with chronic malnutrition. With 43% of children facing chronic malnutrition and a high dependence on agriculture affected by frequent floods and droughts, Mozambique faces significant nutritional challenges (UN, 2019). Despite the Multi-Sectoral Action Plan for Chronic Malnutrition Reduction (PAMRDC) setting ambitious targets, there is a disconnect between the allocated budgets and the effective execution of nutrition interventions. This gap hinders the monitoring and success of strategies aimed at reducing chronic malnutrition. The primary objective is to evaluate the level of allocation and execution of financial resources allocated for Nutrition in Mozambique during this period, particularly analysing the Economic and Social Plans (PES) of sectors involved in the PAMRDC. The study adopts a participatory approach, combining quantitative and qualitative analyses through document analysis, interviews, and comparative methods. The evaluation includes data from 2010 to 2020 to provide a more robust series and parallel evaluation of the Health Sector Strategic Plan (PESS) 2014-2019. The analysis reveals that, despite a 223% increase in the budget for social sectors from 2010 to 2020, the allocation to individual sectors remained relatively unchanged. This pattern reflects the persistent of traditional budget allocation philosophies based on poverty, infrastructure needs, and population size, rather than addressing specific problems like chronic malnutrition. The study concludes that the current budget allocation model in Mozambique is inadequate for addressing the complex and multifaceted issue of chronic malnutrition. The lack of alignment between the strategic objectives of government programs and their budgetary execution, especially in critical sectors like agriculture, health, and education, significantly undermines efforts to combat malnutrition. The study underscores the urgent need for a more integrated, strategically focused, and effectively executed approach to budget allocation for nutrition interventions.

Key-Words: *Chronic Malnutrition; Budget Allocation; Nutrition Interventions; Mozambique; Multi-sectoral Planning.*

Introduction

Nutrition plays a critical role in the development and health of populations, especially in countries with significant challenges related to food security and public health. In Mozambique, a country marked by high rates of malnutrition and poverty, understanding how budget allocations impact nutritional outcomes is essential. This study's importance is underscored by the link between nutrition and a nation's socio-economic development, as well as the individual well-being of its citizens.

Previous research has explored various aspects of Mozambique's budget allocations, with a focus on social sectors including health and agriculture (Cassamo, Mosca, and Dadá, 2013). Reports by the Mozambique National Statistics Institute (INE) and the United Nations have highlighted the challenges in addressing chronic malnutrition and the allocation of resources for nutritional interventions. However, these studies have often looked at broader budget trends without a deep dive into specific nutritional allocations.

Despite existing literature, there's a noticeable gap in comprehensive analyses of budget allocations specifically dedicated to nutrition in Mozambique. This gap is critical because it hinders a clear understanding of the effectiveness of government policies and resource allocation in combating malnutrition, a major public health concern in the country.

This study aims to fill the aforementioned gap by providing a detailed analysis of the budget allocations for nutrition in Mozambique from 2018 to 2020. It offers insights into how these allocations have evolved and how they align with the broader goals of reducing malnutrition and improving public health outcomes.

The approach involves a mix of quantitative and qualitative analysis, encompassing a review of Economic and Social Plans (PES), Budget Execution Reports (REO), and key strategic documents like the Multi-sectoral Action Plan for Chronic Malnutrition Reduction (PAMRDC). Additionally, the study incorporates insights from interviews with key stakeholders and a comparative analysis of budget trends over a more extended period (2010-2020) for a more robust understanding.

The general objective of this study is to assess the level of budget allocation and execution for nutrition-related activities in Mozambique between 2018 and 2020, and its impact on the national strategy against malnutrition. To achieve this, the specific objective involves analysing the trends in budget allocation for nutrition from 2010 to 2020, evaluating the consistency and adequacy of these allocations concerning the goals of reducing chronic malnutrition. By the other hand, the study focuses on investigating the execution of these budgets across various sectors and geographical regions, with a particular emphasis on Nampula and Zambézia provinces, to gain insights into the effective utilization of funds.

Methodology for Assessing Budget Allocation and Execution of Nutrition Interventions

This study aims to evaluate the level of state budget allocation (OE) and execution for specific and sensitive nutrition interventions as outlined in the Economic and Social Plans (PES) of the sectors both adhering to and not adhering to the Multi-Sectoral Action Plan for Chronic Malnutrition Reduction (PAMRDC) for the period 2018-2020. Our primary thesis asserts that the level of budget allocation and execution for nutrition interventions in Mozambique is problematic and challenging. This assertion stems from the current budgetary model's limitations in directly assessing the allocation and execution of specific nutritional interventions, as expenditures in the OE are categorized by sectors and institutions, not specific interventions. Consequently, this analysis involves a review of expenditures in sectors like health, education, agriculture, water infrastructure, and social action, with a particular focus on the provinces of Nampula and Zambézia.

To enhance our understanding of the dynamics between political decisions and the fight against malnutrition in Mozambique, a qualitative approach was adopted due to its exploratory nature. The study combines quantitative and qualitative analysis, including document analysis, interviews, and comparative methods. A broader analysis from 2010-2020 was conducted to strengthen the data series and enable a parallel evaluation of the Health Sector Strategic Plan (PESS) 2014-2019.

Documents such as PES, OE, the State General Account (CGE), Budget Execution Reports (REO), PES Balance, and PAMRDC were consulted. These provided insights into the level of allocation and execution of the OE for nutrition interventions, alongside other relevant information for the intended objectives. Additionally, audit reports from the Administrative Court and other pertinent documents were reviewed to compare information.

To provide realistic recommendations, we also analysed experiences from other countries, always within the broader socio-economic and political context of Mozambique, both centrally and locally. Interviews were conducted with specifically identified individuals and groups known to have relevant knowledge and connection to the subject.

The methodology for identifying interviewees was based first on the authors' knowledge of key actors in the proposed areas of analysis and involved institutions. Preliminary document analysis helped indicate which institutions/organizations needed consultation beyond those already mentioned. A non-probabilistic "snowball" sampling method was employed, continuously seeking information on who else works with this matter and can provide relevant information and material.

To achieve the proposed objectives, a field survey was conducted using a structured questionnaire to capture the sensitivity of relevant actors. This study is characterized as descriptive research, aiming to identify and describe the main factors determining budget allocation trends for nutrition programs.

Procedurally, an initial survey was conducted through "SurveyMonkey," an online survey tool for collecting, systematizing, and analysing data. The questionnaire was divided into two parts: the first aimed to identify aspects of the sample's profile regarding their knowledge of the field; the second sought to gather key informants' perceptions of PAMROC dynamics, assuming their daily work involved nutrition-related matters. For measurement, a five-point Likert scale (strongly disagree – strongly agree), dichotomous questions (yes or no), and some open-ended questions were used.

Actions to Combat Malnutrition

Nutrition, as outlined in the Health Sector Strategic Plan (PESS) 2014-2019, plays a pivotal role in the emergence or exacerbation of diseases and the overall health status of individuals, particularly women and children. The PESS notes that poor nutrition adversely affects the physical and cognitive development of children and impacts

individual productivity and, consequently, the economy. This understanding forms the basis of our thesis that the level of budget allocation and execution for nutrition interventions in Mozambique is problematic and challenging. According to the Multi-Sectoral Action Plan for Chronic Malnutrition Reduction (PAMRDC) 2010-2020, the causes of malnutrition in mothers and children operate at multiple levels, including immediate causes at the individual level and underlying causes at the family and community levels. The immediate causes of chronic malnutrition include inadequate nutrient intake, high levels of infectious diseases, and early pregnancy. Meanwhile, the underlying causes of chronic malnutrition involve food insecurity (especially limited access to and use of nutritious foods), poverty, inadequate practices in caring for adolescent girls, mothers, and children, as well as insufficient access to health and water services, particularly in rural areas where 45.5% of children are affected (35% in urban areas), with higher severity in provinces like Nampula (55.3%) and Cabo Delgado (52.7%). Provinces with lower rates (<40%) include Inhambane, Gaza, Maputo Province, and Maputo City.

The fundamental causes are directly related to: (i) poverty measured by consumption, affecting about 46% of the Mozambican population (data from 2015); (ii) lack of access to education, with only 20% of the population over 25 years having completed at least primary education (data from 2017); and (iii) cultural beliefs and traditions such as early marriages. In 2004, 21% of girls married by age fifteen, leading to a high number of early pregnancies (24% of women aged 15–19 years have already had two children).

The PAMRDC (2010-2020) notes that various studies in Mozambique concluded that the most significant causes of chronic malnutrition are related to the mother's education level and childcare; socioeconomic factors such as maternal employment; water quality and sanitation; and the quality of health services. Among the basic causes of chronic malnutrition, poverty, lack of education, and gender issues are among the most significant.

In light of this scenario, several actions have been outlined to reduce chronic malnutrition to 35% by 2020. The PAMRDC identified a paradox in the interventions to be undertaken. While interventions addressing immediate causes require significant effort (both financial and material), addressing the basic and underlying causes, though more sustainable, may take several decades to have an increased effect. Adding to this paradox is the urgent and necessary resolution of immediate and underlying causes for pregnant mothers and children under two years old for a drastic reduction in chronic malnutrition. Therefore, it was considered best to intervene simultaneously in all three causal areas.

This analysis strengthens the subsidiary thesis that a qualitative approach was chosen due to the exploratory nature of the research, seeking to understand the complex relationships between political decisions and combating malnutrition in Mozambique. By linking these multifaceted causes with governmental actions and budget allocations, the study underscores the complexity and challenges inherent in effectively addressing malnutrition in Mozambique.

Strategic Objectives and Their Outcomes

A major challenge identified in this study is the weak coordination and integration of strategies on the one hand, and the limited implementation capacity of institutions responsible for food security and nutrition on the other. This context underscores the importance of capturing key informants' sensitivity for this analysis, particularly their perceptions regarding the strategic objectives set in the Multi-sectoral Action Plan for Chronic Malnutrition Reduction in Mozambique (2010-2015/20). The adopted strategy involved the use of focus groups, adapted to a virtual context, to gain in-depth insights into nutrition issues, choosing a select group purposely rather than a statistically representative sample from a broader population.

Impact of Activities to Strengthen the Nutritional Status of Adolescents

The responses provided demonstrates that 85.71% of respondents perceive positive impacts from government-led nutritional interventions, while 14.29% believe the outcomes are not aligned with the goals, specifically in terms of controlling anemia in adolescents (under 19 years) both in and out of schools, reducing early pregnancy among adolescents, and strengthening nutritional education across various educational levels as part of the curriculum, including literacy programs.

Efforts to Improve the Health and Nutrition of Women of Childbearing Age Before, During Pregnancy, and Lactation

Respondents recognize that dietary habits and lifestyle before and during pregnancy, lactation, and early childhood have long-term effects on the health of both the child and mother, including the risk of chronic diseases like obesity. Therefore, optimizing nutritional status early can have long-term benefits, highlighting the need for health professionals and women in the gestational phase to have comprehensive knowledge about appropriate nutrition during pregnancy. In this regard, 42.36% of respondents perceive government and partner efforts as satisfactory in improving women's health and nutrition, 28.57% find the level of effort very satisfactory, and 28.57% view these efforts as somewhat satisfactory.

Nutritional Activities to Strengthen Children's Immune Capacity in the First Two Years

Respondents agree that children's immune systems are more fragile than adults', but certain practices can help strengthen infant health. These include organizing talks with pregnant women and distributing food items (cereals, tubers, meats, vegetables, fruits, supplements, etc.), supplementation and exclusive breastfeeding counselling, awareness campaigns on food security and nutrition for pregnant women, and community cooking demonstrations to utilize and maximize local resources.

Improving Access and Utilization of High-Nutritional-Value Foods by Households

Food Security and Nutrition (FSN) is a fundamental human right, entailing access to quality, sufficient food without compromising other essential needs, based on healthy eating practices. However, respondents feel that access to high-nutritional-value foods by households is less than satisfactory (42.86%), with 28.57% judging the

access satisfactory and another 28.57% very satisfactory. This includes foods with high nutritional value locally produced and used by households vulnerable to InFSN; the ability of these households to process, store, and use food properly; access to social support and protection services to ensure sufficient and diverse food for pregnant women, nursing mothers, adolescents, and children aged 6–24 months; availability and consumption of fortified foods in communities, particularly iodized salt; and basic sanitation in households with adolescent girls, pregnant women, nursing mothers, and children under two years.

Human Resource Capacity in the Field of Nutrition

The challenges of human resources in the nutrition field remain significant, with 14.29% judging their response capacity as unsatisfactory, 42.86% as somewhat satisfactory, and another 42.86% as satisfactory. This relates to the number of professionals trained in proper nutrition and food in health, food security, and education sectors, as well as human resources responsible for nutrition at national, provincial, and district levels.

National Capacity for Advocacy, Coordination, Management, and Progressive Implementation of the Chronic Malnutrition Reduction Action Plan

Respondents believe that aligning objectives for advocacy, particularly establishing a multi-sectoral coordination group at the national level responsible for managing and implementing national-level advocacy and social mobilization activities to reduce chronic malnutrition, is at a somewhat satisfactory level (42.86%), with only 14.29% perceiving the capacity as very satisfactory. Another dimension includes establishing a multi-sectoral advisory coordination group at the provincial (COPSAN) and district (CODSAN) levels capable of coordinating the plan's implementation, advocacy, and social mobilization.

Response Capacity in Efforts to Strengthen the Food and Nutrition Surveillance System in the Country

Respondents emphasize the importance of the food and nutrition surveillance system as an informational tool on the availability, physical and economic access to basic foods according to cultural standards of each region or community, fundamentally linked to the definition of macroeconomic and social policies. Thus, intensifying efforts to strengthen the system and increase the number of specialists in all key sectors equipped for monitoring nutrition actions is deemed crucial.

Moreover, conducting more FSN campaigns to sensitize pregnant and nursing mothers, involving local communities, would help strengthen intersectoral coordination mechanisms in planning, implementing, and monitoring the Multi-sectoral Action Plan for Chronic Malnutrition Reduction. Similarly, improving food conditions through promoting appropriate and healthy eating practices, characterized by the proper channelling of specific budgets to the nutrition area, combined with greater investment in information dissemination and capacity not only of the government but also of CSOs and CBOs, would be extremely beneficial.

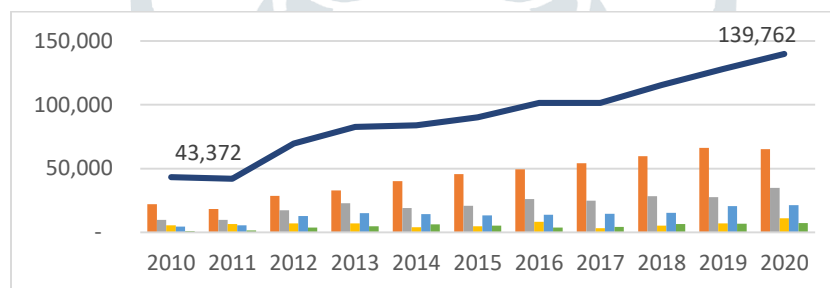
Levels of Allocation and Execution of Financial Resources for Social Sectors

The government identified seven key economic and social sectors as priorities: education, health, infrastructure (including water and sanitation), agriculture and rural development, justice, transportation and communications, and social action and employment. This analysis focuses specifically on sectors with direct actions for reducing chronic malnutrition: education, health, water infrastructure, agriculture, and social action.

According to the Government's Five-Year Plan (PQG 2015-2019), which modifies the targets set in PAMRDC (2010-2020), it was expected that by 2020, chronic malnutrition in the country would reduce from 43% to 35%. However, this reduction would only be possible if the priority actions defined in PAMRDC were carried out. For the realization of these actions, financial resources through the State Budget (OE) are necessary for health, education, social action, industry and commerce, and public works and housing to fund activities.

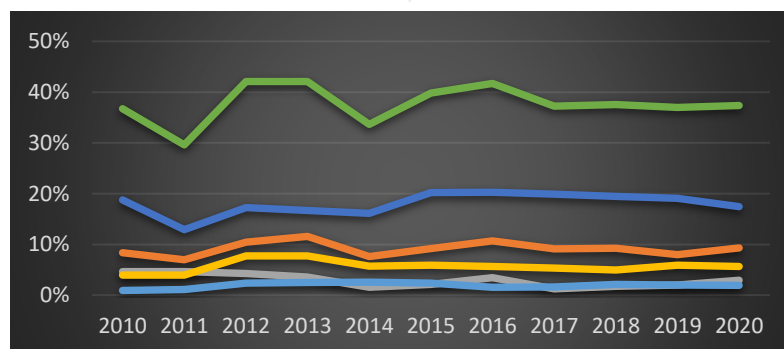
Budget Allocated to Social Sectors between 2010-2020

Examining the State Budgets from 2010-2020, it can be seen that despite the total OE allocated to social sectors showing a rising trend (from 43.3 billion MT in 2010 to 139.8 billion in 2020, a growth of 223%), the growth of the budget allocated to sectors individually has not undergone significant changes over time, as shown in the chart below.



Source: Systematized by the author in 2021

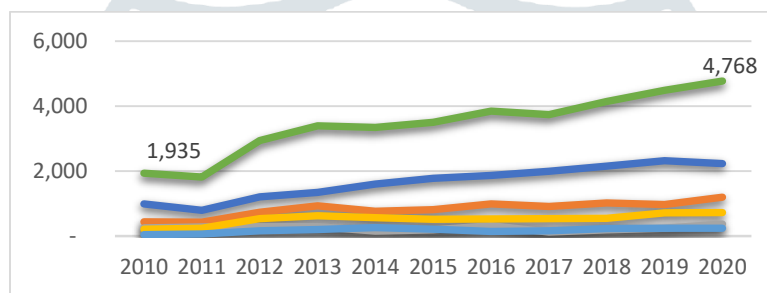
The significant growth observed in the chart above can be attributed to the transfers made to the education sector, which accounted for an average of 18% of the total budget for social sectors during the 2010-2020 period. (see chart below)"



Source: Systematized by the author in 2021

The chart above also shows that, during the 2010-2020 period, 38% of the planned resources were allocated in the State Budget for social sectors. Data from the CGE for this period indicate a nearly constant trend in the percentage of budget allocated to each sector, showing that, despite the plans drawn up and approved for the reduction of chronic malnutrition, in budgetary terms, the State Budget continues to allocate the same budget year after year.

In per capita terms, it is observed that on average, each Mozambican was allocated an annual average of 3,447.00 MT for expenses in health, education, agriculture, social action, and water infrastructure. These data show a population growth of 31% between 2010 and 2020 and an increase in per capita allocation of about 146%, which is positive. In terms of details, the water infrastructure sector shows the smallest growth in per capita allocation, 52%, and the social action sector shows the highest growth, 396%. (see chart below)"



Source: Systematized by the author in 2021

Budget Growth Among Social Sectors Over Time

In terms of growth, it is observed that, on average, despite the State Budget (OE) showing a stable growth trend of around 12% per year, social sectors exhibit significant fluctuations in growth, sometimes increasing and sometimes decreasing. This indicates a form of budgetary compensation, where, generally, an increase in the budget for the social action sector leads to a decrease in the water infrastructure sector's budget. This situation suggests that since the approval of the Multi-Sectoral Action Plan for Chronic Malnutrition Reduction (PAMRDC) (2010-2020), there hasn't been a budgetary prioritization for addressing chronic malnutrition issues.

Instead, traditional budgetary allocation philosophies prevail, using criteria such as poverty levels, infrastructure needs, and population size rather than addressing specific problems. From 2010 to 2020, the social action and agriculture sectors showed the highest average budget growth rates, around 27% and 21% respectively. The education sector, despite receiving the largest percentage of the budget in terms of weight, exhibited the lowest budget growth during this period, with an average growth rate of 12%.

Budget Execution for Social Sectors Exceeds 50%

The increasing trend in the OE is also reflected in execution levels, where, between 2010-2020, the social sectors executed on average 88% of their budgeted amounts. The education sector stands out with an average execution

of 93%. Consequently, it is expected that indicators related to this sector in reducing malnutrition should show better results compared to others, given its prominence in both budget allocation and execution among social sectors with specific actions for chronic malnutrition reduction.

Social Sector Budgets Average 15% of GDP

Between 2010-2020, the state budget represented about 41% of national production, as indicated by the GDP at constant 2014 prices. Of these amounts, social sectors accounted for about 15%, with the education sector having the largest share at 7%, and social action and water infrastructure sectors having the smallest share at 1% each. The agricultural sector's share was only 2%. These figures indicate the limited attention given to these sectors through the state budget for contributing to chronic malnutrition reduction.

Allocation and Execution of Financial Resources for Social Sectors in Nampula and Zambézia Provinces

According to the methodology for medium-term fiscal scenario preparation by the Ministry of Economy and Finance, the main criteria for allocating state budget resources include achieving and maintaining a sustainable budget balance in the medium term, prioritizing economic and social sectors, focusing on job creation based on their strategic sectoral actions defined in the Five-Year Programs. For the provincial level, the setting of limits is based on situational analysis considering the province's population with a weight of 60%, territorial area with 15%, and poverty index with 25%.

As per the National Statistics Institute (INE) 2021 data, Mozambique has a population of about 30,832,244 people, with 20.6% in Nampula province and 18.5% in Zambézia province, representing the first and second most populous provinces in the country. In terms of poverty incidence, Nampula and Zambézia provinces, both with a rate of 42%, are the poorest in the country. In terms of land area, Zambézia is the second largest in the country, and Nampula is the fifth in terms of territorial extension.

The State Budget data from 2010–2020 shows that, on average, Nampula and Zambézia provinces received 11.899 billion MT and 11.068 billion MT, respectively, corresponding to an average weight of 5% and 4%. In terms of budget growth, Nampula province received an average annual budget increase of 16%, and Zambézia province 20%. However, the budgetary weight over this period remained unchanged, averaging 4% and 5% per year for Nampula and Zambézia provinces, respectively. Notably, in both provinces, there was an increase of 2 percentage points and 1 percentage point in 2020, respectively, both reaching a weight of 6. This increase is derived from the increase in the operational budget.

As shown in the figures above, the budget weight allocated to these provinces in the GDP shows a constant trend, with only 2% of the national production "allocated to each of these provinces". These figures demonstrate the government's limited commitment through the OE to address the structural problems in these provinces,

compounded by the fact that they have the highest levels of chronic malnutrition in the country. Briefly, it can be stated that the challenges of food security and nutrition in Mozambique are multifaceted, and reducing chronic malnutrition is a key development goal for the government, requiring a multi-sectoral approach and long-term investments to reverse its unacceptably high levels that negatively impact human capital development.

From the respondents' perspective, creating greater intervention capacity and action by the involved sectors is urgent, including a change in behaviours at all levels. The prevalence of food insecurity and chronic malnutrition in most provinces in the country is similar. However, Cabo Delgado, Nampula, and Sofala provinces are the most affected. As a proposal, respondents suggest changing dietary habits and customs, including improving food quality and raising public awareness of locally produced natural products.

Levels of Allocation and Execution of Financial Resources for PAMRDC Sectors (2018-2020)

In 2020, 141.478 billion MT was allocated to the PAMRDC signatory sectors, namely education, health, water infrastructure, agriculture, social action, and the non-signatory sectors, Sea and Fisheries and Ministry of Land, Environment, and Rural Development (MITADER), corresponding to 38% of the total budget of 374.097 billion MT and 21% of the GDP (666.958 billion MT). On average, the 2020 budget was primarily for operations, about 56%, and 44% for investment. Between 2018 and 2020, the budget for these sectors grew by 20%, from 117.513 billion in 2018 to 141.478 billion MT in 2020, with the highest growth occurring between 2018 and 2019, around 10.4%. Between 2019 and 2020, the budget grew by 9%. In terms of execution, the sectors on average executed 88% of their budgets, with the education sector showing the best performance compared to the rest, with an average execution of 94%, 6 percentage points above the average, and the Land, Environment, and Rural Development sector showing the lowest level of budget execution efficiency with an average of 66%, corresponding to 22 percentage points below the average of other sectors.

It is important to note that the sectors with the best performance in terms of budget execution are predominantly composed of operational budgets, which are mostly allocated to salary and remuneration payments. Hence, they exhibit a high level of budget execution, generally above the average of all other sectors, compared to sectors with a higher proportion of investment.

The fact that the budgets are predominantly operational, especially for sectors like health and education, negatively contributes to achieving actions to combat malnutrition, as a significant portion of the resources is allocated to salaries and remunerations. Over the three years analysed here, the composition of the budget within the total budget did not undergo significant changes. For instance, despite some changes within the sectors in terms of weight in the total budget, the total budget allocated to these sectors, despite a slight reduction of 1 percentage point in 2019, returned to 38% in 2020, the same as in 2018. This situation somewhat reflects the limited importance given to government-approved programs, as they are approved, but in budgetary terms, there is no increase for their realization, compounded by the fact that some sectors in their composition have more than 50%

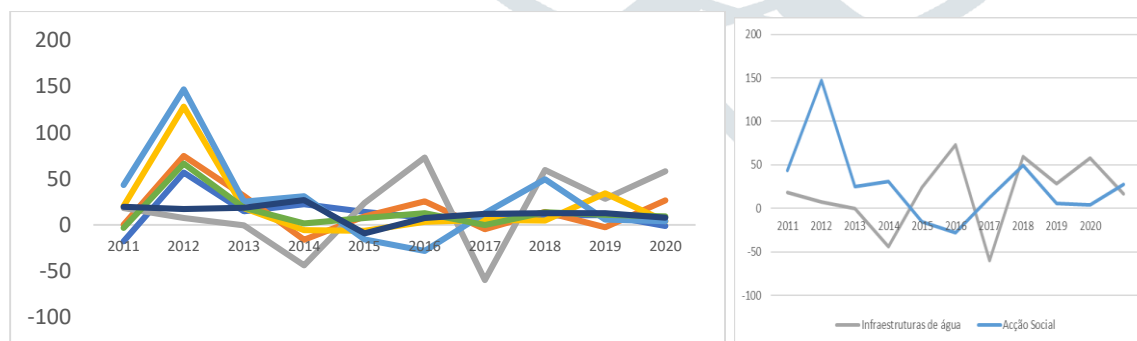
of the budget allocated to operations. It is known that operational budgets are not productive in the long term and do not have the capacity to cause the structural changes that can only be brought about with investments in key sectors like nutrition.

Budgetary Contribution to the Reduction of Chronic Malnutrition in Mozambique

Unfortunately, due to the weak alignment between the priority actions indicated in the Economic and Social Plans and the approved Budgets, during both the PQG 2010-2014 and PQG 2015–2019 periods, which translates into a lack of connection between the programs carried out by various public sector departments and the approved and executed budgets, due to the absence of a Planning and Budgeting Subsystem per program that would ensure the alignment of the PES and the OE, it is not possible to directly assess whether in fact, the budgets allocated to the sectors within the framework of the PAMRDC were channelled to the agreed actions and if they are producing the desired effects.

Looking at all the documents of the PES, PQG, and PES Balances, it is not possible to clearly find the activities defined in the PAMRDC to proceed with their monitoring. If the Government indeed intends to fight against chronic malnutrition, it is essential that it review the activities and indicators of the PQG, which should clearly reflect the commitments made within the framework of the sectoral plans, in this case the PAMRDC. Likewise, the activities and indicators should be reflected in the PES. This action should also be reinforced by the requirement that the budget be a reflection of the activity plan, thereby enabling the assessment of which budget was allocated to each of the activities."

Graphic 1: Annual growth of the budget allocated to social sectors



Source: CGE, 2010-2019 e REO, 2020

Budget Allocation Model in Mozambique

Decision-making for State resource allocation is a challenging yet necessary process to address the diverse needs of the population. The primary issue in decision-making relates to the choices that must be made among various alternatives, often at the expense of other equally important priorities.

The State Budget is a document determining a country's financial management for a specific fiscal year. It serves as the central means through which the government fulfils its obligation to provide public goods and services to the population through collected revenues (Baleeiro, 2001).

The current budget allocation model in Mozambique exhibits characteristics of an incremental decision-making approach. This process, viewed from a political perspective, addresses problems gradually without major disruptions to the status quo (Silva, 2013). In this incremental model, any attempt to improve budget formulation has severe implications for the political system, affecting the delicate balance of "who gets what" resulting from decisions made in the budgeting process (Barcelos, 2008).

This budget allocation model lacks incentives for change, leading to repetitive budgets year after year. This repetition is evident from analysing the weight of the budget allocated to social sectors in the total OE (2010-2020), which shows a nearly constant trend in the percentage of budget allocated to each sector. Despite plans drawn and approved for reducing chronic malnutrition, in budgetary terms, the OE continues to allocate, in real terms, the same budget ceilings despite the plans being implemented.

This pattern sheds light on why programs like the PAMRDC (2010-2020), designed to bring about structural changes, fail to achieve their intended objectives. Due to the adopted allocation model, no changes in the OE budget indicate government commitment to implementing the strategic and specific actions of the program. This allocation model only achieves the objectives of government programs in stable environments over time, so that budget appropriations remain within the expected pattern. Given that the current budget is heavily influenced by the previous year's budget, equal proportions are allocated to the same sectors, which does not aid in solving structural problems in countries like Mozambique.

Alternative Models of Budget Allocation

Alternative models of allocation include: i) rational approach; ii) political approach; iii) garbage can approach; and iv) strategic approach.

i. Rational Approach

In the realm of public administration and policymaking, the Rational Approach to budget allocation stands as a cornerstone model, championed by the foundational works of scholars such as Herbert A. Simon, Charles O. Jones, and Aaron Wildavsky. This approach, rooted in a comprehensive understanding of decision-making processes, posits that decision-makers possess complete information to analyse problems effectively and select the optimal solutions. It hinges on the identification of problems, exploration of alternative solutions, and a thorough assessment of their respective consequences.

In the context of Mozambique's budget allocation for PAMARDC, this approach takes on a practical dimension. It suggests a systematic allocation of budget through programs that have meticulously mapped all pertinent issues requiring resolution and their subsequent consequences. Such a methodological approach aligns with Simon's

seminal insights in "Administrative Behaviour" (1947), where he underscores the limitations and potential of rationality in organizational decision-making. Simon's discourse provides a critical backdrop for understanding the intricacies and nuances involved in applying the Rational Approach within organizational settings, including government budgeting.

Furthermore, Charles O. Jones's "An Introduction to the Study of Public Policy" (1970) offers an expanded view on rational decision-making processes within the sphere of public policy. Jones's contributions are instrumental in contextualizing the Rational Approach specifically for budget allocation, offering a nuanced perspective that bridges theory and practice. His work aids in framing the Rational Approach as not only a theoretical construct but also as a practical tool for effective policy implementation.

Lastly, Aaron Wildavsky's "The Politics of the Budgetary Process" (1984) provides a pivotal understanding of different budget allocation models within a political context. Wildavsky's exploration of the political dimensions of budgeting is crucial in understanding the Rational Approach's applicability and limitations in real-world settings. His insights reveal the complexities of budgetary processes and the need to balance rational decision-making with political realities.

In modern discourse, the Rational Approach's relevance is underscored by its potential to foster transparency, accountability, and efficiency in the allocation of resources. For Mozambique's PAMARDC, this model offers a structured framework for tracking and monitoring budget allocations, ensuring that each action designed is both justifiable and aligned with the program's overarching goals. It resonates with the contemporary emphasis on evidence-based policymaking, where decisions are grounded in comprehensive data analysis and a clear understanding of expected outcomes.

In conclusion, the integration of these seminal works into the discussion of the Rational Approach for budget allocation provides a robust, coherent, and contextually relevant framework. This framework aligns with current academic discourse and offers practical insights for its application in specific programs like Mozambique's PAMARDC, thereby contributing meaningfully to the ongoing debate in public administration and policymaking.

ii. Political Approach

The Political Approach to budget allocation underscores the predominant role of power dynamics and political negotiation in decision-making processes. According to this model, individual or departmental objectives often take precedence over national goals, leading to a complex power game. Decisions are shaped not by a quest for optimal solutions, but through negotiations and coalitions among various stakeholders, each wielding a certain degree of power and influence. This approach suggests that objectives are often compromised or not maximized due to the competing interests of different groups within the power centre.

This model is profoundly illuminated by Graham T. Allison's "Essence of Decision: Explaining the Cuban Missile Crisis" (1971). Allison's analysis of decision-making from a political perspective is invaluable in understanding budget decisions influenced by power and politics. His work provides insights into how decisions in critical situations are influenced by complex political interactions, a concept directly applicable to budget allocation processes where various power centres negotiate and influence outcomes.

Similarly, the work of Bachrach and Baratz in "Two Faces of Power" (1962) offers a foundational understanding of how power dynamics shape organizational decisions. Published in the American Political Science Review, their article delves into the mechanisms of power within organizations, providing a framework to understand how budget allocation can be influenced by underlying power struggles and not just by rational or objective considerations.

Aaron Wildavsky's "The Politics of the Budgetary Process" (1984) further complements this perspective by offering a classic examination of different budget allocation models within a political context. Wildavsky's insights into the political dimensions of budgeting are critical for understanding the interplay between power relations and budgetary decisions. His work demonstrates that budget allocation is as much a political process as it is an administrative or financial one.

In the modern context, the relevance of the Political Approach is highlighted by its ability to explain the real-world complexities of budget allocation. It acknowledges that in many scenarios, especially in politically charged environments, budget decisions are rarely made purely based on objective analysis or national priorities. Instead, they are often the result of intricate power plays, negotiations, and compromises among various stakeholders. This approach is particularly relevant in understanding why certain programs or departments receive more funding than others, and why some national goals may be sidelined in favour of departmental or individual interests.

In conclusion, by incorporating the insights from Allison, Bachrach and Baratz, and Wildavsky, this rewritten theory of the Political Approach provides a comprehensive, nuanced understanding of budget allocation processes. It offers a framework that is not only academically robust but also practically relevant, reflecting the complex interplay of power and politics in budgetary decision-making. This approach is crucial for scholars and practitioners seeking to understand and navigate the political realities that influence budget allocations in various organizational and national contexts.

iii. Garbage Can Approach

The Garbage Can Approach to budget allocation presents a paradigm where decisions result more from serendipity and inaction than from systematic analysis and planning. This model, characterized by a lack of clear sequence between problem identification, analysis, and solution selection, likens the decision-making process to a 'garbage can.' In this metaphor, various participants contribute problems and solutions to a collective pool, with decisions

emerging based on the random interplay of these elements rather than through deliberate strategizing. This approach suggests that the nature and outcome of decisions depends heavily on the specific mix of problems, solutions, and participants present at any given time.

The foundational work of Cohen, March, and Olsen in "A Garbage Can Model of Organizational Choice" (1972) provides a critical base for understanding this unconventional decision-making model. Published in *Administrative Science Quarterly*, their paper introduces the concept that decision-making in organizations can often be disorganized and chaotic, resembling the randomness of a garbage can rather than the linearity of traditional models.

John W. Kingdon's "Agendas, Alternatives, and Public Policies" (1984) expands upon this model, particularly in the context of policy formulation and implementation. Kingdon explores how the Garbage Can Model applies to the complex and often unpredictable world of policymaking, where decisions are influenced by a multitude of factors and actors, often with no clear connection between problems and solutions.

Aaron Wildavsky's "The Politics of the Budgetary Process" (1984), while primarily focusing on different budget allocation models within a political context, also offers insights that complement the understanding of the Garbage Can Approach. Wildavsky's analysis of budgeting processes provides a broader perspective on how decision-making in budget allocation can sometimes resemble the disorder and randomness characteristic of the Garbage Can Model.

In modern discourse, the relevance of the Garbage Can Approach is particularly significant in contexts where decision-making processes are fragmented, decentralized, or subject to rapidly changing conditions. This model offers a framework for understanding how decisions in complex organizational environments, such as government agencies or large corporations, can emerge in an ad hoc manner, often as a result of coincidental convergence of various elements rather than through logical progression. It highlights the role of chance, timing, and the presence (or absence) of certain problems and solutions at critical junctures.

In conclusion, integrating the perspectives of Cohen, March, Olsen, Kingdon, and Wildavsky, the rewritten theory of the Garbage Can Approach provides a comprehensive understanding of decision-making in environments characterized by uncertainty, complexity, and fluidity. This approach, though seemingly chaotic, offers valuable insights into the nature of decision-making in dynamic and unpredictable settings, making it a relevant model for contemporary discussions in public administration and organizational theory.

iv. Strategic Approach

The Strategic Approach to budget allocation encapsulates three distinct but interconnected perspectives: entrepreneurial, adaptive, and planned. These perspectives offer a multifaceted framework for understanding how organizations can strategically allocate resources to achieve their goals.

1. **Entrepreneurial Perspective:** This aspect of the Strategic Approach is characterized by a dominant focus on objectives and the pursuit of new opportunities. It views uncertainty not as a threat but as a potential for gains. Here, the decision-maker, typically in a managerial role, is proactive in identifying and capitalizing on emerging opportunities. Mintzberg, Ahlstrand, and Lampel's "Strategy Safari: A Guided Tour Through the Wilds of Strategic Management" (1998) offers a comprehensive overview of this and other strategic approaches. Their work elucidates how an entrepreneurial mindset can drive strategic decision-making, particularly in dynamic and uncertain environments.
2. **Adaptive Perspective:** Contrasting with the entrepreneurial perspective, the adaptive mode is reactive. In this approach, managers operate without clear objectives, responding to problems as they arise. This leads to a more disjointed and fragmented decision-making process. The adaptive perspective is crucial in contexts where predictability is low, and the environment is constantly changing, necessitating a flexible and responsive approach to budget allocation.
3. **Planned Mode:** The planned mode is characterized by proactive decision-making, with a focus on setting future goals and making decisions that align with this forward-looking planning. H.I. Ansoff's "Corporate Strategy" (1965) is seminal in this context, providing in-depth insights into strategic planning and management. Ansoff's work underscores the importance of a well-defined strategy in guiding organizational decisions, including budget allocation. This mode is particularly relevant in stable and predictable environments where long-term planning is feasible and desirable.

Additionally, Aaron Wildavsky's "The Politics of the Budgetary Process" (1984) provides a foundational understanding of how these strategic approaches can be applied within the realm of public administration and budgeting. Wildavsky's insights into the political dimensions of budgeting processes illuminate the complexities and challenges involved in applying strategic approaches within a political context.

In the modern context, the relevance of the Strategic Approach lies in its flexibility and adaptability to varying organizational needs and environmental conditions. This approach allows organizations to shift between entrepreneurial, adaptive, and planned modes based on their specific circumstances and strategic objectives. It acknowledges the diverse nature of decision-making processes and provides a comprehensive framework for understanding and applying different strategies in budget allocation.

In summary, integrating the insights from Mintzberg, Ahlstrand, Lampel, Ansoff, and Wildavsky, this rewritten theory offers a robust and versatile framework for strategic budget allocation. It highlights the importance of aligning budgeting decisions with the broader strategic orientation of the organization, whether it be entrepreneurial, adaptive, or planned, making it a relevant and practical model for contemporary strategic management and public administration discussions.

Conclusions

The study highlights malnutrition as a critical issue in Mozambique, underscoring its complexity as outlined by the World Health Organization (WHO, 2005). Malnutrition, characterized by inadequate intake of energy, proteins, and micronutrients, results from the intricate interplay between an individual's diet, health, and socio-economic conditions. Despite the Mozambican government's prioritization of poverty eradication and agriculture as a core element for national economic development, existing strategies for food security and nutrition, as reflected in various government programs and cross-cutting policy documents like ESAN II/PASAN and PAMRDC, lack coherent integration and effective implementation.

The study's findings indicate that the Mozambican government's strategies, while well-conceived, suffer from departmentalization and a lack of interdisciplinary approaches necessary for addressing food security and nutrition comprehensively. Although some projects and programs show positive results, especially in health and education, they are often inadequately funded and heavily reliant on external resources, risking discontinuity after the end of external financial support.

This study contributes to the understanding of the complex nature of food security and nutrition in Mozambique, revealing the gap between policy formulation and execution. It underscores the need for integrated, coherent, and effectively implemented strategies to address these issues holistically.

The study recommends a reevaluation of macroeconomic management tools to better support agriculture and food production. The current budget allocation for agriculture, which is less than 6% of the State's expenditures and falls short of the 2003 Maputo Summit's recommendation of 10%, should be increased. Furthermore, budget allocations should prioritize areas that significantly impact production, such as research, training, extension, and agrarian services, rather than predominantly focusing on institutional capacity building and unforeseen expenses. This shift is essential for creating sustainable and effective strategies to combat chronic malnutrition and improve food security in Mozambique.

Bibliography:

- Allison, G.T. (1971). "Essence of Decision: Explaining the Cuban Missile Crisis."
- Ansoff, H.I. (1965). "Corporate Strategy."
- Bachrach, P., & Baratz, M.S. (1962). "Two Faces of Power." *American Political Science Review*.
- Baleeiro, A. (2001), *Uma introdução à ciência das finanças*. Tradução de Djalma de Campos. 15^a. ed. Rio de Janeiro: Forense
- Banco Mundial, (2021), *Mozambique data*, disponível no site: <https://data.worldbank.org/country/mozambique>,
- Barcelos, C. E. (2008), *Quinze anos sem Aaron Wildavsky: recordando lições valiosas. Encontro de Administração Pública e Governança*, Salvador, 12-14 novembro
- Carilho, João; Abbas, Máriam; Júnior, António; Chidassicua, José e Mosca, João (s/d). *Desafios para a Segurança Alimentar e Nutricional em Moçambique*. Observador Rural. N.º 14. Observatório do Meio Rural. Maputo.

- Cohen, M.D., March, J.G., & Olsen, J.P. (1972). "A Garbage Can Model of Organizational Choice." *Administrative Science Quarterly*.
- Dos Santos, A. M. F (2017), *Alocação de Recursos Orçamentários: Um estudo sobre os Municípios Paranaenses*, São Paulo, disponível no site: <https://bit.ly/46Rhmoi>, consultado no dia 16/03/2021 as 14H30
- Governo de Moçambique (2010), *Plano de Acção Multisectorial para Redução da Desnutrição Crónica em Moçambique 2011-2014 (2020)*, Maputo
<https://www.mef.gov.mz/>
- INE, (2020), *Indicadores Básicos de Agricultura e Alimentação 2015-2019*, Moçambique, <https://bit.ly/3Ri9Htp>, dia 25/02/2021 as 14H49
- INE, (2021), Informação rápida, disponível no site: <http://www.ine.gov.mz/> consultado no dia 12/03/2021 as 10h30
- INS, (2019), *Projeção de intervenções para a redução da desnutrição crónica em Moçambique entre 2010 e 2020* <https://bit.ly/4abQrq0>, consultado no dia 25/02/2021 as 15h18
- Jones, C.O. (1970). "An Introduction to the Study of Public Policy."
- Kingdon, J.W. (1984). "Agendas, Alternatives, and Public Policies."
- MEF (2016), *Quarta Avaliação Nacional da Pobreza e bem-estar*, disponível no site: <https://www.mef.gov.mz/>
- MEF, *Orçamento do Estado (OE)*, 2010-2020 disponível no site <https://www.mef.gov.mz/>
- MEF, *Planos Económicos e Sociais (PES)*, 2010-2020, disponíveis no site: <https://www.mef.gov.mz/>
- MEF, (2020), Cenário Fiscal de Médio Prazo 2021-2023 disponível no site: <https://www.mef.gov.mz/>
- MEF, *Balanco do Plano Economico e Social 2014-2018 e 2015-2019*, disponível no site: <https://www.mef.gov.mz/>
- MEF, *Conta Geral do Estado (CGE)*, 2010-2019, disponível no site: <https://www.mef.gov.mz/>
- MEF, *Programa Quinquenal do Governo 2015-2019 (PQG)*, disponível no site: <https://www.mef.gov.mz/>
- MEF, *Relatório de Execução Orçamental (REO)*, 2020, disponível no site: <https://www.mef.gov.mz/>
- Mintzberg, H., Ahlstrand, B., & Lampel, J. (1998). "Strategy Safari: A Guided Tour Through the Wilds of Strategic Management."
- MISAU, (2013), *Plano Estratégico do Sector da Saúde (2014-2019)*, disponível no site: <https://www.misau.gov.mz/>
- ONU (2019), *Mostra fotográfica ilustra combate à desnutrição aguda em Moçambique*, disponível no site: <https://bit.ly/4aaC9Gc>
- Silva, R. M. P. D., (2013), *Análise do processo decisório na administração pública e sistemas de apoio à tomada de decisão: contradições e paradoxos na realidade organizacional pelo não uso de ferramentas disponíveis*; Tese (Doutorado em Administração) - Universidade Federal do Rio Grande do Sul. Porto Alegre, 2013. Disponível no site: <https://lume.ufrgs.br/handle/10183/79628> consultado no dia 16/03/2021
- Simon, H.A. (1947). "Administrative Behavior."
- TA, (2021), *Relatórios Pareceres da Conta Geral do Estado*, disponível no site: <https://www.ta.gov.mz/>
- Wildavsky, A. (1984). "The Politics of the Budgetary Process."