



## Causes and Effects of Malnutrition in Chin State, Myanmar

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### Abstract:

*Being the poorest state in Myanmar, lacking suitable infrastructure such as health institutions, robust policies, and armed conflicts, malnutrition has recently been a growing concern in Chin State. It became the primary reason for the state's high mortality rate among under-5-year-old children. The study was conducted with both quantitative and qualitative methods. The researcher analyzed different data, literature, reports, and policies to examine the policy gaps in malnutrition in Chin State and develop policy recommendations. The study found five main factors causing malnutrition in Chin State. They are poverty, food shortage, maternal education, unhealthy conditions, and inaccessibility to health care. The researcher also came up with four policy suggestions in infrastructure, health care, agriculture policy, and health education to tackle the issue.*

**Keywords:** *Malnutrition, Chin State, Causes and Effects of Malnutrition, Policy Gap and Policy Recommendation*

### Introduction:

Malnutrition is one of the significant concerns in Myanmar, which ranks 24<sup>th</sup> in the burden of undernutrition under the age of 5 worldwide. “Under the age of 5, 45% of mortality in Myanmar was due to undernourishment<sup>1</sup>”. WHO defines malnutrition as “deficiencies,

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<sup>1</sup> Htwe Twe, Khae. “Social Determinants of Undernutrition Among Under-5 Children in Rural Areas of Myanmar”: A Narrative Review (Asia Pacific Journal of Public Health, 2021), P-2

excesses or imbalance in a person's intake of energy and / or nutrients<sup>2</sup>". Chin State is one of the states with the highest malnutrition in Myanmar and faces many other social problems.

According to WFP-Myanmar, undernutrition is directly related to poverty reduction, school performance, economic productivity, and gender equality. Investing in nutrition can break the vicious cycle of intergenerational poverty<sup>3</sup>. Therefore, it is critical to study and understand the issue of malnutrition.

Some studies and surveys have been conducted on health and health-related human rights issues in Chin State, but more research still needs to be carried out in the area of nutrition-related policy issues in Chin State. This study mainly focuses on policy issues. The researcher identified and studied 20 journal articles, reports, and policy papers from United Nations Agencies, Government reports, and other academic papers. However, eight are removed as irrelevant to the theme, and only twelve literatures are selected and used for this study. Due to the limited literature on malnutrition in Chin State, the researcher conducted a comparative



analysis from another part of Myanmar and applied some lessons and findings from other states. In the study, the researcher has analyzed the various underlying causes of malnutrition in Chin State, the contextual analysis, the effects of malnutrition, policy gaps, and recommendations.

### Context Analysis:

It is important to analyze the geopolitical conditions to get a clearer picture of malnutrition issues. Chin State is located in the western part of Myanmar and has been isolated for many years since the country's independence. The population is around 0.5 million, with a very high rate of refugees fleeing into countries like India, Malaysia, and the western country. It is the least developed state in Myanmar, with more than 70% of the people living below the poverty line<sup>4</sup>.

Chin State shares an international border with India and Bangladesh; this border is not developed yet, which, thus, does not contribute to the state's economic development.

<sup>2</sup> World Health Organization, "Malnutrition," World Health Organization (WHO), last modified April 15, 2021.

<sup>3</sup> WFP Myanmar, "Nutrition WFP Myanmar," last modified April 2016, p-1

<sup>4</sup> OCHA service, "Chin State: the Poorest State in Burma," ReliefWeb, last modified July 8, 2011, p-1

Therefore, it is not an alternative route for the source of food supply or accessibility to health care for chin people.

Despite many factors contributing to malnutrition in Chin State, the unique factor I want to bring here is the natural phenomenon locally called “the rat famine,” which occurs once in fifty years. This phenomenon occurred in 2009; bamboo in Chin State blooms and gives fruit, and when rats eat this bamboo fruit, they give birth very fast, and they multiply thousands and thousands, which destroys almost all the farms in Chin State. This led to a big food crisis in Chin State, and many people starved, died, and malnourished<sup>5</sup>.

Figure 1: Chin State Map.

### **Causes of Malnutrition in Chin State:**

Five major underlying factors cause malnutrition in Chin State. They are food shortage, poverty, maternal education, unhealthy conditions, and inaccessibility to health care.

#### **(1) Food Insecurity:**

The Chin people rely their livelihood on shifting cultivation. The leading staple food is rice and maize among the Chin people. Since a few years back, many Chin People have shifted the sources of their food from shifting cultivation (self-cultivated foods) to purchasing foods (ready-made foods) from the mainland of Myanmar because the production costs are cheaper in the mainland. Another contributing factor to food insecurity and malnutrition in Chin State is the transportation issue. There are only two main gate routes (two motor highways) in Chin State. These two routes are where the primary trade flow from Chin State to the mainland of Myanmar and vice versa. Since there are only two main routes, when natural disasters such as landslides, heavy rains, and storms hit, it often blocks the flow of commodities, including rice and food items. These often lead to a shortage of food supply and inflations of food prices in many parts of the state. Moreover, Chin State has more than 30 years of ongoing armed conflicts, which often disrupt the farmers going to the farms and cause roadblocks. According

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<sup>5</sup> Sollom et al. “Health and Human Rights in Chin State, Western Burma: A Population-Based Assessment Using Multistaged Household Cluster Sampling.” PLoS Medicine 8, no. 2 (2011): e1001007. doi:10.1371/JOURNAL.PMED.1001007. p-4

to Chin Human Rights Organization (CHRO), one of the very few human rights-based organizations in Chin State, did a survey in 2010, and the report showed that people in Chin State have food security for only eight months, and they have to manage their limited foods and survive for the rest four months<sup>6</sup>.

## **(2) Poverty:**

Poverty is the second most important cause of malnutrition in Chin State. A survey conducted by the United Nations Development Program (UNDP) in 2012 showed that chin state is the poorest state among 14 regions and states in Myanmar, with 73.3 % of the population below the poverty line while the national average was 30%<sup>7</sup>. Undoubtedly, many studies in many parts of the world have found a direct correlation between poverty and malnutrition. "A two-way link exists between malnutrition and poverty, creating a vicious cycle with each fueling the other"<sup>8</sup>. These data and figures are evidence of the high prevalence of malnutrition in Chin State, Myanmar.

## **(3) Maternal Conditions**

The third factor for malnutrition in Chin State is maternal condition. Not only, is Chin State poor, but also low in education, especially among women. Maternal factors such as low education, young marriage, feeding practices, and cultural beliefs greatly impact the nutrition status of children in Chin State<sup>9</sup>. The 2014 National Census showed that the literacy rate of chin state is 79.4% lower than the union (89.4%)<sup>10</sup>. This high literacy rate, however, may not directly and significantly relate to malnutrition in Chin State because a study has yet to be conducted on the relationship between these two variables. Literacy may give the woman the opportunity to educate herself about nutrition. However, the high rate of ability to read and

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<sup>6</sup> Chin Human Rights Organization, "Individual Submission to the UN periodic Review, March 2015," Nothing Here, last modified March 2015, p- 3

<sup>7</sup> OCHA service, "Chin State: the Poorest State in Burma," ReliefWeb, last modified July 8, 2011, p-1

<sup>8</sup> Frontiers, "The Intertwined Relationship Between Malnutrition and Poverty," Frontiers, last modified August 28, 2020, p-1

<sup>9</sup> Htwe Twe, Khae. "Social Determinants of Undernutrition Among Under-5 Children in Rural Areas of Myanmar: A Narrative Review" (Asia Pacific Journal of Public Health, 2021), P-5

<sup>10</sup> Ministry of Labor, immigration and population, "The 2014 Myanmar population and Housing Census," MIMU, last modified October 2017

write might mean something other than that woman are educated about nutrition. According to International Labor Organization (ILO), there is a big literacy gap between males and females in Chin State, with a 16.6% difference. This gender literacy gap will also contribute to high malnutrition in Chin State<sup>11</sup>.

#### **(4) Unhealthy Environment**

Another factor that causes malnutrition is the unhealthy environment. “Poor sanitation, inadequate and unsafe drinking water, and poor hygiene lead to an unhealthy environment for children. An unhealthy environment is a crucial determinant of childhood undernutrition in rural Myanmar”<sup>12</sup>.

#### **(5) Poor Access to Health Services**

The last factor that contributes highly to malnutrition is poor Access to Health Services. Chin State has a poor healthcare system, and the existing government hospitals have poor facilities and equipment. Moreover, more doctors and health workers are needed for the population. In Chin State, preventive mechanisms such as vitamin supplementation, screening tests, and health education are minimal.

#### **Effects of Malnutrition in Chin State:**

The impacts of malnutrition in Chin State have been significant. Though there has not yet been a study showing the relationship between malnutrition and the economic productivity or GDP of Chin State, many researchers have proved that malnutrition causes lower educational performance, health issues, poverty, gender issues, economic productivity, etc. “It is estimated that investing in nutrition can increase a country’s Gross Domestic Product (GDP) by at least 3 percent annually”<sup>13</sup>.

The direct results of malnutrition in Chin State can be stunting, waste, under-weight, vulnerability to diseases, low height, Vitamin A deficiency, Vitamin B 1 deficiency, Anemia, thinness, Low birth rate, and micronutrient deficiency. According to the Myanmar Multiple

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<sup>11</sup> International Labour Organization, last modified October 2017

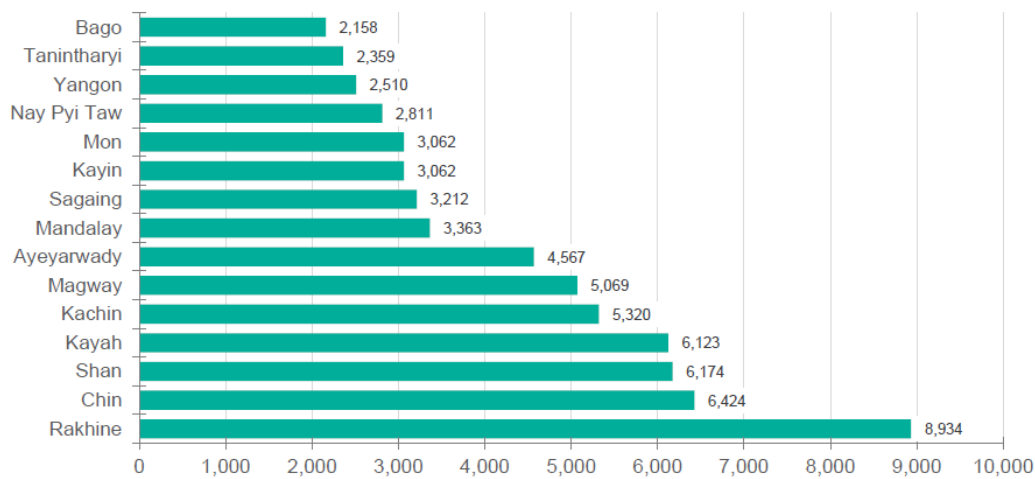
<sup>12</sup> Htwe Twe, Khae. “Social Determinants of Undernutrition Among Under-5 Children in Rural Areas of Myanmar: A Narrative Review” (Asia Pacific Journal of Public Health, 2021), P-7

<sup>13</sup> World Bank, "Overview," World Bank, last modified September 28, 2021.

Indicator Cluster Survey (MICS) 2009-10, the highest stunting rates are in Chin State (58.0%) and Rakhine State (49.9%)<sup>14</sup>.

**Impact of Covid 19 Pandemic:**

Apart from these five major factors, it is also critical to consider the impact of covid pandemic on malnutrition in Chin State. The pandemic has hit hardly almost all countries in the world globally, Chin State is not with exception. It has worsened every issue, including malnutrition, by disrupting global supply chains of food and unemployment, maternal and child health services, and poor quality dietary intake. Chin State has been impacted the most, next to Rakhine State in Myanmar, by the covid Pandemic<sup>15</sup>.



Notes: This estimate is based on newly wasted Myanmar children from the cross-country model derived by Headey and Ruel (2020) multiplied by a 2.6 factor to reflect estimates for new cases over a given time period. An implicit assumption here is that income changes by state/region are similar across states.

Figure 2: Impact of Covid 19 on states in Myanmar in terms of malnutrition among under five-year-old children (Source - Myanmar IFPRI)

**Existing Policies and Policy Gaps:**

The National Plan of Action for Food and Nutrition (NPAFN) was established in Myanmar in 1995 under the framework of the National Health Policy, which aimed to tackle

<sup>14</sup> LEARN, "Undernutrition in Myanmar," LiftFund | Livelihoods and Food Security Fund, last modified March 2016

<sup>15</sup> IFPRI Myanmar, "Protecting Maternal and Child Malnutrition During a Pandemic: Lessons Learned from Myanmar," IFPRI.org, last modified August 6, 2020

the undernutrition problems. It was revised in 2011 to address the social determinants of malnutrition in the country. Food Security was one of the major focuses of this policy in line with the agricultural policies. Though Myanmar has a surplus of food production, food insecurity is still a major issue in many parts of the country, including the Chin State. Secondly, Myanmar also joined the global movement called the Global SUN (Scale-Up-Nutrition) movement in 2013 and received benefits from the movement. As a requirement for membership in the movement, Myanmar committed to political and financial actions to reduce the undernutrition problem. Moreover, Myanmar has taken initiatives such as poverty alleviation and rural development programs under the Ministry of Border Affairs since 2011. The Chin state government has also developed five Year Comprehensive Development program (2016-2021) with Child Focused Social Plans and supporting Policy documents in collaboration with UN agencies and Non-governmental Organization (NGOs).

However, despite all these existing policies and programs to address nutrition problems, the Chin state still needs to identify the policy gaps to overcome many problems. The first policy gap is the policy on infrastructure development in the health care system and transportation. The second gap is the border connectivity with India. Myanmar governments need to invest in these areas, which could have helped a lot of state economic development and access to the health care system in India. The third policy gap will be the lack of awareness programs or education on nutrition and maternal education at the school or community levels. The fourth is to develop agricultural policies to address food insecurity.

## **Conclusion**

Chin State has a very high level of malnutrition due to five major factors: food shortage, poverty, maternal education, unhealthy conditions, and inaccessibility to health care. The direct results of undernutrition are a high rate of underweight, anemia, thinness, stunting, low birth rate, underweight, poor health, and low products. Though some policies and programs already exist in Chin State and Myanmar, they must be more effective in tackling issues. Many nutrition-related policy gaps still need to be addressed in Chin State.

## **Policy Recommendations:**

- (1) The policy required for awareness programs and maternal and nutritional education in Chin State
- (2) The health care system needs to be upgraded mainly and should be designed and aimed at tackling malnutrition programs.

- (3) Increased investment in infrastructures such as transportation or logistic management for food supply, and border connectivity
- (4) The state government should develop agricultural policies in Chin State to address food insecurity issues and rely on the central land of Myanmar.

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