

The homegrown product is the healthy and nutritional food for the mid-day school meal program: A study of marginal communities in Nepal

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Abstract

The National School Meal Program is the second largest education program in Nepal. This program manages the food requirement, and supports the health and nutrition of primary level students. This study analyzes the ongoing meal program status in the public schools and its role in the health and nutrition of students. The Chitwan and Makwanpur districts were purposively selected for this study. The Manahari and Kalika Local Government selected to analyze the impact of marginal from the health and nutrition perspectives. The study was conducted during Jan- Feb 2025 and a cross sectional design was applied with mixed-method approach.

The finding shows that the National Mid-Day School meal program helps public schools to feed the students, increases in learning, is beneficial to the marginal people below the poverty level supports health and nutrition. In ethnic communities, diverse and local cooked meal helps reduce hunger. Foods like beans, nuts, eggs, milk and local vegetables are nutritionally rich and useful, produced by the local efforts. Seasonal market procured foods are cooked and serve hot at midday. The study concluded as meal program helps marginal people to manage hunger during daytime considered the best practice in remote rural areas where the majority of marginal like Chepang and Tamang. Dalit and others are high. Monitoring mechanisms, local resource availability, and uses are advised more to sustain the local production, the local economy enhancement could be the best sustainable approach through these programs in present and future

Keywords: Mid-day meal; Health; Nutrition; Sustainable development; Marginal; Hunger

1. Introduction

The present most useful and popular education program is school meal programs nowadays in demand which students are provided with snacks, meals, or other foods in or through schools are common throughout the world due to its nature of feeding (GCNF, 2009). School feeding programs uses reformed modalities to provide meals to the student, for the program the marginal cost is the most innovative, acceptable and within such price the program running is another achievement, this also this added the usefulness of school feeding programs. (Bundy, 2009). The health and nutrition interventions are important aspects of school meal that help reinforce the benefits of school feeding programs and need to be strongly promoted, but are typically part of broader sectoral and cross-sectoral policies and program activities. The lesson learned by other countries through their experience of meal program encourage and attracted students for the learning, demands usually increased (Kattan, 2006). Review says that India has a long tradition of school feeding programs (Almost 1920s), largely supported by the governments with additional assistance. Higher Court of India directed all to introduced and run the School meal program in 2001 that helps in increasing enrolment.

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Programs in all government and government-assisted primary schools. This was the result of a petition from the People's Union for Civil Liberties, a large coalition of organizations and individuals that led the Right to Food Campaign (Bundy, 2009, p. 11).

Consequently, the Brazilian school feeding program is aligned with national government's Zero Hunger Program. In Brazil, nearly 37 million children enrolled and benefitted in the world. Its role were given to the National Fund for Development of Education (FNDE), created in 1997 to be responsible for the disbursement of the financial resources for school meals in each municipality. This fund transfer became automatic in 2001 and obliges local governments to spend at least 70 percent of transferred money on food, preferably purchased locally. (Bundy, 2009, pp. 12-13). Review shows that the school feeding programs can help to get children into school and help to keep them there, through enhancing enrolment and reducing absenteeism; and once the children are in school, the programs can contribute to their learning, through avoiding hunger and enhancing cognitive abilities (Levinger, 1986). Bundy (2009) added further that such effects may be potentiated by complementary actions, especially deworming and providing micronutrients. Bundy (2009) found that meal program benefited from early work in this area, which arrive at similar conclusions about the direction of the effects. The effectiveness at the large scale was a matter of questions (Bundy, 2009). A study by Chhetri and Manandhar (2023) review that the school meals programs are widely considered as one of the most effective interventions to simultaneously improve nutrition and education outcomes for schoolchildren in developing countries, like Nepal is ongoing meal programs with different modalities (Chhetri & Manandhar, 2023)

In Nepalese history, the school feeding program, was introduced with educational performance intention first time during the Rana Regime. During the decades of 1950, students in need were provided free mid-day meals in the government schools of Kathmandu Valley. The Sanskrit schools have continued free education with accommodation and foods till date through for limited number of students (GoN, 2006; Chhetri & Manandhar, 2023). Previous review shows that the community school midday meal program is being run in 42 of the 77 districts in the country. While the government (Ministry of Education) manages the program in 33 districts, the World Food Program provides midday meals to the children of select schools in nine districts (The Kathmandu Post, 2023; Chhetri & Manandhar, 2023). After mega-earthquake and COVID-19 outbreak in Nepal, WFP and GoN jointly agreed to run a MidDay meal Program applying home-grown modality support by Japan Government, the program runs well and local infrastructure development and home-grown teaches all to produce healthy food align with school meal program (My Republica, 2020; Chhetri et al., 2024).

The multisector collaboration perceived among the various actors of the district such as farmers, school, LG, cooperatives and markets respectively (WFP, 2022). Previous study suggests that the school meal program is vital program in the education sector. Students are direct benefiting from the Mid-day meal Program. Various country experiences shows that mid-day meal helping in enrolment, nutritional values, meeting food requirement of the day time, creating opportunity to various social institutions to tie up and provide support from the multi aspects. (Chhetri & Manandhar, 2023). The school meal program allocation of NPR. 15 per students allotted for the 180 days yearly and the money is allotted based on the data of the schools which is monitored, verified with LG and allotted accordingly in the school (EDCU, 2022). After federalism system (2015), all three-tiers of Government roles were important to support in the Education, agriculture and health sectors also supervised by LG's. The Province and LG's role were vital; hence this study is equally important from the case study perspectives to analyses the ongoing status and consequences of home-grown School meal Program in Nepal (Chhetri et al., 2020).

Various reviews suggest that the school meal program in Nepal is the most transformative program in Nepal supporting to manage food and aware for education. Now many modalities have come to tested and run the school meal program, among which home-grown is new and innovative models, under which a team effort contribution is essential and multi sectoral approach is evidence of this model.

The various information and studies have shown that the school meal program is not only beneficial from the education view but rather helps in health and nutritional activities, hence, this study aims to analyses the ongoing meal program status and Health and Nutritional benefits of school meals.

2. Methods

This research is designed with cross-sectional research followed by mixed method approach. For the analysis of the respondent, Chitwan and Makwanpur district of Bagamati Province randomly selected for this study that represents the district ongoing school meal program and diverse and representative area from the Geographic perspectives. After Selecting of district, Kalika Municipality of Chitwan and Manahari RM of Makwanpur (*Figure-1*) were selected as the

majority of ethnics like Chepang, Tamang, Rai, Magar, Bote are high on the area and school meal supported such communities to increase the education awareness and supported health and nutritional activities in the study area.

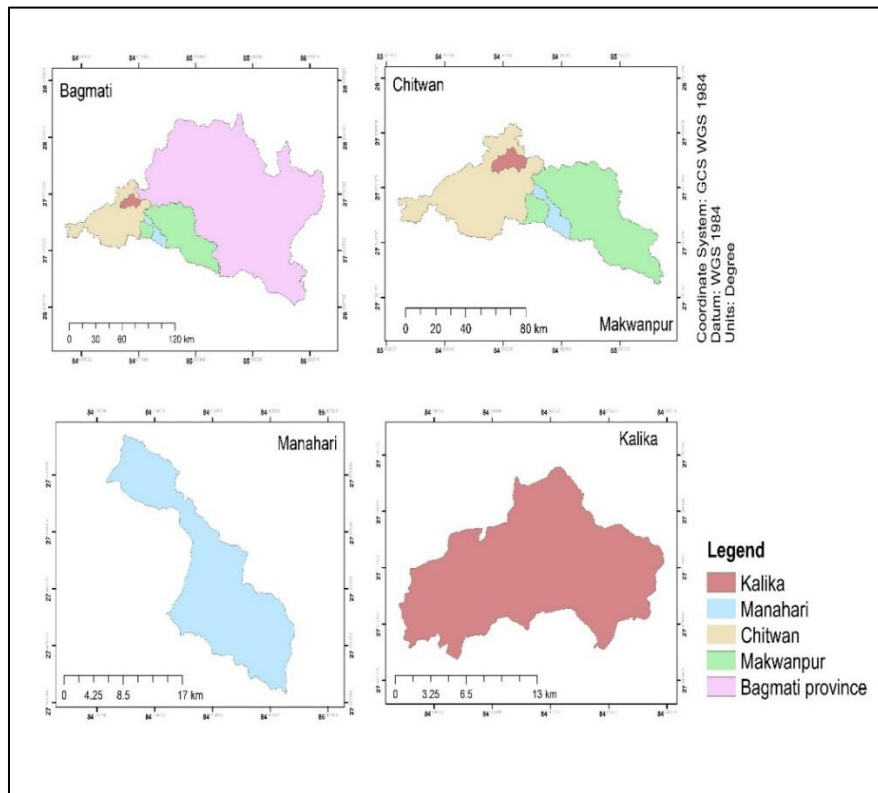


Figure 1 The study area coverage

For this mixed method research, a comprehensive design was prepared under which a total of 6 Public schools ongoing school meal program (3 from Kalika municipality of Chitwan (Kalika Municipality visited schools are-Shree Secondary school Red cross gram; Shiwalaya Rastriya Basic School, and Shree Jamunapur Secondary school; In Manahari municipality visited schools are –Pashupatinath Secondary, Shree Chepang Sec School and Shree Bankariya Basic School-Musidhap) district and 3 from Manahari Rural Municipality of Makwanpur district). Among the schools, 3 individual response from teachers, 5 from students, 2 from School management committees and 5 from the parents whose students ongoing study in the same schools. Similarly, samples were used in Manahari Local Government. Hence, a total of 18 responses from teachers, 30 from students, 12 from SMC and rest 30 response from the parents from the two selected LGs means a total of 90 responses from the study area will be captured through questions were taken into consideration.

A HH questions were prepared and applied in the study area. KII with Educational Unit of the Palika and local NGOs were communicated and interviewed. The study took nearly 1 months during Jan 2025 and the collected data were examined and verified and analyzed through Excel, SPSS Vol 24, Table, Graph mean and P values were examined to analysis the findings in a mixed method approach.

3. Results

To analyzed the Health and Nutritional benefits of School Meal Program a comprehensive findings from the field is illustrated herewith.

Table 1 Opinion and rating of ongoing School meal program

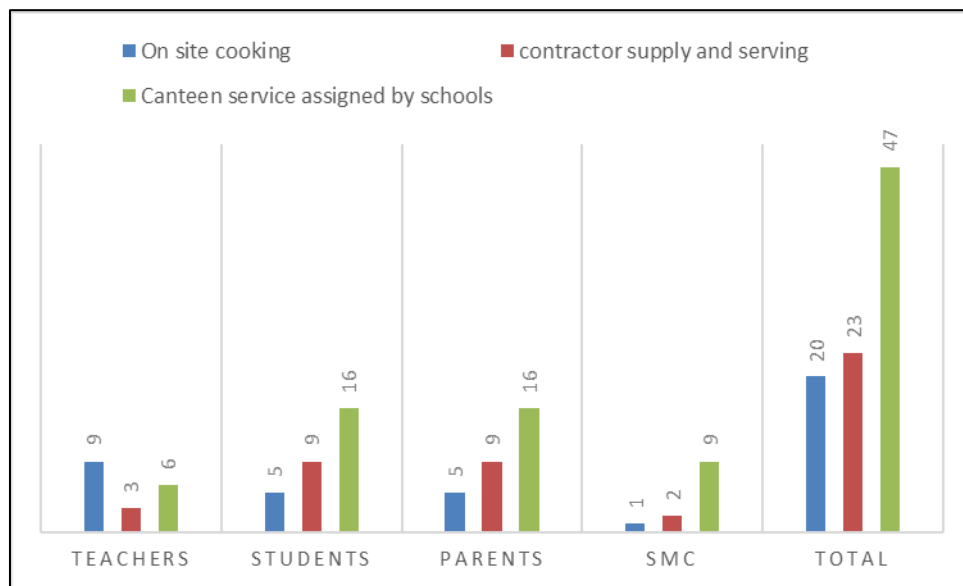
SMP rating	Effective and useful	Average	Not useful
Teachers	15	3	0
Students	25	4	1
Parents	25	4	1
SMC	11	1	0

(Source: Field Study, 2025)

Among the various respondents, Teachers, Students, Parents and School Management Committees respondents strongly opted the Mid-day Meal program is very effective and useful because this not only manage hunger at day time rather increased the concentration in the education of students up to standard five.

During data collection, the Teachers-Student respondents added jointly that the marginal peoples are more in the community who are poor and cannot manage dietary food and nutrition is challenging for them but day meal program is diverse and arities of Food with verities of Foods Like (rice, Pulses; Haluwa, Porridge, Bitten rice-curd and Meat based snacks, Peas and eggs).

From the above types of meal this is enough to prove that school meal really helps kids to increase health and nutritional values in Government Schools.



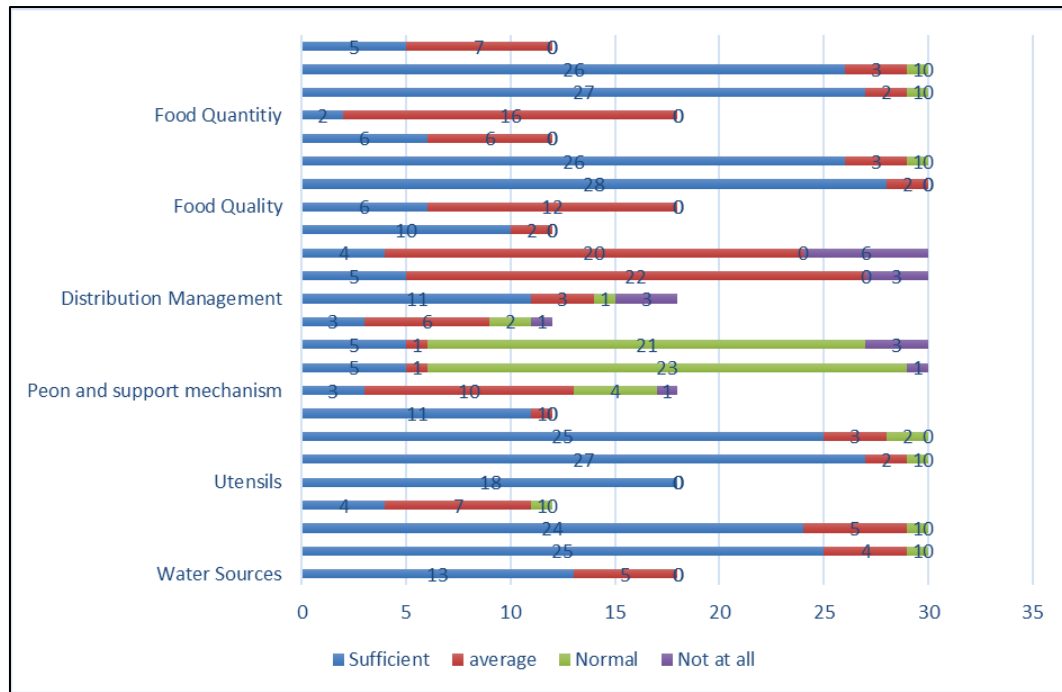
(Source: Field visit, 2025)

Figure 2 School Meal feeding pattern

The majority of schools applying canteen services meal system followed by the onsite cooking mechanism. The Canteen mechanism refers yearly contract assigned to the canteen within the school premises and to look after the cooking activities. This strategy minimize the effort of teachers engagement because cooking, serving and overall meal management is already assigned to the know person. On the other side hot meal served through onsite cooking is another mechanism where hot meal is served based on the MENU of the school set locally.

Contractor supply refers the same canteen mechanism, He or she is also a known person and cook outside and served in the meal time within the school tiffin time.

School Management added that in any mechanism, hot meal and nutritional foods are allowed to do so this also shows that the meal program is healthy and nutritional rich.



(Source: Field visit, 2025)

Figure 3 Operational management and local available resources status within the surveyed area

The opinion of multi stakeholders (Figure 3) like Teachers, students, SMC and parents have strongly opinion that the Food Quantity is sufficient and good this means well distributed based on need and if required additional served. In many cases the students of Marginal community come early hungry stomach and such student's benefited from the meal programs and management provide supportive meal portion. Thus the quantity is served enough.

On other hand, the Quality is consider sufficient and good means well cooked and fresh foods are served that helps health system and nutritional factors associated accordingly.

Whereas, the distribution management trend is little score average and normal in field because of no human support and additional resources of peons the food are served from the kitchen and for those taking canteen work also distribute food from the school kitchens directly and wash accordingly.

In some schools, students found serving voluntarily die to limited human support in the schools.

The peon and support mechanism is also found insignificant due to lack or resources means only NRS. 15 per students for 180 days allocation is not sufficient to deal with overall management. Thus peon-Office Assistant and extra support is challenging.

The Utensils are sufficient because the Local Government and School funds already procure utensils

As part of water availability and sources, it was found that school buildings and local construction always prioritized water services and nearby sources. Here, in the visited schools of both Makwanpur and Chitwan district, the water sources are through tap water which is connected with local sources but in 2 schools of Makwanpur the sources are limited due to remote location and supply otherwise the water sources in Chitwan was sufficient, This water sources also sense to manage meal program and washing, cooking and Drinking water quality makes effect on the overall health system.

FGD added that due to no resources, sometime parents helps in meal distribution and this supports the school management. In one hand monitoring is done and in another way the quality and distribution is contributed from the parent perspectives.

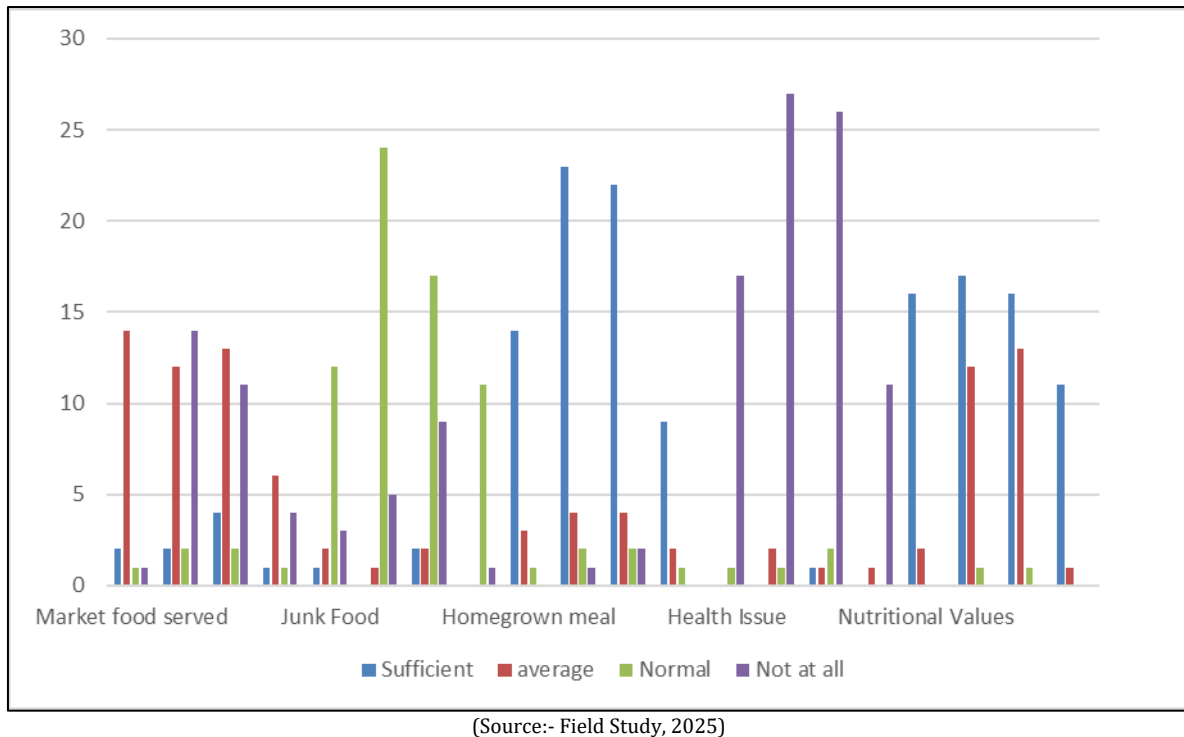


Figure 4 Procurement and health based opinion of the meal program

Both Canteen and contractor as well as School management prioritized procurement from the local level of market and homegrown product. Market purchase is seasonal like rice, pulses, eggs and spices are usually buying from the local markets. Whereas, local vegetables, legumes, milk, poultry and other locally produced items are seasonally procured from the villages and cooperatives. This homegrown products are very healthy and manage nutrition because homegrown products are the best from the health and income perspective, Farmers benefited from the sale of their products helps in large production and farm gate price and both supportive and contribution to the local tiffin program also increasing ownership from the community perspectives.

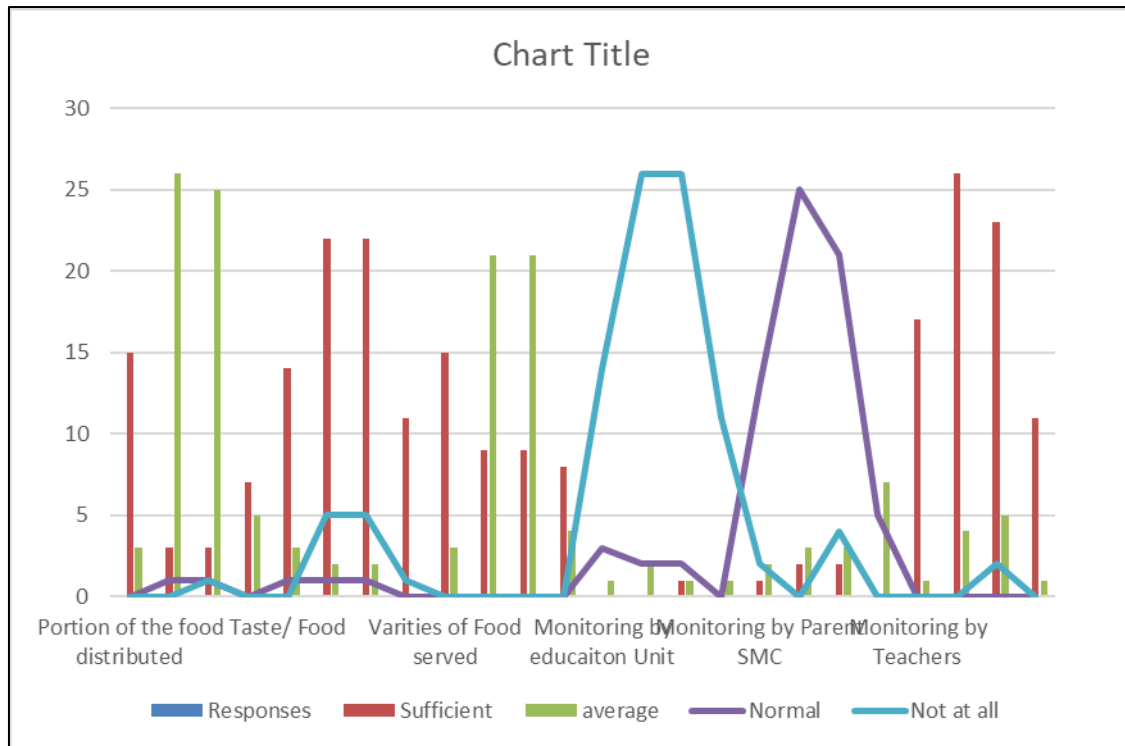
The junk food distribution is limited and on the way of decrease trend. Cooked Noodles, packed biscuit and readymade foods sometime distributing knowingly/ unknowingly as stated by the parents of the surveyed school but this trend is very rare and applied when insignificant numbers available in the schools. Although this trend is dropping slowly.

Health-based issues like stomach pain, diarrhea, worm and other health issues are well controlled due to healthy meal and safe water but still in distribution of meals in some schools the hygiene and storage management is found challenging and improvement is required.

From the nutritional perspectives, poultry, porridge, bitten rice, eggs, legumes, Haluwa-Blended flour cooked Haluwa, rice-Pulses, Peas and many other nutritional foods are served in the day meal programs helps in health and manage nutrition. In addition, the local vegetables also useful in cooking and healthy due to homegrown product.

KII with local heal official added that cooked meal serving and locally available foods is good from the health perspectives. But package meal is dangerous to serve.

Surveyed community also added that the vitamin and De-working program and tablet distribution helps in this programs and regular supplements helps in running meal program, the Overall fact shows that integrated support and foods that are cooked and served helps in health and nutritional values in students.



(Source: Field Visit, 2025)

Figure 5 Various opinions on taste, varieties and monitoring mechanism

In case of food taste, the majority is liked the quality and taste of the food because the foods are usual and ongoing in their domestic and regular life, In addition, the diversity of food means meat, milk products, beans, rice and vegetables and sometime egg-pes are rich and diverse which allows and like the Nepalese taste.

Among the varieties the cooked foods are distributing and school is free to manage foods available locally, this diversification supports local markets and challenging from the price allocation.

In case of monitoring mechanism the responses are Not at all because after federalization, the educational unit is taking care from the LGs office and units are squeezed and monitoring mechanism is limited as the priority of other educational activities are high, Thus education monitoring from the district and local Units are insufficient and parents and SMC monitoring are also very rare because of most of the community are marginal and illiterate and those who are educated are not residing in village and engaged in work, So the whole responsibilities goes to the SMC and schools and SMC is also like a parents who are busy with domestic activities and in such cases, the teachers, focal person and Principal of the school solely taken the responsibilities of the school meal program and mostly said that program is good and innovative but state had given additional burden to the teachers

LG added that lack of resources causes low monitoring. School meal program is supportive to the marginal communities where students are away from the education and due to meal attraction at least they are in the school and benefiting from the varieties of Meal.

4. Conclusion

Marginal communities like Chepng, Tamang, Magar, Dalit and more are resource-poor peoples who give low priority to education. The midday school meal program not only supports day food rather supports hunger, health, and nutrition. The verity and diversity are opportunities for the community to increase the economy. Healthy cooked, hot meal served are best initiation by the Government of Nepal that had multiple benefits for the marginal peoples. However, the modality of program is multiple benefit and many spaces are yet to address aligning with other community products. Thus, local resources and utilizations are advised in the day meal programs and monitoring must increase from the multiple sectors. The LG priority is low and long-term investment will be brought changes to marginal people in future.

Compliance with ethical standards

Acknowledgments

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References

- [1] Bundy, D. (2009). Rethinking school feeding: social safety nets, child development, and the education sector. Washington DC: The World Bank and WFP.
- [2] Chhetri, R., & Manandhar, D. C. (2023). Homegrown school meal is an integrated and sustainable day-meal. Pradesh Vikash Journal, A journal of Provincial Developmen, 3(1), 1-17.
- [3] Chhetri, R., Basnet, S. K., Lamichhane, D. M., Paudel, N., & Dhungana, S. (2020). Food bank and local government role in the future development: a case study of Bagamati province in Nepal. Pradesh Vikash Journal-A Province Development Journal, 1(1), 11-23.
- [4] Chhetri, R., Ghimire, S., Aryal, S., Dura, R., Lamichhane, P., & Chhetri, G. (2024). Transformative effects of mid-day school meal program in Nuwakot district through Homegrown model: A case study of Nepal. World Journal of Advance Research and Reviews, 21(2), 808-822. doi:<https://doi.org/10.30574/wjarr.2024.21.2.0454>
- [5] EDCU. (2022). Yearly Bulletin. Nuwakot: GoN, Educational Development Coordination Unit.
- [6] GCNF. (2009). Schol meal programs around the world. GLobal Child Nutrition Foundation.
- [7] GoN. (2006). National school health and nutritional strategy. Kathmandu: GOvernment of Nepal.
- [8] Kattan, R. B. (2006). Implementation of Free Basic Education Policy. Washington DC: World Bank. Washington DC: World Bank.
- [9] Levinger, B. (1986). School feeding programs in developing countries: an analysis of actual and potential impact. Washington DC: USAID.
- [10] The Kathmandu Post. (2023, June 26). Government prepares diet plan for community school midday meal prgram. Retrieved from <https://kathmandupost.com/national/2019/08/14/government-prepares-diet-plan-for-community-school-midday-meal-programme>.
- [11] WFP. (2022). WFP Nepal country brief. Kathmandu: United Nations World Food Program.

Annexes:1, Field interaction glimpses of research scholar with local school of Kalika ward no 5, Chitwan district.

