

PRACTICES OF INSTITUTIONAL MEAL IN ARMED POLICE FORCE, NEPAL



A Thesis

**Submitted to APF Command and Staff College,
Faculty of Humanities and Social Sciences
Tribhuvan University
in Partial Fulfillment of the Requirements
for Master's Degree in
Security, Development and Peace Studies**

Submitted By

SACHIN KARMACHARYA

Seventh Batch (2078-2080)

Roll No.: 28MSDPS40006

TU Registration No.: 7-1-220-22-98

**APF Command and Staff College
Sanogaucharan, Kathmandu, Nepal**

July 2023

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DECLARATION

I, SACHIN KARMACHARYA, declare that this thesis entitled **PRACTICES OF INSTITUTIONAL MEAL IN ARMED POLICE FORCE, NEPAL** submitted to APF Command and Staff College is my own original work unless otherwise indicated or acknowledged in the thesis. The thesis does not contain materials which has been accepted or submitted for any other degree at the University or other institution. All sources of information have been specifically acknowledged by reference to the author or institution(s).

.....

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Date: 24 July 2023

LETTER OF RECOMMENDATION

This Thesis entitled **PRACTICES OF INSTITUTIONAL MEAL IN ARMED POLICE FORCE, NEPAL** has been prepared by SACHIN KARMACHARYA under my guidance and supervision. I hereby recommend it in partial fulfillment of the requirements for the Master's Degree in Security, Development and Peace Studies Tribhuvan University. I hereby recommend this thesis for the final evaluation and approval.

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Prof. Dr. Ramesh Raj Kunwar

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LETTER OF APPROVAL

This Thesis entitle "**PRACTICES OF INSTITUTIONAL MEAL IN ARMED POLICE FORCE, NEPAL**" submitted by **SACHIN KARMACHARYA** to APF Command and staff College, Faculty of Humanities and Social Sciences, Tribhuvan University in partial fulfillment of Master Degree in Security, Development and Peace Studies has been approved by the undersigned members of the Evaluation Committee.

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ABSTRACT

Institutional meal in Nepal has a long-standing history, dating back to the early 1900s when Prithvi Narayan Shah introduced ration cards for soldiers. The Armed Police Force (APF), Nepal and nutrition are closely intertwined, ensuring that officers receive the necessary sustenance for their well-being and effectiveness. As a part of these efforts, the APF, Nepal has introduced a cash ration allowance system, empowering its personnel to obtain their ration items following approved guidelines. The aim of this research is to examine the feasibility and challenges associated with implementing institutional meals within the organization. This qualitative study was conducted between May 19th to May 30th, 2023, involving various APF personnel and stakeholders. Both primary and secondary data collection methods were utilized. The primary data was gathered through a semi-structured questionnaire, while the Key Informant Interview and Focus Group Discussion methods were employed for data collection as well. The study also incorporates a descriptive and narrative analysis based on the secondary data. The interviews for this study were conducted both virtually and in person, using the local Nepali language. To address the identified challenges, the study proposes the diversification of ration items based on factors such as altitude, training requirements, and dietary preferences. This approach aims to provide a more personalized approach to the meals provided. By examining the current practices and suggesting these changes, this study offers valuable insights for policymakers to guide the implementation of necessary adjustments. The findings of this study will serve as a guide to enhance the quality, variety, and nutritional value of meals, thereby promoting improved well-being and satisfaction among APF personnel. Additionally, this research will play a vital role in the development of guidelines, training programs, and policies for institutional meal practices within the APF, Nepal.

Keywords: APF, Nepal, institutional meals, meal practices, nutrition, ration scale

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LIST OF ACRONYMS AND ABBREVIATIONS

AHC	Assistant Head Constable
AIG	Additional Inspector General of APF
APA	American Psychological Association
APF	Armed Police Force
ATM	Automatic Tailor Machine
B.S.	Bikram Sambat
BC	Before Christ
BDE.	Brigade
BN.	Battalion
BOP	Border Out Post
BSF	Border Security Force
CAPF	Central Armed Police Force
COY.	Company
DIG	Deputy Inspector General
DSP	Deputy Superintendent of APF
F.	Female
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FST	Foreign Study Tour
Ft.	Feet

G.	Gram
HQs	Headquarters
IGP	Inspector General APF
INSP.	Inspector
JCOs	Junior Commissioned Officers
KII	Key Informant Interview
LPG	Liquefied Petroleum Gas
LPG	Liquefied Petroleum Gas
LRP	Long Range Patrol
MRE	Meals Ready to Eat
NA	Nepal Army
NCD	Non-Communicable Diseases
NCOs	Non-Commissioned Officers
NID	National Investigation Department
No.	Number
NP	Nepal Police
ORs	Other Ranks
RDA	Recommended Dietary Allowances
RMA	Ration Money Allowance
RS	Rupees
SOs	Senior Officers

SP	Superintendent of APF
SSB	Sashastra Seema Bal
SSP	Senior Superintendent of APF
UNPTS	United Nations Peacekeeping Training School
US	United States
USD	United States Dollar
VIP	Very Important Person
WHO	World Health Organization

CHAPTER I

INTRODUCTION

1.1 Background of the study

Scholars across various disciplines, including sociology, anthropology, philosophy, and psychology, have made significant contributions to the understanding of the concept of practice. Sociologists have played a significant role in the development of the concept of practices, as they have focused on understanding how practices are embedded in social and cultural contexts. One of the most influential sociologists, Bourdieu (1977) argued that practices are the collective activities that made up social life, guided by implicit rules and norms that are often taken for granted. Practices are not simply individual actions but are also shaped within broader social and cultural contexts, including language, physical and social environments, and material artifacts. Wittgenstein (1945), as cited by Schmidt (2014), maintained that practices are guided by sets of rules and principles. People are held accountable for their actions based on these norms. Practices vary according to the contexts. In addition, Practices are both repetitive and creative, reproducing and transforming social structures (Giddens, 1984). The concept of practice is a complex one, but it is a powerful tool for understanding social life.

A meal is a regular occasion for taking food during the day, such as breakfast, lunch or dinner (WHO, 2020). A meal is a combination of foods that is eaten at a particular time of day. Meals can vary in size, composition, and purpose. It can be a social occasion or simply a way to refuel the body (Davidson, 2014). Military meals are nutritionally balanced meals provided to military personnel for health, energy, and duty performance (Department of Defense, 2015). APF Nepal is responsible for ensuring that nutritious and balanced meals are provided to personnel. According to the nutritional requirements of the organization, the government allocates a budget for the purchase of 19 items on the ration (Government of Nepal, 2015).

The term "institutional meal" refers to large quantities of food prepared and served in cafeteria-style settings, catering to nutritional and dietary needs in military facilities, hospitals, schools, and prisons. The variety and quality of these meals may be affected by budgetary constraints, as they are regulated by strict guidelines for food safety and quality (Payne-Palacio & Theis, 2005). According to Foskett et al. (2003) and Davis et al. (1998),

institutional meals can be categorized into two broad segments: the commercial or profit sector and the public sector, also known as the not-for-profit or cost sector. These institutions serve a vital role in providing essential nutrition to a large population, significantly influencing the health and well-being of the individuals.

Regarding the food, Davidson (2014) explained that food is any substance that can be ingested and digested by an organism. It provides energy and nutrients that are essential for the body to function. Food can also have distinct social and cultural values (World Health Organization, 2003). Food is a basic human need. It is essential for survival, growth, development, and good health (United Nations Children's Fund). Furthermore, Malinswoki (1997) argued that food fulfills the biological need for nourishment, is influenced by culture, and is crucial for social organization. Sheringham & Daruwalla (2007; in Kunwar, 2017) interpreted that food serves as a powerful language for communication, connecting individuals to culture and religion and symbolizing boundaries, enabling symbolic exchange and connection. Food is a substance that provides energy and nutrients for the body, and it can also have significant social and cultural meaning. Military food is typically subject to strict standards of quality and safety. This is because military personnel need to be able to rely on their food to be safe and nutritious, even in difficult conditions (Department of Defense, 2015).

In order to know about the diet, World Health Organization (2021) defined it as the habitual intake of food and beverages by an individual. It includes the types of food consumed, the frequency of consumption, and the portion sizes of each food item (Food and Agriculture Organization, 2020). In this regard, Pollan (2013), Nestle (2015), and Bittman (2012) emphasized the importance of eating a diet that is based on whole, unprocessed foods. Furthermore, Department of Food Technology and Quality Control (2016) recommended a healthy diet that emphasizes whole grains, fruits, and vegetables. On the other hand, it is also advised to avoid red meat, fizzy drinks, and processed meals.

So far as the concept of nutrition is concerned, Shrestha (2004) defines it as the process of utilizing food for growth, metabolism, and repair of tissues. Similarly, the Ministry of Health and Population (2004) explained that nutrition is the science of food and how it affects the body. Nutrition is classified scientifically into five categories. First and foremost, protein is essential for muscle mass, oxygen transport, and maintaining blood sugar levels. Secondly, fats are essential for hormone production, hormone storage, and organ protection. Third, the

body uses carbohydrates as its primary energy source. Fourth, vitamins are essential for several bodily functions, including immunity, metabolism, and development. Finally, among many other biological activities, minerals are essential for maintaining strong bones, regulating blood pressure, and preserving nerve activity. Indeed, Nutrition is one of the specific needs of each individual, which may vary depending on their age, sex, activity level, and health status (WHO, 2020). Besides that, a balanced diet is especially important for soldiers as they need to be healthy and stressed soldiers (Carwelo, 2007 ; in Babusha et al. 2008).

The ration card of the Nepali Army, introduced in 1904, provides soldiers with a regular supply of nutritious food, regardless of their rank or location. The system is based on a point system, with soldiers receiving points that can be redeemed for food at the army's central kitchens. The food is simple and hearty, containing staples like rice, wheat, lentils, and vegetables. The food is also prepared with attention to nutrition and is designed to meet the specific needs of soldiers. The ration card system has several benefits, including preventing food shortages and improving morale. However, The ration card system also faces a number of challenges. One challenge is the need to ensure that food is always available. Another challenge is the need to ensure that the food is nutritious and safe (Gurung, 2014). The history of food in ancient period India through Mahabharata, an ancient Indian epic poem. The mention of food in these ancient texts provides valuable insights into the history of Indian food, showcasing its importance in both peaceful and harmful ways. The poem shows how food was used for a variety of purposes, including survival, connecting with gods, and celebrating important occasions. It also shows how food was used as a weapon of war (Sharma, 1999)

Institutional meals have a long history back to ancient times. In the Roman Empire, public baths often had attached canteens that served food to patrons. The concept spread to monasteries, convents, and hospitals during the Middle Ages. The Industrial Revolution expanded institutional meal services, enabling large scale food preparation and service operations (National Restaurant Association, 2022). In terms of the history of Nepal, Nepal Health Research Council (2018) interpreted that the institutional meals in Nepal date back to the early 1900s, when British mess halls provided food for soldiers and civil servants. According to Gurung (2014), Nepali Army was first organizations to use meals in 1904. Furthermore, Prithvi Narayan Shah obviously breakthrough and new innovation in the meal

management by introducing ration card where mentioned the types and quantities of food that the soldier were entitled to receive. It contributed to making sure the men were nourished and able to fight effectively.

In today's globalized world, the tasks of armed forces are becoming increasingly challenging. Soldiers must be in excellent physical condition to perform their duties effectively, and they must be prepared for any unforeseen events. As a result, providing soldiers with a regular supply of nutritious food and water is essential. Dolan (2010) noted that soldiers must always be in a state of physical readiness, and that regular access to food and water is essential for achieving this goal. Gurung (2014) agreed that nutrition and military are fundamentally entwined. Eating a healthy diet can help soldiers feel better, have more energy, improve their health, and boost their mood. Military leaders must ensure that soldiers have access to a regular supply of nutritious food and water. As a result soldiers stay healthy, perform at their best, and prepared for any unforeseen events.

Nepali Army is one of the oldest security force having a glorious and pioneering history. Nepali Army has a pivotal role in safeguarding sovereignty and territorial integrity and protecting the nation from various external attacks for fulfilling the core national interests of the country (Pandey, 2019). After the establishment of democracy, the government provided ration facilities to the Nepal Army in 1951 (Karki, 2019). In 1955, the police personnel of the Armed Guard and Training Center were arranged for receiving ration facilities as an allowance of Rs. 25 per month. Due to the conflict between police personnel, The government provided rations to all police personnel in 1973. Ration facilities have been arranged for the Armed Police personnel as per Armed Police Force Rules 2015, Schedule 16 and sub-rule (1). Armed police personnel need a varied diet according to geographical conditions and vigorous physical activity to keep their morale high and perform effectively (Singh, 2020).

Armed Police Force was established in 2001. APF, Nepal, is serving the country and its nationality, sovereignty, and integrity by maintaining peace and safeguarding the nation and its citizens. Institutional meals play an important role in the APF. It provides the nutrition soldiers need to stay healthy and perform at their best in the operational field. Moreover, It also helps to boost morale and improve unit cohesion. APF, Nepal, is constantly working to improve its institutional meal system, and it is committed to providing its personnel with the best possible meals (APF, Nepal, 2020). The purpose of these individual rations is to make

soldiers independent in their ability to work, fight, and survive on their own or in small groups but, at the same time, ensure that individuals receive adequate food and nutritional requirements (Darsch & Faso, 2006).

The provision of rations is in the regulations of all security forces. Provisions have been made in the to manage rations for security bodies. In accordance with Chapter 8 and Rule 88 (Public Procurement Regulation, 2007) each public entity is required to go through quotation forms or tender documents for procuring ration. While the Nepal Army still follows the same procedure, the Armed Police Force, Nepal, and Nepal Police are no longer required to follow the tender document procedure after the government of Nepal, by cabinet-level meeting on January 18, 2015, decided to provide rations in the form of cash. However, the preparation and approval of the cost estimate procedure remain the same (Singh, 2020).

According to the APF, Nepal Headquarters Financial Administration Division the highest rate of ration money is Rs. 863.65 per day in Humla district and lowest is Rs.181.70 per day in Sindhuli districts according to the accessibility of the items and services. This current rate was reviewed by decision of Government of Nepal on 25 October 2021 increasing 15 percentage in ration money of security forces (APF, Nepal, 2023).

APF, Nepal had adopted the policy of ration procurement by inviting sealed or quotations or bids from the interested supplier from the first day of the month of *Magh* (mid-January). Since, 2015, The organization has been changed and established major shift in the history of the organization by adopting cash ration allowance in the replace of tender system. In this system, Government directly provides cash money to APF personnel in normal condition. There is also the provision of special ration while APF personnel are admitted in the hospital. Previously there was the provision of dry ration or operation ration (Singh, 2020). After, the government used to provide the ration allowance in the form of cash, presently there is no provision of dry ration Meals Ready to Eat (MRE). But Government of Nepal has been continuously providing dry ration MRE to Nepali Army since 2019. Nepali Army is involved in distributing various types of operations, training, UN missions, and disaster management operations.

According to the provision of APF Rules 2015. While procurement of ration is the vital part, overall ration management is not limited to the procurement alone. It is parts as well such as storage of ration and mess management until it reaches the stomach of personnel. As, APF

follows barrack system, it is considered important that it runs its own mess instead of distributing cash ration to each individual. Therefore, the organization has developed a mess operation procedure for the better management of ration. According to this procedure, Mess operation has been made mandatory in every unit of APF, Nepal except Head Quarter and the units are allowed to formulate their own procedure not conflicting to the procedure developed by the organization (Singh, 2020). Typically, APF provides its personnel with four meals per day. Since its inception, the mess has been categorized into three groups: Senior Officers (SOs) Mess, Junior Commissioned Officers (JCOs) Mess, and Non-Commissioned Officers (NCOs) Mess to ensure efficient and effective management.

The research on the practices of institutional meal in the APF, Nepal holds significant importance for several reasons. APF, Nepal is an one of the vital security force in Nepal that plays a crucial role in maintaining law and order, safeguarding the border and protecting citizens' safety (APF, Nepal, 2020). Therefore, ensuring the nutritional well-being of APF personnel is vital to maintain their health, fitness, and operational readiness. After the government's decision of providing cash ration and the organization's policy of running mess in every unit of APF, Nepal, procurement of ration, without going through tender documents, has directly come into the hands of the APF units. It has added the flexibility in terms of choosing suppliers and buying quality food items on the part of units in procuring rations. The units can also buy various ration items or the same ration item from multiple suppliers. Moreover, the units no more have to go through the lengthy process of tender document and depend on a single supplier for procuring ration (Thapa et al., 2020).

Kathmandu, the capital and largest metropolitan city of Nepal, is a vibrant urban center nestled in the magnificent Himalayas. It serves as the central hub of the Kathmandu Valley, which includes two sister cities Patan (Lalitpur), located 5 kilometers southeast, and Bhaktapur, situated 14 kilometers to the east. Rasuwa district, situated in the Bagmati province, Positioned about 120 kilometers north of Kathmandu, Nuwakot, another district within the Bagmati Province that covers an area of 1,121 square kilometers. Kavrepalanchowk, also a part of the Bagmati Province (Nepal Tourism Board, n.d.).

Food practices and dietary habits are deeply rooted in cultural and traditional values, which can significantly impact the acceptance and effectiveness of institutional meal programs. Therefore, understanding the food practices and dietary habits of APF personnel is essential to develop meal plans that are culturally appropriate, acceptable, and effective (Singh, 2020).

The study was provided valuable insights into the implementation of institutional meal policies and guidelines at the ground level. This information can help identify areas of improvement, potential barriers, and challenges in implementing institutional meal programs in similar organizations.

1.2 Statement of the problem

Since, the inception of APF, Nepal, transferred officers and other ranks from Nepal army and Nepal Police and acknowledging and incorporating their existing system, culture and tradition. Those transferred higher ranking officers utilized their knowledge and experience from their parent organizations proving their capacity within APF, Nepal. Their nature, mindset and behavior were reflected in the tender and ration management systems while serving in different units. APF Nepal is adopted a ration cash allowance in 2015 to handle the dynamic challenges. This system, deposited in the office account, includes an additional 15 percent cash ration allowance in the existing allowance, which is now deposited into individual accounts. The current practices of institutional meals remain a significant concern in APF Nepal, as the responsibility of ration management extends from strategic level to tactical level. Similarly, Nepal government assumed that ration money as income subjecting it to an one percent tax on total income. All APF personnel, regardless of their deployment altitude and dietary preferences receive the similar calorie content and food items. The increasing cost of food items makes it difficult to sustain the current ration money system and price differences in purchasing the ration items in the market. Moreover, In office, expenses for events and festivals as well as kitchen utensils are covered from the ration money. Moreover, there is a custom of using ration funds even for utensils. However, as APF personnel come from diverse castes, language, religion, and ethnicity, they follow their own culinary traditions. The government determined ration menu lacks in diversification of food to these diverse preferences.

There have been instances where the designated individuals have demonstrated a lack of integrity, honesty, and responsibility in the tour of their duty. A research should be conducted to explore the root and nature of the problem within the organization, its impact on APF personnel, mechanism and management of institutional meal of other organization, find out the ways to solve the issue. APF personnel generally exhibit a lower level of awareness regarding nutrition. It is worth noting that other organizations such as the Nepal Army, Nepal

Police, National Investigation Department, prison management office, and department of forest employ various ration management systems.

1.3 Research questions

This research discussed to find the answer of these following questions.

- a) What are the fundamental provision and practices of existing institutional meal in APF, Nepal?
- b) How much total energy, carbohydrate, protein and fat are yield from the existing APF ration scale ?
- c) How existing institutional meal practices could be further improved in APF, Nepal ?

1.4 Objectives of the study

The objectives of the study are:

- a) To explore the fundamental provision and practices of existing institutional meal in APF, Nepal.
- b) To analyze the total calories, carbohydrate, protein and fat from the existing APF ration scale.
- c) To examine the existing practices of institutional meal in other organizations in order to identify the potential areas for improvement in APF, Nepal.

1.5 Significance of the study

The provision and management of institutional meal play a crucial role in promoting the physical well-being and operational efficiency of APF personnel while performing in hazardous, critical and dangerous situation. Institutional meal is one of the factors to determine the health condition of an individual. Adequate nutrition and quality food are essential for personnel to maintain good health and effectively perform their duties, particularly in challenging and high stress environments.

Institutional meals also serve as a means of expressing a community's culture and traditions, promoting a sense of unity and camaraderie among personnel. Furthermore, proper provisioning and management of institutional meals can improve the overall morale and job satisfaction of APF personnel, contributing to greater retention rates and long term organizational success. Effective institutional meal policies and practices can also enhance the image and reputation of the organization both within Nepal and internationally, as a professional and competent security force. The generalization of this study would be a great contribution to the vast knowledge in relation to the institutional meal of APF, Nepal.

The study was supported to increase the bank of knowledge in the organization as there are limited numbers of studies that contribute to overcome the hindering factors and formulate the effective and efficient policies of institutional meal. This study is significant not only to APF, personnel but to all personnel and organization who wish to have better understanding on institutional meal. This study could help and inspire more researchers and policy makers to be more innovative and creative in their future endeavors. the investigation was uncovered critical areas in the ration that many researchers could not explore.

1.6 Limitations of the study

This research mainly focused on the institutional meal of APF, Nepal. It was based on both primary data and secondary data, only available facts are analyzed. This researcher was collected the available facts regarding the topic. As the limited resource, this study was also focused on the available online and physical secondary sources.

The study was treated primary data as information gained from the Key Informant Interview (KII) and Focus Group Discussion (FGD) from participants. The study was unable to find out the quantity of food consume by each APF personnel due to time and resource constraint. The detail study had constraint in the process of data collection and analysis part. There was different view of different person. Human being is subdues by their self interest and advantage so the data obtained from different secondary sources were not been totally accurate and complete. This research was not be claimed to cover all aspects, but merely constituted a review depending up on available information.

CHAPTER II

REVIEW OF LITERATURE

2.1 International

Meiselman et al. (1974) analyzed the food preferences of individuals to maintain the quality of institutional meal in the armed forces. The central aspect of a food service system is its menu, for the menu determines the level and number of personnel, the type of equipment, and many other factors. The menu is largely based on what people want to eat and is constrained by cost considerations and, within institutional feeding, nutritional considerations. Thus, food preferences become one of the fundamental types of data required in the design and management of food service systems. The military was well aware of the importance of good nutrition for its soldiers. In addition to physical health, good nutrition also contributes to mental health and wellbeing. Soldiers who are well-fed are more likely to be happy and motivated, which can have a positive impact on their performance. This research helps to ensure that soldiers have access to the best possible food, even in the most challenging conditions.

Wellborn (1976) argued that Meals, Medicine, and Munitions (M3) are fundamental supplies that are needed to keep a military unit operating at full capacity. He stated that these three supplies are essential for soldiers to stay healthy, effective, and safe in combat. Meals provide soldiers with the energy they need to fight and the nutrients they need to stay healthy. Medicine helps prevent and treat illness and injury. The military continues to invest in research and development to improve the quality and availability of M3 supplies. This research helps to ensure that soldiers have the best possible chance of survival and success in combat.

Food and Agriculture Organization (1996) expressed that food security is a state in which all people have access to enough food of good quality to maintain an active and healthy life. It is important for public health because it ensures that people have the resources they need to be healthy. Food security has two dimensions: availability and accessibility. Availability refers to the amount of food that is available, both domestically and internationally. Accessibility refers to people's ability to obtain food, both physically and economically. Food insecurity can be caused by a number of factors, including natural disasters, economic shocks, conflict,

and inequalities. It can have a number of negative consequences for health, including malnutrition, non-communicable diseases, and mental health problems. Food security, with its dual focus on quantity and quality of food, remains a major concern in public health globally, with different features of food insecurity being more pressing in different locales and populations. In urban areas, for instance, shifts to support food security are often embedded amidst efforts to reduce the negative environmental effects of food production and to localize food production.

According to Lowdin (1998), the Indian Brahmanical tradition categorizes food into three types: sattvic, rajasic, and tamasic. The sattvic diet, associated with saints, is strictly vegetarian and excludes certain vegetables like onion, garlic, and radish. The rajasic diet, fit for kings and warriors, includes meat from goat, chicken, and eggs. These classifications suggest that food influences a person's mood and actions. Sattvic food promotes saintliness; rajasic food enhances power and potency; and tamasic food may lead to uncontrollable passions. Although Hindus acknowledge that not everyone can be a saint or a king, they recognize the impact of food on the state of mind. The Newar community selectively applies these categories, particularly during days when they observe fasting and abstain from certain foods like meat, garlic, onions, and alcohol. Sattvic food is also offered to deities such as Mahadev and Narayan and later consumed by devotees as prasada (blessed food). The sattvic diet aligns with the Hindu belief in renunciation, abstinence, and celibacy as means to attain salvation.

Foskett et al. (2003) discussed the complexities involved in producing and serving institutional meals, and underscore the importance of careful planning, preparation, and execution in ensuring that these meals are safe, nutritious, and satisfying for those who consume them. The institutional meals are often produced and served in bulk, with standardized menus and portion sizes. The primary focus of institutional meals is often on meeting nutritional requirements rather than on providing an enjoyable dining experience. It is very difficult to provide a varied menu or to source high-quality ingredients due to financial constraints. Furthermore, institutional meals can sometimes suffer from negative perceptions due to factors such as poor food quality or unappetizing presentation. However, the main theme of the paper is that institutional meals should be safe, nutritious, and satisfying. This can be achieved by careful planning, preparation, and execution.

According to Chopra (2005), the food is any substance that furnishes nutrition and energy for the body, including carbohydrates, fats, proteins, vitamins, minerals, and water. A meal is a portion of food eaten at specific times throughout the day, typically including breakfast, lunch, and dinner. It is usually composed of several different dishes served together, and can include such items as meats, vegetables, grains, dairy products, and desserts. Institutional food is prepared in large quantities to meet the needs of a specific group, such as a school, hospital, or military base. The theme of book is likely to be centered around the importance of educating people about food and nutrition. The book may cover topics such as the benefits of a healthy diet, the impact of poor nutrition on health, the role of nutrition in disease prevention, and strategies for promoting healthy eating habits. It may also discuss the importance of food education in different settings, such as schools, communities, and healthcare settings. Overall, the book is likely to emphasize the critical role of food and nutrition education in promoting health and wellbeing.

Payne-Palacio and Theis (2005) discussed institutional meals as those prepared and served in large quantities in institutions such as military bases, hospitals, schools, and prisons. These meals are specifically designed to meet the nutritional and dietary needs of the individuals in these institutions and are typically served in a cafeteria-style setting. Institutional meals exhibit several distinct characteristics, including standardized menus, portion sizes, and serving methods. The authors mentioned the challenges and opportunities facing institutional foodservice. They further argued that by improving the nutritional quality of institutional meals, we can improve the health and well-being of the people who eat them. According to the study, a nutritious diet can lower our chance of developing chronic conditions including heart disease, stroke, diabetes, and several forms of cancer. Additionally, it can help us feel happier, have more energy, and reduce weight.

Controller Officer, the Chief of the District Agriculture Development Office, a representative from the District Chamber of Commerce and Industry, and the Member Secretary, who is appointed by the head of the public entity responsible for arranging rations. Those committees are responsible for collaboratively assessing and determining the cost estimates, ensuring a comprehensive and well-informed evaluation of the resource requirements for the respective public entity. In circumstances where the relevant central office instructs the public entity to arrange for an alternative approach regarding ration provision, such as offering cash in lieu of physical ration, the entity may comply with this directive. The cash

amount to be provided shall be calculated based on the rate specified in the approved cost estimate as per Rule 88, taking into account the total number of positions approved for ration allocation. In essence, this provision allows for flexibility in the ration arrangement, enabling the public entity to adjust its approach as directed by the central office while ensuring the fulfillment of ration-related obligations.

Campbell & Campbell II (2006) interpreted that a comprehensive, plant-centric dietary strategy has the extraordinary ability to reduce and even reverse chronic illnesses, including cardiovascular diseases, cancer, and diabetes. Their ground-breaking research examines the findings of a thorough longitudinal study carried out in China, where the dietary and lifestyle practices of residents in both rural and urban areas were examined. The subtle effect that animal proteins and particular kinds of lipids play in promoting cancer cell growth and aggravating other chronic illnesses is deftly highlighted in the book. Furthermore, it convincingly advances the idea that nutrition supersedes genetic determinism as the dominant factor in illness management and prevention. Additionally, the book makes the fascinating claim that the Western diet, which is rich in.

Crawford et al. (2007) examined how nutrition in military operations has become a focus for research and investment. Problems with feeding soldiers in austere conditions are multifactorial, as seen during the Falklands War in 1982. It provides evidence that institutional meals can have a positive impact on people's health and well-being. The study also highlights the importance of careful planning and execution when it comes to institutional meals. The main theme of the study is that institutional meals can play a role in promoting these positive aspects of food. The study found that institutional meals that are well planned and executed can be a source of nutrition, enjoyment, and social connection for those who consume them.

Gobo (2008) discussed the importance of ethnographers being self-aware and reflexive about their own biases and prejudices. While it is impossible to completely eliminate personal biases, ethnographers should strive to be aware of them and reflect on how they may impact their research. This requires a willingness to critically examine one's own assumptions and engage in ongoing self-reflection throughout the research process. The author suggests that one way to do this is to engage in a process of bracketing one's assumptions and biases, in which the researcher consciously sets aside their own preconceptions in order to better understand the experiences and perspectives of the research participants. By doing so,

ethnographers can improve the quality and validity of their research by minimizing the impact of their own biases and engaging in more nuanced analysis. The ethnographers are inevitably influenced by their own experiences, values, and beliefs. This means that they are likely to interpret the data they collect in a way that is consistent with their own biases. In order to avoid this, ethnographers need to be aware of their own biases and prejudices and take steps to mitigate the impact of these biases on their research.

Babusha et al. (2008) shed light on the well-known adage attributed to Napoleon Bonaparte, "an army marches on its stomach," which resonates even more today as military sustenance transcends geographical barriers through various modes of transportation. The evolution of military subsistence tells a fascinating tale, progressing from its early simplicity to the contemporary intricacies of specialized feeding for armed forces worldwide. Nutrition is crucial for the military's operational efficacy, as it ensures sustained success and combat readiness. The US Department of Agriculture specified that men aged 19 to 30 years should aim for a daily caloric intake of 2,000 calories for a sedentary lifestyle and 2,400 calories for an active one. In the same age group, the range extends from 2,400 to 3,000 calories, emphasizing the crucial role of proper nutrition in supporting the optimal performance of military personnel. The study asserted that food is a potent symbol that may be utilized to convey moral and ethical principles. They make the argument that diverse dietary prohibitions and food taboos reflect different faiths' and civilizations' fundamental beliefs and values. Hindus, for instance, refrain from consuming meat because they consider cows to be sacred creatures. Muslims abstain from eating pork because they consider pigs to be filthy creatures.

Edwards & Hartwell (2009) examined the classification of institutional meals and their main traits, such as views and expectations, contracting out, and alternate production and service techniques. Future developments are briefly discussed, and the serving of institutional meals in various situations is taken into consideration. Regarding institutional meals, it has been attempted to demonstrate that they are distinguished by the food and service style rather than the location where they are given and that, as a subsidiary rather than the primary aim of the company, they are often offered to meet a need. The author pointed out that food is frequently shared in social contexts, such as family get-togethers, religious rituals, and neighborhood celebrations. This means that food can be used to build relationships and create a sense of belonging.

According to Kumar & Kathiravan (2013), industrialization sparked the growth of food service institutions, which has accelerated over the past 50 years. Institutional Food Service includes the planning, preparation, distribution, and supply of foods outside the home. Consumer perceptions of institutional foods are influenced by marketing, advertising, and lifestyle changes. Food service systems and catering units promote new processing methods and bulk packaging of food to conquer problems like skilled labor shortages and reduce operation costs. This review emphasizes the evolution of food services and their importance. This study stresses how, over the past 50 years, institutional food service has swiftly changed in response to societal developments. Several factors have influenced the growth of institutional food services.

Solbergrand (2018) assessed that the history of military food in the United States is a long and varied one. For centuries, troops have been supplied with basic rations to sustain them during campaigns and wars. In the 19th Century, canned foods were increasingly used, and fresh fruits, vegetables, and meat were sent out when possible. During the First World War, the US Army introduced the Meals Ready to Eat (MRE) program, which meant that troops could carry lightweight and dehydrated meals that they could easily heat up and eat as needed. Today, the military is supplied with an array of ready-to-eat meals that include meats, vegetables, grains, and snacks. It is believed that the earliest military food system was developed in ancient China around 2200 BC. The history of military food in India dates back centuries. In ancient times, the military was largely supplied with grains, fruits, vegetables, legumes, and dairy products. Over time, military cuisine changed to include more diverse ingredients, spices, and dishes. During the Mughal Empire (1526–1858), common foods included kebabs, curries, lentils, rice, and flatbreads.

Adams et al. (2019) explained that autoethnography is a groundbreaking book that challenges traditional notions of academic writing. The authors argue that autoethnography is a powerful method for researchers to explore their own experiences and to make sense of the world around them. The book begins by providing an overview of autoethnography, tracing its history and discussing its key features. The authors then present a series of autoethnographic essays, each of which explores a different aspect of the authors' lives and work. The book is a valuable contribution to the field of communication studies, and it is sure to inspire other researchers to explore the power of autoethnograph.

Drewnowski et al. (2020). discussed about the various factor such as food consumption, food demand and supply in the market, nutritive value and food safety for the sustainable food system. The authors then discuss the potential for sustainable food systems to provide healthy diets. They argue that sustainable food systems are based on the production of nutrient rich, foods. They also argue that sustainable food systems are more likely to be equitable and just, as they would provide access to healthy foods for all people. They argue that there are a number of challenges, such as the need to change consumer behavior and the need to invest in research and development. However, they also argue that there are a number of opportunities, such as the growing demand and supply of food for healthy foods.

According to the National Restaurant Association (2022), institutional meals have a long history that dates back to the beginning of civilization. Soldiers in the Roman army received food and drink that were prepared in central kitchens. These rations were created to make sure the soldiers had access to sufficient nutrition for both good health and successful combat. The concept of institutional meals became more widespread during the Middle Ages. Monasteries and convents often served meals to their residents, and hospitals began to provide food to their patients. These institutions were able to provide food to large groups of people on a regular basis. The Industrial Revolution led to a further expansion of institutional meal services. Factories needed to feed their workers, and schools needed to feed their students. This led to the development of large-scale food preparation and service operations. These operations were able to produce food efficiently and cost-effectively, which made it possible to provide institutional meals to a wider range of people. The 20th century saw the further growth of institutional meal services. The growth of the welfare state led to the expansion of school lunch programs and other government-funded meal programs. And the growth of the military led to the development of large-scale food service operations for soldiers.

Khan et. al. (2022) analyzed that the critical issue of providing adequate nutrition to Pakistani servicemen based on their geographical deployment and physical activity levels. The main focus of the study is to advocate for a comprehensive revision of the current ration scale to ensure that the nutritional needs of servicemen are met effectively, enhancing their overall health, performance, and well-being. The author begins by emphasizing the significance of a balanced diet in sustaining the physical and mental capabilities of servicemen. They argue that the existing ration scale may not sufficiently cater to the diverse requirements of soldiers

deployed in different geographical regions. The author highlights the importance of providing servicemen with a nutritionally balanced diet that caters to their specific needs, considering the varying environments they are deployed in and the physical demands of their duties. The article is based on the theory that the existing ration scale for Pakistani servicemen may not be adequately meeting their nutritional requirements, especially when deployed in diverse geographical regions with differing climates and altitudes. The author argues that servicemen engaged in strenuous physical activities may have different nutritional needs compared to those in less active roles. Therefore, the theory suggests that a revised ration scale tailored to the specific demands of each geographical area and physical activity level could be enhanced the overall health, performance, and well-being of servicemen.

3.2 National

Kunwar (1999) revealed that the food of the Sherpa community is influenced by environmental patterns, cultural beliefs, and traditions. Their staple foods include potatoes, rice, and buckwheat, providing ample calories. Obesity is common among Sherpas due to their calorie-rich diet. Green vegetables, fruits, milk, and cheese are available during the monsoon season. While it is illegal to kill cattle, consuming naturally deceased animals is acceptable. Rice holds a higher status, while potatoes are more common among poorer families. In the Khumbu, or east region, Sherpas commonly consume *khaopi sawo* (boiled potatoes), *tsampa* (roasted barley flour), *riki kur* (potato bread), and *Syan or Gonde* (boiled flour). Millet-boiled flour is preferred by Sherpas involved in heavy labor as it provides long-lasting warmth. Sherpas from Bigu and Lamobagar have a limited variety of food, with items like potato bread, mashed potatoes with wheat flour, and fried bread reserved for special occasions or guest visits. Additionally, many Sherpa households cultivate *rayo* in an average of 400 square feet of land. In the morning, Sherpas from Lamobagar typically start their day with salt tea, followed by *tsampa* consumption by children and elderly males.

Sharma (1999) interpreted the history of food in ancient period India through Mahabharata, an ancient Indian epic poem. The poem tells the story of a war between Pandavas and Kauravas, lasting 18 days and resulting in over 1.8 million deaths. The poem highlights the importance of food in Indian culture, as it was essential for survival, connecting with gods, and celebrating important occasions. Food was also used as a reward or punishment during conflicts, with brave soldiers receiving food while captured or deserted ones were denied. Food was also a weapon of war, as seen in the story of a king poisoning his enemies' food,

demonstrating the potential dangers of food poisoning. The mention of food in these ancient texts provides valuable insights into the history of Indian food, showcasing its importance in both peaceful and harmful ways. The poem shows how food was used for a variety of purposes, including survival, connecting with gods, and celebrating important occasions. It also shows how food was used as a weapon of war.

According to Public Procurement Regulation (2007), clearly mentioned each public office shall be arranging ration by the end of the month of *Bhadra* (mid-August) every year. In accordance with the chapter 8, Rule 88 of Public Procurement Rules 2007 the government approved ration quota or scale for their respective offices. However, the preparation and approval of cost estimate procedure remains the same. The cost estimation process considers various factors, including the consumer price index of the relevant sector, as published by the Nepal Rastra Bank. Additionally, it takes into account the price index set by the governmental body overseeing agricultural product pricing, road facilities, local market rates, the previous year's procurement contract rates, and any guidelines issued by the Public Procurement Monitoring Office (PMO). The cost estimation committee comprises five members, with the Chairperson being the Chief District officer. The committee members also include the Chief of Treasury Controller Officer, the Chief of District Agriculture Development Office, a representative from the District Chamber of Commerce and Industry, and the Member Secretary, who is appointed by the head of the public entity responsible for arranging ration. Those committee is responsible for collaboratively assess and determine the cost estimates, ensuring a comprehensive and well-informed evaluation of the ration requirements for the respective public entity. Additionally, of Public Procurement Rules 2007, Rule 90, has special provision. In circumstances where the relevant central office instructs the public entity to arrange for an alternative approach regarding ration provision, such as offering cash in lieu of physical ration, the entity may comply with this directive. The cash amount to be provided shall be calculated based on the rate specified in the approved cost estimate as per Rule 88, taking into account the total number of positions approved for ration allocation. In essence, this provision allows for flexibility in the ration arrangement, enabling the public entity to adjust its approach as directed by the central office, while ensuring the fulfillment of ration-related obligations.

Gurung (2014) discussed how the ration card of the NA, introduced in 1904, provides soldiers with a regular supply of nutritious food, regardless of their rank or location. The

system is based on a point system, with soldiers receiving points that can be redeemed for food at the army's central kitchens. The food is simple and hearty, containing staples like rice, wheat, lentils, and vegetables. The food is also prepared with attention to nutrition and is designed to meet the specific needs of soldiers. The ration card system has several benefits, including preventing food shortages and improving morale. However, The ration card system also faces a number of challenges. One challenge is the need to ensure that food is always available. Another challenge is the need to ensure that the food is nutritious and safe. The system also costs money to operate, and the army needs to balance the cost of the system with the benefits that it provides. Despite these challenges, the ration card system remains an essential part of the NA, providing soldiers with the necessary food to stay healthy and perform at their best.

Department of Food and Nutrition (2016) defined a healthy diet is one that provides vital nutrients, aids in weight control, lowers the chance of developing chronic diseases, is culturally appropriate, and is both inexpensive and available, according to the Department of Food and Nutrition (2016). With staple foods including rice, lentils, vegetables, fruits, and dairy products, Nepal's dietary preferences reflect the country's various topography and civilizations. However, the rising use of processed foods and sugary beverages has increased obesity and health problems linked to diet. In Nepal, proper nutrition is important for everyone's health and to ease the strain on the healthcare system. The National Dietary Guidelines for Nepal, which support a balanced diet consisting of fruits, vegetables, whole grains, lean protein, low-fat dairy, and healthy fats, have been adopted by the government as policies and initiatives to encourage healthy eating.

Ministry of Health and Population (2016) suggested a balanced diet for all age groups in Nepal. The recommendations are made to help individuals reach a healthy weight, lower their chance of developing chronic diseases, and enhance their general health and wellbeing. They are based on the most recent scientific research. According to the recommendations, individuals should consume a variety of foods from all dietary categories, such as fruits, vegetables, whole grains, lean protein, low-fat dairy products, and healthy fats. Additionally, it is advised that people consume less red meat, processed meat, and sweetened beverages. For those who want to use diet to enhance their health, this is a crucial resource. According to the study's findings, a balanced diet should consist of a mix of foods from all food categories, such as:

According to Kunwar (2017), food tourism is a form of travel that involves experiencing local food, drink, and culinary traditions in a particular destination. It then discusses the potential benefits of food tourism, including economic growth, job creation, and cultural preservation. However, some of the challenges and limitations of food tourism, such as overreliance on imported foods, exclusion of small scale producers, and negative impacts on the environment and local communities, To address these challenges, the author suggests a more community-based approach to food tourism that involves collaboration among different stakeholders, such as farmers, chefs, and local residents. This approach seeks to promote sustainable food systems, support small-scale producers, and preserve cultural heritage. It offers a critical analysis of food tourism and provides insights into how it can be leveraged to promote sustainable development and cultural diversity. Food attitudes vary across cultures, with significant differences in their importance. While food is ranked highest for British and Japanese tourists, it is ranked lower for Australians, Germans, and even the French. Moreover, individuals from high-uncertainty-avoidance cultures have negative attitudes towards pre-cooked food due to concerns over the purity and quality of food, unlike those from low-uncertainty-avoidance cultures who frequently consume fast food. Eating habits are also influenced by culture, as evidenced by food choices such as oysters and snails in the American and French diets, respectively, and the Nepalese Hindu preference for mutton over beef, while Muslims consume beef but not pork. The results of the study may contribute to the improvement of the health of food insecure individuals in Nepal.

Department of Food Technology and Quality Control (2018) pointed out that the history of institutional meals in Nepal can be traced back to the early 1900s, when the British introduced the concept of mess halls to the country. Mess halls were originally set up to provide food for British soldiers and civil servants stationed in Nepal. However, one of the earliest organizations to use institutional meals was the NA. The army established a central kitchen in 1904 to provide food for its soldiers. In the 1960s, the government of Nepal began to promote the development of institutional meal programs. This was seen as a way to improve the nutritional status of the population and promote social cohesion. Apart from this, as one of the institutional meal programs, the Midday Meal Program was launched in 1995 to provide free meals to schoolchildren and was implemented.

Karki (2019) expressed that the NA formulated the first ration scale on December 15, 1952, for up to the rank of *Subedar* (Warrant Officer Class 1). On July 14, 1969, the provision of

rations was extended up to the rank of major, and from December 16, 1975, it was extended to the Chief of Army Staff. Instead of two different ration systems, i.e., general ration and training ration, both were combined and implemented as general ration on January 14, 2001. The ration scale was modified subsequently in 2006, and the current form of the basic ration scale has continued since 2016, with slight modifications off and on. As operational nutrition has been the subject of media and political attention in recent times, to date there has been no provision of any operational or combat ration, multi-climate ration, or ration considering ethnicity and alternative choices in NA. Recently, the NA has started to work out the concept of establishing a food defense lab. Though the NA has given considerable attention and high priority to feeding their soldiers, it is strongly felt that no sincere efforts have been put into a comprehensive review of the existing food, nutrition, and dietary services despite rapid advances made in this field over the past decades, and it is of high importance not only for health but also for military efficiency and morale.

Nepal APF Hospital (2019) conducted a comprehensive investigation into the energy intake of macronutrients and essential micronutrients in the daily diet of APF soldiers during their basic training. The study's primary focus lies in providing evidence-based data on the existing ration scale and nutrient intake among these soldiers during training. By doing so, the research aims to assess the sufficiency of nutrient intake concerning the recommended dietary allowances (RDA). Moreover, the study seeks to lay the groundwork for further research in establishing the Dietary Reference Intake (DRI) tailored to military personnel during both training and non-training periods in various terrains. The empirical findings generated through this research are expected to offer valuable insights and recommendations to policymakers and stakeholders. By understanding the nutrient requirements of APF soldiers more comprehensively, the study was identified potential gaps in existing knowledge and proposes ways to address these gaps.

According to Rayamajhi (2020) clearly analyzed that Armed Police Force has faced mutiny in its eight years of inception history on two of its battalions; former is on June 18, 2008, disgruntled APF Non Commissioned Officials encircled to senior officials at 10.30 PM in Armed Police Force Chandika Batallion, Parwat. Similarly, on June 21, 2008 about 300 disgruntled Armed Police Force of Armed Police Force Bageswori Shamshegunj, Banke revolted against poor quality food, misbehavior and discrimination. The agitating forces padlocked the main gate, capturing all communication sets, armory and telephone lines. They

put forward a 26 point demand letter to the Home Ministry. On June 23, 2008, a High Level Team and released all 17 hostages by signing a 22-point agreement. In both incidents there were not any casualties. Mutinies in security organizations of Nepal were critical for national security. The involvements of mutineers were Junior Officer and other rank. The mutiny had taught intrinsic lessons to the leader and all rank and files of security sector as well as government. The author was also revealed that before mutiny, several problems regarding logistic, election allowance, quality of ration, mess management, selection on UN mission, promotion and transfer were aroused but none of the problems were seen seriously addressed by respective unit commander.

2.3 Research gap

The lack of a comprehensive understanding of the current policies and practices of provisioning and managing institutional meals in different units and areas. Specifically, there is paucity research on ensuring nutritional adequacy, food consumes, food demand and supply chain, kitchen structure and dinning space, food safety, ordinary and festive food, perception towards meal and effectiveness of existing institutional meal policies and practices in military organizations. There is a need for research on the impacts of transitioning from a supplier system to a cash system, and the potential implications of ration money on the nutritional status and overall health of APF personnel. Additionally,. Diversification of food can help to boost up the morale, reduce the risk of malnutrition, better performance of combat force. Although, There is no research in the field of security forces. Addressing these research gaps is crucial for optimizing the nutritional status, overall health of APF personnel, improving the performance and productivity by adopting diversification of food in APF Nepal.

CHAPTER III

RESEARCH METHODOLOGY

The qualitative study was used in this research. This study adopted the Autoethnography method. The primary data was collected through Key Informant Interview (KII) and Focus Group Discussion (FGD). Additionally, Virtual methods were used, where the researcher communicated with participants through Mobile Phones, Viber, WhatsApp, Facebook Messenger and E-mail. The researcher conducted remote KII and GI with APF personnel using the online Zoom meeting platform. The interview consists of open ended questions. The researcher's existing work experience within the organization, specifically with ration management, proved to be extremely beneficial during the data collection phase of the research.

This chapter provides a comprehensive overview of the research design, methods employed, nature and sources of data, data processing techniques, analysis procedures, and methods of presentation. Additionally, the conceptual framework is also provided. The following points were taken into consideration when developing the research methodology:

3.1 Research design

This chapter pertains to the methodology employed in the study. A qualitative methodology was used. The main objective of the research was to conduct an in depth analysis of the fundamental provisions and practices of institutional meal in APF, Nepal, including the nutritional value of the various items in meal and explore the comparison of institutional meal practices in similar organizations of Nepal. The research design refers to the overall plan that the researcher chooses to integrate the different components of the study in a coherent and rational way, thereby, ensuring the researcher effectively addresses the research problem; it constitutes the blueprint for the collection, measurement and analysis of data in any research work. The nature of this research is descriptive and analytical, as the information originates from various sources that have been synchronized and analyzed properly.

The research was focused for an in-depth evaluation of the fundamental practices and provisioning of institutional meals in APF, Nepal ingredients and their nutritive value used in institutional meal and procedures used by other similar organizations. The primary and

secondary data sources are used for the justification of the study that provides a discussion on the research approach, methods and process adopted in the study. Key Informant Interview (KII) and General Interview were used to gain insights participant's personal experiences and opinion about institutional meal.

An Autoethnographic is an ideal approach for exploring paternalism as it allows researcher to draw on their personal experiences within a particular culture to gain a deeper understanding of the dynamics of self or other interactions. Through this reflective process, authors can critically examine their own experiences and perceptions to identify and analyze potential issues related to paternalism within the culture (Koot, 2019).

Based on literature review conducted by different scholar in different settings McLaurin's (2003), Butler-Kisber (2010), Nethsinghe (2012), Carano (2013), Adams, Jones & Ellis (2015), Liu & Lin (2018) as cited by Hayler & Williams (2020) Lawrence & Nagashima, (2020), this study adopted Autoethnography method. It is unique qualitative methodology that combines several qualitative traditions, including narrative research, autobiography, ethnography, and arts-based research. Autoethnographers can be seen as a type of narrative researcher who use narrative dialogue, self-study, and draw upon the narrative tradition to highlight pivotal experiences in their lives. Autoethnography is a product of three spaces. This form of qualitative research involves the author writing about their personal experiences and connecting their autobiographical story to broader cultural and social meanings and understandings (Russel, 2022).

The participants were asked to select their rank from a range of options, including Senior Officers, Junior Officers and Non-Commissioned Officers. In addition, the interview was also conducted with retired APF personnel, Doctors and Dietician of APF Hospital and ration supplier. The focused group discussion is divided into five groups as SOs, JCOs, NCOs, Doctors and Mess Management Committee of APF unit.

3.2 Conceptual framework

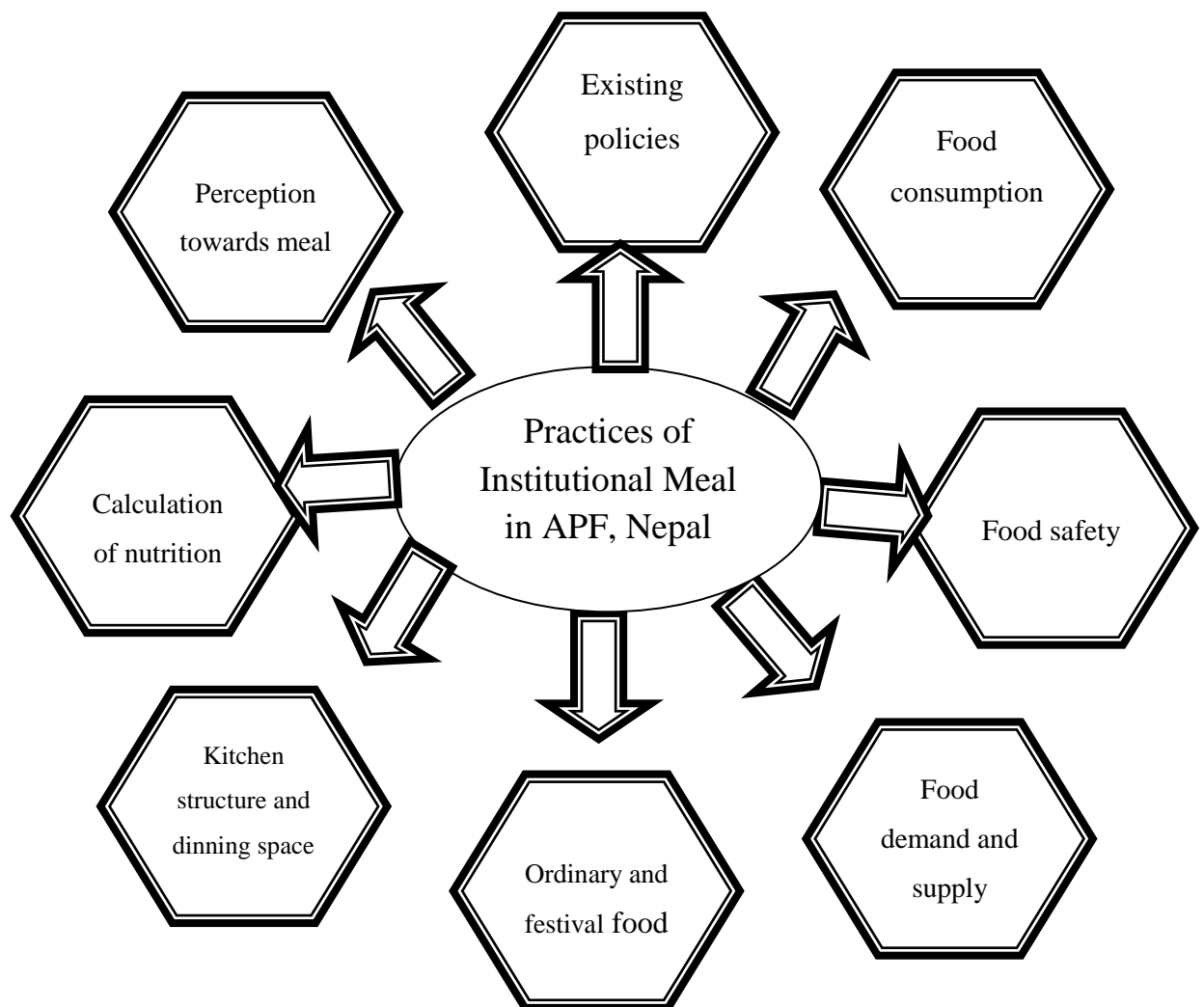
An empirical investigation is centered on a conceptual framework. The researcher's synthesis of the literature on how to explain a phenomena is represented by a conceptual framework. The conceptual framework depicts and exhibits the order, sequence, and concepts or ideas related the many components of research, giving a clear mental image. It also lays out the

steps that must be taken over the course of the study. The study's goals or aim are directed by the conceptual framework, which acts as a road map or compass.

A conceptual framework is a thorough summary or approach that provides a well-planned organization of the investigation's constituent parts, giving your study context. the settings that create a research environment and the study of phenomena there. The theoretical framework is created as

Figure 3.1

Conceptual Framework of Study

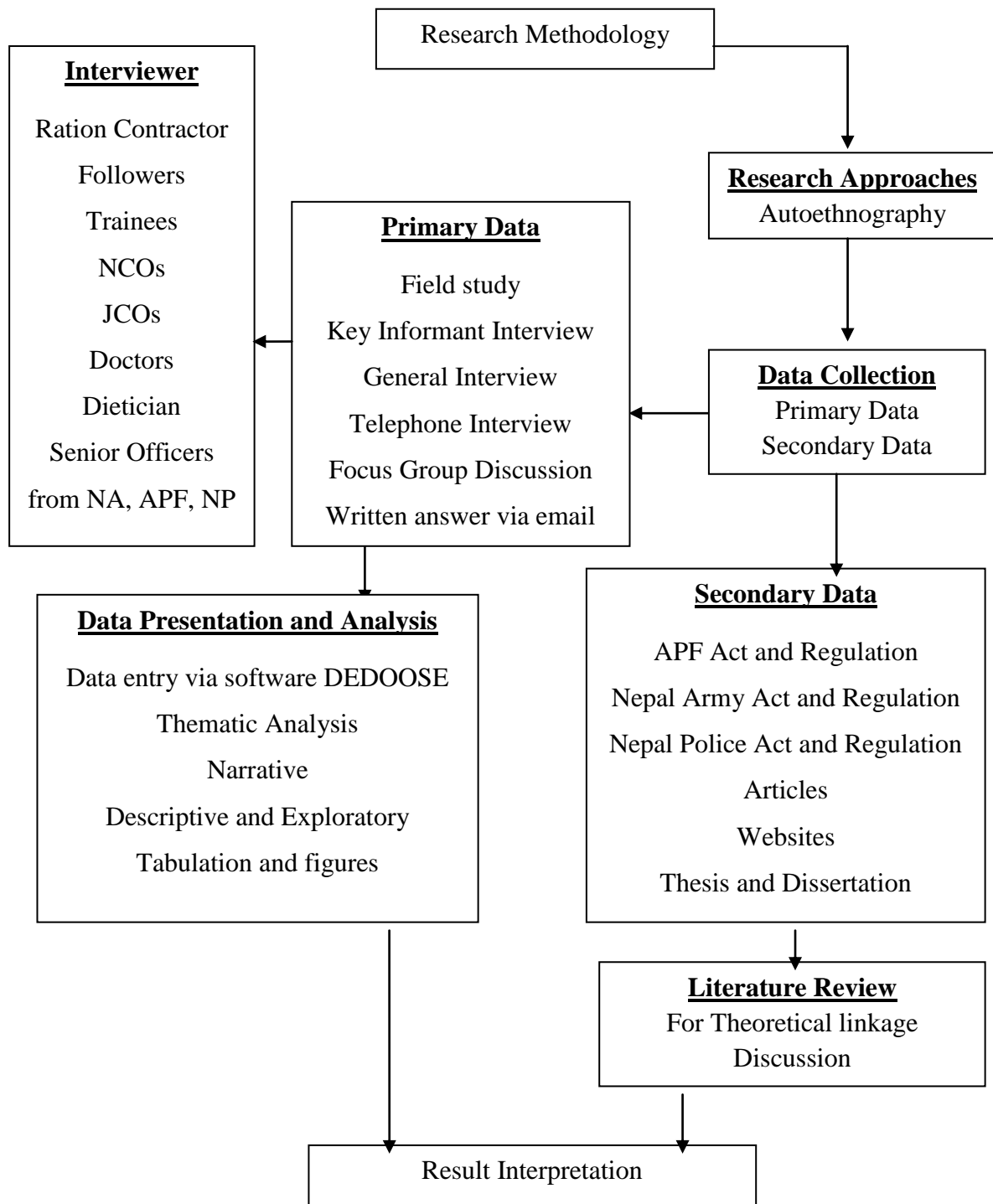


Source: Conceptual framework of the study adopted and modified from the Drewnowski et al. (2020) and Pircher et al. (2021).

Figure 1 indicates that the conceptual framework for the research on the practices of institutional meal in APF, Nepal encompasses various aspects related to the provision and management of meals for personnel in the organization. This framework is to be taken into account the different ranks and positions within the APF, from Followers to the Inspector General. It included factors such as existing policies, nutrition value, food demand and supply chain, food consumes, kitchen structure, dining space, food safety, ordinary and festive and perception towards serving meal (four times in a day). Through this conceptual framework, the research aims to provide a comprehensive understanding of the current institutional meal practices in APF, Nepal and identify potential areas for improvement

3.3 Sources of data

The research was based on primary data followed by secondary data. For the primary data, the researcher visited the APF unit located at different district such as Kathmandu, Lalitpur, Bhaktapur, Rasuwa, Nuwakot and Kavrepalanchowk. Additionally, the researcher visited Nepal APF Hospital and Nepal Army Headquarters for the data collection. The previous study about institutional meal in APF, Nepal and other related military and armed forces were taken as the literature review. The comprehensive description of the field study that consisted of the APF unit visits, KII, FGD and collection of reports and government documents from different sources.

Figure 3.2*Nature and Sources of Data*

Source: Adapted and modified from Shahi, (2020) and Taherdoost, (2021).

3.3.1 Primary data

The primary data for the study was collected using different techniques, such as KII, and FGD. The written documents submitted via email, Viber, WhatsApp, and Facebook Messenger from unit commanders, SOs, JCOs, and NCOs were recorded. During the data collection, different units were visited in order to explore the response based on the geographical pattern. The researcher collected the data from those located in a hilly region and comparatively more issues rose in ration.

3.3.2 Secondary data

The secondary data for this study was sourced from a diverse range of published material, including books, literature, journals, and articles. Additionally, research papers, newspaper articles, and reports from government agencies played a significant role in augmenting the research process. Their inclusion provided a more comprehensive understanding of the subject matter and strengthened the credibility of the findings. By incorporating these diverse and reliable sources, the research was able to encompass a broad spectrum of perspectives and enhance the overall quality and validity of the study's outcomes.

3.4 Techniques of data collection

The researcher's personal experience within the organization regarding the ration management system proved to be highly advantageous during the data collection phase of the research. This firsthand familiarity facilitated a coherent integration of primary and secondary data, enhancing the overall preparation of the research. The researcher found this experience to be invaluable, as it enabled a deeper understanding. Such insights were pivotal in ensuring the comprehensiveness and accuracy of the research.

The primary data was collected via KII and General Interview as well as virtually using Mobile Phones, Viber, WhatsApp, Facebook Messenger, and E-mail. The researcher conducted remote KII with different stakeholders using the online Zoom meeting platform. The KII and expert views were the fundamental methods for collecting the primary data. In the interview, a questionnaire was presented to Senior Officers (SOs), Retired Senior Officers, Junior Commissioned Officers (JCOs), non-commissioned officers (NCOs), and others. Regardless of the response, the information was obtained from each respondent and

evaluated using the pros and cons method. Moreover, the data were also collected from Nepal APF Hospital and Nepal APF School for the support of the research.

The interview is conducted using the purposive sampling method. A diary is kept to record significant details during observation, such as non-verbal communication, including body and facial expressions. The researcher maintains a sequence and procedure to conduct interviews via phone or face-to-face. For the phone interview, first, the interviewer made phone calls with the interviewee to obtain verbal consent and schedule time to conduct the interview. Finally, face-to-face interviews are conducted or a second phone call is made at the scheduled time to conduct them, making sure the participants are relaxed. All interviews were carried out in May–June 2023. The Key Informant interviews were concluded in about 25–30 minutes, and the FGD lasted around 40–45 minutes. The interviews were conducted in both Nepali and English, as per their preferences. The interviews were captured on a mobile device and safely transferred to a computer folder that was password-protected. The interviews were transcribed and translated, and care was taken to ensure the accuracy and thoroughness of the translated information.

In deep consultation with a Doctor and Dietician, the researcher has calculated and prepared the nutritional value of each ration item, recommended ration items to APF, Nepal, and classified them according to geographical features. The nutritional value of existing ration items and recommended ration items is calculated based on the Food Composition Table for Nepal published by the Department of Food Technology and Quality Control and taken from the Indian Council of Medical Research Council, the World Health Organization, and the Food and Agriculture Organization.

The secondary data was gathered from a variety of books, journals, articles, research papers, and reports from relevant organizations, including APF, Nepal, Nepali Army, Nepal Police, National Investigation Department, Department of Food Technology and Quality Control, etc. Furthermore, In an effort to comprehend the nature of a specific event, the researcher looked at a wide range of resources in addition to interviews.

3.4.1 Field Study

The research was conceptualized during the Internal Study Tour (IST) from 11 December 2022 to 17 December 2022. The tour covered the APF units located in Koshi province such as APF, Nepal No.39 Battalion HQs Bardibas, APF, Nepal No.1 Baraha Brigade HQs. Pakali

Sunsari, APF, Nepal Pathivara Constable Training School Jhapa, APF, Nepal No.1 Battalion HQs Ilam and APF, Nepal No.6 Company HQs Chhintang, Dhankuta.

Kathmandu valley was chosen purposively. More than 9,000 APF personnel who had been experienced in various types of work environment as deployed in Mountain, Hill and Terai APF units. APF, Nepal has mandated by the Nepal government in different types of task which is performing most of the responsibilities by APF unit in Kathmandu valley.

The second phase field study conducted from 19 May 2023 to 30 May 2023, investigated 152 including SOs, Ex-APF officers, JCOs, and NCOs, Doctors, Dietician and ration contractor. During this field visit, The researcher visited APF, Nepal Headquarters(HQs), National APF Academy, APF, Nepal No.9 Pashupati Brigade, Nepal APF Hospital and APF Command and Staff College. In addition, other offices such as APF, Nepal No.18 Battalion (Bn) Headquarter (HQ), Nilbarahi, Kirtipur, APF, Nepal No.19 Bn HQ (Special Task Force), Banglamukhi, Halchowk, APF, Nepal No.20 Bn HQ (Disaster Rescue), Sinamangal, Kathmandu, APF, Nepal No.21 Bn HQ, Dakshinkali, Kathmandu, APF and Nepal No.22 Bn HQ, Guheshowir, Bhaktapur were visited. The researcher further conducted additional field visit as per the different mandate of the organization in lower level unit like APF, Nepal Company HQ (Revenue and Customs Security) No.21 Company, Rasuwa, APF Border Outpost (BOP), Timure, Rasuwa, APF, Nepal Prison Security Base, Nakhu, Lalitpur, APF, Nepal Security Base, Pashupati, APF, Nepal Industrial Security Base, Balaju and APF, Nepal Company HQ (Revenue Leakage Control), Hariharbhawan, Lalitpur, APF, Nepal Firefighting Base Newroad and Kapan and APF, Nepal VIP Security Base.

3.4.2 Interview

This research employed Key Informant Interviewing, General Interviewing and Focus Group Discussion techniques open ended questions to engage with the participants. A thoughtful and well crafted series of questions was developed to guide the interviews, ensuring that they were conducted in a relaxed and conversational manner. The interviews comprised of open ended questions that encouraged the participants to select their unique perceptions and life experiences relevant to the subject matter implied in the inquiry. The researcher paid close attention to interpreting the language and its meaning accurately, aiming to maintain the validity and reliability of the collected data, and to ensure the highest quality outcomes and consistency throughout the process.

The seven categories of individuals listed below were interviewed using open-ended questions aimed at understanding existing policies, food consumption, food safety, food demand and supply, kitchen structure and dining space, ordinary and festival food, nutrition value and perception of APF personnel towards meal from the bottom up during May 2023. While the researcher interviewed the participating individuals, the conversations were recorded using a Samsung Mobile (M20) and typed simultaneously by either a supervisor or co-supervisor as a backup. All the recorded tapes were later analyzed by the researcher at the APF command and Staff College and compared with the typed transcript. The consent form and participants list of interview and interview questions are attached in Appendix "A", "B", "C", "D", "E", "F" and "G".

a) APF Senior Officers

The researcher conducted a comprehensive set of interviews involving 63 senior officers from various important units within APF, Nepal. These interviews encompassed representatives from APF, Nepal Headquarters, National APF Academy, APF Command and Staff College, APF No.1 Baraha Brigade HQs, APF No.9 Pashupatinath Brigade HQs, and other APF units. Given the significant responsibilities of APF, Nepal Headquarters in shaping organizational policies related to institutional meals, their insights hold particular significance. The interviewees held distinguished ranks, including Deputy Inspector General (DIG), Senior Superintendent of APF (SSP), Superintendent of APF, Nepal (SP), Deputy Superintendent of APF, Nepal (DSP) and Inspector of APF, Nepal. APF, Nepal Headquarters aims to strengthen its subordinate units by promoting their capabilities, effectiveness, and accountability. Furthermore, it is responsible for formulating policies, programs, and overseeing the implementation and monitoring of institutional meal practices and management within APF, Nepal.

These interviews served as valuable sources, shedding light on the current status of institutional meal policies, the importance of nutrition awareness, food consumption patterns, mechanisms of food demand and supply, and considerations for both regular and festive meals. The interviews also facilitated an analysis of various issues concerning ration management and provided insights into the meaning, purpose, and implementation procedures of APF rules and regulations. Potential challenges in implementing institutional food practices within APF, Nepal were also explored. By leveraging these interviews, the study gained comprehensive examples and perspectives on the implementation and

management of institutional meals, nutrition considerations, and potential hurdles faced by APF, Nepal.

b) Doctors and Dieticians

The researcher conducted interviews with comprising medical doctors and dietician from Nepal APF Hospital, Balambu, Army Hospital and Food and . These interviews focused on assessing the nutritional value of institutional meals provided by APF, Nepal Army, and Nepal Police, as well as analyzing their impact and implications on the health condition of patients at Nepal APF Hospital. The doctor and dietician were put under the Key Informant Interview of the research.

c) APF Officers (Retired)

APF personnel are retired on the basis of different provision such as mandatory retirement, resignation before and after completion of service tenure, disability retirement, voluntary retirement and retirement after removal from service. The researcher only took the interview of those officers and other ranks that was respectfully retired from the organization. During this interview phase, the researcher interviewed of retired APF personnel. Among those, During the interview, fifty years old, retired DSP of Nepal Police, was present. He joined the organization on 27 Kartik 2022 and served for 42 years in the National Police Academy, Maharajgunj. The researcher was engaged in a detailed conversation with him, lasting over four hours, at his residence. He shared his invaluable insights and memories regarding the ration management of Nepal Police, spanning from his years of service to the present situation.

d) APF Junior Commissioned Officers (JCOs)

The term JCOs means a person commissioned in pay as a junior. In Nepal Army, There are *Subedar-Major* (Chief Warrant Officer), *Subedar* (Warrant Officer First Class) and *Jamdar* (Warrant Officer Second Class) (Nepal Army Act, 2063). JCOs a term used for a group of APF personnel ranks called Senior Sub-Inspector, Sub-Inspector and Assistant Sub-Inspector which is higher than Senior Head Constable and below than Inspector. Senior Head Constables are promoted to JCOs rank on the basis of merit and seniority in APF, Nepal (APF rules, 2072). During the data collection, JCOs were participated in general interview and FGD efficient discussion with researcher.

e) Non-Commissioned Officers (NCOs)

NCOs is an enlisted soldier as the rank of Sergeant or Corporal of Armed Forces and receive advanced military training but not included a higher rank (Oxford Learner's Dictionary, 2023). In Armed Police Force, Nepal, there are several ranks such as Senior Head Constable, Head Constable, Assistant Head Constable and Constable which is called NCOs (APF Act, 2058). Among the interviewees, there were from various units of APF, Nepal as per the mandated task of the organization. It also provided an great opportunity to understand the NCOs issues, problems and perception towards institutional meal and how the policies and directives function in various APF units.

f) Followers

The researcher conducted interviews with followers of different unit of APF, Nepal. Followers are the non ranking APF personnel who is recruited in various appointments among them cook is also one of the important appointment of the followers.

g) Trainees officers and other ranks

Five company commander and staff course trainee officer, Inspector basic trainee officers, technical Inspector (Doctor) basic trainee officers, five *Billadar* (Senior Head Constable to Constable) basic trainees and three computer basic trainee officer, were interviewed. Among those three Inspector were deployed and served respectively in APF, Nepal Company HQ No.32 Company, Manang, APF, Nepal BOP Inarwa, Siraha, APF, Nepal Company HQ No.51 Company, Baitadi, Assistant Head Constable (AHC) were served respectively in APF, Nepal United Nations Peacekeeping Training School (UNPTS) and APF, Nepal Border Security Training School, Bardaghat Nawalparasi. They contributed information about their meal experience in various units, difficulties to manage the meal in unit, various types of positive and constructive feedback provided insight on existing and contemporary practices of institutional meal. Moreover, trainee officer were asked a list of general questions related to practices and policies of organization, food consumption, importance of nutritive value of ration in training phase, Hygiene and sanitation of kitchen and dining hall, taste of ordinary and festival food and their perception towards meal and food safety, impact of ration in training period. They were also asked to describe significant problems and whether or not their work was affected in connection with the current practices and policies of institutional meal in APF, Nepal.

h) Ration contractor

APF Nepal was adopted the ration contract system from 2001-2014 AD. At this time, The government, in accordance with the Public Procurement Act, selected contractors to supply ration items. Those contractors had sole responsibility of delivering rations to the districts as per the agreement with APF, Nepal. During the research, interviews were conducted with three contractors who had previously worked with APF, Nepal.

i) Officers from Nepal Army, Nepal Police and other organizations

In order to comprehensively understand the history of ration management within various sister organizations, the researcher recognized the importance of including insights from Nepal Army and Nepal Police. As APF, Nepal is one of the youngest security forces, the researcher conducted interviews with four officers from Nepal Army Headquarters (HQs), four officers from Nepal Police Headquarters, National Police Academy, Maharajgunj, and Armed Police Battalion, No.1 Naxal. Furthermore, the participants were selected from National Investigation Department (NID), Department of Food Technology and Quality Control, Department of Forest and Department of Prison Management. By incorporating these interviews, the researcher was able to enhance the study with a comprehensive view of ration management practices and their implications across different units and ranks within Nepal Army and Nepal Police.

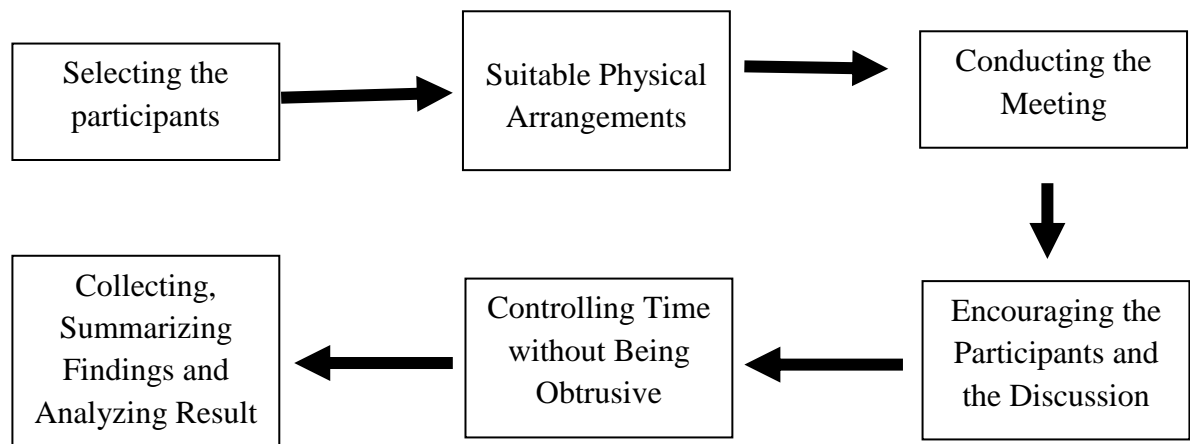
3.4.3 Focus Group Discussion (FGD)

In May 2023, four focus group discussions were conducted during field visits to different units of APF, Nepal. The discussions involved senior officers from APF, Nepal No.9 Pashupatinath Brigade HQs in Balambu, Junior Commissioned Officers from APF, Nepal No.21 Battalion HQ in Daskhinkali, Lalitpur, and Non-Commissioned Officers from APF, Nepal No.22 Battalion HQ in Guheshowri, Bhaktapur. These focus group discussions provided structured and valuable insights into the research or program topic at hand (Debus, 1998). Furthermore, the researcher had the opportunity to hold important focus group discussions with the mess management committee of APF, Nepal Battalion HQ, (Special Task Force), No 19 Battalion in Banglamukhi, Swoyambhu. The committee consists of the second-in-command of the battalion as the head of the committee, representatives from each senior rank as committee members, and a member secretary appointed by the Battalion commander based on the recommendation of the Mess Management committee (Mess

Operation Directives, 2022). These discussions facilitated meaningful exchanges and contributions from committee members, contributing to the overall understanding of the topic.

Figure 3.3

Process of Conducting Focus Group Discussion



Source: Adapted and modified from Taherdoost, (2021)

Figure 3 illustrated that once the appropriate target group with shared required characteristics has been identified, it is essential to provide a brief explanation of the concept to familiarize the participants with its background and meaning. It is also important to facilitate discussions about the concept to encourage more meaningful interactions beyond simple question-answer exchanges. After summarizing the results of the discussions, the meeting can be concluded.

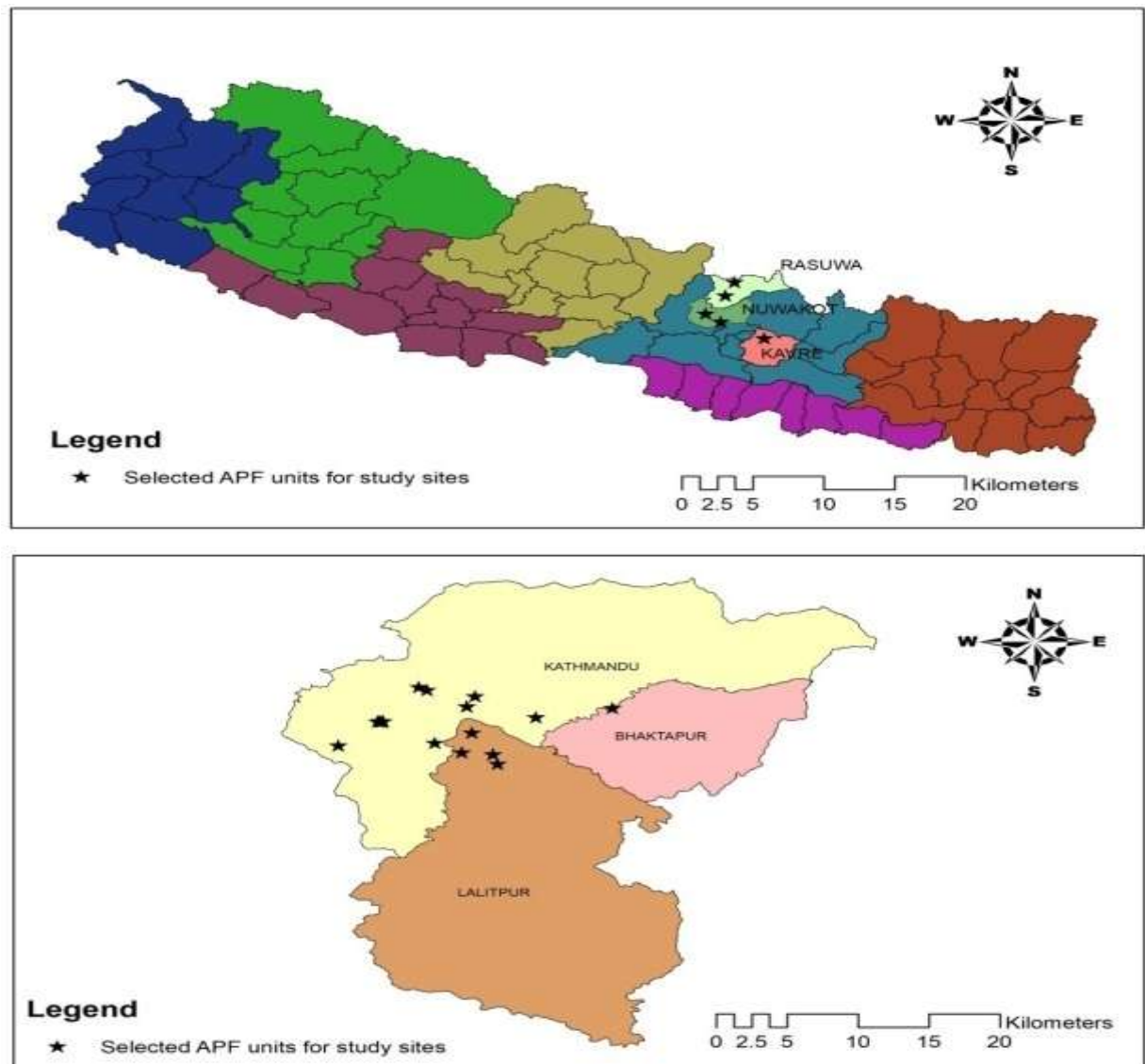
3.5 Data processing, analysis and presentation

The data collected from the primary and secondary sources from the different online and in person mediums. The analysis process commenced after conducting 34 interviews. A coding approach was employed, starting with an inductive method to identify basic themes. To ensure unbiased results, the investigator has been using a method thematic analysis to sort and organize the interviews. Similar basic themes were then grouped together to form organizing themes, which provided a deeper understanding and significance to the extracted excerpt. Through the use of thematic analysis, the organizing themes were further organized into global themes, allowing for a comprehensive examination of specific issues and presenting arguments based on the collected data. Unnecessary information beyond the objectives is to be eliminated and concise editing was done through detail analysis. The data

The findings from textual analysis were compared and made a conclusion. The presentation of the data shared through chart, graph and table etc.

3.6 Area of the study

The primary focus of the study is APF Headquarters in Swoyambhu, where policies regarding institutional meal are formulated and implemented. To effectively monitor and evaluate the implementation of these policies, the researcher visited various units of the Armed Police Force, Nepal located in the Kathmandu valley where more than 9,000 APF officers and other ranks employed. This opportunity provided to observe the practical implementation of the policies at the ground level. The study aims to capture the diverse perspectives and opinions of APF personnel regarding the implemented policies. Furthermore, to ensure comprehensive coverage, the research is also encompassed other regions, such as the mountainous area represented by the APF, Nepal BOP, Timiure, Rasuwa; the terai region represented by the APF, Nepal Pathivara Constable Training Center in Jhapa; and the hill region represented by the APF, Nepal No.6 Company HQ in Chhintang, Dhankuta.

Figure 3.4*APF Units for Study Sites*

Source: Map showing location of APF units for study sites. The map was created ArcGIS desktop version 10.8. The shape files of the respective district and location were obtained from the Government of Nepal, Ministry of Land Management Cooperatives and Poverty Alleviation and Department of Survey website that were publicly available unrestricted use.

Figure 3.4 highlights that Kathmandu Valley is the capital city of Nepal, is a picturesque and culturally rich region nestled in the heart of the Himalayas. Situated at an average elevation of approximately 1,400 meters (4,600 feet) above sea level. Rasuwa district has an average elevation of around 3,000 meters (9,800 feet) above sea level, making it a high-altitude

region. In terms of food culture, Rasuwa district showcases a blend of traditional Nepali cuisine with influences from the Tibetan culture. Nuwakot is located in the central part of the country, which has an average elevation of approximately 1,400 meters (4,600 feet) above sea level. Kakani is located in the Nuwakot district of Nepal. It is situated at an altitude of approximately 2,030 meters (6,660 feet) above sea level. Kavrepalanchowk district is situated in the central part of the country. It has a diverse topography, ranging from the hilly regions to parts of the Mahabharat Range. The district has an average elevation of around 1,400 meters (4,600 feet) above sea level.

3.7 Ethical consideration

The work presented in this research paper, to the best of my knowledge and belief, original except as acknowledged in the text. The research is specially prepared for the purpose in partial fulfillment of requirement of 7th APF Command and Staff Course so there is no funding of any institution and agencies for the research purpose. All the respondents had been behaved as respected person. After the written consent of the respondent, The interview is conducted in sound environment. No discrimination on the basis of their cast, ethnicity and status has been considered. The source and data has been kept confident as per the ethics of research. This study promised to protect the confidentiality of the individuals and organizations respectively. There is no dishonest practice in the entire research. Therefore, this research conducted by adopting the general principals of ethics as responsibility, justice and the respect for the intellectual property rights, conscious on multiple roles, rule of consent, confidentiality and privacy. Researcher acknowledges and cite for the guidance and intellectuality for their credit to carry out this research during entire research period. The identity kept anonymous if necessary, the pseudonym is used to protect the identity in qualitative parts. The data could be disposed after 10 July 2028, which is five years from the initial date of 10 July 2023. The standard prescribed by American Psychological Association (APA) 7th edition was followed.

CHAPTER IV

FINDINGS AND DISCUSSION

4.1 Findings

The purpose of this study on practices of institutional meal in APF, Nepal illuminates several important aspects to manage institutional meal in effective and efficient manner. The study used a qualitative research design. The data were collected from KII and FGD with a sample of 152 APF personnel. The results of the study showed that the implementation of cash ration allowance has played a significant role in enhancing convenience and flexibility for the personnel. The research also emphasized the importance of considering geographic and physical activity levels into account when revising ration. Additionally, the study revealed that despite the diverse cultural and dietary preferences of personnel, the current ration menu does not reflect their diversity adequately. The findings of the study highlight the crucial importance of maintaining a balanced and nutritious diet to safeguard the physical and psychological well-being of APF personnel. The results of this study suggest that the APF is strongly committed to providing its employees with nutritious and sustainable food. These practices are a role model for other organizations that want to offer institutional meals. The chapter consists of practices and policies of institutional meal, nutritive value and best practices of meal management system in other organizations.

4.1.1 Characteristics of study participants

a) Respondent's age

The researcher focused their investigation on gathering insights from diverse age groups of respondents in order to comprehend their individual experiences in institutional meal in the organization. The age distribution of the respondents following figures :

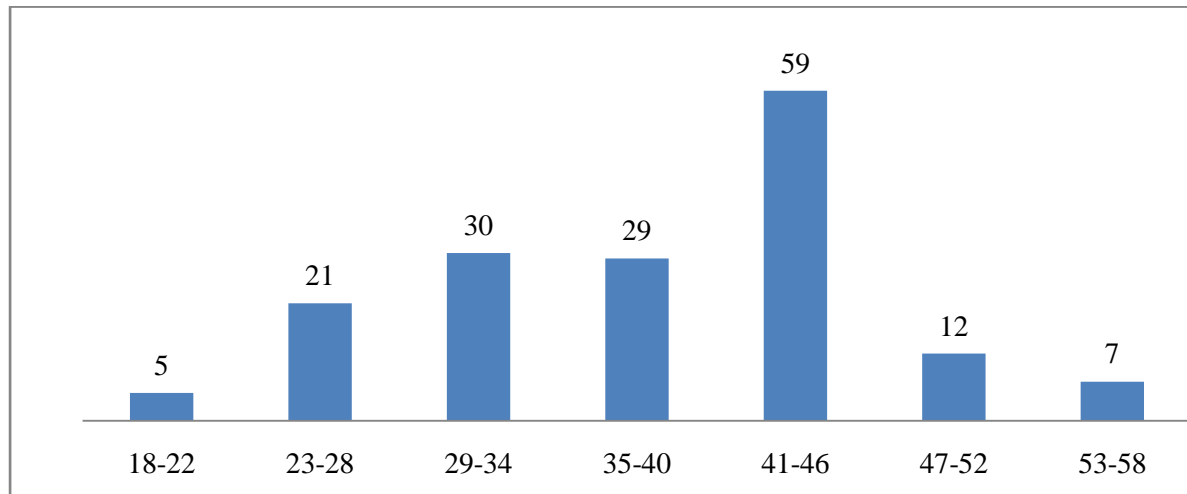
Figure 4.1*The Age of Respondents**Source: Field Study, 2023*

Figure 4.1 highlighted that the majority of respondents were in the 41-46 years age group 59 (66%) age of respondents and low majority is age 18-22 years (5%). which indicates that the age of 35-40 years are 29 and 18-22 years are 5.

b) Educational attainment of respondents

Education background of respondents are mentioned as follows

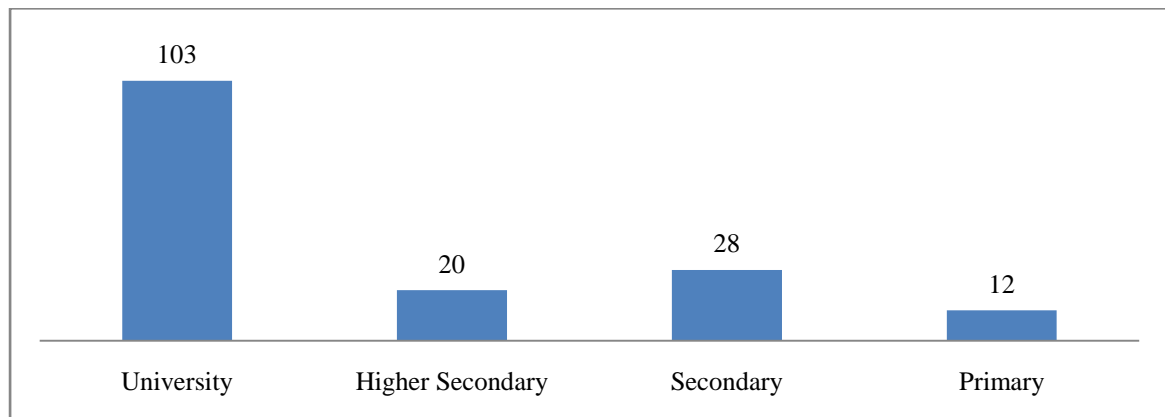
Figure 4.2*Educational Attainment of Respondents**Source: Field Study, 2023*

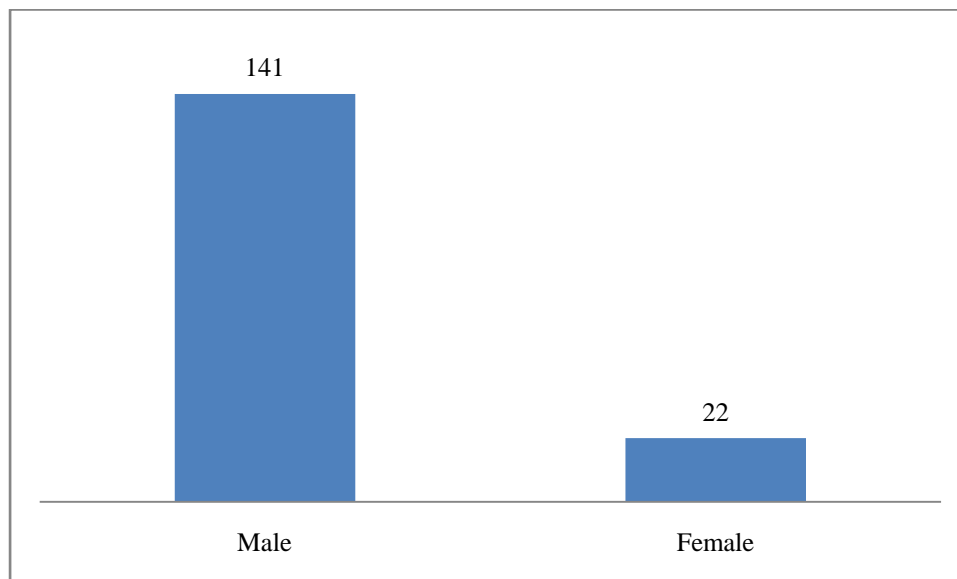
Figure 4.2 indicates that the education of respondents is 103 who received university education and 11 respondents completed their primary level education.

c) Gender of respondent

The gender of respondents are shown as following figure

Figure 4.3

Gender of Respondent



Source: Field Study 2023

Figure 4.3 recognized that 141 respondents are male and only 22 respondents are female to take part this research.

4.1.2 Current practices of institutional meal

APF, Nepal has been following the cash allowance system to manage ration since 2015. The current practices of institutional meal management system in APF, Nepal applying one of the unique and effective method to monitor and supervise the mechanism (Dhakal, 2022). This part discusses the practices, provision, pros and cons, effectiveness of food management mechanism and primary discrepancies in policies of the organization.

a) Policy Framework and Guideline

The policy framework and guidelines of APF, Nepal, have played a significant role in shaping and regulating the institutional meal practices within the organization. The policies aim to provide nutritious meals to APF personnel, catering to their diverse needs and roles. They set standards for food safety, quality, and hygiene, promoting a healthy dining environment. The framework emphasizes transparent practices, fostering personnel's well-being and operational efficiency. This section provides answers to the following questions:

i) What are the current practices for serving institutional meal in APF, Nepal ?

The policy was formulated based on experiences of strategic leadership, lesson learned from the past and best practices of other organization and international arena as explained by the participant (KII) in the following this statement.

As per the APF, Nepal Mess Operation Directives (revised version) 2079, the ration items are managed in accordance with the regulations outlined in APF Regulation 2072, Schedule 16. The cash allowance for ration is deposited to individual bank accounts, with 1 percent tax deduction by the government. Each unit has a Mess Management Committee led by second-in-command. The committee's member-secretary is a JCO in a permanent office, while other ranks hold temporary office. The tenure of secretary does not exceed six months, with the possibility of holding the same responsibility twice in the same rank.

ii) What are the preferable policies such as cash in office account, cash in individual account and contract system for the organization?

These statements articulate the participants' live experience.

I am extremely satisfied since I started receiving cash ration. It has proven to be superior compared to other system. However, there have been some challenges in collecting the ration money on time, as it is now directly deposited into the personal accounts of APF personnel.

One of the respondents provides an explanation in the following:

The cash ration allowance is the most beneficial policy for the organization, as it enables them to consume high quality food comfortably and efficiently manages ration. Additionally, I emphasized the feasibility of the cash in office account, as it ensures timely payment of ration expenses and exempt 1 percent tax.

Although the practices makes happy in the organization, one of the respondents' statements as experienced by the following:

The ration management system being an additional burden for the unit. The regular issues of ration are always raised and headache for commander when they have no direct involvement in such matters. I am still expending more time for the management of internal issues like ration. If we all personnel maintain transparency and accountability in the course of job, we definitely would solve the issues of ration.

The participants in the Focus Group Discussion raised concerns about the extra expenses in the ration money payment.

I am delighted to receive the cash allowance as well. However, I have noticed that when I pay the ration allowance through mobile banking, there is an additional charge of Rs. 8 to 10 deducted from my bank account. I utilize this extra amount to purchase stationery items such as copies and pens for my children. It would be beneficial if the authorities could consider covering this expense from the office funds, and also exempting JCOs to Followers from paying taxes on the ration allowance.

A participant emphasized the importance of cash ration allowance in Nepal Police.

Both Nepal Police and APF, Nepal had been implemented effective practices in ration management. Nepal Police, with its smaller number of police personnel deployed up to the police post level. Without the involvement of a third party, the unit has the autonomy to manage cash ration by collectively deciding among the staff members. They have the freedom to choose their own food options within the guidelines provided by higher officials.

According to one of the respondents (KII) explained that

Cash ration system of APF is widely regarded as effective and satisfactory. The quality of the provided food is considered to be of a high standard. However, it is important to note that maintaining such high quality ration supply poses challenges for the suppliers with the allocated budget. While, Some contractors continue to work in the ration supply, others are switching to different professions. Due to self managed approach of APF in handling ration, I have led to a lack of concern towards it. .

With 19 years of experience as a researcher, I firmly believe that the cash allowance has been supporting the provision of quality and nutritious food to APF personnel, thereby contributing to their happiness and boosting their morale. The participants shared their personal views in a reserved manner. However, the ration contractors still hold significant influence over the policy making process to convert the ration money into the contractor system. In addition, during FST visit in India, I noticed that CAPF officers collect ration money a month in advance. The expenses for three messes are calculated each month separately and then divided among the officers in each mess to cover their respective ration expenses. While, office is organizing any functions, the expenses will be divided among three messes as per their directives.

b) Strengths and weaknesses of policy

The strengths and weaknesses of institutional meal policies will vary depending on the policy framework and the organization responsible for its implementing. The following questions are included in this part.

i) How do you analyze the pros and cons of three policies (Cash in office account, cash in bank account and ration contract) implemented by the organization?

Many participants complaint that

Due to the cash allowance, The unit is able to maintain the quality of food by promoting local markets to buy local food, being transparent, and being managed by its own committee. However, they also pointed out some challenges faced in the

collection of money from individuals, such as inadequate funds during transfers or listing names in training when clearance procedures are underway.

The participants concerns and their opinion regarding the government's procedure to determine the estimated ration cost.

The weather and worst road condition are the most challenging and struggle factor of managing ration. Sometime, we ate bitten rice, noodles and biscuit etc as fulfillment of regular food. The ration rate of Rasuwa is 246.10 per person per day and Rs. 255.30 of Nuwakot district. The ration supply for the BOP Timure is sourced from Nuwakot, where the ration rate is lower than Nuwakot district. For the boost up the morale of APF personnel who are deployed in high altitude the government directly provides the ration to the unit through a government agency instead of relying on a contractor.

In light of the practices fostering a sense of happiness with raising serious issues in regards of cash ration one of the respondents' statements reflects the following:

I had experienced three distinct ration management systems: the tender system, cash in office account, and cash in individual account. Each mechanism holds its own significance within the force's barracks system. During the insurgency period, the tender system proved to be the most effective approach for ration management in units, considering the limited availability and unpredictability of ration supplies. On the other hand, cash allowance is considered a favorable practice within the organization, but it requires more efficient unit management procedure. During peace time, there have been no issues of supply of the ration. However, it is important to acknowledge that circumstances can shift, and challenges may arise in the future. It is essential to address any potential difficulties like insurgency that may arise in future.

During the discussions, the participants showed concerns on existing and current policies and shared their thoughts as follows:

There are drawbacks dealing with low quality ration, delay in ration delivery, occasional disappearance of the contractor and difficulty in scheduling meetings with the main contractor and lack of responsiveness in phone calls. The readiness of the barrack system force to respond to unforeseen situations promptly. However, they

highlighted the challenges posed by ration management in security organizations, as it demands a significant amount of time and attention from commanders.

It was observed that some participants of FGD 4 critically argued that

The tender system in ration management has its own advantages and disadvantages. Under this system, the contractor is selected based on the lowest bidding cost, with the ration rates being subject to annual changes. One of the major benefits is the assurance of ration supply for one year, as the contractor is responsible for the timely delivery. However, there are some drawbacks to consider. For instance, there may be instances of low-quality ration being delivered to units, which poses challenges in returning. Delays in ration delivery to district headquarters' units, as well as the division of responsibility among multiple contractors, can further complicate the process. Other issues include the time taken to supply rations to bases located far from the district headquarters, potential close relationships between commanders and ration contractors, difficulties in arranging meetings with the main contractor to address ration related concern, and poor responsiveness to phone calls.

During my research as a scholar, I experienced a concerning issue of the of the ration supplier's influence over the APF unit during the supply of ration. One incident during the period of insurgency particularly stands out in my memory. While accompanying the quartermaster and followers (Cook) to purchase green vegetables and other necessary ration from the local market, we unexpectedly heard a gunshot nearby. In response to the sudden danger, we swiftly decided to leave the market for our safety. This incident shed light on the potential risks and challenges that can arise when dealing with ration suppliers in such sensitive situations.

ii) What is your assessment of the effectiveness of the food management system in units and which one do you believe is more beneficial among ration management committee, catering service and contract system for the organization?

Most of the respondents shared that

The Ration Management Committee is a commendable practice in the unit that ensures efficient operation of the mess and provision of high-quality food to APF personnel. The committee takes responsibility for any issues that may arise and is

accountable to the organization. The immediate commander holds the overall responsibility of managing the committee, addressing grievances, and closely inspecting and supervising the process.

During the KII, a respondent provided distinct perspectives on the subject of the recruitment policy of Followers (Cook).

Based on my extensive studies and research within the organization, it is crucial to address these issues promptly to prevent future generations from bearing long-lasting burdens. We cannot revert to the tender system of rationing due to the established habit of quality and flavorful food. Furthermore, it has been observed that some followers (cooks) at the headquarters prefer less burdensome tasks such as preparing tea and other official work, while also enjoying the privilege of serving high-ranking individuals in their homes. For tackling this issue, the organization should stop recruiting followers and instead assign those positions to constables and above. Additionally, the organization can contract private service providers for barber, shoemaking, cooking, cleaning, sweeping, tailoring, and other related services. Similarly, catering services provided by a private company can ensure the efficient preparation of food for APF personnel. To initiate the trial of a catering system, one of the units in the Kathmandu Valley should be selected as the first pilot site, working in coordination with prominent catering service provider.

c) Impact and outcome of policy

The policy changes have had a constructive impact on the institutional meal system of APF, ensuring a balanced diet and fostering the well-being of its personnel. Continuous monitoring and improvement are necessary to address any remaining weaknesses and enhance the overall effectiveness of the policy. There are questions impart in this section made as follows:

- i) What are the primary discrepancies between the institutional meal policies of APF, Nepal and the current practices being implemented within your unit ?

One of the respondents freely expressed his thought while deploying in small unit.

The security base is encountered several challenges in food management as they are responsible for their own ration and cooking. They often adopt a mindset of saving

money by consuming minimum items. The cost of ration at the security base is higher compared to the parent unit. Additionally, there is a sense of detachment from the parent unit as they have to address certain issues independently, leading to a feeling of insufficient guidance from the higher unit.

- d) What are the main challenges and barriers in institutional meal policies of APF, Nepal while implementing in your unit ?

One of the respondents explained that

The implementation of meal practices and policies follows a meticulous process of thorough research, gathering, and validating detailed information starting from the grassroots level of the unit. However, challenges arise when it comes to implementing these policies in bases or VVIP/ VIP security bases where the deployment consists of lesser than 10 APF personnel. Therefore, APF HQs should continuously collect the feedback of ration from ration management committee.

As a researcher, I observed a decline in the discipline of APF personnel in smaller units (less than one section/platoon), which I attributed to their detachment from their parent unit. Despite regular inspections conducted by the parent unit, these personnel tend to operate independently, exhibiting detachment from their parent unit in multiple aspects. The researcher found that the correlation between the decreasing discipline and the deployment of APF personnel in smaller units are deeply tied up and negative impact in entire result of the organization.

4.1.3 Food consumption

Food consumption as a symbolic bridge between the inner self and the external world, embodying the essence of exchange of culture, tradition and food taste (Kunwar, 2017). The food consumption pattern of the Indian Army is tailored to meet the nutritional requirements and energy needs of its personnel. Indian Army personnel typically follow a meal plan that includes breakfast, lunch, evening tea, and dinner. The food menu incorporates a variety of items, including cereals, pulses, vegetables, dairy products, meat, eggs, and fruits (Babusha et al., 2008). This part discusses the food consumption practices, meal menu and revision in menu practices.

a) Meal preferences

Each individual has been emerged in different cultural background and personal preferences. Their choices and preferences are also difference in various geographical setting. This section addresses the following questions:

- i) What ration items are included in the menu of your daily meals ?

One of the respondents explained about their meal practices in the unit.

Within each unit, a comprehensive meal plan consisting of four daily meals is diligently implemented. The breakfast typically includes a delightful combination of tea and biscuits, providing a refreshing start to the day. For lunch, a wholesome spread of rice, dal (lentils), vegetables, pickles, and a choice of chicken or mutton is thoughtfully prepared to satisfy the appetite. In the afternoon, a midday meal offers an assortment of items such as roti (bread), eggs, curd, chiura (flattened rice), and chow-chow to invigorate the senses. Finally, a nutritious dinner comprises rice, dal, vegetables, and pickles, ensuring a satisfying and nourishing conclusion to the day. In accordance with the unique geographical conditions and food availability in each province, the menu varies to cater to the distinct culinary preferences and regional specialties.

It was interesting to note that FGD 6 shared common experiences about the menu of daily meal.

From the mountainous regions, where hearty dishes like dal-bhat-tarkari (rice, lentils, and vegetables) with locally sourced ingredients are prevalent, to the terai plains, where aromatic rice, spicy curries, and delectable sweets dominate the palate, the menu is thoughtfully crafted to showcase the culinary heritage of each province. The adaptation to local ingredients and flavors ensures that the meals not only provide sustenance but also celebrate the cultural richness of the respective regions. This dynamic approach to menu planning exemplifies the organization's commitment to honoring local traditions and fostering a sense of belonging among its personnel.

- ii) Is it necessary to periodically revise the daily meal menu ? If so, what factors to be considered while preparing the new menu ?

During the data collection, it was emphasized by one of the respondents that the meal menu should be periodically revised.

The menu preparation in each unit requires approval from the higher authorities within the organization. While the same menu is generally followed in all units within a particular province, adjustments are made for units situated at high altitudes or located in remote areas. It is necessary to review the menu based on season and geographically setting of the unit. Nutrition requirement, dietary preferences and restrictions, climate and temperature, storage capacity, terrain and physical activity and locally available ingredients etc. are carefully considered for the preparation of new meal menu.

Throughout the discussion with FGD 1, it became evident that the participants were keen on exploring innovative ideas in revising the institutional meal from the policy level.

It is important to advise the ration composition by increasing the proportion of proteins and fats while reducing the quantity of carbohydrates. It is also advisable to include various types of food as per availability of the ingredients like Black gram, Broad, Rajmah, Red gram, Horse gram, Bengal gram dal etc. There is also add more items under the category of food such as Beans (Chickpea, Cowpea, field bean and Soyabean,) Spices (Chilis dry, Corianders, Cumin seeds, Ginger, Cardimom, Nutmeg, Sounf) and promote local product (Avocado, Kiwi, Dragon fruit, Pear) etc. Furthermore, emphasizing nutrition education among APF personnel can promote healthier food choices and discourage the consumption of unhealthy options.

b) Food waste and management

The practices of food and management in APF, Nepal emphasize the right ways to segregate waste and emphasize recycling methods. The following questions are included in this section:

- i) What are the main causes of waste generation in your mess ?

Several participants from FGD 5 shared their experiences on waste generation in the mess

As per my long experience in mess management, there are several factors contributing to food waste in the context of the organization. These factors include cooking an excess amount of food beyond the number of personnel present, reducing

food portions based on Body Mass Index (BMI), work pressure, a lack of approved leave, discrepancies in workload, and conflicts with friends and family through social media or phone. Among all the reasons mentioned, one prominent way of expressing anger is through the act of throwing away food. This behavior significantly contributes to food waste in the APF unit.

- ii) What are the current practices of waste disposal in your mess ?

In connection to waste disposal, the viewpoint of one respondent was that

The garbage is collected and kept in storage to be composted and then used by the animals. In cooperation with a nearby business, a well-organized waste management strategy is carried out, fostering ecologically friendly behaviors and fruitful neighborhood involvement.

4.1.4 Food safety

The unit has encountered several challenges arising from minor errors made by Followers (Cooks) and the food management committee. These issues have led to problems such as diarrhea and headaches among personnel. While these problems may be considered minor, they can create distressing situations within the organization. This part covers hazard analysis, quality control and inspections, training, and education. The questions are answered as follows:

a) Safety protocol and standards

APF takes seriously food safety protocol and standards as per the rule. The food that is served to its personnel is safe to eat. The following protocols and standards are collected through following questions

- i) What measures are in place to ensure food safety and hygiene in the preparation and distribution of institutional meals?

It was brought to attention by one of the respondents that the safety and hygiene were in top priority of the discussion.

In my experience, the cleanliness of utensils, hygiene practices, and the cooking skills of the kitchen staff play a significant role in the quality of food. Small mistakes in the

past have led to some disruptions in the operations of certain APF office. The food is stored as per their durability and kept in clean and dry places. Therefore, it is essential to pay special attention to food preparation and ensure proper hygiene and sanitation of the Mess.

As per the insights shared in FGD 2, food safety was unanimously regarded as a crucial obligation for all units, with no room for exceptions.

The authority should conduct regular audit to obtain quality certifications, conduct awareness campaigns, prioritize the quality of food by implementing regular checks and inspections by the ration management committee, and develop contingency plans to address any issues that may arise in the future regarding food.

b) Food inspection and quality control

This proactive approach to maintaining cleanliness and food quality reflects the organization's commitment to providing a pleasant and hygienic dining environment for its personnel. So, it is necessary to upgrade the quality of mess in future. The following questions to be made in this section:

i) How do APF personnel perceive the quality and safety of the food provided?

In the context of maintain quality and food safety, one of the respondents proposed their appointment as a hygiene officer.

I appreciated the initiative of APF leadership who has placed significant emphasis on enhancing the cleanliness and quality of the mess facilities, leading to notable improvements in food management and overall mess standards. Currently, the mess area has undergone renovations, transforming it into an appealing space suitable for hosting guests or family members. For maintain the quality of food and mess, a responsible person could be appointed as hygiene officer and also include as the member of ration committee.

The respondent from DFTQC strongly advocated for regular audit of APF mess facilities.

The department has been remarkable to observe the emphasis placed by security agencies on providing their personnel with high quality and nutritive meals. The

attention given to the quality of the mess and food is indeed commendable, including the cook's awareness, mess cleanliness, and the use of quality ingredients and kitchen utensils. Furthermore, the department can conduct monitoring and offer quality certification to APF mess upon the request of APF. This collaboration can pave the way for future cooperation, ensuring improved food management practices and nutrition standards within the organization.

4.1.5 Demand and supply

A well-balanced and nutritious diet is essential for the overall health and well-being of the armed police force (WHO, 2022). Properly assessing the demand for various food items based on the number of personnel and their nutritional needs ensures that an adequate quantity of ration is available at all times (Mess Operation Directives, 2022).

a) Food Planning and Allocation

Food planning and allocation directly impact the well being, performance and morale of troops. Proper planning ensures that the nutritional needs of the APF are adequately met, promoting their physical health and mental alertness (Mess Operation Directives, 2022). The section presents the following set up questions:

- i) How does your unit manage the demand and supply of rations?

According to one of the respondent stressed that the mess management committee is working hard to achieve their result as per the newly adopted policies of the organization.

As per the APF, Nepal Mess Operation Directives (revised) 2079, a three-member committee is entrusted with the task of managing ration operations in the unit. The committee comprises a member secretary as the head, a Keyman (recommended by the Mess Management Committee) representing other ranks, and a senior Parichar (followers). For the ration demand, it is submitted to the Mess Management Committee for procurement from the market. Upon the arrival of the demanded items at the main entrance gate, a ration management committee, consisting of field officers and duty officers (JCOs), conducts a thorough inspection to ensure compliance with quality standards. Once the items pass inspection, they are approved and recorded in the store room for distribution to different messes. The ration purchase committee

takes responsibility for storing one month's worth of ration within the unit. The Mess Commander, supported by the field officer and duty officer, determines the daily ration requirements based on the daunik khada hajir (daily attendance) of the unit.

The appointment holder's polite behavior and convincing capabilities were distinctly highlighted by one of the FGD 3 members.

A Key man demonstrates remarkable competence in efficiently managing and timely supplying rations. On certain occasions, when we require separate preparations such as meat, vegetables, or pickles, we directly approach Key Man and kindly request the necessary ingredients such as oil, spices, onions, chilies, and salt. Building a strong rapport with him proves advantageous, as he promptly fulfills our requests, enabling the preparation of meals.

The establishment of a dedicated branch at both the Headquarters and Brigade levels, was highlighted as a key recommendation by one of the interviewees.

The disparity in food item prices among various units, even within the same province, highlights the need for a provincial level canteen within the Brigade. Such an establishment can ensure consistent and standardized ration supplies for all units. A well-organized system can be implemented where rations are delivered to respective units through available vehicles, scheduled once or twice a month. A dedicated branch can be established at both the Headquarters and Brigade levels, with an officer in command overseeing the operations.

b) Record Management

The proper record keeping ensures transparency and accountability in the distribution and utilization of ration items. By keeping track of stock levels and consumption patterns, the organization can identify potential shortages or surpluses in advance, ensuring timely replenishment and minimizing wastage (Mess Operation Directives, 2022).

i) How do you manage the record of ration demand and supply ?

Most of the respondents brought attention to a drawback in effective record management and lack of auditing system in ration management.

The management of ration records is a crucial aspect of our operations, overseen by the dedicated storekeeper known as the Key man. The store room houses a variety of ledger books, including the approved daily ration demand list, purchase records and invoices, storage inventory and a log of daily supply items and their quantities. Field officers and duty officers diligently inspect the ration store, providing regular reports to the Commander and the Mess Management Committee. A committee member verifies the daily purchases, supplies, and stock items. Towards the beginning of each month, the committee meticulously examines the previous month's ration expenditure and stock, granting approval based on the detailed records.

As an experience of researcher, it is evident that the demand and supply aspect is a critical area of concern in ration management. It is important for individuals and responsible committees to be highly vigilant and address the root causes of mismanagement of ration items in order to prevent any further leakage in the system. During the FST in India, There is an appointment of Unit accountant who is responsible to audit all income and expenditure of ration in each month and submitted the report to higher official.

4.1.6 Ordinary and festival food

The relationship between food and culture is deeply intertwined, as different societies have developed unique culinary traditions shaped by their ecological and environmental contexts. The cultural significance of food is evident in its classification into two categories: sacred and secular. Examining food habits, dietary patterns, and dining customs provides valuable insights into human societies and their diverse cultures. Food, therefore, emerges as a cultural artifact that offers a lens through which we can better understand and appreciate the complexities of human society (Kunwar, 2017). In addition, APF, Nepal is playing the role of protecting and promotion of Nepali culture in the society and entire part of country.

a) Ordinary food

The standard ration menu aims to provide a balanced and nutritious diet to meet the energy and nutritional needs of the armed police force. The typical daily ration includes staple foods such as rice and daal (lentils) as a primary source of carbohydrates and proteins. Alongside, vegetables, both fresh and dry, are incorporated to add essential vitamins and minerals to the diet. Cooking oils and spices are also included to enhance the taste and palatability of the meals. This section consists of following questions:

i) How does your experience in ordinary meal of APF, Nepal ?

One of the respondents pointed out the availability of nutritious and high quality food during the serving the meal

Throughout my experiences in deploying to various units of APF, I have enjoyed diverse meal menus that vary based on geographical locations, food availability, and other factors. However, in all units, there is adherence to the ration menu specified by the Armed Police Force regulations, which includes a four meal schedule daily. The menu is meticulously crafted, taking into consideration the nutritional needs of the personnel and ensuring the provision of high quality food.

b) Festival food

APF, Nepal is celebrating various types of festival by sharing happiness within the members of unit. It gives a immense pleasure and felt homely environment. The organization is always moving towards for the protection and promotion of cultural diversities.

i) Does your unit promote and celebrate any types festival (regular and local level festival) ? If yes, write the date, name of festival and meal menu of your unit during this occasion.

One of the participants in FGD 3 proudly shared their experience with pride emphasizing how security forces play a vital role in safeguarding and nurturing the rich and diverse culture, traditions and customs. .

The security forces vital role in safeguarding and promoting the rich cultural heritage, traditions, and customs of Nepal. Deployed across the 77 districts, APF units embrace and celebrate a wide range of national and local festivals. Furthermore, collective activities such as central cook lunches held every first week of the month, as well as birthday celebrations and inspections from central or higher-ranking offices, further strengthen the bonds within the unit and foster a sense of unity and camaraderie. These vibrant celebrations include special occasions are mentioned as below.

Table 4.1*Ordinary and Festival Food Menu of APF, Nepal*

S.N.	Month	Festival	Food Items	Remarks
1.	Asar 15 (June)	<i>Dhaan Diwas</i> (National Paddy Day)	<i>Dahi, Chiura</i> (Yoghurt and Beaten rice)	
2.	Sawan 15 (July)	<i>Kheer Khane Din</i> (Rice Pudding Day)	Rice Pudding, Potato and Pickle etc.	
3.	Bhadra (August-September)	<i>Janai Purnima</i>	<i>Kwati</i> (Sprouted Lentils Soup) and meat	
4.	Bhadra(August-September)	<i>Teej</i>	<i>Dar</i>	
5.	Kartik (October-November)	Bada Bhoj (Dashian)	Special food	
6.	Kartik (October-November)	Tihar	<i>Roti</i> (Bread)	
7.	Magh (January-February)	<i>Maghe Sankranti</i>	<i>Ghee, Chaku</i> (Ghee, Molasses)	
8.	Magh 7	APF Day	Special food	
9.	Chaitra (March-April)	<i>Chaite Dashain</i>	Special food	
10.	Chaitra (March-April)	<i>Fagu Purnima</i>	Special food	
11.	First week of the month	Central Cook	Ordinary Food	
12.		Unit Anniversary	Special food	
13.		Unit Inspection by higher office	Special food	
14.		Birthday Celebration	Ordinary Food	
15.		Passing Out Parade	Special food	

Source: Field Study, 2023

The unit is celebrating above mentioned festival as per the schedule and manage schedule as per requirement. Special meal generally consists of rice, *dal*, green vegetable, vegetable, mutton, chicken roast, pickle, papad, salad etc. As the deployment of APF unit in different geographical location, the units are promoting local culture and festival.

According to the respondent, they further highlighted that presently, all expenses of the celebrations and program are now utilizing from the individual allowance and appealing additional financial support from the government.

In order to preserve and celebrate our cultural traditions, additional food items are required for festive occasions. During festivals like Dashain, we incorporate meat and other special items to enhance the enjoyment of rituals such as Badabhjo, Tika, Ghatasthapana, Aastami, and Nawaratri. Specifically for Dashain, we refrain from consuming meat from Sohrashraadh to Ghatasthapana, gathering and preserving it for later use, including during the festive Badabhjo and the special ten days of Dashain. This allows us to create a homely atmosphere in the barracks for APF staff who are unable to go home during the festival. Similarly, we incur additional expenses to arrange various items for other traditional Nepali festivals, aiming to create a sense of home within the barracks. These additional costs are managed using the ration allowance provided to each APF personnel. While residing in the barracks, We do not receive any extra allowances, and the government deducts taxes from our ration allowance without providing additional funds for festival celebrations.

4.1.7 Kitchen structure and dinning space

The kitchen layout and dinning space in APF, Nepal are carefully designed to support the efficient and smooth operation of food preparation and service. The layout is typically organized into distinct areas to facilitate optimize productivity, food safety and adherence to hygiene standards (Mess Management Directives, 2022).

a) Kitchen structure

The kitchen structure is designed to accommodate the preparation of food for a large number of personnel. It typically includes various sections for storage, food preparation, cooking, and cleaning. Modern and well-equipped kitchens are essential to maintain food safety and hygiene standards. This section covers the questions are made as below:

- i) How does kitchen layout impact workflow, from food preparation to cooking to cleaning?

According to one of the respondents, the kitchen layout and workflow are of utmost importance.

The kitchen plays a crucial role in the preparation and cooking of food for APF personnel. The quality and taste of the meals are greatly influenced by the cleanliness and ambience of the kitchen, as well as the dining hall and its surroundings. Currently, the organization is prioritizing the renovation of kitchen and dining hall facilities, as well as focusing on initiatives such as plantation and gardening, and ensuring proper sanitation and hygiene practices.

- ii) Does your organization prioritize Mess management such as kitchen infrastructure ?

One of the respondents commendably emphasized the organization's priority in recognizing the importance of kitchen while preparing food.

The organization places utmost importance on the efficient management of meals within the unit. Firstly, the renovation of the kitchen in APF, Nepal No.24 Company demonstrates the commitment to improving the infrastructure. Furthermore, a stronger emphasis has been placed on effective record management, ensuring accurate leave records, clarifying the responsibilities of commanders and committees, and highest standards of food quality. Special attention is given to catering to the dietary needs of vegetarian personnel, ensuring their well-managed and satisfactory meal options. Transparency and integrity in the actions of the commanders are promoted, fostering trust and accountability within the unit. In addition, the organization has streamlined the transportation of food by utilizing unit vehicles, without imposing any additional charges on the ration budget.

- iii) What new possibilities are being created for kitchen functionality and efficiency?

The respondent emphasized the importance of refresher/ training for followers and other kitchen staff and effective waste management practices. They further suggested that the organization should give priority to establishing a new school for followers.

The new possibilities are emerging to enhance kitchen functionality and efficiency. These include the use of modern kitchen equipment such as rice steamer, ovens and smart kitchen management systems for inventory and recipe management, incorporating nutrition analysis and menu planning tools, promoting local sourcing and a farm to table approach, providing training and skill development programs for kitchen staff, and implementing effective waste management and recycling practices. If possible, the organization should prioritize to establish new training school for the refresher/ training of followers.

One of the respondents explained that the organization prioritizes the use of sustainable and environmentally friendly equipment.

The organization is placing more emphasis on the use of electric equipments within its units. As part of this effort, there is a growing awareness and encouragement for units to utilize electric kitchen equipment. This shift towards electric appliances aims to promote energy efficiency, reduce reliance on fossil fuels, and contribute to a more sustainable and environmentally friendly and contribute to the organization's broader goal of adopting greener practices.

b) Dining space

Dining space is equally significant in providing a comfortable and pleasant environment for APF personnel to enjoy their meals. The dining area should be spacious enough to accommodate all personnel and provide them with a conducive atmosphere to relax and socialize during meal times. The following questions are answered in this section.

i) What is your opinion towards dining hall in your unit ?

One of the respondents explained that

The organization recognizes the importance of maintaining high standards in the dining halls and continuously renovating them to keep up with the changing needs and expectations. It is crucial to adopt sustainable policies and practices for the dining halls to promote environmental consciousness and long-term effectiveness.

As a researcher while on the Foreign Study Tour (FST), observed that The mess facilities serve as a reflection of the unit, and we prioritize creating a welcoming and efficient

environment through careful attention to seating arrangements and service procedures. The dining hall holds a pivotal role within the mess, contributing to the unit's well-being and boosting morale for both individuals and the organization as a whole. The Central Mess is designed to cultivate a strong sense of closeness, unity, and professionalism among officers. It serves as a hub for fostering professional relationships and strengthening bonds, ultimately enhancing the overall welfare and cohesiveness of the officers.

4.1.8 Calculation of nutrition value

Macronutrients are essential nutrients in achieving a balanced diet and maintaining good health. They emphasize the importance of consuming appropriate amounts of carbohydrates, proteins, and fats to meet the body's energy and nutritional needs (World Health Organization, n.d.). Firstly, Carbohydrates are the body's primary source of energy, providing fuel for the brain and muscles. They are found in foods like grains, fruits, and vegetables. According to the American Heart Association, carbohydrates should make up 45-65% of total daily calorie intake (American Heart Association, n.d.). Secondly, Proteins are important for building and repairing tissues, supporting immune function, and producing enzymes and hormones. Good sources of protein include meat, fish, poultry, legumes, and dairy products. The Recommended Dietary Allowance (RDA) for protein is 0.8 grams per kilogram of body weight per day for adults (National Academies of Sciences, Engineering, and Medicine, 2005).

Lastly, Fats are vital for the absorption of fat-soluble vitamins, protecting organs, and providing insulation. They also provide a concentrated source of energy. Unsaturated fats, such as those found in nuts, seeds, and oils, are considered healthier choices compared to saturated and trans fats. The American Heart Association recommends limiting saturated fat intake to less than 7% of total daily calories (American Heart Association, n.d.). The section includes the nutrition value of consume ration, influence factor, revision of dietary pattern and status of patient due to the nutrient factor of ration items.

a) Nutritional composition

The nutritional composition of the APF meal is carefully planned to meet the dietary requirements of its personnel, taking into consideration their physical activity levels, environmental conditions, and specific nutritional needs. This ensures that the meal provides

sufficient energy and nutrients to support the health and well-being of the APF personnel while they perform their duties and responsibilities. The questions are covers as follows:

What do you know about the nutrition value of your consume ration ?

The majority of the respondents expressed their lack of awareness about nutrition value and requested the organization to conduct an awareness program. As explained by the participant in the following statement:

We are more focusing on the menu of the ration with meat or not. Actually we do not know more about the nutrition value of the food. We only knew about that cooking oil contains high amounts of fats, and rice is rich in carbohydrates. Their understanding is limited to Body Mass Index (BMI), which may lead to missed opportunities for organizational advancement if height and weight do not align. So The priority is to reduce weight by consuming fewer carbohydrates and fatty foods.

i) What are the socio-cultural and environmental factors that influence food consumption patterns and nutritional practices?

One of the respondents expressed his live experiences and vividly describes hardships due to the insufficient ration allowance and include in the provision APF regulation about the dry ration Meals Ready to Eat (MRE).

Now I am deploying in BOP Timure the feelings of weakness, reduced endurance, breathlessness, headaches, fatigue, and difficulty in sleeping. I deployed to an altitude of over 10,000 feet for border pillar checking, with a cash allowance based on the rate of Mustang district. However, the allowance was not sufficient to cover the expenses of basic necessities such as a cup of hot water for Rs. 100 and a meal for Rs. 675. Therefore, our organization will manage dry food MRE for such types of operational activities conduction in the Area of Responsibility (AOR) of unit.

b) Pattern of nutritional requirement

It is important for the APF to ensure that the ration and meal plans align with the nutritional requirements of its personnel to keep them physically fit, mentally alert, and capable of performing their duties effectively in various operational situations. the following questions are answered.

- i) What are the dietary patterns and nutritional requirements for specific duty such as normal duty, training, deployment in high altitude etc. ?

During the interview, most of the respondents advocated the need for altitude based food provision and physical activity. It is essential to make adjustment to both the calorie intake.

The training phase, which is known to be challenging, they felt the need to supplement their diets with additional food items. When they had leave, they would often buy fruits like bananas, apples, mangoes, grapes, as well as nuts, energy biscuits, and energy drinks. In the canteen, they would typically have eggs, meat, jerri (Funnel Cake), puri, samosa (Rissole), Kheer (Pudding), and as these provided them with the necessary energy to complete the demanding exercises during training. A respondent from Rasuwa district mentioned always feeling dehydrated and needing hot food items to keep their body warm. They expressed missing items such as coffee, soup, Vitamin C, tinned food, whole milk and meat with bones. Additionally, during Long Range Patrol (LRP), they emphasized the importance of having Meals Ready To Eat (MRE) instead of cash allowances.

- ii) What changes would you like to revise to the existing food items, based on your locality?

Most of the respondents further emphasized that The ration items is essential to make adjustments to both the calorie intake and the quantity of protein and fat, while reducing the intake of carbohydrates. The statement of respondent as experienced by the following

The same food items are being used in all geographical locations since the establishment of APF, Nepal. However, these food items may not always be suitable as the force is deployed at altitudes ranging from 200 feet to above 9000 feet. There is a need to consider the availability of local products, nutritional balance, and variety of choices when selecting food items. Another participant suggested that the ration items should be categorized based on altitude levels (below 9000 feet, above 9000 feet, above 12000 feet), training food, and vegetarian and non-vegetarian options.

One of the dietician argued that in light of revising the menu is one of the better opportunity to revise the menu based on extensive research on the topic.

A balanced diet is crucial for ensuring the health, strength, alertness, and resilience of military personnel during their operations. As part of this effort, our daily meal plan at APF, Nepal, will incorporate nutritious items such as fresh fruits (papaya, pomegranate, avocado, pears, plum, kiwi, dragon fruit), pulses and legumes (black gram, cowpea, horse gram, lentil, green gram, etc.), dairy products (milk, curd, tofu, etc.), green vegetables (garden cress, bethe leaves, rape leaves, etc.), meat (goat, sheep, Himalayan meat, etc.), tinned food, coffee, juice, spices, and fresh/tinned fish.

iii) How would you analyze that the increasing number of patient at the APF Hospital day by day

One of the doctor highlighted that an imbalanced diet can have negative effects on the body's overall structure and functionally stated that

There is limited research on the relationship between food consumption and its impact on health. However, the number of patients with various diseases is steadily increasing. Trainee APF personnel commonly experience injuries such as fractures, stress fractures, dislocations, sprained ligaments, and spinal stenosis. The doctor emphasized that an imbalanced diet has negative effects on the body's overall structure and functionality.

4.1.9 Perception towards meal

The perception of APF personnel both in plains and at high altitudes are shared their happiness regarding the existing ration items. The investigation reveals that the current ration scales adequately meet the nutrient requirements but the ration items are to be different on the basis of altitude of the unit. They fear that any team visiting the units may recommend reducing the ration scales or any issues to be raised in higher level. They also believed that voicing their dissatisfaction would lead to improvements in the ration scales. The section covers the following questions.

a) Satisfaction and Preferences

This section deals with the satisfaction and preferences of APF personnel regarding their meals. The satisfaction of APF personnel are based on existing meal practices, including the quality, taste, and variety of food provided. It includes following questions:

- i) How does the perception of existing meals among Armed Police Force personnel across different meal times, such as breakfast, lunch, and dinner?

Most of the respondents highlighted the significance of institutional meal in APF, Nepal and perception towards it. The respondents explained in the following statement.

They expressed great satisfaction with the cash allowance for ration, which allows them to consume nutritious and high-quality food according to their unit's management. There is no interference in the unit's ration management, as the Ration Committee has the authority to make decisions under the coordination of the unit commander. The committee is empowered to directly procure ration items from the market. Previously, we only had three meals a day, but now we receive four meals. Every APF unit provides breakfast and lunch with calorie rich food to the subordinate officers and other ranks. Each week, the unit ensures that all officers and soldiers enjoy well prepared rice, pulses, vegetables, pickles, and at least two times with goat meat and chicken served twice, and eggs provided once. Vegetarians are provided with milk and fruits

The following was the expression of one of the respondents:

I am thoroughly impressed with the quality and taste of the food. The upgrades in the ration system and the recent renovation of the mess have transformed it into a welcoming space, akin to a restaurant. As a result, I have the privilege of inviting our families to join us for meals in the mess. This new arrangement allows us to share the delicious and well-prepared food with our loved ones, creating a homely and enjoyable atmosphere.

During FGD 6, the respondents proudly conveyed their experience, stressing the great initiative of the organization.

In all messes of the Armed Police Force, a consistent standard of high-quality rice, excellent food and wide variety of delicious dishes are prepared at the same level for all officers and other ranks. They also expressed utmost appreciation and gratitude to the chief of APF Nepal Respected IGP Raju Aryal and his entire team for the strong leadership and vision for providing the best possible dining experiences. The culinary expertise and dedication of the chefs. The flavors were exquisite, with a perfect

balance of spices and seasonings. Not only did the meals satisfy the hunger, but they also left us completely satisfied. The mess staff ensured that the meals were served hot and fresh, maintaining a high level of hygiene and cleanliness.

- ii) What are the common complaints or grievances regarding the meal service among APF personnel,

One of the respondents further emphasized that the grievance mechanism of APF, Nepal

As the member secretary, I am facing problem in collection of ration money from individual, difficult to manage ration for the next month due to the lack of money, expenses burden in organizing various programs and issue raise during temporary deployment from other unit. The issues are less in organization due to the systematic arrangement and seriousness in effective ration management. In addition, there are some other issues such as timely revise in daily menu, repetition of same vegetable in a week due to the geographical nature, negative perception in ration from top to bottom level etc.

According to the respondents in FGD 3, there is a common problem in APF personnel which is mentioned as below:

Ration management generally does not pose significant issues. However, there is a heightened level of attention and scrutiny from higher ranking officials down to the ground level, ensuring that no issues arise in the ration system. The distribution of ration allowances in individual cash accounts plays a crucial role. Ration becomes an outlet for APF personnel to express their frustrations, such as workloads, limited leave options, internal work pressures, and misunderstandings with senior personnel like the Field officer (duty officer of the unit who is responsible for the management and operational activities within unit as per the duty roster) Subedar Major (Senior JCOs who is officially appointed in the unit) and Hawaldar Major (Senior other ranks who is officially appointed), who serve as intermediaries between officers and other ranks.

It was seriously noted that one of the respondents brought attention in connection of managing ration due to the multi-cultural, multi-linguistic and multi-ethnicity etc.

The organization is placing increased emphasis on the celebration of Hindu festivals such as Dashain and Tihar. However, in the APF, Nepal, there is now a diverse group of individuals belonging to different religious backgrounds working together for the nation. In order to respect and acknowledge all religions, the organization could give equal importance to festivals of all faiths, including Roja, Christmas, Udhauli, Uvauli and, Eid etc. within the barracks. Some of members who are muslim, Christian or follow other religions have voiced their concern regarding the saving of meat for the celebration of Dashain festival.

b) Grievance handling mechanism

The Grievance Handling Mechanism is governed by established policies and procedures, ensuring that complaints are dealt with promptly and efficiently. APF demonstrates its commitment to ensuring the well-being and satisfaction of its personnel while upholding fairness and accountability within the organization. The section presents the following questions:

- i) What mechanisms are employed to address and resolve grievances within the unit ?

The one of the respondents strongly advocated of the grievances mechanism of APF, Nepal which is more effective to resolve any types of issues in the organization.

Under the command of the APF IGP Secretariat, there are two dedicated sections responsible for supervising and managing grievances. These sections are led by a Senior Superintendent and a Deputy Superintendent, respectively. To ensure convenience for complainants, an online portal (<http://apf.gov.np:8000/gunaso.php>) has been established, allowing individuals to submit their issues directly to the organization. At every level of the APF, including the Academy, Brigade, Training School, Battalion, Company, and Base, a designated nodal officer is appointed to handle grievances, including those related to ration and other matters. Prior to reaching this stage, there are internal mechanisms in place such as morning assemblies (physical training), roll call, counseling sessions, suggestion boxes, and meetings with commanders, Subedar Majors, Hawaldar Majors, and Field Officers, providing avenues for addressing and resolving grievances.

The participants of the FGD 4 emphasized that

To ensure the cooking of top-notch food, there are arrangements in place for monitoring the messes of APF units. Under the command of senior officers, dedicated teams monitor the messes and promptly identify areas for improvement if the food quality is not up to par, providing on-site instructions for enhancement. Additionally, periodic inspections conducted by monitoring teams appointed by the Armed Police Force Headquarters and Brigade ensure that the messes meet the desired standards, with swift disciplinary action taken against unit commanders in cases of unsatisfactory food quality.

- ii) What factors influence the quality and nutritional value of institutional meals in the Armed Police Force in Nepal?

One of the respondents specifically addressed that

Several factors influence the quality and nutritional value of the ration. Some important aspects include units located in remote areas where expired goods and the specified ration items according to APF rules may not be readily available. There may be significant differences between the approved ration rates and market prices. Furthermore, storing goods for extended periods, lack of electricity and unavailability of normal and deep freezers in the unit can also impact the quality. Additionally, the expertise of the mess chefs, availability of local product, and the positive attitude and fulfillment of responsibilities by designated APF personnel all play a vital role.

As a researcher, I am delighted to express my satisfaction with the institutional meal management system of APF, Nepal. It is evident that the organization has made significant efforts to address any existing problems, and the leadership's commitment to this issue is commendable. Their proactive approach and innovative initiatives have positively impacted the overall functioning of the system. Consequently, the organization has been successful in mitigating potential challenges and ensuring a smooth and efficient meal management process.

4.1.10 Provision and practices of other organization

The provision and practices of institutional meal management vary across different organizations based on their specific needs, resources, and operational requirements.

a) Nepali Army

Nepali Army has a long and illustrious history. It is responsible for safeguarding the nation's territorial integrity, maintaining internal security, and providing humanitarian assistance during times of natural disasters. The following answers are included in questions:

- i) How do these practices compare to meal provisions in Nepal Army ?

One of the respondents mentioned that

Nepal Army has implemented a ration tender system that has been in place for a considerable period of time. This system involves categorizing ration items into five packages: dry ration items, meat items, fresh food items, dairy products, and cooking fuel, specifically Liquefied Petroleum Gas (LPG). This division aims to streamline the procurement process and ensure efficient supply to each unit. The decision to divide the ration items into separate categories recognizes that expertise is required for each specific category, ultimately improving the quality of the ration. By having five different suppliers for each package, Army can effectively manage the procurement and delivery of quality ration within designated timeframes. The contracts for supplying ration items are valid from the beginning of Magh (January/February) to the end of Poush (December/January) of the following year and the rate of ration is revise every year during the tender process.

- ii) Could you provide information about the policies or guidelines concerning Meals Ready to Eat (MRE) in the Nepali Army?

Meals Ready to Eat (MRE) are self-contained, prepackaged meals that don't require cooking and are intended for individual consumption. While they are commonly used by military personnel, MREs consist of pre-cooked, dehydrated food items, including main dishes, sides, snacks, and desserts (Department of Defense, 2023). Since, 2019 from the decision of Government, Nepali Army is also getting MRE (Vegetarian and Non-vegetarian) during the

period of operation, training UN mission and disaster management (Nepali Army, 2020). These statements articulate the participants' experience.

The Meals Ready to Eat (MRE) in the Nepali Army are prepared based on internal suggestions, dietary preferences of Nepali people and best practices of foreign forces. Typically, they are provided for three days under normal circumstances and twice a year during sensitive situations. However, MRE access is limited to a certain number of formation who deployed in special task. The procurement of MRE is carried out through the standard contract process. Additionally, there is a mandatory provision to use dry ration before its expiration. After using MRE, Khetala Sankhya (Number of users) must be deducted from unit's total count to calculate their ration amount. ration.

b) Nepal Police

Nepal Police is the primary law enforcement agency of Nepal responsible for maintaining law and order, ensuring public safety, and upholding the rule of law in the country.

i) How do these practices compare to meal provisions in Nepal Police ?

According to one of the respondents informed that the current ration allowance is not sufficient to buy food because the value of money According to one of the respondents informed that the current ration allowance is not sufficient to buy food because the value of money has likely changed significantly in inflation and changes in the economy.

Nepal Police receives a cash ration allowance similar to APF, Nepal. However, the ration items provided are different from those of APF. In training institutions and battalion levels, there is a ration management committee responsible for overseeing the distribution of rations. The committee ensures that the basic ration items are included in the daily menu, and any additional food items are decided upon by the committee. In other units, volunteer police personnel take charge of managing food for their respective staff and collect money from each person at the end of the month. The cash allowance does not undergo annual revisions, although prices may fluctuate in the market.

c) National Investigation Department

National Investigation Department (NID) is a specialized intelligence agency of Nepal responsible for conducting investigations into matters of national security and other sensitive issues.

i) How do these practices compare to meal provisions in National Investigation Department (NID) ?

One of the respondents shared his knowledge in a ration management.

The Nepal Police follow a similar system where we receive a ration allowance and are responsible for managing our own rations. As of now, we have not encountered any problems with the ration system. The ration rates remain unchanged unless the government decides to make adjustments and increase them.

d) Department of Prison management

Department of Prison Management under the Ministry of Home Affairs. The department is responsible for overseeing and administering the various correctional facilities throughout the country. It provides a ration money.

i) How do these practices compare to meal provisions for prisoner or detainee ?

One of the officer from civil administration stated that

Prisoners or detainees in Nepal receive a daily ration for their food management. Adults are provided with 700 grams of rice and Nepali Rupee (NPR)80 per day, while children receive a ration based on their age, with up to 600 grams of rice and NPR 50 per day. Pregnant women receive same ration and special provisions from 30 days before childbirth until 60 days after delivery, including 700 grams of rice, 100 grams of ghee, 100 ml of cooking oil, and 50 grams of Jwano (Omum) each day. In Nakhu prison, there is a committee responsible for managing the food for prisoners. For financially disadvantaged prisoners, they contribute NPR 20 per day from the allocated NPR 80 to purchase their daily necessities. The cash allowance and food is same until changing the rule of Prison Management Rule 2079.

e) Department of Forest

The department is responsible for the conservation, management, and utilization of the country's vast forest resources. It operates under the Ministry of Forests and Environment. Nepal's rich biodiversity, ensuring sustainable forest management, and promoting environmental conservation. It includes following question:

- i) How do these practices compare to meal provisions with forest office ?

One of the respondents clearly mentioned about the best practices of institutional meal in the organization.

The Division Forest Office takes charge of procuring and supplying ration to their staff, excluding the divisional officer. The District Rate Committee plays a crucial role in setting minimum prices for essential goods and services, ensuring that they are affordable for the public. This process is also followed by other agencies such as the Nepali Army. Each year, suppliers are selected through a contract system to renew the contract and maintain a smooth supply of ration.

4.2 Discussion

Institutional food services are responsible for providing meals to specific groups of people within organizations like hospitals, schools, nursing homes, the military, and industries. Among three basic requirement for human being along with food, clothing and shelter, food plays a vital role especially in militaries such as Armed Police Force, Nepal where soldiers are deployed in diverse settings, including from plain field operations like Border Out Post (BOP), Kechanakawal, Jhapa, (200 feet) to high mountains Nechung, Mustang (15092 feet) (APF, Nepal Operation Department, 2023). Military food services play a crucial role in ensuring nutrition, energy and physical toughness in training and fighting ground. Having an optimal nutritional status is essential for military personnel to maximize the benefits of training and perform their operational tasks effectively.

4.2.1 Existing Institutional Meal of Armed Police Force, Nepal

APF, Nepal manages the ration distribution to its personnel in the barracks through a committee, following the guidelines outlined in the revised Mess Operation Directives of 2079. Under the command of the Second-In-Command, the committee ensures that quality

food is provided within the allocated cash allowance from the government. The member secretary plays a crucial role in managing the demand and supply of ration by investing their own money and collecting individual ration allowances at the end of each month. However, APF personnel perceive the cash allowance as a personal incentive rather than a ration allowance, which creates doubts and reluctance in paying the ration allowance to the member secretary. Additionally, the committee checks the income-expenditure statement of ration without conducting thorough investigations. To address this issue, it is recommended that APF establishes a central expert team to conduct audits of the ration records. It could be ensured transparency and accountability in the ration management system.

Similarly, the Nepal government currently considers ration money as income, subjecting it to a one percent tax on the total income. However, in India, the government has announced tax exemption on ration money allowance and risk and hardship allowance provided to paramilitary personnel, specifically for non-gazetted ranks such as constables, head constables, assistant sub-inspectors, sub-inspectors, and inspectors (The Economic Times, 2019). Therefore, it is recommended that the Government of Nepal also grants tax exemption on ration and other allowances for ranks ranging from Junior Commissioned Officers (JCOs) to Followers.

4.2.2 Preferable policies for the organization (Cash or Contract System)

The cash ration allowance policy in APF, Nepal has proven to be highly beneficial for the organization, providing a comfortable and efficient means of managing ration related issues through a dedicated committee. The respondents highlighted the advantages of having cash in office accounts, ensuring timely payment of ration expenses and relieving the burden of individual collection by the member secretary. They expressed concerns about the challenges posed by the current system, where commanders have limited involvement but face the headaches of addressing issues raised by personnel. The respondents also questioned the imposition of taxes on ration money and suggested government exemption. Despite the challenges, the barrack system remains ready to respond to unforeseen situations. The three distinct ration management systems, namely the tender system, cash in office account, and cash in individual, each have their own significance within the barrack system. The tender system proved effective during the insurgency period, providing a reliable supply of rations, while the cash allowance system is favored but requires more efficient unit management procedures. The cash allowance system implemented in APF, Nepal has brought significant

advantages to the organization, including the ability to maintain food quality, support the local market, ensure transparency, and be managed by a dedicated committee. However, challenges remain, such as collecting money from individuals, insufficient funds during transfers or training, and difficulties in managing ration supply in remote areas.

4.2.3 Assessment of the existing food management system (Committee or Catering)

The Ration Management Committee in APF, Nepal is a commendable practice that ensures efficient operation of the mess and provision of high quality food to personnel. Under the guidance of the immediate commander, the committee takes responsibility for addressing issues, maintaining accountability, and closely supervising the process. Implementing a catering service could be a potential new practice, allowing individuals to directly manage their ration allowance and utilize it for meals. The contract system, in place since the organization's establishment, assigns a contractor to oversee the ration process, while the office ensures quality control and internal management. The ration management committee and its knowledgeable members contribute to the preparation of quality food for APF personnel, aligning with similar practices observed in foreign study tours. For the betterment of the mess management, each mess should make own commander to manage and monitor the ration. The formation of the committee would be required as follows.

Table 4.2

Mess Management Committee

S.N.	Details	Designation
1.	Second-In- Command	Head
2.	Commander, Senior Officer Mess	Member (Recommended by the selection committee)
3.	Unit Accountant	Member
4.	Hygiene Officer	Member

5.	Subedar Major or Senior JCOs	Member
6.	Commander, JCOs Mess	Member (Recommended by the selection committee)
7.	Commander, NCOs Mess	Member (Recommended by the selection committee)
8.	Head of Logistic Section	Member-Secretary

Source: Adopted and modified from Sashastra Seema Bal (2023).

Table 4.2 illustrates that the head of the mess management committee in all units is Second-In-Command. At least three mess commanders are required Headquarters to company level, both dependent and independent. Below the company level units can have one mess or as per their specific requirements, with the provision not being mandatory for offices. The duration of each mess commander is three months, and the same APF personnel cannot hold the position more than twice in the same unit. The unit accountant is responsible for monthly auditing all the income and expenses related to the mess. The monthly audit report might be sent to the APF Headquarters, Finance Division. The expenses for official functions are divided among all the messes. The mess management committee has the authority to collect advance ration allowance from all personnel present in the office and to select the mess commander for each mess. A central audit team might be established at the headquarters and conducted an audit of the details of ration income and expenses at least once every three months. The committee might be carried out APF personnel satisfaction survey to assess the satisfaction level and quality of food and service once a time every three months. The committee would be submitted all the report related ration every month.

APF Headquarters should be established Ration Audit Committee to conduct final examination of ration income and expenditure of unit in all province. The formation of Audit team is as follows.

Table 4.3*Ration Audit Team*

S.N.	Details	Designation
1.	SP/ DSP (Account Officer)	Head
2.	Inspector (Account Officer)	Member
3.	SI (Accountant)	Member
4.	ASI (Accountant)	Member
5.	Other Ranks (Experience in Account/logistic)	Member

Source: The formation of team is adopted and modified from the Audit of rations management in United Nation Mission in Sudan (2009).

Table 4.3 highlights that the headquarters is responsible to establish ration audit team as per the requirement. The team has authority to audit the all the document of ration specially focusing demand and supply, store house, invoicing and payments, committee's and all three mess commander's performance, hygiene in food handling and services, contingency plans during emergency etc.

4.2.4 Implementation of institutional meal policies

The organization follows a top-down approach in policy preparation, but policy implementation is carried out using a bottom-up approach. Challenges arise when ration allowance cannot be paid during the leave period, as there is a lack of consultation with units and staff regarding leave guidelines. It is important to conduct detailed research at the grassroots level for effective policy implementation. Clear policies are needed regarding the usage of rice steamers and other evolving practices. The security bases face challenges in food management, with higher ration costs and a sense of detachment from the parent unit. Comprehensive policies and instructions are necessary to address these issues and ensure the organization's safety and success. APF, Nepal No.14 Battalion, Makawanpur introduced the first bread maker machine for bakery item production. Initiatives were also taken at Balaju base and Hariharbhawan and APF Command and Staff College base to utilize water used for

rinsing rice (*Maad*) in cooking, to make more tasty. The renovation of kitchens for other ranks began at APF, Nepal No.19 Battalion, Banglamukhi and APF, Nepal No.24 Company HQ, Baghbhairab, Kantipath. Additionally, rice steamers powered by electricity are now being used in some units for rice cooking. These positive initiatives should be documented and policies formulated to ensure their long-term sustainability. The Research and Development Division should play a vital role in conducting research and implementing these practices effectively in the field.

Previously, APF, Nepal No.14 Battalion, Makawanpur had been planted first bread maker machine to produce various types of bakery items. Another initiation is started from Balaju base and Hariharbhawan base to cook a food without throwing *Maad* (Before cooking rice, pouring water in the utensils), reinovate of kitchen of other ranks was started from APF, Nepal No.19 Battalion, Banglamukhi and APF, Nepal No.24 Company HQ (Headquarter Security), Kantipath and recently some of units are using the rice steamer for cooking rice by using electricity. The document is attached in Appendix "H" and "I". Those good initiation should be written and formulate the policy to sustain long term. For the full fledge implementation of the policy, Research and Development Division should take initiative for the research of the subject matter prior applying in the field level.

4.2.5 Demand and supply system of institutional meal

According to APF, Nepal's Mess Operation Directives (revised) 2079, a three-member committee is responsible for managing ration operations in the unit. The committee consists of a member secretary, a representative of other ranks called Keyman, and a senior followers (Cook). Ration demands are submitted to the Mess Management Committee for procurement. Upon arrival, a ration management committee inspects the items for quality before recording them in the store room. The ration purchase committee ensures one month's worth of ration is stored within the unit. The Mess Commander, with the support of field officers and duty officers, determines the daily ration requirements. The efficient management of ration is carried out by the Keyman, who promptly supplies the necessary ingredients upon request. The record management system of the unit is their own style so APF Headquarters should start to uniformity in record management to all unit. One of the format of ration demand form is attached in Appendix "J".

4.2.6 Regular and festival food

The APF units play a crucial role in preserving and promoting Nepal's rich cultural heritage. They actively participate in national and local festivals celebrated across the country's 77 districts. The celebration of festival including collective activities such as central cook lunches and birthday celebrations strengthen unity within the unit. Additional food items are procured for festive occasions. However, these additional expenses are managed using the ration allowance provided, as no extra allowances. Hence, The additional allowance should be provided by the government to celebrate various types of festival in the unit.

4.2.7 Food consumption and meal menu

Menu preparation in each unit follows a standardized process and requires approval from higher authorities. Generally APF, Nepal is practicing the same menu implementing province level. While most units within a province follow the same menu, adjustments are made for units in high-altitude or remote areas. The organization should analyze about the revise the internal menu of food as per their availability, geographical condition and nutritive value. The organization emphasizes the importance of maintaining high standards in dining halls and regularly renovating them to meet evolving needs. The standard meal menu of APF, Nepal is attached in Appendix "K".

4.2.8 Perception of APF Personnel

APF personnel are highly satisfied with the cash allowance for ration, which allows them to enjoy nutritious and top-quality meals managed by their units. The Armed Police Force in Nepal maintains a consistent standard of excellence in providing high-quality rice and a diverse range of delicious dishes for all ranks. The culinary skills of the chefs are praised for their ability to create flavorful and perfectly seasoned meals. To inspire and motivate team members, the organization could introduce food competitions among units. Additionally, establishing a training school dedicated to food preparation, hygiene and sanitation, and refresher training would create a favorable environment for learning and skill development.

4.2.9 Nutritive value and categorization of institutional meal

During the rigorous training phase, the personnel recognized the need to supplement their meals with extra food items to meet their energy requirements. In high altitude, APF

personnel are feeling dehydrated and preferring hot food items to keep warm. The same food items have been used across all geographical locations may not always be suitable due to the varying altitudes at which the force is deployed, ranging from 200 feet to over 9000 feet. It is important to consider factors such as the availability of local products, nutritional balance, and variety of choices when selecting the ration items. Most of the participants suggested categorizing the ration items based on altitude levels (below 9000 feet, above 9000 feet, above 12000 feet), training requirements, and options for both vegetarian and non-vegetarian personnel. The details of the nutritive calculation of institutional meal are mentioned as follows.

a) Calculation of macronutrients of existing ration of APF, Nepal

The authorized ration scale of each food item and their macronutrient percentage and weight are given in following table.

Table 4.4

Caloric Value of Ration items Per Day Per Person (APF, Nepal)

S.N.	Items	Quantity (gram)	Protein (gram)	Fats (gram)	Carbohydrates (gram)	Total Calories
1.	Rice	720	48.96	3.6	564	2484
2.	Dal (Black gram)	113.5	28.3	0.7	267.5	387
3.	Cooking Oil	25 ml	0	25	0	225
4.	Ghee	30	0	30	0	270
5.	Sugar	30	0	0	30	120
6.	Condense Milk	15	1.5	1.5	11	63
7.	Atta	56.8	6.7	0.9	38.7	190
8.	Green Vegetable	170.3	3	0.17	8.1	45.9
9.	Beans	50	10	2	29.2	175
10.	Potato	125	2	0.1	25.8	121.25
11.	Meat (Goat)	30	5.5	4	0	60

12.	Meat (Chicken)	25	4.7	4.4	0	58
13.	High Energy Biscuit	6 pieces	8.4	22.8	64.5	49.7
14.	Egg (in a week)	4	6.6	6.6	0	86.5
Total			126	102	1039	4783

Source: APF, Nepal Rules and Regulations 2015

Table 4.4 indicated that the ration items provided to APF personnel primarily include rice, black gram, cooking oil, ghee, meat, and beans. Daily items such as rice, black gram, vegetables, potatoes, and sugar are provided, while items like mutton, chicken and eggs are provided on specific days of the week. The quantity of each ration item for an individual is as follows: 720 gram (g) of rice, 113.5 g of black g, 30 g of ghee, 30 g of sugar, 170.3 g of green vegetables, and 125 g of potatoes etc. The total macronutrient content in the diet of APF personnel consists of 126 g of proteins, 102 g of fats, and 1039 g of carbohydrates. Based on this data, the calculated daily calorie intake per APF personnel is 4783 calories.

b) Calculation of macronutrients of existing ration of Nepali Army

The authorized Nepali Army ration scale of each food item and their macronutrient percentage and weight are given in following table.

Table 4.5

Caloric Value of Ration items Per Day Per Person (Nepali Army)

S.N	Items	Quantity (gram)	Protein (gram)	Fats (gram)	Carbohydrates (gram)	Total Calories
1.	Rice	700	47.6	3.5	547.4	2415
2.	Dal (Black gram)	70	16.8	0.9	41.7	243
3.	Cooking Oil	40	0	40	0	360
4.	Sugar	30	0	0	30	120
5.	Salt	30	0	0	0	0

6.	Green Vegetable	150	0.3	0.1	3.7	18
7.	Dry Vegetable	60	12.3	2.8	35.4	210
8.	Potato	125	2	0.1	25.8	121
9.	Onion	20	0.2	0	2	9
10.	Spices	20	0	0	0	0
11.	Milk	15	2.5	2.5	12	81
12.	Tea	2	0	0	0	0
13.	Meat (Mutton)	28	5.3	3.8	0	57
14.	Chicken	28	5	4.6	0	62
15.	Egg	50	6.6	6.6	0	137
16.	Biscuit	1 Packet	8.2	15.4	42.3	341
Vegetarian						
१६	Mushroom	141	6.4	1.1	6	60
१८	Special Curd	115	3.5	4.6	3.3	69
१९	Fresh vegetable	175	0.3	0.8	23.4	103
२०	Paneer	114	26	28	0.8	364
Total	Non-vegetarian		96.5	71.9	740.3	4111.10
	Vegetarian		132.7	106.4	773.8	4583.6

Source: Nepali Army Headquarters, (2023)

Table 4.5 demonstrated that the ration items provided to Nepali Army as vegetarian and non-vegetarian food primarily include rice, black gram, cooking oil, sugar, potato, meat, and beans. Daily items such as rice, black gram, dry vegetable, green vegetable, potato, and sugar are provided, while items like mutton, chicken, mushroom, paneer and special curd are provided on specific days of the week. The quantity of each ration item for an individual is as follows: 700 g of rice, 70 g of black gram, 150 g of green vegetable, 60 g of dry vegetable, 125 g of potato, 30 g of sugar, 28 g of goat meat, 28 g of chicken etc. The total macronutrient content in the vegetarian diet of Nepali Army consists of 132.7 g of proteins, 106.4 g of fats, and 773.8 g of carbohydrates. Based on this data, the calculated daily calorie intake per APF personnel is 4651 calories. Similarly, The total macronutrient content in the non-vegetarian diet of Nepali Army consists of 96.5 g of proteins, 71.9 g of fats, and 740.3 g of

carbohydrates. Based on this data, the calculated daily calorie intake per APF personnel is 4583.6 calories.

c) Calculation of macronutrients of existing ration of Nepal Police

The authorized Nepal Police ration items of each food item and their macronutrient percentage and weight are given in following table.

Table 4.6

Caloric Value of Ration items Per Day Per Person (Nepal Police)

S.N.	Items	Quantity (gram)	Protein (gram)	Fat (gram)	Carbohydrate (gram)	Total Calories
1.	Rice	690	46.9	3.4	549.5	2380
2.	Dal (Black gram)	113.5	28.3	0.7	267.5	387
3.	Cooking Oil	20	0	20	0	180
4.	Ghee	28	0	28	0	252
5.	Sugar	30	0	0	30	120
6.	Condense Milk	15	5.7	6.7	3.7	68
7.	Atta	56.08	6.7	0.9	38.7	190
8.	Spices	15	0	0	0	0
9.	Salt	30	0	0	0	0
10.	Green Vegetable	170.3	3	0.17	8.1	46
11.	Beans	50	10	2	29.2	175
12.	Potato	125	2	0.1	28.8	121
13.	Tea	2	0	0	0	0
14.	Meat (Mutton)	45	8.3	5.9	0	87
Total			111	68	955	4007

Source: Nepal Police, (2023)

Table 4.6 showed that the daily ration items such as rice, black gram, dry vegetable, green vegetable, potato, and sugar are provided, while items like goat meat, chicken are provided on specific days of the week. The quantity of each ration item for an individual is as follows:

690 g of rice, 113.5 g of black gram, 170.3 g of green vegetable, 125 g of potato, 30 g of sugar, 45 g of goat meat etc. The total macronutrient content in the vegetarian diet of Nepali Army consists of 111 g of proteins, 68 g of fats, and 955 g of carbohydrates. Based on this data, the calculated daily calorie intake per APF personnel is 4007 calories.

4.2.10 Required ration scale for APF, Nepal

Good health encompasses not only the absence of disease but also complete physical, mental, and social well-being. Food plays a crucial role in supporting overall well-being as it provides our bodies with essential nutrients. To maintain optimal health, our bodies require more than 45 different nutrients, and a deficiency in any of these can lead to health issues and a weakened immune system (WHO, 2022). Recognizing the importance of food, it is listed as one of the six fundamental rights of human beings, alongside access to water, air, clothes, shelter, and security. It is vital for everyone to have access to sufficient, balanced, and safe food that caters to their nutritional needs and cultural preferences (Department of Food Technology and Quality Control, 2012). APF, Nepal has been shifted its history since 2015 onwards while converting its ration system from procurement or contract system into cash ration allowance. The items of ration have also revised 14 items to 19 items. Government of Nepal is providing same ration item whether they deployed in mountain or Hill or Terai region.

Table 4.7

Recommended Dietary Allowances (RDA)

Group	Particulars	Body weight (Kg)	Net energy Kcal/day
Man	Sedentary work	60	2425
	Moderate work		2875
	Heavy work		3800
Women	Sedentary work	50	1875
	Moderate work		2225
	Heavy work		2925
	Pregnant women		3000

Source: Department of Food Technology and Quality Control, (2012)

Table 7 indicated that as a armed force means heavy work need 3800 calories and for the women required 2925 calories to engage in various operational activities.

According to Scientific Advisory Committee on Nutrition (SACN), United Kingdom, suggested that each military personnel in training required following energy

Table 4.8

Recommended dietary allowances for Military personnel

Group	Gender	Total kcal/day
Military Training Course	Man	4600
	Women	3500

Source: Scientific Advisory Committee on Nutrition (SACN), (2016)

Table 4.8 indicated that for the military person as a man required 4600 energy and for women, they required 3500 energy during the time of training. Although, most of the respondents considered more effort in the categorization of ration items based on deployment of APF unit in various altitude. They also demanded to revise existing ration scale and include available food in different geographical setting. Some of the items could mention to add in high altitude such as Lentils [Broad bean, Cowpea, Rajmah, Horse gram (Black/Red)], Field bean), Meat [Sheep Meat, *Chyangra ko Masu* (Himalayan goat meat)], Fish (Bam, Katla, Magur, Rahu) Coffee, whole milk powder, Vitamin C or orange/ lemon powder or juice etc. Rayamajhi (2020) clearly identified the poor quality of ration as the one of the main reason behind the APF mutiny in 2008 which was a consequence of the unavailability of various types of ration items at the operational site. In addition, Khan et al. (2022) suggested that the servicemen engaged in strenuous physical activities may have various nutritional needs so it is necessary to revise ration scale to the variety of food items in different geographical location and physical activity level to be enhanced health, performance and well being of security force. During the Foreign Study tour in India, as a member of tour, I was learned that Indian Army and Central Armed Police Force (CAPF) were categorized their ration based on vegetarian, non-vegetarian and trainees officers and altitude like below the 9000 feet, above 12000 feet and above 15000 feet. Based on above mentioned reasons, Government of Nepal could better to revise with following ration items to APF, Nepal

Rational based on findings and comparison study between other security forces, Indian Army and CAPF, the following ration scales would be required to APF, Nepal for the enhancement of overall health, performance and wellbeing of APF, Personnel.

a) Required non-vegetarian ration items (Below 9000 feet)

The following ration items require for non-vegetarian APF personnel.

Table 4.9

Required Non-Vegetarian Ration Items (Below 9000 feet)

S.N.	Items	Quantity (gram)	Protein (gram)	Fat (gram)	Carbo hydrate (gram)	Total Calories
1.	Rice	620	75.2	10.5	430.3	2114
	Rice & Atta	400+200	51.4	5.4	451.6	2062
2.	Dal (Black gram, Broad, Month beans, Lentils, Rajmah, Red gram, Horse gram, Bengal gram dal)	70/70/70/ 70/70/70/ 70/70	16.8	0.9	41.7	243
3.	Cooking Oil (Suryamukhi/ Soyabeans)	25 ml	0	25	0	225
4.	Ghee	30	0	30	0	270
5.	Sugar	10	0	0	10	40
6.	Milk/ Powder Milk	200/30	6.4	8.2	8.5	134
7.	Atta	100	12.1	1.7	69.4	341
8.	Green Vegetable	170.3	3	0.17	8.1	45.9
9.	Beans (Chickpea, Cowpea, field bean, garden pea, Soyabean)	60/60/60/ 50/30	12.3	2.8	35.4	210
10.	Potato	100	1.6	0.1	22.4	72
11.	Meat (Goat)	28	5.5	4	0	60
12.	Meat (Chicken)	25	4.7	4.4	0	58
13.	High Energy Biscuit	6 pieces	8.4	22.8	64.5	49.7

14.	Egg	4 pieces every week	6.6	6.6	0	86.5
15.	Onion	20	0.2	0	2	9.4
16.	Garlic`	10	0.6	0	2.9	14
17.	Tomato	50	0.05	1.9	0.7	10.5
18.	Salt	10	0	0	0	0
19.	Spices (Chilis dry, Corianders, Cumin seeds, Ginger, Cardimom, Nutmeg, Peeper, Omum, Bay leaf, Tumeric, Sounf)	20	0	0	0	0
20.	Fresh Vegetable (Apple/Banana/ Guava/ Orange/Papaya/Mango/Pomegranate/Grapes/ Avocado/ Kiwi/Dragon fruit/ Plum)	140/170/ 180/170/ 250/100/ 120/120/ 120/ 100/120/ 100	0.28	0.7	18.7	82.6
21.	Green Vegetable	200	10.2	0.4	11.8	96
22.	Dry Vegetable	150	0.75	0.15	5.1	25.5
23.	Fish (Bam, Katla, Magur, Rahu)	45	9.52	0.79	2.5	55
24.	Firewood/ Kerosene/ Gas	1362 kg/ 200 ml/ 0.12 kg				
Total			158	100	638	4070

Source: Adapted and modified from Babusha et al. (2023)

Table 4.9 showed that the daily ration items such as rice, black gram, dry vegetable, green vegetable, potato, and sugar are provided, while items like goat meat, chicken are provided on specific days of the week. The quantity of each ration item for an individual is as follows:

620 g of rice, 70 g of black gram, 170.3 g of green vegetable, 100 g of potato, 10 g of sugar, 28 g of goat meat etc. The total macronutrient content in the vegetarian diet of Non-vegetarian ration scale (Below 9000 feet) consists of 158 g of proteins (638 Kcal/16 percent of total calorie), 100 g of fats (900 Kcal/22 percent of total calorie), and 638 g of carbohydrates (2552 Kcal/62 percent of total calorie). Based on this data, the calculated daily calorie intake per APF personnel is 4070 calories.

b) Required vegetarian ration items (Below 9000 feet)

The following ration items require for vegetarian APF personnel.

Table 4.10

Required Vegetarian Ration Items (Below 9000 feet)

S.N.	Items	Quantity (gram)	Protein (gram)	Fat (gram)	Carbo hydrate (gram)	Total Calories
1.	Rice	620	75.2	10.5	430.3	2114
	Rice & Atta	400+200	51.4	5.4	451.6	2062
2.	Dal (Black gram, Broad, Month beans, Lentils, Rajmah, Red gram, Horse gram, Bengal gram dal)	70/70/70/70/70	16.8	0.9	41.7	243
3.	Cooking Oil (Suryamukhi/ Soyabeans)	25 ml	0	25	0	225
4.	Ghee	30	0	30	0	270
5.	Sugar	10	0	0	10	40
6.	Milk/ Powder Milk	200/30	6.4	8.2	8.5	134
7.	Atta	100	12.1	1.7	69.4	341
8.	Green Vegetable	170.3	3	0.17	8.1	45.9
9.	Beans (Chickpea, Cowpea, field bean, garden pea, Soyabean)	60/60/60/50/30	12.3	2.8	35.4	210
10.	Potato	100	1.6	0.1	22.4	72
11.	High Energy Biscuit	6 pieces	8.4	22.8	64.5	49.7

12.	Egg	4 pieces every week	6.6	6.6	0	86.5
13.	Onion	20	0.2	0	2	9.4
14.	Garlic`	10	0.6	0	2.9	14
15.	Tomato	50	0.05	1.9	0.7	10.5
16.	Salt	10	0	0	0	0
17.	Spices (Chilis dry, Corianders, Cumin seeds, Ginger, Cardimom, Nutmeg, Peeper, Omum, Bay leaf, Tumeric, Sounf)	20	0	0	0	0
18.	Fresh Vegetable (Apple/Banana/ Guava/ Orange/Papaya/Mango/Pomegranate/Grapes/ Avocado/ Kiwi/Dragon fruit/ Plum)	140/70/ 180/170/ 250/100/ 120/120/ 120/ 100/120	0.28	0.7	18.7	82.6
19.	Green Vegetable	200	10.2	0.4	11.8	96
20.	Dry Vegetable	150	0.75	0.15	5.1	25.5
21.	Mili/ Paneer/ Curd /Tofu/ Mushroom	220/45/2 50/141	7.04	9.2	9.6	150
22.	Tea/ Coffee	5/5	0	0	0	0
23.	Firewood/ Kerosene/ Gas	1362 kg/ 200 ml/ 0.12 kg				
Total			136	110	727	4542

Source: Adapted and modified from Babusha et al. (2023)

Table 4.10 showed that the daily ration items such as rice, black gram, dry vegetable, green vegetable, potato, and sugar are provided, while items like goat meat, chicken are provided on specific days of the week. The total macronutrient content in the vegetarian diet of Nepali Army consists of 136 g of proteins (644 Kcal/14 percent of total calorie), 110 g of fats (990

Kcal/22 percent of total calorie), and 727 g of carbohydrates (2907 Kcal/62 percent of total calorie). Based on this data, the calculated daily calorie intake per APF personnel is 4542 calories.

c) Required non-vegetarian ration items (Above 9000 feet)

APF, Nepal is deploying in 77 districts at high altitude at or above 9000 feet above sea level. Most of the respondents demanded for the revision of ration in plain and altitude level. The respondents who deployed in high altitude felt weak and dehydration so they claimed additional ration items such as soup, coffee, canned food, meat (Sheep) and kerosene etc. Likewise, Khan et al.(2022) argued that the soldiers at high altitude at or above 9000 feet above sea level supplied with extra rations to cope up extra caloric requirement of extremes of temperature increase about 10 percent the caloric requirement below freezing point.

Table 4.11

Required Non-Vegetarian Ration Items (Above 9000 feet)

S.N	Items	Quantity (gram)	Protein (gram)	Fat (gram)	Carbo hydrate (gram)	Total Calories
1.	Rice	700	47.6	3.5	547.4	2415
	Rice & Atta	400+200	51.4	5.4	451.6	2062
2.	Dal (Black gram, Broad, Month beans, Lentils, Rajmah, Red gram, Horse gram, Bengal gram dal)	110/110/ 110/110/ 110/100/ 110/110	26.4	1.54	65	381.7
3.	Cooking Oil (Suryamukhi/ Soyabeans)	25 ml	0	25	0	225
4.	Ghee	30	0	30	0	270
5.	Sugar	30	0	0	300	120
6.	Whole Milk/ Powder Milk	30/30	6.4	8.2	8.5	134
7.	Atta	100	12.1	1.7	69.4	341
8.	Green Vegetable	170.3	3	0.17	8.1	45.9
9.	Beans (Chickpea, Cowpea, field bean, garden pea, Soyabean)	60/60/60/5 0/30	12.3	2.8	35.4	210
10.	Potato	100	1.6	0.1	22.4	72

11.	Goat meat/Himalyan goat/ sheep	30	6.5	4	0	60
12.	Chicken	25	4.7	4.4	0	58
13.	Vitamin C/ Orange Powder/ Orange Juice/ Lemon	100mg/ 17mg/ 100 ml/ 10 gm	0.2	0.1	1.9	9
14.	High Energy Biscuit	6 pieces	8.4	22.8	64.5	49.7
15.	Egg (1 piece each day)	50	6.6	6.6	0	86.5
16.	Onion	20	0.2	0	2	9.4
17.	Garlic`	10	0.6	0	2.9	14
18.	Tomato	50	0.05	1.9	0.7	10.5
19.	Salt	10	0	0	0	0
20.	Spices (Chilis dry, Corianders, Cumin seeds, Ginger, Cardimom, Nutmeg, Peeper, Omum, Bay leaf, Tumeric, Sounf)	20	0	0	0	0
21.	Fresh Vegetable (Apple/Banana/ Guava/ Orange/ Papaya/Mango/ Pomegranate/ Grapes/ Avocado/ Kiwi/Dragon fruit/ Plum)	140/70/18 0/170/250/ 100/120/1 20/120/10 0/120/170	0.28	0.7	18.7	82.6
22.	Seasonable Green Vegetable	200	10.2	0.4	11.8	96
23.	Seasonable Vegetable/ Canned Vegetable	150	0.75	0.15	5.1	25.5
24.	Fish fresh/ Fish tinned (Bam, Katla, Magur, Rahu)	45	9.52	0.79	2.5	55
25.	Tea/Coffee	10/10	0	0	0	0
26.	Firewood/ Kerosene/ Gas	1362 kg/ 200 ml/ 0.12 kg				
Total			141	109	734	4481

Source: Adapted and modified from Babusha et al. (2023)

Table 4.11 showed that the daily ration items such as rice, black gram, dry vegetable, green vegetable, potato, and sugar are provided, while items like goat meat, chicken are provided on specific days of the week. The total macronutrient content in the vegetarian diet of Nepali

Army consists of 141 g of proteins (564 Kcal/13 percent of total calorie), 109 g of fats (981 Kcal/22 percent of total calorie), and 734 g of carbohydrates (2936 Kcal/65 percent of total calorie). Based on this data, the calculated daily calorie intake per APF personnel is 4519 calories.

d) Required vegetarian ration items (Above 9000 feet)

The following ration items require for vegetarian APF personnel.

Table 4.12

Required Vegetarian Ration Items (Above 9000 Feet)

S.N.	Items	Quantity (gram)	Protein (gram)	Fat (gram)	Carbo hydrate (gram)	Total Calories
1.	Rice	620	75.2	10.5	430.3	2114
	Rice & Atta	400+200	51.4	5.4	451.6	2062
2.	Dal (Black gram, Broad, Month beans, Lentils, Rajmah, Red gram, Horse gram, Bengal gram dal)	70/70/70/70/70	16.8	0.9	41.7	243
3.	Cooking Oil (Suryamukhi/ Soyabeans)	25 ml	0	25	0	225
4.	Ghee	30	0	30	0	270
5.	Sugar	10	0	0	10	40
6.	Milk/ Powder Milk	200/30	6.4	8.2	8.5	134
7.	Atta	100	12.1	1.7	69.4	341
8.	Green Vegetable	170.3	3	0.17	8.1	45.9
9.	Beans (Chickpea, Cowpea, field bean, garden pea, Soyabean)	60/60/60/50/30	12.3	2.8	35.4	210
10.	Potato	100	1.6	0.1	22.4	72
11.	High Energy Biscuit	6 pieces	8.4	22.8	64.5	49.7
12.	Egg	4 pcs per week	6.6	6.6	0	86.5

13.	Onion	20	0.2	0	2	9.4
14.	Garlic`	10	0.6	0	2.9	14
15.	Tomato	50	0.05	1.9	0.7	10.5
16.	Salt	10	0	0	0	0
17.	Spices (Chilis dry, Corianders, Cumin seeds, Ginger, Cardimom, Nutmeg, Peeper, Omum, Bay leaf, Tumeric, Sounf	20	0	0	0	0
18.	Fresh Vegetable (Apple/Banana/ Guava/Orange/Papaya/Mango/ Pomegranate/Grapes	140/70/180/170/250/100/120/120	0.28	0.7	18.7	82.6
19.	Green Vegetable	200	10.2	0.4	11.8	96
20.	Dry Vegetable	150	0.75	0.15	5.1	25.5
21.	Milk/ Paneer/ Curd/Tofu/Mushroom	220/45/250/141	7.04	9.2	9.6	150
22.	Tea/ Coffee	5/5	0	0	0	0
23.	Firewood/ Kerosene/ Gas	1362 kg/ 200 ml/ 0.12 kg				
Total			137	110	751	4541

Source: Adapted and modified from Babusha et al. (2023)

Table 4.12 showed that the daily ration items such as rice, black gram, dry vegetable, green vegetable, potato, and sugar are provided, while items like goat meat, chicken are provided on specific days of the week. The total macronutrient content in the vegetarian diet of Nepali Army consists of 137 g of proteins (548 Kcal/12 percent of total calorie), 110 g of fats (990 Kcal/22 percent of total calorie), and 751 g of carbohydrates (3003 Kcal/66 percent of total calorie). Based on this data, the calculated daily calorie intake per APF personnel is 4541 calories.

4.2.11 Practices of institutional meal in other organization

The Nepali Army has implemented a ration tender system that has been in place for a significant period. Ration items are divided into five categories, including dry ration, meat, fresh food, dairy products, and cooking fuel (LPG). This division aims to streamline procurement and ensure efficient supply to each unit by using five ration supplier. The contracts for supplying ration items are valid for a specific period, and the rates are revised annually. Nepali army has also received dry ration MRE (vegetarian and non-vegetarian) in each six months according to their strength. During the normal situation for the self sustainment of the troops, They get MRE for three days. At the time of emergency, operational and disaster management, Nepali Army get twice a time (one time for six days) in a year. Similarly, Nepal Police and the National Investigation Department also have their own ration management systems, where personnel receive a cash allowance and are responsible for the principle of self-managed ration. Nepali Army has a historical organization. The history also proves from its ration items that is attached in Appendix "L".

The Nepali Army has implemented a well-organized and nutrition focused food menu for its personnel. However, the APF, Nepal uses the same ration items across all regions, regardless of altitude. According to suggested that ration items should be categorized based on altitude, training, and dietary preferences. The ration rates remain unchanged unless approved by the government, leading to a significant difference between the ration rate and the current market price. According to the Public Procurement Regulations (2007), if directed by the central office, provisions can be made to provide ration without cash, based on approved estimated costs and distribution rates. The rules also allow for yearly revisions of the ration rate by the organization, following the guidelines of the District Committee, without requiring cabinet approval.

CHAPTER V

SUMMARY AND CONCLUSIONS

5.1 Summary

The research paper explores the practices of institutional food in the Armed Police Force, Nepal. It delves into various aspects such as menu preparation, dining hall standards, ration allocation, and the impact of food consumption on personnel's health. One key finding of the research is that the menu preparation in each APF unit requires approval from higher authorities within the organization. While there is generally a standardized menu followed across units within a province, adjustments are made for units situated at high altitudes or remote areas. This ensures that the nutritional needs of personnel are met while considering the unique challenges and requirements of different unit locations. The study emphasizes the importance of maintaining high standards in the dining halls of APF units. Continuous renovation is carried out to keep up with changing needs and expectations. Sustainable policies and practices are promoted to foster environmental consciousness and long-term effectiveness. The aim is to create a warm and welcoming atmosphere in the dining halls, prioritizing hygiene and cleanliness for the well-being of APF personnel.

Autoethnography approach is used in this research. The primary and secondary data are used. The primary data is collected from purposive sampling method by using KII and FGD. Ration allocation in the APF strictly adheres to the approved menu, which is endorsed by the Nepal government for the organization. The ration items are categorized into different packages such as dry ration items, meat items, fresh food items, dairy products, and cooking fuel. This categorization streamlines the procurement process and ensures efficient supply to each unit. The research highlights the importance of maintaining accountability and adherence to standards in the ration management process. The study also explores the impact of food consumption on the health of APF personnel. It reveals that an imbalanced diet can have negative effects on the body's overall structure and functionality. Trainee personnel commonly experience injuries such as fractures, stress fractures, dislocations, sprained ligaments, and spinal stenosis. This highlights the need for a balanced diet to support physical fitness and well-being.

The research provides insights into the practices of institutional food in other security agencies such as Nepali Army, Nepal Police, and Division Forest Office. It compares their procedures and challenges with those of the APF. While there are similarities in certain aspects, each agency has its own unique practices and systems in place. The research paper sheds light on the practices of institutional food in the APF and highlights the importance of maintaining high standards, considering nutritional needs, and promoting a healthy and sustainable approach. It provides valuable insights for improving the ration management system and ensuring the well-being of APF personnel through nutritious and high-quality food.

5.2 Conclusion

Several theories on institutional meals have been emphasized by notable researchers. Meiselman et al. (1974) underscored the significance of the quality of rations, provided to the Armed Forces. Similarly, Foset et al. (2003) highlighted the importance of meticulous planning, preparation, and execution to ensure that meals are safe, nutritious, and satisfying. Additionally, Khan et al. (2022) discussed the need for additional ration items to meet the nutritional requirements of personnel, particularly when deployed in diverse geographical regions with varying altitudes and physical activity demands.

Various challenges and areas for improvement have been identified in the institutional meal practices. These include issues related to the ration system, lack of sufficient diversity in the menu, and concerns about transparency and accountability in the designated personnel. The importance of a mess audit system to maintain openness in transactions and the establishment of a ration supply unit in each province have also been highlighted as essential steps towards better management and service delivery. The self-managed approach and promote local products and agriculture, the organization could consider encouraging the use of local food and market within the barracks. Additionally, conducting nutrition education programs and implementing regular mess audits, certified by competent offices, can further enhance the quality of institutional meals. In order to respect and acknowledge all religions, the organization prioritizes to include all in one floor. equally important to various ethnicity and should equally prioritize festivals of all faiths within the barracks, , through continuous research, transparent policies, and a proactive approach towards improvement, the APF, Nepal can further enhance the quality, nutritional. . The study emphasizes the need for

balanced and nutritious meals to support the physical fitness and well-being of APF personnel. The kitchen and dining hall standards within the APF. It emphasizes the significance of maintaining high standards, hygiene, and cleanliness to create a pleasant and conducive environment for personnel to gather, dine, and socialize. The paper recognizes the role of the dining hall as a reflection of the unit and its contribution to the overall well-being and morale of the officers. The study emphasizes the need for balanced and nutritious meals to support the physical fitness and well-being of APF personnel. The kitchen and dining hall standards within the APF. It emphasizes the significance of maintaining high standards, hygiene, and cleanliness to create a pleasant and conducive environment for personnel to gather, dine, and socialize. The paper recognizes the role of the dining hall as a reflection of the unit and its contribution to the overall well-being and morale of the officers.

Additionally, incorporating healthy food items such as fish, fresh fruits and vegetables, fresh milk, and dried fruits into the menu can help meet the nutritional requirements of servicemen in high altitude environments. In the current scenario where the health benefits of natural antioxidants are well established, there is a potential to enhance their consumption by introducing herbal-based products in the ration. Moreover, nutrition education plays a crucial role in motivating servicemen to make healthy food choices and discard unhealthy options. By providing the necessary knowledge and awareness about nutrition, they can be empowered to prioritize their health and optional for nutritious food items. through continuous research, transparent policies, and a proactive approach towards improvement, the APF, Nepal can further enhance the quality, nutritional value, and inclusivity of their institutional meal practices, ensuring the well-being and satisfaction of their personnel.

Appendix "A"

(Refer to Page No. 31)

INFORMED CONSENT FORM**Practices of institutional meal in Armed Police Force, Nepal**

Date(day/month/year)

I, (Mr./Mrs./Ms.)hereby
have signed the consent to declare that:

1. Before signing the certificate of consent, I have been explained the objectives and methods of the study.
2. I have had the opportunity to ask questions about the study and any questions that I have asked have been answered to my satisfaction.
3. I have the right to withdraw from the study at any time if I feel uncomfortable.
4. The investigator will keep the information confidential and my personal data will not be declared in any case except the academic purpose.
5. The investigator will provide additional necessary information about the study, if there are any.

I have read and understand the above information and I consent voluntarily to participate as a participant in this research.

Signature/Finger print..... (Respondent/informant)

Signature (Researcher)

(DSP Sachin Karmacharya)

Appendix "B"

(Refer to Page No.31)

DETAILS OF STUDY PARTICIPANTS (KEY INFORMANT INTERVIEW)

Participant No.	Sex	Age range (Years)	Education	Unit
P 1	M	41-46	University education	No.9 Bde.Kathmandu
P 2	M	41-46	University education	Nepal APF Hospital
P 3	M	47-52	University education	Operation Department
P4	M	41-46	University education	No.1 Bde. Sunsari
P 5	M	41-46	University education	APF, IGP Secretariat
P 6	M	47-52	University education	No.9 Bde.Kathmandu
P 7	M	41-46	University education	Finance Division
P 8	M	41-46	University education	APF, IGP Secretariat
P 9	M	41-46	University education	APF, IGP Secretariat
P 10	M	35-40	University education	Operation Department
P 11	M	47-52	University education	No.18 Bn.Nilbarahi
P 12	M	35-40	University education	Nepal APF Hospital
P 13	F	47-52	University education	Nepal APF Hospital
P 14	M	35-40	University education	Nepal APF Hospital
P 15	M	41-46	University education	Nepal APF Hospital
P 16	M	35-40	University education	Nepal APF Hospital
P 17	M	35-40	University education	Nepal APF Hospital
P 18	M	35-40	University education	Nepal APF Hospital
P 19	M	41-46	University education	No.24 Coy., Kathmandu
P 20	M	23-28	Higher Secondary Level	No.9 Bde.Kathmandu
P 21	F	23-28	Secondary Level	No.9 Bde.Kathmandu

P 22	M	29-34	University education	No.9 Bde.Kathmandu
P 23	M	29-34	University education	No.9 Bde.Kathmandu
P 24	M	47-52	University education	No.20 Bn, Sinamangal
P 25	M	41-46	University education	No.20 Bn, Sinamangal
P 26	M	41-46	University education	No.20 Bn, Sinamangal
P 27	M	41-46	University education	No.20 Bn, Sinamangal
P 28	M	35-40	University education	No.20 Bn, Sinamangal
P 29	M	35-40	University education	No. 6 Coy. Dhankuta
P 30	M	35-40	University education	No. 6 Coy. Dhankuta
P 31	M	35-40	University education	No. 6 Coy. Dhankuta
P 32	M	18-22	Higher Secondary Level	No.1 Bde. Pakali, Sunsari
P 33	M	18-22	Secondary Level	No.1 Bde. Pakali, Sunsari
P 34	F	29-34	Secondary Level	No.1 Bde. Pakali Sunsari
P 35	F	23-28	University education	No.20 Bn, Sinamangal
P 36	M	35-40	University education	Firefighting, Newroad
P 37	M	29-34	Higher Secondary Level	Firefighting, Newroad
P 38	M	23-28	Higher Secondary Level	Firefighting, Newroad
P 39	M	29-34	Primary Level	Firefighting, Newroad
P 40	M	29-34	University education	Support & Service COY.
P 41	M	35-40	University education	Armory Section
P 42	M	29-34	Secondary Level	Support & Service COY.
P 43	F	18-22	Primary Level	Support & Service COY.
P 44	F	23-28	Secondary Level	Support & Service COY.
P 45	M	23-28	Primary Level	Trainees
P 46	M	23-28	Secondary Level	Trainees
P 47	M	23-28	Higher Secondary Level	Trainees

P 48	F	23-28	Higher Secondary Level	Trainees
P 49	F	18-22	Primary Level	Trainees
P 50	F	18-22	Primary Level	Trainees
P 51	M	35-40	University education	BOP Timure
P 52	M	41-46	Higher Secondary Level	BOP Timure
P 53	F	23-28	Higher Secondary Level	BOP Timure
P 54	M	23-28	Secondary Level	BOP Timure
P 55	F	23-28	Secondary Level	BOP Timure
P 56	M	29-34	Primary Level	BOP Timure
P 57	M	41-46	University education	No.22 Bn, Bhaktapur
P 58	M	41-46	University education	No.22 Bn, Bhaktapur
P 59	M	41-46	University education	No.22 Bn, Bhaktapur
P 60	M	29-34	University education	No.22 Bn, Bhaktapur
P 61	M	29-34	University education	No.22 Bn, Bhaktapur
P 62	M	41-46	Higher Secondary Level	No.22 Bn, Bhaktapur
P 63	M	41-46	University education	No.21 Bn, Lallitpur
P 64	M	41-46	University education	No.21 Bn, Lallitpur
P 65	F	29-34	University education	No.21 Bn, Lallitpur
P 66	M	23-28	University education	No.21 Bn, Lallitpur
P 67	M	41-46	University education	No.1 Coy., Taplejung
P 68	M	35-40	University education	Dependent Coy., Solukhumbu
P 69	M	35-40	University education	No. 32 Coy., Manang
P 70	M	41-46	University education	No.6 Coy., Dhankuta
P 71	M	41-46	University education	No. 50 Coy., Darchula
P 72	M	41-46	University education	No.2 Bn., Jhapa

P 73	M	41-46	University education	No. 4 Bn., Sunsari
P 74	M	41-46	University education	No. 27 Bn., Rupendehi
P 75	M	35-40	University education	Training School Jhapa
P 76	M	29-34	Secondary Level	APF C&SC
P 77	F	29-34	Secondary Level	APF C&SC
P 78	F	29-34	Secondary Level	APF C&SC
P 79	M	35-40	University education	APF C&SC
P 80	M	35-40	University education	No.1 Bn, Ilam
P 81	M	35-40	University education	No.6 Coy., Dhankuta
P 82	M	23-28	Secondary Level	APF C&SC
P 83	M	29-34	Secondary Level	APF C&SC
Nepal Police				
P 84	M	41-46	Secondary Level	Nepal Police
P 85	M	41-46	Secondary Level	Nepal Police
P 86	M	35-40	University education	Nepal Police
P 87	M	23-28	University education	Nepal Police
P 88	M	29-34	University education	Nepal Police
Nepali Army				
P 89	M	41-46	University education	Nepali Army
P 90	M	41-46	University education	Nepali Army
P 91	M	41-46	University education	Nepali Army
P 92	M	41-46	Higher Secondary Level	Nepali Army
Department of Food Technology and Quality Control				
P 93	M	41-46	University education	Deputy Director
P 94	F	41-46	University education	Head of Division
Others				

P 95	M	47-52	University education	NID
P 96	M	29-34	University education	NID
P 97	M	53-58	University education	Nakhu Prison
P 98	M	53-58	University education	Forest Office
Retired Other Ranks				
P 99	M	53-58	University education	
P 100	M	53-58	University education	
P 101	M	53-58	University education	
P 102	M	53-58	University education	
P 103	M	53-58	Higher Secondary Level	
P 104	M	47-52	Higher Secondary Level	
P 105	M	47-52	University education	
P 106	M	47-52	Higher Secondary Level	
P 107	M	47-52	University education	
P 108	M	47-52	University education	
P 109	M	41-46	University education	
P 110	M	41-46	Higher Secondary Level	
P 111	M	35-40	Secondary Level	
P 112	M	35-40	Secondary Level	
P 113	F	35-40	Secondary Level	
P 114	F	29-34	Higher Secondary Level	
P 115	M	29-34	Primary Level	
P 116	M	29-34	Primary Level	
P 117	M	29-34	Primary Level	
Ration Supplier				
P 118	M	41-46	University education	

P 119	M	47-52	Higher Secondary Level	
P 120	M	41-46	Higher Secondary Level	

Source: This data is taken from field research of the researcher. It highlighted that the details of participants in FGD is mentioned where Primary level: Grade (1-5), Secondary level: Grade (6-10), Higher secondary level: Grade (11-12 or equivalent), University education: Undergraduate and Postgraduate.

Appendix "C"

(Refer to Page No. 31)

DETAILS OF STUDY PARTICIPANTS (FOCUS GROUP DISCUSSION)

Participant No.	Sex	Age range (Years)	Education	Unit
FGD 1 (Doctor and Dietician)				
P 1	M	41-46	University education	Nepal APF Hospital
P 2	M	41-46	University education	Nepal APF Hospital
P 3	M	41-46	University education	Nepal APF Hospital
P4	M	41-46	University education	Nepal APF Hospital
P 5	M	41-46	University education	Nepal APF Hospital
P 6	M	41-46	University education	Nepal APF Hospital
P 7	M	41-46	University education	Nepal APF Hospital
P 8	M	41-46	University education	APF, IGP Secretariat
FGD 2 (Finance Division)				
P 1	M	41-46	University education	APF, Nepal HQs
P 2	M	41-46	University education	APF, Nepal HQs
P 3	M	41-46	University education	APF, Nepal HQs
P4	M	41-46	University education	APF, Nepal HQs
P 5	M	41-46	University education	APF, Nepal HQs
P 6	M	41-46	University education	APF, Nepal HQs
P 7	M	41-46	University education	APF, Nepal HQs
FGD 3 (Ration Management Committee)				
P 1	M	41-46	University education	No. 19 Bn, Halchowk
P 2	M	41-46	University education	No. 19 Bn, Halchowk
P 3	M	35-40	University education	No. 19 Bn, Halchowk

P 4	M	29-34	Higher Secondary Level	No. 19 Bn, Halchowk
P 5	F	29-34	Secondary Level	No. 19 Bn, Halchowk
P 6	F	23-28	Higher Secondary Level	No. 19 Bn, Halchowk
P 7	M	23-28	Secondary Level	No. 19 Bn, Halchowk
P 8	M	29-34	Primary Level	No. 19 Bn, Halchowk
FGD 4 (Senior Officers)				
P 1	M	41-46	University education	No.9 Bde.Kathmandu
P 2	M	41-46	University education	No.9 Bde.Kathmandu
P 3	M	41-46	University education	No.9 Bde.Kathmandu
P 4	F	35-40	University education	No.9 Bde.Kathmandu
P 5	M	35-40	University education	No.9 Bde.Kathmandu
P 6	M	41-46	University education	No.9 Bde.Kathmandu
P 7	M	41-46	University education	No.9 Bde.Kathmandu
P 8	M	35-40	University education	No.9 Bde.Kathmandu
FGD 5 (Junior Officers)				
P 1	M	35-40	Secondary Level	No.21 Bn, Lalitpur
P 2	M	35-40	Secondary Level	No.21 Bn, Lalitpur
P 3	M	29-34	University education	No.21 Bn, Lalitpur
P 4	M	23-28	Higher Secondary Level	No.21 Bn, Lalitpur
P 5	M	23-28	Secondary Level	No.21 Bn, Lalitpur
FGD 6 (Other Ranks)				
P 1	M	29-34	Secondary Level	No.22 Bn, Bhaktapur
P 2	M	29-34	Secondary Level	No.22 Bn, Bhaktapur
P 3	M	23-28	Secondary Level	No.22 Bn, Bhaktapur
P 4	F	23-28	Secondary Level	No.22 Bn, Bhaktapur
P 5	M	29-34	Primary Level	No.22 Bn, Bhaktapur

P 6	F	29-34	Secondary Level	No.22 Bn, Bhaktapur
P 7	M	29-34	Primary Level	No.22 Bn, Bhaktapur

Source: This data is taken from the field research. It highlighted that the details of participants in FGD is mentioned where Primary level: Grade (1-5), Secondary level: Grade (6-10), Higher secondary level: Grade (11-12 or equivalent), University education: Undergraduate and Postgraduate.

Appendix "D"

(Refer to Page No.31)

INTERVIEW QUESTIONS FOR OFFICERS

Form Serial No.:

Date:2080/ /

The following questions are part of Practices of Institutional Meal in Armed Police Force, Nepal conducted by Sachin Karmacharya, an investigator/ student of Master in Security, Development and Peace Studies (MSDPS) at APF Command and Staff College Sanogaucharan, Kathmandu. Your candid answer will provide invaluable information about fundamental provision and practices, existing policies, perception towards meal, food consumption, food demand and supply mechanism, ordinary and festival food, kitchen, structure and dinning space and food safety etc. I assure you that your participation in this interview is completely voluntary, If you do not want to take part in the interview, or if there are any particular questions you do not wish to answer. All personal information shared will remain secret. The confidentiality of your participation will be maintained and your responses will not be accessible to government officials or any other entities. Please reply to every question to the best of your ability.

Basic Information**Name of Respondent:****Sex:** Male Female Others

Name:

Rank:

Ethnicity: Janajati Brahmin-Chhetri

Office:

 Dalit Others**Education:** Below SLC Intermediate Bachelor Master**Age:** 20-30 Yrs 30-40 Yrs. 40-50 Yrs. 50-60 Yrs 70- 80 Yrs. Years

QUESTIONS

General Questions

- 1. What do you know about the history of institutional meal in Armed Police Force (APF), Nepal ?
.....
.....
- 2. What is your work experienced in various appointments in different unit?
.....
.....
.....
- 3. How is your perspective on the institutional meal while deployed in various units?
.....
.....
.....
- 4. what is your assessment of the effectiveness of the food management system in units and which one do you believe is more beneficial for the organization?
a. Ration Management Committee b. Catering Service c. Existing Contract System
.....
.....
- 5. Could you please describe it in details or advantage/disadvantage .
.....
.....
.....
- 6. Based on the available options what suggestions do you have for dividing the menu of meals.
.....
.....

Questions related with practices of institutional meal

- 7. What are the current practices of institutional meal provision in your unit ?
.....
.....

8. How do these practices compare to meal provisions in other law enforcement institutions in Nepal and other institutions ?

.....
.....

9. What factors influence the quality and nutritional value of institutional meals in the Armed Police Force in Nepal?

.....
.....

10. How do cultural and social factors revise the institutional meal practices in the Armed Police Force in Nepal?

.....
.....

11. What do you know about the history and practices of institutional meal in APF, Nepal ? If yes, write in details.

.....
.....

12. How do the policies of APF, Nepal affect in institutional meals ?

.....
.....

Questions related with policies of institutional meal

13. In your opinion, Which are the preferable policies for the organization ?

- a. Contract System b. Cash in office account c. Cash in individual account

14. How do you analyze the pros and cons of the three policies implemented by the organization ? Describe.

.....
.....

15. What are the main challenges and barriers in institutional meal policies of APF, Nepal while implementing in your unit ? how can these be addressed effectively?

.....

16. What are the primary discrepancies between the institutional meal policies of APF, Nepal and the current practices being implemented within your unit ?

.....

17. What is the priority of the organization concerning about the institutional meal ? If in priority Specify any reasons.

.....

Questions related with menu of the meal

18. Does your organization prioritize institutional meals ? if so, what will be the reasons for this prioritization?

.....

19. What items are included in the weekly menu of your daily meals (Breakfast, Lunch, and Dinner) ?

.....

20. Is it necessary to periodically revise the daily meal menu ? If so, what factors to be considered while preparing the new menu ?

.....

21. What changes would you like to revise to the existing menu, based on your locality? Mention the name of items (remove/add) .

.....

22. what are the meals (vegetable, meat, snacks (khaja) and others) are provided to APF personnel in your locality based on various seasons? write in month wise

.....

Questions related with Demand and Supply

23. How does your unit manage the demand and supply of rations?

.....

24. Does your unit promote and celebrate any types festival (regular and local level festival) ? If yes, write the date, name of festival and meal menu of your unit during this occasion.

.....

Questions related with Food Consumption

25. Do APF personnel exhibit awareness about their health when consuming meals ? if not, suggest the measures to promote health awareness among them.

.....

26. Is your unit experiencing food wastage ? if so, what are the reasons behind it, and what measures have been taken to address this issue?

.....

Food Safety

27. What are the main causes of waste generation in your mess ?

.....

28. What are the current practices of waste disposal in your mess ?

.....

Questions related with Kitchen

29. How does kitchen layout impact workflow, from food preparation to cooking to cleaning?

.....

30. What new possibilities are being created for kitchen functionality and efficiency?

.....

31. what is your opinion towards dining hall in your unit ?

.....

Questions related on the perception towards meal

32. What are the common complaints or grievances regarding the meal service among APF personnel, and how are these addressed by the authorities?

.....

33. How does the perception of existing meals among Armed Police Force personnel across different meal times, such as breakfast, lunch, and dinner?

.....

Thank You

Appendix "E"

(Refer to Page No. 31)

INTERVIEW QUESTIONS FOR OTHER RANKS

Form Serial No.:

Date:2080/ /

The following questions are part of Practices of Institutional Meal in Armed Police Force, Nepal conducted by Sachin Karmacharya, an investigator/ student of Master in Security, Development and Peace Studies (MSDPS) at APF Command and Staff College Sanogaucharan, Kathmandu. Your candid answer will provide invaluable information about fundamental provision and practices, existing policies, perception towards meal, food consumption, food demand and supply mechanism, ordinary and festival food, kitchen, structure and dinning space and food safety etc. I assure you that your participation in this interview is completely voluntary, If you do not want to take part in the interview, or if there are any particular questions you do not wish to answer. All personal information shared will remain secret. The confidentiality of your participation will be maintained and your responses will not be accessible to government officials or any other entities. Please reply to every question to the best of your ability.

Basic Information**Name of Respondent:****Sex:** Male Female Others

Name:

Ethnicity:

Rank:

 Janajati Brahmin-Chhetri Dalit Others

Office:

Education:**Age:** 20-30 Yrs 30-40 Yrs. Below SLC 40-50 Yrs. 50-60 Yrs Intermediate Bachelor 70- 80 Yrs. Years Master

QUESTIONS

1. What is your work experienced in various appointments in different unit?

2. How is your perspective on the institutional meal while deployed in various units?

 what is your assessment of the effectiveness of the food management system in units and which one do you believe is more beneficial for the organization? Describe in details.
 a. Ration Management Committee b. Catering Service c. Existing Contract System

3. Based on the available options what suggestions do you have for dividing the menu of meals. Describe in details.
 a. Veg and Non Veg b. below 9000ft, above 9000 ft., above 12000 ft. c. Terai, Himal, Mountain

4. How do these practices compare to meal provisions in other law enforcement institutions in Nepal and other institutions ?

5. What factors influence the quality and nutritional value of institutional meals in the Armed Police Force in Nepal?
6. What are the main challenges and barriers in institutional meal policies of APF, Nepal while implementing in your unit ? how can these be addressed effectively?

7. What are the primary discrepancies between the institutional meal policies of APF, Nepal and the current practices being implemented within your unit ?

- 8. What is the priority of the organization concerning about the institutional meal ? If in priority Specify any reasons.
.....
.....
- 9. What changes would you like to revise to the existing menu, based on your locality? Mention the name of items (remove/add) .
.....
.....
- 10. Does your unit promote and celebrate any types festival (regular and local level festival) ?
.....
.....
- 11. Do APF personnel exhibit awareness about their health when consuming meals ? if not, suggest the measures to promote health awareness among them.
.....
.....
- 12. Is your unit experiencing food wastage ? if so, what are the reasons behind it, and what measures have been taken to address this issue?
.....
- 13. What new possibilities are being created for kitchen functionality and efficiency?
.....
- 14. What are the common complaints or grievances regarding the meal service among APF personnel, and how are these addressed by the authorities?
.....
- 15. How does the perception of existing meals among Armed Police Force personnel across different meal times, such as breakfast, lunch, and dinner?
.....

Thank You

Appendix "F"

(Refer to Page No. 36)

QUESTIONS FOR KEY INFORMANT INTERVIEW

1. What do you know about the history of institutional meal in Armed Police Force Nepal ?
2. What was your work experienced in various appointments in different unit?
3. How was your perspective on the institutional meal while deployed in various units?
4. what is your assessment of the effectiveness of the food management system in units and which one do you believe is more beneficial for the organization?
5. Based on the available options what suggestions do you have for dividing the menu of meals.
6. How do these practices compare to meal provisions in other law enforcement institutions in Nepal and other institutions ?
7. What factors influence the quality and nutritional value of institutional meals in the Armed Police Force in Nepal?
8. How do cultural and social factors revise the institutional meal practices in the Armed Police Force in Nepal?
9. How do the policies of APF, Nepal affect in institutional meals ?
10. In your opinion, Which are the preferable policies for the organization ?
11. What are the main challenges and barriers in institutional meal policies of APF, Nepal while implementing in your unit ? how can these be addressed effectively?
12. Have you had your any experience to promote and celebrate any types festival in unit?
13. What is your suggestion and recommendation for the betterment of institutional meal in future
14. Others

Thank You

Appendix "G"

(Refer to Page No. 34)

FOCUS GROUP DISCUSSION QUESTIONS

1. What is your work experienced in various appointments in different unit?
2. What is your assessment of the effectiveness of the food management system in units and which one do you believe is more beneficial for the organization?
3. Could you please describe it in details or advantage/disadvantage .
4. Based on the available options what suggestions do you have for dividing the menu of meals.
5. What factors influence the quality and nutritional value of institutional meals in the Armed Police Force in Nepal?
6. How do cultural and social factors revise the institutional meal practices in the Armed Police Force in Nepal?
7. How do the policies of APF, Nepal affect in institutional meals ?
8. In your opinion, Which are the preferable policies for the organization ?
 - a. Contract System
 - b. Cash in office account
 - c. Cash in individual account
9. Is it necessary to periodically revise the daily meal menu ? If so, what factors to be considered while preparing the new menu ?
10. How does your unit manage the demand and supply of rations?
11. Does your unit promote and celebrate any types festival (regular and local level festival) ? If yes, write the date, name of festival and meal menu of your unit during this occasion.
12. what is your opinion towards dining hall in your unit ?
13. What are the common complaints or grievances regarding the meal service among APF personnel, and how are these addressed by the authorities?
14. How do these practices compare to meal provisions in other law enforcement institutions in Nepal and other institutions ?
15. Others

Thank You

Appendix "I"

(Refer to Page No. 78)

INITIATIVE OF BATTALION IN INSTITUTIONAL MEAL



Appendix "J"

(Refer to Page No. 78)

Nepal Government
 Ministry of Home Affairs
 Armed Police Force, Nepal.....

Ration Demand Form

S.N.	Ration Items	Demand Items	Quantity	Quantity of Supply Items	Remarks

Daily Attendance of the Unit:

Demander

Signature

Rank

Name

Duty Officer

Signature

Rank

Name

Field Officer

Signature

Rank

Name

Note: This format is taken from APF, Nepal Mess Operation Directives (Revised) 2079.

Appendix "K"

(Refer to Page No. 59)

Daily Meal Menu

S.N.	Day	Breakfast	Lunch	Dinner	Dinner
1.	Sunday	Tea, Biscuit	Lentils, Rice, Vegetable, Pickle, Egg Curry	Tea, Pop (2 Pcs)	Lentils, Rice, Vegetable, Pickle, Legumes
2.	Monday	Tea, Bread	Lentils, Rice, Vegetable, Meat (Goat),	Tea, Biscuit	Lentils, Rice, Vegetable, Pickle, Legumes
3.	Tuesday	Tea, Chickpea, Egg	Lentils, Rice, Vegetable, Pickle, , Green vegetable	Tea, Doughnut (1 pc)	Lentils, Rice, Vegetable, Pickle, Legumes
4.	Wednesday	Tea, Biscuit	Lentils, Rice, Vegetable, Pickle, Meat (Chicken)	Tea, Bitten rice, Vegetable	Lentils, Rice, Vegetable, Pickle, Legumes
5.	Thursday	Tea, Doughnut	Lentils, Rice, Vegetable, Pickle, Meat (Goat)	Tea, Biscuit	Lentils, Rice, Vegetable, Pickle, Legumes
6.	Friday	Tea, Bread	Lentils, Rice, Vegetable, Pickle, Egg Curry	Tea, Pop (2 pcs)	Lentils, Rice, Vegetable, Pickle, Legumes
7.	Saturday	Tea, Chickpea, Egg	Lentils, Rice, Vegetable, Pickle, Meat (Chicken)	Tea, Noodles	Lentils, Rice, Vegetable, Pickle, Legumes

Note: The researcher developed the meal menu by gathering input from various units of APF, Nepal and then making appropriate modifications.

Appendix "L"

(Refer to Page No. 59)

RATION SCALE OF NEPAL ARMY BEFORE 70 YEARS

S.N.	Item	Quantity
1.	Rice	20 <i>Muthi</i> (Handfuls)
2.	Dal	2 <i>Muthi</i> (Handfuls)
3.	Salt	3 <i>Tola</i> (traditional unit of weight)
4.	Ghee	1.5 <i>Tola</i> (traditional unit of weight)
5.	Oil	1 <i>Tola</i> (traditional unit of weight)
6.	Firewood	1.5 <i>Ser</i> (Bundle)
7.	Tea, Sugar and Milk	8 <i>Paisa</i>
8.	Spices	2 <i>Paisa</i>
9.	Vegetable	6 <i>Paisa</i>
10.	Meat per week	<i>Aadha Pau</i> (100 gram/ 125 gram)

Source: Nepal Army, (2004)

GLIMPSES OF FIELD VISIT



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