

Utilisation of wartime nutrition survival experiences

Tu Giay MD

National Institute of Nutrition, Hanoi, Vietnam

In protracted and recurrent conflict, Vietnamese people have learned to minimize food insecurity through governance, mutual social responsibility, infrastructure development, ecological sensitivity, agricultural diversification and emphasis on family needs and traditional food patterns. Drawing on this experience, in 1992 a National Plan of Action for Nutrition was devised. Its goals include increasing energy intake and reducing childhood malnutrition.

Key words: Vietnam, war, survival, nutrition, traditional foods, wild vegetables, green vegetables, rice, soy, fruit, soup, National Plan of Action for Nutrition, food security.

On 2 September 1945, at the end of World War II, Ho Chi Minh declared the independence of Vietnam. Three weeks later, on 23 September 1945, the French took over Saigon. The Vietnamese people and Government were from this time on involved in a 9-year war of resistance.

At the beginning of the war Vietnam was totally isolated, without any help from outside. The country lacked weapons, food, clothing, vehicles and knowledge. The resistance army as well as the general population had to leave the cities and towns to help in the struggle waged in the mountainous country areas. There they faced great challenges, a major one being malaria.

The general Vietnamese people were wholly involved in the war; fighting against the invaders as well as learning the art of strategy. The government produced a newspaper called *Vui Song* (Enjoy Life), with the intent of encouraging people to fight 'against malaria and for the improvement of nutrition'. Each family had a 'saving rice jar' to feed the soldiers. As a result, Vietnamese people and the army, even in this difficult situation, were able to sustain the war. Food insecurity and malaria were controlled, the number of soldiers was maintained, and most significantly, the victory of Dien Bien Phu was achieved in 1954, liberating the North.

After the Dien Bien Phu victory and the Geneva Agreement, the Vietnamese people had a short period of peace (1954–64) before becoming involved in a new war to unite the whole country. The newest enemy conducted a war of sabotage, destroying army logistics stations in the North and also destroying the North–South supply route.

Apart from malaria in the mountainous areas, there were different emerging diseases during this period such as xerophthalmia, caused by Vitamin A deficiency; beriberi, caused by Vitamin B1 deficiency; and severe undernutrition, due to inadequate food levels in terms of both quantity and quality.

Rice was a staple food. Each soldier needed to be ensured a supply of 700 g/day on average; the least daily ration being 500 g. However, due to difficulties in catering, the ration was decreased to approximately 10 kg/person/month (approximately 333 g/day). After being transported for long distances

in poor conditions, rice was being spoilt by worms and insects. In addition, there was a lack of supply in other foods, resulting in the protein, fat and vegetable deficiency. This increased the numbers of sick people, thus reducing fighting capacity. However, these difficulties were gradually overcome. The Ho Chi Minh Trail, used to supply the fighting regions, was upgraded from a rudimentary path to a road capable of supporting mechanical transport, thus increasing food supply capacity.

Rice quality was also improved by utilising a four-bag rice-packing method. Rice transported to the fighting areas was packed in bags. The innermost bag was made of hemp, as for common rice bags. Covering its outside was a polyester bag, protecting the rice from the chloride smell emanating from the third bag, made of PVC, which prevented humidity. The outermost bag was also made of hemp, which protected against shock, tearing, and rainwater. Prior to this method, ordinary rice could be preserved for up to 6 months. With this new method, however, it could be preserved for 2–3 years; it could even be floated on rivers or the sea without leaking, or be stored in underground caches without risk of pollution by toxic chemicals.

The soldiers were supplied with a synthetic food, rich in protein, that could be preserved for a long period of time. Some study groups gathered 420 species of wild, edible vegetables and trained all soldiers, as well as civilians, to pick wild vegetables in their surrounding areas.

The movement to promote self-production of green vegetables among army units solved the problem of vegetable shortages. Army units even began growing green vegetables in the central highlands, where water was scarce in the dry season, using the slogan: 'Where man can live, there man can grow green.' During this period the soldiers also had a nutritious compact food named 701, which was dried and compressed to reduce its weight and volume, and was closely

Correspondence address: Professor Tu Giay, National Institute of Nutrition, 48 Tang Bat Ho St, Hanoi, Vietnam.
Tel: 84 4 971 7090; Fax: 84 4 971 7855
Email: nin@netnam.org.vn

wrapped for a long shelf-life. There was also a special formula called 702 which included ultra-sweet compressed biscuits that were used during emergency missions.

The 10-year reunification war finally ended on 30 April 1975 with the liberation of Saigon. Today, nearly a quarter of a century later, Vietnam is at peace. However, the damage suffered as a result of Vietnam's last war is still apparent. Many transportation and irrigation works which were damaged during the war are still in disrepair, Vietnam having limited funds to restore them. In addition, many families of disabled and deceased soldiers have lost their main breadwinners. Children born after the war were also affected, many of them suffering deformities due to the effects of chemical weapons.

Vietnam has also been affected by a number of natural disasters, several of which have been serious (e.g. Typhoon Linda in October 1997).

All of the above difficulties have impacted upon the lives and diets of Vietnamese people. Even though there has been a great deal of effort put into agricultural production to increase rice exports, 20% of households in Vietnam are still considered as having food insecurity. According to data from the National Institute of Nutrition (NIN) (the national survey on vitamin A deficiency and xerophthalmia), food consumption in 1994 was at a low level with the average daily energy intake at only 1938 kcal per capita; the proportion of households with energy intakes under 1500 kcal and from 1500 to 1800 kcal was 8.5 and 14%, respectively. The malnutrition prevalence among children under 5 years of age was 45%.

Vietnamese people have had to live difficult lives, but from this they have gained experience living in poor conditions. The Vietnamese believe in their ability to accustom themselves to food insecurity in terms of both quantity and quality. In Vietnam it is also argued that the nutritional recommendations devised by the West are not suitable for the East. Thus, it is expected that Vietnam's nutritional problems will be solved by the next century.

As a follow-up measure of the International Conference for Nutrition in 1992, a National Plan of Action for Nutrition (NPAN) was approved by the Vietnamese Prime Minister with a number of goals to be reached by the year 2000:

1. To increase energy intake to 2100 kcal (compared with 3000–3200 kcal as recommended for European and American countries).
2. To reduce the proportion of households with energy intake under 1800 kcal/capita/day from 22.5 to under 10%.
3. To reduce the prevalence of malnutrition among children under 5 years of age from 44% to under 30%, and to reduce chronic energy deficiency among women from 40% to under 30%.

These goals are ambitious. However, many nutrition-related programs have been implemented in Vietnam, such as the Population and Family Planning program, the Protection and Care of Children program, the Hunger Eradication program and the Food Security program.

The NPAN has established six advisory subcommittees: Household Food Security, Nutrition and Health, Micronutrient, Food Hygiene and Safety Control, Nutritional Education and Nutrition Surveillance.

The NPAN is focusing on activities at the grass-roots level, particularly in rural areas where 80% of the population

live and produce food for the entire country. Its approaches to improving nutrition in Vietnam include the development of infrastructure and agriculture, the promotion of nutrition health education, and the provision of advice on meal preparation and diet.

Infrastructure development

This includes the development of good roads, electricity for families, and irrigation systems for active cultivation; tree planting; the provision of a safe environment and a clean water supply; the provision of primary and secondary schools in communes and high schools in districts; and the provision of communal health stations for primary health care and malnutrition control. This approach is expected to meet difficulties in mountainous areas. However, it is essential for improving living standards, particularly those of ethnic peoples.

Developing agricultural production

This includes the allocation of farm land and forest land; the encouragement of agriculture; the initiation of a credit program for the poor; the diversification of agriculture; and vegetation–aquaculture–cage (VAC) development. The term VAC initially meant the establishment of a garden–pond–cage surrounding the home with the aim of supplementing meals. Now its meaning has extended to the development of vegetation, aquaculture, and animal husbandry. The outcome of the VAC system on the economy, environment, nutrition, health and rural development affirms that VAC is an appropriate approach for combating nutrition problems in Vietnam.

Promoting nutrition and health education

This involves promoting knowledge of production in order to increase jobs and income; improving knowledge of child care, feeding, health and proper diets; improving knowledge of gender issues in order to reduce the workloads of women, thus freeing up time for the care of children; promoting breastfeeding, appropriate weaning foods and immunization; and the prevention of diarrhea and acute respiratory infection, which are the two major causes of child mortality.

Family meals

This involves encouraging people to apply the lessons learnt during Vietnam's difficult wartime periods. Families are encouraged to choose low-cost nutritive foods. Besides rice, one other traditional food is to be promoted widely, namely the Soya bean. A long time ago, the Vietnamese considered the Soya bean their basic food. Indeed, there is a Vietnamese saying which says that 'The basic family recipe is Soya sauce and salted egg-plants'.

Meal preparation should be done, in accordance with the Table of Nutritional Needs issued by the Ministry of Health, and the Nutritional Recommendations issued by the NIN. Vegetal foods should be considered, such as rice, corn, peas, beans, nuts etc., vegetables, tubers and fruits. Animal food intake should be moderate due to its higher cost. Vietnam should focus on aquaculture, because it has 200 000 hectares of fresh water and a 2000 km long coastline. When this focus on aquaculture increases, more aquatic food will be incorporated into diets. Soya milk is recommended rather than animal-derived milk.

Diet

This involves training Vietnamese people on how to monitor and evaluate their families' and their own diets. In this way they will be able to maintain the recommended weight and the ability to work. A meal should consist of the four basic dishes: rice, vegetables and fruit, protein and fat-rich foods, soup and water. These supply adequate energy and the essential nutrients (i.e. hydrocarbon, protein, fat, vitamins, minerals, dietary fiber and water).

Individuals should lead a healthy and active life without alcohol, cigarettes or drugs but including physical exercise. These suggestions will help the people of Vietnam to have good health and happiness.

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