

CHAPTER-2

CONCEPTUAL FRAME OF SECURITY

CONCEPT OF SECURITY

2.1 'Security' is a widely used term in everyone's life today and also one of the most commonly used terms in international politics since the birth of territorial state in Europe. In the beginning security meant only state security. It was very much a state-centered concept which recognised territorial sovereignty, the need of power of state in terms of military for achieving security and for maintaining it. Though the term security became popular among all the nation states but before the end of cold war it was a very narrow concept which excluded many important aspects. During the period of World War I and World War II security marked a mad race for armaments among the nations in the world. Everything was viewed from military threat and its strength and in that process though progress in technology was achieved but there was heavy loss of human lives. Many barborous acts like the atomic bombing of Hiroshima and Nagasaki, the efforts to annihilate Vietnam in the Cold War period. Initially heavy investments in defence related activities were made invariably at the cost of those aspects of governance that were concerned with human security or individuals' security. Everything was guided by state intervention for a secure existence with no recognition for social reform and the role of NGOs and the civil society. The concept of security was linked with freedom from fear and anxiety only. Traditionally, international relations accorded importance to the security of the state as the prime importance of international system without giving importance to the security of the individual.

CONCEPT OF TRADITIONAL SECURITY

2.2 The Traditional notion of Security was mainly confined to the concept of national security in terms of protection of sovereignty and territorial integrity of states from external and internal military threats and this dominated the security analysis and making of policies during the period of cold war and the period before that. Non- military threats were not given any recognition. All nations of the world during this period gave importance to its own national interests. Every nation had only the motive of safeguarding its military and economic interests and accordingly become powerful at global level. But this created a competition among the nations and also led the nations to engage themselves in immoral activities to achieve their goal. There emerged a mad craze for acquiring arms and weapons among the countries; both small and big. Even powerful countries started to build up nuclear weapons and this ultimately made the situation even more worse especially after the World War II. A major portion of money was spent on military alliance to ensure the autonomy of action in the international sphere and for the preservation of the national values instead of other attributes of state power viz. education, health, gender equality, employment and so on by the nations during that period. Infact, the traditional security justifies limited violence. It justified that for right reasons like self-defence and for protection of people from genocide countries should go for war. But at the same time traditional security also believed that war must be limited in terms of the way they are used that is non-combatants and unarmed as well as surrendering combatants should not be killed or hurt by war armies. Force must be used as the last alternative. During the 1960s and 1970s some theorists had asserted that military power of nations had diminished due to the emergence of nuclear weapons and the craze for it. These theorists had started giving importance to other concepts like interdependence, non-power influences to understand the growing global complexities more clearly and in the process to maintain security and a better international linkages. However, this perception was not accepted by all and it was countered by showing the power of military only over armed conflicts which remained a common feature during the early Cold War period. A greater significance was accorded to the military power of all the nations in the world in the 1980s but with the end of Cold War in the 1990s after the collapse of Soviet

Union and disintegration of Warsaw Pact the military alliance of USSR and its allies this significance declined to a considerable level and the marked the emergence of a new and broader idea of security in the international system. The traditional concept of security underlined the anarchical nature of international system that compelled all the states to maintain only adequate military capabilities to preserve their existence and to maintain security. This notion did not give any recognition to non-military threats which are more dangerous than military threats and big hindrance in the path of security. This non-military threats requires a new and more comprehensive understanding of security.

The traditional conceptions of security actually are primarily concerned with the use of threat, of military force and force is the both the principal threat to security and also the principal means of achieving security of the nations of the world.

CONCEPT OF NON-TRADITIONAL SECURITY

2.3 In the 1970s and 1980s, growing awareness of global environmental degradation and many other serious problems like international terrorism, global poverty, forced migrations, resource depletion, gender inequality, overpopulation etc. made academic literature to respond and began to rethink of security in broader and non-military terms. These problems reflected the more complex varieties of international and regional security. It was realized that a true security in the global context cannot be achieved by only building up of weapons as it is something defence in the narrow sense but by solving both military and non-military problems and this is possible only through a comprehensive dimension of national security. The end of Cold War underlined the necessity to undertake a paradigm shift in the security discourse and emphasise the need of well-being of citizens along with the security of the state. This required the security agenda to include socio-economic, politico-cultural rights, role of non-state and informal actors, civil society, NGOs, political parties and so on to understand more efficiently the reasons for conflicts between and within states. There exist three primary referents of insecurity viz. the individual, the state and the international system and security of any one referent object cannot be achieved in isolation from the others.

Therefore, the security of each becomes necessary, in fact, security of each in part a condition for the security of all. Any threat to international security could very much affect national security and further the security of individual citizen and vice versa. Non-traditional security does not give sole recognition to state security but instead to the security of the individual, the state and the whole community. This broad concept of security led to the emergence of the concept of Human Security and accordingly to its relevance. In fact, the non-traditional views of security have been called 'human security'. The concept of human security by focussing on the individual as the main referent object of security posed a challenge to the state-centric notion of traditional security. The end of Cold War brought a change in the world system and also after this war the concept of human security received great attention. The notion of non-traditional security implies 'global security' which means protection of the globe from global nature of threats such as global warming, international terrorism, global poverty, health epidemics like AIDS, bird flu, swine flu, rota-virus and so on. It has also been realised that these problems in order to be solved fully the vital need is international cooperation and action. No nation cannot alone solve these major problems. Security is possible to be achieved only in the absence of these global threats not merely in the absence of military threat. Non-traditional security is a more broad and expanded concept of security. The concept of 'human security' is a powerful attempt by a group of academicians and policy community to redefine and also to broaden the traditional idea of security.

Human security recognises the fact that sovereignty of states is undoubtedly of utmost importance but at the same time another fact also recognised by it is that safety of all individuals in a state is possible only through interdependence of states not within a statist framework. It urges for building up new state capacities instead of strengthening the military power and to find out the root cause of other types of insecurities which include hunger, disease, natural disasters as these kills more people than war or terrorism combined.

CONCEPT OF HUMAN SECURITY

2.4 The concept of human security emerged mainly in the era of globalization. Its main focus is on well being and security of all individuals and so it urges for consideration of a broader range of concerns and challenges of security than merely defending state from military attack. Its main concern is not on weapons but on human dignity. The main objective of human security is to safeguard vital of all human lives in such a way that it leads to greater human freedoms and fulfillment. Human security is concerned with economic development, social justice, environmental protection, democratization, disarmament, human rights and rule of law along with protection from military threat. It clearly underlines the necessity of ensuring each and every individual a confident life free from fear and free from want. The origin of the concept of human security originated mainly with the publication of the Human Development Report of 1994 (UNDP). The scope of human security according to this Report includes seven areas: 1)economic security, 2)food security, 3)health security, 4)environmental security, 5)personal security, 6)community security, 7)political security.

Economic security means individuals having atleast basic income for survival either from productive and remunerative work or from any safety net financed publicly.

Food security implies all people having both physical and economic access to sufficient and appropriate food which satisfies their dietary needs .

Environmental security means protection of the nature from any threat specially man-made threats and prevention of deterioration of the environment.

Personal security is protection of individuals from physical violence from state or external states of the world, from individuals and also from other factors like domestic violence.

Community security is protection of traditional values and ideas of people from any violent activity and secretarian violence.

Political security means that situation where people live their lives freely and happily under a banner of respect and protection of human rights.

The central object of security according to the concept of human security is individuals not state. UNDP 1994 report says , *human security have two main aspects. Firstly it means safety from such chronic threats as hunger, disease and repression. And secondly it means protection from sudden and hurtful disruptions in the patterns of daily life- whether in income, in jobs or in communities. And such threats according to the report can exist at all levels of national income and development.* There are four main influences of human security: 1) rejection of economic growth as the main indicator of development and accompanying of the notion of human development concept, 2) rising incidents of internal conflicts, 3) the impact of globalization leading towards transnational dangers like terrorism and pandemics and 4) post-cold war emphasis on human rights. Human security also focuses on building human capabilities to overcome various threats like poverty, illiteracy, diseases and even discriminations and restrictions. The notion of human security supports more resources for development i.e human development and fewer for arms.

FOOD SECURITY AS HUMAN SECURITY

2.5 Along with education a healthy population is the primary need of any nation of the world to bring development. World Health Assembly held in 1977 adopted a resolution and the resolution was that in all the nations of the world in the coming decades the primary social target should be the attainment by every citizen a level of health that enables him/her to lead a productive life both socially and economically. The UNDP Report,1994 very clearly recognised food security achievement is one of the key components of 'human security' in the world nations. A complete development of all nations is human development and it includes food security of the population of a state. Food security is primarily a consideration of the availability of food. Having food security means it assures basic existence for the people and secondly it assures all the people minimum level of nutrition to lead a healthy and active life. A country is a food secured country only when there is enough food for all persons living in the country, then there is no barrier on access to food by persons, thirdly all individuals have enough money to buy sufficient and nutritious food to meet one's dietary

needs and the process of eating right kind of food so that one grows properly and become healthy. The concept of food security at the household level is defined by IFAD¹ (international fund for agricultural development 1992, rural poverty alleviation and nutrition : IFAD's evolving experiences' a technical paper. Technical advisory division : IFAD, ROME) as "the capacity of a household to procure a stable and sustainable basket of adequate nutritious food." It is seen that in all wars which have taken place in the world till date causes heavy loss of human lives. But another fact is also recognised is that malnutrition kill more people than bombs, missiles and bullets (Human security report 2005:7). In the recent years the world has witnessed appearance of many infectious diseases like HIV/AIDS, avian flu, tuberculosis, malaria, heart diseases, etc. Therefore, a country cannot reach the height of development unless and until the population of the country is protected from such types of health diseases. Health is wealth is something understood by all of us and therefore achievement of a sustainable status of food security is the main goal of almost all the nations of the world. Mere absence of threat is not the only indicator of human security, rather food security of all people at all times is the prime need to ensure security to its population by any state. However, it is also important to accept that to achieve the target of food security as an ingredient of human security is not that easy to achieve, so for better fulfillment of this goal a cooperation is required between the machinery of state and the individuals and the role of civil society, NGOs and other non-state actors is also important.

'Everything else can wait, but not hunger'² (human development in south asia, 2002, agricultural and rural development, Mahbub-ul-Haq human development centre, (Pakistan,2003). 'A hungry person listens neither to religion nor reasons, nor is bent by prayers' remarks the Roman philosopher Seneca (Lang, T. and Hines, 1993, Colin , 'The New Protection', Earthscan, London). Food security is an essential condition for life with dignity and in terms of access to food there should not be any discrimination to anyone. Right to food should not be only in text, it should be a reality, it should be enjoyed by everyone all over the world irrespective of gender difference and age. Poverty and food security is interlinked and both are complex and multi-dimensional issues. Poverty breeds hunger, starvation, malnutrition, illiteracy, lower life expectancy, social unrest and many more.

Therefore, to achieve food security at all times firstly poverty the biggest challenge should be eliminated.

INTERNATIONAL INITIATIVES DURING AND POST WORLD WAR II PERIOD

2.6 Concern on Food and Food Security being the core component for human resource development started in the international context way back even during World War II period and in the post World War II period i.e, mainly with the adoption of the 30Article document Universal Declaration of Human Rights(UDHR),1948 itself. The UDHR recognized the necessity of right to food for all people for an adequate standard of living all over the world along with other social, economic and political rights. In 1966, the International Covenant on Economic, Social and Cultural Rights in addition specifically recognizes the right to be free from hunger. In 1974 a World Food Conference was held in Rome which adopted a resolution that no one should sleep with empty stomach. But the resolution was not completely successful in fulfilling its goal. In 1979, the World Food Programme Report stated that food security a concept related to assurance of supplies and demand of stable foods in the international market¹. World Bank a global financial institution stated that nutritional investment will bring significant returns both in the present time and in future². The FAO recognized the need and significance of food security at all levels in the world and accordingly it defined food security as “when all people at all times, have physical and economic access to nutritious food to meet the dietary needs and food security for an active and healthy life”³.

Poverty a serious hazard to development of a nation is directly linked to the problem of food insecurity. Therefore, EU Food Security Policy puts its focus on food availability; access to food; nutritional problems; causes of food insecurity; social factors affecting access to food in terms of gender, age ,ethnicity,etc. The UNDP Report in 1994 clearly gave a broad idea on the concept of security of nations and considered food security as a core component of human security. Dr. M.S. Swaminathan in order to bring out an

internationally acceptable strategy for maintaining sustainable food security reviewed the 1996 World Food Summit Report and he had put emphasis to “focus on the ability to assure on a long term basis, that the food systems provides the total population access to timely, reliable and nutritionally adequate supply of food⁴. World Bank conducted another study in which main focus was on the main staples, national storage of grains, and agricultural policies that ensure stability in supply all year around⁵. Household food insecurity is of two forms- transitory and chronic food insecurity identified by the World Bank⁶. Transitory food insecurity arises from temporary shortfalls in food supply in relation to requirements or lack of temporary purchasing power for food or loss of employment. Chronic food insecurity is mainly a function of poverty and it is continuous and persistent.

During the World War II period there was a consciousness on the concept of ‘sustainability’ but sustainable at that time meant ‘sustainable consumption’ not something related to environment. Infact, the consciousness on ‘sustainable consumption’ is originated long before the origin of the idea on ‘sustainable development’. In many societies of Europe and USA during the Second World War “Food Rationing” system was prevalent as a way to bring sustainable consumption. The main concern behind introduction of the rationing system was to avoid any kind of food scarcity situation on one hand and on the other hand to control domestic food consumption so that resources can be saved and those resources can be diverted to the battle(World War II). The rationing system was mainly a contract made between the government and the consumers(consuming public) through which the consumers were supplied some amount of food commodities at certain rates. The consumers accepted the food commodities and also the rates of supply as the government promised of timely delivery and so it was a security for them of the food needed for survival. However, the rationing was related to financial capacity of the consumers. Due to financial restriction many consumers were unable to make full purchases of rations. Under this system(rationing) each consumer used to get a booklet of coupons in which all types of goods were stated for each month and then the consumer depending on the financial position present the relevant coupons to purchase the commodities. A best example can be cited in this context regarding financial restriction is that till 1942 in Denmark working-class consumers could not purchase

easily the full rations of butter and sugar due of improved salaries⁷. During the war-time the rationing system was not merely limited to consumption of food and saving resources but also involved a patriotic characteristic. Infact, under this system the consumers were also performing some form of political roles and social responsibilities during the war years. In Norway also the rationing system prevailed during the war and there were three types of rationing⁸. In 1942 virtually all types of common foodstuffs were placed under the rationing system in Norway i.e, bread, sugar, potatoes, coffee, meats, milk, most vegetables, sweets. Many strategies were adopted and applied by consumers during the Second World War to achieve and to maintain sustainable consumption. The consumers in Norway adapted their dietary habits to a situation of food crisis by reducing waste and used various substitutes and also exploited underused natural resources like wild plants, birds and marine sources of nutrition. In relation to rationing system i.e for sustainable consumption goal also the main responsibility was entrusted on the housewives during the war time period even. The knowledge on the part of the women were considered important in terms of food preparation and kitchen equipment from the restricted resources available. For example preservation of fruits and make jam on limited sugar rations and as such it would serve the need of vitamins for the family. And for sealing jars or bottles the women can melt down candle ends and then mix with a teaspoon of salicylic acid.

The rationing system was mainly considered as a social reform of consumption as through this system scarce goods were distributed according to the accepted norms of social justice. Although there were certain loopholes of the rationing system during the World War II period, yet there is another positive fact of the system i.e, it enforced equitable forms of consumption as under the system each consumer was entitled to fair share of the goods available and unless one resort to illegal shopping on the black market no one could get more share. Due to this fairness of the system even after the war came to an end many countries continued with the system.⁹ This system is a technique to make the consumers to take up the responsibility of sustainable development in relation to consumption too.

CHALLENGES TO FOOD SECURITY

2.7 All living beings cannot survive without food and as such there has been a continuous recognition all over the world on ensuring availability of food and to achieve the target of food security to all the people. But another noted fact is that the goal of food security is not very easy to achieve by any nation irrespective of developed and developing. In fact, it is very true that to achieve the target of food security firstly all nations should not confine the strategies to food production only but also it is necessary to overcome other factors that creates stress and hazards to the goal of food security. We can see many issues due to which all people all over the world are not having the desired level of food security. There are many challenges which is recognized for global food security. The problem of food insecurity is not limited to the challenge of food production only, besides this there are other serious challenges too that need to be addressed to achieve food security globally.

To eradicate hunger completely in the world by 2050 the main goal undoubtedly is ensuring food production to feed the world but also another major goal is to find out the ways through which everyone have access to food that will fulfill their dietary needs¹⁰. Some of the challenges for global food security involves-

Population growth: The population of the world in 2009 was 6 billion and by 2050 it is predicted to reach 9 billion. Moreover, it is also predicted that that the current food output all over the globe is not enough to feed this population of 9 billion. Therefore, it is considered first challenge to food security status globally.

Poverty: 'Poverty' is a complex and multi-dimensional issue and it is very much interlinked to food security. Various historical, economic, international and environmental dimensions are encompassed by poverty. Poverty breeds hunger, starvation, malnutrition, lower life expectancy and even social unrest. Presence of all these factors makes a nation unable to achieve the social goal of food security. According to the United Nations Development Programme(UNDP) poverty is "being unable to obtain good food and other items that are essential to everyday life". An empty stomach is the biggest challenge for a person and a

hungry person do not considers other things to be important except food. So, hunger in order to be abolished completely first the menace of poverty should be abolished. No doubt , there has been growing concern on food insecurity and its relation to poverty but still in many developing countries many people are deprived of the basic food for survival, they faces nutritional insecurity and they become vulnerable to reduction of survival capabilities. So, this clearly demands that even more concrete measures needed to be adopted by the nations who are facing more the problem of poverty in order to achieve the desired level of food security. Whenever and wherever people face food insecurity, they and their nations pay a heavy price through reduced survival capabilities, lost productivity and social development¹¹.

Inequality of distribution: It is a great challenge to food security. It has been seen though overpopulation is a challenge to any goal including food security but today almost all the nations have adopted various strategies to produce the sufficient amount of food to feed the growing population, yet the problem of food insecurity still exist. The actual problem is not availability rather access to the food and for having access to that food by all people. In many households poverty is not the challenge to food security. Generally, on average a person needs 2200 kcal to stay in good and active health and this is not a very difficult target. But still undernourishment exist in many households and one of the real causes of undernourishment problem is overeating. There are some differences in terms of age regarding requirement of food, like a teenager has more needs than a senior. But when a teenager eats more than his requirement that ultimately creates shortage of sufficient food to eat for the other members of the family. Access to available resources is a problem not enough food to eat. Therefore, overeating is a challenge.

Growth of middle-class and changing diet: With an increase in population globally there exist a pressure on the environment, there is stress already on mineral and energy resources. When there is human pressure there are many consequences. More people will needs more resources including the most important resource- water. There has been a declining trend of groundwater level globally due to increase in population. This decrease in groundwater seriously affects cultivation of various crops. Ultimately agriculture sector suffers. Another

disturbing fact is that an increase in middle-class population not only increase in demand but also a change in nature, diversification of diet. It has been found that when a person become richer, he first wants to change his diet and eat fully and in the process to raise the social status he tend to have access to foods of animal origin as a sign. This in turn creates an impact on agricultural production as it takes an average of three vegetable calories to produce one animal calorie. These stress contributes to volatility in agricultural prices and decrease in agricultural investment globally. Changing diet is therefore a major threat which affects world food security.

Climate Change: Climate change is a serious challenge that needs special attention in relation to many factors including food security. Climate change have many severe implications on agricultural productivity in all the parts of the world. Climate change is leading to a warmer world and this is affecting what crops can be grown where. Human beings not only suffering from the consequences of climate changes but animals, plants are equally subjected to the outcomes of this problem like global warming, flood, decrease in crop yields,etc. Lives of all living beings have become very difficult. The farmers are the worst sufferers of this menace. There are various summits and conferences which have been held till now at the global level on climate change. All the nations both big and small, developed and developing seek to bring out strategies and measures to overcome the problems that are arising due to climate change and also to overcome this problem of climate change completely from the world. In terms of food security of people also there is an impact of climate change. Due to climate change scientifically it has been found that the original season to cultivate some of the crops should be changed. Cultivation of any crop depends on lots of factors. Nowadays, due to climate change the very features of the seasons have changed. If any crop earlier has been cultivated in the month of April to produce good and high agricultural grains now due to this climate change this particular crop should be cultivated a month later or before in order to produce the desired stuff. But most of the farmers are not aware of this fact and they continues to grow that crop in the original season. As a result, there arises the problem low agricultural productivity. This lower agricultural production then creates the problem of food crisis for the population and also rise in food

prices. Agricultural products are necessary for all people in the whole world and if there is no proper proportion of agricultural products to the population of the territory that definitely creates a problem to lead a healthy and sufficient life for the people. Moreover, decrease in desired amount of agricultural productivity leads to an increase in prices of the products and due to this many poor people unable to have access to the required food due to lack of income capacity. All these in this manner leads to the emergence of food insecurity of the people. Climate change is recognized to be a great challenge to the most desired goal of food security globally and in order to achieve this goal, this problem needs to be tackled soon along with other challenges.

Transportation costs: Food security is also affected by rise in prices of oil which has been increased in recent years considerably. Increase in transportation costs has increased globally the price of food storage and distribution. It is also big challenge to food security.

FEMINIST PERSPECTIVES ON FOOD SECURITY

2.8 Under this caption various literatures centre around gender and women are reviewed and the relation between women and food security is taken into account by the feminists and it is stated by the feminists and women's rights activists that the link between women and food security is not merely the role that women play in producing food, cooking and taking care of other members of the households but women are much more than that. It has been stated that women are human beings first and they also have their birth rights. Moreover, it is also stated that there should not be any violence and discrimination against women in the enjoyment of their rights as without it women's food security will never be achieved. Women faces mostly the problem of food insecurity because they are the last to eat in the family and they also have less access to other natural resources and services, and they faces various forms of discriminations and violence despite bearing bulk of household chores. All these make the women economically vulnerable and also a food insecure life. Respecting women's rights is very important to make them food secured. The General Recommendation 34 (GR₃₄) at the UN elaborates the obligation of governments of the world to respect human

rights of rural women more specifically and also to empower women. It has also been said that although profit in terms of food production is being made on the shoulders of women but they get the least reward and appreciation. In fact, it has been found that in the population of the world, rural women represent a quarter of the population and they make up majority of the small-scale farmers in the world. In fact they face worst barriers in their enjoyment of their human rights. There is continuation of patriarchal structures and as a result in many cases it is found that conditions of women have deteriorated. Therefore, governments should recognize the women's rights and they should be granted equal rights and also support feminist movements to bring forward their demands.

The various feminist literatures on food security highlighted the relationship between women's participation in food production and household food availability and also the relationship between women's opportunities to control the household food consumption and achieve food security. The feminists pointed out another fact that there is a link between gender *Inequality* and food insecurity of women. Chronic hunger affects the women most and they face food insecurity which is a result of gender inequality in general. Although women are mainly responsible for feeding their families and contributor to household food availability, they get the least fruits of their labour. Gender is seen to become a barrier in many cases in the food security of womenfolk in general. D. Thomas (1994) in "*Like Father, Like Son, or Like Mother, Like Daughter: Parental Education and Child Health*" said that female income had a greater impact than male income on pre-schooler's nutrient adequacy, their survival probabilities and their education. R. Bairagi (1980) in "*Is Income the only Constraint on Child Nutrition in Rural Bangladesh?*" pointed that income was not the sole constraint on nutritional status but maternal education had a significant influence on nutritional status. Therefore, education among the women regarding food security and its necessity to make them lead a food secured life. R.E. Evenson, B.M. Popkin and E. King-Quizon (1979) in '*Nutrition Work and Demographic Behaviour in Rural Philippines Households : A Synopsis of Several Lague Household Studies*' stated that there exist sex-bias against females and age-bias against children and in both the cases the female adults and female children were at a disadvantage position. L.C. Chen, E. Huq and S D'Souza (1981) in

'Sex-bias in the Family Allocation of Food and Health Care in Rural Bangladesh' stated that inequitable food distribution led to a higher incidence of severe malnutrition among women and girls and also excess of female mortality. Equitable allocation of food within the family in relation to its nutritional requirements is necessary.

Women play a key role in the production of food and they make invaluable contribution to the food security in India as well. They ensure nutrition to the next generation. But women's work is often found to be underestimated. There are high degree of variation in terms of gender. Therefore, proper recognition of the women's labour as producers of food and various other contributions is necessary and removal of discrimination under development projects can improve the quality of life of women. Amartya Sen (1984) also quoted after various surveys in India the incidence of sex-bias and age-bias in the intra-household food allocation which ultimately leads to lower level of food security among women. Pradeep Chaturvedi (2002) in *'Women and Food Security: Role of Panchayats'* pointed out the importance of Panchayats and its role towards removal of discrimination against women in terms of opportunities and also in ensuring food security to the rural women as rural women specially engage themselves in various farm-related activities but they are the worst sufferers in terms of food security. Removal of gender discrimination in terms of wages, ownership rights and making women aware of their rights and its importance and food insecurity problem should be tackled and in this connection also Panchayats can play an effective role. V. Radha (2009) in *'Women and Rural Household Food Security'* also found sex-bias in terms of food insecurity of women in India inspite of immense role of women in household food security. Further, she pointed out the importance of maternal factors such as women's high-level of participation in decision-making , control over resources and education as it contributes strongly to individual nutritional status and she also stated that mother's nutritional knowledge influence greatly the nutritional status of children.

Low- birth weight is a common feature in India which clearly indicates undernutrition both at household and national level and also points out extremely precarious health and nutrition conditions of pregnant women. Gender differentials at household level are found to

be in existence in South-Asian societies including India and in India these differentials emerge from cultural phenomenon in most of the cases – patriarchy. Women in majority cases in India cutting across the economic class, caste and religion and regions have relatively lower access to food within the household. Although, women happen to be producers and managers of food at home, they restrain from consuming adequate food so as to enable higher allocations to all the men and also male children who are considered to be the breadwinners in many households. They usually eat last and at first serve adult men and children often left with no adequate food to eat. Shariff (1993) in '*Factors Affecting Child Health : Search for Maternal Education Effects in Rural Gujarat*' said even women are also deprived of nutritional requirements many times during pregnancy, child birth and lactation time.

In India although there are various policies adopted mainly for ensuring food security to all people and also for women particularly, but still conditions of women in many cases have deteriorated in the country even in terms of food security status. So, more effective measures are to be undertaken to tackle this menace and achieve greater success and development in the nation.

STATUS IN DEVELOPED COUNTRIES

2.9 Food Security has been placed in the national agenda mainly after the end of Cold War in almost all the nations of the world irrespective of developed and developing nations. The nations adopted many policies and food safety-net-programmes to meet the dietary requirements and to provide nutritional support to its population. However, even in developed countries of the the entire population is not completely food secured and there is prevalence of food insecurity among households. An attempt is made to show the status of the most desired goal to achieve in the world i.e, food security in some of the developed countries at present.

In the U.S.A. in 2014¹² 86.0% of the households were food secured. 14.0% (17.4 million) of U.S. households were food insecure during 2014 and in 2013 it was 14.3% which was essentially unchanged till 2014. In the U.S.A. the level of personal income is relatively high, there is well-developed agricultural infrastructure and comprehensive access to safe and nutritious food. However, slight falls in GDP resulted in declines in food affordability in the United States. In 2015 though United States perform well ranking first in the North-American region, but due to two weak indicators -food loss and less access to potable water by all people had an impact on regional performance of North-America¹³. United States score of food security is 89% according to the Global Food Security Index 2015.

Japan is one of the top five countries of Asia-Pacific region. The correlation between income level and food security performance is found to be strong in Asia-Pacific region. The wealthier countries of the region including Japan invest in food-system infrastructure to a great level. In Japan overall food security status is 77.4% with high income¹⁴.

Although UK has an improved and successful agricultural industry, but there are many factors both domestic and global which affect food production and prices of food for the people of the UK. Due to increase in global population and change in pattern of consumption is a major threat to UK food security with other serious problems. The UK at present has a relatively high level of food security but in order to main this level certain more significant plans are needed to be made by the government to meet the changing global food demand. 68% of foods are produced in UK by itself but the government has a key role to play in terms of making food production to be sustainable. According to the UK Food Security Assessment the food security of the country depends on ability to source food from variety of countries and diversity of supply of foods increase security of widening options and keeping price competitive. Infact, in UK to ensure nutritious diet other food is bought from abroad¹⁵. Many debates and discussions take place in UK regarding maintaining the level of food security and for that investment in agricultural sector. UK's food security status is 81.6% according to 2015 Global Food Security Index.

France is another country which is very much committed to global food security. On June 18, 2015, at FAO Conference held in Rome this was revealed by Mr. Stephane Le Foll, Minister for Agriculture, Food Industry and Forestry. In France the problems like malnutrition or undernutrition is a rare problem. But in 2007 according to Individual and National Dietary Survey (INCA2) data 11% of adults faced food security in their households and there are different views regarding food insecurity and its relationship with health and poverty and consumption behaviour¹⁶. Among the food insecure individuals prevalence of habits like smoking and more time spent in watching television is higher in France and intake of foods like fruits, vegetables, fish are lower¹⁷. The food security score of France is 83.8% according to Global Food Security Index 2015.

Germany is a great contributor to FAO in terms of building global food security and nutrition security and also supported to mitigate the problems of drought and flood. Even the right to food was incorporated in Article 2 of Germany's Basic Law. Germany has given 6 million dollars for food and nutrition security, sustainable livelihood and agricultural agreements announced by FAO in 2010. As it is known worldwide Germany is developed country, it is the heart of the whole European region, therefore, it is expected from the country to contribute highly in order to achieve global food security. Germany is rich in agricultural production. The standard of living of people is relatively is very good. Food is available in large in Germany and the number is almost same like in USA. In Germany food security percentage is 83.9% according to 2015 Global Food Security Index.

Countries	Food Security Score
USA	89.0
Japan	77.4
UK	81.6
France	83.8
Germany	83.9

Source: Global Food Security Index, 2015

CALORIE AND NUTRITION COMPONENT OF FOOD

2.10 Individual nutrition security is at the top of all goals at the household, national and global level. Food availability does not mean that there is nutritional security. To lead a healthy life by an individual only eating food two to three times per day is not sufficient. The right and proper food which gives the necessary nutrition should be eaten by individuals. Adequate amount of protein, fat, vitamins, carbohydrates and minerals are necessary for a balanced diet. Meat, fish, eggs, milk, green vegetables, pulses, nuts, fruits, etc. are the main sources of the required nutrients by individuals. There are list of nutrition guides published by government agencies , many health associations and university health departments of many countries like Sweden, Australia, U.S.A, France, Germany, Brazil, Belgium, China, India, Ireland, Japan, Italy, Mexico, UK, Switzerland, South Korea, Israel and so on that gives nutrition advises for general health what to eat each day by dividing food into food groups and recommending servings of each food group. Following food guide is very helpful as there are many foods which supplies calories but no vitamins and minerals. Choosing food according to the food pyramid helps an individual to consume the sufficient nutrition for healthy diet along with required calories. Nutrition and calorie cannot be used interchangeably. Again nutrition and calorie requirements is different for different age, sex and size. Therefore, following the recommended servings of different food groups per day in food guide will definitely make an individual rich in health. The earliest nutrition guides was there in Ancient Greece and that guide recommended a seasonal diet. In winter it advises to eat a heavy diet of bread and roasted meat and fish avoiding vegetables and liquids like strong wine. While in summer light diet of barley cake, vegetables, boiled meat and diluted wine¹⁸.

The first food pyramid was published in the Scandinavian country Sweden in the year 1974. Sweden's National Board of Health and Welfare developed the idea of 'basic foods' that are nutritious and also cheap, and also the idea of 'supplemental foods' that fulfills missing nutrition from the basic foods. Basic foods were bread, cereals, potatoes, milk, cheese and margarine which are at the base of the pyramid; large section of supplemental vegetables and fruit above it; and supplemental meat, fish and eggs at the top. Now the Swedish government

moved to Plate model¹⁹. In U.S.A. the United States Department of Agriculture introduced the “Food Guide Pyramid” in 1992 which was replaced in 2011 by MyPlate. In India also the India’s Institute of Nutrition publishes the Dietary Guidelines for Indians which includes the Food Pyramid like other Pyramids. The Indian pyramid has placed beans and legumes at base to eat adequately, second layer of vegetables and fruits to liberally, third layer of meat, fish, eggs and oils to eat moderately and fatty, salty and sugary foods to eat sparingly. Again the pyramid recommends for regular exercise and physical activity and restricts drinking of alcohol and smoking²⁰. Even the World Health Organization(WHO) in conjunction with FAO published guidelines of food for people with objectives related to prevent obesity, chronic diseases and dental problems²¹.

A GUIDE TO DAILY FOOD CHOICES:

In order to live a life of sound health proper diet should be followed. It is very necessary for all people all over the world to consume both quality and quantity food to get the required nutrients. For this it has been seen that there is dietary guidelines for individuals which enables us to choose healthful diet which is right for us²². Foods such as salad dressings and oils, cream, butter, margarine, sugars, soft drinks, candies and sweet deserts provides calories and little else nutrition. Therefore, most people should use them sparingly. All these type of foods should be placed at the small tip of a food pyramid.

In the second level foods like milk, yogurt, cheese, meat, poultry, fish, dry beans, eggs and nuts should be placed as these foods provides protein, calcium, iron and zinc. 2-3 servings per day is necessary for an individual for living an active and healthy life.

The foods like vegetables and fruits which comes from plants should be placed in third level of the pyramid as these foods are important suppliers of vitamins, minerals and fiber. 3-5 servings of vegetables and 2-4 servings of fruits per day for an individual is important.

At the base the foods that comes from grains like breads, cereals, rice and pasta should be placed. These foods are the most important diet and most servings about 6-11 servings is needed by an individual each day.

Again a particular level of calorie intake is also important for individuals and the food pyramid helps in having the required calories too and what amount of calories is needed by individuals depends on age, sex and size and how much an individual is active as already mentioned above.

Sample Diets(servings) for a day at 3 Calorie Levels Needed by Individuals based on the food groups outlined by Food Guide Pyramid developed by USDA:

	Lower about	Moderate about	Higher about
	1600 calories	2200 calories	2800 calories
Grain group	6	9	11
Vegatable group	3	4	5
Fruit group	2	3	4
Milk group	2-3 ¹	2-3 ¹	2-3 ¹
Meat group(ounces)	5	6	7
Total fat(grams)	53	73	93
Total added sugars (teaspoons)	6	12	18

¹Women who are pregnant, breastfeeding women, teenagers and young adults to age 24 need 3 servings.

An attempt is made to present a sample menu plan(1800 Kcal) below based on the suggestions made by the Food Guide Pyramid regarding calorie intake-

<u>MENU</u>	<u>FOOD ITEMS</u>	<u>INGREDIENTS</u>	<u>CALORIES</u>
Early morning-	Tea(1 cup)	Milk and Sugar	50 Kcal
	Nuts	Almonds(5) or Walnuts(2 halves)	75 Kcal
Breakfast	- Cooked daliya/wheat		180 Kcal
	Flakes/2 slice brown sandwich		
	Milk	1 glass	100 Kcal
	Egg(boiled)	1	100 Kcal
Mid Morning	- Fruit(apple/guava/ Orange/pear)	100 gram	60 Kcal
Lunch	- Salad	1 medium plate	50 Kcal
	Green leafy vegetables	1 katori	50 Kcal
	Other vegetables	1 katori	70 Kcal
	Curd/raita	1 katori	150 Kcal
	Chappatis (medium size)	2	170 Kcal
	Rice	Half plate	100 Kcal
Evening	- Fresh lime	1glass	40 Kcal

Dinner	- Salad	1 medium plate	50 Kcal
	Green leafy vegetables	1 katori	50 Kcal
	Dal(whole) or	1 medium katori	150 Kcal
	Chicken/fish with curry	2 small pieces	200 Kcal
	Chappati(medium size)	2	170 Kcal

HUNGER HOT SPOTS- ASIA, LATIN AMERICA, CARIBBEAN ISLAND AND SUB-SAHARAN REGION

2.11 Although there is a decline in the share of hungry people worldwide between 1990-92 and 2012-14, hunger is still the most serious problem in almost all the developing regions of the world. It is the main breeding factor of the the problems like social disintegration, health problems and economic degradation. It has been found by UNO²³ that the most hungry population is settled in developing regions of Asia and Pacific region, in Latin America, Caribbean Island, East and North Africa and in Sub-Saharan region and some number in the developed countries too. Mainly it has been found that South Asia and the Sub-Saharan Africa are the hunger spots²⁴.

Asia & Pacific is a region of most diverse groups of countries and majority of the countries are non-high-income countries which makes the region as a whole a weak region comparatively in terms of overall score of food security. Except the countries in the region- Singapore, Australia, New Zealand, Japan and South Korea, the average overall score of food security of the remaining countries- Malaysia, China, Thailand, Sri Lanka, India, Pakistan, Bangladesh, Myanmar, Nepal, Indonesia, Cambodia, Phillipines and so on is 50.3 in 2015, putting the region 12.5 points ahead of Sub- Saharan Africa²⁵. In this region the countries having high share of household food expenditure but low GDP, have the lowest scores of food security. In Asia & Pacific region public spending is low on agriculture and this hampers the overall score of the region.

Latin America and the Caribbean is the first region which publically commit to end hunger by 2025 and the most successful region of the developing world in terms of food security status. It has met the MDG target. In the region as a whole undernourishment has declined to 6.1% which represents little more than one-third of its hunger burden in the early 1990s²⁶.

In Sub-Saharan Africa region as a whole the food security status is improving. Economic rates in the region has increased which resulted in increase of investment in the structures that is necessary to achieve food security. The undernourishment problem also declined to a great level from 33.33% in 1990-92 to 23.8% in 2012-14 according to FAO estimates 2012-14. Living conditions of the people in the region has improved. Despite this improvement, Sub-Saharan Africa is lagging and in affordability category it scores 26.8 points²⁷. Number of undernourished people in the region in 2012-14 is 214 millions higher than 176 millions in 1990-92²⁸.

In North Africa region hunger burden is very low and undernourishment is less than 5% since 1990 according to FAO estimates in 2014²⁹. Infact Middle East and North Africa(MENA region) performs well in Global Food Security Index 2015 which ranks third regionally behind North America and Europe. The MENA region's food security status is very high in 2014-2015 according to Global Food Security Index 2015.

Despite this overall progress vast majority of hungry population is living in the developing regions. About one in eight or 13.5% of the overall population still remains undernourished in these regions down by 23.4% in 1990-92. Sub-Saharan Africa infact is a home to more than quarter of the world's undernourished people with an increase of 38millions of hungry people in 1990-92 according to FAO estimates in 2014.

Regions	Food security score
Asia and Pacific	57.3
Central and South America	58.0
Middle East and North Africa	61.0
Sub Saharan Africa	37.8

Source: Global Food Security Index, 2015

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