**WEEK 7 YEAR 12 HOME ECONOMICS**

**STRAND: HEC 12.2 SUB STRAND: HEC12.2.4 FOOD SUPPLY**

**CLO: HEC 12. 2.4.1** Recognize the factors that affect the family food supply, determine the effect of climate change on the food availability and suggest ways in which sustainability can be promoted.

**LESSON: 86**

FACTORS THAT AFFECT FOOD SUPPLY

1. Availability within the Food Supply
2. Cultural Availability
* Cultural availability refers to the edible item that our culture considers food.
* It usually allows us to make decisions in what food to choose from as per our experience and knowledge. For example, i’ taukei of Fiji feel comfortable to consume Pork whereas Muslims do not.
1. Physical Availability

In physical terms, whatever food is available in our community and country which is grown and harvested together with the imported food which determines our food choice.

1. Effects of Climate and Geography
* Climate and geography have been playing major determinant of what type of crops to be grown. Such as crops which can be grown in western part is not able to grow in the eastern part.
* Nowadays vast technology and transport system have complemented the effect of geography on the foods available.
1. EFFECTS OF POLITICS AND POLICIES
2. Government Policies
* A variety of legislation affects the food we consume and indirectly our food habits.
* Government policies influence food availability, quantities available and the price of food that consumers pay.
* The role of government in maintaining standards includes technological, nutritional, as well as safety and hygiene. The legislation that most of us are familiar with is the Food Policy.
1. Agricultural Policies
* Agricultural policies also play an important role in availability of food to the consumer which is part of government policies.
* It has both negative and positive effects.
1. Food and Nutritional Policy
* Food and Nutrition policy also influence food choices.
* Nowadays most of our consumers refer to the policies and buy food which best for the family’s consumption.

**LESSON: 87**

1. FOOD AND MANUFACTURERS
* Food industries comes under private sector but they have to operate according the policies lied by government.
* Processing such as freezing, dehydrating, canning, freeze drying and so forth has made tremendous effect on the variety of products made and available to consumers to choose from.
* Manufactures have also influenced the nutritional standards of consumer’s diet.
* They have produced foods such as textured vegetable proteins which have added a variety in vegetarian’s diet.
1. COST
2. High Income Earners
* Our household income determines the amount spent and type of food item we purchase.
* It has also been seen that high income earners consume more of refined foods and get problems associated with over eating.
1. Low or Restricted Income
* When income is low and restricted it is evident that food budget will be reduced to allow flexibility in fixed expenses and bills, hence affecting the consideration on nutritional aspects of family.
1. Rural Dwellers
* Most of rural dwellers depend on farms and gardens to provide the family with fresh fruits and vegetables. As for protein they depend more on fish, cattle and poultry raised at home.
1. Religion
* Religion plays an important part as to whether a food is selected to be eaten or not. Some religion such as Seventh Day Adventist and Muslims do not eat por; Hindus do not eat beef and some are pure vegetarians.
* This restricts their choices of food.

 **FOOD SUPPLY**

**LESSON: 88**

Effect of Climate Change on Food availability

1. Vulnerable Island States
* A high ratio of coast line to land area, high population density, and minimal elevation above sea level puts large parts of the population at risk from storms, flooding and erosion.
* They have scarce in freshwater.
* In addition, small island states often depend on coastal ecosystems, including mangroves and coral reefs, for household income, revenue from tourism, and food.
* The threat to mangrove forests and coral reefs posed by climate change is exacerbated by coastal development, marine pollution, runoff of sediment and nutrients, overfishing, mining, and dynamiting.
1. Food Scarcity
* Climate change may affect food systems in several ways ranging from direct effects on crop production (e.g. changes in rainfall leading to drought or flooding, or warmer or cooler temperatures leading to changes in the length of growing season), to changes in markets, food prices and supply chain infrastructure.
1. Land
* Massive amounts of carbon are stored in tropical forests. When we destroy these areas to clear land for ranches or farms, that carbon gets released into the atmosphere and accelerates climate change.
1. Disrupted Food Calendar
* Climate change poses the most significant long-term threat to food security and traditional livelihoods in the region.
* Land-use change, in particular deforestation, also contributes to the problem and appropriate incentives need to be put in place to reduce the current rates of forest loss and degradation.
* Climate induced changes in rainfall pattern, temperature and wind directions could also result in the introduction and establishment of new pests and disease carrying, especially insects.
* These diseases can include zoonotic diseases, diseases that can be transmitted between animals and humans threatening livestock populations and human health.
* Atolls countries are in a uniquely vulnerable position to sea-level rises given the limited agricultural land currently available.
* This is likely to increase reliance on imported processed food stuffs and worsen existing health problems relating to lifestyle diseases.
* Climate change will also contribute to the disruption to ecosystem services such as pollination, soil fertilisation and the natural biological control of plant and animal pests will also threaten food production.

**LESSON 89**

Challenges for the South Pacific Countries

* The South Pacific Countries have limited resources, biosecurity capacities and more vulnerable to the impact of climate change
* The spread of introduced weeds, pests and diseases and invasion species.

RECOMMENDATIONS

Water Tanks:

* In the rural it has been experienced that due to long drought they face lot of difficulties in getting sufficient water supply throughout the day. Hence, a better option could be to have water tanks put in

Fishing Bans and Marine Reserves

* Laws and regulations can be put in place in order to see that small fish is not caught and sold. In doing so we will have better supply of bigger fish around the year and secondly over fishing will not take place.
* Marine reserve should be secured enough to see that the neighboring countries do not excess the right to fish or overfish and catching of small fish in our waters.

 **REVISION QUESTIONS**

 1. State the effects of food production on consumers.

 2. Discuss the effect of climate change on the land fertility and food scarcity.

 3. Explain how religion affects our food choice.

 4. ***There are a number of effects of climate change in food availability.***

 Explain what can be done to deal with the following problems

i.Insufficient water supply throughout the day.

 ii. Over fishing in our waters

**STRAND: HEC 12.2**

**SUBSTRAND: HEC 12.2.5 FOOD PRESERVATION**

**CLO: HEC 12.2.5.1 Examine and communicate the methods, skills and knowledge on the principles of commercial food preservation.**

**LESSON: 90**

* Food preservation is the process of keeping food for a longer period of time.
* It usually involves preventing the growth of bacteria, fungi (such as yeasts), or other micro-organisms, as well as retarding the oxidation of fats that cause rancidity.
* Food preservation may also include processes that inhibit visual deterioration, such as the enzymatic browning reaction in apples after they are cut during food preparation.

 Food is preserved:

* To save money.
* To use up food such as garden produce when it is plentiful and so avoids wastage.
* To have seasonal produce available throughout the year.
* To introduce flavor and variety to a menu as with jams and chutneys.
* For convenience; preserved foods can easily store until required.
* Preserved foods are easier to handle, distribute and transport on a large scale than fresh fruits.

 Principles of Preservation

* Preserving interrupts the process of decay in food by inhibiting or preventing decomposition.
* It prevents the action of enzymes which speed up decays. It prevents the growth of micro – organisms, the re – entry of micro – organisms by thorough sealing.
* The color, flavor, texture and nutritive value should be kept as near as to that of fresh food.

**REVIEW QUESTIONS**

1. State **one effect** of food manufacturers on food availability in Fiji.

 2. Rural areas experience incidences of marine disturbance as a result of human activity. Explain **one way** to conserve the marine resources.

3. Identify one policy that governs food availability and consumption.

4. How does **sea-level rise** affect our source of food?

**5.** State **one** effect of climate change on food availability in Fiji.

6. Rural areas experience incidences of long droughts as a result of climate change. Explain **one** way to mitigate the problem of water shortage.

7. Identify and discuss two factors that affect the family food supply.

 **ESSAY**

Climate change is now a global issue and has and is affecting the livelihood of people and the economy. With reference to the above statement, discuss how climate change has affected

 • Change in landscape.

* Increase in diseases.
* Economy of a nation.
* coastal area