

## M.A Semester II – (2020)

### Paper Resource and Economic Geography (CC-07)

**Topic : World FOOD PRODUCTION AND PROBLEMS .**

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World food production has expanded since the early 1960's. For most part of the 50 years food production has tripled. A common perception is that global food supply is currently sufficient to feed the world's population with timely distribution required to avoid hunger and food production is expected to rise in the next decades .(FAO ,July18,2018).

Adoption of crop rotation ,mass production, use of petroleum based fertilisers Irrigation ,chemical pesticides, introduction of genetically superior disease resistant cultivated crops has led to expansion of food production.

Generally food crops include production of rice, ,wheat, millet, corn, sugarcane and sorghum. China ,India, United States and Indonesia are the largest agricultural producer. In crop year 2016 /2017 a total of approximately 2.2 billion metric tons of grain was produced worldwide. Rice is more important than corn as foodcrop .The annual production

in 2008 was around 685,013,374 tons. Rice is the source of one fifth of all calories consumed by humans. Wheat is a resilient crop and covers most part of the land area of of the earth. It is a leading source of vegetable protein. The annual production in 2008 was 689,945,712 tons. Corn is the most produced grain in the world . It forms a staple food in Sub =Saharan Africa and is a great source of carbohydrate, proteins, iron, vitamin B and minerals. Total production amounts to 822,712,527 tons . Sorghum is another important cereal crop in arid regions. It is heat resistant and total production is 65,534,273 m tons. China and India are the main producers worldwide. In 2018 China's paddy rice production amounted to over 208 mm tons which amounted to third of total global rice products (Source : Statista:2020.com) Table 1 gives an account of the grain production in 2018/19 in mm tons

**Table 1 (2018/2019)**

<b>Sl.Nos</b>	<b><u>Crops</u></b>	<b><u>Production in mm tons</u></b>
1.	Corn	1099. 61
2.	Wheat	734. 74
3.	Rice	495. 87
4.	Barley	140.60
5.	Sorghum	58.40
6.	Oats	22.22

7. Rye 12.38

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Source Statista: 2020 .com

Reports from Organisation for Economic Co-operative and Development as well as FAO (Food and Agriculture Organisation) estimate that global demand for agricultural products is expected to grow 15% in the next decade , productivity growth is expected to increase slightly faster. FAO's forecast for 2020 world wheat production still indicates an output of 763m tons. Lower output is expected in European Union, Ukraine and U.S.A but these decline will be compensated by increased production in India and Pakistan.

### **Problems in Foodgrain production**

Though foodgrain production had expanded but perceptible change has been seen after 1990's where global food production rose slightly and despite slower rates of population growth, grain supplies per capita had fallen. 1987 was the first year that food production had fallen below consumption. World

food harvest dropped from 457m tons to 390m tons. Further in 1996 grain supply shrunk to less than two months supply, Notable slowing of growth rate in several populous country was in China ,India ,Indonesia and Mexico. The world agricultural area also declined steadily from record big in 1981.

According to FAO's report from Rome,20 August 2002 it was visualised that globally there would be enough food for growing world population by the year 2030, but hundreds of millions of people in developing countries will remain hungry and many of environmental problems caused by agriculture will remain serious according to summary report of World Agricultural Towers 2015/2030 (FAO) . A 1997 Environmental Protection Agency study found out that a time when global food demand is likely to soar, actual international production of wheat, rice and other grains is likely to drop by 7.6% .Currently, according to estimates in 2015 10 % of the world's population or 734million people are living in extreme poverty with less than 1.90 dollar a day. Food and Agriculture Organisation had called a meeting from June 3 to 5 2008 stating that world food grains stock

are at historic low and enough for only three months. Prices of grains were at record high. According to FAO Director General, Jaques ,Diouf,the world has 4-5 million tons of cereals stocks that can feed the global population for only 8-12 weeks.

### **Global Food problem**

Most of global food problem can be attributed to the reasons given below:-

- 1. Population Growth-** Population growth is the increase in the number of individuals in a population . There has been unprecedented increase in population over the years after 1950. As regards global population, between 1950 and 1960 the population increase was 28.4 million .This was a period of increase due to baby boom in the post World War II (1946-1964) period .The population growth was of 32.7 million people between 1990 to 2000 and was the largest of the Census to Census increase. The global population has grown from 1 billion in 1800 to 7.8 billion in 2020 approximately. It is expected to keep going and estimates have put the total population at 8.6 billion by mid - 2030.China alone accounts for 1.32

billion and India 1.29 billion. This growth of population is seriously putting a strain on the production.

**2. Increasing Demand** – The population increase accounts for only a modest part of the growing demand for food. The growth along with increase in the incomes in developing countries has changed the dietary habits and demand for more proteins and meat are accelerating the global food demand. Food demand is expected to increase from 59% to 98% by 2050. The problem is the falling rate of foodgrain production or for that matter in food output per person. Wastage of food and lack of incentives to farmers are again a cause of food crisis. The demand of food is more from developing countries like China and India

**.Fast economic expansion** – Rapid economic expansion in countries China, India and Vietnam tends to sharply increase the demand for food. In another instance when economic growth is characterized by slow rise in the demand for food and rapid growth in farm relative to non-farm productivity, then in that case agriculture in a

closed economy declines in relative terms as the economy develops.

**4.Loss of Biodiversity** – World's food supply is under severe threat due to loss of biodiversity . Agriculture was often to be blamed for land use changes and unsustainable management practices as over exploitation of soil and dependence on pesticides ,herbicides and agro-chemicals.

Another reason of bio-diversity loss is loss of forest cover as land is being converted to farm fields, concretization of cities ,over harvesting, exploitation of water resources and pollution.

It has been seen that nearly 6000 cultivated plant species are on decline as two-thirds of the crop production comes from sugarcane,maize , Rice, wheat, potatoes, soyabeans ,sugarbeet and cassava and there is very little growth of other crops.

Many species as birds that eat up crop pests and mangrove trees that purifies water are getting extinct .Pollinators which provide essential services to three quarters of world's crop are

under threat. There is decline in number of bees, and other insects and other pollinators as birds and bats which are vanishing. Thus biodiversity loss is another reason of decline in food production.

**5.Droughts and Famine** - Weather related events such as hurricanes, flood and drought has devastated harvests in many parts of the world .Droughts on large scale have occurred in Australia ,Ukraine and elsewhere.Droughts and floods undermine farm yields and national harvests reducing national food availability.Poor harvests threaten food security and livelihoods.Weather threats are affecting the economies of those people whose income is depended on on agriculture.

**6.Misdirected Government Policies.**-the Government policies also play a part in food problem. In 2005, the United States Congress began to require more widespread use of Ethanol in motor fuels Report: Kurukshetra ,June 2008) The use of grains in producing ethanol has increased significantly in recent years. Ethanol is a semi-renewable energy formed by fermentation of foodstock often



sugarcane or corn cobs. It can be mixed with gasoline and used as motor vehicle fuel and emits lesser pollutants. This fuel combined with subsidy for its use has created a flourishing market in United States and has also diverted agricultural resources from food to fuel.

The situation of food scarcity is getting grim day by day and food situation is very serious. Reports of food riots have been reported from Egypt, Cameroon, Haiti, Burkina, Faso and Senegal. In India food riots have been reported from Bankura in West Bengal. An estimated 850 million people in the world suffer from hunger. Of these, about 820 million are in developing countries.

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