



**GA4:** Environmental

**Student Officer:** Ekin Özruh

**Issue:** Reevaluating agricultural policies to encourage ecological farm practices

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Committee: Environmental Committee (GA4)

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## I. Introduction

Agriculture is the backbone of many countries' economies no matter the country's development level. As a primary necessity for the life of all humans, the production of food or agriculture is an industry that requires great attention, especially because of the environmental concerns that have started to raise during the 1950s. Agriculture is ultimately a process that employs many people in different areas. Not only producing crops and livestock, but the processing and marketing of such are also considered a part of agriculture.

Modern-day agricultural activities have a severe impact on the environment. From the 1800s to 1990s close to 1 billion hectares of forests, grasslands, and wetlands were converted to farmlands, due to the massive increase in world population<sup>1</sup>. Even though this has a considerable impact on global warming, it is not the foremost reason, industrial livestock production is. Livestock production is found to be the utmost in the emission of methane, which is a major contributor to global warming.

Other than climate change, agriculture creates other environmental concerns in several assets. Especially because of the overabundant and improper use of agricultural pesticides, not only food security becomes an issue, but also water shortage, soil degradation, and biodiversity declination also arise. The food that we eat, the water that we drink, and even the soil that we rely on for our food become polluted.

Ecological farming, on the other hand, increases food security, which is a major concern for both More Economically Developed Countries (MEDCs) and Less Economically Developed Countries (LEDs). It also reduces soil and water contamination through the disuse of chemical pesticides.

These are among the top reasons why the way agriculture is practiced should be regulated. Ecological farming provides sustainable, affordable and healthy food; however, it has to be economically supported by governments. This report will elaborate on how countries can reevaluate their agricultural policies to move from environmentally destructive agriculture towards a more sustainable one.

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<sup>1</sup> Rohila, Anil & Duhan, Anshul & Maan, Devashri & Kumar, Amit & Kumar, Krishan. (2017). Impact of agricultural practices on the environment. Asian Journal of Microbiology, Biotechnology, and Environmental Sciences. 19. 381-384.





## II. Involved Countries and Organizations

### European Union (EU)

The EU is known for its Common Agricultural Policy (CAP), which was launched in 1962. It aims to increase agricultural productivity, to improve farmers' prosperity level, and to ensure a secure food chain across Europe. It is funded by the European Commission itself and is valid in all countries that are a part

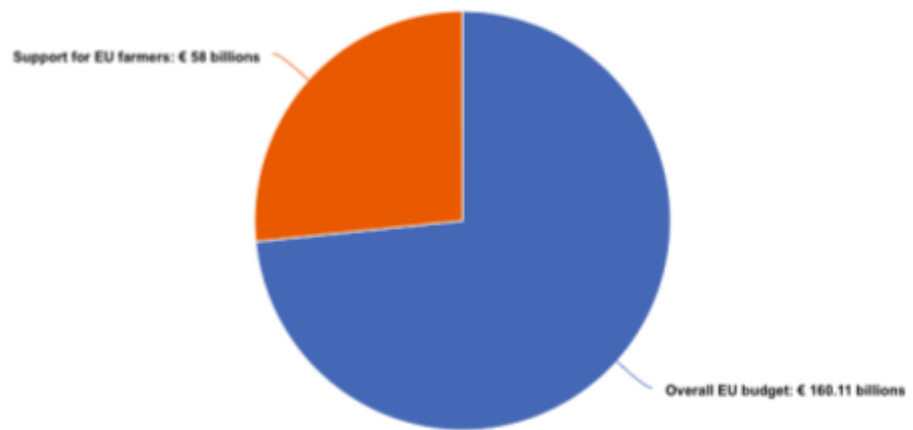


Chart 1: Support for EU farmers from overall EU budget

of the EU. The CAP not only provides financial assistance to the farmers, but it also takes measures to improve welfare in rural areas. CAP recognizes several challenges that farmers face, such as unpredictable weather conditions, and tries to overcome market problems by inspecting the whole food market chain. Currently, CAP uses nearly 40% of the whole budget of the EU (see Chart 1)<sup>2</sup>, which is criticized by many, as farming only accounts for 6% of the GDP of the EU. Another concern regarding CAP is that financial support is distributed on the basis of land ownership, meaning small farmers receive a much smaller income compared to the larger agriculture companies that own larger lands.

### Russian Federation

Even though Russia's agricultural policy was negatively affected by the dissolution of the Soviet Union in the early 1990s, the Federation has improved its support for sustainable agriculture. Currently, Russia provides an amount of producer support that exceeds the Organisation for Economic Co-operation and Development (OECD) average, and is known to be the largest exporter of wheat to the world. Russia currently suffers from the communist culture that remains in the rural population's mind. The majority of the land is owned by the minority of the population, which decreases price competition; therefore, decreasing agricultural yield. The federation adopted the State Program for Development of Agriculture in 2012, that aims to improve both crop and livestock productions. Before this, the government policy was to provide low

<sup>2</sup> "The Common Agricultural Policy at a Glance." European Commission, [ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance\\_en](https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_en). Accessed 24 July 2019.



interest credits to farmers, but the program aims to give direct financial support to farmers. The program also aims to make more efficient use of the country's massive land size.

## China

With a great amount of land area, China possesses 10% of all farmlands around the world; however, the amount of land that is harvested still takes much smaller amount compared to the vast land area. With this 10% farmland, China feeds 21% of world's population<sup>3</sup>. After the 1990s, the Chinese government shifted its agriculture from a communal agriculture system towards a family farm system. This ensures more people that live in rural areas have access to farm lands that they can cultivate.

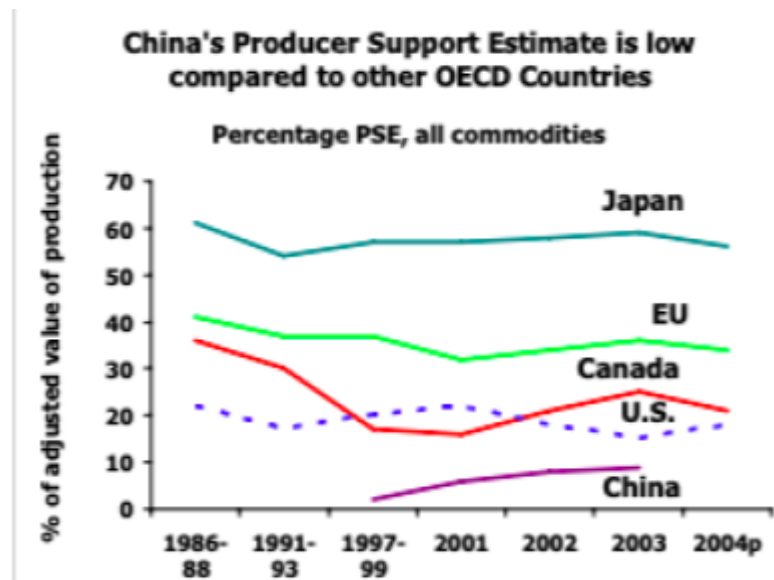


Chart 2: Producer support of several OECD countries

According to OECD, "Since 2000, improving farmers' incomes and narrowing the urban-rural income gaps have been top priorities for the Chinese government." The Chinese government achieved this via distributing land to rural families, so that they can do agricultural production. However; the amount of income support that China gives the farmers is fairly lower than other OECD countries (see Chart 2)<sup>3</sup>. The Chinese government aims to have self-sufficient agriculture to ensure food security. For this reason, China came up with food security agencies that inspect the markets.

## Food and Agriculture Organization (FAO)

The FAO, a specialized agency of the UN (United Nations), has set some goals to prepare a sustainable agricultural infrastructure for a projected world population of 9.3 billion to be reached in 2050. These goals include increasing productivity, protecting natural resources, improving welfare, and adopting to yet unknown challenges. For this reason, FAO puts together conferences, research papers, and convenes agriculture experts in different countries to come up with strategies that are specific to the region and its' challenges. The FAO is the oldest specialized agency under the UN, having been established in 1943.

<sup>3</sup> Deng, Hugh. China Agriculture Policy Review. OECD, Nov. 2015, [www5.agr.gc.ca/resources/prod/doc/pol/pub/oecd-oced/pdf/china\\_e.pdf](http://www5.agr.gc.ca/resources/prod/doc/pol/pub/oecd-oced/pdf/china_e.pdf). Accessed 24 July 2019.



Even though the FAO has set great goals, the work that it yet conducts is merely sufficient. Other than its' work outlined in the previous paragraph, the FAO doesn't conduct multinational activities on the basis that each region has its specific agricultural challenges, and that they require individual attention. However; for many under developed countries, in Africa for example, outlining and leading an agricultural movement can be vital for improvement in such regions, where it is harder to reach resources.

### III. Focused Overview of the Issue

A paper published by Greenpeace says that ecological farming "ensures healthy farming and healthy food for today and tomorrow, by protecting soil, water, and climate promotes biodiversity and does not contaminate the environment with chemical inputs or genetic engineering."<sup>4</sup> Currently, ecological farming takes up a very small part of our whole food production; therefore, ecological farming practices should adapt to modern-day agriculture.

#### 1. Food Security

The FAO explains food security as:" Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life,"<sup>5</sup> so we can further break food security into its several assets.

Producing healthy crops and livestock, by disuse of genetically modified seeds and chemical pesticides are very important for food security. "Genetically engineered crops threaten biodiversity,"<sup>5</sup> because they cannot withstand changing conditions, as they are designed to be produced in a certain climate under certain circumstances. Therefore; when genetically engineered crops take over normal seeds, the normal seeds will go out of existence. However; delegates should also see the beneficiaries of genetically modified foods, as these crops may have specific advantages in specific applications. For example, in a very arid landscape, the genetically modified variation of a crop that can withstand drought can be more efficient.

Meanwhile, according to the WHO (World Health Organization), "When people come into contact with large quantities of pesticide, this may cause acute poisoning or long-term health effects, including cancer and adverse effects on reproduction."<sup>6</sup> Farmers may choose to use non-chemical pest prevention techniques like sticky barriers, or even use less toxic pesticides. However; these are not the only steps for making sure that the food that we eat is healthy. Both crops and livestock are packaged and processed for shelf-life

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<sup>4</sup> Tirado, Reyes. Defining Ecological Farming. Technical report no. 04/2009, Greenpeace, June 2009, [www.greenpeace.to/publications/Defining-Ecological-Farming-2009.pdf](http://www.greenpeace.to/publications/Defining-Ecological-Farming-2009.pdf). Accessed 24 July 2019.

<sup>5</sup> Disabled World. "Food Security: Definition & General Information." Disabled World, 17 Mar. 2015, [www.disabled-world.com/fitness/nutrition/foodsecurity/](http://www.disabled-world.com/fitness/nutrition/foodsecurity/). Accessed 24 July 2019.

<sup>6</sup> "Pesticide Residues in Food." World Health Organization, 19 Feb. 2018, [www.who.int/news-room/fact-sheets/detail/pesticide-residues-in-food](http://www.who.int/news-room/fact-sheets/detail/pesticide-residues-in-food). Accessed 24 July 2019.



increasing purposes, such as drying or freezing. Food needs to be monitored at this stage to make sure hygiene standards are met in facilities in such processing is done. Lastly, transportation of agricultural products from the farmlands or from the processing facilities require great attention, especially for frozen products.

## 2. Sustainability

It is critical that food is sustainable, and this heavily depends on maintaining fertile soil and seeds. For ecological farming purposes, easily accessible and fairly priced organic fertilizers such as animal manure provide organic matter to the soil without the need for external chemicals and increase soil fertility. However; it should also be noted that over-usage of organic fertilizers can also harm the soil, so the farmer being aware of this matter is highly crucial. Especially in highly developed countries, soil erosion due to long years of abuse of the soil can be reversed via the usage of organic fertilizers.

## 3. Environmental Concerns

Like food security, environmental concerns have many assets when it comes to agriculture. Soil degradation and water shortage due to chemical pesticides and fertilizers and climate change due to high levels of carbon dioxide and methane caused by livestock production are the most obvious among many. Excessive use of fertilizers causes abnormal amounts of nitrogen and even changes the pH level of the soil. The leftovers of the chemical pesticides and fertilizers also mix into the underground waters, contaminating drinking water. In addition, 20% of the carbon dioxide that is produced comes from agriculture<sup>7</sup>. This not only causes air pollution but also triggers climate change.

## 4. Economic Concerns

Agriculture provides job opportunities for many in rural areas, where farming is done. However, in many cases, the income that farmers receive is fairly low. In fact, according to United States Department of Agriculture (USDA): "For every dollar that consumers spend on food, the farmer receives just 14.8 cents."<sup>8</sup> So for this reason, farmers may need income support to continue farming which is key to sustainability for this matter. This is why the the European CAP spends a huge amount of money directly supporting the farmers. Even though there are jobs that are financially better than farming, the basic fact that humans need food for living simply means the whole agricultural sector cannot be abandoned. The International Fund for

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<sup>7</sup> Rohila, Anil & Duhan, Ansul & Maan, Devashri & Kumar, Amit & Kumar, Krishan. (2017). Impact of agricultural practices on the environment. Asian Journal of Microbiology, Biotechnology, and Environmental Sciences. 19. 381-384.

<sup>8</sup> Barret, Rick. "Farm Income Could Be Lowest in 12 Years." USA Today, 18 May 2018, [www.usatoday.com/story/money/business/2018/05/17/farm-income-could-lowest-12-years-prices-fall/618204002/](http://www.usatoday.com/story/money/business/2018/05/17/farm-income-could-lowest-12-years-prices-fall/618204002/). Accessed 24 July 2019.



Agricultural Development (IFAD) is also a specialized UN agency that aims to financially support rural farmers all around the world.

## IV. Key Vocabulary

**Ecological Farming:** Farming that ensures food security, that disuses chemical pesticides and non-organic fertilizers, and that is environmentally friendly.

**Food Security:** Practice that makes sure food that goes to consumers is healthy, affordable, and is accessible for everyone, at all times. It may include regulation of food processing facilities for hygiene, an inspection of market prices by the governments for making sure food is affordable, or infrastructural investments that a government makes to make sure healthy food is reachable by all of the population in every part of a country.

**Agriculture:** Conventional farming or agriculture is the producing, processing and marketing of food. Industrial agriculture involves the usage of chemical input and industrial fertilizers to get a better yield from harvest.

**Fertilizers:** Chemical or organic matter that increases agricultural yield.

**Industrial Livestock Production:** A method of agriculture in which a densely populated number of animals are fed and given water, etc. in a barn or a cage, that maximizes productivity while reducing production costs.

## V. Important Events & Chronology

Date (Day/Month/Year)	Event
18 May 1943	UN Conference on Food and Agriculture
16 October 1945	UN FAO was established
25 March 1957	EU's CAP was introduced with the Treaty of Rome
19 December 1961	World Food Programme was established
December 1992	International Conference on Nutrition
26 June 2003	CAP started to pay direct income support to farmers
14 July 2012	Russian Federation adopts the State Program for Development of Agriculture
1 June 2018	European Commission presented its new provisions for the future of CAP for 2020



## VI. Past Resolutions and Treaties

UN Resolution A/RES/73/171 (<https://undocs.org/en/A/RES/73/171>): This resolution outlines UN's aims towards making food accessible for everyone and preventing undernutrition.

The International Treaty on Plant Genetic Resources for Food and Agriculture

(<http://www.fao.org/3/i0510e/i0510e00.htm>): This treaty has an aim of "establishing a global system to provide farmers, plant breeders and scientists with access to plant genetic materials." As of 2019, 146 parties have signed the treaty.

## VII. Failed Solution Attempts

Even though there is no solution attempt that completely failed for this specific agenda, already existing solutions and techniques that are currently used in agriculture such as Genetic Modification of crops and different kinds of pesticides can cause environmental issues. Other than the agriculture applications, there are different approaches to solve the world's food problem, which is basically what this agenda comes up to. For example, one of the arguments that the UK had behind Brexit was the insufficiency of CAP.<sup>9</sup> The UK finds the amount of money that they spend on CAP regressive for their economy. So it is highly debatable whether the CAP is a sustainable and successful solution. This is why delegates should bear in mind the specific economic conditions of the relevant countries while coming up with solutions.

## VIII. Possible Solutions

The agenda at hand has to be tackled in a way that, first, doesn't place a burden on Member States' economies, and second, that ensures the financial protection of farmers for sustainability reasons. This doesn't have to necessarily mean direct income support from governments. You, as delegates, should try to come up with creative solutions to promote ecological farming. Different approaches, for example, an educational approach towards farmers on the use of fertilizers, etc. may be necessary to make sure that the solutions directly address the base of the problem. Another approach may be to improve the international trade network for food exports and imports in a way that supports ecological farmers, but delegates should bear in mind that ecological farming is done in a much smaller scale than industrial farming. Lastly, delegates may focus on adopting a policy that will make ecological farming more suitable for modern-day.

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<sup>9</sup> Monbiot, George. "The One Good Thing about Brexit." The Guardian, 10 Oct. 2018, [www.theguardian.com/commentisfree/2018/oct/10/brexit-leaving-eu-farming-agriculture](http://www.theguardian.com/commentisfree/2018/oct/10/brexit-leaving-eu-farming-agriculture). Accessed 24 July 2019.





## IX. Useful Links

FAO website on sustainable food and agriculture:

<http://www.fao.org/sustainability/background/en/>

UN Milestones on food security:

<https://research.un.org/en/foodsecurity/un-milestones>

European Commission website on CAP:

[https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy\\_en](https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy_en)



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