

Green Aviation Challenge – Self-Sufficient Food Production

What should happen?

The RAF has to watch the skies, put a stop to conflict, respond to threats, deliver aid, and protect against cyber threats around the world. Everyone in the Royal Air Force has to work incredibly hard to protect the UK, and shouldn't have to worry about what's going to be on their plates at dinnertime. They could save money, time, and the environment, if they were self-sufficient by producing their own meals. Instead of buying cheaply reared chicken that have possibly been neglected, there could be one or more farms around the UK where the RAF needs food supply, where chicken and other animals could be looked after for a longer amount of time, resulting in organic and free-range meat. Crops would have to be grown as well, to give people the nutrients they need found in fruit and vegetables. Although it would be hard to start with, it would benefit the RAF massively in years to come.

What are the bad effects on the environment at the moment?

It is known across the globe, and has been said in different reports, that eating unnatural meat is bad for the environment. The majority of the meat bought in the UK was processed in factory farms, and this production of dairy and meat, is destroying our planet. Some of the most famous and popular fast-food chains and supermarkets, such as KFC, McDonalds and Tesco are owned by the largest meat processing company in the world – JBS. This means people are buying processed meat on an incredibly large scale, so many more animals are being slaughtered in a very cruel way, and this is causing irreversible deforestation in the Amazon. In areas in South America, the forest is deliberately burned to graze cattle there and grow crops to feed billions of farm animals. So many people have no choice to buy these types of processed meat, and 95% of chicken that are put on supermarket shelves are produced in farms that could be described as a prison. They are brought up in very long, brightly lit warehouses with no windows and high ceilings, where thousands and thousands of birds could be found. The picture on the right shows this. There are almost three million chickens consumed each day in the UK, and consumption of meat is the single largest cause for deforestation and fires in the Amazon, and apart from this reason, there are six other main reasons why meat processed in factories is fatal for the environment. The six reasons are shown below:



Industrial chicken farm

1. Climate change – meat has impacted the environment in a terrible way, to the point where it's roughly equivalent to all of the driving and flying of every plane, truck and car in the world. This is because of the fires created to burn the Amazon down to graze cattle and other animals there, and the carbon dioxide created, increasing global warming. When damaged trees are left to rot on the ground, there are more CO2 emissions created. With all of these trees' lives coming to an end, we are slowing the fight against climate change, because they are vital for absorbing carbon dioxide from the atmosphere, and with them gone the world heats up. If there were more farms such as ones rearing organic, free-range meat, and crops without weedkiller or other chemicals on, then we would be helping the environment massively, and because the RAF is so famous, it could also increase natural farming across the globe.
2. The Amazon rainforest is dying – the trees found in the great forest produce their own rainfall to keep the whole forest alive and healthy. If humans are destroying the forest to rear animals, continues at the rate it's happening now, then the Amazon might not be able to come through, with all of it's trees being destroyed, and this would not only devastating for the rainforest itself, but the people and animals who depend on the forest, and also those in South America who need rainfall (which is everyone), because this could also lead to less rainfall. All because people didn't change their farming ways.
3. It's ruining people's lives – families and children are now without homes in the Amazon because of wild or deliberate fires, caused by the need to rear animals, or the CO2 created with raises the temperature of the atmosphere. People are also having to work in terrible conditions for nothing. The large meat processing company JBS, as well as others, have terrible working conditions for their employers, as well as outbreaks of disease, caused by the animals, such as chicken. Also, more recently, outbreaks of Covid-19. These industrial farms are proving to ruin people's lives, and leave them with nothing.
4. Decrease in wildlife – the use of toxic pesticides to grow food to be consumed by animals, as well as the destruction of wild habitats, including forests are forcing thousands of known and unknown species into extinction. Humans depend on a wide range of life in the wild, as it all makes up the world's natural system, creating a place where life can survive. Biodiversity is essential for humans, as we all need food, clean water and medicines. The rate of which biodiversity is decreasing is very worrying, and this crisis is partly driven by industrial farming is as threatening to the environment as climate change. An example of wildlife being threatened is jaguars – 38% of their natural habitat in Brazil has been lost, once again because of farming.
5. Increasing the risk of pandemics in the future – because humans are destroying animal's habitats in the wild for space to grow crops or rear animals, there is an increasing risk of diseases such as Covid-19 and new infectious diseases. Out of all of the new infectious diseases that affect humans, three quarters of them come from animals. This is because as we cut down forests and other areas of the wild, humans are getting closer and closer to animals, and their diseases that they've already adapted to, but humans haven't. These farms are another risk, because so many animals are squashed into small spaces, allowing diseases to spread easily. This means farming in this way is affecting humans and the environment in many more ways than we think. If the RAF can farm self-sufficiently, wanting the best for the animals and people eating the food, then it will have the opposite effect to the environment as the industrial farms do.
6. It's not an efficient way to eat – the cost of rearing animals in this bad way might seem cheap to the producers at the start, but just 1kg of chicken meat takes 3.2kg of crops to produce. However, the farmer will feed the animals with a very cheap vegetable that may have had a pesticide on, so the meat will not be good quality. If everyone ate a vegetarian diet, we would need 75% less farmland that we use today, equivalent to the whole of the US, China, Europe and Australia combined, meaning we have unnecessarily destroyed wildlife and habitats to benefit humans. It's not that we should cut out all meat of our diet, but getting rid of these cruel farms that are destroying the world could be one of the best things we could do for the environment. We would be spending less money, and feeding more people without destroying the life around us. This isn't individual choices, because our planet is at risk, so everyone must pull together, and by the RAF becoming greener we could save more animals, money and importantly, the environment.



Fire in the Amazon caused by climate change



Endangered jaguar

It's not just meat consumption that's bad for the environment, but it's the main reason why food is affecting the environment in the way it is because of the cruel way the animals are reared in their life. If the RAF can take action and help in this way, it would be a great example to other farmers and companies to do the same.

How would it help the RAF?

The RAF could save thousands of pounds if they do this plan, and put that saved money towards something that is important such as planes or engines that could benefit lots of people. Food is just an extra thing that the RAF needs for the pilots, engineers and air traffic controllers, and it shouldn't be something they have to worry about when they are already under pressure with their jobs. Also, they don't need to stress if an order of food is cancelled, or they are low on staff to pick something up, they can have all of the produce and animals they need in a farm nearby. This would benefit everyone at the RAF, and beyond, including local people. They could even gain money, and build a whole new company for themselves. The food expense is massive, and average spend per person per week in the UK is massive, averaging £21.28. For bread and cereals it's £6.14, for meat it's £6.23, fish is £1.29, £2.93 is the average spend for milk, cheese and eggs, fruit averages £2.32, and for vegetables it's £2.37, and multiplied by thousands of people who have to be catered for is a lot of money which can be saved if the RAF is self-sufficient and has it's own farms, animals and crops. One of the RAF's jobs is to protect the country, and they need money for the right equipment, and money will also be spent if someone needs to go on an expensive course, for example. Food is an extra expense, and everyone in the RAF needs to consume right amount of nutrients, calories and minerals to do their job, and they deserve the best food in the area, and a RAF farm would provide this.

What about farmers?

There are already around one in eight people of the national workforce who are employed in a job to do with food or farming, and if there are more farms in the UK put to a good use of feeding the RAF, there would be even more jobs. This would benefit not only the farms needing farmers, but people without a job. If someone has been searching for a job as a chef for weeks, or if someone has just left school, and wants to get some farming experience, working as a farmer or cook for the RAF will be a great opportunity for many people, and it will benefit the RAF, as they would have more staff. A drawing of my self-sufficient food production idea is to the right.

Self-grown crops such as wheat and corn.

Farmers who are employed to pick the produce.

Flowers such as sunflowers that provide seeds, and pollen for the bees in the area, helping the environment.

Vegetable patches were cabbages, cauliflower and more can be grown for farmers to pick.

Spacious grazing areas for chicken and other birds where they eat natural food, and get lots of space to run in the open air.

Rivers and lakes full of fish such as salmon and trout for people to catch and serve up to members of the RAF.

Fields with open space where animals such as cows and sheep can live where they can have a natural, healthy diet, such as grass.