



## Background Paper

**Committee:** Food and Agriculture Organization

**Topic II:** Locust plagues in Africa, swine flu, and plant diseases that threaten food supplies.

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As the world's population continues to rise and agricultural systems become affected by climate change, one of the biggest issues facing the international community is still food security.

Biological risks like plant diseases, pest invasions, and livestock epidemics continuously threaten the stability of food production. Among these, swine flu specifically, African Swine Fever has become one of the most deadly animal illnesses in modern times. Millions of pigs have died as a result of its quick spread throughout Asia, Europe, and Africa, seriously disrupting the world protein supply and meat sector.

Outbreaks of swine flu indicate serious weaknesses in the world's food systems. There is presently no effective vaccination to prevent the disease, which is easily spread via contaminated feed, animal products, or contact with diseased pigs. Pork is a staple diet and a major export for nations like China and Vietnam, but these nations have suffered terrible losses. An estimated 30 to 40% of Asia's pig population was wiped off during the 2018–2020 pandemic, pushing pork prices to all-time highs and forcing customers to switch to other, frequently pricier protein sources. In addition to the financial harm, these interruptions put millions of people at risk for food insecurity, especially in low-income areas where affordable meat is essential.

With its Emergency Prevention System (EMPRES), which tracks plant and animal health globally, the Food and Agriculture Organization takes the lead in combating these dangers. To stop the spread of diseases before they lead to major crises, the FAO encourages early diagnosis, improved veterinary infrastructure, and international collaboration. However, despite

considerable knowledge, it is challenging to completely manage ASF outbreaks due to disparate national policies, a lack of financing, and gaps in surveillance, particularly in rural areas where small farmers do not have access to sufficient veterinary care.

Although swine flu is a significant problem, it is simply one aspect of a larger problem. Millions of people who rely on agriculture for their income are impacted by locust infestations that continue to destroy farms throughout Africa, killing thousands of acres of crops. Climate change-related abnormal weather patterns have facilitated the rapid growth of locust populations, resulting in serious shortages of food in nations such as Ethiopia, Kenya, and Somalia. Plant diseases including late blight, banana wilt, and wheat rust also pose a threat to the production of vital goods, lowering yields and increasing hunger in areas where food insecurity is already a problem.

These connected crises show that challenges to food security are not apart events but rather are a component of a complex global system that is impacted by commerce, climate change, and biosecurity. Building agricultural systems that are resistant to pests and diseases, enhancing fast response systems, and preventing future outbreaks all depend on strengthening international collaboration under the FAO's framework. To save crops, animals, and livelihoods, the international community must make investments in research, information exchange, and sustainable practices.

## Key Issues:

### 1. Swine Flu (African Swine Fever)

- **Main Causes:** Include poor veterinary systems, illicit animal trade, and improper biosecurity controls.
- **Global Repercussions:** Food insecurity, high livestock prices, livestock losses, and economic instability.
- **Importance:** Stabilizing agricultural markets and guaranteeing protein availability depend on preventing ASF.

### 2. Locust Plagues in Africa

- **Main Causes:** Not enough capability for pest control and climate change.
- **Global Repercussions:** Forced migration, starvation threats, and crop destruction.
- **Importance:** Food supply and rural economies are safeguarded by reducing locust outbreaks.

### 3. Plant Diseases Threatening Food Supplies

- **Main Causes:** The absence of resistant agricultural varieties, monoculture methods, and international trade .
- **Global Repercussions:** Reduced harvests, loss of biodiversity, and rising food costs.
- **Importance:** Secure and sustained global agriculture depends on the fight against plant diseases.

## Guiding Questions

1. How can the FAO improve international collaboration to stop and address plant and animal diseases?
2. What regulations ought to be put in place by member states to enhance swine flu veterinary surveillance and early detection?
3. How might methods for climate adaptation and sustainable agriculture lessen the dangers to food production in the future?

## Bibliography (MLA)

Food and Agriculture Organization of the United Nations. *African Swine Fever: A Global Threat to Food Security*. FAO, 2023.

World Health Organization. *Zoonotic Diseases and Global Food Safety*. WHO, 2024.

BBC News. “African Swine Fever: The Disease Reshaping Global Pork Supply.” *BBC*, 2023.

National Geographic. “Locusts and Climate Change: A Growing Food Crisis in Africa.” *National Geographic*, 2020.

United Nations. *The State of Food Security and Nutrition in the World 2023*. UN Publications, 2023.

## Key Timeline

**2009:** The first worldwide H1N1 swine flu outbreak increases knowledge of the dangers of zoonotic illnesses.

**2018:** An outbreak of African Swine Fever starts in China and spreads to over 20 nations.

**2019–2020:** Millions of hectares of crops are destroyed by the largest locust plague to hit East Africa in 70 years.

**2021:** FAO creates new response standards for animal disease control and improves ASF prevention efforts.

**2022:** A 20% reduction in the world's pork supply raises meat prices and has an impact on food access in developing countries.

**2023:** Outbreaks of banana wilt and wheat rust demonstrate the increasing significance of plant diseases.

**2024 (Ongoing):** To improve agricultural threat monitoring and response, FAO is growing its Emergency Prevention System (EMPRES).

