

Code: FAO/1/1

Committee: Food and Agriculture Organization of the United Nations

**Topic:** Climate Change and Food Security

The Food and Agriculture Organization of the United Nations	The Food	l and Agriculture	Organization of	of the United Nations
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Recalls the final report prepared by the United Nations Office for Disaster Risk Reduction and the United Nations
 Development Programme that reaffirms the direct correlation between climate affairs, natural disasters, and food insecurities,

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Further recalling the 2015 State of Food and Agriculture Report, which states that flooding in farms is a dangerous contributor of the destruction of crops,

*Recognizes* the United Nations Sustainable Development Platform, which states the positive correlation between the increase of agricultural jobs and food security,

*Noting with concern* the need for educational best practice programs in rural, climate inhibiting, and island nation-states in order to promote sustainable infrastructure in the future,

Bearing in mind the potentially detrimental effects of flooding in regards to the destruction of crops and farming due to soil or oversaturation,

1. *Invites* Member States to create and implement man-made, temperature-controlled greenhouse domes, titled "Green Castles," which are climate and landscape-resilient indoor farming facilities that promotes the cultivation, storage, and protection of farming resources throughout diverse Member States, this allows for the cultivation of nutritional resources that are resilient to natural disasters such as droughts, storms, and flooding;

2. *Instructs* Member States, if they choose to create a "Green Castle," to delegate administrative functions to their national governments, functions would include:

 a. Dividing the percentage of land inside the "Green Castle" that would be allotted to either civilian use or large-scale food production;

b. Organizing the harvest and crop dissemination of the food supply cultivated by the large-scale food producers operating inside the dome;

3. Encourages Member States to utilize "Green Castles" as a way to engage with local farmers and civilians by:

 a. Providing agricultural job opportunities that empower young and experienced farmers while promoting innovative substantive farming practices;

b. Setting aside allotments for civilian usage as a way to greatly decrease the frequency of food deserts;

 4. *Empowers* women and indigenous people to be climate-conscious in terms of agriculture, the aim is to reach out to communities who do not have prior knowledge of farming or sustainable farming practices and to contribute to local food supplies through the organizational process of civil society organizations (CSOs) by:

a. Introducing plant diversity through crop rotation which will increase the probability of soil being reused;

- b. Farming high-quality, high-protein, nutrient-dense food while simultaneously improving food security; Introducing programs like Green-Girls, where carbon waste products are turned into bio-gas for fuel usage; Stresses its readiness to teach rural farmers about disaster preparedness techniques when faced with natural disasters such as tornadoes, floods, landslides, and earthquakes that include: Significantly reducing the amount of excess by recycling remaining crop yields for the purpose of feeding livestock;
  - b. Using advanced composting techniques to increase soil nutrients in order to boost reusability of soil;
  - c. Protecting family food supplies through long-term food storage techniques;

- 6. *Recommends* that local CSOs educate rural farmers about various methods for sustainable farming as well as disaster preparedness techniques when faced with natural disasters such as tornadoes, floods, landslides, and earthquakes, through the:
  - a. Sustainable conservation of water, including the usage of desalination techniques, notably the condensation of steam from boiled salt water;
  - b. Preservation of soil, including the prevention of desertification, destruction of usable soil, and increasing soil nutrients to enhance the viability of soil being reused;
  - c. Introduction of programs like Green-Girls, where carbon waste products are turned into bio-gas for fuel usage.



Code: FAO/1/2

Committee: Food and Agriculture Organization of the United Nations

**Topic:** Climate Change and Food Security

The Food and Agricultural Organization of the United Nations,

*Recognizing* the need to further implement Sustainable Development Goal (SDG) 17, which seeks to strengthen the international community to assist emerging markets in creating sustainable agriculture and development practices to limit the impacts on the environment such as droughts, storm surges, and floods,

*Recalling* General Assembly resolution 42/169 on the International Decade for Natural Disaster Reduction, which calls upon collective international action for the reduction of natural disasters, focusing to improve and update existing mechanisms to develop a strategy to attain the desired goal of reducing food shocks,

Acknowledging the importance of supply chain management and its pertinence to waste reduction, mitigating the risk of natural disaster impact, and the greater availability of agricultural products, in accordance with General Assembly resolution 72/238 on Agriculture Development, Food Security, and Nutrition,

*Considering* the effects of climate disasters, acknowledging the effects of environmental changes and its impacts on the quality of food supply, and technology in countries affected by climate disasters,

*Recalling* the Rural R4 Resilience Initiative which effectively allocates insurance funding for smallholder farmers to engage in safer practices, and the 2030 Agenda for Sustainable Development,

*Cognizant* of the need for adaptation and mitigation, as well as for the reduction of vulnerability of biological and social systems to build environments able to face the changing natural conditions and to cope with natural disasters,

*Drawing attention* to the need for each Member State to contribute voluntary nation reviews (VNR) in an effort to assist emerging market goals involving the eradication of hunger,

Encourages Member States to continue to foster relationships within the international community to promote
development projects in partnership with the World Bank, African Development Bank, and the Food and
Agriculture Organization of the United Nations (FAO) to promote sustainable investment in agricultural
projects to relieve human impacts on the environment;

2. *Invites* Member States to reduce the need for emergency food distribution and instead focus on mitigating food shocks based on natural disasters caused by rising temperatures, and rising sea levels by:

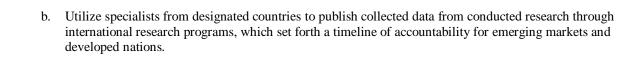
 Employing early warning systems such as tsunami detection buoys and seismic sensor devices in Member States prone to such disasters in order to reduce the destruction of critical agricultural assets and infrastructure;

b. Implementing sea barriers in flood-prone coastal areas to mitigate the damage caused to crops and livestock production;

 Update existing early warning systems to ensure they are technologically advanced and fully functional in order to create food production systems resilient against natural disasters that hurt agricultural growth and productivity;

- 3. Calls for updating existing factories and warehouses to mitigate food shortages and agricultural waste caused by environmental disasters and curb disruptions in local supply chains with the creation of a cold chain, a series of refrigerated production funded by private investors through World Bank projects, reorganizing the coordination of complex distribution of resources and fulfilling the SDGs by:
  - a. Reconfiguring vehicles of transportation to associate equipment and logistics which maintain a desired range of low temperature to ensure discarded food isn't put in landfills and the reduction of disposal costs;
  - b. Reducing local supply chains in Member States to decrease the complexity of distribution, the impact of natural disasters, and make food traceable;
  - c. Updating the current system of production by upholding process facilities to have environmentally aware regulations to alleviate agricultural dissipation and inefficient use of energy;
- 4. *Promotes* the reduction of supply chain waste such as time, emissions, and workforce, with the modernization of the transportation methods for goods by:
  - a. Encouraging the rapid development of ultra-high-speed ground transportation systems using low pressure tubes and self-sustaining solar panels to transport goods at high speeds by Member States;
  - b. Improving existing transportation systems by:
    - i. Using low emission or hybrid style engines;
    - ii. Creating weather dependent vehicles capable of withstanding extreme weather conditions caused by environmental changes;
- 5. *Emphasizes* the importance of establishing high quality of food and cultivation methods including the implementation of improvements to existing international regulatory cooperation (IRC) regarding food security, and by implementing a method of soil cultivation Conservation Tillage which reduces soil erosion and runoff which would lead to higher crop yield, less methane gas production into the atmosphere, and reuse of land that otherwise would be destroyed by livestock and livestock cesspools;
- 6. *Urges* Member States to collaborate further with the World Development Programme and World Food Programme to assist localities, and domestic farmers who need these incentive insurance programs so that they are not subjected to the will of the open market by:
  - a. Discouraging Member States from committing food fraud by enforcing the requirement of food labeling with origin information on meats, dairy products, and grains;
  - b. Having stable and long-term investments in agricultural technologies;
- 7. Recommends Member States collaborate with the United Nations Educational, Scientific and Cultural Organization and the FAO to produce and analyze environmental maps detailing how extreme weather, environmental changes, and geographical changes can impact food security using hydrological modeling and crop growth simulation;
- 8. *Suggests* every Member States:

Report and conduct VNRs as VNRs function to ensure every Member State receiving aid allocate
donated monetary funds to specific programs who support the pursuit to eradicate hunger, and in this
way Member States accelerate the process of diminishing food insecurity when faced with severe
environmental changes;





Code: FAO/1/3

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*Noting* the importance that sustainable agriculture has in combating climate change and ensuring long-term food security,

Affirming Sustainable Development Goals (SDGs) 2 and 13, which aim to end hunger and limit the global temperature rise at 1.5 degrees Celsius by 2030 through information-sharing that will benefit Member States as a whole,

Alarmed by the role that livestock plays in degrading the global environment through methane emissions, water pollution, increased deforestation, and soil degradation, all of which negatively contribute to climate change,

*Convinced* that increasing the expansion of urban farming and sustainable, genetically modified organisms (GMOs) will help to mitigate and adapt to climate change by developing fully resilient crops in dry environments,

*Bringing awareness* to the expansion of urban farming practices, like urban and peri-urban agriculture (UPA), as the transportation, refrigeration, and cooking of meals from rural to urban areas accounts for 20 to 30 percent of global greenhouse emissions according to the American Chemical Society,

Concerned with the alarming impact natural disasters and unsustainable agricultural practices have on emergency water supply systems in vulnerable communities,

Acknowledges the work done by the Food and Agriculture Organization of the United Nations (FAO) Regional Initiative on Building Resilience for Food Security and Nutrition in protecting food resources from extreme weather conditions and in providing overall responses to natural disasters,

*Recognizing* that varying regions will face different food security challenges related to climate change, as demonstrated in the differing food needs of rural and urban areas,

*Notes with regret* the negative impact that deforestation has on the climate through increased emissions and the reduction of carbon sequestration, as reported by the Programme on reduction Emissions from Deforestation and Forest Deforestation and Forest Degradation,

*Emphasizing* FAO's Family Farming Knowledge Platform, which provides knowledge-based assistance to policy-makers, family farmers' organizations, development experts, as well as to stakeholders at the local level,

*Recognizing* the 2013 Global Environment Facility Project, which focuses on adopting resiliency training and education to the developing world and teaching farmers how to store their agricultural yields for longer periods of time,

*Taking into consideration* the role of the Alliance of Climate Change and its mission in providing research towards mitigating climate change, as well as strengthening environmental education,

1. *Instructs* Member States to strive towards transparency and accountability in regard to climate change and food security by:

a. Releasing annual reports on the implementation of and progress on policies towards sustainability through: Forming an oversight committee, such as the Office of Internal Oversight Services, to receive i. reports and consolidate data for the promotion of information sharing among Member States; Expanding the FAO Office of the Inspector General in order to encourage more oversight and ii. accountability; Referencing the successes of food security initiatives, such as the Food Security Climate Resilience Facility, which combats climate hazards while funding food and nutrition responses as well as disaster risk reduction: 

- Emphasizing coalition building, in accordance with SDG 17, to collaboratively achieve sustainable farm practices in developing nations;
- 2. *Advises* Member States to mitigate the harms of livestock within their nations by following the guidelines of The UN Framework Convention on Climate Change (UNFCCC) Live Environmental and Assessment Partnership, including by:
  - a. Establishing updated national dietary guidelines that emphasize the benefits of plant-based diets for both personal and environmental health;
  - b. Reallocating subsidies from livestock operations to plant agriculture or other programs for sustainable alternatives;
  - c. Regulating livestock, including Concentrated Animal Feeding Operations, to produce less emissions through better standards on waste disposal and the diets of animals;
- 3. *Calls upon* Member States to form public-private partnerships that will remove financial burdens that result from mitigating climate change and food security from the governments of Member States;
- 4. Recommends expending the efforts of the United Nations Children's Fund (UNICEF) by acting upon food security and climate change concerns within UNICEF's Environmental Education Resource Park which emphasizes environmental conservation and highlights the urgency of individual actions in climate change, in addition to:
  - a. Providing a pathway to quality education through schools for children to support government policymakers, school administrators, and teachers to educate students on climate change, desertification and pollution in order to empower them with access to food security;
  - b. Reinforcing the importance of empathy in order to combat social and ecological challenges throughout schools, so children may be involved during their formative experiences;
- 5. *Encourages* Member States to strengthen collaboration with the international community to promote educational practices on crop production based upon the conservation of agriculture, water management, and soil maintenance through:
  - a. Creating and implementing educational programs under the Family Farming Knowledge Platform by providing families with relevant scientific information about climate change and solutions to its effects:
  - b. Improving the sustainable land management by following the guidelines of the UNFCCC's Resilience Strategy, which promotes emergency assistance and climate-smart agriculture;

- 6. *Endorses* education on usage systems that collect and disperse data, such as the Group of 20-led Agriculture
  Market Information Systems, to governments and localities for availability, stability and utilization of food and agricultural goods;
  agricultural goods;
  - 7. Emphasizes urban farming practices, such as UPA as well as modified food practices for the purpose of:

- a. Providing education to Member States to increase the cultivation of GMO food production;
- b. Encouraging the expansion of urban farming practices by providing guidance to Member States respecting UPA components as they aid to the decrease of the carbon emission in the transportation of food as promoted by the FAO's Special Programme for Food Security.



Code: FAO/1/4

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by climate change such as soil degradation, deforestation, and water acidification, thereby delaying the achievement of Sustainable Development Goal (SDG) 2, Zero Poverty, and SDG 13, Climate Action,

Noting with deep concern that each Member State faces unique food insecurity challenges potentially exacerbated

*Highlighting* the potential of emerging technological innovations in agriculture and food production to respond to worsening food insecurity,

Alarmed by the shortage of accurate information concerning the inventory and responsible use of natural resources such as rainforest biodiversity, palm oil, and cocoa farming in developing nations, including those most vulnerable to extreme weather conditions,

*Recalling* its past resolutions and actions regarding education on food security via the Alliance on Climate Change in disseminating information and facilitating climate change-related cooperation within United Nations (UN) agencies,

*Recognizing* that all Member States have a right to access information sharing frameworks concerning domestic and regional policies concerning food insecurity, sustainable development, and land degradation, such as the UN System Network on Rural Development and Food Security, with regard to their domestic and regional policies,

1. Supports a technical report comprised of research and information dissemination that will:

a. Address issues such as draughts, erosion, water shortages, and other extreme weather-related issues on food security faced by a diverse range of Member States;

 Provide access to information and data found on solutions to the climate-related food security risks to empower Member States and civil society groups to create policies that consider individual regional capacities and needs;

c. Enable Member States to implement recommendations as they see fit on international issues, such as malnutrition, sustainable agriculture, and genetically modified organisms (GMOs);

d. Expand upon existing regional frameworks to identify and respond to future challenges arising due to climate-related issues;

2. *Acknowledges* the evaluation of recent innovations in the fields of soil quality and water degradation to recognize potential responses to food insecurity that will help:

a. Increase food crops' resistance to extreme weather conditions such as drought, soil acidification, or coral bleaching;

b. Facilitate the surveying of depleted farmlands for the evaluation of the efficacy of both traditional farming methods as well as newly-developed agricultural practices;

- c. Identify low-cost strategies to reduce toxic emissions to achieve sustainable development and economic growth: d. Sponsor further research in the artificial intelligence monitoring of crop and soil quality, chemical fertilizers, and GMOs: 3. Advocates for the collection and sharing of data in collaboration with the Agricultural Market Information System to evaluate the production and distribution of all foods to better understand how they are affected by climate change; 4. Suggests the creation of a global conference as a representative forum for Member States, civil society organizations, and affiliated UN agencies and programs to ensure: a. Intercultural communication between participants at the individual, regional, and international levels; Complete transparency in the reporting to FAO regional offices with respective territories; Public access to the collective research on agriculture and food production technology and practices; 5. Endorses the creation of opportunities for local communities to exercise their right to education and technological development to mitigate the effects of climate change by: a. Connecting small farmers to local civil societies and FAO representatives to better understand resilience-building measures against the impacts of climate change in the agricultural system; b. Conducting research focused on the rehabilitation of depleted resources such as soil, fresh and saltwater sources, and forests to revitalize assets previously compromised by the effects of climate change; c. Engage local communities to support agricultural land as a protected area by using selective harvesting
  - 6. Welcomes all Member States' participation in a conference on climate change adaptability and research that:

practices and promoting public awareness;

- a. Includes a 14-day seminar series where researchers will present their findings to Member States and other stakeholders:
- b. Holds a formal meeting every five years to serve as the global forum of information sharing between participants relating to the issues of climate change and food security;
- c. Supports the preexisting discourse on adaptability that is accessible to all Member states;
- d. Encourages Member States to strengthen their national action plans by promoting a transdisciplinary research effort to support long term increased production efficiencies, to improve sustainability of farms, and to preempt structural shortcomings;
- 7. *Further requests* that the Economic and Social Council dedicate special attention to improve upon the reporting methods seen in the UN World Conference for Disaster Risk Reduction, such as:
  - Improving the measurement methods of the Food Security and Nutrition Analysis Unit, assessing risk
    for less developed infrastructure due to climate change effects such as drought, flood, and severe
    weather storms;
  - b. Noting a deficiency of on-the-ground reporting for a more accurate assessment of vulnerability caused by lower state capacity measured by public embassies and international index systems.



Code: FAO/1/5

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Guided by the Universal Declaration of Human Rights on the Eradication of Hunger and Malnutrition (1974), which proclaimed that every man, woman, and child has the inalienable right to be free from hunger and malnutrition in order to develop fully and maintain their physical and mental faculties,

Affirming the importance of the Sustainable Development Goals (SDGs), specifically SDG 2, Zero Hunger, and SDG 13, Climate Action,

*Recalling* the World Food Programme and its commitment to ending world hunger, achieving food security, and aiding the most undernourished, vulnerable and marginalized communities,

Congratulating the achievements of the United Nations (UN) Framework Convention on Climate Change (UNFCCC) and its efforts to stabilize greenhouse gas concentrations in the atmosphere,

*Realizing* the need for all Member States to implement national action plans (NAP) to adapt to the effects of climate change,

*Emphasizing* the positive effects of ocean science education programs and its importance in climate change awareness and the importance of developing sustainable aquaculture practices in response to education programs,

*Recognizing* the vital role pollinators have in world agriculture, and their impact on maintaining diverse flora internationally,

Acknowledging the threatened state of pollinators species, such as honey bees and, in the case of their extinction, the catastrophic effects that will have on the world food supply and biodiversity,

Greatly concerned by the suffering of over 840 million individuals due to hunger and an inability to access adequate food.

*Recognizing* the positive effects of the Fifth Assessment Report of the UN Intergovernmental Panel on Climate Change, such as further strengthening the scientific conclusion that human activity accounts for climate change,

*Keeping in mind* the effects of climate change, its impact on the increased rates of natural disasters, and the consequences natural disasters have on food security,

*Stressing* the importance of education in relations to sustainable farming practices so as to increase agricultural yield and nutritional value,

- 1. *Encourages* Member States to ensure food security in spite of climate change by implementing high-quality production standards and:
  - a. Implementing more regulatory systems to farms ensure that a high level of food and soil quality is being maintained;

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- b. Decreasing greenhouse gas emissions from agriculture, including crops, livestock, and fisheries, with smart farming techniques, such as agro-forestry and aquaculture, to eliminate carbon dioxide (CO2) emissions from the pressure through carbon sequestration; Implementing climate-smart agriculture to build more resilient agricultural systems and, ensuring food security; Stresses the implementation of local commissions and services in each Member State by: Creating a NAP through a multisectoral committee made up of health, education, urban planning, and other sectors, ensuring unified, national and local efforts to ensure food security and mitigate climate change that would strengthen and endorse currently existing UN action plans;
  - b. Encouraging Member States to promote the implementation of climate change adaptation programs that provide education on crops improvement, drought proofing, disaster and risk management;
  - c. Cultivating resilient crops in order to bring about higher crop yields to combat the effects of climate change;
  - d. Emphasizing the implementation of sustainable agricultural practices, such as eco-friendly water usage including drip irrigation, crop rotation, and traditional and innovative forms of pest management, to help sustain and improve existing agricultural lands by approving aquaculture, vertical and underwater farming, and water management as the focal point for new production techniques;
  - e. Following the guidelines established in the Economic and Policy Analysis of Climate Change program through agricultural development centers for rural populations and marginalized citizens such as women, children, and indigenous people with an emphasis on;
  - 3. Encourages Member States to take measure to reduce levels of carbon emission and:

- a. Recommends Member States promote the use of renewable resources and protect non-renewable resources;
- b. By reducing CO2 emissions from soil by using organic matter fertilizers, such as seaweed, to increase agricultural productions;
- 4. Welcomes Member State collaboration on furthering aid for the development of desalination and sustainable, water-efficient technologies to provide a reliable source of clean water that will follow the structure of the UNFCCC and promote the revitalization and implementation of both rural and urban pilot initiatives in regards to sustainable agriculture and infrastructure development;
- 5. *Calls upon* the international community to recognize the threat faced by endangered pollinators and encourage the international growth of pollinator populations by:
  - a. Encouraging Member States and the private sector to utilize pollinators within their agricultural systems;
  - b. Supporting the formulation and implementation of plans mirroring the Planet Bee Foundation's Adopta-Hive program among the international community;
- 6. *Acknowledges* research programs pertaining to developing food security and managing future destruction due to climate change by:
  - a. Researching the benefits of low nitrous oxide plants as raw material for biodiesel and bioethanol production and the use of resilient seeds and crops;

102 103 104		b.	Examining the introduction of native species that are able to safely contribute to the adapting environment;		
105	7.	Encoura	ages Member States to increase the production of low nitrogen producing plants with high yields by:		
106 107 108 109		a.	Introducing plants such as legumes, clover, autumn olive shrubs, and other low-nitrogen producing plants;		
110 111 111 112		b.	Supporting collaborative work between the global community and non-governmental organizations (NGOs) to incorporate plants that decrease nitrogen emissions;		
113 114 115		c.	Taking added income from the reduced use of nitrogen products to re-invest into soil preservation and plant production;		
116 117 118		d.	Endorsing the multilateral partnership between Member States and NGOs with a focus in educational programs to help farmers transition from traditional wheat and maize farming;		
118 119 120	8.	Calls for	r the establishment of increased regulations in fisheries to mitigate overfishing through:		
120 121 122		a.	The integration of coral reefs into national parks;		
123 124		b.	The use of tagging to combat invasive marine species;		
125 126		c.	Prohibition of the fishing of endangered species during set times of the year;		
127 128		d.	Awareness campaigns for endangered species;		
129 130 131	9.	<i>Encourages</i> Member States to endorse the implementation of climate resistant infrastructure and the movement towards regional green initiatives infrastructure projects;			
132 133 134	10.	Encourage through:	ages Member States to promote preventative planning and combatant efforts against rising sea levels		
135 136		a.	Endorsing the development of modified grain strains that can sustain high salinity levels;		
137 138		b.	Integrating crop rotation systems to further develop sustainable soil;		
139 140		c.	Implementing the use of raised seed beds as a method to manage soil salinity;		
141 142		d.	Putting into effect a new date of sowing so as to avoid high sea tides;		
143 144		e.	Developing and sustaining improved methods of water and soil management systems with the use of aquifers;		
145 146		f.	Promoting the movement of mainstream grain sources to new alternative sources.		