**The Future of Food: Module 10.1, Introductory Activity – see Module 10.1 in the online text for more details.**

**Instructions**: In the worksheet below, fill in the blanks regarding the supply chain for a food products. You’ll need to give the origin, some intermediate destinations, and then the final consumption point for the food product. Then you should think of some social or human system dimensions of the production, supply chain, or consumption of this product, as well as some ecological or natural system dimensions. Do this first for a product familiar to you, whose supply chain you either know about or can research quickly (part 1). Then repeat the activity for a food product in the online video about food systems in Vietnam (part 2). When you are done you can click on the ‘answers’ link in the online text to see some possible examples and see if your answers match up with these answers.

**Part One: Food product you consume:**

1. Food product \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Food supply Chain:
   1. Source: Where main raw material is produced, fished, hunted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Intermediate destination 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e.g. processing plant, washing, trucking, warehouse, etc.)
   3. Intermediate destination 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e.g. processing plant, washing, trucking, warehouse, etc.)
   4. Intermediate destination 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (if needed)
   5. Consumption point: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Up to three social or human system dimensions of this food chain (e.g. policy, economic, or cultural factors associated with the production and consumption of this food, recall the Human System factors in a Coupled Human Natural Framework, module 1.2):
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Up to three ecological or natural system dimensions of this food chain: (ecological factors would include crop and animal species, agroecosystems, climate, water, and soil influences on food production):
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Example answers** to consult after filling out the above: (these may be a good deal more complete than your examples but give a sense of the range of possible answers)

Example answer 1: frozen, breaded fish fillet from a local supermarket

1. Frozen, breaded fish filet (i.e., the fish part)
2. Food supply chain:
   1. Fishing boat in Atlantic, Chinese, or Alaskan Fishery, e.g., including flash-freezing.
   2. Preparation facility in Canada or U.S.
   3. Cold chain shipping / Supermarket
   4. Kitchen oven and dining table for food preparation and consumption.

See <https://www.youtube.com/watch?v=TdgBjpON5QU> for some fascinating details on the production process!

1. Social dimensions:
   1. Financing, organization, and contracts for a fishing fleet and processing
   2. Government and fishing communities’ agreements on fisheries regulation to avoid overfishing.
   3. Supermarket companies
2. Ecological dimensions:
   1. The wild fish species itself
   2. Food sources for the fish (algae, other fish)
   3. Changing ocean temperatures and conditions with climate change

Example answer 2: Bagel or Bread from a local bake or coffee shop:

1. Baked good (i.e., flour it is made from)
2. Food supply chain:
   1. Farm in Midwest or Western U.S.
   2. Grain elevator purchasing and storing grain
   3. Flour production facility
   4. Café or restaurant kitchen (may be a large centralized kitchen for a chain restaurant) and coffee shop table for consumption.
3. Social dimensions (could include any of these)
   1. Farm enterprise belonging to a farm family or company – organization of production labor and agroecosystem management.
   2. Supply chains and companies for fertilizers, seed, and other agricultural inputs
   3. Government policies regulating subsidies to farmers, tax on diesel fuel, pollution regulations etc.
   4. Grain commodity markets and corporations
4. Ecological dimensions:
   1. Domesticated wheat species (*Triticum aestivum*)
   2. Prairie soils (Mollisols) with inherent good qualities and climate for wheat growing
   3. Soil bacteria breaking down organic matter, releasing nutrients, accessing fertilizer N and releasing nitrous oxide.
   4. Bread yeast and/or sourdough bacteria used in bread making.

**---------------------------------------------------------------------------------------------------------------------------------------------------------------**

**Part Two: Food product from the Vietnamese system in the World Food Day video: (at** <https://www.youtube.com/watch?v=AkLpUwmYCIQ> )

1. Food product \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Food supply Chain:
   1. Source: Where main raw material is produced, fished, hunted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Intermediate destination 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e.g processing plant, washing, trucking, warehouse, etc.)
   3. Intermediate destination 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e.g processing plant, washing, trucking, warehouse, etc.)
   4. Intermediate destination 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (if needed)
   5. Consumption point: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Up to three social or human system dimensions of this food chain (e.g. policy, economic, or cultural factors associated with the production and consumption of this food, recall the Human System factors in a Coupled Human Natural Framework, module 1.2):
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Up to three ecological or natural system dimensions of this food chain: (ecological factors would include crop and animal species, agroecosystems, climate, water, and soil influences on food production):
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Possible answer for the food supply chain: Fish from the fish pond in the video

1. Food supply chain:

If sold:

a. Brought from pond

b. Transported by cart or truck to city

c. Sold in market

d. Prepared at home

If consumed at home:

a. Brought from pond

b. Prepared and eaten.

2. Social dimensions (could include any of these):

a. Farm enterprise belonging to a farm family – production roles of family members

b. Government policies promoting choice by farmers of what to grow and the ability to market it (note because of previous communist government policies, there was a time when this was not allowed)

c. Government and community efforts to promote and adapt the V.A.C. food production methods.

d. The organization of local markets and food sellers that allow farmers to sell products.

3. Ecological dimensions:

e. Fish species e.g. carp

f. Pond / Garden agroecosystem

g. Recycling of organic wastes from fish production into soils

h. Rainy climate/river delta geography and abundant water for fish and crop production.