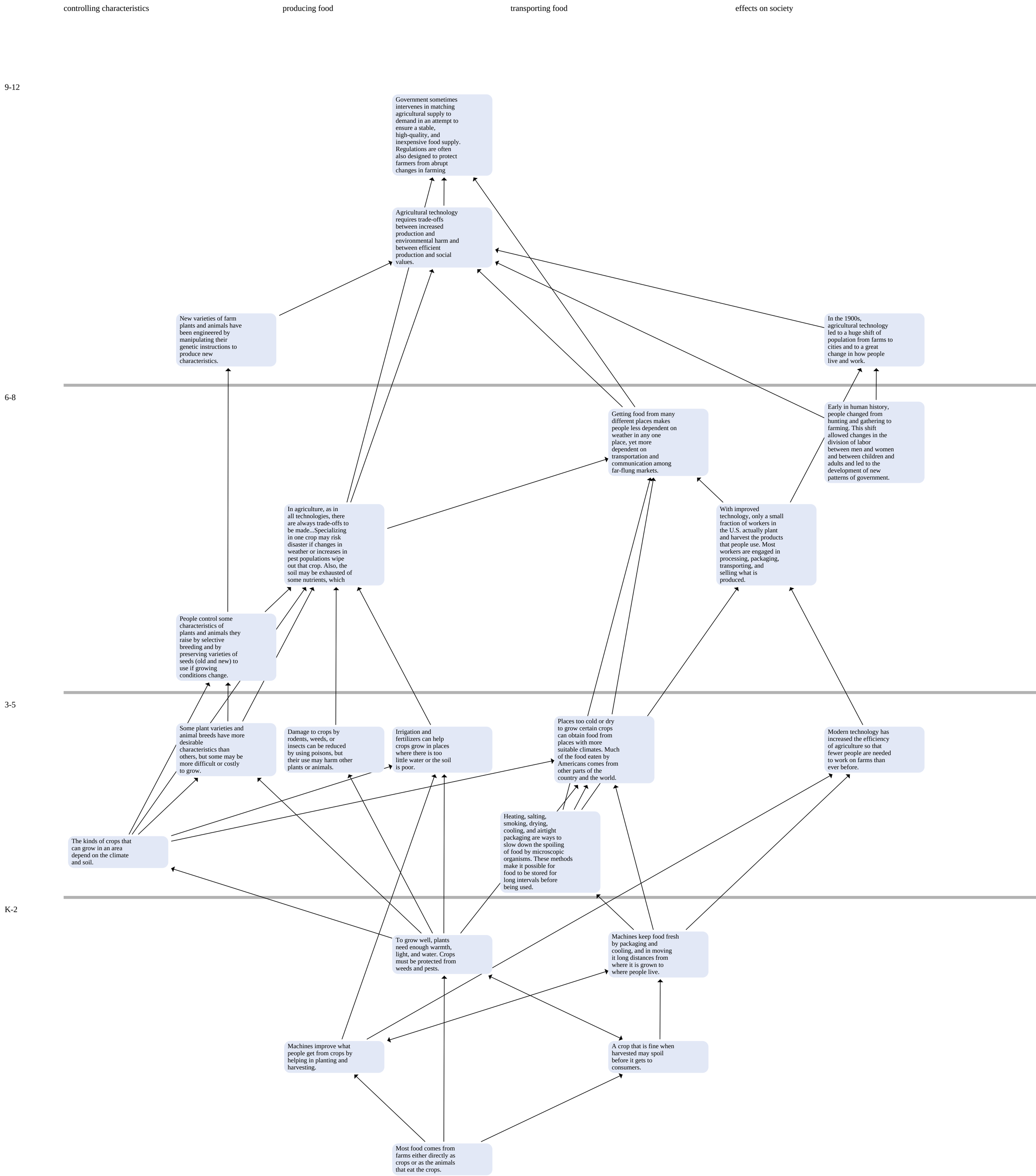
controlling characteristics
producing food
transporting food
effects on society
9-12
6-8
3-5
K-2
Government sometimes intervenes in matching agricultural supply to demand in an attempt to ensure a stable, high-quality, and inexpensive food supply. Regulations are often also designed to protect farmers from abrupt changes in farming
Agricultural technology requires trade-offs between increased production and environmental harm and between efficient production and social values.
New varieties of farm plants and animals have been engineered by manipulating their genetic instructions to produce new characteristics.
In the 1900s, agricultural technology led to a huge shift of population from farms to cities and to a great change in how people live and work.
Getting food from many different places makes people less dependent on weather in any one place, yet more dependent on transportation and communication among far-flung markets.
Early in human history, people changed from hunting and gathering to farming. This shift allowed changes in the division of labor between men and women and between children and adults and led to the development of new patterns of government.
In agriculture, as in all technologies, there are always trade-offs to be made...Specializing in one crop may risk disaster if changes in weather or increases in pest populations wipe out that crop. Also, the soil may be exhausted of some nutrients, which
With improved technology, only a small fraction of workers in the U.S. actually plant and harvest the products that people use. Most workers are engaged in processing, packaging, transporting, and selling what is produced.
People control some characteristics of plants and animals they raise by selective breeding and by preserving varieties of seeds (old and new) to use if growing conditions change.
Some plant varieties and animal breeds have more desirable characteristics than others, but some may be more difficult or costly to grow.
Damage to crops by rodents, weeds, or insects can be reduced by using poisons, but their use may harm other plants or animals.
Irrigation and fertilizers can help crops grow in places where there is too little water or the soil is poor.
Places too cold or dry to grow certain crops can obtain food from places with more suitable climates. Much of the food eaten by Americans comes from other parts of the country and the world.
Modern technology has increased the efficiency of agriculture so that fewer people are needed to work on farms than ever before.
The kinds of crops that can grow in an area depend on the climate and soil.
Heating, salting, smoking, drying, cooling, and airtight packaging are ways to slow down the spoiling of food by microscopic organisms. These methods make it possible for food to be stored for long intervals before being used.
To grow well, plants need enough warmth, light, and water. Crops must be protected from weeds and pests.
Machines keep food fresh by packaging and cooling, and in moving it long distances from where it is grown to where people live.
Machines improve what people get from crops by helping in planting and harvesting.
A crop that is fine when harvested may spoil before it gets to consumers.
Most food comes from farms either directly as crops or as the animals that eat the crops.