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## Role of Agriculture in Modern Society: A Case Study

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### Perspective

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Agricultural science is a broad multidisciplinary field of biology that encompasses the parts of exact, natural, economic and social sciences that are used in the practice and understanding of agriculture itself. The role of agriculture in our post modern society is to outline the particular methods which will surely help to ensure the (agrarian) society's future. Because what will happen if the natural resources continue dwindling? What will happen if natural habitats continue being devastated in order to build settlements? What will happen if the Production cannot identify "quantity" from "quality"?

According to a report by the International Water Management Institute and UNEP, there is not enough water to continue farming using current practices; therefore how critical water, land, and ecosystem resources use are to boost crop yields must be reconsidered. In addition the report suggested, assigning value to ecosystems, recognizing environmental and livelihood tradeoffs, and balancing the rights of a variety of users and interests. Inequities that result when such measures are adopted would need to be addressed, such as the reallocation of water from poor to rich, the clearing of land to make way for more productive farmland, or the preservation of a wetland system that limits fishing rights.

Technological advancements help provide farmers with tools and resources to make farming more sustainable. Thus new technologies have given rise to innovations like conservation tillage, a farming process which helps prevent land loss to erosion, water pollution and enhances carbon sequestration. According to a report by the International Food Policy Research Institute (IFPRI), agricultural technologies will have the greatest impact on food production if adopted in combination with each other; using a model that assessed how eleven technologies could impact agricultural productivity, food security and trade by 2050, IFPRI found that the number of people at risk from hunger could be reduced by as much as 40% and food prices could be reduced by almost half.

An agrarian society (or agricultural society) is any society whose economy is based on producing and maintaining crops and farmland. Another way to define an agrarian society is by seeing how much of a nation's total production is in agriculture. Agrarian societies have existed in various parts of the world as far back as 10,000 years ago and continue to exist today. Agricultural production can be broadly grouped into the provision of our foods, fibers, fuels, and raw materials. Specific foods include cereals (grains), vegetables, fruits, oils, meats and spices. Fibers include cotton, wool, hemp, silk and flax. Raw materials include lumber and bamboo. Other useful materials are produced by plants, such as resins, dyes, drugs, perfumes, biofuels and ornamental products such as cut flowers and nursery plants. Over one third of the world's workers are employed in agriculture, second only to the services' sector, although the percentages of agricultural workers in developed countries has decreased significantly over the past few centuries.

Agrarian societies have been the most common form of socio-economic organization for most of recorded human history. And thus, because of large spatial and temporal differences, there is not a homogeneous agrarian culture. Apparently the fact is closely connected to different civilizations, yet the common issue has to do with the natural resources.

Although certain similarities exist between different agrarian societies, the differences between them should be analyzed. In the first place, we must understand that the prosperity of the agrarian field lies beneath the development of a country – city

– society. By mentioning “development” though, we do not mean “accumulation”; instead we illustrate a sustainable method of manipulating natural resources, with a view to improve the society’s welfare. Agriculture imposes external costs upon society through pesticides, nutrient runoff, increased water usage, loss of natural environment and assorted other problems. In an agrarian society cultivating the land is the primary source of wealth. Such a society may acknowledge other means of livelihood and work habits, but stresses the importance of agriculture and farming.

The different civilizations have different cultures, as mentioned. This particular culture stems from the society’s very birth. Whenever a society was more prolific the next step was to tame more land in order to perpetuate its power. By strengthening its wealth the next step was to create an army to impose its power. History teaches us that the most of the wars occurred, for natural resources, most notably earth – water. Needless to say that after the industrial revolution, oil and wood was also added. Since then many problems have arisen. For example

- The overuse of pesticides and fertilizers throughout the land led to water contamination
- The land sealing in order to build housing or factories
- The greenhouse effect resulted in the decrease of the ozone-layer.

Another aspect is the fact that inside societies themselves exists a wide variety of differences. For instance if we have a mountainous and a coastal society, in most cases the coastal societies have the lion’s share in every Developmental Skim. That form of dualism is observed in many countries of the Mediterranean. For instance the funds given from European Union in order to promote Agriculture Development in several municipalities of Greece were absorbed by mostly coastal areas rather than mountainous areas. In Italy the Agrarian South struggles for development towards the Industrialized North. Yet that dualism should not be the obstacle for a sustainable development.

It is without doubt that the agrarian space has always been in continuous transformation. In our postmodern society that space evolves and raises new challenges. These challenges have to do with various activities that may take place inside an agricultural space, apart from the original and traditional work. This fact poses one more role on agriculture. Several people may work not only to raise products but also to entertain or teach other people. This agricultural transformation occurs due to the multifunctionality of agrarian space-community-society and generates a new character, a New Rurality inside the Agricultural Societies. A good example of such a change is Agritourism.

This historical process of transformation is prey to ambiguity and can therefore be confusing. Social anthropologists (Du Boulay, 1974; Campbell, 1964; Friedl, 1962) employed participant observation methodologies, and constructed the rural community as a closed corporate body without reference to its articulation with the wider socio-economic system. Cultural change and ‘de-peasantisation’ of the agrarian space would have a positive impact on what was perceived as customary village behavior and on the future trajectory of rural areas as they integrate into the wider economy. On the other hand not few are those who reckon what Malthus believed, that the loss of the peasantry through the development of a welfare state destabilizes the natural order of the true limits to growth. By mentioning though “loss of peasantry” we do not mean a full transformation of the agrarian space and its primary habits at all. It is rather a way adaptation in the new socio-economic reality where agrarian societies searching ways for sustainable growth struggling not to lose their agriculture heredity and tradition.

The environmental policy debate in any country which is admittedly not ecologically friendly will result in a policy-driven agricultural mechanization by triggering a particular kind of farm differentiation at the regional level. This represents an integrated approach and a political economy perspective is adopted with which sustainable development is intertwined according to producer interests. Modern agronomy, plant breeding, agrochemicals such as pesticides and fertilizers, and technological improvements such as genetic modification in food, have sharply increased yields from cultivation. At the same time they have caused widespread ecological damage and negative human health effects. Current farming methods have resulted in over-stretched water resources, high levels of erosion and reduced soil fertility.

The solution would stem either from our ability to mechanize, increase productivity, reduce inputs and ensure as an outcome a viable well fed population along with the sustainability of natural resources and a sustainable agriculture. Else, starvation ensues as we reach 9 billion, agriculture would become completely unregulated and the damage to the planet continues worsening. Perhaps governments should also take a look to the small holder and encourage the return to self-sufficiency. If so, do we in the ‘developed’ world realize that our diets are unsustainable as is population growth in the developing world? Is utopia a dream? This issue requires further arguments.