The questions of promoting advanced agricultural technology as a tool for achieving sustainable development.

Issue Background

Agricultural technologies are technological advancements involving chemical, biological, and mechanical aspects for the improvement of tilling the soil, planting seeds, irrigating the land, cultivating crops, protecting them from pests and weeds, harvesting, threshing grain, livestock feeding, and sorting and packaging the products, often contrived by agricultural engineers. Agricultural engineers work in fields such as agricultural production and processing, the management of natural resources, power systems and machinery design, structures and environmental science, and food and bioprocess engineering, performing tasks such as planning, supervising, and managing the building of dairy effluent schemes, irrigation, drainage, flood and water control systems. These engineers develop ways to conserve soil and water, improve the processing of agricultural products and may perform environmental impact assessments and interpret research results. The growth of modern agricultural technologies is driven by the fundamental need to feed our growing population by replacing animal and human labor in every aspect by chemical or mechanical processes. The development of agricultural technologies has been in motion since the Neolithic Revolution in 10,000 BC, with bursts of growth throughout the rise of empires, kingdoms and more recently nations, from the Roman, Greek and Chinese Empires to the British and American Agricultural and Industrial Revolutions. Due to this development, the value of just one farmer is enormously larger then in our recent history: at the turn of the twentieth century one farmer provided food for 25 people; today, one farmer provides for more like 130 people, with one modern grain farmer potentially feeding over a thousand people. Presently, less than 2% of the global population are farmers who provide much more

than what is necessary to feed the population in its entirety. With furthering technologies, the farmer's role will become even more specialized and exceptional. However efficient agriculture technologies seem, no significant advancements have been made in the past century: methods mainly used for farming in the early nineteenth century are the same as what is mainly used today, with obvious improvement in size, fuel and efficiency. Currently nonetheless, computer monitoring systems, GPS locators, and self-steer programs progress the field to avoid waste of fuel, seed, or fertilizer. The fields of nanotechnology and genetic engineering allow submicroscopic devices and biological processes, respectively, to be used to perform agricultural tasks with advanced processes. (Include UN position/actions on the issue here).

Delegation Position

As seen during its trade isolation during World War II, Switzerland has been a historically agriculturally independent nation; Swiss farmers were responsible for feeding the nation in its entirety during this period of global unrest. Geographically, three-quarters of Swiss farmland is made up of meadows and pastures and one-third, 444,000 hectares (1,097,000 acres), or about 11% of the country's total land area is dedicated to seasonal or permanent crop production. Swiss livestock herding and dairy processing and production is responsible for the other three-thirds of occupied farmlands. Swiss soil quality in Mittelland, or central plateau, and the wheat-producing Bern, Vaud, Fribourg, Zürich, and Aargau is often poor; however, due to modern technology, yields in these regions have been increasing with agriculture contributing 2% of nation Gross Domestic Product (GDP) in 2001. On the other hand, Swiss agriculture has followed global trends and fallen to crisis since before July of this year, 2016, caused by the end to profitability and even viability of traditional small-holdings. Statistically, agriculture has been forced to diminish significantly since the second World War, before and during which

approximately 25% of the Swiss population worked in agriculture That number was 30% in 1900, fell to 25% during the World War II period, again fell to 4.3% in 1999 – farm holding dropping from 205,997 in 1955 to 119,731 in 1985 -, and has fallen to 3% currently - a 3% greatly made of farmers surviving mainly on other occupations. The 1999 production figures were as follows: potatoes, 484,000 tons; sugar beets, 1,187,000 tons; wheat, 500,000 tons; barley, 263,000 tons; maize, 183,000 tons; oats, 30,000 tons; rye, 19,000 tons; and wine, 130,000 tons. Although importing organic goods is cheaper then producing them domestically, Switzerland chooses to remain largely self-sufficient in agricultural production and maintains its domestic resource, which produce less than 60% and falling of the nation's food needs. In order to encourage domestic production and consumption, the Swiss government highly regulates the agricultural policy through: fixed prices, quota restrictions, protective customs/duties on imported goods, importing restrictions, the authority of the Federal Council fix the prices of bread grains, flour, milk, and other foodstuffs, international exchange rates favoring the Swiss Franc, and competitive production costs with foreign products in Switzerland. However, excess production and mounting costs associated with the management of surpluses have resulted from this extremely protectionist system. The Uruguay Round and subsequent Swiss implementation of its provisions in July 1995, and rising costs in the agricultural sector due to the current crisis, has created the need for the Swiss government to begin reforming its agricultural support system. In dissimilarity with other EU countries – where market forces have conquered efforts for self-sufficiency, and seemed to bring undesirable aftermath -, the Swiss government has decidedly stretched the agricultural exertions to greater than the EU's 59 billion euros on farm subsidies.

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