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Jordan: Ceasing the Syrian Refugee Crisis as Opportunity to Improve Agriculture

The COVID-19 pandemic has proven to the government of Jordan and its citizens the need for agricultural sustainability to achieve food security, as the agricultural sector is going through the worst conditions it has ever faced. Although the agricultural sector only contributes a small percentage, 5.4%, to the gross domestic product, experts confirm that neglecting this sector poses a threat to food security (Al-Ajeeb). Farmers have recently been struggling to earn income to support their families, and the pandemic has only worsened the situation, while the government, a constitutional monarchy led by King Abdullah II, has programs and strategies that are still only ink on paper. With an area of 34,495 miles squared, the Hashemite Kingdom of Jordan is also one of the driest countries in the world. The agricultural area is only 4,115 miles squared and due to the hot, withered summers as well as its location between the subtropical aridity of the Arabian desert, only 12.01% of the land is cultivated (Irvine).

The Jordanian economy is considered a service economy, with 72.6% of people working in the service sector (Plecher). Typical jobs in the service sector include: teaching, nursing, accounting and tourism. Employment in the agriculture sector, however, is only 3.04%. Jordan is one of the most expensive countries in the Middle East, and has a higher cost of living then people would expect from a developing country. The average monthly income per person is around 637 dollars (Azeeh). Jordan's population is rapidly increasing, currently at 10.2 million people ("Jordan Population"). 91.2% of Jordanians live in urban areas as over time people have been moving to cities, especially the capital, Amman (Plecher). The rest of the population is distributed around the rural areas. Social life and identity is centered around family in Jordan. A typical family has an average household size of 5 members, however rural families have more ("Jordan Average"). Traditional houses are flat-roofed and single story, built from moulded dry bricks called adobe, as well as stones. A common breakfast is a bowl of hot fuul, consisting of mashed java beans and chopped chilis ("Customs and Cuisines"). Around every corner, there are stores that sell fuul, hummus and falafel, common dishes for breakfast. Served for dinner, mansaf is the national dish of Jordan influenced by Bedoin culture, and is a symbol for hospitality. This popular dish served on many different occasions is made of lamb cooked in a sauce of dried yogurt and served with rice. Jordan prides itself on its health services with 66% of Jordanians having medical insurance, one of the best countries in its area. The literacy rate is roughly 98%, considered the highest in the middle east region.

The agricultural sector has undergone, and is still currently facing many challenges. Since 1989, this sector has witnessed a transformation from the government's intervention in the sector's productivity, to withdrawing from supervision and regulation. In the mid nineties, the government lifted subsidies on seeds, pesticides, fertilizers and water based on the recommendations of the International Monetary Fund on the pretext that the subsidies did not contribute to reducing the prices of products for the Jordanian consumers (Abushreaa). As a result, the cost of products that are essential for farmers have been increasing continuously and now they are unable to secure important supplies for agriculture (Al-Ajeeb). What aggravates the situation even further is the fact that the government has reduced the privilege of cheap and subsidized credit to farmers, and has kept placing more restrictions on agricultural loans and interests. Since 1990 the government no longer protects local products by imposing taxes on imported produce, and is instead taxing the farmer's crops, leading to cheaper imported produce than local, cultivated goods ("The State"). Previously, the government would aid farmers in marketing their products and exporting them, however, without the help, it has become difficult for farmers to do so as they lack marketing and advertising skills. The agricultural sector is no longer the focus of attention for the

government and with the high cost of production versus the profit rate farming has become useless for many farmers, gradually causing them to abandon agriculture (Abushreaa).

The lack of governmental assistance and aid for farmers has been a challenge, but the most significant issue farmers face daily is water scarcity in Jordan. The country has a hot and dry climate, collecting an average of 269.3 ml of rainfall per year (Irvine). Renewable water only supplies half of the population's touristic, industrial, and domestic demands ("Water Resources"). Jordan's agricultural sector consumes over 50% of the country's water supply, and the rest is distributed to industrial sectors and houses. A high rate of population growth and the influx of refugees has put added pressure on the already stressed water supply (Scott et. al). 9.87% of Jordan's land is irrigated, however, many of the irrigation systems in place do not use water in the most efficient way. This causes more water than necessary to be used for crops or in some cases not enough water to be available to ensure healthy crops ("Water Resources"). In order to enhance Jordan's water security, the government is seriously proceeding with the National Water Project (Aqaba-Amman Water Desalination and Water Transfer Project), the largest water supply project in the history of Jordan. The project consists of a sea water transport system, a seawater desalination facility in Aqaba, and a fresh water transport system to the rest of the regions.

Farmers are unable to overcome the challenges of high prices and labor wages to reduce debt, leading to a large percent of the agricultural sector to abandon their land and main source of income. For centuries settling communities in Jordan were concentrated in the Jordan Valley, however, this is changing quickly (Ababsa). Jordan faces rapid urbanization and currently 70% of its urban population lives within 30 km of the capital. Relating to agriculture, the government has directed its efforts towards employing rural people in its institutions. People in the countryside emigrate and work in government sectors as well as joining the army (Al-Ajeeb). People in rural areas are getting jobs through the Civil Service Bureau, turning to the path of studying in a university. University education contributes to the challenge of land ownership division as their owners resort to selling a portion of their land to enroll their children in further education. The agricultural properties around them are turning to small units of production, where agriculture is no longer feasible and they cannot earn an income from growing crops.

In the past Jordan has been considered a welcoming country to Palestinian and Iraqi refugees, who were forced to flee their homes and most recently, the Syrian refugees. Starting in 2011, Syrians have been flooded out of their country, with Jordan hosting around 658,00 registered refugees, although the real total amount is 1.3 million (JORDAN). Syrian refugee's account for more than 10% of the population, stretching the country's limited resources, leading to a period of economic instability (World Food Program, USA). As the population in Jordan is increasing, with refugees migrating in, the infrastructure is reaching a breaking point and many cities are struggling with water scarcity and food supply. Although Jordan offered the land for the second largest refugee camp in the world, Al Zaatari, only about 78,000 live in this refugee camp as the majority of the Syrians are spread throughout cities in Jordan, especially the capital, Amman. In the refugee camps, authorities have to make sure that people have access to housing, water, sanitation, and educational services, all of which is putting pressure on the government. It is additionally feared that tensions between the Jordanian host communities and Syrian refugees may escalate further ("Syrians Abroad"). In regards to employment, the refugee community is willing to work illegally for less pay, so wages are being driven down, as well as the unemployment rate for Jordanians has increased to 20%.

In a tough economic climate, and in order for the situation in Jordan to improve, it is necessary to provide job opportunities for Syrians refugees without prejudice against the Jordanian workforce. Accordingly, Syrian workers will only work in the areas that are witnessing a low demand from the Jordanian workers at the present time. Creating decent work opportunities through green jobs in the agricultural sector, and using methodologies to optimize the use of local resources will improve the infrastructure and agricultural productivity in selected areas of the country. The government has granted only a limited amount of work

permits to Syrians, leading the majority of refugees to work illegally, exposing them to low wages, long hours, and no social security coverage, as well as weak occupational health and safety measures (World Food Program, USA). Improving the living conditions of Syrian refugees by creating decent work opportunities in the agricultural sector will improve their standard of living, enhance their working conditions, and help them blend into the Jordanian host community.

A collaborative approach between donors and a non profit organization with the support from the government of Jordan is needed to build and operate agricultural development projects that will help both Syrian refugees and their hosting community. My proposal is to allocate humanitarian aid provided by international bodies, organizations and states to contribute capital and start-up grants to a non profit organization. This non-profit organization is essentially under a DBOT (Design -Build -Operate -Transfer) contract agreement with the donor and the government. The organization will be responsible for designing, building and operating the agricultural project for a period of time (perhaps 20 years) with the goal of achieving sustainable development in the agricultural sector and the Jordanian economy, then transferring control of the project to the government. The Ministry of Agriculture will offer abandoned farmlands and arable lands not currently used for agricultural purposes in several areas across the country to be utilized in this project, and after a set time frame control over the project is returned to the public entity. After securing funds and farmlands the non profit organization will be responsible for training Syrian refugees and improving their skills on agricultural practices that are unfamiliar to them such as land preparation and various agricultural processes (fertilization, irrigation, production costs, harvesting, post harvesting.... etc). Providing more flexible work permits will fall into the hands of the organization. Once the Syrian refugees obtain the required training and legal work permits, the non profit organization will distribute farmlands between refugees as a usufruct right. This right will allow them to use and achieve income or benefit from the government's property. The farmers can then enforce their skills to cultivate crops such as installing new irrigation systems, producing seedlings, building terraces and water harvesting systems. Random and ill-studied farming should not be left to the farmers, but instead the organization should guide them to cultivate crops that the country needs and crops that can open new foreign markets for local products. This project will benefit both parties. Syian refugees will earn decent income, and achieve long term development and social stability. In regard to Jordan, the project will mitigate the effects of the Syrian crisis on the country, and will also improve the investment climate, lower unemployment rates and as a result will help turn a formidable economic and development challenge into an opportunity.

With the passage of nearly 10 years since the beginning of the Syrian refugee crisis, the agricultural sector in Jordan continues to deteriorate, affecting food security in the host community. Therefore, it is imperative to view the overall situation from a different perspective and try to make the crisis a reason for growth and long term development in agriculture. This will help the refugees become productive contributors to the Jordanian society and ease their financial burdens on the economy.

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