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Armenia, Conflict and Extreme Poverty

Food Security in Armenia

Armenia is currently experiencing a severe food security crisis. The renewal of conflict in the Nagorno-Karabakh region in September of 2020 displaced tens of thousands and sucked government funding away from efforts to improve the economy and bring people out of poverty (CARE 2020, de Waal 2021). In the wake of this crisis, almost 15 percent of the Armenian population is food insecure, and those forced to leave their homes (particularly women and children), are the most severely impacted (Mnatsakanyan et al. 2016, CARE 2020).

Armenia's food crisis began with the end of the Soviet Union. With a population of only 2.967 million people, Armenia's industrialized agriculture economy collapsed without the support of the Soviet Union (Worldometer). This caused a shift to a system of small farms – 1.37 hectares on average, or about the size of two football fields – and low technology, which yielded little output (Lines, EaP Green, Sargsyan 2021). Despite this, agriculture is still one of the most important sectors of the Armenian economy, but widespread poor infrastructure causes serious problems for the sector (International Trade Administration). Armenia is only semi-self-sufficient in agriculture, being able to produce enough fish (which they also export), fruits and vegetables, potatoes, and eggs, but falling short on products such as wheat and poultry (Sargsyan 2021). The average Armenian diet consists of cereals, starchy roots, milk, eggs, fruits, and vegetables cooked into simple dishes, which usually use little meat (Nutrition and Consumer Protection 2010). Armenia is dry and mountainous, but with much rich soil due to volcanic residue. Most of that soil is difficult to access for agriculture due to the surface stones which cover it. This makes clearing new agricultural land a labor-intensive process (Mints et al.). Armenia's total agricultural land area is 16,768 square kilometers, which accounts for 59 percent of the total land area of the country. Nevertheless, only about 1,550 square kilometers are actually irrigated. Half of all irrigated farms have their systems tied to the country's main irrigation network (Nazaretyan 2020). With climate change becoming a more prevalent issue in policy decisions, policymakers in Armenia are considering the impact that it will have on their water supply and irrigation system and are assessing many problems with their irrigation system's infrastructure as a result. Some of the issues that have been singled out are improper use of drip irrigation systems, the necessity of expanding the volume of the water storage system and building reservoirs, problems with water filtration, lack of quality pipes, problems with distribution and accessibility of water (as mentioned above), and lack of specialists. The Armenian government is currently in the process of designing plans to combat these problems (Ministry of Economy of the Republic of Armenia 2021).

Armenian society has similar elements to many western societies. At the end of the Soviet era, Armenia adopted a new constitution, creating a legislative, judicial, and executive branch. The National Assembly, elected by the public, is the primary legislative body in Armenia, and elects the Prime Minister and the President (Mints et al.). Most people live in an urban setting (about 68 percent). Most houses are small, simple, and built with stone (Countries and their Cultures, National Statistical Service 2012). The vast

majority of citizens have access to electricity and telecommunications, and most have running water and basic sanitary needs, such as sinks, toilets, etc. (World Bank 2018, Styles and Ashcroft 2019, Veolia 2017). Education is free and compulsory until the end of high school (Turpanjian Center for Policy Analysis 2012). The average salary is 775,000 Armenian Dram (AMD) per month or 1,472.32 American Dollars, with jobs in industries such as agriculture, banking, healthcare, construction, education etc. (Salary Explorer 2021). However, there is still a significant amount of the population living in extreme poverty, and for them, economic mobility is difficult because existing social support systems are not robust enough (Tiwari et al. 2018). On top of this the healthcare system faces significant problems and is generally disliked by the populace (WHO 2009, Harutyunyan and Hayrumyan 2020). The average family in Armenia is 3.6 people (National Statistical Service 2012). Women in Armenia participate in the informal economy at a higher rate than men (23 percent vs 15 percent), and agriculture is the dominant source of employment in the informal economy, employing 45 percent of the workforce. About half of the informal agricultural economy consists of women (ILO).

In September 2020, Armenia and Azerbaijan went to war over the region of Nagorno-Karabakh. Using autonomous weapons such as drone swarms and loitering munitions, Azerbaijan devastated the environment and inflicted heavy casualties on Armenian forces, forcing them to agree to a ceasefire in November 2020 which ceded control of most of the Nagorno-Karabakh region (Iddon Nov. 2020, de Waal 2021). This has created significant and lasting impacts for Armenia. The Nagorno-Karabakh region fueled about 30 percent of wheat production in Armenia, and both the loss of territory and the environmental destruction caused by the conflict has forced them to rely on imports to get enough of it (Sargsyan 2021). The conflict also caused a refugee crisis, displacing tens of thousands, and forcing them back into Armenian territory. These refugees, especially women and children, were economically devastated by the conflict and continue to face significant food security issues. Although many have returned to their homes after the conflict about 40,000 of those displaced still remain in Armenia. Some are not sure if they can ever return home because of the hostile environment (CARE 2020, Connelly 2020, de Waal 2021, ICG 2021). Many of those displaced could barely bring anything with them and have little to no access to capital to afford basic needs like food and water, and therefore some have to rely on aid packages from NGOs (ICG 2021). This crisis also disproportionately affected those living in urban centers. Because refugees flooded in to stay with family members, more strain was put on small urban homes not equipped to house that many people. The influx of people also had a financial impact on those housing them, as many people hardly had enough to support their displaced family members. The conflict has especially taken its toll on poor Armenians. Without a strong economic base, remaining financially stable is extremely difficult for those displaced from their homes. Although Azerbaijan got almost everything it wanted out of the ceasefire deal, there is a high risk that the conflict will re-ignite. Armenia and Azerbaijan are still suspicious of each other's actions, and the situation on the border is still tense. These tensions were illustrated by the violation of the ceasefire in December 2020, where the conflict almost reawakened (Aljazeera 2020). The peace was threatened again on July 19th of 2021 when Azerbaijani and Armenian forces exchanged fire over a tense border region. Although there were no deaths and both countries have issued statements saying that the situation has calmed down, both sides claim the other shot first, and this situation shows how tense the region still is (RFE 2021). Azerbaijan would be more than willing to continue the fight given the conventional superiority granted to them by autonomous weapons (Aljazeera 2020). However, it is extremely important that the conflict does not resume, as it would further exacerbate the food security problems Armenia faces. The fighting in 2020 was expensive for the Armenian government, and sucked funding away from economic recovery and infrastructure repair efforts, both of which are necessary to combat food insecurity across the country. On top of this, thousands of people who decided to return to the Nagorno-Karabakh region during the

ceasefire would be displaced once again, exacerbating the ongoing crisis, and preventing them from refurbishing their homes and farms which are now littered with rubble (de Waal 2021, ICG 2021). When the fighting was fiercest in Nagorno-Karabakh, there was significant involvement from other actors, such as Iran, Turkey, Russia, and Israel. Russia has a military pact with Armenia, which requires it to defend Armenia from foreign aggression, so during the conflict they pledged to give “any necessary support” if the conflict spread past the disputed territory, but Russia was hesitant to take sides immediately due to the confluence of regional powers involved. Israel and Turkey have both military ties to and arms deals with Azerbaijan. Iran wanted the conflict to end altogether and viewed it as dangerous. Despite some actors’ vested interests in maintaining the conflict (to keep arms sales high) many think Russia has the power to end the conflict (Iddon Nov. 2020, Edelstein 2021). Despite this, it is critical to take advantage of the current ceasefire to deflate hostilities between Armenia and Azerbaijan so outside actors do not have an easy opportunity to complicate the crisis.

Accordingly, a two-pronged approach to combat this crisis is recommended. The first part of this approach involves the creation a lasting peace with Azerbaijan and prevention of further conflict. This is a precarious situation which needs significant attention, as neither the current political climate within Armenia nor the atmosphere of Armenia-Azerbaijan relations are currently conducive to a lasting peace (ICG 2021). Without creating long term peace, it will be near impossible for the government to allocate the funds necessary to begin to combat the poverty that leads to food insecurity problems across the country and the infrastructure problems in the agricultural sector that reduce output. The main difficulty presented by this goal is overcoming the political unrest that the current terms of the peace deal have created in Armenia (WION 2021). The Armenian government should emphasize the importance of peace by illustrating the impact war has had on those displaced from Nagorno-Karabakh as well as the overall population and economy. The political will for war must instead be focused on positive internal reforms to encourage peace and economic reconstruction. This message could be conveyed in a variety of ways, for example: official statements, public debates, or the Public Radio of Armenia. Another way to prevent a fixation on conflict would be to shift political attention onto internal reforms to improve the economic position of the country and mitigate food insecurity. Outside of this, it is imperative to abide by the conditions of the ceasefire and establish negotiations with Azerbaijan to deflate tensions. Robust and direct communication networks between Armenia and Azerbaijan should be established and used often to prevent misunderstandings or miscalculations that may flare tensions and lead to another conflict (ICG 2021).

The second part of this approach involves a public jobs guarantee program. This program would entail a guaranteed job (managed by the government of Armenia) with the federal government for at least minimum wage. It would include health benefits as well as a possible salary increase for quality work to address the concern that workers may be incentivized to be unproductive. This program would guarantee jobs in areas such as infrastructure repair, construction, community development, ecological restoration, as well as in the agriculture sector (Paul et al. 2018). This could solve two key problems which currently contribute to Armenian food insecurity: extreme poverty and poor agricultural infrastructure. If people are guaranteed work, they would have a way to make money for food, and as long as the possibility of promotion or a raise exists, there would be an avenue for social mobility. The workers the program generates would also help expand the reach of the country’s irrigation network, help construct reservoirs, upgrade pipe quality, install drip irrigation systems and address other problems Armenia currently faces. Irrigation and water management focused solutions are especially important for a few reasons. First, setting up infrastructure to conserve scarce water resources and

distribute them effectively will become more and more important due to heat waves associated with global warming (Petrosyan 2021). Second, one of the major current issues Armenia is facing with its agricultural system is barriers to water distribution (as mentioned before), which make it especially hard to farm with the heat waves they are presently facing (Petrosyan 2021). Therefore, by improving water distribution and conservation systems it would be possible to significantly increase agricultural output and stabilize the economy, both of which are important parts of combatting food insecurity. It could also provide the workforce necessary to both expand the area of farmable land in Armenia by clearing rocks and debris on the surface of otherwise rich soil which might be preventing the cultivation of that land, or even directly help with farming. There could also be ecological restoration efforts to ensure that the land is cared for and will continue to have agricultural yield. This could include simple jobs such as collecting litter or operating recycling plants on the low-end, but when supervised by experts, regular workers could help care for the land in Armenia in order to preserve it. The program could also be used to improve and sustain the infrastructure of refugee camps and public shelter sites made necessary by the Nagorno-Karabakh conflict. The primary concern that might be immediately apparent to most about this plan is still the cost. However, the spending on the program would likely be offset by its effects. This is for two reasons. First, the government would spend less on poverty relief programs because the job guarantee would eliminate involuntary unemployment. Second, increased public spending would likely result in an increase in money flow in the economy, causing it to grow and strengthen public finances. This would all also cause tax revenues to increase, improving the government's fiscal position (Brown 2017). As a result, any initial method of funding should be sufficient to create an effective program without a massive negative impact on the economy. However, many methods could be used to lessen the initial financial impact of the program. One of these would be issuing a call for international aid specifically for the program. Humanitarian aid operations are common in Armenia from organizations such as OXFAM, the World Food Programme, the UN, etc., as they are currently experiencing a confluence of crises. With the stated rationale of reducing poverty and mitigating food insecurity (a problem which Armenia is already receiving aid to combat, see, e.g., Connelly 2020) it should not be difficult to attract funding. Programs for infrastructure repair in the past have attracted significant spending and had positive effects. One example of this is the Armenia Compact program run by the Millennium Challenge Corporation, which put 177 million dollars towards irrigation and road infrastructure and attempted to help farmers move to higher-value agriculture, which indicates that a program such as the federal jobs guarantee can be politically feasible and effective especially when framed as infrastructure repair or economic relief efforts, and that outside organizations can help fund them (Millennium Challenge Corporation 2016). It is important to communicate to international relief organizations the need to establish permanent infrastructure that will allow Armenia to emerge from this crisis stronger, rather than just patching up issues as they appear by focusing solely on sending relief kits, as important as that is. However, it is still important to remember that the currently poor economic conditions for both individuals and the country also mean that high tech solutions requiring a significant amount of research and development to bring to market are not likely to be feasible unless they have a massive impact on food production and or the economy. Simpler utilizations of existing technology are much more reasonable to combat individual problems with different parts of the agricultural system, for instance drip irrigation. These solutions would be also easier to implement with a federal jobs guarantee, as they require a workforce which is able to install infrastructure for existing technologies, not one which is able to innovate, test and develop an entirely new technology.

Armenia is currently in a dire position which most likely means that possible political or social barriers such as bureaucracy or public skepticism can be remedied by emphasizing the counter-recessionary effects of such a policy along with the benefits it can have to the postwar relief effort by decreasing

unemployment, promoting food security, and improving infrastructure. Typically, however, the government is able to make significant decisions about agriculture policy fairly effectively and with few barriers. One recent example is the decision to shift towards drip irrigation to help conserve water and hopefully provide a path to expanding irrigation systems (Civilnet 2021). One of the reasons this policy was politically feasible is that it was responsive to farmer's concerns that there was a scarcity of water for irrigation (ARKA 2021). Therefore, the government should show specific concern for the problems that farmers face in the way that they use the federal workforce and communicate publicly how their actions will address the concerns that farmers have. On the other hand, farmers could also remain informed about not only the problems that they specifically face, but also the causes of those problems on a broader level, emerging technologies that might improve agricultural practices, and the structural problems with the agricultural system, such as areas where infrastructure is weak. In this way, they could actively shape evidence-based policy to address their own concerns, improve agricultural output, and alleviate food insecurity. Education is also important to help farmers remain aware of the current state of the country's agricultural system and new technologies, therefore it may be valuable for experts to hold panels and lectures on these issues so policy can be driven in a logical direction.

The devastation created by the conflict in Nagorno-Karabakh has put even more strain on Armenia's agricultural system. The aftermath of the crisis has left thousands displaced, and thousands more without adequate nourishment. This problem urgently needs to be addressed, and the strategies outlined above are key to that. Creating a lasting peace with Azerbaijan would allow room for Armenia to recover and focus on its internal problems. A public jobs guarantee would support those without enough money to pay for food and provide manpower to help support farms and improve infrastructure, in order to improve agricultural output. These solutions could lay the foundation for great progress in Armenia, while protecting the most vulnerable in society.

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