

# Increasing the Agricultural Infrastructure and Technology of Somalia

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## ABSTRACT

The purpose of this policy proposal is to address the food and water insecurity that the entire nation of Somalia is experiencing in order to secure the United States' national interests in the region of The Horn of Africa. I urge Bob Menendez, the chairman of The United States Senate Committee on Foreign Relations, to consider my recommendations to tackle this systemic issue in the fragile state of Somalia because this foreign aid will save millions from severe malnutrition and dehydration, while weakening terrorist organizations in the region at the same time. My policy recommendation to tackle this issue are to increase foreign aid to Somalia in the way of developing water infrastructure countrywide.

## Statement of Issue/Problem

As most of North America, Europe, and Asia continue to march ahead into the technological future, and compete for economic development on the international stage, sub-Saharan African countries continue to endure negative economic growth, and the citizens of these countries continue to experience bloody conflict, disease, climate change, and food insecurity. One such sub-Saharan nation is the extremely fragile state of Somalia, which has only about 17 million people living within its borders, but also has a staggering “7.8 million [Somalian population who] are facing severe food shortages” (Cooperative for Assistance and Relief Everywhere, 2022). Research estimates that “one million [Somalians] have [already] been displaced in search of food and water” and “[u]p to 1.5 million children in Somalia – or [20% of children in the country] – could face deadly forms of malnutrition by October 2022 without immediate action” (CARE, 2022). That is not where the food security problems end though as “the average water price has increased exponentially [in many regions of Somalia]” and “[c]ommunities in Somalia... [have said] that they fear a repeat of the 2017 severe drought which left a quarter of a million people dead” (CARE, 2022).

As evidenced by the identification of numerous food security issues that plague the fragile state of Somalia, the specific sustainable development goal that this policy paper aims to address for the nation of Somalia is related to and based on the United Nation's Sustainable Development Goal 2.A: “[i]ncreas[ing] investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity” (United Nations, 2023). The investigation and policy recommendation in pursuits of achieving sustainable development goal 2.A in Somalia is of the utmost importance to the developed nations of the world, especially the United States, because “[t]here are many ways from which the U.S. benefits from foreign aid to Somalia” (The Borgen Project, 2018). First and foremost, from a national security perspective, ending hunger and increasing agricultural infrastructure in the most affected regions of Somalia will help prevent further breakouts of violent conflict as food insecurity can lead starving people to “engage in violent activities if a terrorist organization promises food or money in exchange” (The Borgen Project, 2018). With global terrorism on the rise, the last thing the United States needs is another breeding ground for violent terrorist organizations, such as al-Shabaab which “seeks to... expel foreign forces from Somalia, and ultimately establish an Islamic state” in the region (Council on Foreign Relations, 2022). “[A]l-Shabaab being a grassroots and small group recruiting from the international community could present a seri-

ous threat the world over” (Chigudu, 2021), namely in the way of increased rates of maritime piracy off the coast of East Africa and in the Red Sea, which is the gateway to the Suez Canal: one of the most important shipping routes used for global trade. In order to preserve the safety of this vital shipping route, which allows for many of the luxuries and conveniences that the United States enjoys, it is in the interest of the United States to increase agricultural investments to Somalia because it would eliminate one possible pathway that Somalian people could feel the need to join terrorist organization groups.

This policy paper will first introduce the specific development policy problem experienced in Somalia: lack of agricultural infrastructure and technology, as well as why it is important for the United States to be the one to address it: national security. Then, this policy paper will provide a brief overview of the root causes of the development policy problem, followed by the historical context surrounding the problem, critiques of previous and current policies attempting to address the issue, and finally a policy recommendation based on strong evidence that will help solve this problem for Somalia.

## Origin/History of the Problem and Current Context

Somalia is currently experiencing yet another severe case of food insecurity, and the origins of this food insecurity and lack of agricultural infrastructure is multi-layered in nature, with several compounding crises. One of the largest contributors to this multi-layered food insecurity crisis is the “economic impact of the conflict in Ukraine” because “[o]ver 90% of wheat supplies in Somalia comes from Russia and Ukraine” (CARE, 2022), so Somalians have to pay ever-increasing amounts for their most basic staple food, which is especially problematic due to the fact that “an estimated 69% of the population lived below the poverty line, with GDP per capita estimated at \$502 in 2021” (World Bank, 2022). Another major contributor to the massive amount of food insecurity being experienced in Somalia is the effects of numerous “2019-2020 floods that decimated most crops and pasture,” while at the same time, being “faced with the COVID-19 pandemic which greatly reduced remittances due to the global lockdowns” (CARE, 2022). Remittances are “money transfers from citizens working abroad” back to their home country, Somalia in this case, and are “a lifeline for development” for “low-income countries [because they] account for nearly 4

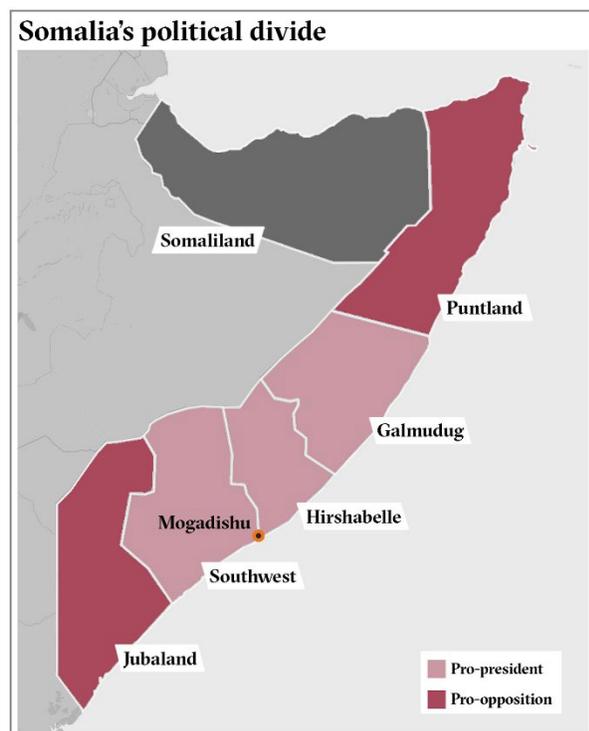


Figure 1 (Sperber, 2021)

percent of their GDP” (International Monetary Fund, 2023). On top of that, “the country suffered from [a] desert locust infestation which destroyed the few crops and pasture that had survived the [2019-2020] floods,” and “90% of the country is facing severe water shortages as strategic water sources have dried up or broken down due to over-use” (CARE, 2022). Water shortages are a recurrent issue for Somalia and have been identified as a major cause to many of the famines Somalia has experienced in modern history. “Somalia has been food insecure for the past 20 years, a situation which has been aggravated by civil war and natural disasters” (Food and Agriculture Organization of the United Nations, 2014), so it is no wonder that the fragile nation is experiencing food insecurity on such a major level currently.

Since Somalia is an extremely fragile nation that has experienced decades of violent conflict and political infighting, there are quite a few stakeholders as well as political actors that are affected or involved in this policy issue of food and water security in Somalia. Firstly, There is a potential civil war brewing that has been dividing most

of the nation into two opposing forces: a pro-president camp and a pro-opposition camp. The president in question is President Mohamed Abdullahi Mohamed “Farmajo” who is under scrutiny because of his decision to stay in office past his term limit, which was further inflamed by the Somalian parliament’s decision to “extend the current government’s term by two years, infuriating the opposition who say that Farmajo’s continued occupation of the presidential palace is unconstitutional” (Mahmood, 2021). As a result of this political takeover, Somalia’s southern most province of Jubaland and Somalia’s northern most province of Puntland joined an alliance under the leadership of two former Somalian presidents and an ex-prime minister whose main demand is for the current president to remove himself from power to allow an election to replace him. Secondly, the northwestern region of Somaliland is and has been actively pursuing political independence for decades now. The “semi-autonomous region hopes the international community will view its” self-proclaimed independence with legitimacy now that they “held parliamentary elections, with more than a million people voting” (Chutel, 2021). Despite this political independence movement in Somaliland, Somalia still holds a political stake in the region due to its “strategically located container port in Berbera” (Chutel, 2021). Thirdly, there is the violent terrorist organization “Al Shabaab, meaning “The Youth” in Arabic, [which] is the largest militant organization fighting to oust the Somali government” (Stanford University, 2019). Al Shabaab has very close ties to Al Qaeda and seeks to establish its own Islamic government in Somalia; their potential recruits are the same people that are struggling with food and water insecurity, so even this terrorist organization has stakes in this policy issue. However, the interest of Al Shabaab is to ensure continued political instability and exacerbate the food insecurity crisis as much as they can to gather strength, numbers, and prestige.

## Critique of Policy Options

Despite the political breakdown that Somalia has experienced and the extreme poverty that Somalia is stricken with, the international community has not given up hope on addressing the food insecurity in the fragile state. Just like this current food insecurity crisis that Somalia is facing today due to climate change, it has faced extremely similar conditions in past: like in “2017/18, [when] Somalia faced its fifth consecutive year of below average rainfall” contributing to the displacement as well as conflict of many more Somalian in search of food and water (Doocy et al., 2020). As a response to this crisis, the international community aided in the way of “[p]rovision[s] of in-kind food, food vouchers, and cash transfers” (Doocy et al., 2020). In-kind food assistance is simply “the distribution of a selection of foods chosen to prevent malnutrition” (World Food Programme, 2023) and “cash-based interventions such as cash transfers or vouchers [are] an important option for increasing food access” to those where “[f]ood may be financially out of reach” (Doocy et al., 2020). In fact, there was such a huge emphasis on providing “in-kind food, food vouchers, and cash transfers” to Somalia that all the “cash [sent to Somalia] accounted for 17% of international humanitarian assistance in 2017” (Doocy et al., 2020). Additionally, “[i]n mid-2017 an estimated 3 million people in Somalia were receiving monthly assistance as vouchers or cash” (Doocy et al., 2020), so a large portion of the population is already familiar with the process. It is safe to say that providing food assistance via “in-kind food, food vouchers, and cash transfers” (Doocy et al., 2020) are the primary policies options used by international stakeholders to address food insecurity in Somalia.

As for the actual effectiveness of these different types of food assistance, the results heavily depend on the type of aid provided to food insecure people. First, looking at the policy option of in-kind food assistance, the largest advantage of this aid is that it “respond[s] to an emergency where: 1. local markets are not functioning; 2. there isn’t enough food in local markets to meet need; or 3. beneficiaries do not have physical access to markets” (USAID, 2023). The largest disadvantage to in-kind food assistance is that “[t]his food aid takes an average of 4–6 months to reach beneficiaries” (USAID, 2023), which is just too long for people already experiencing malnutrition. Second, looking at the policy option of providing food vouchers, the largest advantage of this aid is that “electronic food vouchers...are a reliable, timely and secure way to provide assistance to vulnerable individuals and families,” while still “strengthen[ing] local markets by enabling participating local vendors to sell more food” (USAID, 2023). However, the largest disadvantage to providing food vouchers is that the food choices are “limited...to specific foods”

and food vouchers “have higher implementation costs...because they are less flexible” (Doocy et al., 2020). Thirdly and lastly, looking at the policy option of cash transfers, the largest advantage of this aid is that it can be used “when people are physically spread out or highly mobile, rapid response is high priority, or food needs are so severe people will spend most new income on food” (USAID, 2023), which describes Somalia’s level of food insecurity. But the largest disadvantage of cash transfers is that “these interventions are not always effective at preventing children from becoming malnourished” (Doocy et al., 2020).

## Policy Recommendations

The policies that this organization, The Borgen Project, recommends are supposed to be in addition to the proven efficacy of cash transfers in Somalia, not a substitution for the already well-established humanitarian food assistance system that helps millions in the country today. The target of these policy recommendations is to further develop Somalia’s internal agricultural infrastructure as well as advance agricultural technologies that Somalian farmers use, which will make Somalian farms more productive and resilient to climate change. If these policies can be successfully implemented in combination with the pre-existing food assistance of cash transfers, there will not only be an immediate solution to the food insecurity crisis in the way of cash transfers, but also a long-term solution to combat the effects of climate change and strengthen domestic agriculture in Somalia.

The Borgen Project proposes the United States Congress to increase foreign aid to Somalia in the way of developing water infrastructure countrywide. Thankfully, this is not a new idea as there have been various international coalitions dedicated to developing Somalia’s water infrastructure in the past. For example, The African Development Bank Group joined forces with the UK Department for International Development in 2016 for a project entitled, “Improving Access to Water and Sanitation Services in Somalia,” which oversaw the “[c]onstruction/rehabilitation of 20 strategic water systems, incorporating sanitation facilities, and installation of solar water pumps” as well as the “[c]onstruction of 53 mini solar powered/three tank water systems, with draw off and sanitation facilities” (African Development Bank Group, 2023). These development projects were specifically planned in mind for rural areas and populations, so the strategic locations these projects were made are schools, markets, health institutions, and village centers. Additionally, the United Nations International Children’s Emergency Fund “works with the [Somalian] Government and NGO partners” to “provide safe drinking water...through improving and repairing water systems, trucking water, distribution of hygiene kits, setting up latrines and promoting awareness of hygiene practices” (United Nations International Children’s Emergency Fund, 2019). The targeted population of these development projects is in “conflict-affected areas and camps for displaced [Somalian] people” (UNICEF, 2019), so it is once again located in rural areas and in even temporary shelter. Another international corporation addressed at managing the water resources of Somalia is between the German Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Somali Ministry of Energy and Water Resources, which is a major governmental stakeholder in the policy process of developing Somalia’s water infrastructure. The project is meant to consult various Somalian governmental agencies involved in the management of the country’s water basins. The international group “identif[ies] root causes of current and anticipated management challenges for different domains such as irrigation, flooding, livestock or governance and...[b]ased on this analysis, an integrated set of priority actions and interventions [are] synthesized” (Kramer, 2021).

As evidenced by the numerous international development projects in Somalia presently and throughout recent history which specifically aim to further develop Somalia’s water infrastructure, it is undoubted that this is a realistic policy to recommend. It is also undoubted that this policy recommendation can have success in being implemented as it has been done time and time again. The distinction that this policy recommendation makes is that the agricultural technology of solar water pumps should be implemented across all the rural regions of Somalia, in as many rural villages as possible and in as many displacement camps as possible. This will provide a longer-term solution to the water crisis as the management of these systems is very teachable and will strengthen the resilience of communities where these solar water pumps and irrigation systems are present. As stated by previous organizations,

the partnership with various international stakeholders that provide these development services such as UNICEF, the African Development Bank Group, and UK Department for International Development will be instrumental to the proper implementation of this policy. There is no need to create new agencies and spend the money to establish and implement new strategies when there are already organizations that have the experience of building development projects in Somalia's rural areas. We should reach out to these organizations and others for cooperation and simply fund their continued development projects in Somalia. As the saying goes, there is no need to reinvent the wheel. What Somalia needs to build its resilience and recover its national health is the support of the strongest country on Earth, which has by far the most influence on international politics and economics: The United States. If the United States Congress provides further foreign aid specifically targeted at developing the water infrastructure and agricultural infrastructure in Somalia, other countries will certainly follow suit. The United States can greatly influence the foreign policy of many other nations simply by financially supporting organizations that have previous experience in developing Somalia's infrastructure. A long-term challenge to this policy will be the threat of violent terrorist attacks against the development project sites due to their creation being by American funds. But, as stated before, as the food insecurity crisis decreases in severity, the severity of terrorism within Somalia will also decrease, as starvation is a recruiting factor.

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