Preparing for the Impacts of Climate Change: ALUS

PILLAR nonprofit network

ORGANIZATIONAL BACKGROUND

ALUS is a nationwide farmer-led charitable organization that engages farmers with the ecosystem services their land provides and encourages implementing nature-based solutions on agricultural land. The organization is self-described as a social purpose organization with environmental co-benefits, meaning there are positive environmental outcomes from their actions as an organization. Since 2000, ALUS has partnered with over 450 Canadian provincial and federal organizations. Within their catchment areas, ALUS fosters relationships with the local Indigenous communities, local corporations, and social purpose organizations that impact the surrounding communities. Intersectionality guides ALUS's practices and programs. Understanding their community's social structure is critical to supporting farmers, providing knowledge, and creating thriving agricultural lands and ecosystems.

INTERSECTIONAL PROGRAMMING

ALUS collaborates with farmers that have identified land that is marginal or uneconomical and helps to enhance the landscape. Improving the quality of the land can increase agricultural yield or assists the farmer in naturalizing the land, meaning it re-establishes the land's native species. The newly transformed land produces economic and intrinsic value for the farmer in the form of various ecosystem services and food production. In addition to the monetary value of their land, farmers can begin to learn more about the health of their land, ways to implement climate mitigation strategies on their property and participate in local environmental conservation efforts. Becoming more involved in environmental conservation groups is especially important to rural Canadian farmers, who often feel disengaged by government-led and urban-centric environmental activism.

ALUS has established chapters all over Canada and Ontario, including counties in southwestern Ontario like Middlesex, Norfolk and Elgin. Although the chapters are geographically connected, they are not homogenous, and thus the services are not linear across the three counties. The communities present in each county prioritize and target their specific needs during the planning and decision-making process. Programs are unique to the social conditions, crops/livestock or ecosystem service for each farmer. In Middlesex County, initiatives are focused on the Thames River watershed to keep the river clean and topsoil intact, and on livestock due to the small crop diversity. Elgin County has a diverse mix of crops, and its programming focuses on restoring wetlands to slow water-influenced erosion and planting tallgrass to hold soil in place. Norfolk County has the most diverse crop range out of the three counties, most notably their tallgrass prairies and sandplain grasslands. The county mainly focuses on the restoration of tallgrass prairie and sandplain ecotypes. Tallgrass serves as a great ecological asset, a habitat for pollinators, and food for insects. Pollination will increase the health and crop yield of landscapes. This not only benefits the farmer, as it can increase the services they can provide but will also benefit the environment by providing a safe environment for pollinators and a flourishing ecosystem.

ALUS also aims to bridge the gap between urban and rural communities. For example, in an Albertan county, the residents wanted a more livable community with more green space. ALUS worked with farmers to turn non-productive areas of their land into functioning green spaces. Not only does creating more green space benefit the community's well-being, but it aids biodiversity, air quality, flood protection, and water filtration. It also aids the economy: water filtering plants upstream of a municipal water treatment plant will reduce its operating costs. Involving farmers in green space projects helps farmers recognize their relevance and impact on social and environmental issues. ALUS asks farmers to reconsider and enhance their farm's purpose and value.

ALUS has identified farmers and their associated farmland to be vulnerable to extreme weather events as a result of climate change. Specifically, rainfall intensity and frequency have increased in the last decade, along with unpredictable weather forecasts, posing a challenge to farmers. During extreme rainfall episodes, the soil becomes overly saturated and rain runoff will begin to wash off the topsoil of the crops, influencing crop yield. As a result, the long-term sustainability of the farm becomes impacted affecting crop availability and the farmer's livelihood. Moreover, upon entering water bodies, the nutrient-rich runoff will cause eutrophication, disrupting aquatic ecosystems, drinking water systems, and, thereby, human health. ALUS has worked to find a nature-based solution to manage and slow down runoff by creating natural buffers and wetlands. By slowing the water runoff, buffers and wetlands allow for more water absorption at a slower rate and offer a natural filtration system, removing excess nutrients from the runoff before reaching the water body.

Before (left) and after (right) photos of a project in Assiniboine West, Manitoba in planting cattails to filter water pollutants to improve water quality and remove impurities from the water (ALUS, 2022)