

THE ECOLOGY FRONTIER

CLC members from around the world were invited at the 2013 World Assembly in Lebanon to join to go to the “frontiers of our social realities,” to discern and develop a plan to raise awareness of the four frontiers: poverty, ecology, family and youth. Ixthus CLC was asked to form a working group to address the ecology frontier. This article presented by Beulah Costain is the working group’s response to that request.

SOIL SUSTAINABILITY

Growing up on a mixed farm on PEI made me aware that good soil was the source of our family’s physical and economic well-being. My father carefully tilled the soil each spring, planted and maintained crops until harvest and our family enjoyed the results of his work all winter. We, as children, learned the importance of respect for the land and all creatures living on our land, providing necessary organic nutrients to the soil. My years living on a farm taught me the importance of caring for the soil and all growing things which existed on and in that soil.

The Food and Agricultural Organization (FAO) states: “Healthy soil is the foundation for food security and is the key to sustaining life on earth”. At the present time there are more than 805 million people in the world facing hunger and malnutrition and unfortunately *33% of our world soil resources are reaching critical limits of degradation (UN Environment Project)*. Poor land management, exploitation of natural resources, over cultivation, overuse of chemical fertilizers, urbanization and industrial encroachment, deforestation, and mining are some of the causes of soil deterioration. Soil is almost a non-renewable resource in that *“it takes 300-500 years to form 1” of topsoil (UN Environment Project)*. We as earth dwellers must realize before it is too late that most soil degradation is directly related to human activity. We have neglected the soil for too long. It is the basis of our livelihood and we must work to turn this situation around. 95% of the world’s food supply depends on soil, soil is where food begins, and healthy food depends on healthy soil.

Soil is one of nature’s most complex ecosystems and diverse habitats. What lives below the ground is equal to or greater than life that grows above ground. A handful of soil can contain thousands of invertebrates which play a vital role in soil fertility. These organisms perform numerous functions which add nutrients and richness to the soil. Both plants and animals impact the earth’s biological, atmospheric, and hydrological systems and thus add to the sustainability of healthy agricultural land on which we depend.

In many countries crop rotation is not practiced or managed and the same crops are planted year after year. These practices can result in depletion of soil nutrients and organic matter, which can lead to an increase in invasive pests, plant diseases, and weeds. In turn when these plants become prey to such predators more chemicals are usually applied in an effort to control these threats. The chemicals are eventually washed into waterways promoting the growth of algae which leads to a reduction of oxygen leaving those waters unable to support plant or animal life. Good management of crops is essential to soil sustainability.

Our Federal and Provincial governments need to put teeth into legislation to ensure farmers and industries abide by the rules set for preventing environmental damage to soil. At present soil regulations are primarily a provincial responsibility. However, cases where provincial law is questioned the matter can become subject to decisions made by the Supreme Court of Canada (Canadian Env. Protection Law). Some protective legislation includes: liability for clean-up following a land/water contamination incident, certain changes in land use, eg. park / farm land becoming industrial/residential land, approval and operation of waste sites, proper disposal of hazardous materials, spreading of waste materials on farmland, etc. Use of Cosmetic pesticides and herbicides on lawns, roadside litter, waste management, fuel consumption, recycling, etc., are primarily a personal responsibility. Each time we do something to protect our environment is important. As Pope Francis said in **Laudato Si**, “Nothing in this world is indifferent to us”.

Sometimes we see actions which we know are abusive to our environment and keep quiet. Perhaps now is the time to see ourselves as one with the earth; we must speak up! Pope Francis reminds us in **Laudato Si** “We are an image of God, but that should not make us overlook the fact that each creature has its own purpose”. Never has the human race had such power over creation, but we need to consider how it is being used at the present time to protect it for future generations. Each small action we take to promote good care of the land is a response to the call to cooperate in caring for creation. I will share a recent incident in which I was able to take action. We live adjacent to a parish owned field which is cultivated by a farmer who usually uses good land practices. We were recently informed by our pastor that he had given the farmer permission to cut down a beautiful spruce tree so the farmer could make straight rows in the field. I became very disturbed by this and met with the pastor to discuss the matter only to be told permission had already been given so the matter was closed. I approached the farmer to explain why I was so upset. I said, “It takes only a few minutes of your time to drive your tractor around the tree which took fifty or more years for it to grow. It provides nutrients to the soil and habitat for birds and animals, can you not change your mind and leave the tree?” He was not happy about my request, but after some discussion he agreed to leave the tree standing. Each time I go out and see the tree I am affirmed that I made the right decision (although small) to act on my call to live in harmony with the land.

In closing I will quote from a 2010 Toronto Star interview with the late James Profit S.J. who was the founder of the Jesuit Ecology Project in Guelph, Ontario. Spiritual connection (with the land) does not just happen *down on the farm*, but can be nourished even on concrete sidewalks. We can prayerfully spend time with the beauty of creation in our own environment.”.... “When we experience the Earth as holy our actions may change from control and destruction of the Earth to living in respect for and in communion with the Earth.”

NOTE: Here is a short list of ecology related material for further reference in this article.

>DVD [“Laudato Si – A Canadian Response](#) by Kevin Moynihan

>[The New Spiritual Exercises - In the Spirit of Pierre Teilhard de Chardin](#) by Louis M. Savary

>[Christ in a Grain of Sand – An Ecological Journey with the Spiritual Exercises](#) by Neil Vaney

>Google Site – [Catholic Global Climate Movement](#)