## A PROPOSED WITNESS RESOLUTION – PROMOTING DEVELOPMENT OF DROUGHT RESISTANT FOODS AND TECHNOLOGIES TO REPLACE CARBON BASED POWER SOURCES $^1$

- 1 WHERAS, the continued rise in atmospheric carbon dioxide (CO<sub>2</sub>) has already led to the
- 2 destruction of agriculture in the Marshall Islands and a rise in temperature for Somalia's
- 3 growing season to around 90° F and drought conditions.
- 4 WHEREAS, temperate climate program crops, such as corn and soy beans, are destroyed
- 5 by temperatures near 90° F that persist without relief for several weeks, particularly
- 6 when accompanied by the drought conditions usually associated with these temperatures.
- 7 WHEREAS, most of the mathematical models respected in the academic community
- 8 forecast that the current levels of CO<sub>2</sub> emissions will lead to a 50% rise in atmospheric
- 9 CO<sub>2</sub> to 600 parts per million (ppm) in our air by 2063 which would lead to similar
- 10 temperatures and prove a threat to agriculture in much of the temperate climate worldwide.
- 11 WHEREAS, CO<sub>2</sub> above 450 ppm would produce frequent and higher temperature
- 12 spikes in temperate climates which could damage crop production in the intervening years;
- 13 BE IT RESOLVED that the Michigan Conference of the United Church of
- 14 Christ (MUCC) through the Prophetic Integrity Mission Area Team commits to dialog with such organizations as Church World Service
- and Bread for the World to promote adaptive and preventative actions,
- 16 BE IT FURTHER RESOLVED that MUCC through the Prophetic Integrity Mission Area Team promote plans to introduce grains such
- as quinoa, millet, and other drought resistant foods.
- 18 BE IT FURTHER RESOLVED that MUCC through the Prophetic Integrity Mission Area Team continue to support and encourage those
- 19 like Michigan Interfaith Power and Light, Michigan Energy Michigan Jobs and others
- 20 that offer and promote technologies to replace carbon based power sources.

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## **Supporting Statement**

The harsh climate conditions now in the Marshall Islands and Somalia<sup>2</sup> as well as those in China, Alaska, and Siberia are reliable harbingers of what would be coming to threaten our crops. The climate models<sup>3</sup> warn of famine conditions in the current generation. If atmospheric CO<sub>2</sub> reaches 600 ppm, the risk of much worse famines would become more likely in future generations.

These same models forecast harder than ever El Ninos. The strongest El Ninos amplify and extend normal weather patterns. The NOAA in August 7, 2013 report<sup>4</sup>, for example, explains why the climate we experienced since the 2009 El Nino constitutes "a New Normal". With an El Nino, the normally dry areas become drier and hotter, like the American West since the 2009 El Nino. Wet areas get wetter and experience flash flooding. For example, the storm that impacted eastern North America this year when it took better than 10 hours to rescue everyone from the Toronto subways. These climate extremes in many cases have never been observed in the Western Hemisphere. The models tell us that these extremes are not just the result of the natural fluctuation in the earth's climate, but the direct result of human intervention.<sup>5</sup>

The recorded conditions in the Marshall Islands, Somalia, China, Alaska and Greenland match those preceding the global famine of 1876. The monsoon rains failed in each of the three years 1876 through 1878. Tax and other records indicate that in the heavy famine areas of India and China over 120 million people were missing from the early 1870's to 1878. Most of these individuals must be presumed dead. This number does not include other areas impacted by the drought in Australia and sub-Saharan Africa. Given the increased population density in these areas today no doubt the death toll would be much higher. It is important to note that during this time millet harvests grew and did well under these harsh conditions.

The famine of 1876 lasted three years. Given the elevated CO<sub>2</sub> levels in our atmosphere, the famine will be more severe and may well last seven or more years. After the 1876 famine, Asian farmers adapted by planting more drought resistant grains like millet and quinoa and storing away more of the grain grown during the later good years. When the drought returned they were prepared. Given the forecasted severe climate conditions, that is why it is essential and prudent for us today to be prepared with the seed supply and training to grow grains that can prosper under these climate extremes.

**BIBLICAL/THEOLOGICAL RATIONALE**: In many different locations in the scripture God provides signs and warnings for his people. God speaks to Her people through the prophets and other signs such as dreams. Of particular relevance is the Pharaoh's dream in Genesis 41:25-32 that Joseph correctly interprets as forecasting famine. In the Parable of the Ten Virgins in

<sup>&</sup>lt;sup>2</sup>Chris Funk, *Scientists Link Famine in Somalia To Global Warming*, The Huffington Post (August 19, 2011). Retrieved on August 28, 2013 from <a href="https://www.huffingtonpost.com/2011/08/19/somalia-famine-climate-change-global-warming-n-930935.html">www.huffingtonpost.com/2011/08/19/somalia-famine-climate-change-global-warming-n-930935.html</a>

<sup>&</sup>lt;sup>3</sup> Christopher Pennell and Thomas Reichler, 2011: On the Effective Number of Climate Models, Journal of Climate, 24,2358-2367 (2011). Retrieved on August 28, 2013 from www.journals.ametsoc.org/doi/abs/10.1175/2010JCL13814.1?journalCode=clim

<sup>&</sup>lt;sup>4</sup> National Oceanic and Atmospheric Administration, *State of the Climate in 2012*, Bulletin of the American Meteorological Society, Vol. 94, No. 8, August 7, 2013.

<sup>&</sup>lt;sup>5</sup> Justin Gillis, *Climate Panel Cites Near Certainty on Warming*, New York Times (August 19, 2013). Retrieved August 22, 2013 from http://www.nytimes.com/2013/08/20/science/earth/extremely-likely-that-human-activity-is-driving-climate-change-panel-finds.html?ref=science

<sup>&</sup>lt;sup>6</sup> Mike Davis, *Late Victorian Holocausts: El Nino Famines and the Making of the Third World*, Verso: London (2001).

<sup>&</sup>lt;sup>7</sup> University of California, San Diego, 2013 Research Highlights, Retrieved on August 28, 2013 from www.explorations.ucsd.edu/research-highlights/2013/5962

Matthew's gospel (Matthew 25:1-13), Jesus tells of the foolishness of not being prepared. In Luke's gospel (Luke 12:54-56), Jesus tells the Pharisees that even though they can tell when it will rain, they cannot or - perhaps interpreted in another way - refuse to read the signs of the present times.

God gives human beings dominion over all creation (Genesis 1:28-30). We are called to care for creation. God gives human beings creation to use, but not abuse. Our stewardship of this gift from God is for the good of all Her creations. We are to see that all things flourish. However, our record of doing so, particularly since the beginning of the Industrial Revolution in the mid-18<sup>th</sup> century, has been far from perfect. Now, elevated greenhouse gas levels, the result of carbon-based energy sources, threaten our very being.

Unfortunately, human beings are notoriously short-sighted. Our greed gets in the way of our own good. Esau, for example, sold his birthright for a meal. We have through the first 10,000 years of civilization abused God's creation for our own selfish desires. We have not been good stewards of Her creation. All things have not flourished. Yet, God has given us a sign in the changing climatic conditions that something must be done; action must be taken. Just like Pharaoh listened to Joseph, we, too, must read and listen to the signs our God is providing.

The most obvious choice in reading these signs is to stop the proliferation of greenhouse gases present in our atmosphere. However, human beings are a stiff-necked people. We often refuse to listen to God even when God is right in front of us. Atmospheric CO<sub>2</sub> is at dangerously high levels. Yet, we refuse to heed the scientists' warnings. We refuse to take seriously the need to rein in our carbon consumption. So, while we must continue our struggle to bring more renewable energy sources to the world, we must also prepare. We must prepare for a place where the climate is not conducive to providing food to God's people in the ways we are used to. We must read the signs of the times and prepare to care for God's people in a new way, a way that will help them to flourish in our ever changing world.