

Implications of changes in the global population on life in Ireland

“Individually, we are one drop. Together, we are an ocean.” Ryunosuke Satoro.

“Rising population growth can lessen our quality of life because it: destroys resources, such as water and forests, needed to sustain us; slows the dynamics of a healthy economy; decreases the level of biodiversity upon which we depend.”⁽ⁱ⁾ Changes in Global Population have always had an impact on the environment and on biodiversity and an increase in Global population has an ever increasing impact on the planet. The growth in global population that we are now experiencing does not only have an impact on the environment and biodiversity but has an enormous impact on the social and economic fabric too. Growth in population occurs when births outpace deaths. The world before 1800 was a pre-industrial society and had little access to medicine and very poor sanitation. As a result, there were high birth rates and high death rates. With industrialization, technology was developed that reduced the death rate and the birth rate remained the same which led to rapid population growth. A lot of Third World countries are now in this phase of rapid population growth with lots of implications for life in Ireland. Despite the geographical distance growths in population have an impact that is felt across the globe. Developed countries have increased access to resources and this often results in people choosing to have smaller families. When this happens, the birth rate drops closer to the death rate and population growth is low again. The world presently is experiencing rapid population growth “Currently the world's population is projected to peak before 2100 at perhaps 11 billion.”⁽ⁱⁱ⁾ Global population refers to the total number of people on the planet. Changes in the earth’s global population have implications for life in Ireland. “The global population reached one billion in 1804. In 1927, some 123 years later, it passed two billion. Sixty years later in 1987, the world population was five billion.”⁽ⁱⁱⁱ⁾ We have experienced a rapid growth rate of three billion in just sixty years. It is forecast that by July 2011 the global population will reach seven billion a further growth of four billion in just twenty four years. This acceleration in the global population looks set to continue into the future with estimated growth to reach eight billion between the years 2025 and 2030. The head of the Department of Biology in University College London, Steve Jones, thinks this growth in population can be attributed to farming, developments in food production methods and advances in medicine but comes at a cost "Humans are 10,000 times more common than we should be, according to the rules of the animal kingdom, and we have agriculture to thank for that. Without farming, the world population would probably have reached half a million by now....The world’s population has significantly increased in the last 50 years..”^(iv) This growth in global population is already having and will continue to have a major impact on life in Ireland. Global population growth is

the biggest threat we face. It is threatening our environment because we all need space to live, resources for living and energy all of which are drawn from the environment, an environment we all share no matter where we live and which has a limited capacity. We have now reached a crisis situation, globally, with the balance between population and renewable resources having reached unsustainable levels. We know that “our population is rapidly rising beyond the earth's ability to regenerate and sustain us with a reasonable quality of life. We are exceeding the carrying capacity of our planet.”^(v) The more rapid the growth in global population the quicker and the more obvious the impact.

Climate Change

Climate change is one of the most immediate implications felt here in Ireland as a result of Global Population Growth. People and industries all over the world are largely dependant on fossil fuels which emit large amounts of CO₂ gas. This gas is released into the atmosphere and the damage it causes is far reaching. America for example “contains just five percent of world population, yet contributes a quarter of total CO₂ output.”^(vi) CO₂ emissions have risen in direct relationship to the growth in population which has had a big impact on the planet. How does global population growth and Co₂ emissions impact on life in Ireland as we are not a very industrialised nation? Over the course of the last two winters we began to feel the impact of Climate Change on our life here in Ireland with the big freeze when “Ireland for the first time since records began recorded temperatures of -18.7°C ”.^(vii) It is predicted that not only will we experience colder winters but that Ireland’s climate will become warmer especially in the East and South. Winters will become wetter and summers will become drier. Sea levels will rise and the ocean around Ireland will become warmer. “The oceans are warming, glaciers disappearing, and the natural world is in sharp decline.”^(viii) All of this will result in flooding, coastal erosion and changes in the way we produce food in Ireland. Stephen Kinsella in his book ‘Ireland in 2050’ paints a very vivid picture of the effects of Climate change in Ireland; “For every 1 centimetre rise in sea level caused by Arctic ice melting, our coast line will be eroded by 1 metre. So ... Ireland in 2050 will loose 300 square kilometres of land as the sea encroaches. We would loose an area the size of the Burren ... ”.^(ix) It is predicted that Climate Change will result in more severe storms and heavier rainfall resulting in flooding in Ireland especially in some of our more densely populated areas. The impact of such flooding has already been felt in various parts of the country in the suffering of communities who have experienced unprecedented flooding. In Ireland we will experience water shortages too with lower rainfall amounts and we may need to look at ways to irrigate crops. The Kyoto Protocol Agreement encourages countries like Ireland to take steps to reduce CO₂ emissions and to reduce our dependence on fossil fuels. All of this is forcing us to look at other sources of energy that can be used in Ireland and which will not damage the environment. A change in climate also leads to

some changes in the distribution of species with new species moving to Ireland and the possible extinction of other vulnerable species.^(x) We see this especially in the oceans around Ireland: "As climate changes, there are going to be winners and losers, both in terms of biological species and different groups of people....The cod fishermen are out of luck, but the fishermen that have decided to go after crab and shrimp are very successful now." oceanographer Charles Greene in Science Daily argues that "adapting to climate change is partly being able to predict what we can expect"^(xi) and there is little doubt that we will have to adapt to changes in climate in Ireland.

Food

Climate change caused by our over reliance on fossil fuel is having an impact on food markets internationally and in Ireland. Peak oil was reached in about 2010 and oil has become more and more expensive as it becomes scarcer. The more expensive oil becomes the more expensive it becomes to produce and transport food. Food that travels from the other side of the world to Ireland will cost a lot more than it does now with implications for lifestyles and the availability of certain goods in Ireland. Some food may be priced out of the market. Transporting food from countries many thousands of miles from Ireland is also contributing to the rise in Co2 emissions and to Climate change. People in Ireland will become more aware of 'food miles' and have already began to look for markets closer to home for fresher produce. It may also become more difficult to produce and source foods we now take for granted with changes in the climate and massive increases in the price of oil. This may be viewed as an opportunity for Ireland to lead the way in sustainable food production globally. The Cloughjordan community farm shows how communities in Ireland can work together to reverse the negative impact the growth in global population is having on life in Ireland. The Cloughjordan model is having a positive impact on the local community, with the community pooling resources to develop a sustainable way of life. Locally grown food is not only healthier but also helps support employment and the local economy. Locally produced food has very little or no food miles and the idea of Community allotments and farms contribute to building a positive Community spirit and relationships. Perhaps one of the impacts of global population growth on life in Ireland will be an improvement in our rating on the happiness index with people rebuilding a sense of community and interdependence. "By buying local, it means that your food isn't traveling long distances by planes, trains, trucks, and ships, which all consume energy and spew pollution that contributes to global warming and unhealthy air quality."^(xii) Producing more of our food locally would make Ireland more sustainable, bring down our CO2 emissions and help to combat climate change. The Cloughjordan model would also provide sustainable employment for local people in this time of global recession.

Energy

"When people in an American city turn on the air conditioning or people in Europe drive their cars, their actions have consequences. Those consequences link them to rural communities in Bangladesh, farmers in Ethiopia and slum dwellers in Haiti. With these human connections

come moral responsibilities, including a responsibility to reflect upon—and change— energy policies that inflict harm on other people or future generations.”^(xiii) Energy usage is something that can not be avoided even with fewer people on the planet; we all use and need energy every day. We can not do without energy so, in Ireland, we need to look at ways of using the energy resources available to us more efficiently. Oil is running out and is non renewable, it is also harmful to the planet. The increase in global population will contribute to oil supply depletion with demand outstripping supply. The growth in global population causes an increase in the demand and consumption of energy, the “global per-capita economic productivity and energy consumption have both increased more rapidly during the twentieth century than has the human population.”^(xiv) David Pimentel, Professor Emeritus at Cornell University, believes that "With the imbalance growing between population numbers and vital life sustaining resources, humans must actively conserve cropland, freshwater, energy, and biological resources. There is a need to develop renewable energy resources.”^(xv) He goes on to say that we “desperately need a liquid fuel replacement for oil in the near future.”^(xv) Peak Oil will have an enormous effect on us and on the way we live in Ireland as “98%”^(xvi) of the energy we use comes from fossil fuels and these are running out and there is no viable alternative available in Ireland. Ireland’s dependence on fossil fuels means that goods we use will rise in price, as all our needs are connected to energy availability. Increases in the cost of energy will lead to increases in the price of food and transport and of producing food. This challenges us to develop sustainable lifestyles. Ireland can become more sustainable if more use is made of renewable energy sources of which there are many. We in Ireland can see the impacts of growth in global population as a positive challenge to improve life in Ireland and the rest of Europe. Groups such as Spirit of Ireland believe that “We have the energy, imagination and skills to solve our problems and create a bright future for our children and future generations”. Spirit of Ireland hope to create employment, help reduce CO2 emissions and produce renewable energy that they believe can be exported to the rest of Europe. “Through large Power Interconnectors to Europe, Ireland can provide valuable, much needed Natural Energy to our European partners”^(xvii). Large Hydro Storage Reservoirs could be built and while this will not solve all our problems it would contribute to making Ireland a lot more sustainable and create some much needed employment to sustain the economy!

Urbanization

Changes in Global population impact not just on the Irish economy and environment but have a social impact also. With the growth in global population people moved from rural to urban areas to find work. In Ireland this movement to towns and cities happened also happened as a result of planning laws restricting one off housing developments. There was a move away from

traditional farming as many people were finding it hard to earn a living on the land. "Often farms are not very profitable, so farmers work hard for relatively small rewards..... it is more expensive to produce food in Europe than in countries which do not oblige their farmers to respect similar standards. The cost of farming sustainably while producing food is likely to rise as the impact of climate change increases."^(xviii) Farmers in Ireland are therefore relatively high-cost producers of food, as they strive to farm in a sustainable and environmentally friendly way. Much of this move away from farming was driven from Europe with the Common Agricultural Policy and strict regulations around food production and environmental protection that are beneficial but come at a cost for Irish farmers. "While today's CAP still provides farmers with direct income payments, they must produce what the market requires, with less assistance. But this is not easy. Farmers ... have additional responsibilities and they operate in a natural environment that can be difficult and unforgiving. They must live by the market, but they too are looking for some stability in a world of market volatility and climate change"^(xix) People often had to leave rural areas to go to University and remained in urban areas after they finished their education. One of the positive impacts of urbanisation was that it led to the development of industrial areas which created employment for people. The down side of this is that all this development led to an increase in CO2 emissions and many social problems with people grouped together without adequate facilities and resources.

Water

"Water may be the resource that defines the limits of sustainable development. It has no substitute, and the balance between humanity's demands and the quantity available is already precarious."^(xx) The water we use today is the same water that was used one million years ago and will be the same water that will be used in one million years time. This water has been used and reused and this water cycle will continue into the future. About 98% of the earth's water is contained in the ocean and is unusable for drinking because it is salty, 1.6% of the planet's water is frozen, 0.36% is underground, 2% is fresh water, with less than 1% of water available for direct human use, the rest of the planet's water is either floating in the clouds or locked in animals and plants. When we pollute this water we are reducing its availability without which life is not possible. Changes in global population, especially the current rapid growth, impact on water supply and life in Ireland. "There has been a serious drop in water quality over the past thirty years"^(xxi) and this is because "Ireland has evolved from a nation of primarily low impact extensive agriculture to one of increased population, industrialisation and intensive agriculture"^(xxii) as we try to keep pace with global markets. The more industrialised the world becomes the more damage to our water supply. Less than one percent of the earth's water to be shared among 8 billion people and every animal and plant on our planet seems like a major task. In Ireland we are fortunate to have a good supply of water but the increasing global

population will put water supply under strain causing a decrease in economic development and lowering our living standards. Ireland is surrounded by salt water and may in the future go on to use a process called Desalination. “Desalination is a process that treats saline water to remove chlorides and dissolved solids, resulting in the production of fresh water”.^(xxiii) This is a process that we should invest in to combat the impact of reduced water availability caused by, among other things, a rise in global population. This desalination process would have a positive impact on life in Ireland and lead to the creation of employment as well as providing a good supply of clean fresh water.

Conclusion

The implications of changes in global population on life in Ireland are many and complex. I have examined Climate Change, Food, Energy and Water but there are many more. Changes in global population will impact on social, economic and environmental life in Ireland. Achieve a balance between the fulfilments of human needs and maintaining the natural environment will become more difficult but is vitally important as one cannot operate without the other. All of the implications and the impacts of changes in global population on life in Ireland are interconnected and revolve around peoples search for happiness and our need for energy. The impact of changes in global population on life in Ireland should be seen as a challenge and an opportunity to rethink the future, to develop sustainable ways of living and renewable sources of energy. It is evident that a lot of work remains to be done in Ireland to ensure sustainability. Rapid population growth does not have to lessen our quality of life if we make the right choices and work towards changing attitudes. We can see this challenge as an opportunity to develop good and sustainable life styles with opportunities to develop alternative forms of energy that are renewable and less harmful to the environment. We have the ability to begin “self-organising adaptive systems instead of command-and-control ways of organising”^(xxiv) as the community in Cloughjordan are doing. As the global population grows we need to work together to make things better for everyone as we leave behind the consumerism of the Celtic tiger years “If you want to go quickly, go alone. If you want to go far, go together.”

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