A comparative study between sustainable

Business

This thesis is dedicated to my family and friends, who have been with me through the years, in times of good and bad. ABSTRACT The conventional farming model has been the agriculture industrys preferred method of cultivating crops since the 20th century (“ Conventional Farming”, n. d.).

This model advocates the use of heavy machinery, chemicals and vast amounts of energy input.

So far, the expenses have been Justified in the results as conventional farming has been extremely productive, able to furnish low cost food (Altieri and Nicholls, 2001) and has been a great help in alleviating hunger during humanitys major opulation expansions (Prasad, 2005). However, questions have arisen over its environmental impact on the Earth, especially in the long term. Over-reliance on synthetic chemical fertilizers and pesticides, among other aspects of conventional farming, is having major negative impacts on public health and the environment (Pimentel, Hepperly, Hanson, Douds and Seidel, 2005).

Various kinds of heavy machinery were invented and manufactured.

There were new breakthroughs in the development of chemicals for use as fertilizers, pesticides and herbicides. The rapid rise of mechanization and use of chemical inputs increased agricultural efficiency many times over. The agricultural revolution had begun. Early in the century (“ Agriculture”, n. .

), it took one American farmer to produce food for 2. 5 people. By 1999, due to advances in agricultural technology, a single farmer could feed over 130 people. In 1945, (“ Agriculture”, n. d. these developments which had largely

been taking place in developed Western nations had been exported to the rest of the world via the Green Revolution.

More than the pesticides and synthetic nitrogen (fertilizer) it exported, it also brought a new way to food cultivation with it: industrial or modern agriculture. In many ways, the efficiencies and cost effectiveness that this form of agriculture provided was a boon. In 2005, Prasad commented that it was great help in averting hunger because the human population more than doubled itself during the last half of the 20th century.

The Green Revolution has allowed the world to produce a surplus of food. However, questions have started to arise over its environmental impact on the Earth, especially in the longer term. In 2001, Altieri and Nicholls cited in their report that Audirac acknowledged evidence has accumulated showing that whereas the present capital and technology-intensive farming systems have been extremely productive and able o furnish low-cost food, they also bring a variety of economic, environmental and social problems.

Over-reliance on synthetic chemical fertilizers and pesticides, among other aspects of conventional farming is having major negative impacts on public health and the environment (Pimentel, Hepperly, Hanson, Douds and Seidel, 2005) Organic Farming However, people have started to realize the effects of adopting industrial agriculture much earlier on. As early as the 1900s, Sir Albert Howard argued that the overuse of pesticides and synthetic fertilizers damages the long-term fertility of the soil. He was the father of modern organic agriculture. His work later went on to inspire luminaries such as Lade Eve Balfour and J. . Rodale who furthered the organic movement.

In his report, Lampkin (1999) mentions that organic farming is being increasingly recognised by consumers, farmers, environmentalists and policy makers as a possible model for sustainability in agriculture. It is a system stressing priorities on cultivating food without the damaging and negative side effects of the conventional model. Recent scientific studies have uncovered encouraging results on the viability of organic farms where nvironmental and even economic factors are concerned. Currently, organic farming is steadily growing into the mainstream