A growing world population and a changing diet have led to continuously expanding areas of agricultural land, despite parallel increases in yields from existing cropland. Yield growth will play an important role as only a slow expansion of agricultural land is expected. The most important grain and feed is corn with a world production of around 820-860 million tons a year. Today hybrid seed is used on essentially all land planted to corn. The world’s three largest corn exporters with around 80% share of world corn trade continue to expand planting of GM corn varieties.

The reviews support the contention that adoption of GM corn leads on average to higher economic benefits for farmers than conventional (non-GM) crops. An important finding of the analysis is that the kind and magnitude of benefits are heterogeneous across crops, traits, countries and regions. Though yield increases are significant for specific countries, no general increases of crop yields for analysed countries were observed due to the adoption of GM corn. This is due to the fact that insect and herbicide resistant traits are not designed to increase crop yield. Nonetheless, GM corn is a potential tool to increase farmers’ income and thus might contribute to poverty reduction and sustainable social and rural economic development. It is important to note that most of the studies did not include evidence other than farm-level economic effects. Thus, more macro-effects of growing GM corn on the environment and social welfare, as well as indirect effects of the cultivation of GM corn and its possible effects on health and biodiversity, are not considered.

Keywords: GM corn, socio economic issues, environment, case study