



# World agriculture in focus in the UK

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For KONDININ GROUP

After visiting New Zealand, Kondinin Group Nuffield scholar Brendon Tierney, reports on the second leg of his around the world tour.

**“The second leg** of my Nuffield journey took me to the United Kingdom for the Contemporary Scholars Conference where all the 2009 Nuffield Scholars from Australia, New Zealand, the UK, Ireland, France and Zimbabwe gathered for the week. The focus of the conference was on the global issues facing agriculture: food security and the environment. We also had the opportunity to learn about some of the history of Europe and the political systems in place.

## Food security

During the middle ages, the world population was estimated at about half a billion people. Currently we have a population of about six billion and the consensus forecast is for a world population of nine billion by 2050. We have consumed more resources in the past 200 years than in the previous 2.5 million years.

While the world currently produces adequate amounts of food, distribution of that food is a major problem. There are currently one billion undernourished people but there are a similar number who are overweight. When you consider the riots caused by high food prices in the last year, a genuine food shortage looms as a major security issue, especially in the developing nations. The challenge for the world will be to continue to increase food production while at the same time preserving our environment for future generations.

## Food production and the environment

Between 20–30 per cent of the environmental impact of the world’s population comes from the production of food and drink. By comparison, private transport accounts for 15–20% of the impact.

So what can consumers do to reduce this impact?

The first thing is to stop wasting food. In the UK, one third of all household food purchases are wasted. At the retail level, this figure is only 10%.

There is a perception that buying ‘local’ food is more environmentally friendly due to reduced transport. In reality, this is not a major issue. The fact is that a 3.5 mile drive to the supermarket produces as much pollution per unit of food as the air freight involved in the distribution process.

Similarly there is a perception that packaging is a major problem but the packaging helps preserve food and as a result, reduce waste.

In terms of emissions trading, a distinction needs to be made between the ‘production’ and ‘consumption’ viewpoints. The Kyoto Protocol is based on a production viewpoint and under this system the UK has reduced its emissions by 12% since 1990. But, measured by consumption, the UK’s emissions have actually increased by 19% in the same time. Effectively the carbon pollution caused by the consumption in the UK has ‘leaked’ to another country.

## New developments

Genetically modified (GM) technology has the potential to deal with some of the food and environmental challenges the world faces. While the technology does not have complete support as yet, there are GM products being consumed in Europe today.

The last ‘kick’ in US corn yields coincides with the introduction of GM corn. France and Italy are yet to adopt the technology and their productivity curves have reached a plateau. The GM technology also offers potential to reduce pesticide use (for example the BT insecticide gene which gives very selective control of insects). In some cases, the reduction in pesticide use has been as high as 80%. This is significant given that at one point in time, more than 500 Chinese farmers were dying every year due to manual chemical applications.

In terms of food safety, there are 300 million people in the USA and Canada and they have been consuming GM products for 12 years. That equates to an estimated six trillion GM meals and as yet there has not been one substantiated case of an adverse health outcome.

Obviously, there are risks associated with this technology, especially in terms of resistance and the transfer of genes to other plants. But, experience with crop rotations and using refuge plants to attract insects has shown these risks can be managed.

## European Union politics and subsidies

Agriculture is a key political issue in the European Union (EU) in terms of the payments made to farmers under the Common Agricultural Policy (CAP) and the environmental impacts of farming.

During 1980, just over £10b was spent on CAP payments (0.1% of gross domestic product (GDP)). By 2007, that figure had grown to more than £50b (0.5% of GDP). But, the most important change has been the nature of the payments made to farmers. Historically, these payments sheltered farmers from market signals and resulted in over production, which in turn led to lower world prices. In recent years, the system has been reformed to be based around ‘decoupled’ payments, which are paid on a per hectare basis and leave farmers free to react to market signals. So, while subsidy payments to European farmers have been increasing, the recent reforms mean the subsidy payments are less likely to cause market distortions.

The decision making process in the EU involves three main bodies: the EU Commission, the EU Parliament and the EU Council. The Commission is an executive body with commissioners appointed by the member states. The Commission is responsible for the development of policy including the areas of agriculture, the environment and trade. The Parliament is the ‘voice of the people’ with 784 elected members. The Parliament has a strong green influence and is gaining more legislative power in areas like agriculture. Finally, the Council is the highest decision making body consisting of prime ministers from across Europe — each with different voting powers which are weighted according to population.

The key point from this is that there are three different bodies with different views and agendas. This results in an effective industry lobby which is essential if the interests of all are to be considered in the decision-making process.

## Reflection

The long history of Europe has played a huge part in shaping their agriculture as we see it today and we cannot ignore this fact. My preconceived idea of Europe was of inefficient, subsidised farming and to an extent this remains the case. But after visiting the battle fields of World War I, I have a much greater appreciation for the important role the EU has played in ensuring the food supply and peace throughout Europe.”

Next stop ... Brazil!

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