Sustainable Living in Germany – Report to the Langara Research Committee

From Katrina Erdos, Departments of Geography and Environmental Studies

I would like to thank the Langara Research Committee for their support of my research, in the summer of 2012. I was able to utilize the funds awarded by the LRC to help offset travel and per diem costs, which were incurred as a result of my research having been situated in Germany.

A well-known image of sustainable development is that of a triangle in which the three corners are occupied by the concepts of environmental protection, economic development, and social equity. This image is a representation of sustainable development as existing at the centre of the triangle, and being achieved only by balancing the differences and tensions that exist between the interests situated in each corner. The goal of my research was to utilize a case study approach to research all three aspects of sustainable development, as they were manifested in specific situations in Germany.

One reason for focusing Germany is that Germany is very highly regarded in terms of various measures of sustainability. For example, in 2012, Germany is ranked 11th in the world in terms of the Environmental Performance Index (EPI), formulated by Yale University. This is in comparison to Canada, which is ranked 37th, and the US which is 49th. The EPI is a comprehensive measure, which tracks environmental performance over a decade, by monitoring a wide variety of indicators, such as child mortality, amount and types of atmospheric particulate matter, indoor air pollution, SO2 per capita (and per GDP), water quality, degrees of critical habitat protection, pesticide regulation, forest loss, renewable energy, CO2 per capita (and per GDP and per kWh), and so forth. It should also be noted that while Germany occupies 11th place, 9 of the top-ranked countries are in Europe, with the only (and notable) exception of Costa Rica, which is ranked in 5th place.

What accounts for the difference in rank? Both countries (and broader North American and European regions) are northern, industrialized, affluent societies. In addition, Canada's political and economic system, and official culture, is that of a derivative European model. In terms of relative degrees of affluence, Canada's per capita GDP (2008) is US $31,600, compared to Germany's, which is US $28,400. This difference might play a role, but it should also be noted that the GDP's of Switzerland and Norway, which are ranked #1 and #3 respectively on the EPI, are both *higher* than Canada's (US $34,400 and US $40,800 respectively).

Through my research, I was able to see many manifestations of Germany's higher EPI ranking, and was also able to conduct a number of informative qualitative interviews.

Many German cities have effectively increased the proportion of trips that are taken by bicycle, as compared to private vehicles. For example, cities such as Berlin and Munich have increased the number of trips taken by bicycle by approximately 37% and 34%, respectively. Systematic strategies have been employed to effect such increases, such as allowing bicycles to be taken on public transit (including trains and trams) at all times of the day, provision of public transit space specifically for bicycles, congestion charges in city centres, limiting the amount of car parking

available, increasing the amount of bicycle parking available, introduction of inexpensive bicycle rental programs, clear marking of bicycle lanes, clear distinctions on sidewalks as to pedestrian and bicycle zones, allowing cyclists to ride on sidewalks, traffic lights that clearly differentiate between vehicle, bicycle and pedestrian traffic, and so on.

Another example of Germany's higher EPI ranking is evident in the widespread adoption of renewable energy technologies. In the southern half of the country in particular, the use of roof top solar panels is striking. Germany does have a 'feed-in tariff' in place, which helps to offset the investment costs associated with installation of solar panels, and this would certainly account to some degree for the adoption of such technology. For example, one person I interviewed explained that it would only take 10 years for her to pay off the low-interest loan (provided by the government) on the solar panels she had installed on her condo, as a result of the feed-in tariff, which allows her to sell some of her electricity.

On the other hand, politics and some interesting cross-border environmental concerns seem to have also played a significant role. One aspect of this is that there is widespread support for the German Green Party in the south, apparently more so than in northern Germany. The reasons for this are not completely clear to me, however according to another individual that I was able to interview, there may be a connection to a proposed nuclear power plant, which was to be built on the border that Germany shares with France, in the late 1970's/early 1908's. This proposal was resisted (on both sides of the border) by a broad coalition of environmentalists and, perhaps most significantly, farmers, who were concerned about the impacts of the condensation from the power plant's cooling towers on their vineyards. The nuclear power plant was never built, and southern Germany instead became a European leader in research, development, education and utilization of solar power.

These are just some of my research findings. Please feel free to contact me, should you be interested in further information.


27
alex


Richard-Fehrenbach-
Gewerbeschule
Walther-Rathenau-
Gewerbeschule