



This summer a group of MSc students at Cranfield University undertook a scoping study, sponsored by the Gas Safety Trust, which investigated the environmental and health impact of the increasing use of biomass fuel for the production of heat and electricity generation. Biomass use represents fuel switching away from other fossil fuels. The group started from the premise that burning biomass creates a range of gases and particulate pollutants, which have different characteristics to those produced by combustion of other fuels.

The work was focussed on Milton Keynes, however the findings have relevance to other regions of the UK as well. The project used a questionnaire to understand public perception of biomass as well as a small scale trial to understand the effect upon indoor air quality. The trial noted that the main fuel that biomass would displace is natural gas and comparatively the switch would increase carbon monoxide (CO) emissions as well as producing ash.

The survey found that those questioned were more aware of the advantages of the biomass than the disadvantages. In fact, around half of those asked believed that the use of biomass would have a positive impact on climate change while only 10% believed that they would have a negative effect.

In addition to this, 61% of respondents (295 based on a combination of paper and online questionnaires collected over 2 days in Milton Keynes) said that they would like to have a biomass heating device in their home. It also found that while people were generally aware of the risks of CO a significant proportion were unaware that CO is produced when biomass is burnt.

Chris Bielby, Chairman of the Gas Safety Trust said:

“The Gas Safety Trust was delighted to be working with Cranfield University on this piece of

work. The project highlighted how little we know about biomass and its potential to cause carbon monoxide poisoning. As biomass heating appliances have become an increasingly popular choice for consumers over the last few years, it is essential we make sure we understand the risks and that consumers are aware of the possible dangers.”

Dr Derrick Crump, Project supervisor, Environmental Technology Group, Cranfield University said:

“We were delighted to work with the Gas Safety Trust and Milton Keynes Council to investigate the potential environmental and health impacts associated with our increasing use of biomass fuel. This was a challenging group project for our students who highlighted a number of issues for further investigation including the need to increase public awareness of combustion gas hazards and for local authorities to be aware of the potential adverse effects of biomass burning on air quality.”