

Burning wood for fuel could kill 10 million Africans

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[NAIROBI] Widespread use of wood as a household fuel in sub-Saharan Africa will cause ten million premature deaths by 2030 and make a significant contribution to climate change, says a study published in Science today (1 April 2005).

The study predicts that unless African households adopt cleaner, more efficient fuels, the equivalent of 6.7 billion tonnes of the greenhouse gas carbon dioxide will be released into the atmosphere by 2050.

This represents 5.6 per cent of Africa's total expected emissions.

In 2000, nearly 470 million tonnes of wood were consumed in sub-Saharan African homes in the form of firewood and charcoal.

Per capita, this is more than is used in any other region in the world.

For instance, China and India together used nearly one-third less in the same year despite a combined population that is more than three times that of sub-Saharan Africa.

As well as contributing to climate change by emitting greenhouse gases, wood burning poses a significant threat to human health in general, and to the health of women and children in particular.

The study, led by Daniel Kammen, director of the renewable and appropriate energy laboratory at University of California Berkeley, United States, estimates that unless patterns of fuel use are changed, about eight million children and two million women will die prematurely of pulmonary disease by 2030.

Kammen says it is essential to research and adopt safer and less polluting fuel supplies across Africa.

Switching to fossil fuels such as kerosene and liquid petroleum gas would reduce the amount of greenhouse gases emitted by African households by between one and ten per cent, and delay up to 3.7 million deaths, says the study.

However, high costs put such fuels beyond the reach of many people in sub-Saharan Africa.

The other alternative is to use more charcoal instead of wood. This would also reduce the number of predicted deaths but it could nearly double greenhouse gas emissions.

Kammen says that the most practical solution would be to combine sustainable forest management with more efficient kilns for making charcoal and stoves.

According to his team's predictions, this approach could reduce greenhouse gas emissions from household fuel use by up to 65 per cent and prevent three million premature deaths.

Anthony Kariuki, a senior officer at Kenya's National Environmental Management Authority, told SciDev.Net that the act that established his organisation provides incentives for companies and individuals working on environmentally friendly technologies. He said it would support novel methods of burning charcoal in Kenya.

He added, however, that the organisation's policy is to reduce the use of charcoal because of its contribution to greenhouse gas emissions.