While the science is becoming more alarming, politicians are slow to act. (December 6th 2011)

Fr. Seán McDonagh, SSC

Three years ago a claim in the Fourth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC), that the glaciers in the Himalayas were receding faster than on any other part of the globe and that they could disappear completely by 2035 was seized upon by climate deniers as an example of the questionable science behind climate change. The source for the claim was quotation from an Indian glaciologist which appeared in the *NewScientist*. The data had not been peer-reviewed.

The story behind this mistake received extensive coverage in news media across the globe. Many people, who were beginning to take the science of climate change seriously, reverted back into a sceptic mode. Pressure was brought to bear on Rajendra Pachauri, the chairperson of the IPCC, to resign.

The Impact of Climate Change on the Himalayas and Tibetan Plateau

While the 54,000 glacier covering an area of over 60,000 square kilometres in the Himalayas may not disappear in 35 years, they are under serious threat, which will only get worse if politicians here in Durban fail to deal effectively with greenhouse gas emissions. The tragedy is that, despite a greater knowledge of the dangers of climate change and considerable efforts to invest in non-fossil fuel energy sources, little enough has been achieved. This somewhat depressing data has emerged in a recent study conducted by the Tyndall Centre for Climate Change based at the University of East Anglia. Professor Corinne Le Quéré, who is the director of the Centre found that fossil fuel emissions rose by about 3.1 per cent globally since the Kyoto Protocol was negotiated in 1997. In 2010,

for example, fossil fuel emissions rose by 5.9 per cent [1] The study predicts that, unless real changes are put in place, greenhouse gas emissions will grow by 3 per cent over the next number of years. One of the most depressing elements in the data according to Julia Steinberger, a lecturer in ecological economics at the Sustainable Research Institute at the University of Leeds, is that emission do not seem to decrease much even during a recession. "The worst economic crisis in decades was apparently a mere hiccup in terms of carbon emissions."[2]

Professor Le Quére warned that it was necessary to do something urgently about the 80 per cent of our energy which still comes from burning fossil fuel. Unless this is tackled urgently there is very little hope of holding global temperature rise to less than 2 degrees Celsius. Any increase beyond that will result in catastrophic and irreversible climate change. Most frightening of all, given the slow pace of the negotiations here at Durban, is the judgement of these scientists that emissions need to peak by 2020 at the latest.

This, of course, brings us back to the Himalayas. A Swedish-funded study by the Kathmandu-based International Centre for Integrated Mountain Development found that there was a doubling of ice and snow lost in the 10 glaciers which have been studied for the past 30 years. The report claimed that there was a shrinking in both the central and eastern Himalayas. It seems that glacial erosion has increased in recent years. The study found that there was a depletion of 22 per cent in the Bhutan glaciers and 21 per cent in Nepal. The loss of volume was even greater in the higher altitude central Himalayas and on the Tibetan Plateau. In the iconic area around Mount Everest the data showed a marked loss in glacial mass of between 2002 and 2005, in a period of three

[1] Fiona Harvey, "Carbon dioxide emissions show record jump," *The Guardian,* December 5, 2011, www.guardian.co.uk

[2] ibid

years. One of the reasons for this speeding up of the loss of glaciers is that the rise in temperature in the Himalayas has been significantly above the global average of 0.74 degrees Celsius over the past 100 years.

Serious depletion of ice and snow from the Himalayas and the Tibetan Plateau will have devastating consequences for people in Asia. All the great rivers of Asia – the Indus, Ganges, Brahmaputra, Salween, Mekong, Yangzi and Yellow River - all begin in the Himalayas or the Tibetan Plateau. A major reduction in the volume of ice and snow on these mountains will mean that there will be much less water for drinking, personal hygiene and agriculture for the almost 2.5 billion people who depend on these rivers

In today's (December 6th 2011 – *ECO* - the daily news report from the Climate Action Network (CAN)) there is a letter addressed to the Ministers who have arrived for the final few days of negotiations. It begins, "the disconnect between the climate talks and the scientific reality is stark. In the UNFCCC process, progress is being made, but in real life your negotiators have been sleepwalking as the world burns." I think that quotations capture what most of us feel about the slow pace of the negotiations at this point. One ray of hope was an announcement from Beijing that China would put limits on its emissions – the world's largest – as early as 2020. Until now, China has only measured its emissions in terms of energy intensity per unit of Gross Domestic Product (GDP). Although Japan has said it would not join the EU in renewing the Kyoto Protocol, its climate envoy, Masahiko Horie, said it wanted to start discussions and adopt, as soon as possible, a comprehensive international agreement that would involve all major economies.