

The Economics of Climate Change: The Fierce Urgency of Now

Speech by Angel Gurría, OECD Secretary-General

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Ministers, ladies and gentlemen.

I am delighted to welcome you to the OECD Side-Event. The OECD has been working for two decades on the multidimensional challenge of climate change. Our work on the economics of climate change draws on our joint work between governmental and technical experts from member and non-member countries, from a wide range of sectors and perspectives. Our aim is to build a solid economic footing for the post 2012 climate architecture.

Nowadays, there are no more doubts that climate change is happening, and that it is happening fast. Doing nothing is not an option. We know that the cost of inaction is far greater than the cost of action. Let me share a few advance results from our forthcoming Environmental Outlook with you: OECD simulations estimate that if governments fail to react, greenhouse gas emissions will grow by 52% by the year 2050, and world temperatures would rise between 1.5°C and 3.4°C by 2050 compared to pre-industrial levels.

The Stern Review provided a first indication of the cost of climate change, (a loss between 5 to 20% of GDP to the world economy), unless we act in a timely and ambitious way. The recently published Human Development Report (UNDP) shows that climate change and poverty are closely correlated, and it warns that delaying action will translate into more families in poverty and exposure of the most vulnerable to higher risk of ecological disaster. Just last week, the OECD published a new report on the vulnerability of major cities and their populations to the impacts of climate change .

The OECD report says that by 2070, the population at risk from coastal flooding could triple , that nine out of ten of the most vulnerable port cities (according to population exposure) are in developing countries, that Mumbai has the highest number of people exposed to this risk now, and that by 2070 Kolkata (Calcuta) would take over this dubious “leadership” role.

A bleak perspective. But the good news is that we know what can be done to limit further deterioration. Carbon taxes, tradable emissions permits, incentives for climate-friendly innovation, standards and regulations are already helping to address climate change in many countries. It is also good news that we are now sure that ambitious climate change policies are affordable. The forthcoming OECD Environmental Outlook shows that putting the world onto a pathway to stabilise greenhouse gases in the atmosphere at about 450 ppm CO₂-equivalent would reduce GDP growth rates globally by an average of less than one-tenth of a percentage point (0.1%) per year from now to 2050. This seems affordable given expected growth in living standards and the various calculations of the cost of inaction.

How do we get there? A price on greenhouse gas emissions is one of the key incentives for emissions reduction.

According to our policy simulations, one way to achieve significant reductions (-39% compared to 2000) in world GHG emissions by 2050, and one which would also allow us to stabilise the atmospheric concentrations at an acceptable level (450 ppm CO₂ equivalent), would be to introduce a price on carbon that could start relatively low, but increase steadily over time.

Thus, our simulation found that we could reach this pathway with a global tax on greenhouse gas emissions equivalent to 0.5 cents of a US dollar per litre of gasoline in 2010, which then increases to 1.5 cents in 2020, 12 cents in 2030 and about 37 cents in 2050.

Ambitious policies to tackle climate change should lead to a structural shift in the economy – away from carbon-intensive activities.

But to achieve this goal, we must ensure that least-cost policies are put into place, that all big emitters participate early in the action, and that all gases and sectors are covered by the agreements and policies. If we move towards less efficient policies, for example by exempting some of the most energy-intensive industries or by excluding some countries from action, the costs would go up significantly.

A number of countries have focussed their climate change policies on subsidising the “good” solutions, rather than on taxing the “bad” ones. This is an inefficient choice; because this tends to increase the costs of reducing GHG emissions. Subsidising good behaviour also risks locking in technologies that may later be considered inefficient. Taxing bad behaviour, on the other hand, provides a consistent incentive for increased efficiency and innovation.

And innovation is key to improving the prospects. Advances in energy technologies and improved energy efficiency can achieve major reductions in GHG emissions by 2050. New technological solutions are developing, such as carbon capture and storage and hybrid vehicles. And they are likely to become increasingly cost-competitive within the next few decades. For example, if “second generation” biofuel technology becomes widely available by 2030, a number of negative effects of first generation fuels might be reduced, including the competition for agricultural lands and the impacts on biodiversity and ecosystems.

A fundamental question remains: how do we manage this transition in an economically efficient and socially responsible manner?

Our work shows that many developing countries may face far bigger GDP losses than the industrial world if a straightforward global tax policy is used. For example, in the 450 ppm scenario, the OECD would lose 0.2% of GDP in 2030, and 1.1% in 2050, but Brazil, Russia, India and China (BRIC) would lose five times as much. The losses would be particularly large in oil-exporting countries which subsidise national energy consumption but less developed countries would also see their economic growth reduced through a global GHG emissions tax. And we need to recognise that those countries who provoked climate change have a greater capacity to pay than those who joined the group of large emitters more recently.

And this is where the politics of climate change come in. The real problem is not how much it costs but who pays for it. Fair burden-sharing is largely a political call.

At the OECD, we have been devoting much attention to identifying mechanisms that could help unblock the political stalemate. Based on international experiences and best practices, we have identified a range of mechanisms for burden-sharing. One that seems to be acceptable to many governments is an emission trading permit system. Through differential target setting and allocation of emission permits, OECD countries could carry a relatively greater financial responsibility for emission reduction than developing countries.

An OECD simulation using such a cap and trade scheme to achieve the 450ppm stabilisation scenario shows that the direct investment costs of mitigation in the BRIC region would be expected to fall by more than half (compared to the globally harmonised tax scheme). The difference would be paid by industrialised OECD countries through the purchase of emission permits from the BRIC countries. The overall global costs of the mitigation effort would remain the same, but these costs would be re-distributed amongst countries.

Cutting emissions and fostering low-carbon activities will require investments in research and development of new technologies for low-carbon growth. These clean technologies need to be advanced and adopted rapidly in the developing world. The way in which this is done and how intellectual property rights are handled in this process can also play an important role in devising a fair mechanism of burden-sharing. Financing will be needed to adapt to the impacts of climate change that are already locked-in because of past emissions. These impacts will hit hardest in developing countries, who often lack the capacity needed to adapt to climate change. Furthermore, OECD analysis has shown that a significant portion of the ODA

provided by donor countries is potentially affected by climate risk. The economic and social means to support adaptation to climate change will be an essential building block of the post-2012 framework. At the OECD we are working with countries to support an effective integration of adaptation into development co-operation and sectoral policies.

In conclusion, let me say that these are just a few more examples of the many instruments and policies we have at hand to act quickly and decisively. I cannot see how we will be able explain to future generations that we knew how to avoid disaster but failed to do so because we couldn't agree at the political level. Doing nothing is not only not an option. It is inexcusable. And stalling now will only increase the challenge in the future.