A s Managing Director of the International Monetary Fund, I have spoken out about the need to prevent ourselves becoming "roasted, toasted, fried, and grilled", by global warming. I would like to take this opportunity to dispel some common myths about the appropriate policy response, and to set out how the Fund can help move policy forward.

**RECOGNIZING AND DISPELLING THE MYTHS**

There are huge uncertainties about future climate change. Maybe global warming will be less severe than scientists are projecting, but it could also be a lot more severe, and the risks from collapsing ice sheets, shifting deserts and monsoons, and destruction of the marine food chain are, quite frankly, scary.

**Myth number one** is that we should delay mitigation action until the science is more certain. On the contrary, it makes sense to insure now against the risk of damages to our homes and cars. How much action to cut emissions, just as we routinely take off the light and turning down the air conditioner.

Some might ask (though perhaps a little less vocally in light of lower energy prices) if consumers and firms do not already pay enough for energy? The Fund’s position on this (myth number three) is clear: to get the most out of labour, capital, and other resources, countries need to allocate them efficiently across different sectors of the economy, other resources, countries need to allocate them efficiently across different sectors of the economy, and to achieve this, product prices need to reflect not only the cost of supplying those products, but also any environmental costs of using them. In fact, we think – and surely this is the consensus among economists - that prices paid by users of energy, or energy-related products, need to reflect the full range of environmental costs (air pollution, road traffic congestion...), not just global warming. There is much at stake here: according to the Fund’s estimates, we effectively subsidized fossil fuel energy to the tune of US$5.3 trillion dollars (6.5 per cent of global GDP) in 2015, by failing to properly charge for supply and environmental costs.

**Myth number four** is that low energy prices are a good way to help low-income households. Work at the Fund demonstrates that subsidizing energy is an inefficient way to help these households, as most of the benefits (typically 90 per cent or more) leak away to higher income groups. Targeted measures (e.g., adjustments to the tax system, stronger social safety nets) are generally much better way to help the poor, and compensating them need only use a relatively small fraction of carbon pricing revenue. In our technical assistance we emphasize the key importance of strengthening social protection measures as countries move ahead with energy price reforms.

**Myth number five** is that carbon taxes are the wrong instrument when countries’ pledges for COP 21 typically take the form of an emissions target (e.g., a 25 per cent emissions reduction in emissions by 2030 relative to emissions in some baseline year). Why not impose an annual cap on emissions through a trading system? The problem with these rigid caps is that, as we have seen in trading markets, they can create a lot of volatility and uncertainty over emissions prices which can deter critical investments in clean technologies. It is better to meet emissions targets on average over time with explicit and predictable emissions prices. Countries should be forecasting what future emissions prices will be needed to do this, and refining those forecasts accordingly in response to experience.

It is sometimes suggested (myth number six) that carbon pricing is impractical to implement, especially in countries where environmental ministries have limited resources. There is certainly some truth to this in regard to emissions trading systems, which require monitoring of firms’ emissions and well-developed trading...
markets. But in our view, carbon taxes are the more natural way to price carbon, as the prices are more predictable and the tax revenues go directly toward environmental and fiscal goals. In fact, carbon taxes are a highly practical extension of what most finance ministries in advanced and developing countries are already doing, namely administering systems of fuel taxes. Carbon charges can be folded into existing road fuel excises and similar charges applied to coal, natural gas, and other petroleum products.

Myth number seven is that carbon pricing is just another tax to fund “big government”. On the contrary, carbon pricing is about making tax systems more efficient by raising more revenue from taxes on fossil fuels which can be used to cut other taxes that harm economic performance, such as taxes on labor and capital. The fiscal dividend from carbon pricing can be quite large – around 1 per cent of GDP or more had large emitters priced carbon at US$30 per tonne of CO2 in 2012 (see Figure 1). So it is very important (as with any tax) to use the revenues wisely – if not for broader fiscal reform, then for spending that generates comparable benefits to the economy from cutting harmful taxes. So does carbon pricing impose a big cost on the economy? It need not (myth number eight) because of the potential economic benefits from reduced tax burdens as carbon pricing revenues are put back into the economy, which counteract the adverse economic effects of higher energy costs. A caution is that we generally recommend against sudden and drastic policy changes – it is better to phase in carbon pricing gradually, to ease transitions and allow time for businesses and households to adjust.

Myth number nine is that leaving aside the benefits from a more stable global climate system (from which we all gain), individual countries are necessarily worse off from carbon mitigation. The prospects of unemployed coal miners for instance can make countries reluctant to raise fuel prices on their own. And indeed, such difficult transitions need to be eased through gradual phase-ins, worker re-training programs, and perhaps temporary assistance for vulnerable firms. The important message to get across, however, is that (as Fund work shows) a substantial amount of carbon pricing is actually in many countries’ own interests because it helps to achieve domestic environmental objectives. For example, reducing deaths due to people inhaling the air pollution caused by burning coal and other polluting fuels – currently outdoor air pollution kills more than three million people a year. So many countries can move ahead unilaterally with carbon pricing and make themselves better off, and contribute to addressing a global problem – they do not need to worry about whether other countries are making progress towards their own mitigation pledges. The final myth is that all countries have to impose the same carbon price. For practical purposes, what really matters is action by the large emitters – twenty of them account for nearly 80 per cent of global emissions – rather than actions in small emitting (especially low-income) countries. In fact, as countries think about international policy coordination as they make progress on mitigation pledges, it may be worth considering the possibility (as a complement to the UN process) of a carbon price floor arrangement among a coalition of the willing. This would leave countries the flexibility to set prices higher than the floor price, which may be efficient if they have large domestic environmental benefits or fiscal needs. Precedents for this approach include, for example, tax floor arrangements for value added taxes and excises on alcohol, tobacco, and energy products in the European Union.

**Figure 1. Revenue from $30 per ton Carbon Dioxide Tax for Large Emitters, 2012**

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**THE FUND’S ROLE**

In short, we think there is a strong case for phasing in carbon pricing – and establishing carbon taxes, especially in large emitters, and especially as part of a broader fiscal reform – as the centerpiece of countries’ efforts to meet their mitigation targets for Paris. How can the Fund help in this process? First, our analytical work provides basic guidance on the design and practical implementation of fiscal policies to mitigate climate change, and other environmental costs of energy, and quantities, for over 150 countries, the environmental and fiscal benefits of policy reform. This information helps policymakers in crafting the specifics of legislation to meet environmental and fiscal objectives and in convincing stakeholders of the benefits from reform.

Second, we can provide technical assistance in this area. In fact we are well positioned in this regard, given our global membership and considerable expertise in fuel tax design, tax administration, and energy price reforms.

Third, we are continuously promoting the policy dialogue among our members, emphasizing the key role they need to play in championing and administering carbon pricing and ensuring revenues are put to good use.

The focus should now be on getting carefully-designed policies into place that can be sustained and strengthened accordingly as we learn more about the risks from global climate change. Let us price it right, tax it smart, and do it now, so we do not end up like cooked chickens!

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**ABOUT THE AUTHOR**

Christine Lagarde became the eleventh Managing Director of the IMF, and the first woman to hold that position, in July 2011.

She joined the French government in June 2005 from her post as Chairman of the Global Strategic Committee at Baker and McKenzie. Having served as Minister for Foreign Trade and Minister for Agriculture and Fisheries, in June 2007 Christine Lagarde became the first woman to hold the post of Finance and Economy Minister of a G-7 country. From July to December 2008, she also chaired the ECOFIN Council, which brings together Economics and Finance Ministers of the European Union. As a member of the G20, Christine Lagarde was involved in the Group’s management of the financial crisis, helping to foster international policies related to financial supervision and regulation and to strengthen global economic governance. As Chairman of the G20 when France took over its presidency for the year 2011, she launched a wide-ranging work agenda on the reform of the international monetary system.

Christine Lagarde graduated from law school at Paris West University Nanterre La Défense, and obtained a Master’s degree from the Political Science Institute in Aix en Provence. She was named Officier in the Légion d’honneur in April 2012.