

Interview with Frederic Ximeno

# «The environment is the way to change the economic model»

NÚRIA PELÁEZ

The future will be green or there will be no future. Frederic Ximeno, Director General of Environmental Policies and Sustainability at the Department of Environment and Housing of the Government of Catalonia, has a clear idea on it: the environment will play a key role in the new economic model emerging from the crisis. An ultimate drive for renewable energies, reduction of CO<sub>2</sub> emissions, the shift of the consumption pattern or energy efficiency improvement in all industrial areas are some issues he thinks Catalonia will urgently need to place on the political and economic agenda.





**It seems that the economic crisis has achieved what all biologists and environmentalists of the world hadn't: to challenge the growth model.**

As a matter of fact, change already took place earlier. Right now, sustainability and green economics are a key driver of developed economies, but the turning point did not come with this crisis but a little before. A key moment was the publication of the **Stern report**, which suggested that the cost of climate change could reach 20% of GDP unless immediate action was taken. This process now appears as an opportunity to leave behind the crisis, and people start talking about the **green New Deal**, but it all started earlier and is now by and by entering into the collective mindset. What has created this perspective was not the crisis but twenty years of increasingly deep environmental know-how, the progressive increase of social awareness and inclusion of economics into this vision. Two years ago, a conservative politician like Durão Barroso already suggested the need for a post-industrial revolution. It is not the crisis what set this idea free, but since the idea was already out there, it can be asserted that the environment is the way to change the economic model.

**«Environmental indicators did not go along the lines of good economic results in Catalonia.»**

**The so-called **Kuznets curve** relates economic growth with environmental quality. At what point of the curve are we now?**

The last ten years have been a very prolific decade with big growth, especially in Catalonia. However, we have a whole set of environmental indicators that did not go along the lines of the good economic ones. But positive things have also been done: we have stabilised the creation of waste per capita in the last three or four years, there has been great improvement in the industrial use of water and a reduction has also been achieved in households. Besides, we have done a lot of work in the end of the pipeline: for instance, waste management has improved clearly. We have improved, there are things that

make us think that a green economic model is possible and we have proven it in times of economic growth.

**A new summit on climate change will be held in Copenhagen next December, in which the **Kyoto protocol** is to be overhauled. Will the current economic situation affect this meeting and its outcomes?**

A fundamental change has taken place in this process, which is the change in the US Administration. The Bush administration had been a big obstacle because it refused to have the United States enter the process. Contrarily, the Obama administration wishes to adhere swiftly. What can occur is a shift of leadership that is now in Europe's hands; in fact, the European Parliament and the European Commission have set their own goals for 2020 and created tools to meet them.

The other big global player is China, which is right now the main CO<sub>2</sub> emitter in absolute terms. Copenhagen will necessarily bring about an agreement between the US and China, to which Europe will adhere. However, this agreement will not exactly go along Europe's lines. The US are now ready to take commitments to keep by 2020 the same emissions level as in the 1990s, while Europe suggests a 20% reduction. However, the US suggest an 80% reduction by 2050, a long-term but very strong commitment. But the most important is that this subject is now in the focus of politics.

**Barack Obama wishes to turn the United States into the great world leader of the movement for renewable energies and against climate change. Was the world needing such a leader to tackle these issues?**

What we needed was that the US entered the process; this was indispensable. If on top of this, they do it with a charismatic leader creating hope and pushing for an economy based on environmental innovation, the better. The US Environmental Protection Agency already had all the job done and all its systems working; the only thing missing was an administration doing this political step.

**There has been criticism by emerging countries about being now asked to comply with environmental requirements Europe didn't have during its own industrialisation, and they claim their right to do their own «dirty» industrialisation. Are these arguments outdated?**

No, they are not yet. In the last conventions on climate change, this has been a key issue. Developing countries, especially emerging ones such as China, Brazil and South Africa have been very tough in this respect. They agree in taking commitment but point out that this requires investment by the developed world. They ask to be given the technology to follow a different industrialisation model under the threat that they will otherwise do the same kind of industrialisation Europe or the United States did. There is the possibility of doing technology transfer in these terms, but there may be also a business opportunity. For instance, Germany has no sun for obtaining solar energy but it is developing the technology to do so and later transfer and export it. The thing is that selling the technology or doing a reasonable transfer of any given technological process does not depend on governments but on patent owners, and this problem has not been solved yet.

**«Wind energy will not be subsidised for a long time, but photovoltaics still has a long learning path ahead.»**

**It seems that rather than a technology problem, it is a matter of cost: environmental dumping is the word. Is it feasible that these countries take on a higher environmental cost, thus having less competitive products?**

It is difficult to say. We also need to do our homework in taking on the environmental cost: if we do it we can ask others to do it as well, but it is not so easy. At our Department, we have promoted a piece of work on CO<sub>2</sub> emissions from a consumption perspective, in which a strong increase in imports of products from countries with no commitment with emissions reduction has been detected. The balance is

### Frederic Ximeno

Frederic Ximeno (Barcelona, 1967) obtained a degree in Biology from the University of Barcelona and is an urban planner and professional master in Territorial and Urban Planning Studies. Prior to his nomination as Director General of Environmental Policies and Sustainability at the Department of Environment and Housing of the Government of Catalonia in 2006, his professional career had concentrated on environmental, territorial and urban planning in the private industry. He has worked at the Estudi Ramon Folch, GFE-SOCINTEC and the Centre d'Estudis de Planificació and participated in environmental and territorial planning projects in and outside Catalonia. At international level, he has been deputy director of the urban development master plans of Santa Ana and Sonsonate (El Salvador) and took part in the environmental and territorial assessment in Juárez (Mexico). Another field of work has been environmental management and sustainability progress assessment through defining and implementing indicator systems and environmental management models, such as development offices of the Agenda 21 and the Energy Observatory of Barcelona.



▲ Frederic Ximeno is an expert in environmental, territorial and urban planning.



thus the same as CO<sub>2</sub> is not a local problem. The aim is to keep a given global level. It is not only about asking developing, especially emerging countries to implement technologies and take on costs, but we also need to be able not to do this transfer.

**Some countries like Russia say that climate change is good for their interests. How can climate change modify the global economic landscape?**

It is true that some areas in the North can benefit from new possibilities for crops or that new shipping routes close to the poles can be opened. But the global balance is not positive at all because temperature increase means less water resources, more climate variability, more migration, more difficulties in the development of Southern countries and thus a high overall geopolitical cost.

**«We have worked to correct, not to avoid. But climate change cannot be corrected, it can only be tackled by not doing what causes it.»**

**To what extent can climate change be prevented?**

Climate change creates an effect on the environment that for the first time cannot be solved. All environmental improvement done so far has been in the end of the pipeline: we have improved production processes only a little bit but we have sewage mechanisms; we do not improve the quality of rivers but we improve sewage plants. We have worked rather to correct than to avoid. But climate change cannot be corrected, it can only be tackled by not doing what causes it. This is the rationale of sustainability policy: we must not correct environmental malfunction but create a model that does not produce it. This applies to everything, but in the case of climate change there is no other possible option. Therefore all mitigation policies need to be tackled, besides having many collateral benefits for health, life quality and environmental quality. For instance, if we make electrical cars or set out a territorial model requiring less mobility, we will reduce CO<sub>2</sub> emissions, but we will also create friendlier cities.

**What do you think of criticism about large public subsidies for renewable energies?**

Subsidies have been an interesting and definitely effective tool to have the technological curve work. The first wind turbine in Spain was in Catalonia. It produced 0.7 MW of energy at a relatively low efficiency, and now we have 4.5 MW turbines. There has been a technological maturity curve within ten years that would not have occurred without premiums. I think that investing as long as needed to accelerate technological development is a good public policy. Having said that, I think that wind energy will not be subsidised for a long time, while photovoltaics still has a long way to go because its learning curve has been slower and there is still a long way ahead.

**Is awareness among Catalan entrepreneurs high enough to still go for renewable energies once the premiums are over?**

There is a vanguard that has seen a true business opportunity here and is taking it, but this vanguard is not in Catalonia. My first surprise in conventions on climate change is that entrepreneurs form the largest group. At the Bali and Poznań summits, for instance, half the audience were entrepreneurs. However, the Catalans among them were only those I dragged there almost by force, just four or five. The Spaniards were just two, and from the rest of the world there were thousands. In any case, what producers demand are not huge premiums but a stable framework, without all those constant variations and the uncertainty they are facing now.

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**Why do Catalan entrepreneurs not have such a clear view on that as those from the rest of the world?**

Everybody is to blame for that. Public authorities could do more to foster renewable energies. We now have two research centres which I expect to

work a lot and bring some life into it: the **Institut de la Recerca de l'Energia a Catalunya** (Institute of Energy Research in Catalonia), participated by business, and the **Institut de Recerca del Canvi Climàtic** (Institute of Climate Change Research). They are two important pillars to link research and innovation. We also have water and waste clusters working, the future agreement on internationalisation of the environmental industry in Catalonia as well as interesting companies related to waste and water. We can do many things, but I think that Catalonia has been lagging behind. As opposed to the rest of Europe, such matters are not in the heart of politics here.

### «Power suppliers can compensate the decline in consumption through improved efficiency and opening new industries.»

**There are people advocating nuclear energy as the most stable alternative to reduce CO<sub>2</sub> emissions. What do you think of that?**

There is a strong push by the nuclear lobby, which has had a hard time and is now popping up again with the climate change thing because it is true that it does not generate emissions. But I think it is not a short-term alternative nor is it true that it is cheaper. Nuclear energy is the most subsidised of all: all nuclear power plants have been developed with public funds. Besides, this energy creates several problems. On the one hand, there is no doubt about the link between nuclear power and proliferation of weapons, and Iran is a clear example of that.

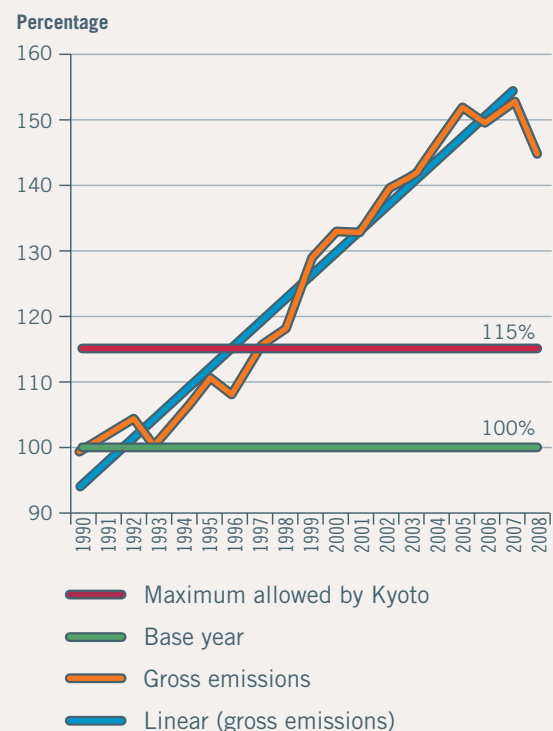
There is also a risk for the own safety, the cost problem and the inconvenience of waste disposal. Moreover, nuclear energy is not useful as an immediate alternative: raising funds to build a nuclear power plant, finding a place to build it, starting its operation... we are talking about five to nine years. Some countries go for nuclear power developed by the private industry. In fact, there is no moratorium in Spain; anybody wishing to build a nuclear power plant can do so. A different thing is that there is no private company ready to do it.

### Kyoto, still a far goal

According to a report by the CCOO trade union and the *World Watch* magazine, CO<sub>2</sub> emissions in Spain went down 6.5% in 2008, partly thanks to the contribution of renewable energies but especially to moderation in power consumption, the use of private cars and transportation of goods due to the crisis. It is the biggest decrease since 1990, but Spain is still the industrialised country where emissions have increased most as well as the one having the longest way to go to abide by the Kyoto protocol.

Spain committed to greenhouse gas emissions not higher than 15% above the 1990 base for the 2008-2012 period. This commitment has proved to be unachievable as it exceeds the target by 52%. Spain has thus become the main payer into carbon funds, the resources of which are used to foster projects to reduce CO<sub>2</sub> emissions in developing countries.

### Evolution of greenhouse gas emissions in Spain. 1990-2008



Source: RODRIGO, F. i SANTAMARTA, J. (2008). «Evolución de las emisiones de efecto invernadero en España (1990-2007)». CCOO





▲ Efficiency improvement still has a long way to go in Catalonia.

#### **But there are plans to extend the operating life of existing power plants.**

The Department of Environment worked out a plan similar to what Germany has: closing down the nuclear power plants within X years, but developing in the meanwhile a new alternative energy policy needed to close them down, with a clear drive for renewable energies. It is not acceptable anymore that companies running them still take the same price for their amortisation as these power plants have been more than amortised after running for forty years. Our plan suggests to take the same price, but as the money is not for amortisation anymore, it shall be used for developing alternative energies and economic promotion of areas where the plants are located to make up for the future impact of their closure.

#### **What industries have bigger room for improvement in terms of energy efficiency?**

Efficiency improvement still has a long way to go in Catalonia, even longer than renewable energies. It will hardly be energy companies the ones promoting efficiency because they are not at all interested in selling less. However, this opens a new economic niche for energy service companies.

All industrial branches in Catalonia have a future but efficiency needs to be introduced. For instance, if we are to maintain the car industry, we need to go for manufacturing small, efficient urban cars generating few CO<sub>2</sub>.

#### **To what extent is the decline in the oil price discouraging from R&D in renewable energies?**

The oil price will have a lot to do in this process. We do not know how it will develop but it is very likely that the **peak oil<sup>1</sup>** occurs in this century. But if we eventually enter a global CO<sub>2</sub> market, and I think that sooner or later we will get there, the CO<sub>2</sub> ton price will also be a key factor because energies generating it will be subject to higher penalties. If the CO<sub>2</sub> ton is at around \$50 we can do all we need to do to reduce emissions. If it were at \$100 it would be great, but if the ton is less than \$50, we won't get anywhere because nobody will pay attention to it. The CO<sub>2</sub> ton price depends on the reduction threshold we set as well as our capacity to reduce, so it is a fully political decision.

#### **«Subsidies for renewable energies have definitely been an effective tool to have the technology curve work.»**

Spain is currently the biggest payer into the carbon fund; in these five years, perhaps we will need to pay a billion euros for our excess in emissions, which we could have devoted to changing the economic model. With these payments, we are investing lots of money in third countries that could have been devoted to improving mobility here and creating more public transport, or to improve industry efficiency, and all this would help reduce emissions. We have been very clumsy there.

#### **Apart from fostering combination cycle plants, could we expect more from energy companies as to research and innovation?**

Although they are already convinced, we need to push them into it. It is obvious that they are not very interested in fostering efficiency, but my future perspective is that electrification of transport will open up a great range of power needs in areas with no demand so far. Power suppliers

have noticed that if they are to become more efficient and thus to reduce consumption, they can make up for it by generating new customers in new areas that were not using power so far. But we also need to be demanding with investment in Catalonia, a strong, well-functioning network, the impact on the territory, etc.

**The building crisis may be an opportunity for the branch to start from scratch. What environmental and energy requirements should be embraced?**

Building is one of the traditional branches with most room for environmental improvement. The key factor will be refurbishment based on energy efficiency improvement and management of environmental flows, but also building methods that systematically encompass these parameters. The Departments of Territorial Policy and Public

Works as well as Environment and Housing have launched the Strategic Residential Area Plan (ARE) that sets a regulation that is to serve as a guideline for all newly built quarters in the future.

**Do we need a new consumption model?**

It is indispensable to change the current consumption model, from the wrapping of what we consume to its origin. I cannot say that we shall stop importing products from developing countries but we need to make it compatible with local consumption and we need to take on the cost of these imports. However, it may be that a banana from Ecuador is still cheaper than one from the Canary Islands, but at least we need to consider where the bananas come from when buying them.



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## Notes

1. Point of maximum output and efficiency in oil extraction, after which it becomes scarcer and more expensive.