Climate Change : The IPCC sounds the alarm – “More than an ecological struggle”

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The International Panel on Climate Change has now published the synthesis of its fifth evaluation report and also a summary for policy makers. The diagnosis is not a surprise:

• Global warming is ongoing, its main cause is the burning of fossil fuels and the negative consequences are more important than the positive effects.

• It still is probably possible to avoid a rise of the average temperature of more than 2°C, in comparison with the pre-industrial period but the measures of the last twenty years lead us to a warming of between 3,7 and 4,8 °C (between 2,5 and 7,8 °C when taking the climate uncertainty into account) which would lead to “high risks of very severe impacts, widely spread out and irreversible”.

A palpable concern

The evaluation made in this fifth report is not fundamentally different from the previous ones, but the level of precision of the warning is more important, some zones of uncertainty are becoming clearer and the anxiety of the authors appear more than ever.

The expression “virtually certain” (with a more than 99% chance) is used more and more to describe a level of probability of this or of that phenomenon. The increased melting of the permafrost and the continuation of a rise of sea levels during several centuries, for instance, are now considered as “virtually certain” even if there is a drastic reduction of emissions.

Behind the “objective” scientific style of the report, we see that the IPCC sounds the alarm. The concern of the experts is palpable. It appears also through the fact that the summary for policy makers contains a section on the increased risks of “abrupt or irreversible changes” beyond 2100. For example, we read that “the threshold for the loss of the Greenland ice sheet over a millennium or more, and an associated sea-level rise of up to 7 m, is greater than about 1°C (low confidence) but less than about 4°C (medium confidence) of global warming with respect to pre-industrial temperatures.” Limiting the temperature rise to 2°C in the long term, does not completely eliminate the risks of a very deep change of the “ecosystem of Earth” [1] ...

Fossil fuels, the main culprits

The media often points to the fact that methane gas is produced by ruminants or they mention the CO_2 emissions due to deforestation. This information is only a part of the truth and the IPCC puts the record straight: “the CO_2 emissions due to the burning of fossil fuels and industrial processes have contributed to a level of 78% of global greenhouse gas emissions, with the same percentage from 2000 until 2010”. The graph showing the amount of the different gasses between 1970 and 2010 confirms that this is the main problem: the use of coal, oil and natural gas as energy sources (see below, source: IPCC)

This conclusion is decisive, in order to work on solutions. The IPCC experts made a synthesis of the existing literature on models of “mitigation” of global warming. They describe eight different scenarios, depending on the level at which the atmospheric concentration of the greenhouse gasses will be stabilized by the end of this century. For each scenario, a table gives the necessary reductions of emissions to be realized between 2050 and 2100 and the probability of the temperature rise to stay below a certain level during this century in comparison with the pre-industrial period (1,5° , 2° , 3° , 4°C). For each scenario it is the reduction of CO_2 from the burning of fossil fuels that plays the central role.

Scenarios: between nightmare and revolution

The least restrictive scenario is the one in which emissions continue to rise at more or less the current rate. In this case, the probability of going beyond a 4°C rise, is “more likely than unlikely”. The list of unending social and ecological catastrophes is nothing less than a nightmare. On human health, for instance, the report states that “the combination of high temperature and humidity in some areas for parts of the year is expected to compromise common human activities, including growing food and working outdoors (high confidence).”. The productivity of agriculture and fisheries will be severely affected. The decline of biodiversity will accelerate.

At the other extreme of possibilities, a small number of studies consider a stabilization of the atmospheric concentration at 430ppm of CO_2eq [2]. But this is the current level, which means that the effort necessary in this scenario will be extremely restrictive and even colossal: in 2050, global emissions will have to be diminished by 70 to 95 % (in comparison with the 2010 level); in 2100, they will have to be diminished by 110% to 120 % [3]. The text of the summary for policy makers does not explain this further.

This scenario implies a revolutionary reorientation of all areas of life. But this is the only scenario which offers the possibility to avoid global warming above 1,5°C – and this is precisely the objective which numerous scientists (including the president of the IPCC!) consider necessary.

The report concentrates in fact on the following two scenarios: stabilization at 450 ppm and stabilization at 500 ppm. According to the conditions considered, those scenarios indicate respectively the maximum 2°C as a “likely” (more than 66% probability), “more likely than unlikely”, or “as likely than not”. To stay beneath a 1,5°C rise can in the end only be seen in the framework of a stabilization at 450 ppm, but its chances are very slim (“more unlikely than likely”).

A gigantic difficulty

These scenarios leave a (small) margin for an increase of greenhouse gasses in the atmosphere (in

order to burn a small quantity of fossil fuels for a limited amount of time). But the constraints will have to be severe. In the case of a stabilization at 450 ppm for instance, world emissions have to decrease by 42 to 57 % from now to 2050 et by 78 to 118 % in 2100 (in comparison with 2010). In 2050, the amount of energy produced with zero carbon or with a weak intensity in carbon, must have increased by 90% on a worldwide scale [4]. Knowing that 78 % of emissions are caused by CO_2 from the burning of fossil fuels and this combustion represents 80% of the energy used by humanity, it shows the magnitude of the difficulty.

There is of course the technical dimension of this difficulty, which we are not describing here. But there are in the first place the social and the political dimensions. The report insists on a just distribution of the effort amongst countries (related to their historical responsibilities), on the sharing of technologies, on the necessity of international collaboration, on the importance of combining the fight against climate change and the fight against poverty, on the ethical imperatives of this combination and on the challenge posed for the human species… These are crucial points which potentially go against the logic of neoliberalism. No report from the IPCC has previously delivered this kind of message with such strength.

“Devalue the assets”

At the same time, there is a difficulty which is social but on which the summary for policy makers has rather little to say; although it is very important. At a certain point we read the following: “Mitigation policy could devalue fossil fuel assets and reduce revenues for fossil fuel exporters, but differences between regions and fuels exist (high confidence). Most mitigation scenarios are associated with reduced revenues from coal and oil trade for major exporters (high confidence).”

These two little sentences refer to a very important issue: in order not to go beyond 2°C of warming, 80% of the current known stocks of fossil fuels should stay in the soil and should never be extracted. BUT these stocks are part of the assets of the oil companies and of the (ruling families) producing States. To write that “ a policy of mitigation COULD DEVALUE fossil fuel assets” is a euphemism. In reality, a real mitigation policy implies the simple destruction of the large part of such capital.

The leaders of the fossil energy sector clearly feel the danger. That is why they have massively financed the “climate deniers” and this strategy gave them some more time. But in the long run, it is highly improbable that the lies of these charlatans can block the unsettling scientific evidence presented by the IPCC. That is why the stress is put more and more on the search for mitigation policies which are compatible – we should be “realistic” – with maintaining the profits of the bosses in the coal, oil and natural gas sectors.

Attack capital

Capture and geological sequestration of carbon (CCS) takes a strategic position and the report by the IPCC attaches much importance to it. But we must understand, in order not to be confused when the media focus on “the good news” that remaining below the 2°C will reduce growth by only 0,06%. And this figure is mentioned in the report…

But it also says that this was calculated in the hypothesis of a massive capture and sequestration of carbon. According to the report, the energy transition we will need from now until 2030 will cost several hundreds of billions of dollars per year on a global scale. This seems a reassuring amount … But without CCS, the costs of the transition would increase by … 138% or even 200%.

However, the role of fossil fuels is only one aspect of a much larger question: what is at stake is the logic of accumulation. It seems a truism to say that unlimited growth is impossible on a limited world. In order to reduce radically the emissions from now until 2050 and knowing that those emissions will mainly be caused in the first place by energy conversion, we have to reduce the final consumption of energy and we have to realize this in such a way that it questions the “ever more”. In short: we must reduce material production and transportation.

This is possible without harming the quality of life (on the contrary, while increasing it) if we abolish all useless and harmful production, the programmed obsolescence, the ridiculous amount of transportation of goods and of people in the framework of globalisation, etc. This is possible without destroying jobs (on the contrary, creating jobs) if we share work, wealth, knowledge and technologies …

But each of those hypotheses brings us to the same conclusion: we have to attack capital as such.

The majority of researchers who create mitigation models do not take this possibility into account. For them, accumulation is part of the landscape, or even of the laws of nature. And most of them, therefore, include also in their strategies the expansion of nuclear energy and the massive burning of biomass. These are the false solutions for accumulation. The summary for policy makers mentions certain risks of those technologies (especially the competition between food production and biomass). But the IPCC only compiles existing studies and is therefore dependent on them.

More than an ecological struggle

The coming Paris summit (COP21) at the end of 2015 is supposed to deliver a climate agreement. The IPCC report will put everyone’s responsibilities squarely in front of them. This will be an important factor. But the governments do not take into account the anticapitalist hypothesis. The contours of the catastrophe are becoming more certain, more clear and more frightening, while hundreds of millions of poor people are already the first victims of global warming… In the best case, these governments will only be capable of concocting a climate agreement behind our backs which will be insufficient at an ecological level, unjust at the social level and dangerous at the technical level. Recent decisions by the European Union show this danger clearly.

Another road can only be taken as the result of a social mobilisation. Because there is more at stake than just ecological questions: the human challenge is fundamental, it is about the choice of society and of civilisation which will determine all the others. The opponent is formidable. We can only make him recede through the collective action of all the oppressed and exploited. From now on, we should use the alarm launched by the IPCC, to build the largest front possible in favour of a social and ecological alternative, in other words: ecosocialism.

Daniel Tanuro, November 2 2014

P.S.

* Translation IVP. http://www.internationalviewpoint.org

Footnotes

[1] In the short term (from now until 2100), which will probably make it possible to limit (more than 66% probability) to keep sea level rise at about forty centimetres. But this projection does not include the disintegration of the most fragile part of the ice cover of the Antarctic. Two American researchers warned six months ago that this disintegration has started and that it is impossible to stop, this will inevitably bring a rise of 1,80 m during the coming 300 to 400 next years…

[2] The concentration of gas is expressed in parts per million (ppm: the number of molecules of a given gas per one million molecules). The radiative power (warming capacity) of different greenhouse gasses is translated into the radiative power of CO_2, we call it equivalents of CO_2 (CO_2eq).

[3] A decrease of more than 100 % means that the Earth absorbs more greenhouse gasses than she produces, this is possible if large surfaces are planted with trees which absorb CO_2 through photosynthesis.

[4] The constraints are analogous for the two other scenarios.