As exhausted negotiators celebrated the successful outcome of the 21st Conference of Parties (COP 21) to the UN Framework Convention on Climate Change (UNFCCC), observers around the world shared their sense of relief. The Paris Agreement was adopted just weeks after the terrible terror attacks on the city, showing that even among the many conflicts and uncertainties of today, there is a sense of responsibility for future generations. The autumn of 2015 would seem to be the point in time when we finally acted through the UN to address the dangers of the Anthropocene, through the adoption of the Sustainable Development Goals and the Paris Agreement. Now it is time to embark on the bumpy road to implementation – or as they say in rugby, it is time to confirm the try.

To fully appreciate the Paris outcome, we have to see it in the context of the long-haul effort over 25 years, starting with the UN Conference on Environment and Development in Rio de Janeiro in 1992. I was chief negotiator for the Swedish Ministry of Environment from 1990, leading the Swedish delegation through the preparations for the Rio Conference, the Conference itself, and to the UNFCCC negotiations thereafter, until October 2001. As an inside observer of the climate negotiations from the beginning, I wish to offer some observations on the process, on the significance of the Paris Agreement in the light of history, and the possible outcomes in coming decades.

The success of Paris came at a point in time when confidence in international cooperation is low, with military conflicts, refugee crises, terrorism, the reemergence of right-wing parties in Europe, and new concerns for the world economy.

But the Paris Agreement showed that the new environmental multilateral diplomacy under the flag of the United Nations could still deliver. The successful conclusion of an intense diplomatic effort at the highest level was a triumph for France, involving Foreign Minister Laurent Fabius and Climate Ambassador Laurence Tubiana. It made me think of the difficult negotiation of the UNFCCC itself in 1991-1992, when France also played a key role through the efforts of Jean Ripert, the highly respected and indefatigable Chairman of the International Negotiation Committee.
Science has been a driving force from the beginning of the climate negotiations. The five Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC) were a constant driving force at decisive COP sessions. The political importance of the 1.5-2°C objective is based on the efforts of the IPCC. Science has also given us the concept of the Anthropocene, to help understand the importance of international action not only on climate change, but on the full range of human activities influencing the global environment. The growing understanding of the risks and the real gravity of human influence at the planetary level were instrumental to the success of Paris, and our responsibility towards future generations was on the mind of negotiators as they hammered out the final details of the Paris Agreement.

A critical evaluation of the Kyoto Protocol

When the Kyoto Protocol was being negotiated in the 1990s, two ways of approaching the problems of mitigation were in competition from the beginning: “policies and measures” vs. “targets and timetables”. The two are reflected in Article 2, and Article 3 of the Kyoto Protocol, but the central attention is on Article 3. This approach sharpened the divide between Annex I and non-Annex I Parties, leading to less than active participation by developed countries, highlighted by the decision of the US not to ratify the Protocol. Furthermore, since adaptation was given far less attention than mitigation, and transfers of financial and technological resources from North to South remained limited, developing countries did not feel sufficiently engaged in the process. Sure, they participated actively in the negotiations, but the impact on national policies was limited.

Against this background, the present approach of “nationally determined contributions” (NDCs), focusing on national policies and measures, submitted by 187 Parties including the EU; and the global goal of adaptation, strengthened by detailed rules on implementation in the Paris Agreement, presents a striking contrast.

The 1995 Berlin Mandate and the 1997 Kyoto Protocol were necessary steps in giving substance to the UNFCCC. The Protocol and its implementation decisions, in particular the Marrakech Accords adopted in 2001, contain elements which need to be carried over into the new regime after 2020. But with hindsight, I think that the central ambition of the Protocol to establish Annex I Party quantified emission and limitation reduction objectives (QUELROs), while exempting non-Annex I Parties from any commitments beyond those of Article 4.1 of the UNFCCC, were not realistic.

As negotiators we were all impressed by the success of the Montreal Protocol, but at the time we did not give full attention to the huge difference between the ozone issue – tremendously important but limited in scope – and climate change. Action to reduce greenhouse gas emissions is not just about environment, it is about society, the whole fabric of complicated societies at different points of development, of social conditions and traditions, of the effects of technology and rapid change.

A complicated international regime based on a rapid political negotiation, leading to rather crudely crafted QUELROs by Annex I Parties only and a “firewall” between Annex I and non-Annex I, proved unrealistic and did not provide long-term stability. The concrete effects of the Kyoto Protocol turned out to be limited. It took four years of negotiations until the end of 2001 to make the provisions of the Protocol sufficiently precise to be ratifiable. By then, the US had already decided not to participate.

Entry into force was delayed to 2005 due to Russia’s late ratification in the autumn of 2004. New Zealand, Canada, Australia and Japan were lukewarm, and later decided not to participate in the second commitment period of 2013-2020. Canada even withdrew formally from the Protocol. The only real driving force during this period was the EU, with its strong support for the climate negotiations and its integrated structures. The concrete preparation for the second commitment period
could only really begin at Bali in 2007, when the notion of monitoring, reporting and verifying (MRV) was mentioned for the first time in an official text. Bali also agreed that a decisive, forward-looking negotiation would take place at COP 15 in Copenhagen, in 2009.

For the first time, the conference in Copenhagen included a meeting of Heads of State or Government, and expectations were very high. In fact, they were too high – not least because Barack Obama had taken significant political steps to signal a new US approach to the climate negotiations. However, by the autumn of 2009, Obama’s climate proposals had run into trouble in Congress, and the global economic crisis became the centre of attention. Furthermore, the short preparation time and a less than perfect Chairmanship led to a rather confused COP. No agreement was reached on a second commitment period for the Kyoto Protocol, and the final High-Level meeting could not agree on more than a general political statement, called the Copenhagen Accord. The Accord could not be formally adopted by the Plenary because of opposition from some Parties. COP 15 was labeled a total failure and a disaster, not least by NGOs and the media.

**Dynamic elements of the Copenhagen Accord**

*However, even if the potential of the Copenhagen Accord was not recognized immediately, it contained a number of elements, which skillful diplomacy would transform into building blocks for a new approach.*

At Copenhagen, the 2°C objective was recognized; all Parties were invited to table information before 1 February 2010 on planned action to reduce emissions; the importance of adaptation was underlined; developed countries promised to provide US$ 100 billion annually from 2020; and a Green Climate Fund was established. The final point in the text deserves to be quoted: “We call for an assessment of this Accord to be completed by 2015, in light of the Convention’s ultimate objective. This would include consideration of strengthening the long-term goal referencing various matters presented by the science, including in relation to temperature rises of 1.5 degrees Celsius”.

In the general gloom after Copenhagen not much attention was paid to these dynamic elements of the Accord. COP 15 had made an appeal to Mexico as the host of COP 16 to take special preparatory action, and this led to a major diplomatic effort and a careful management of expectations by Mexico. The prospective for COP 16 started to look brighter. In 2010, the Copenhagen Accord was formally adopted by COP 16 at Cancún, and an Adaptation Framework was agreed.

The following year, at COP 17 in Durban, efficiently chaired by South Africa, the firewall between Annex I and non-Annex I was finally weakened through the language of the Durban Platform for Enhanced Action (DPEA). The DPEA called for the adoption, by 2015, of a “a Protocol, another legal document or an agreed outcome with legal force under the Convention, applicable to all countries”.

The following COPs – Doha 2012, Warsaw 2013, Lima 2014 – all agreed on important building blocks for the Paris Agreement. Negotiations centred on the Ad Hoc Group on the Durban Platform (ADP), with hard-working and efficient co-chairs. Based on the pledges called for in the Copenhagen Accord, the notion of “Intended Nationally Determined Contributions” (INDCs) was introduced, avoiding the politically charged words of “commitments” or “pledges”. The INDC method recognized the extremely different national conditions of countries, while engaging all governments to maximize their efforts to take concrete action to reduce greenhouse gas emissions and to report on the results of their policies and measures. By COP 21, 187 Parties had tabled their contributions, and almost all UN countries now support the Paris Agreement.

I wish to emphasize that INDCs were not just a second-best solution. They were the only solution available for an agreement on issues related to societal structures and priorities, and may well be a
platform for more rather than less national action, since implementation will not only be followed in the institutional framework of the UNFCCC, but also as an integral part of national politics and debate.

The NDCs are not legally binding international law, but the process and procedures in which they are embedded are (such as the MRV process). There is a flexible institutional control based on transparency, which establishes a legally binding system, subject to revisions at five-year intervals. The Agreement will be operative from 2020, and Parties are expected to provide revised NDCs by then. The first stocktaking of possible improvements of contributions will take place in 2023, and the next one in 2028. Parties will have to submit their next NDCs by 2025. A “facilitative dialogue” will be convened in 2018 to “take stock of the collective efforts of Parties to progress toward the long-term goal referred to in Article 4.1 of the Agreement and to inform the preparation of NDCs pursuant to Article 4.8.”

The Paris COP decision and the Paris Agreement have provided a platform and a new framework for global cooperation on climate change. It combines top-down and bottom-up action, engaging all governments to adopt efficient, integrated policies to reduce greenhouse gas emissions while safeguarding national economic and social objectives.

Basis of technical and social transformation

The Paris Agreement is now the pivotal point of the climate negotiations. The central elements of the Copenhagen Accord, and much more, are now part of the Agreement, supported by a detailed COP decision.

Twenty-five years of intense scientific and diplomatic efforts, and an accelerated and efficient preparation for COP 21, form the platform for the work ahead in the UN and in all countries, which we hope will lead to the technical and societal transformations needed by 2030 and beyond.

However, there are also valid criticisms, particularly from scientists. They have pointed to the mismatch between the welcome mention to the 1.5°C objective in Article 2 (a) of the Paris Agreement, and the language in Article 4.1 on the “balance between anthropogenic emissions of GHG’s and removals by sinks in the second half of this century”. The language on sinks in the long-term perspective is not considered realistic, since it would require negative emissions on a scale which might not be possible to achieve even through technologies such as carbon capture and storage, and may open the road for more radical methods of climate engineering. Some regret the absence of any concrete goals for 2050, and find the lack of a precise goal for global peaking of greenhouse gas emissions worrying.

Others would have wished for more precise text on finance. And of course, a heavily negotiated text such as this is, in parts, too general and contains elements that may cause serious disagreements when they are formulated into concrete action. The devil is in the details, as always. While welcoming the political commitment by so many nations in their INDCs, it is clear that the process to negotiate improvements in the NDCs will have to be started without undue delay, and be carried out in an efficient and credible way to create confidence in the method and process. In that context, the need for full transparency will be of crucial importance.

Finally, there are broader political issues at stake. While a great number of Parties will certainly sign the Agreement in New York in April 2016 and most probably also ratify rather quickly, entry into force requires “ratification by at least 55 Parties to the Convention accounting in total for at least an estimated 55 percent of the total global greenhouse gas emissions”. The key players needed for the Agreement to enter into force include the US, China, India, and the EU.
Most probably, Obama will aim for US ratification before the US elections in November 2016. If not, the result of the election will be of decisive importance for the prospects for US ratification. And there may be problems arising in other key countries, such as China or India. Furthermore, the EU is in a crisis which could limit its traditional role as a firm defender of global climate policy.

Nevertheless, the Paris negotiations were characterized by an unexpected atmosphere of optimism, which to a large extent was based on the efforts of the French Chairmanship, among other things. The broad coalition of non-State actors of all kinds were energized by the Lima-Paris Action Agenda of 2014, and the establishment of the Non-State Actor Zone for Climate Action; these diversified movements of millions of people, not least young people, will continue to support non-fossil policies and influence climate politics and the new climate economy all over the world.

In this context, the positions taken by the corporate sector were encouraging. Several leading enterprises participated actively in the various events organized to form a strong non-State platform for concrete action over the coming years. In an urbanizing world, the enthusiasm of local leaders from all over the planet to support active and concrete emissions-reducing policies for urban planning, public transport and building regulations was also notable.

**New energy**

*Another reason for the constructive atmosphere in Paris might have been a rather general feeling that the industrial revolution of new energy is on its way, and will have an immense global impact over the coming decades, particularly in connection with the digital revolution that is already changing our societies fundamentally.*

We know that energy has been at the centre of the industrial revolutions in the 1800s (steam engine, railways, coal) and in the 1900s (electricity, oil, automobiles). We also know that the structural changes imposed by these revolutions have sometimes been painful, and the transformations have sometimes taken a long time. But ultimately, the changes will be integrated into new structures and new societal equilibria. No doubt, the present dominant dependence on fossil fuels in a globalizing and unstable world will make the transition particularly risky and difficult. But I believe the result of Paris will influence the world in many ways: new research, investment decisions, spatial planning, urbanization, technological and engineering development, culture…

*The details of the energy transition, and its links to the ongoing digital revolution, are far too complex to be developed further in this paper. But I have no doubts that by 2030 its effects will lead to a very different, and hopefully better world.*

Climate change provides an opportunity to form a kind of global coalition for the defence of the human species against the threats of global disasters of a new kind, created by our own lifestyles. As governments meet again in Bonn in May 2016 for their usual mid-year negotiation, the positive atmosphere of La Bourget has to be confirmed. Regardless of the obstacles that will certainly appear, the Paris Conference, with its roots in the long process from Rio de Janeiro in 1992, and looking forward to 2020, 2030, and beyond, will remain a pivotal moment and a platform for action.