

Climate Alliances après Paris

The Potential of Pioneer Climate Alliances to Contribute to Stronger Mitigation and Transformation

by

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1. Introduction

The Paris Agreement marks the successful conclusion of an historic climate treaty after a tug-of-war that has lasted several years.¹ Looking ahead, the challenge now is to breathe life into the objectives and tasks arising from the Paris Agreement. This paper argues that the effective implementation of the Paris Agreement will depend on fast tracking of enhanced, bold and ambitious national climate actions and targets (nationally determined contributions, (NDCs)) around the globe that goes beyond existing pledges (NDCs) in order to bring about the transformational change required for a swift decarbonization of the global economy. One means of achieving this goal is to establish Climate Alliances worldwide. These Alliances can play a game-changing, pioneer role in the après Paris era. Building on insights from a project on a “Pioneers’ Alliance on Climate Actions” (PACA, see below) the paper discusses which kind of alliances, including negotiating coalitions and climate clubs, might support increasing the ambition of global climate policy – and ultimately prevent the worst impacts of global climate change.

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¹ See Obergassel (né Sterk), Wolfgang / Arens, Christof / Hermwille, Lukas / Kreibich, Nico / Mersmann, Florian, Ott, Hermann E. and Wang-Helmreich, Hanna: Phoenix from the Ashes - An Analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change. Part I: 27 Environmental Law & Management (2015), S.243-262. Part II: 28 Environmental Law & Management (2016), S.3-12. See also: <http://wupperinst.org/en/info/details/wi/a/s/ad/3362/>.

The Paris Agreement, for the first time, enshrines the target of limiting global warming to well below 2°C compared to pre-industrial levels and the aim to limit warming to 1.5°C in international law. It stipulates that a change of direction toward a climate-friendly global economy must be initiated immediately in order to achieve global emissions peaking as soon as possible and reduce emissions to net-zero in the second half of the century. The Agreement is the first internationally binding treaty on climate change since the Kyoto Protocol of 1997, which had focused on cutting emissions in the industrialized countries, and places climate change mitigation onto a new, comprehensive basis, since it incorporates all countries. The Agreement documents the international community's commitment to a global transformation towards a climate-friendly economy; but it also contains comprehensive stipulations on adapting to climate change, dealing with loss and damage caused by the consequences of global warming, and financial commitments and other forms of support by the developed countries.

In the run-up to the conference, most countries had already announced their national mitigation commitments (policies and measures) they intended to pursue as from 2020, their so-called 'Intended Nationally Determined Contributions', INDCs. However, the pledged NDCs prior to Paris are not ambitious enough overall to achieve the goals stated in the Paris Agreement. Researchers have calculated that without the INDCs, global warming would very likely exceed 4°C, while the full implementation of INDCs would limit warming only to below 3.0° to 3.5°C.² The current mitigation commitments must therefore be further tightened up as a matter of urgency.

This paper underlines the potentially important role of climate alliances in driving up the ambition of future climate policies. Such alliances bring together a smaller set of countries that are interested in more ambitious action on climate change. In this paper, we differentiate between climate coalitions, by which we refer to groupings primarily focused on influencing the multilateral negotiations, and climate clubs, by which we refer to groupings which focus on common action outside of the negotiations that generates a shared benefit for members (more below).

² UNEP (2015): The Emissions Gap Report 2015. United Nations Environment Programme (UNEP), Nairobi, available online: <http://www.unep.org/emissionsgapreport2015/>

Looking ahead, the main tasks within the negotiations are related to the technical implementation of the Paris Agreement, above all in terms of preparing the facilitative dialogue in 2018 and the global stocktake beginning in 2023, strengthening of the Nationally Determined Contributions (NDCs) preferably before 2020 and developing transparency rules.³ Additional tasks at the national level include the quick ratification to allow early entry into force of the Paris Agreement, the inclusion of the NDCs in national legislations, the mainstreaming of national policies in all fields (not just energy but also agriculture, transport, housing, the finance sector etc.), the increase of NDC ambition levels and making all finance flows consistent with the necessary transformation towards climate-compatibility.

The paper is structured as follows. The next section provides an introduction to the project that underlies this paper, which has resulted in a number of different proposals for climate clubs from various perspectives. Section 3 introduces the idea of climate clubs in more detail. Section 4 outlines important elements of climate club approaches and criteria to assess them. Section 5 provides an analysis of the common threads and visions of the different climate club proposals. Section 6 explores what club proposals might look like. Section 7 summarizes the main findings and recommendations.

2. A Pioneers' Alliance on Climate Actions

In order to investigate the promises and the pitfalls of climate alliances the Wuppertal Institute and the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) in 2015 initiated a project called "A Pioneers' Alliance on Climate Actions" (PACA). The project brought together experts from all regions of the world. The selected experts came from a diverse range of countries, most of them with rather ambitious climate policies, to explore the potentials of a transformative pioneers' alliance for complementing the formal multilateral process and to build additional momentum for climate action.

The project was driven by the recognition that all decisions inside the climate regime have to be taken by consensus, due to the insistence by Saudi Arabia and other oil

³ See Obergassel et al. (2016), note 1.

producing countries.⁴ This has the advantage that any action taken represents the will of the global community – as has now been expressed by the adoption of the Paris Agreement. The global consensual action therefore provides legitimacy and significance to climate policy. It has the disadvantage, though, that such a regime is ill-suited to deal with the allocation of resources and take decisions on a transformational scale.⁵ The project was thus driven by the concern that an agreement in Paris might come at the expense of representing the lowest common denominator. Fortunately, this was not the case. The Paris Agreement in fact represents, despite its shortcomings, the highest common denominator for a global agreement on climate change.

The challenge, however, remains: to develop an international architecture that combines the merits of a global, consensual approach with those of fast and transformational actions by smaller groups of countries (and other stakeholders). The project experts were invited to individually prepare papers on the potential of climate clubs from their national perspectives, with due consideration of the respective regional contexts and taking into account their personal experiences. After Paris, the experts were asked to revisit and revise as appropriate their recommendations in light of the Paris outcome.

The aim was to contribute to the understanding of the potential roles and functions of pioneer climate alliances in international climate governance; provide background information on the interests of the respective country (or country group in the case of small islands) that each of the experts represents; develop ideas for those benefits that the respective country or country group might require in order to join such a pioneer climate alliance; explore whether the respective country or country group might require safeguards; and contribute to the design of a model alliance that could be put into practice by governments. In the following chapters, we build on the experts' individual papers, synthesizing their insights and providing a basis for potential future climate club approaches and assessing their scope to contribute to the effective implementation of the Paris Agreement.

⁴ See e.g. Ott, Hermann E. / Arens, Christof / Hermwille, Lukas / Mersmann, Florian / Obergassel, Wolfgang / Wang-Helmreich, Hanna: Climate policy: road works and new horizons – an assessment of the UNFCCC process from Lima to Paris and beyond; in: 6 Environmental Liability – Law, Policy and Practice (2014), S.223-238.

⁵ See Hermwille, Lukas / Obergassel, Wolfgang / Ott, Hermann E. / Beuermann, Christiane: UNFCCC Before and After Paris – What's Necessary for an Effective Climate Regime? in: Climate Policy 2015, 1-21: <http://dx.doi.org/10.1080/14693062.2015.1115231>.

A range of proposals have emerged in the literature⁶ to analyse how smaller groups of countries could make and implement climate policy outside the UNFCCC framework, either as a substitute or a complement to the multilateral climate negotiations.⁷ We refer to these groupings as 'climate alliances'. Similar formations have been previously assessed under various headings⁸, including 'transnational institutions'⁹ 'climate governance experiments',¹⁰ 'minilateralism'¹¹ or 'networked climate governance'.¹²

As we define it, the term 'alliances' includes any grouping that comprises more than two and less than the full multilateral set of countries party to the UNFCCC and that has not reached the degree of institutionalization of an international organization. While such alliances may include other stakeholders, they have to be predominantly governed and funded by national governments to be considered in the context of this paper. We differentiate between two main types of alliances, namely coalitions and clubs.

Coalitions for ambitious negotiation outcomes have existed since the beginning of the multilateral climate process. These are different from the formal negotiating blocs (e.g. G77, EU, AOSIS, Umbrella Group) and usually include members from different blocs. In the history of the climate negotiations, important breakthroughs were only achieved when such coalitions emerged - usually including the European Union, African states, least-developed countries and small island developing states and some Latin-American frontrunners. The composition and name of such coalitions has changed over time and they have often been rather ad-hoc and not formalized - in Berlin, Kyoto and Marrakesh

⁶ For instance, see Eckersley, R. (2012); M. Naím, 'Minilateralism', *Foreign Policy* (July/August 2009), 135; G. B. Asheim, C. B. Froyen, J. Hovi, and F. C. Menz, 'Regional versus Global Cooperation for Climate Control', *Journal of Environmental Economics and Management* (2006), 93; and M. J. Hoffmann, *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford University Press, 2011).

⁷ See also in German Thomas Hirsch: *Die Rolle von Allianzen in der internationalen Klimapolitik nach Paris*; Friedrich-Ebert-Stiftung, Mai 2016.

⁸ The following list is based on Pattberg, Philipp and Oscar Widerberg (2015): *International Cooperative Initiatives in Global Climate Governance: Raising the Ambition Level or Delegitimizing the UNFCCC?* *Global Policy* 6(1).

⁹ Abbott, K. W. (2011) 'The Transnational Regime Complex for Climate Change', *Environment & Planning C: Government & Policy*.

¹⁰ Hoffmann, M. (2011) *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto: Experimenting with a Global Response after Kyoto*. Oxford: Oxford University Press.

¹¹ R. Eckersley (2012); Falkner, Robert (2015). *A minilateral solution for global climate change? On bargaining efficiency, club benefits and international legitimacy*. Grantham Research Institute on Climate Change and the Environment Working Paper No. 197.

¹² Pattberg, P. (2010) 'Public-private partnerships in global climate governance', *Wiley Interdisciplinary Reviews: Climate Change*, 1 (2), pp. 279-287. See also Pattberg, P. H., Biermann, F., Chan, S. and Mert, A. (2012) *Public-Private Partnerships for Sustainable Development: Emergence, Influence and Legitimacy*. Cheltenham, Northampton, MA: Edward Elgar.

such a coalition was for example informally referred to as the "Green Group", in Durban as the "Durban Alliance".

An attempt at a more formalized structure to provide an opportunity to discuss the negotiation issues amongst countries that consider themselves 'progressive' on climate policy is the Cartagena Dialogue for Progressive Action, which has been meeting since 2010, but focuses more on dialogue than on common positions in the negotiations. The potential of climate coalitions has once again become apparent in Paris, among other things, in the context of the important role of the High Ambition Coalition (HAC) as well as the Climate Vulnerable Forum (CVF). The Climate Vulnerable Forum is a grouping of 43 highly vulnerable developing countries that are also members of several subgroups of the G77. The CVF is not a formal negotiating group, but successfully put the demand for a 1.5°C warming limit, a long-term goal for zero emissions and 100% renewable energy and an ambition mechanism on the agenda in Paris through coordinated public events and negotiation positions. The High Ambition Coalition emerged in Paris as a new grouping of countries pushing for an ambitious outcome. The group did not publish a common position outlining what exactly they intended to achieve in the Agreement reflecting "high ambition", but sent a broader message on the importance of an ambitious agreement protecting the most vulnerable that influenced the mood in the negotiations. It brought together, among others, representatives of small island developing states, least-developed countries and the EU, but also more unusual partners, including the United States and Brazil. Many observers credit the High Ambition Coalition with being a central factor explaining the comparatively ambitious Paris outcome.¹³ The coalition was ad-hoc and it is not clear if and in which form it will continue after Paris. There are some indications that the coalition intends to continue to operate; for instance, the HAC had a meeting in New York on the side-lines of the Paris Agreement signing ceremony in April.

Climate clubs are different from such negotiating coalitions. They bring together countries that want to act together outside of the formal negotiations and jointly pursue ambitious climate action in a way that creates shared benefits for all club members. By definition, a club has entry requirements and provides members with access to an

¹³ See, for instance, E. King: "Foie gras, oysters and a climate deal: How the Paris pact was won", Climate Home, 14 December 2015 <http://www.climatechangenews.com/2015/12/14/foie-gras-oysters-and-a-climate-deal-how-the-paris-pact-was-won/>.

exclusive "club good". While climate clubs can include non-state actors, national governments play a central role in them. After Paris, it would be interesting to explore whether for instance the High Ambition Coalition (as well as other coalitions and existing initiatives) could develop into a club or if new clubs could emerge to promote ambitious action that makes it possible to attain the goals set by the Paris Agreement, by going beyond currently pledged ambition levels. Such clubs are the focus of this paper.

The preamble of the omnibus decision adopting the Paris Agreement in December 2015 (COP21) acknowledges the usefulness of new forms of cooperation that transcend the UNFCCC, which could include clubs: "Agreeing to uphold and promote regional and international cooperation in order to mobilize stronger and more ambitious climate action by all Parties and non-Party stakeholders, including civil society, the private sector, financial institutions, cities and other subnational authorities, local communities and indigenous peoples."

3. Why can pioneer clubs be helpful?

Climate clubs and similar 'minilateral' approaches can offer substantial advantages.¹⁴ Minilateral approaches are more likely to reach an agreement on more ambitious actions since they include fewer veto players than in multilateral negotiations. Moreover, clubs can potentially change the underlying interest structure in international climate politics by creating private goods and by enforcing club rules.¹⁵ A review of the existing literature identified four aspects – speed, ambition, participation and equity – that are frequently mentioned as to why clubs may be an effective mechanism for change.¹⁶

Regarding speed, a smaller set of countries may reach consensus quicker and may be able to advance contentious issues without backlogs of negotiations. With regard to

¹⁴ For recent discussions of the potential and the limits of different types of minilateral approaches, see also Hovi, Jon, Detlef F. Sprinz, Håkon Sælen and Arild Underdal. 2015. "The Club Approach: A Gateway to Effective Climate Cooperation?" and Brandi, Clara, Axel Berger and Dominique Bruhn. 2015. Between minilateralism and multilateralism: opportunities and risks of pioneer alliances in international trade and climate politics. Bonn: German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE).

¹⁵ See Falkner, Robert (2015). A minilateral solution for global climate change? On bargaining efficiency, club benefits and international legitimacy. Grantham Research Institute on Climate Change and the Environment Working Paper No. 197.

¹⁶ See F. Biermann, P. Pattberg, H. van Asselt and F. Zelli, 'The Fragmentation of Global Governance Architectures: A Framework for Analysis', 9:1 *Global Environmental Politics* (2009), 14, at 25.

ambition, cooperation theory posits that smaller groups can be ‘narrow-but-deep’, reaching substantial policy goals that would not have been reached in a ‘broad-but-shallow’ regime that has more participants but less ambition due to the compulsions of placating all signatories.¹⁷ Clubs are also thought to possess more innovative capacity on subsets of climate issues such as measurement, reporting and verification (MRV) and land-use and forestry, and thus serve to raise the overall level of capacity and ambition in the international arena.¹⁸ Participation and equity are linked by the idea that a smaller club could have fewer barriers to entry for a wider range of stakeholders and can thus allow for tailored solutions for less influential countries, which previously would have been subsumed in a larger process more dominated by bigger players.¹⁹

While proposals to address climate change can be framed in many different ways, many of the clubs’ proposals in the literature are consistent with game theory analyses of climate change politics and grounded in a particular strand of international relations theory. Some authors suggest that many of the flaws in global bodies such as the UNFCCC can be better addressed at smaller scales.²⁰ From this perspective, smaller groupings could become more relevant than the UNFCCC, potentially replacing it. Other authors posit that while smaller groups are important to make progress, they cannot replace agreement within the UNFCCC.²¹ They point out that because climate change is caused by the cumulative effects of all global emissions, all major emitters need to be brought into an agreement to avoid free rider problems that would undermine the effectiveness of any solution. Furthermore, the impacts of climate change are affecting all countries, especially the poorest and most vulnerable, so they need to have a voice in the decision-making process to ensure an ambitious outcome that will be accepted as legitimate. In addition, the politics that plague the UNFCCC are often mirrored in smaller forums as key players remain the same, such as in the G20, and therefore simply moving

¹⁷J.E. Aldy, S. Barrett and R.N. Stavins, ‘Thirteen Plus One: A Comparison of Global Climate Policy Architectures’, 3:4 *Climate Policy* (2003), 373, at 378

¹⁸R.O. Keohane and D.G. Victor, ‘The Regime Complex for Climate Change’, 9:1 *Perspectives on Politics* (2011), 7, at 18

¹⁹ See F. Biermann, P. Pattberg, H. van Asselt and F. Zelli, ‘The Fragmentation of Global Governance Architectures: A Framework for Analysis’, 9:1 *Global Environmental Politics* (2009), 14, at 25.

²⁰R.O. Keohane and D.G. Victor, ‘The Regime Complex for Climate Change’, 9:1 *Perspectives on Politics* (2011).

²¹See H. Winkler and J. Beaumont, ‘Fair and Effective Multilateralism in the Post-Copenhagen Climate Negotiations’, 10:6 *Climate Policy* (2010), 638, at 641. On the advantages of the UNFCCC regime, also see J. Depledge and F. Yamin, ‘The Global Climate-change Regime: A Defence’, in: D. Helm and C. Hepburn (eds.), *The Economics and Politics of Climate Change* (Oxford University Press, 2009), 433.

from one large group to a smaller group with the same interests represented does not necessarily catalyse progress.

In this paper, we subscribe to the view that the merits and limitations (pros and cons) of smaller groups of countries compared with a global regime depend on time and context and cannot be answered once and for all. In any case, the choice between approaches is not one between black and white – and it is not an either/or decision. The Paris outcomes have been celebrated enthusiastically by many. At the same time, the merits and the limits of a global approach have become apparent: While it was possible for the first time to break down the barrier between industrialized and other countries and to agree that climate protection is a responsibility of every country on this planet, the policies and measures that were agreed to are by themselves not sufficient to bring about transformative change and limit global warming.

While therefore the entry into force and the implementation of the Paris Agreement is an urgent task, other mechanisms to fast track, accelerate and improve policies and measures inside and outside of the UNFCCC regime are vital and equally important. This will enable early implementation allowing the full achievement of current national pledges as well as an increase of national contributions in the coming global stocktaking rounds. To this end, pioneer alliances, including climate clubs, may be a useful tool and are explored in more detail in the remaining chapters.

4. What kind of criteria for possible elements?

There are three starting points for a transformative club:

Firstly, a *joint vision and measurable and time-limited targets*: the club's members need a common vision that shows clearly how the Club adds value to existing initiatives, current commitments and business as usual practices. This vision should provide the basis for setting specific goals. Such goals should be measurable and time-bound. After Paris, it should be expected that such goals are consistent with the objectives set in the agreement, i.e. limiting global warming to well below 2°C and preferably to 1.5°C, increasing resilience, making finance flows consistent with climate objectives and achieving global greenhouse gas neutrality in the second half of the century.

Secondly, *membership conditionality*: the club should clearly define the conditions that the club members have to fulfil in order to be able to join the club and remain a member. Such conditions also need to be specific and measurable. They could consider member's track records and/or existing policies and strategies and/or commitments for the future. A pure focus on track record might pose the problem of excluding potential members that have not acted in an ambitious way in the past, but would like to do so in the future, enabled by the club. A pure focus on commitments and plans for the future might pose the challenge of ensuring commitments are met, i.e. it would require the club to track implementation and to be able to exclude members if they fall behind on their commitments.

Thirdly, *club benefits*: the club's members should agree on ways of creating added market (economic) and non-market (non-economic) values for all members. They could, for example, agree to work closely on the technology, business models and political solutions needed to create a sustainable decarbonize energy system. This would enable them to identify and test solutions more quickly, learn from successes and failures, and share knowledge. Members could also conduct joint research projects and share the relevant patents. They could harmonize and grant mutual recognition of their standards, and work together in producing new standards for future technologies (such as e-mobility) with a view to creating common markets. Additionally, they could dismantle their respective trade barriers for goods and services that are closely linked to renewable energy sources. For membership in the club to be attractive, some of these benefits have to be exclusive, i.e. only available to club members (this is the definition of a "club good"). Benefits also have to be structured in such a way that there are benefits for all, not only for some, club members.

These three elements are all equally important to ensure a club can have a transformational impact: Without a vision that guides the membership criteria and ensures that they are in line with ambitious actions needed to avoid the worst impacts of climate change, a club will likely miss the objective of contributing to achieving its objectives. Without strong benefits, a club will not attract many members and therefore fail to catalyse the necessary global impact. Without clear membership criteria, a club might attract many members, but cannot ensure they actually act in line with the vision.

5. Analysis of proposals

The experts assembled in the project on a “Pioneers’ Alliance for Climate Action” (PACA) suggested a number of proposals that are displayed according to certain criteria in the synopsis of the annexed table. They can be grouped under different headings: whether they are general in nature, covering all issues and nations, whether they are sectoral and whether they are purely governmental or also include subnational bodies. The following paragraphs provide an overview of these proposals.

General proposals

The most ambitious proposal is aiming at a decarbonized global economic system by 2050 that is also able to withstand climate shocks.²² Based on the principles of the UNFCCC, the Paris Agreement, the UN Agenda 2030 and the WTO it intends to mobilize resources for state and non-state actors to create a low-carbon economy and a resilient development pathway. Under a “club of clubs” approach different clubs would be created with rather narrow objectives (on R&D for RE, to reduce fossil fuel subsidies, establish a global carbon price etc.) but also one platform for strategic dialogues. The club of clubs would be open for non-state actors and should include at least four of the top twenty emitters accounting for more than 50 percent of global emissions. Eligibility criteria would be rather low, because members should only commit to long-term low-carbon strategies. The proposal stresses, however, the importance of binding rules and mandatory goals, measures and targets. It is also strong on the compliance side and recommends penalties, trade sanctions etc.

A second broad proposal, which could be aligned with other less elaborated suggestions,²³ aims at the establishment of an informal alliance outside of the UNFCCC to expedite the consolidation of a sound multilateral regime. This club could work toward ratcheting up the ambition of NDCs, facilitate the linking of national and regional carbon markets, facilitate access to climate finance and support the inclusion of non-state actors. It would provide access to resources, strengthened influence in the international negotiations and a heightened image through participation. The inclusion of non-state

²² Proposal made by Penehuro Lefale in the context of the AOSIS case study.

²³ Proposal made by Fernando Tudela in the context of the case study for Mexico.

actors would be part of the objectives, the entry requirements not fixed but countries should uphold pioneering positions on climate change evidenced through concrete national measures.

Sectoral proposals

The establishment of a “Positive Carbon Pricing Alliance” is the objective of a proposal by three authors who combined their visions,²⁴ based on paragraphs 108 and 109 of the decision adopting the Paris Agreement. Paragraph 108 “[u]rges host and purchasing Parties to report transparently on internationally transferred mitigation outcomes, including outcomes used to meet international pledges, and emission units issued under the Kyoto Protocol with a view to promoting environmental integrity and avoiding double counting.” Paragraph 109 calls for the recognition “of the social, environmental and economic and environmental value of voluntary mitigation actions and their co-benefits for adaptation, health and sustainable development.”

The social value (SVMA) of carbon is also the objective of another proposal that is incorporated in low carbon projects²⁵. Its goal would be to facilitate the financing of mitigation measures implemented by each member of the alliance in the framework of their NDCs and to scale up the Green Climate Fund. It could, for example, foster investments in low carbon projects by lowering the risk of investment through public guarantees. Guarantees would be proportionate to avoided emissions realized by the projects and valued at the Social Value of Mitigation Action (SVMA) as defined in paragraph 108 of the decision adopting the Paris Agreement.

Backed upon this guarantee the investment or development bank could provide new credit lines refundable with carbon certificates (stating the reality of the reduction of CO₂ emissions) instead of cash because these certificates would be accepted by the central banks swapped to carbon assets or, on a secondary market, by any institutional investor. This mechanism has the advantage to expand the capacity of banks (retail, development banks, institutional investors) to fund low carbon projects at the national level and in other members of the club (development assistance, etc.). Members with the

²⁴ Christophe Cassen and Jean-Charles Hourcade in the context of the case study for France and Emilio Lèbre La Rovere in the case study for Brazil.

²⁵ Britta Rennkamp and Andrew Marquard in the context of the case study for South Africa.

highest potential for decarbonisation would particularly benefit from the scheme. Belonging to such a club would be stable insofar as it induces an immediate financial advantage, in particular by lowering the risk-premium of LCPs and by a cumulative effect that would foster economic growth.

Besides of states and non-state actors (cities etc.) also development banks could be part of such an alliance. The entry requirements would demand that a mitigation goal as part of an NDC exists. All activities, including the MRV regime, must be linked to the UNFCCC. The proposal would avoid sanctions but instead work with incentives provided by the club.

Another proposal aims at the establishment of a showcase platform for domestic work on adaptation (and to a lesser degree mitigation) in order to allow sharing of lessons and support capacity building.²⁶ Knowledge exchange, financing, the trade of goods, preferential treatment in the trade of climate relevant goods and capacity would present the benefits for joining the club. No specific criteria for the entry would be needed but a commitment to climate change demonstrated through proactive policies and resources dedicated to tackle and prevent climate change.

Another author proposes the establishment of a “Sustainable Forestry Club” as an extension of Brazil’s Amazon Fund.²⁷ It would aim at ways and means to overcome the implementation gap, mainly through innovative financial mechanisms and technological development through an extension of the Amazon Fund to countries with considerable forest areas. Besides of access to finance the club would provide extensive opportunities for experience sharing.

Close to the forestry issue one proposal seeks to build an “International Alliance for Bio-based Economies” as a platform for collaboration among nations rich in bio-based resources²⁸. The overall objective would be to bridge existing market barriers for the widespread adoption of bio-based fuels in the member countries. Measures would be knowledge sharing, common research, capacity building, pilot projects and enhanced energy security, livelihoods, health etc. Participation would aim foremost at states, if

²⁶ Saleemul Huq in the context of the case study for Bangladesh.

²⁷ Emilio Lèbre La Rovere in the context of the case study for Brazil.

²⁸ Atul Kumar et al. in the context of the case study for India.

that cannot be achieved subnational governments might be included. The proposal does not foresee any conditions on membership and promotes self-reporting.

Non-state actors

The establishment of an independent structure for global GHG mitigation as an NGO with permanent headquarters is the aim of yet another proposal.²⁹ It should be aligned with the vision of the UNFCCC and develop concrete objectives on research, development and innovation in low carbon technologies, knowledge sharing, assess to finance and the creation of business opportunities. The additional benefit would lie in the creation of an exclusive knowledge base and common fundraising for business start-up support. Under a 'rotating presidency' annual coordination meetings would work on these objectives.

Apart from these more elaborate proposals there are a number of suggestions for climate clubs that are less specific but that shall nevertheless be mentioned. A "climate pioneer's alliance" with a cooperative approach to limit temperature increase to 1.5°C above pre-industrial levels is the suggestion of one author, based on a minimum obligation of at least 10 percent reduction of GHG emissions by 2030 compared to BAU and working with incentives for capacity building, technology sharing and support for members in need.³⁰

Analysed along the criteria for climate clubs the picture looks as follows (see also the table annexed to this report): The "Club of Clubs" proposal is guided by an overarching vision: The development of a decarbonized global economic system and resilient development pathway by 2050. All other proposals are focusing on the establishment of specific institutions (adaptation or cooperation platforms, fora, technical dialogues, NGO structure) and instruments (positive carbon pricing). As regards the sectors covered there are some proposals advocating clubs for all sectors while some are specialized on adaptation, forestry, biomass, carbon pricing.

Most proposals posit as benefits or club goods rather 'soft' benefits like joint R&D, capacity building, exclusive knowledge, technology transfer or a 'heightened image'

²⁹ Badr Ikken in the context of the case study for Morocco.

³⁰ Robert Bakiika in the context of the case study for Uganda.

through participation. Some proposals offer ‘harder’ benefits like access to financial support and one proposal even suggests preferential trade of climate relevant goods.³¹

With regard to membership most proposals foresee ambitious countries, both developing and developed as natural participants in the respective clubs. The “Club of Clubs” approach requires at least four of the top twenty GHG emitters representing at least fifty percent of global emissions. The forestry and biomass-related proposals are naturally addressed towards forestry or biomass rich countries only.

The inclusion of subnational actors is provided for by a great number of proposals: In the case of the proposed independent NGO it is only NGOs that are considered eligible,³² in others the inclusion of subnational actors is part of the objective.³³ The finance – related proposals differ: Whereas the “Positive Carbon Club” does not allow subnational actors,³⁴ the “Positive Carbon Pricing Alliance” does in the form of cities, regional councils and ‘local experiments’.³⁵ The “International Alliance for Bio-based Economies” would allow subnational governments “if participation at national level cannot be achieved”.³⁶

Mirroring the high importance that is usually given to “entry fees” as a prerequisite for a functioning club, almost all proposals attach rather strict conditions the membership except for one proposal expressly stating that no conditions should be attached to membership.³⁷ Some proposals require a proven commitment to climate policy but do not further specify, like a minimum obligation of at least ten percent reduction of total GHG emissions compared to BAU.³⁸ And various proposals provide for rather detailed entry requirements: Both carbon pricing proposals set out a catalogue of criteria that have to be fulfilled before joining the club³⁹ and another broad proposal outlines a detailed set of access criteria.⁴⁰ Some proposals require a proven commitment to climate policy but do not further specify. Since some clubs are targeting specific actors, e.g. great

³¹ Saleemul Huq in the context of the case study for Bangladesh.

³² Badr Ikken in the context of the case study for Morocco.

³³ For example Fernando Tudela in the context of the case study for Mexico.

³⁴ Emilio Lèbre La Rovere in the context of the case study for Brazil.

³⁵ Emilio Lèbre La Rovere and Christophe Cassen / Jean-Charles Hourcade.

³⁶ Atul Kumar et al. in the context of the case study for India.

³⁷ Atul Kumar et al. in the context of the case study for India.

³⁸ Robert Bakiika in the context of the case study for Uganda.

³⁹ Emilio Lèbre La Rovere and Christophe Cassen / Jean-Charles Hourcade.

⁴⁰ Fernando Tudela in the context of the case study for Mexico.

powers or bio-rich countries, they provide for the respective capacity as a prerequisite for membership.

Almost all proposals are silent with regard to monitoring with the exception of the “Club of Clubs” proposal⁴¹ and the “Positive Carbon Pricing Alliance” that set out rather strong monitoring schemes.⁴² Compliance measures are not high on the agenda either, with the exception of the “Club of Clubs” proposal that provides for penalties and sanctions, most proposals are silent or envisage the suspension from benefits accrued.⁴³

6. A review of the proposals: coalitions and clubs

The suggestions for climate clubs analysed above are marked by a great variety of proposals resulting, among other things, from the authors’ different national, geographical, professional and personal backgrounds. At the same time, a closer analysis reveals that the multitude of these suggestions is also an expression of the multitude of challenges, opportunities and related requirements facing the international community post-Paris.

Variations in the club proposals can be roughly structured according to two functional models: first, proposals that primarily address the processes of international climate governance, notably negotiations, and second, proposals that seek to foster or to complement the institutional architecture of international climate governance. For the sake of distinction we refer to the former as 'coalitions' and to the latter as 'clubs' in a more narrow sense.

Coalitions to advance UNFCCC processes

As mentioned above, inside the climate regime, the main tasks are related to the technical implementation of getting all Parties ready for the implementation phase of the Paris Agreement starting in 2020, with the following main elements: The preparation of the global stocktaking in 2018, the strengthening of the NDCs preferably

⁴¹ Penehuro Lefale in the context of the case study for AOSIS.

⁴² Emilio Lèbre La Rovere and Christophe Cassen / Jean-Charles Hourcade.

⁴³ Penehuro Lefale in the context of the case study for AOSIS.

before 2020 and the development of transparency rules.⁴⁴ Inside the climate regime, negotiations are structured along so-called ‘groups’ like the G77 and China, AOSIS, LDCs, the African and Arab Group, AILAC, BASIC, LMDC (with developing country membership) and the Umbrella Group and the EU (with developed country membership). These negotiating groups are characterized by a great deal of homogeneity in sharing similar interests – in some cases the progressive interests of the more vulnerable countries (like AOSIS or LDCs), in other cases more ‘conservative’ interest in preserving the status quo (like LMDC or the Arab Group).

The Environmental Integrity Group (EIG), however, is a negotiation group comprising developed and developing countries and there have also been a number of short-lived alliances across the north-south divide: The Green Groups comprising the EU and a large group of (changing) developing countries that were formed in the wake of the COPs in Berlin, Marrakesh and Bali as well as the “Durban Alliance” all ceased to exist after they had accomplished their mission at the respective conferences.

There are some indications that the High Ambition Coalition, which was so instrumental in bringing about the Paris Agreement, will not experience the same fate. Apparently Tony de Brum, who devised and brought together this diverse group of countries in the summer of 2015, has been appointed climate ambassador of the Marshall Islands. Since he is supposed to continue leading the HAC it might be concluded that there is some political will to continue its existence. This would be a step into the right direction and prevent old conflicts between the developed and developing countries from flaring up again as it happened after the Berlin, Marrakesh, Bali and Durban conferences. It might actually be one of the most important tools for keeping up the ‘spirit of Paris’ in the difficult years to come.

Apart from those negotiation groups and short-lived political alliances, a plethora of institutions under the UNFCCC, the Kyoto Protocol and in the future the Paris Agreement represent the main fora for negotiations, compromise and advancing the objectives of the treaties. Since these are open to all parties to those agreements, there would be room for alliances and coalitions that provide specific functions for the goal of advancing efficient, effective, transparent and legitimate processes under the UNFCCC.

⁴⁴See Obergassel et al. (2016), note 1.

One proposal to this end would be the formation of specific coalitions that aim at facilitating increased levels of ambition by means of peer review. The Paris Agreement provides a multilateral context agreed by all countries in which minilateral initiatives could productively enhance implementation of all the elements of the Agreement. Over the next four years the details of the Paris Agreement will be negotiated. A minilateral approach could contribute both to this process, to ensure ambitious rules, and an ambitious reporting and transparency regime, and also to provide political and technical impetus to the national elements of the Agreement.

The architecture of the Paris Agreement, in the beginning based on “nationally determined contributions”, lends itself to minilateral initiatives in two areas: i) peer review of national mitigation efforts, and the determination of successive national contributions; and ii) to facilitate policy learning in implementation in both mitigation and adaptation.

The cost of participation is the potentially high political risk of scrutinizing national mitigation targets. A lower risk is the disclosure of national policies and process, possible reputation losses and domestic cost of implementation, which might turn into a benefit and make international pressure more resistible. Club goods and benefits are international credibility and peer learning through national review processes. There is a political risk if only developing countries, especially middle-income countries, were in the club. To mitigate this, members should be from industrialized, middle income and developing countries. The best learning might happen between separate groups of developing and industrialized countries. Yet, involving developing, middle income and high emitting Annex 1 countries will probably create better political outcomes and result in higher ambition.

Clubs complementing the climate regime complex

Outside of the climate regime, in the real world, the main tasks relate to the transformative implementation of the Paris Agreement: The quick entry into force, the implementation and strengthening of the NDCs in the national legislations, the mainstreaming of national policies in all fields (not just energy but also agriculture, transport, housing, the finance sector etc.), the climate mainstreaming of transnational finance flows and the transformation of the global economy.

It is apparent that these tasks cannot be fulfilled by one single coalition or club, but that further progress requires a great variety of alliances with different actors, modes of operation and degrees of institutionalization. The task here is therefore to shed light on a variety of clubs that have the capacity to support progress inside and outside of the climate regime as much as possible.

Outside of the UNFCCC regime there exist a great number of climate alliances⁴⁵, but as yet only one club with the express purpose to support the diplomatic efforts: the Climate Vulnerable Forum (CVF) established in 2009 to represent and push the interests of the most vulnerable countries. The CVF consists of 43 countries and has an institutionalized structure with a secretariat and a rotating presidency. It played a vital role in the run-up to COP21 in Paris and the successful establishment of the High Ambition Coalition that brought about the Paris Agreement.

Due to the rather large number of different tasks ahead, a number of proposals for additional clubs could be advanced. Alternatively, these various clubs could be developed under the umbrella of a “Decarbonisation Club”. This would be guided by a clear vision of decarbonisation and resilient development. And it would provide a common framework for pioneer activities around the globe – thus preventing a multiplicity of efforts that could easily be accused of “fragmentizing” the international endeavour to save the climate. On the other hand, the establishment of such a far-reaching club would require a huge diplomatic effort – and it is not at all certain that after Paris such an effort would find the necessary support. Therefore, the authors of this paper propose both - an enhanced ambitious decarbonisation club and a number of more specific, sectoral clubs. It is for governments to decide which option to choose, taking into account existing, new and additional mechanisms under the UNFCCC regime (Paris Agreement included), Agenda 2030 and the World Trade Organization (WTO).

1) The World Decarbonization Club (WDC)

Although the notion of a decarbonized global economy is not specifically defined in the Paris Agreement, Articles 2, 3, 4, 6, 7, 9, 10, 11 & 13 clearly point towards implementing a bold and ambitious worldwide decarbonization transformational pathway as soon as

⁴⁵See Weischer, Lutz, Jennifer Morgan and Milap Patel. 2012. "Climate Clubs: Can Small Groups of Countries make a Big Difference in Addressing Climate Change?" *Review of European Community and International Environmental Law* 21(3):177-192.

possible. It is certain that in order to achieve the long term temperature goal set out in Article 2 of the Paris Agreement, the need to decarbonize the global economy as soon as possible is absolutely and fundamentally vital. Without it, the Paris Agreement would be another futile attempt after the Kyoto Protocol.

The Paris Agreement under the UNFCCC adopted on 12 December 2015 constitutes an attempt to recalibrate the role of the multilateral climate regime within the evolving polycentric governance framework that enabled it.⁴⁶ It posits (1) a global temperature goal of “holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels” (Article 2) and (2) the goal of phasing out net greenhouse gas (GHG) emissions “in the second half of this century” (Article 4.1).

To achieve these goals, emissions would need to be phased out early in the second half of this century, according to the Intergovernmental Panel on Climate Change.⁴⁷ The Paris Agreement thus points to worldwide decarbonisation within the next few decades as the major pathway for the overall global economic governance framework.

The Paris Agreement creates a renewed dynamic framework of international cooperation on climate change that, for the first time in international climate policy, urges all countries, including developed and developing countries, to undertake “nationally determined” climate action plans. More than 180 countries covering around 98% of worldwide GHG emissions submitted such plans prior to the Paris Summit. How to meet these pledges will require further elaboration in the years to come, at least until the Paris Agreement enters into force upon ratification by 55 countries representing 55 per cent of global GHG emissions. But regardless of when the Paris agreement enters into force, it is clear that it provides a solid international framework and a catalyst for the international community to pursue the decarbonisation of the world’s economies over the coming decades.

Decarbonizing the global economy will require major shifts in policy and institutional changes at all levels of government and various actors, in accordance with respective

⁴⁶ Sebastian Oberthür (2016): Where to go from Paris? The European Union in climate geopolitics, Global Affairs, DOI: 10.1080/23340460.2016.1166332.

⁴⁷ IPCC (2014). Climate change 2014: Mitigation of climate change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge/New York: Cambridge University Press.

national legislations of Parties, in addressing climate change. Of particular importance for the decarbonisation of the global economy is the realization that the decarbonisation of the global economy would not depend on the Paris Agreement/UNFCCC regime alone, but it also predominantly dependent on the regulatory framework for the world's economy, i.e. global economic governance.⁴⁸ According to this line of argument, the decarbonisation of the global economy requires adequate pricing of carbon, a suitable body of carbon regulations for international trade and investment, and the appropriate configuration of the financial carbon markets.

One mechanism to assist Parties to fast-track their low carbon and decarbonization transformation developments is for countries to establish new climate partnerships and alliances (clubs). The importance of climate clubs became obvious while marshalling support for a successful deal in Paris as discussed above. Thus there is a case to establish, identify, connect, and support a bold and ambitious World Decarbonization Club .

The vision for the WDC is a decarbonized global economy by 2100 that can also withstand climate shocks. To achieve this, it needs to mobilize resources for the purpose of assisting parties to the Paris Agreement and non-state actors to create a low-carbon global economy and resilient pathway, in line with the global temperature target to hold the increase in global average below 2°C. A WDC should reaffirm the principles set out in the Paris Agreement, the UNFCCC, Agenda 2030, and the Marrakesh Agreement Establishing the WTO.

The objectives of the WDC could include the following:⁴⁹ (i) 40 to 70% global greenhouse gas emission reductions by 2050 compared to 2010 levels, (ii) agreed 'international target carbon price' (e.g. at a minimum domestic carbon price of \$25 per ton of CO₂) by 2025, (iii) incorporate climate mitigation and resilience considerations into all development assistance and investment decisions, (iv) disincentive investments towards low-carbon growth opportunities, (v) establish a platform for strategic WDCs dialogues, (vi) elimination of inefficient fossil fuel subsidies, and (vi) increase by up to

⁴⁸ Brandi, C., D. Bruhn and N. Lindenberg (2015): The Global Regulatory Framework for Decarbonization – 3x3 Starting Points for the Reform of Global Economic Governance. Briefing Paper, 19/2015. D.I.E. German Development Institute.

⁴⁹ Lefale, P.F. (2016): Climate Clubs and the Alliance of Small Island Developing States (AOSIS): To Join, or Not to Join? (in press).

400 million the number of people in the most vulnerable developing countries who have access to direct or indirect insurance coverage against the negative impacts of climate and climate-related hazards by 2020.

The WDC could start by working with all Parties to fast tracking (ratcheting) the implementation and deepening of their current pledges (NDCs). There is broad agreement that the current pledges are inadequate to achieve the long term temperature goal of the Paris Agreement. As the International Energy Agency (IEA) announced at the climate talks in Bonn, in May 2016, the climate goals set in the Paris Agreement can only be reached if the parties “drastically accelerate climate action and make full use of existing technologies and policies set out in the IEA’s own ‘bridge scenario.’”⁵⁰

The ratcheting up of NDC ambitions was central to some PACA proposals put forward. This task requires strong political leadership – in terms of setting a good example (directional) and in terms of strong personality and networking skills. A club for the quick implementation and deepening of NDCs would also require a certain degree of formalization and institutionalization in order to organize and orchestrate the activities vis-à-vis the different countries.

The Climate Vulnerable Forum (CVF) might serve as an example for a still rather rudimentary but efficient level of formalization for diplomatic purposes: It comprises a Secretariat, a rotating Presidency (currently the Philippines, from mid-2016 Ethiopia), a website⁵¹ and national focal points in each of the 43 member countries. In October 2015 the CVF even produced an offspring, the “Vulnerable 20” Group of Finance Ministers that has become the most active part after Paris.⁵²

One of the main functions of such a club could be to enrich the traditional diplomatic procedures with subnational and private actors. The Paris Agreement and the accompanying decision do their utmost to somehow interlink the diplomatic and the private spheres, but under traditional international law there are limits to this endeavour. A newly established club would not have such restrictions and could find new and innovative ways to integrate actors that are not subjects under international

⁵⁰<http://newsroom.unfccc.int/unfccc-newsroom/iea-governments-not-on-track-to-achieve-paris-agreement-goals/>.

⁵¹<http://www.thecvf.org/>.

⁵²<http://www.thecvf.org/v20-founding-communique/>.

law into the consulting and maybe even decision-making procedures. In most proposals (one even aims at the establishment of an independent NGO) the inclusion of subnational actors is part of the objective.

2. North-South Finance club for low carbon transition and sustainable development

One of the most important tasks in the coming years relates to the mainstreaming of climate policy into the traditional finance flows and the growth in climate finance. As regards the latter, two proposals (the Positive Carbon Pricing Alliance and the Positive Carbon Pricing Club) recommended the establishment of such a club to use the social value of carbon and provide the required finances. The authors have come together and combined their proposals.

This proposal is based around a mix of voluntary commitments by States (North and South) to facilitate the financing of mitigation measures and projects in the framework of their nationally determined contributions (NDCs). Countries are free to choose the sectors and activities (building, transport, land use, etc.) eligible for this support. In practice, each club member would commit to an amount of public guarantee on low carbon projects. This guarantee would be proportionate to avoided emissions realized by the projects and valued at the Social Value of Mitigation Action (SVMA) as defined in paragraph 108 of the decision adopting the Paris Agreement.

Based upon this guarantee the investment or development bank could provide new credit lines refundable with carbon certificates (stating the reality of the reduction of CO₂ emissions) instead of cash because these certificates would be accepted by the central banks swapped to carbon assets or, on a secondary market, by any institutional investor.

This combination needs a commitment by each member of the club to guarantee the value of a predetermined quantity of carbon certificates (consistent with their NDCs) coming from low-carbon projects (LCPs). This value would be commonly agreed among the members of the club. Its legal basis can be found in the recognition of the social, environmental and economic value of mitigation actions (SVMA) in paragraph 108 of the Decision of the Paris Agreement by Parties to the UNFCCC (UNFCCC, 2015). In this paragraph, the Parties recognize both the social cost of climate change damages and the

various co-benefits of mitigation activities (air pollution, benefits of the recycling of the revenues of carbon pricing, energy security).

This mechanism has the advantage to expand the capacity of banks (retail, development banks, institutional investors) to fund low carbon projects at the national level and in other members of the club (development assistance, etc.). Members with the highest potential for decarbonisation would particularly benefit from the scheme. Belonging to such a club would be stable insofar as it induces an immediate financial advantage, in particular by lowering the risk-premium of LCPs and by a cumulative effect that would foster economic growth.

In return, club members must submit NDCs to the UNFCCC, with clear mitigation goals in the short and long term, provide a package of credible actions for their low carbon transition and facilitate experiments of innovative financial mechanisms. A strong and credible regime for Monitoring, Reporting and Verification (MRV) under the authority of the UNFCCC to ensure both the adequacy of support and efficient use in the implementation of NDCs as well as to guarantee the environmental integrity of the consequent investments would also be set.

3) Sustainable Forestry and Biomass Club

Initially, two proposals advanced the establishment of a “Sustainable Forestry Club” and an “International Alliance for Bio-based Economies”. However, considering the extent of overlap among the two proposed clubs, the authors propose the formulation of a combined *International Alliance for Bio-based Economies* for countries rich in biomass and forest resources.

It can encompass a number of activities in several fields:

- forest protection through command and control and economic policy tools, REDD+ etc.;
- sustainable forestry including both reforestation with native species and afforestation schemes for commercial purposes as well as integrated agroforestry activities;
- sustainable liquid biofuels production and use;
- renewable power generation from solid, gaseous and liquid biomass;

- low carbon agricultural practices (low tillage, biofertilizers, etc.); and
- innovative cattle raising practices for GHG emissions mitigation.

Other than this, no major criterion for membership to the club has been proposed by the authors since this climate club would endeavour to provide a common platform to the member nations to optimally utilize their resource potential, maximize opportunities for better practices in sustainable funding, and thereby contribute to the overall aim of low carbon economic development. Considering the social and environmental factors that trigger the formulation of such a club, authors are of the opinion that any national/sub-national agency that shares the vision to increase the adoption of bio-based fuels and promote low carbon agricultural practices should not be restrained from joining the club.

Climate experts around the globe are focusing upon exploring innovations that would lead us towards a low carbon development pathway. Similarly, bio-based economies dwell upon the traditional as well as emerging sectors based on biomass, while simultaneously considering constraints related to resources and the environment. Talking about global food security, it is imperative to lay a strong foundation towards obtaining a resilient and sustainable food chain to minimize the risks at environmental and agricultural level. Hence, such a club would strive to undertake pilot projects for sustainable use of forest and biomass resource, thus enabling early warning systems for protection of forests.

The formulation of such a club would foster the agglomeration of ideas around the globe that otherwise may fail to develop due to their fragmented nature. Knowledge sharing, collaborative research, technology transfer, capacity building, awareness generation, pilot projects, joint research, enhanced energy security, livelihoods, health, etc. are some of major benefits that can be accrued from establishment of an International Alliance for Bio-based Economies. At times it is observed that due to certain implicit factors, national governments are unable to join an alliance. However, this should not restrict voluntary contributions from even the sub-national governments. Hence, for the current club, the authors propose that membership should be open to sub-national governments in case participation is not achieved at the national level.

4) Energy Transformation Club

The energy sector is crucial for reaching the objectives of the Paris Agreement. Without a rapid transformation towards zero emissions in the energy sector - including electricity, heating / cooling and transportation - the objective of global greenhouse gas neutrality in the second half of the century cannot be reached. Through a club, countries that want to pursue this transformation in an ambitious way (i.e. want to be transformation frontrunners) can share the costs and efforts, learn from each other and share the benefits. Such a club should provide an additional incentive, allowing more countries to pursue the transformation of the energy sector in a faster and more ambitious way.

While the ultimate outcome of this club would be significant emissions reductions, it would not be framed around reductions, but around the economic, development and security benefits that come with choosing an energy transformation pathway that is consistent with the Paris objectives. In order to make this vision concrete, it would need to be supplemented with specific goals, for instance on renewable energy deployment, energy efficiency or transforming the transportation and building sectors. Membership would be dependent on a commitment to these goals and implementation of the necessary strategies, policies and mechanisms to achieve the target.

One of the first steps after the establishment of the club and laying out the vision should be a study that is conducted jointly by researchers and institutions from the member countries to explore pathways towards a 100% renewable energy economy in a way that generates significant economic benefits. The study should identify the contributions individual club members can make and the joint activities that will allow them to reach their objectives faster. Based on this, an action program can be developed. The club can expand its reach over time. At the beginning, it could focus on sharing of experiences and best practices for energy policy, including policies to promote the development of domestic clean energy industries. A mutual understanding on such policies can also help ease trade tensions in these sectors.

Club members could also agree on joint research and development on key areas, such as grid, storage and market design. Additional areas for common activities are joint demonstration, capacity building and training projects. In the context of the club, initiatives by the private sector can also be encouraged and publicly announced. Support that is available to domestic investors, including grants, access to financing, cooperation

with research institutes, etc. should also be available to those from other member countries.

After a few years, the club could move into the next phase, expanding joint research and development, including the sharing of intellectual property. In addition, members could set up training and exchange programs, create financing mechanism supporting the transformation in the poorer developing member countries, harmonize and mutually recognize standards and agree to use criteria in their public procurement that incentivize the energy transformation. Finally, they could explore granting mutual trade preferences.

The club needs engagement both at the highest levels of government and on a working level. Dedicated resources and staff will be needed in all participating countries in order to ensure meaningful participation. Developed country club members have to be prepared to provide funding to developing country club members to support their participation. The working arrangements should also include mechanisms that create accountability, to ensure members actually meet the criteria for membership and work towards achieving their targets. Members should regularly report on their progress and a peer review process should be created. The club should also find ways of engaging civil society representatives from member countries in order to increase transparency and hold member governments accountable.

5) NDC Peer Review Clubs

The Paris Agreement (PA) provides a multilateral context agreed by all countries in which minilateral initiatives could productively enhance implementation of all the elements of the Agreement. Over the next four years the details of the PA will be negotiated. A minilateral approach could contribute both to this process, to ensure ambitious rules, and an ambitious reporting and transparency regime, and also to provide political and technical impetus to the national elements of the Agreement. The architecture of the PA, in the beginning based on “nationally determined contributions”, lends itself to minilateral initiatives in two areas: i) peer review of national mitigation efforts, and the determination of successive national contributions; and ii) to facilitate policy learning in implementation in both mitigation and adaptation.

The cost of participation is the potentially high political risk of scrutinizing national mitigation targets. A lower risk is the disclosure of national policies and process, possible reputation losses and domestic cost of implementation, which might turn into a benefit and make international pressure more resistible. Club goods and benefits are international credibility and peer learning through national review processes. There is a political risk if only developing countries, especially middle-income countries, were in the club. To mitigate this, members should be from industrialized, middle income and developing countries. The best learning might happen between separate groups of developing and industrialized countries. Yet, involving developing, middle income and high emitting Annex 1 countries will probably create better political outcomes and result in higher ambition.

6) Adaptation Club

The adverse impacts of human induced climate change are likely to fall first and most heavily on the most vulnerable countries in the developing world. One such group of countries are the Least Developed Countries (LDC) group, which consists of nearly fifty of the world's poorest developing countries located mainly in sub-Saharan Africa and Asia. These countries were the first to carry out National Adaptation Programmes of Action (NAPA) from which they have done quite a lot of planning and even implementation of adaptation programmes and projects.

In a very real sense the poorest and most vulnerable developing countries have been the ones that have started climbing the knowledge ladder on adaptation earlier and faster than other countries. Hence the poorest and most vulnerable developing countries are in a position to lead a group of LDCs and other vulnerable developing countries to become a new "Adaptation Club" of countries. This would require some planning and also financial support but the early learning has already been acquired by many of the LDCs.

Club members should represent the mandate of climate protection, adaptation/or vulnerability and have members with similar mind-sets regarding the need for climate action. The club members would represent a coalition of countries advocating for a common goal to protect the climate and those most affected by climate change. It is essential that there be compatibility between members, with similar outlook on climate change related issues. The members should work in harmony with each other.

Key club goods that would be helpful to provide are knowledge exchange, financing mitigation/adaptation, trade of goods, preferential treatment in the trade of climate relevant goods/resources and capacity building. A possibility of trade in climate related goods and services would also be beneficial.

The criteria for a country to join should include the following:

- previous experience in establishing and developing such clubs and
- a commitment to climate change as demonstrated through proactive policies and resources dedicated to tackle and prevent climate change.

To look at the means of implementation, it would be useful to see how previous clubs such as Climate Vulnerable Forum were institutionalised.

7. Conclusions

The world is at a decisive stage - the next years will determine whether mankind takes tackling climate change serious or not. The Paris Agreement was a great diplomatic achievement and provides a basis on which such an endeavour can be built. Since its material provisions are non-binding, however, it needs continuous political effort to sustain the momentum. As our study has shown, climate alliances have the potential to support the implementation and further development of the climate regime. We have distinguished between coalitions that support the process of negotiations, mainly in the context of the UNFCCC negotiations and clubs that seek to foster or complement the institutional architecture of international climate governance.

Both types of alliances have specific roles and functions that are important. In the context of the UNFCCC, the Kyoto Protocol and the Paris Agreement, ambitious ad hoc coalitions like the Green Group, the Durban Alliance of the High Ambition Coalition have the potential to push the boundaries of the seemingly possible. Our advice is to keep the High Ambition Coalition alive, at least at its core, in order to keep up the momentum for the main internal tasks: the preparation of the global stocktaking in 2018, the strengthening of the NDCs preferably before 2020 and the development of transparency rules. This will not be easy since many of the individuals that have shaped the coalition moved on to other tasks – and these short-lived coalitions are highly dependent on

personal relationships. But with a certain degree of political will, this should not be impossible.

Pioneer climate clubs that complement the institutional set-up require considerably more effort than negotiation coalitions and it is not clear whether there is enough energy at the moment to engage in further institution building. The benefits could be huge, however, and seem worth the effort. As the country studies have shown, in quite a large number of countries that are important in the climate change context the willingness to engage in additional efforts is great. The reasons are manifold: from the dissatisfaction with the slow pace of consensus oriented global negotiations to the specific needs of the respective countries. The tasks are daunting: successfully talking climate change requires the quick entry into force of the Paris Agreement, the implementation and strengthening of the NDCs in the national legislations, the climate mainstreaming of transnational finance flows and – last but not least - the transformation of the global economy.

The proposals for climate clubs from our authors have been as varied as these tasks. These proposals have been merged, streamlined and submitted to the authors again for their approval. The most ambitious proposal aims at a World Decarbonization Club for those countries that aim at moving forward at a much faster pace than the consensus speed of almost 200 countries. Governments around the world are weary at the moment to engage in such a broad diplomatic endeavour, but as time moves on the willingness might grow. Most of the proposed clubs are more limited in scope and ambition: related to the pricing of carbon, the sustainable use of forests and biomass, a club to foster the energy transition, the ‘peer review’ of Nationally Determined Contributions or a South-South cooperation on adaptation.

We submit these proposals with the wish that our initiative may strengthen the global efforts to fight climate change. The dimension of this challenge requires decisive steps to initiate transformational change in our economies and societies. All means at our command should be used to bring about this transformation. This can be done with the help of globally orchestrated efforts like the Paris Agreement and with faster and more effective instruments by smaller groups of countries. The ideas and proposals are there, now it requires the political will to take them up and bring about the change.

