ATLANTIC FUTURE

SCIENTIFIC PAPER

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Sustainable Policy Perceptions in the Atlantic Basin Green Policy Index

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ABSTRACT

The Green Policy Index works with the premise that policymakers would benefit from a clearer outline of the perception of those working in the sustainability field. It aims to examine perception of governmental policy-openness, likely timescales for policy implementation and perceived attitudes towards potential environmental harm. By mapping out the views of people who work closely with sustainability issues in Atlantic Basin countries, we consider that it is possible to gauge how favourable - as regards principle - and/or cautious - as regards implementation – Basin countries are to environmental policy options. Environmental concerns are likely to increase in the future and those who have not had the forethought to invest in sustainability will be faced with ever smaller margins of flexibility. Depending upon how intensively and collectively - or not - sustainability policies are implemented, relations between Atlantic Basin countries will gradually become either conflictual or synergistic. From the GPI we intend to determine the potential roadblocks and points of contention that ought to be considered in the drawing board phase of green policy planning for the Atlantic Basin as a whole. It ought to be noted, however, that although we are working with the hypothesis that the polling of SD experts on sustainable policies will yield useful material, this research should be viewed as a pilot investigation into the desirability of producing the GPI on a more regular basis. In short, we aim to discover whether it is possible to collect and present useful information on green policy by polling SD experts, and, if so, whether various stakeholders would support the development and/or deployment of an annual survey to capture the full spectrum of green policy perception.

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Abbreviations

GPI: Green Policy Index
FGV: Fundação Getúlio Vargas
SD: Sustainable Development
UNCLOS: United Nations Convention on the Law of the Sea
CSR/CSV: Corporate Social Responsibility / Corporate Shared Value
MDGs: Millennium Development Goals
SDGs: Sustainable Development Goals
COP: Conference of the Parties
IMF: International Monetary Fund
OECD: Organisation for Economic Cooperation and Development
IPCC: Intergovernmental Panel on Climate Change
IEA: International Energy Agency
UNEP: United Nations Environment Programme
EPR: Extended Producer Responsibility
PRME: Principles of Responsible Management Education
GMO: Genetically-Modified Organisms
NGOs: Non-Governmental Organisations
UN: United Nations
GDP: Gross Domestic Product
REDD+: Reducing Emissions from Deforestation and Forest Degradation
SRI: Sustainable and Responsible Investing
BBNJ: Biodiversity Beyond areas of National Jurisdiction
MPAs: Marine Protected Areas
IMERS: International Maritime Emission Reduction Scheme
IMO: International Maritime Organisation
IUCN: International Union for Conservation of Nature
GHG: Greenhouse Gas
UNFCCC: United Nations Framework Convention on Climate Change
KPI: Key Performance Indicator
TTIP: Transatlantic Trade and Investment Partnership
ISDR: Investor-State Dispute Resolution
WEF: World Economic Forum
CO2: Carbon Dioxide
CDP: Carbon Disclosure Project
HDI: Human Development Index
EU: European Union
US: United States

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1. Introduction

Focussing on effective solutions

The world is today faced with an astonishingly long, complex and interconnected list of worries. Unsustainable use of natural resources, lack of investment in clean infrastructure, escalating vulnerability to natural disasters, extreme weather events, increasing global temperatures, rising sea levels (IEA, 2013; IPCC, 2014) and the accentuated hazard of conflict and war[1] (Stern, 2013) form but a sample.

The issue of GHG emissions - merely one aspect of the unsustainable whole - illustrates the gravity of the scenario rather well. As was recently highlighted by the UNEP Gap Report, even should countries' current unconditional pledges to reduce emissions be implemented in full (which is by no means a given), it would deliver no more than one third of what is needed by 2020 to prevent a dangerous 2º C rise in global mean temperature above pre-industrial levels. In short: the policies the world has promised (in a non-binding manner) are simply not enough (UNEP, 2013).

The solution, it is generally agreed, to all of the above concerns, is the achievement of a development model which is economically, socially and environmentally sustainable, allowing for inter-generational justice and framing prosperity within environmental bounds. (Brundtland,1987; Rio Declaration, 1992; The Future We Want, 2012). However, it has been noted that no country has yet successfully accomplished this feat (OWG-2, Co-Chair, 2013). Yet, despite this rather daunting observation, there are pathways and policies towards this end. Prior to choosing one, or many, of the action plans available one must first settle the conceptual notion of sustainability itself – a vast concept, riddled with definitions and interpretations, the very enormity of which makes finding concrete pathways towards its realisation all the more complex - the policy mix available to do so being equally diverse (UNEP, 2011).

Thus, sustainability, in this report, shall be taken as *"development that meets the needs of the present while safeguarding the Earth's life-support system, on which the welfare of current and future generations depends."* (Griggs, 2013) This is a definition which frames development within environmental parameters, illustrating the relationship of dependence that the Social and Economic have to the Environmental, which gives greater clarity, in our view, to the concept of sustainable development (SD) than the traditional notion of three, equal, interdependent pillars.

For the discussion to progress beyond the listing of difficulties and a general hope of achieving SD, it is necessary to consider which mechanisms lead to effective solutions and to look at the alternative paths available ahead. (Stern, 2013) Moreover, moving the discussion to one of available solutions enables the environmental argument to shift away from emotional polarisation[2], allowing even those who are less involved in the discussion to be more accepting because the issues would be framed in such a way that would not threaten their world view. (e.g. market-based policies as opposed to a new economic paradigm) (Kahan, 2012).

[1] It ought to be noted that some dispute the causality between environmental pressures and increased conflict.(Gleditsch, 2012; Nel & Righarts, 2008). This is not to say that these authors argue against mitigation efforts, however.

[2] "As a rallying cry, 'the environment' may get in the way of [solutions], because for many it is an abstract notion that does little to galvanise action, and comes with considerable baggage." (Rowson, 2013)

These alternative paths are what we shall focus upon in this report, for although there is some information available, the 'green policy[3]' positions of countries are not fully clear. Sometimes policies are not publicised, some are difficult to access; most are hard to compare with those of other countries; often there are contradictory measures in place and the path from declaration of intent to implementation is not a simple one. There are no overall policy ratings, or mappings in which future international climate policy directions can be seen at a glance – which regions are in front, which are lagging, which country is leading the fore, where opportunities for international negotiation, technology transfer and/or environmental trade might appear.

In view of these considerations, we intend to increase the information available regarding green policy contexts so as to aid policy-makers in the Atlantic Basin when it comes to making what are often difficult, politically contentious choices.

The Green Policy Index: proposal

We set out to construct the Green Policy Index (GPI) as a questionnaire-based index, scoping out opinions of SD experts with a view to measuring green policies on a country-by-country basis, showing where Willingness to Act (upon green policies) is greater, Anticipated Timescale (for their implementation), shorter, as well as where Environmental Risk (originating from other policies) is taken most seriously.

We identified a number of environmental policies that exist as suggestions and/or are in the process of implementation in the international arena. Equally, we considered certain policies that may cause environmental harm and yet are being considered/implemented (with more or less enthusiasm) in many countries, today.

Responses from SD experts regarding these policy subsections were then aggregated, with equal weights given to each subsection, to form the GPI, illustrating which countries have more (or less) advanced attitudes towards the effective implementation of SD.

The primary focus of the GPI is to improve understanding of the green policy positions of Atlantic Basin countries. We hope, via this study, to determine how Basin countries are placed on the pathway towards a green economy and whether or not there is environmental policy homogeneity between them, allowing for potential collaborative ventures.

2. Theoretical Grounding

2.1. Why Perception?

"Much information is already available, but many climate policy stakeholders are not satisfied with their success in finding the information they need. The way information is presented is often difficult to access, not in the right format, and of limited use for stakeholders. Much climate policy is decided at an international level, and policymakers at local, regional and national levels often have little insights in these policies and their implications. Several stakeholders state that lack of information is a problem in policy

[3] By 'green policies', or SD policies, we intend to designate any concrete public policy developed with the intent to implement, or aid in the creation of a sustainable green economy, in which environmental assets are not the externalities of economic success.

making. Useful information is often not being recognised as relevant by politicians. Many stakeholders argue that the scientific research is available, but there is a problem that the overall overview of the information is lacking, and government officials often do not know where the knowledge exists." (POLIMP, 2013)

As touched upon in the introduction, there is an information-gap issue to be addressed when it comes to green policy. There is, as of yet, no comprehensive or consistent empirical data on the attitudes countries will adopt regarding the many green policy proposals floated in journals, policy papers, petitions and other mechanisms by environmentally-concerned stakeholders. Certainly, there are governmental plans and policy-papers, statements of intent, Nationally Appropriate Mitigation Actions (NAMAs) and National Adaptation Programmes of Action [4], -mechanisms through the examination of which one may discover a given state's green policy plans and priorities. However this is still fairly inaccessibly presented and does not facilitate cross-country comparability. Moreover, some policies are still only discussed in civil society fora, thus it is impossible to know any given state's position on said policy, except as may be inferred from this very omission.

Should the international community suddenly agree to outline and coordinate their 'Green Policy' planning via White Papers following similar methodologies so as to ensure information clarity and inter-country comparability, we would be facing a very different scenario – in which there would be policy-clarity and no need for perception-based data.

As it is, we must rely on exploratory research such as this questionnaire to determine the likelihood of specific policies moving forwards, - or being shelved. Otherwise put, we must deal with perception, not fact. Yet, regardless of how well-informed the sample polled is, it is impossible to state that perceptions of attitudes to green policies will flawlessly reflect reality. Nonetheless, the Green Policy Index (GPI) is based upon the hypothesis that there may be a correlation between sustainable development (SD) experts' perception of reality – and reality itself.

Following the reflection-construction model of relations between social perception and social reality, certain social psychologists consider that "not only may social perception create and construct social reality, social perception may accurately reflect social reality." (Jussim 1991) Moreover, and fairly intuitively, social perceptions which are based on more valid information may be considered more accurate than those based on less valid information (Brophy 1983; Dusek 1975). Following this logic, SD experts may be considered to base their perceptions of green policy positions upon more valid information than those outside the sustainable development field.

In short, by polling people in government, academia, NGOs, traditional media, and research institutes – filtering by those who work with, write about or otherwise promote sustainability - potential roadblocks in the environmental governance agenda may become clearer.

[4] *"Crudely, NAMAs are about replacing coal mines with solar cell factories, and reducing carbon emissions by protecting forests; NAPAs are about flood defences and drought-proof crop varieties."* (Maxwell, 2010) An examination of the registry shows that many NAMAs aim to provide comprehensive solutions, indicating transformational change and long-term emissions reductions, but that the large number of unspecified NAMAs suggests that their scope remains unclear, and the level of detail provided rather limited. *"There are very few NAMA proposals or detailed background studies available in the public domain. These are needed for people to scrutinise, analyse and compare NAMA development processes in order to encourage and enable learning."* (Mitigation Momentum, 2013)

For the purposes of comparison, the Corruption Perceptions Index (CPI), created by Transparency International, which also relies on perception-based data, notes that in view of the impossibility of acquiring hard empirical data, *"capturing perceptions of corruption of those in a position to offer assessments of public sector corruption is the most reliable method of comparing relative corruption levels across countries."*

Similarly, the GPI aims to fill a gap that could only really be adequately filled by transparent and internationally uniform governmental statements and homogenous planning schedules regarding green policy proposals.

2.2. Why Policy?

"There is currently a credibility gap between what governments are saying about climate change and the policies they have in place…..UNEP estimates that the pledges for 2020 get us only between a quarter and half way to where we need to be to keep the 2 degree goal within reach. And pledges need to be supported by credible policies that will achieve them. Thus, an awful lot of progress will need to be made over the next two or three decades starting immediately – not sometime after 2020…..The end goal of zero emissions is achievable, but it will not be achieved if we continue with current policies. It will all depend on the way in which every country answers the following question: is our government contemplating a policy mix that is, over time, credible given the scale of the transformation we have to make? Policy progress in turn, will not be made through gestures – but rather by convincing all sectors of society that the path that has been charted is credible, sustainable over time and that it will deliver." (Gurria, 2013)

Rallying around intangibles is a relatively easy task. Agreeing to 'end poverty' is so very much less controversial than to 'end unsustainable agricultural and fisheries subsidies'. The one is a general statement of positive intent; the other involves economic interest-groups which defend their stakes very vocally, and an entire economic model which would need careful policy management to modify without upheaval. Due to this, many reports on SD focus on aspirational goals, and not their means of implementation. As noted in UNEP's Green Economy report, *"if the desirability of moving to a green economy is clear to most people, the means of doing so is still a work in progress for many."* (UNEP, 2011) The key difficulty when it comes to the implementation of more ambitious environmental policies is one of governance (Pidgeon 2012). The 'governance-trap' involves the avoidance of responsibility by both governments and citizens, meaning that neither party will act in a decisive way, since each believes the solution to be responsibility of the other. "Breaking out of this unfortunate stalemate is probably the most significant challenge for climate policy makers".

'Stealth Denial', meanwhile, aggravates this issue (Rowson 2013). This describes the complex phenomenon whereby people accept the abstract need to implement policies addressing climate change (and other environmental concerns), however do not themselves modify their behaviour, disavowing personal responsibility.

To break out of this stalemate, the ball lies far more in the court of policymakers than of average citizens, since the repercussions of public policy are of infinitely greater significance than those of the green gestures concerned citizens are able to make. It is therefore important for available solutions - ergo policy options - to be constantly circulating in the political stream (Kingdon, 1984).

Moreover, civil society, in the context of the post-2015 development agenda and the Sustainable Development Goals (SDGs), is clamouring for an international response

which moves beyond aspirational goals, providing policy options and action-oriented plans. In a UN Non-Governmental Liaison Service Policy Brief, it was noted that "many consultation participants asserted that the adoption of global Sustainable Development Goals will be meaningless unless strong means of implementation are in place." (UN-NGLS, 2013)

Finally, it could not be better put than by Jonathan Rowson of the Royal Society of Arts (RSA), *"Identifying policies to get behind is important to make sense of what it means to 'act'. To gain traction the incipient climate movement we need to swiftly galvanise will require a positive story to believe in, so that when we are called upon to act, the action is not just against something intangible, destructive and dominant, but for something tangible, progressive and credible."* (Rowson, 2013)

It is our hope that the GPI will shift the argument towards the tangible, enabling all stakeholders to have a clearer view of the terrain. The path from aspiration to drawing board to implementation is fraught with obstacles. The GPI aims to give greater clarity to this process and to focus attention upon practical solutions.

2.3. Which Policies?

Criteria used to select policies for the GPI were both the importance of the policy to the implementation of SD, its relevance to the Atlantic Basin and its potential to unite Basin countries in an interconnected community of joint policies and/or management strategies.

We examined a range of policies studied in specialised civil society fora (e.g. ecosystem-based fisheries management policies suggested, amongst others, by the World Wide Fund for Nature - WWF) and/or mentioned in official recommendations by international organisations (e.g. the phasing out of fossil fuel subsidies called for by, inter alia, the IEA) or already undergoing international debate (e.g. the carbon pricing of shipping under a rebate mechanism, currently being discussed in the International Marine Organisation).

1. Sustainable development policy priority

In choosing which policies to include in the GPI, we firstly examined the wider international development agenda comprised by the Millennium Development Goals (MDGs), and the main reports regarding the Sustainable Development Goals (SDGs) and the post-2015 agenda since, taken together, these goals form an overarching international body of knowledge on current socio-environmental concerns – from food security to sustainable energy – and future aspirations which countries will use as guidelines on the path towards increased sustainability. (Post2015HLP, 2014; UNSDSN, 2013; UNDESA, 2013; UNDP, 2012; Cornforth, 2013).

2. Sustainable Oceans

The policy category of most clear relevance to the Atlantic Basin is that regarding oceans, since it is the Atlantic Ocean which joins the Basin community together. As such, we chose to consider four ocean-related policies: the protection of biodiversity beyond national jurisdiction (BBNJ), the expansion of marine protected areas (MPAs), the establishment of ecosystem-based fisheries management policies. (Druel, 2011; Pew Trusts, 2014) and the pricing of carbon in the context of international shipping. (IMERS/UNFCCC, 2010)

The first of these, the protection of BBNJ, is under negotiation under the auspices of the United Nations Convention on the Law of the Sea (UNCLOS). It is an issue which benefits from civil society engagement (Paris High Seas Appeal, 2013) and regards the preservation of ecosystems, access to and sharing of benefits related to the exploitation of marine genetic resources, marine protected areas, environmental impact assessments, research support, marine technology transfer and considers the creation of an International Seabed Authority to participate in the management of High Seas marine genetic resources. (Paris High Seas Appeal, 2013) The instrument proposed shall (potentially) be legally binding.[5]

The second policy we selected was the establishment of an Atlantic network of marine protected areas (MPAs), including in international waters. MPAs have long been on the international agenda, having been adopted as a target by the Parties to the Convention on Biological Diversity of 1992, amongst others. In the Rio+20 final document, "The future we want"[6] of 2012, States reaffirmed the importance of area-based conservation measures, including marine protected areas, consistent with international law and based on best available scientific information, as a tool for conservation of biological diversity and sustainable use of its components.[7]

Ecosystem-based fishery management (EBFM), meanwhile, reverses the order of management priorities so that management starts with the ecosystem rather than a target species. (Mohammed, 2014) Moreover, it is a policy which has potential to unite Basin countries in a network of fishery management since, it has been shown in case studies on the matter that *"a regional framework could assist in providing better natural resource management planning at a regional level and meet the legislative responsibilities for managing fisheries and aquatic ecosystems in a more holistic manner. The EBFM framework that was developed was ultimately successful in meeting both of these objectives because a pragmatic, management-focused approach was taken."* (Fletcher, 2010)[8]

Finally, the International Maritime Emission Reduction Scheme (IMERS) proposed by the IUCN and discussed by the IMO's Marine Environment Protection Committee comprises a Rebate Mechanism policy whereby all ships pay for their emissions and developing countries obtain annual rebates in relation to their share of global imports. Meanwhile, all remaining revenue - from developed countries – is directed to climate change action. (IMERS/UNFCCC, 2010)

3. Transatlantic sustainability

Basin countries may form a community in many ways, through ocean-related policies, trade, cultural ties and direct policies to increase any or all of these. Cities are often said to have become a key organisational unit and breeding ground for innovative sustainable policies. (CDP/C40 cities, 2013) Although they cover less than two percent of the earth's surface, they consume seventy-eight percent of its energy and produce over sixty percent of global carbon dioxide and other GHG emissions. (World Bank, 2010) In view of the importance of the urban scale and the potential for increasing Basin networking, we chose to consider a policy option which would unite Basin

[5] A/RES/68/70/196
[6] A/RES/68/288
[7] A/RES/68/70/209
[8] A/RES/68/70/157

members via an Atlantic Network of Sustainable Cities directed at knowledge sharing and innovation, carbon-neutrality, zero-waste and disaster resilience.

4. Corporate Sustainability

Beyond geographical ties, Atlantic Basin countries also have many trade links. Corporate Sustainability, thus, seemed to be worthwhile including in the GPI since there may be potential for fomenting Atlantic Basin communities/networks between environmentally aware Atlantic-based businesses. As such, we have considered Corporate Social Responsibility (CSR), a corporate policy which addresses the impact businesses have upon society; Corporate Shared Value (CSV), which views the competitiveness of a company and the health of the communities around it as mutually dependent; Extended Producer Responsibility (EPR), a policy which targets the post-consumption stage of manufactured consumer products, removing an important economic incentive towards planned obsolescence; the Principles of Responsible Management Education (PRME) initiative, which, since the official launch in 2007 by UN Secretary-General Ban Ki-Moon, has grown to more than five hundred leading business schools and management-related academic institutions from over 80 countries across the world. Finally, in this category, we also considered the reducing of plastics in packaging and labelling schemes, which aim to render the impact of production and consumption visible, boosting the disclosure of emissions, climate change risk and water strategies in business, improving accountability and, in turn, impelling consumer-driven change. (UNGC, 2013)

5. Environmental accounting

Environmental goods and services, when not valued, inevitably become externalities in the equation of economic progress. (TEEB, 2010) There are multiple global initiatives that explicitly seek to incorporate an environmental dimension into their measurement of economic progress; the need to move 'beyond GDP' is generally recognised. (Stiglitz, 2009; A/RES/68/288, 2012). However, the path from creating an indicator to using it to effectively inform policy is not a simple one. (Brainpool, 2013)

Another measure with potential for system-wide change is the pricing of carbon so as to spur carbon-reducing investment – be it via a carbon tax (a tax on the carbon content of fuels), via cap-and-trade (in which a limit on emission is set, and companies are permitted to trade the unused portion of their limits to others that are struggling to comply) or via fee-and-dividend mechanisms (essentially a direct tax on carbon, the ensuing dividend of which is then returned to the public). Over forty countries having implemented some form of carbon tax or emission trading scheme (OECD, 2013)

6. Sustainable Energy

The UNFCCC has made significant attempts to lead the world towards a low-carbon future; voluntary commitments have been made by states to reduce levels of CO2, and private initiatives such as the Carbon Disclosure Project (CDP) and the GHG Protocol encourage the shift towards a low-carbon future. (UNFCCC, 2014; CDP, 2012). The IEA, the World Bank and the IMF have all called for the phasing out of subsidies to fossil fuel, a commitment which was made by G20 countries in 2009. Depending upon method of calculation, estimates of subsidies to fossil fuel range between US$500

billion and US$1.9 trillion. (IEA, 2012; Whitley, 2013) Meanwhile, on the other end of the scale, the UN has already committed to achieving the goal of sustainable energy for all, in line with UNFCCC's goal to double the share of renewable energy in the global energy mix.

7. Environmental Innovation

Green' technologies create growth, stimulate knowledge, increase resource-efficiency and contribute to the development of a more creative, efficient, clean world. Many consider that climate negotiators should, above and beyond detailing specific emissions cuts, focus instead on how to cooperate to ensure that technology breakthroughs are achieved and that they benefit all countries. (Sachs, 2014)

The term "Eco-Patent Pool" is used loosely to signify the multiple collaborative structures for pooling and sharing eco-tech patents, i.e. making green technology freely available due to the shared global interest in promoting sustainable development[9]. Environmental technology as a hub of potential collaboration between (potentially complementary) Basin countries appears to be worth developing.

8. New Resources

Finally, we also chose to consider how it is that countries position themselves with regard to environmental risk induced by strategic policies which may bring about economic gain. Considered were: hydraulic fracturing, ethanol biofuel production and export, the exploration of oil and other resources in the Arctic, as well as the (potential) effects of the Transatlantic Trade and Investment Partnership (TTIP), should it come into force.

Hydraulic fracturing (HF) - or "fracking" - is the process through which oil and gas is extracted from deposits of shale rock from deposits deep underground. Viewed with caution by some due to environmental concerns, many view this option as a means of diversifying the energy matrix and reducing dependency on oil. There are just under 500,000 active gas wells in the United States alone[10]. Europe has positioned itself rather more cautiously as regards this energy source, although HF is going ahead in the United Kingdom. In Brazil, the auction of fracturing sites occurred in November of 2013.

Ethanol, meanwhile, is a biofuel made from biomass materials, usually more expensive than the fossil fuels it replaces, yet cleaner-burning. Controversial angles include the excessive use of farmland for the production of fuel and an energy source that although cleaner, is not free of pollutants.

The Arctic produces approximately one tenth of the world's oil and one quarter of its natural gas[11]. Recent appraisals suggest that there is a wealth of undiscovered reserves. This is without counting mineral reserves and biological resources as well as an estimated one-fifth of global freshwater and several of the world's largest rivers. Potential economic benefits from exploiting Arctic resources are vast, but so is the potential environmental damage which might ensue from such exploitation, such as:

[9] The Eco-Patent Commons was launched in January 2008 by the World Business Council for Sustainable Development (WBCSD).
[10] http://www.eia.gov/dnav/ng/ng_prod_wells_s1_a.htm
[11] http://arctic.ru/natural-resources

destruction of biodiversity and species' habitats, oil spills or operational discharges, waste and water discharges, air pollution, and impacts to resource-dependent indigenous communities.

9. The Transatlantic Trade and Investment Partnership (TTIP)

The TTIP is a trade agreement presently under negotiation between the European Union and the United States with a view, primarily, to promote economic activity via, inter alia, the removal of trade barriers and the standardisation of regulatory procedures. One potentially contentious issue which may be included in the agreement is that of Investor-State Dispute Resolution (ISDR - a form of investment arbitration). Courts of law often become shy of passing new measures on environmental regulation when ISDR is in effect, since corporations benefitting from this clause will often sue the State.

The TTIP affects interests of actors beyond the EU and the US. Quite aside from the naturally interconnected nature of environmental concerns which might be affected by the entry into force of the TTIP, there are also economic considerations which validate polling the viewpoints of individuals outside these two blocks. It has been argued that, as regards developing countries, the TTIP would have trade diversion effects, making it more difficult for their goods and services to access the transatlantic market. This would essentially mean less trade with the transatlantic partners. (Mthembu, 2014)

2.3. Policy Map

To aid in the visualisation of the selected policies, see the GPI Policy Map below. In the outer section are the overarching policies, such as the priority given to SD, and the implementation of the international development agenda: MDGs, SDGs and recommendations issuing from the post-2015 debate.

The inner, also system-wide, section of the Map touches upon policies which relate to the economics of environmental sustainability, which, if implemented, would have a wide-ranging effect. New KPI's and carbon tax/trading schemes both rely upon the basic principle of assigning value to environmental goods and services. Green technology sharing is also included in this section, since its effects would also be wide-ranging.

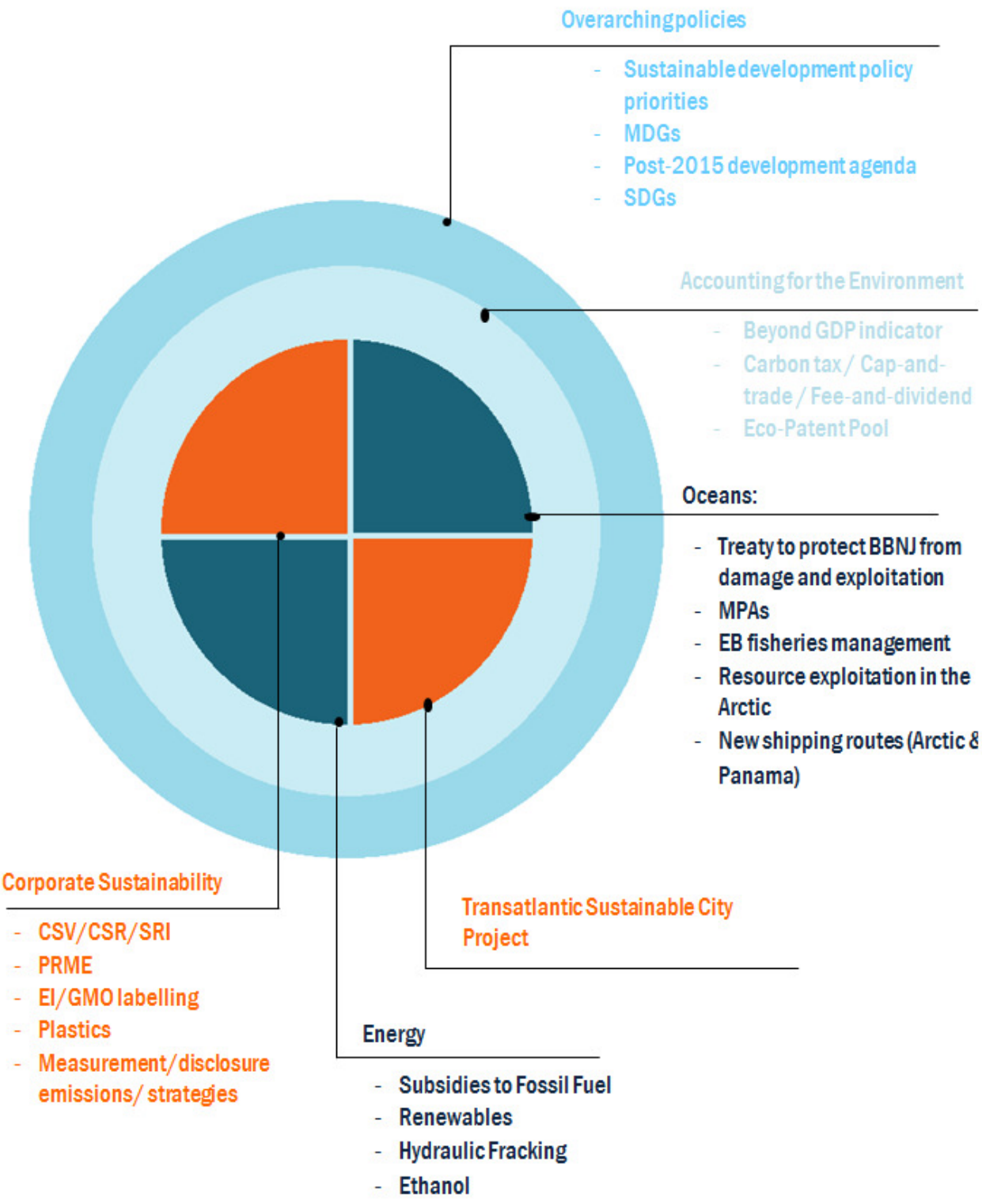
Four key policy-segments are then selected, in the core of the Map. The first two, corporate sustainability and energy are fundamental to the implementation of a green economy. Without the participation of business and without clean energy sources, a green economy is unfeasible. Oceans, meanwhile, are not only of key importance as regards, inter alia, biodiversity, climate and quality of life, but are also the primary factor which joins the countries in the Basin together.

In the construction of the GPI itself (shown in section 3.4, below), some of these policies are organised under different sections. They are shown here in this manner to illustrate the key areas chosen, with a basis upon a review of the literature and of current international initiatives.

Of course there are many other policy areas which could have been included in the GPI, but which were not, due to inevitable constraints of time and length.[12]

The diagram below sets out the policy topics with regard to content, not as regards the way each question was framed in the GPI questionnaire, therefore the manner in which the subsections are arranged will not necessarily mirror the GPI three-section framework (Willingness to Act, Anticipated Timeline, Attitude to Environmental Risk).

[12] These include:
i) Agricultural issues and Food security
ii) Nuclear power
iii) Population growth
iv) Deforestation, reforestation and REDD+
v) Disaster-preparedness and climate adaptation
vi) Use of waste
vii) Climate finance (international funds for climate, and SRI – Sustainable and Responsible Investing)
viii) Geoengineering
ix) The fragmentation of international climate talks
x) The reform of the international financial, tax, and climate finance architecture


Overarching policies
- Sustainable development policy priorities
- MDGs
- Post-2015 development agenda
- SDGs
Accounting for the Environment
- Beyond GDP indicator
- Carbon tax / Cap-and-trade / Fee-and-dividend
- Eco-Patent Pool
Oceans:
- Treaty to protect BBNJ from damage and exploitation
- MPAs
- EB fisheries management
- Resource exploitation in the Arctic
- New shipping routes (Arctic & Panama)
Corporate Sustainability
- CSV/CSR/SRI
- PRME
- EI/GMO labelling
- Plastics
- Measurement/disclosure emissions/ strategies
Transatlantic Sustainable City Project
Energy
- Subsidies to Fossil Fuel
- Renewables
- Hydraulic Fracking
- Ethanol

3. Green Policy Index: Outline

3.1. Overview

A questionnaire was sent to SD experts (see Section 3.2 below) with questions regarding specific policies and their countries' likely position on these. The index was constructed by determining thresholds in the reply-scoring. Each policy-category carries equal weight.

Some questions were structured to allow for an analysis of each country's openness to transitional green policies (Willingness to Act), others, to examine the likely timescale for this transition (Anticipated Timescale), and lastly, some to investigate how precautionary or risk-accepting countries are with regard to non-environmental policies which have potential environmental risks (Attitude to Environmental Risk).

Countries were ranked in three classes with regard to environmental policy: 'Poor', 'Moderate' and 'Advanced'. These thresholds (detailed below) are intuitive in the choosing, and thus inevitably marked by a certain degree of subjectivity.

This triple level divide between Poor, Moderate and Advanced countries should provide policymakers with a simple mirror not only of the Atlantic Space as a whole, but of the perceptions regarding their own country.

For the purposes of the Index ranking, the following assumptions are taken as given: that green policies are necessary; that the more green policies adopted the better and more advanced a country shall be; that the faster such policies are adopted the better the scenario shall be; that a precautionary approach to potential environmental harm is taken as more 'advanced' than positions which are less risk-averse.

All of these points can be contested, clearly. But to create a ranking certain value-judgements must be made. Having determining these points prior to data collection, our intention was to make our position wholly transparent.

Moreover, when each question is examined individually, the data is presented without ranking-induced bias.

3.2. Population

By SD experts we mean all individuals who work directly and indirectly with environmental issues and sustainable development policies. The focus is on policy; therefore a professor of international climate governance was preferred to a microbiologist; just as an environmental policy expert in a think tank was preferred to a specialist in biodiversity.

Those who work with the social side of sustainable development were not the focus of this questionnaire. The data hopes to inform the environmental side of SD and although this is interrelated with aspects concerning human development and social policies, experts working specifically in this area were not polled.

The sample selection was necessarily somewhat arbitrary and, as such, results may not be seen to be statistically representative. Criteria used to choose SD experts was the breadth and depth of expertise, geographic reach and extensive leadership experience gathered over years in large organisations, multilateral negotiations and

national and global institutions. For instance, as regards choosing a SD expert in the category of government, an Environment Minister was deemed an acceptable selection. Other benchmarks such as being a board member of many well-known environmental organisations were considered, or a long career in environmental policy issues.

SD experts were chosen from Atlantic Basin countries alone.

As an inducement to complete the questionnaire, we felt it to be good practice to offer a report of the survey findings to each individual polled.

3.3. Method: data collection and analysis

Data was collected by categories of SD expert (environmental media correspondent, academic, policy maker, activist, etc.) and crossed by geographic location.

A questionnaire, using FGV's Lime Survey software – producing an fgv.br hyperlink - was elaborated. The hyperlink to this questionnaire was then sent in individual emails to each of the SD experts along with a short email explaining the purpose of the research and the value of the data.

Experts polled were expected to have an understanding of the issues involved, therefore technical terms were used without explaining their meaning. E.g. Experts were expected to know what Extended Producer Responsibility is, as well as to have basic knowledge regarding Hydraulic Fracturing, without the need for an explanation.

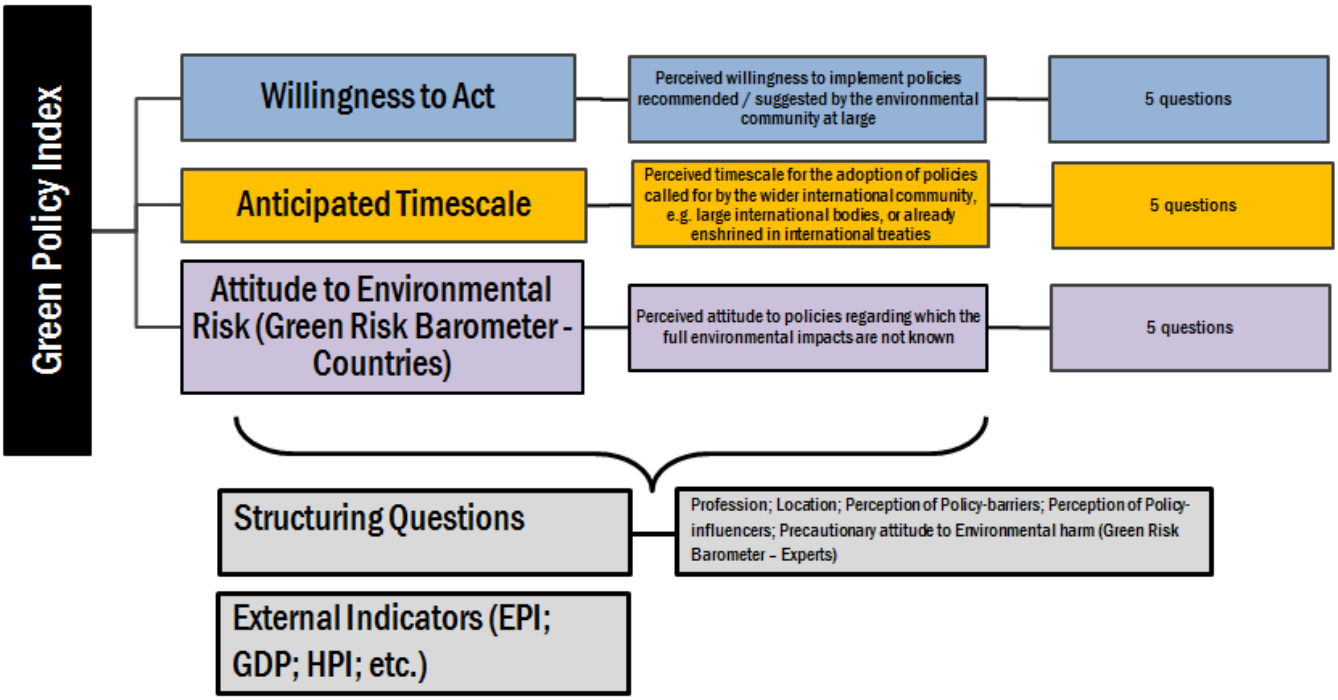
Ultimately, by analysing the expectations and perception of SD experts across a wide range of areas, we are hoping to scope out the probability/likelihood of these policies being adopted.

However, independent of our results, it is important to note that both high and low expectations can serve as an argument to influence policymakers.

Low expectations in SD experts constitute a red flag for policymakers since (working upon the premise that SD experts are knowledgeable about their field and about its political pitfalls and difficulties), it is likely that a situation of 'business as usual' will persist – potentially leading to future conflicts with regard to environmental issues.

High expectations in SD experts constitute a policy base for decision-makers who may then be more likely to take an innovative policy step, using the GPI result as a launchpad.

3.4. The GPI Framework



The three categories of the GPI described in section 3.1. are shown, above.

Questions, covering different policy segments, are then organised into the three categories. Some deal with countries' willingness of implement policies which have been recommended and/or suggested by the international community at large; others deal with the anticipated timescale for the adoption of policies called for by the wider international community and/or which are already enshrined in international treaties; and, finally, the third section deals with attitude to policies regarding which the full environmental impacts are not known.

There are 5 questions in each category. When aggregated, these three categories form the GPI.

No weights are attributed: each policy shall be considered as the equal of the other so as to minimise potential for bias.

Further, there are structuring questions, such as professional category and geographical location, so as to enable data analysis. Geographical location shall be prioritised in support of the ATLANTIC FUTURE project's aim to discover whether or not there is potential for the creation of and/or intensification of a community between Basin countries.

4. Projected analysis

4.1. Ranking for Index Construction

GPI rank			
	Poor	Moderate	Advanced
Questions 1.1 and 1.2	1-3	4-6	7-10
Question 2.1.1 and 2.1.2	1-3; 1-3	4-6; 4-6	7-10; 7-10
Question 2.2.1	3	2	1
Question 2.2.2	3	2	1
Question 2.3.1 and 2.3.2	1-3; 1-3	4-6; 4-6	7-10; 7-10
Question 3.1	1-3	4-6	7-10
Question 4.1	1-2 items;	3-4 items	5-6 items
Question 5.1	4	2;3	1
Question 5.2	1-3	4-6	7-10
Question 6.1 and 6.2	5	3;4	2;1
Question 7.1	1-3	4-6	7-10
	Green Risk Barometer		
	Risk-taker	Moderate	Precautionary
Question 8.1.2	1	3;2	4
Question 8.2.2	1	2	3
Question 8.3.2	1	2	3
Question 9.1.2	1	2	3

When responses[13] are aggregated to create the GPI they will refer to a green policy scenario that is either 'Poor', 'Moderate' or 'Advanced'.

In the final scoring, each country will have an array of responses in each category, so there will be a certain granularity to the ranking.

Granular GPI scoring	Index Categories
-10	Poor
0	Moderate
+10	Advanced

In this way, a specific country may have a final score of +7 in the Green Policy index, which will show a scenario closer to 'Advanced' than to 'Moderate'. We have selected this method so as to show, as much as is possible, the details in the results, instead of sorting countries onto three levels only, and thereby obscuring the differences between those in the same segment.

As can be seen, the GPI is intended as very simple in its construction. Certainly, some statistical sophistication is lost due to this basic categorisation; however, the clarity of simplicity is gained.

Since this is only a preliminary study, other forms of aggregating the data may be found at a later stage.

Full methodological details can be found in Annex 2.

5. Results

Through this exercise it was our intention to discover whether it was possible to collect and present useful information on green policy by polling SD experts, and, if so, whether it would be worthwhile to support the development and/or deployment of an annual survey to capture the full spectrum of green policy perception in the Atlantic Basin.

Indicators and rankings are above all headline tools, allowing for an overview of data in a short, useful fashion. Natural shortcomings, however, mean that detail and subtlety are often lost in the wider analysis.

Moreover, when creating an index, judgements must be made regarding which responses will lead to a positive score, and which to a negative. This, naturally, involves a degree of bias, and as such introduces a potential imbalance in the results.

In order to maintain our goal of transparency and attempted objectivity, we have chosen to illustrate the results, question by question. The initial analysis is, thus, purely descriptive, so as to allow for full clarity as regards the answers given in the questionnaire, regardless of ranking, using only the criterion of regional distribution.

[13] Numbers in the diagram, above, indicate the responses given to the questions. For instance, in question 2.3.1. there were 10 options available. Answers from 1-3 were classified as Poor; 4-6 as Moderate and 7-10 as Advanced.

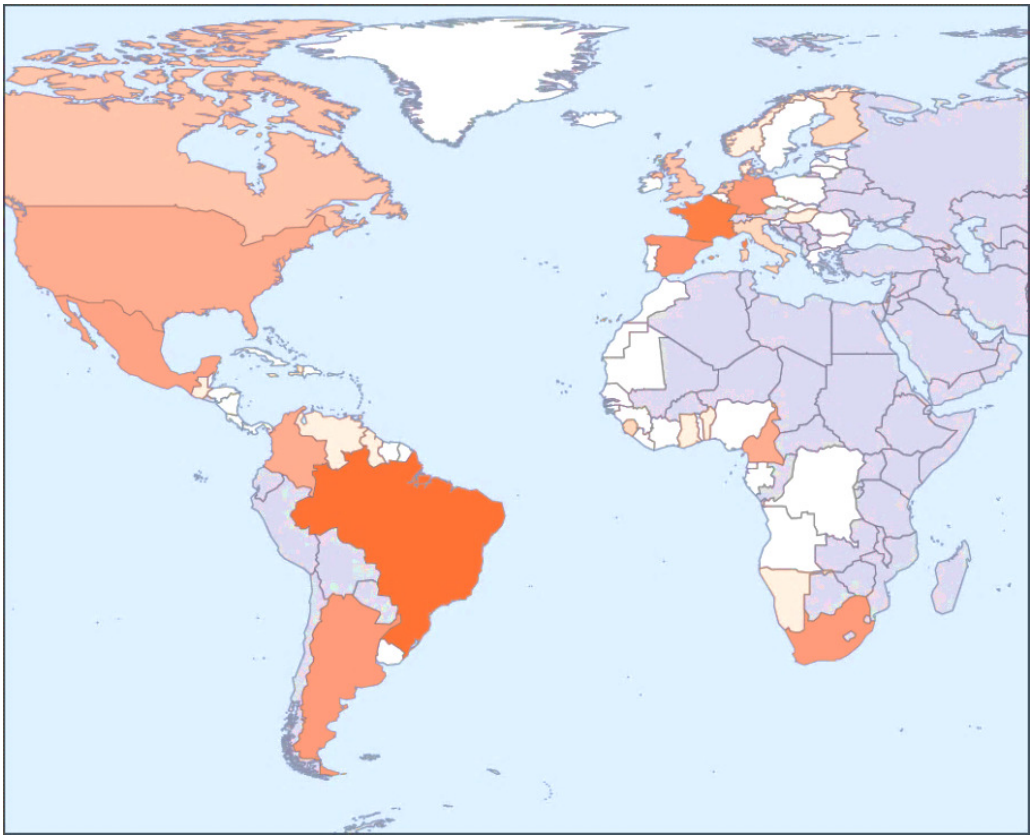
5.1. Representativeness

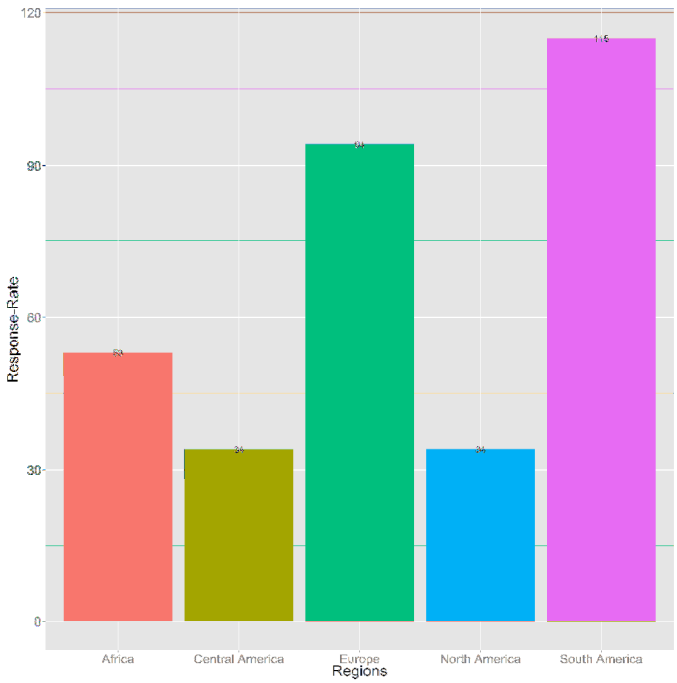
FGV Lime Survey Software was used to send and manage the questionnaires.

Over one thousand emails were sent to carefully selected sustainability experts and an invitation to participate in the GPI was broadcast, via internal newsletters, by both the United Nations Sustainable Development Solutions Network (UNSDSN), as well as by the International Institute for Sustainable Development (IISD).

These efforts notwithstanding, the final count of responses was of just under four hundred. This equals a response-rate of 40%. From previous survey experiences, we consider this to be a fairly successful response-rate, notably considering the unfortunately rather large number of email servers that automatically rejected the questionnaire due to firewall precautions.

Brazil is vastly over-represented in the sample as compared to other countries, which we presume to be because of FGV's well-known status in the country. However, when viewed overall there is an acceptably even regional distribution, as can be seen below. (Larger numbers of respondents are shown in darker tones in the map, below.)





A Linkedin group was created, which currently has just below one hundred members. It is a useful platform for managing the expert list and should prove a simple, direct method of disseminating research results to a potentially exponential public, once the project is complete. It is worth considering ways in which this database of experts might feed into the AF500 stage of the ATLANTIC FUTURE project.

Should future versions of the Green Policy Index be developed, it is likely that the expert database will expand, as will the Linkedin group. 'Green', a Linkedin group created in 2008, describes itself as a group *"for those who want to share ideas on environment, climate change, renewable energy, clean tech, sustainability, CSR and Green issues"* has over one thousand seven hundred members and is very active. Should the Atlantic Future Research Network be continued, it might create a similarly powerful forum, joining Atlantic Basin sustainable development experts, reinforcing (and concomitantly creating) the notion of community between Basin countries.

Reactions and responses to the GPI project were in general positive. Equally, while anonymous, a high calibre of experts was seen to have participated.

Relative values are used in the analysis and results have been averaged to accommodate for different levels of response-rate between countries.

As previously mentioned, we chose to prioritise the strictly geographical angle in view of the focus of the Atlantic Future research project.

Time was a definite constraint. In further versions, the analytical framework having already been developed, and most experts having already been identified, there would be more time allocated to data treatment. Otherwise put, far more may be learnt from the database than the current deadline allows. Moreover, in future versions, presumably the sample polled would be larger, and consequently, more effectively representative of the countries analysed.

Initially, we had hoped to analyse the results on a country-level basis[14], however some countries have far too few responses for the sample to be considered representative. Due to this, although we shall show the GPI on a country level for the final ranking, when analysing each individual policy, we chose to consider regional distributions instead.

The final country ranking should, however, be taken with the regional spread as an important backdrop in any analysis, since not only is the sample too slight for there to be adequate country-level representativeness, but also, nation profiles are very divergent and cannot be viewed beneath a strictly equal lens. As such, care should be taken when and if using country-level research results as a basis for decision-making and strategy planning, since the relevance of certain countries on the global stage will be considerably distinct to others.

The table below shows the final spread of Basin countries from which responses were received, sorted by region.

[14] Results were filtered from 75 countries down to 58, so as to consider only those in the Atlantic Basin, some respondents, despite initial research in narrowing people down as per geographical location, having cited the following non-Basin countries: Australia, Bangladesh, Bolivia, Chile, Ecuador, Ethiopia, Indonesia, India, Japan, Pakistan, Peru, Paraguay, Singapore, Serbia, Switzerland, Tajikistan, Ukraine and Yemen.

Meanwhile, Basin countries with no responses have not been included in the GPI. These are the following: Angola, Bahamas, Bulgaria, Costa Rica, Cuba, Cyprus, Dominica, Equatorial Guinea, French Guiana, Gabon, Gambia, Grenada, Greece, Greenland, Guinea, Guinea-Bissau, Republic of Ireland, Malta, Mauritania, Saint Lucia, São Tomé and Príncipe, Slovakia, St Vincent and the Grenadines, Suriname, Uruguay and Western Sahara.

Africa	Central America	Europe	North America	South America
Benin	Antigua and Barbuda	Belgium	Bermuda	Argentina
Cameroon	Barbados	Czech Republic	Canada	Brazil
Cape Verde	Belize	Denmark	United States of America	Colombia
Democratic Republic of the Congo	Dominican Republic	Estonia		Guyana
Ghana	Guatemala	Finland		Venezuela
Ivory Coast	Haiti	France		
Liberia	Honduras	Germany		
Morocco	Jamaica	Hungary		
Namibia	Mexico	Iceland		
Nigeria	Nicaragua	Italy		
Senegal	Panama	Latvia		
Sierra Leone	Saint Kitts and Nevis	Lithuania		
South Africa	Trinidad and Tobago	Luxembourg		
Togo		Netherlands		
		Norway		
		Poland		
		Portugal		
		Romania		
		Slovenia		
		Spain		
		Sweden		
		United Kingdom		

5.2. Results, question by question

Results shown below consider only relative values so as to improve inter-Basin comparability, however graphs with absolute values can be found in Annex 4, allowing for full transparency regarding the representativeness of each sample.

GPI scores seen in the maps range from minus 10 (lowest) indicating a country with little openness to, or considerable resistance to, green policies, in which environmental concerns are not prioritised, to plus 10 (highest), suggesting a country open to green policies and advanced along the path towards their future implementation.

Darker colours indicate better scores. The colour-chart follows that used in the GPI framework: questions falling beneath the 'Willingness to Act' section are shown in blue, 'Anticipated Timescale' in orange and 'Attitude to Environmental Risk', in purple. Overall GPI scores have been calculated for each of these sections, as well as for each sub-section illustrating specific policy categories, such as, for instance, sustainable oceans.

The final GPI is shown in a three-colour spread.

To simplify the analysis, the sections below and the graphs therein contained maintain the same numbering as the questionnaire. As such, item 1.1. - on the priority given to sustainable development, conservation and other environmental policy issues - refers to question 1.1. on the same issue in the GPI questionnaire. The full questionnaire may be seen in detail, with the ranking system allocated to each answer, in Annex 1.

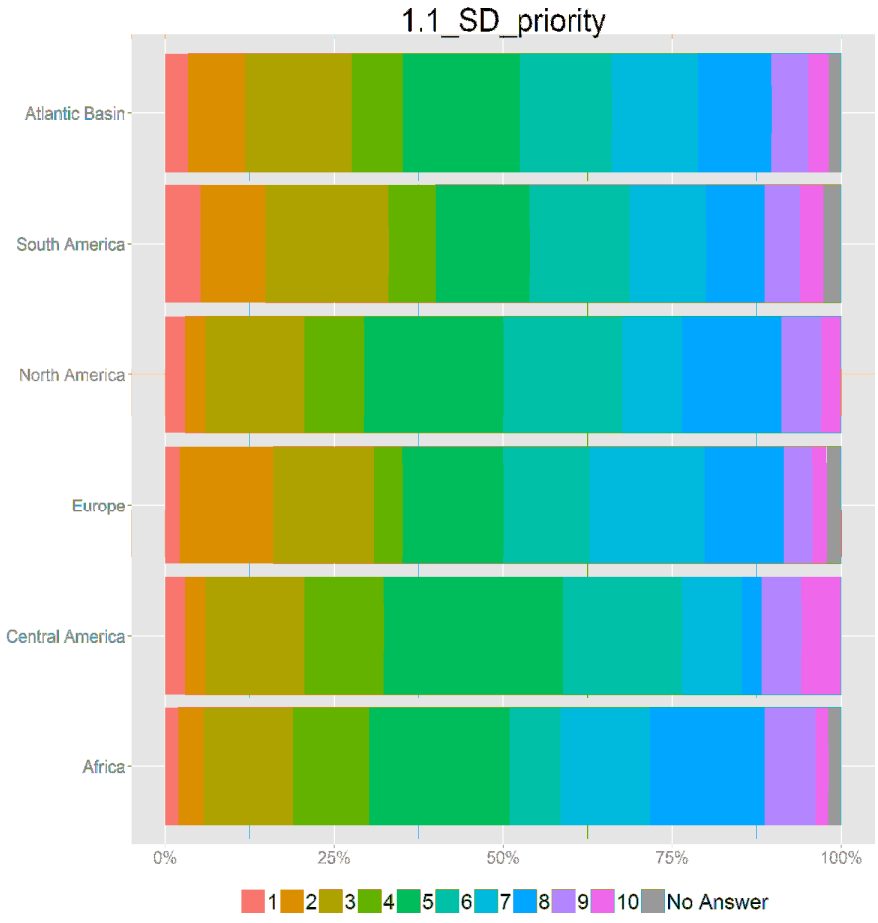
The GPI scoring system runs from -10 to +10. Answers are classified using the ranking system shown in Section 5.1. The detailed methodology showing the GPI's construction can be found in Annex 2.

1. Sustainable development policy priority

1.1. Priority given to sustainable development, conservation and other environmental policy issues

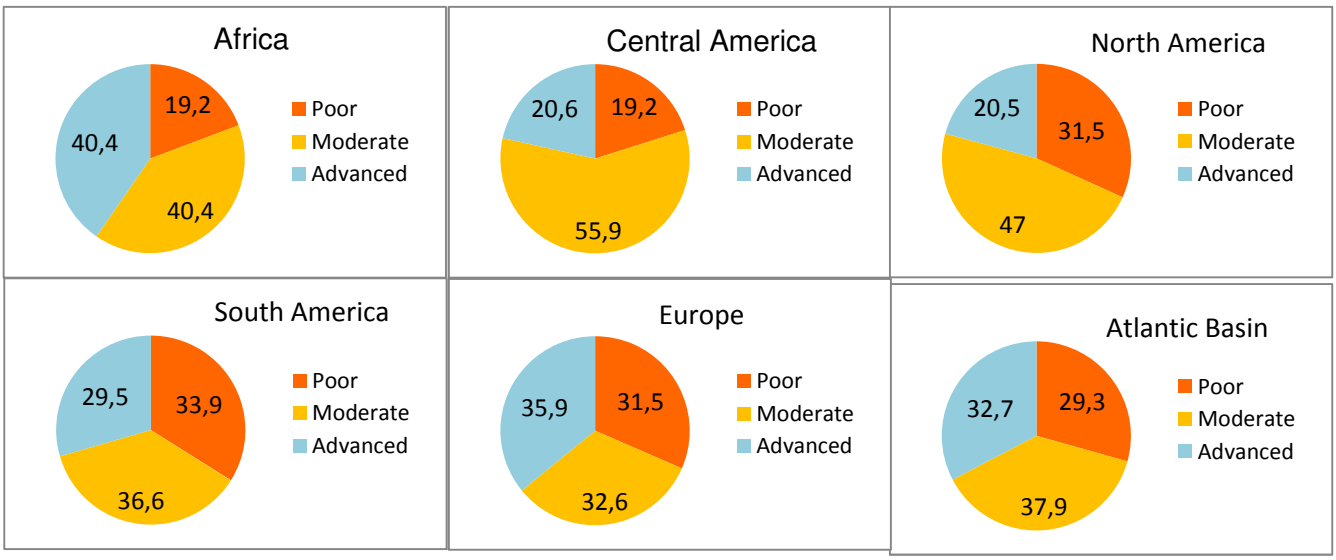
Q: What priority, from 1 to 10, do you feel that the government of your country will give to sustainable development, conservation and other environmental policy issues?

The importance given to this overall body of international thought will presumably mirror the likelihood of policies being implemented in order to achieve the recommendations, goals and targets contained therein.



As can be seen above, there is a fairly even spread, from 1-10, across regions; both high and low priorities have weak response-rates; a middling scenario predominating across regions, individually, as well as in the Basin as a whole.

Using the GPI ranking system for this question, we are faced with the following spread:



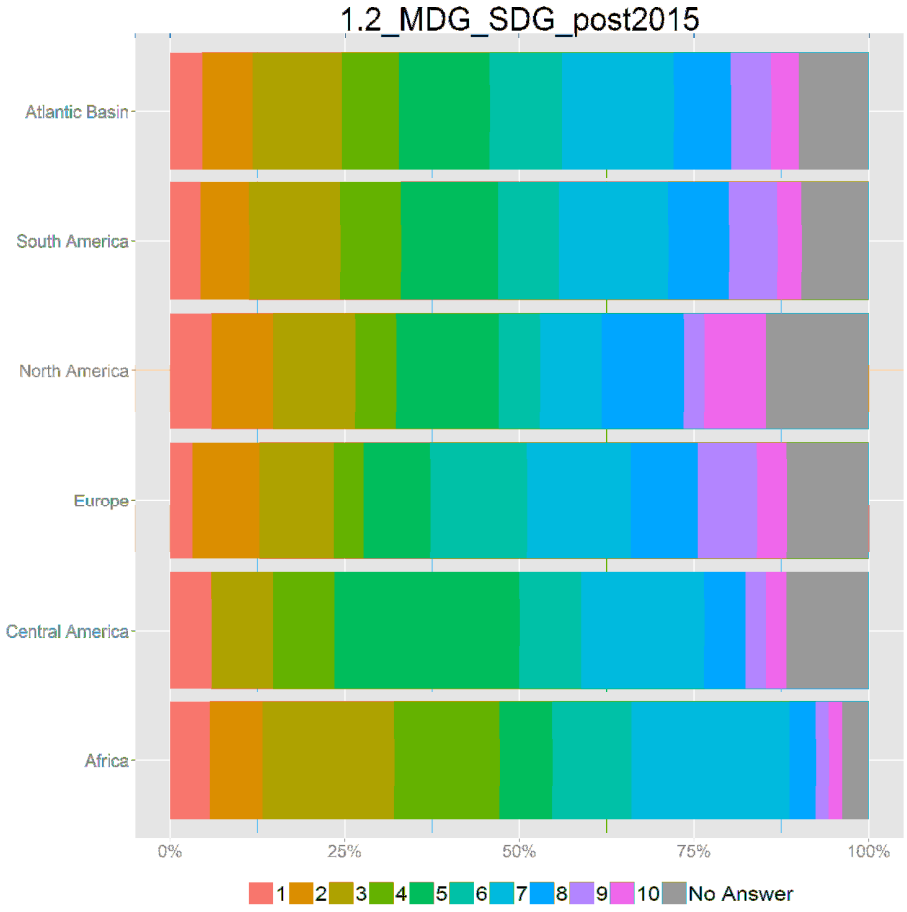
Throughout the Americas, a fairly safe, fence-sitting 'moderate' priority is given to sustainable development in the policy portfolio: sustainable development is neither neglected, nor privileged; North and South America, however, also show large percentages of 'poor' SD policy priority.

Africa and Europe show a fairly equal division between moderate and advanced. And if Europe is the only region in which an advanced scenario predominates (if only by a fine 3% margin), Africa and Central America boast the lowest 'poor' priority, both at 19%.

These results are interesting more from what they do not illustrate, than from what they do. In none of the regions is the SD policy priority predominantly poor, or predominantly advanced. We are faced with a middling scenario in all regions, which is confirmed by data for the Basin as a whole.

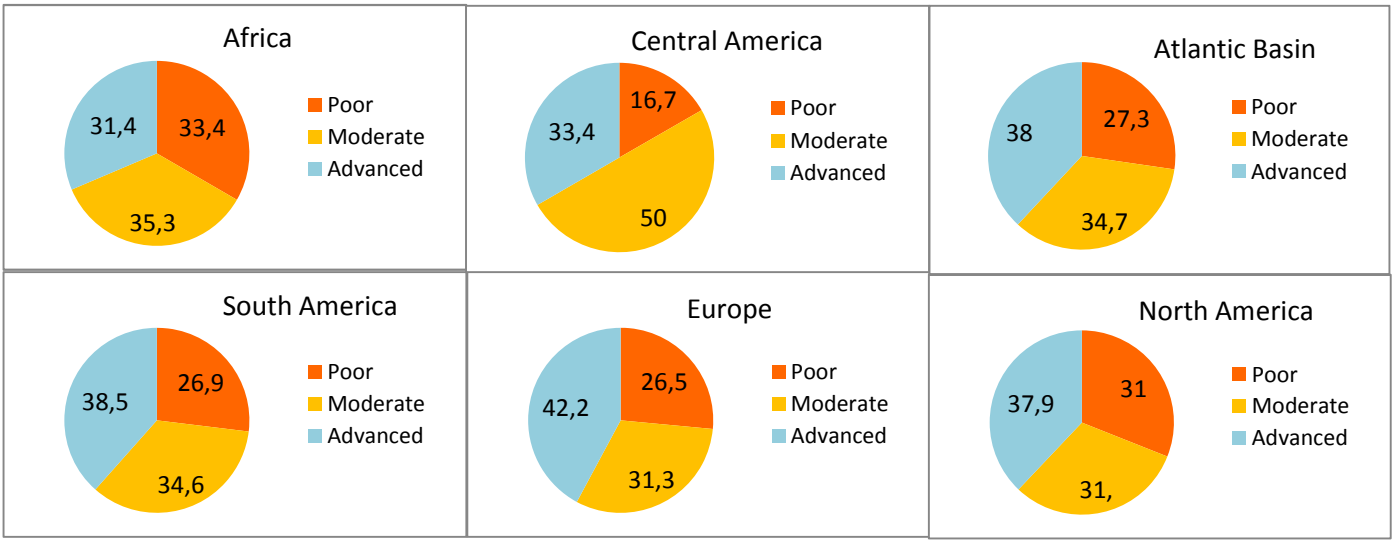
1.2. Likelihood of meeting the MDGs, the post-2015 development agenda and SDGs

Q: How likely, on a scale of 1 to 10, is it that your country will meet the current MDGs and the future requirements of the post-2015 development agenda and SDGs currently under discussion?



A shift occurs, as compared to question 1.1. – every region excepting Africa improve their positions, - suggesting that Africa, although open to green policy, is still behind when it comes to international development goals. The Americas, meanwhile, appear to have greater barriers towards green policy as a priority, although inroads have been made when it comes to the development agenda. Europe, standing ahead, shows a predominantly positive attitude to green policy, generally, and to the international development agenda in particular.

These conclusions are validated when examining results for this question through the GPI prism in which regions are classified into three categories: Advanced, Moderate and Poor.



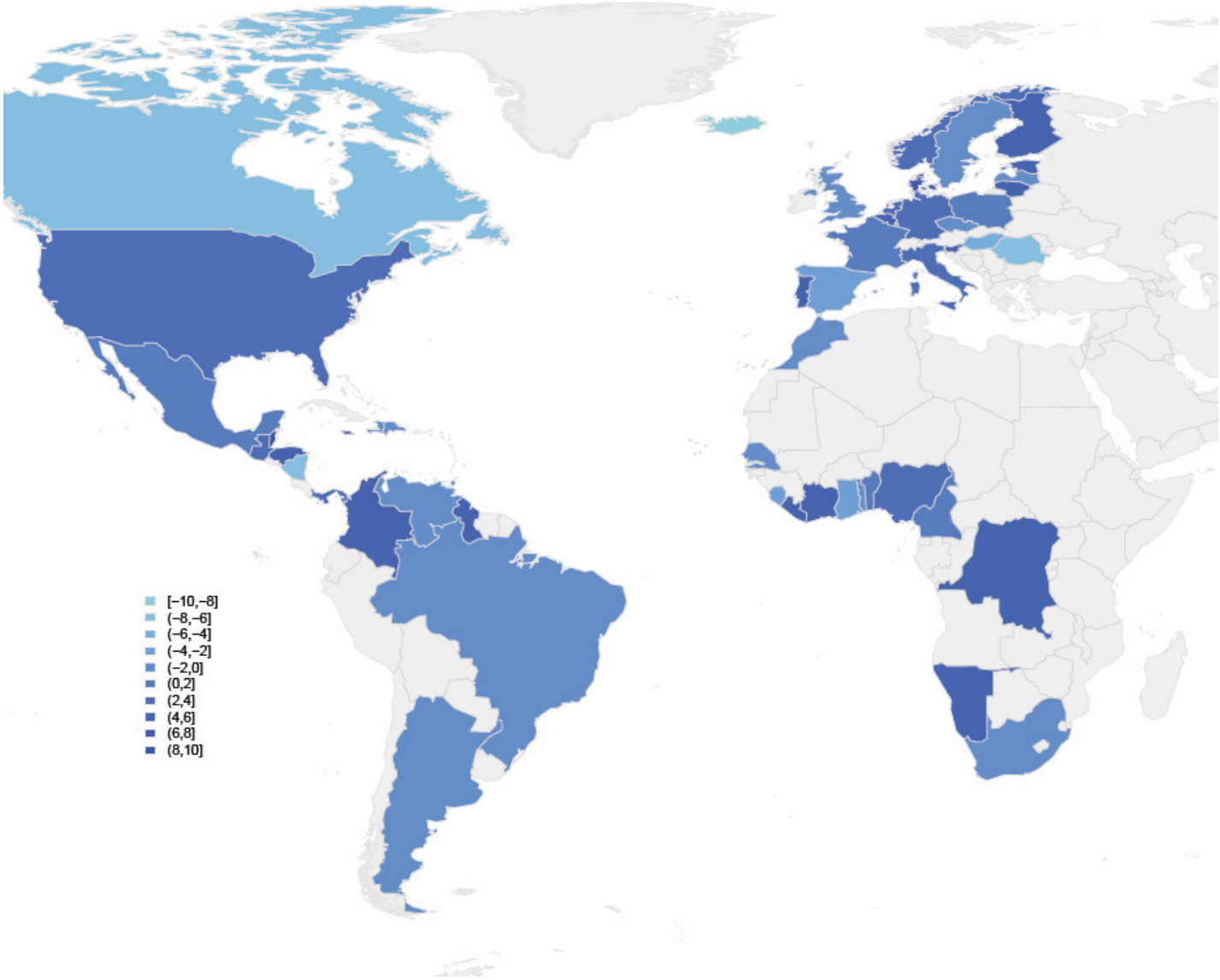
The slight trade-off between the results of questions 1.1. and 1.2. is also visible here.

Africa, as regards policy priority, shifts from an advanced position to a poor one, whereas North America jumps in the opposite direction, from poor to advanced.

A potential explanation for this is that question 1.1 is far more general than question 1.2., which, instead, deals with concrete and at times time-bound expectations regarding specific pre-existing policies.

It should be noted that Europe, South and North America (and the Basin as a whole) display a predominantly advanced scenario, suggesting that the international agenda of development goals is likely to be met in these regions.

Overall, in sub-section one (Sustainable Development Policy Priority), the GPI shows the following distribution. (Darker colours showing higher scores).



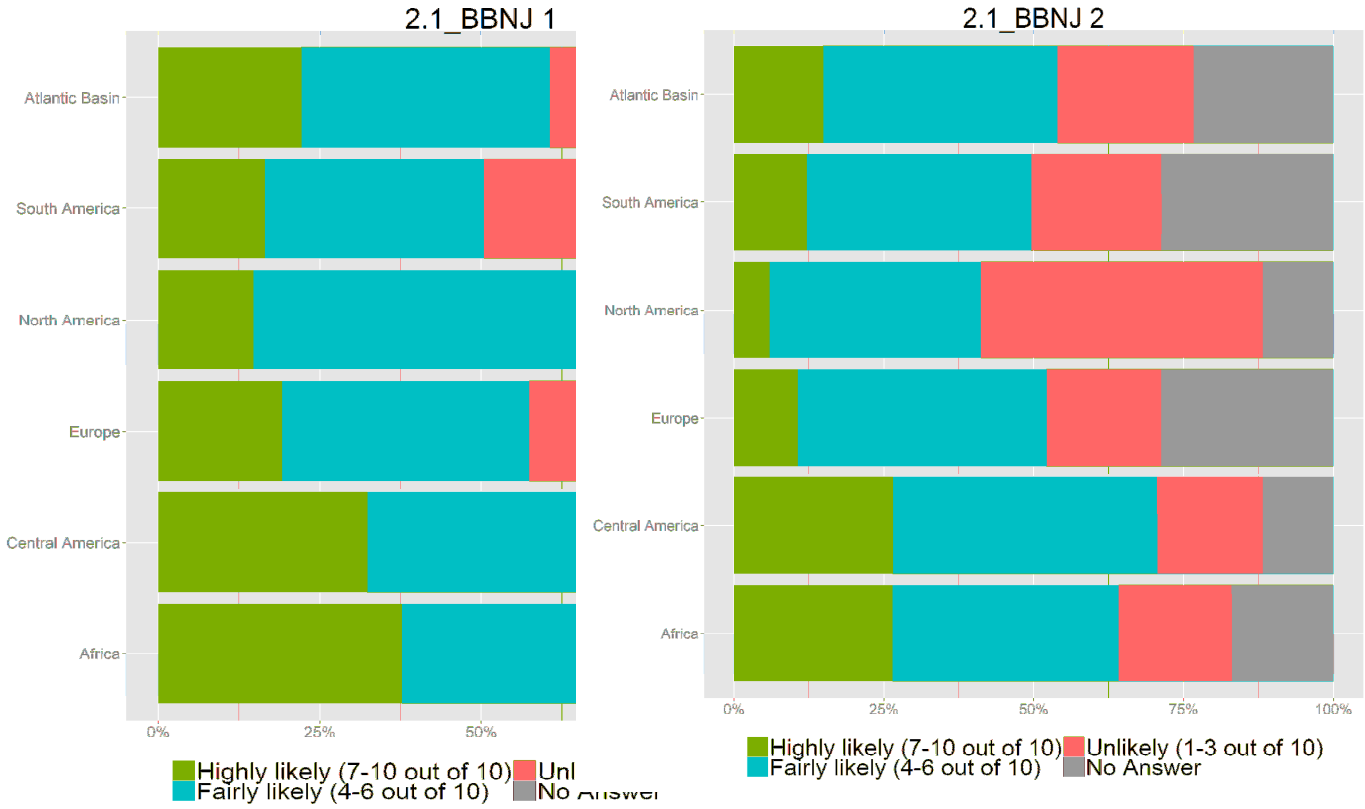
Northern Europe and North America and parts of Africa showing high SD policy priority, the top five being: Belize, Cape Verde Denmark, Colombia and Guyana; the lowest five: Luxembourg, Nicaragua, Romania, Canada and Iceland

2. Sustainable Oceans

2.1. Conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (BBNJ): the adoption of a legally binding agreement designed to protect the High Seas from damage and exploitation

Q: Regarding the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (BBNJ), how likely is it that your government would adopt a legally binding agreement designed to protect the High Seas from damage and exploitation?

We chose, in this question and a few others, to separate the analysis of the substantive import (right-hand graph) from that of the legally binding character of the proposed policy (left-hand graph).Two separate options were given to the respondents regarding their views on the likelihood of the substantive content's being approved, as well as regarding form.



As can be seen, regarding substance, Africa and Central America are the most open to this policy, with a larger proportion of respondents considering its adoption as highly likely as compared to those in other regions.

Overall, a cautiously optimistic position seems to be uniform across the Basin.

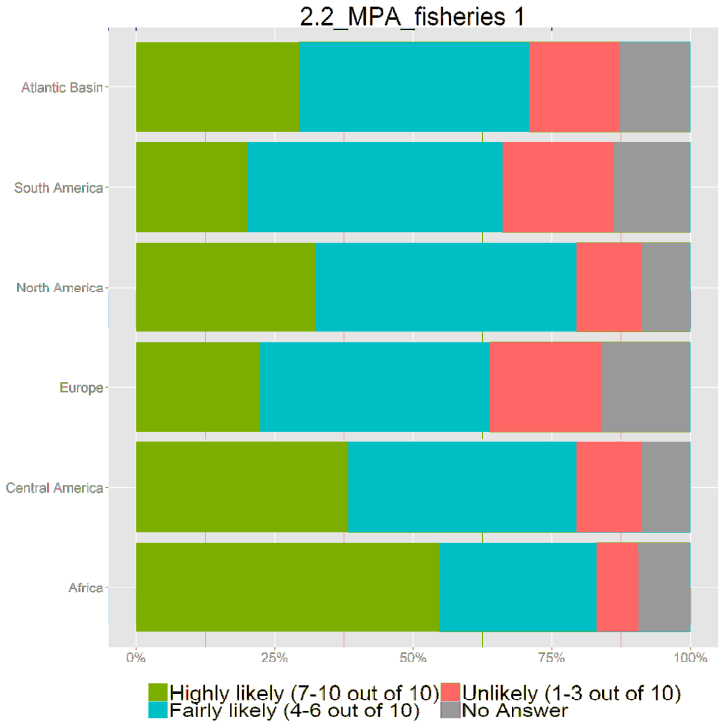
Interestingly, this distribution remains similar when considering the legally binding nature of such a policy – with the significant exception of North America.

From these findings, one may infer that it would be safer to stick to a voluntary agreement on the matter, but that, matters of form set aside, an agreement on the protection of BBNJ would likely find traction within and/or between Basin countries.

2.2. An Atlantic network of marine protected areas and ecosystem-based fisheries management policies[15]

Q: Do you believe that your country would be willing to develop an Atlantic network of marine protected areas, while fostering ecosystem-based fisheries management policies?

Full Substantive Import

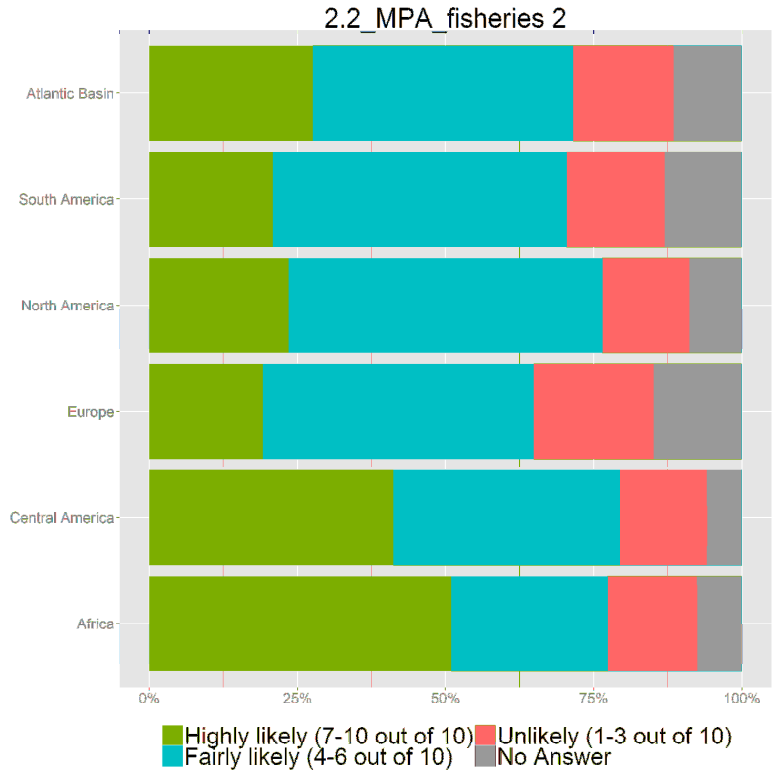


Africa and Central America are again the most enthusiastic regarding this policy, closely followed by North America.

Europe and South America are more cautious.

Nonetheless, attitude towards an expansion of MPAs within the Atlantic - founded upon the logic of the Basin as a community of nations - seems fairly positive, and there would appear to be space for this policy to be developed.

[15] This question considers MPAs in general, without operating the distinction between those in the High Seas and within the borders of States' Exclusive Economic Zones (EEZs).



Considered as a legally binding policy

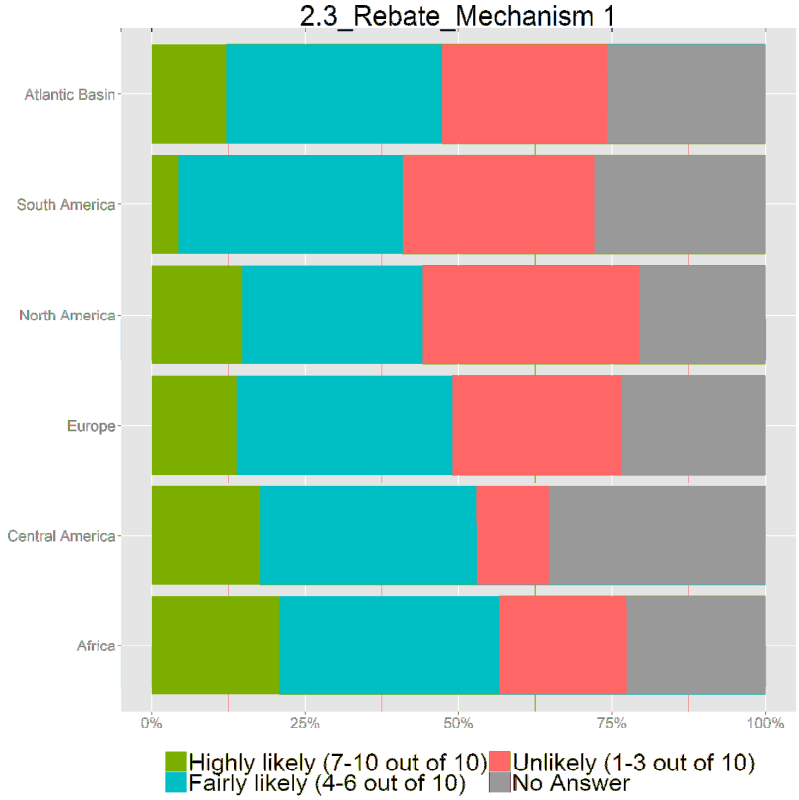
Following the pattern, Africa and Central America came out in front, predominantly considering this policy as of Highly Likely adoption; Europe, North and South America are also enthusiastic, if in a more tempered manner.

Impressively, the legally binding nature does not alter the results a great deal – even in North America where this is often seen to be a problematic issue.

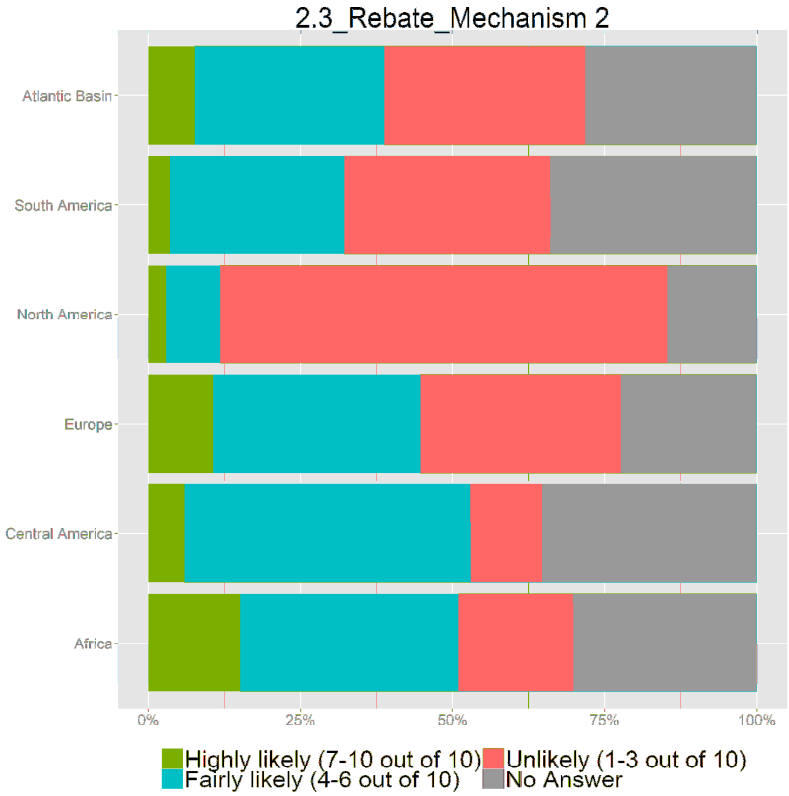
As such, there would appear to be space for a binding Atlantic Treaty on the expansion of Basin MPAs.

2.3. A Rebate Mechanism for fair and global carbon pricing of International Transport

Q: How likely is it that your government would agree to adopt a legally binding agreement providing a Rebate Mechanism for fair and global carbon pricing of International Transport as per the terms determined by, and under the auspices of, the International Maritime Organisation?



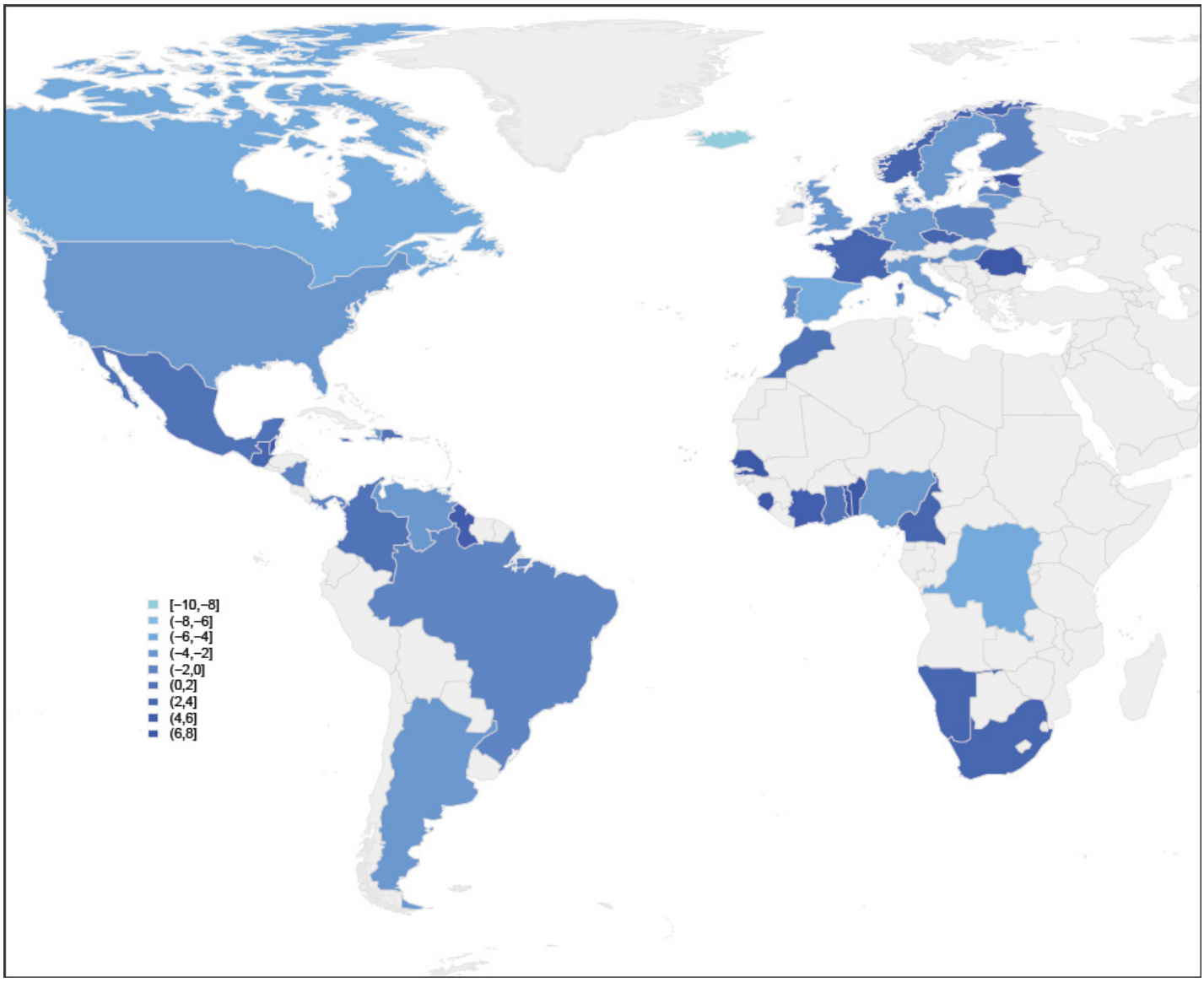
On the substantive side, North and South America are quite determinedly on the cautious side: most respondents consider this policy unlikely to be adopted. Europe is in the middle, with just a few more respondents viewing this as Fairly likely as opposed to Unlikely. Africa and Central America maintain their openness to sustainable policies, with 'Fairly Likely' as a predominant response.



Africa and Central America do not shift their position when the legally binding issue comes into play, although answers which were in the Highly Likely segment shift into Fairly Likely. Europe and South America show similar positions, with an even distribution between Unlikely and Fairly Likely, if a little more on the side of the former.

North America, however, leaves no doubt as to the complexity of passing a legally binding policy – with ¾ of respondents considering the adoption of a legally binding policy in this vein to be unlikely.

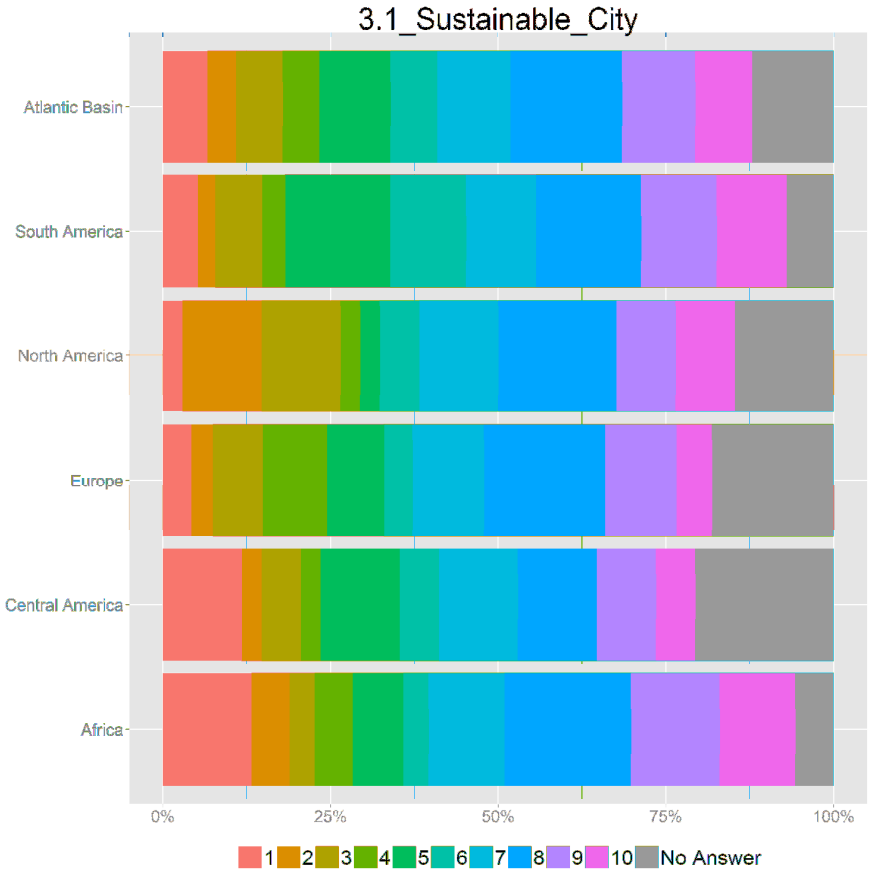
Looking at sustainable oceans as a whole, the scenario is as follows.

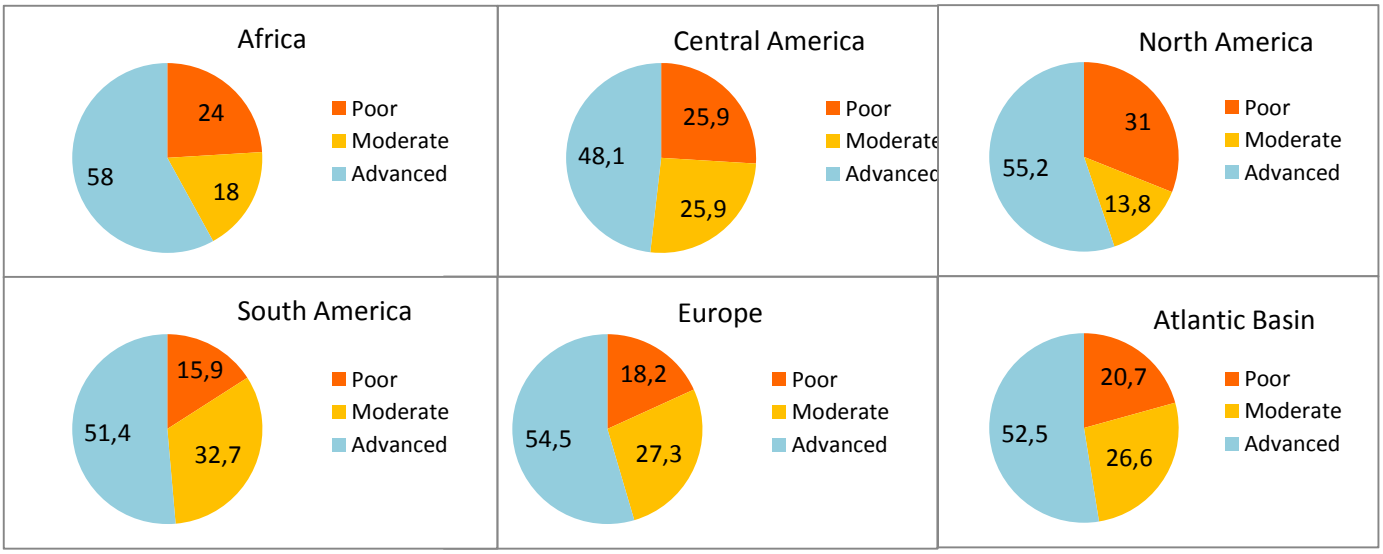


3. Transatlantic sustainability

3.1. Transatlantic sustainable city project: a network for knowledge sharing and innovation, carbon-neutrality, zero-waste and disaster resilience

Q: How likely is it that your government would sign up to a voluntary project in which all Transatlantic countries would identify at least one key sustainable city per country in which to develop a network for knowledge sharing and innovation, carbon-neutrality, zero-waste and disaster resilience?

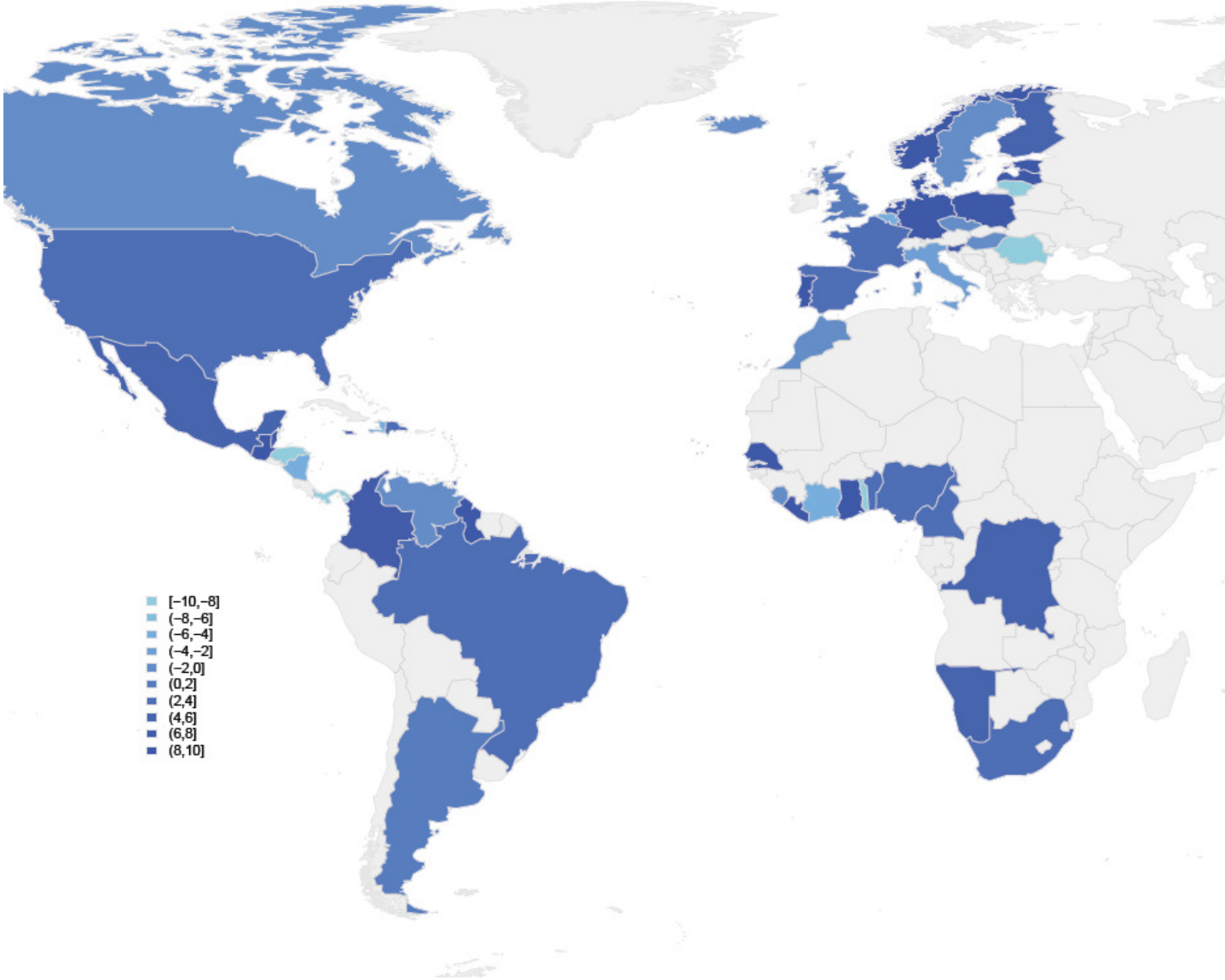




Over 50% of respondents, in every Atlantic region, viewed this as a positive policy option for which there would be national traction.

Viewed through the prism of the GPI ranking, the predominant position was that of an advanced scenario, suggesting that there would be significant space for an Atlantic Project in this vein.

Regionally, Africa was the most enthusiastic about this policy, followed by North America.



Examining the final country-level GPI scores with regard to the policy category on Transatlantic Sustainability, the following twenty countries were tied with the highest GPI score possible (+10) (advanced): Liberia, Belize, Estonia, Senegal, Guyana, Cape Verde, Jamaica, Norway, Guatemala, Antigua and Barbuda, Ghana, Denmark, Portugal, Slovenia, Poland, Netherlands, Latvia, Germany and Luxembourg.

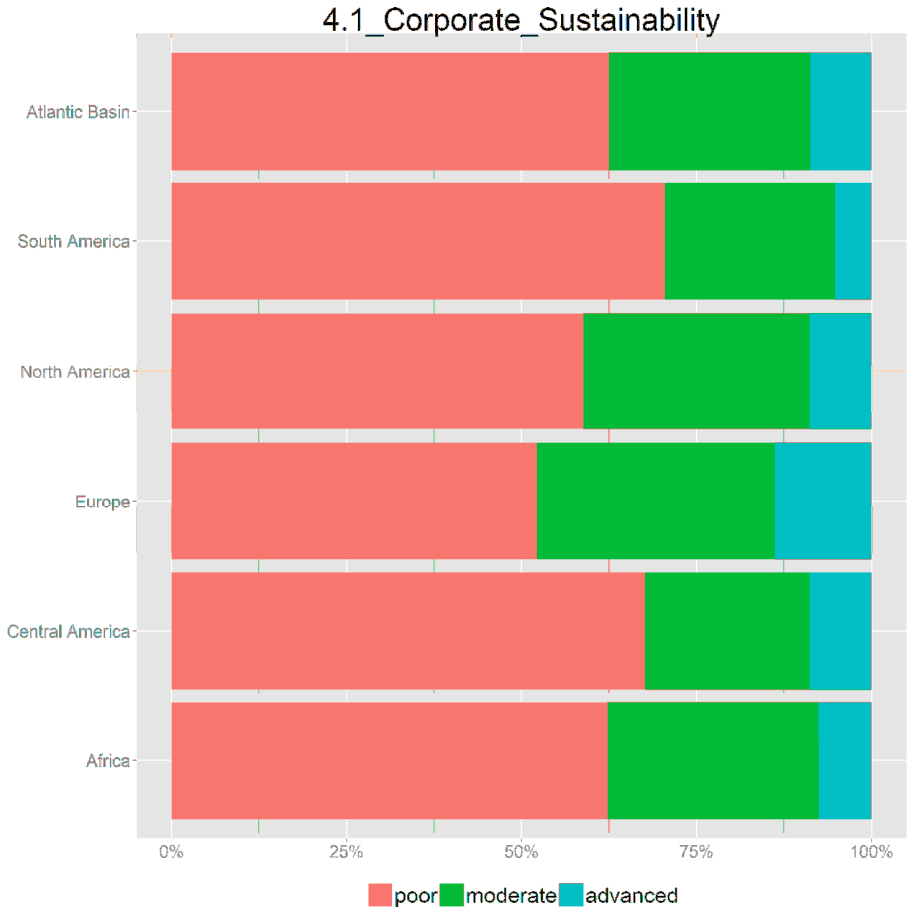
The six least enthusiastic (-10) (poor), meanwhile, were: Honduras, Togo, Romania, Saint Kitts and Nevis, Panama and Lithuania.

4. Corporate Sustainability

Q: My country is committed to the implementation (via incentives or prescriptive mechanisms) of the following corporate policies: (4.1.1. – 4.1.6)

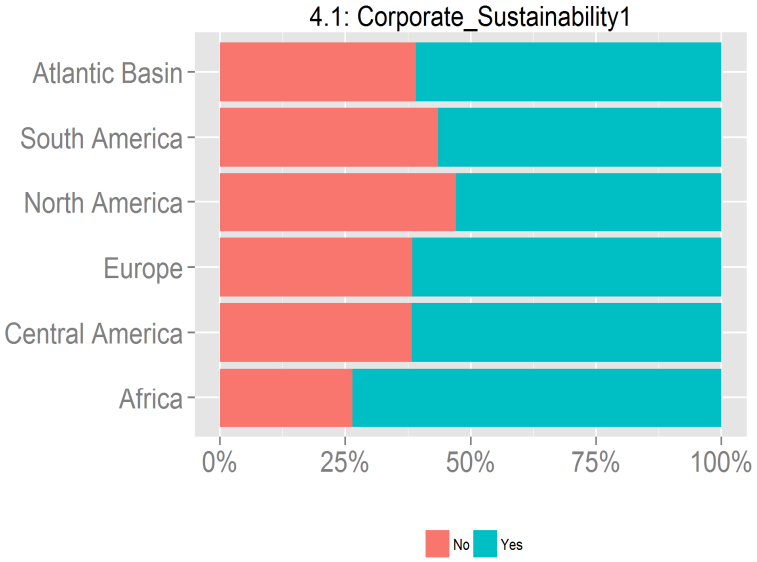
(Policies which are usually implemented at the sub-national level or by the private sector should nonetheless be treated as national policies for the purposes of this questionnaire, since national governments have the capacity to incentivise such practices.)

As regards corporate sustainability, the Atlantic Basin shows a regionally homogenous, but far less positive picture, as openness to green policy goes.



Europe and North America are slightly better placed, however the overall scenario, in every region, individually and in the Basin as a whole, is ‘poor’.

4.1.1. Corporate Social Responsibility/Corporate Shared Value

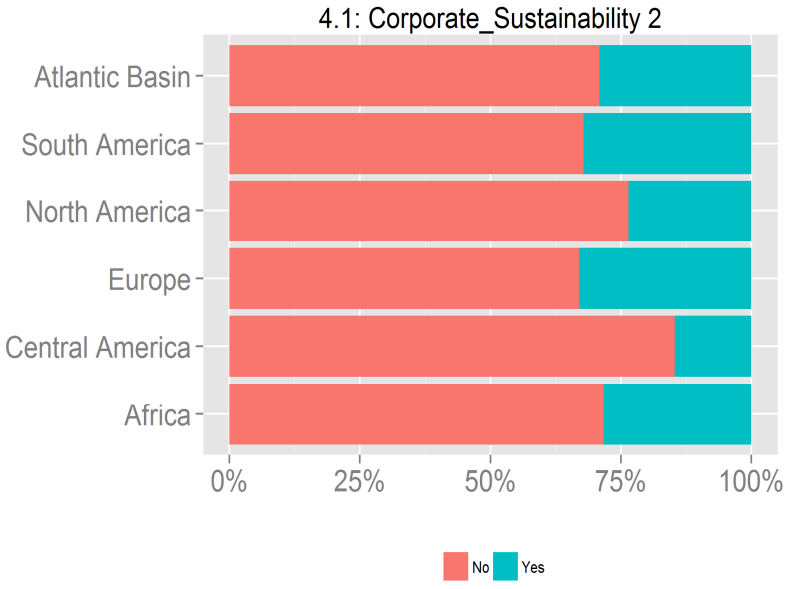


There is a general openness to CSR/CSV practices across the Basin, with North American respondents slightly less enthusiastic than others, but only by a small margin.

One may infer from this that there would be space for increased CSR/CSV strategies in businesses around the Basin.

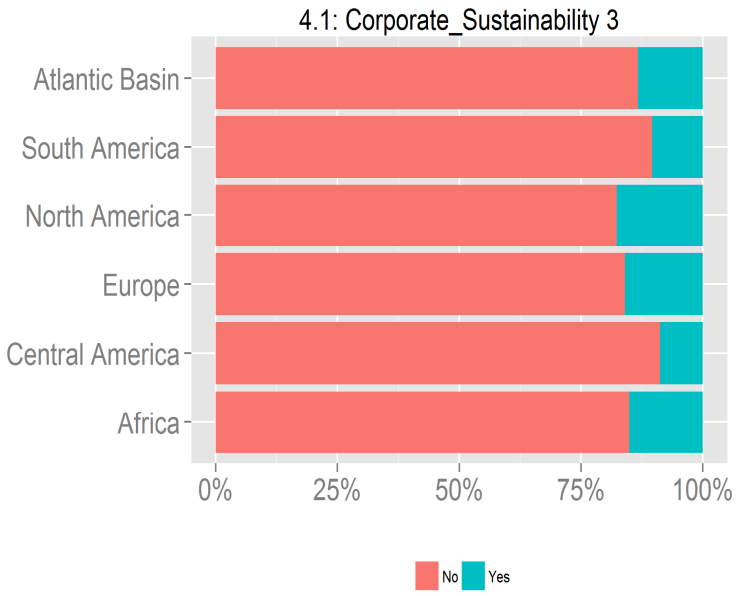
4.1.2. Extended Producer Responsibility

Europe and South America appear the least averse to this policy – but even they are nearly at three quarters of respondents declaring a lack of commitment to the implementation of EPR.



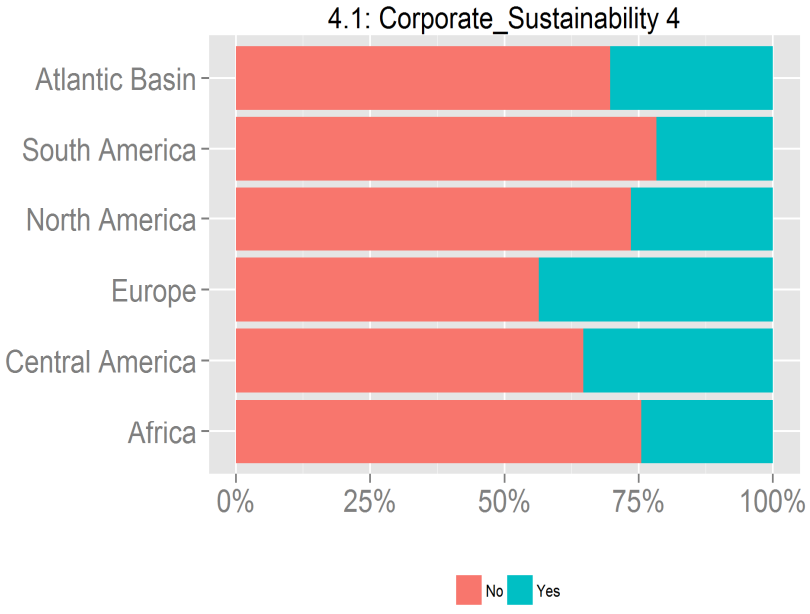
If EPR is to be further developed, therefore, it is likely a considerable awareness and/or lobbying campaign would firstly have to be implemented before this policy could gain effective traction in the Atlantic Basin business world.

4.1.3. Principles for Responsible Management Education



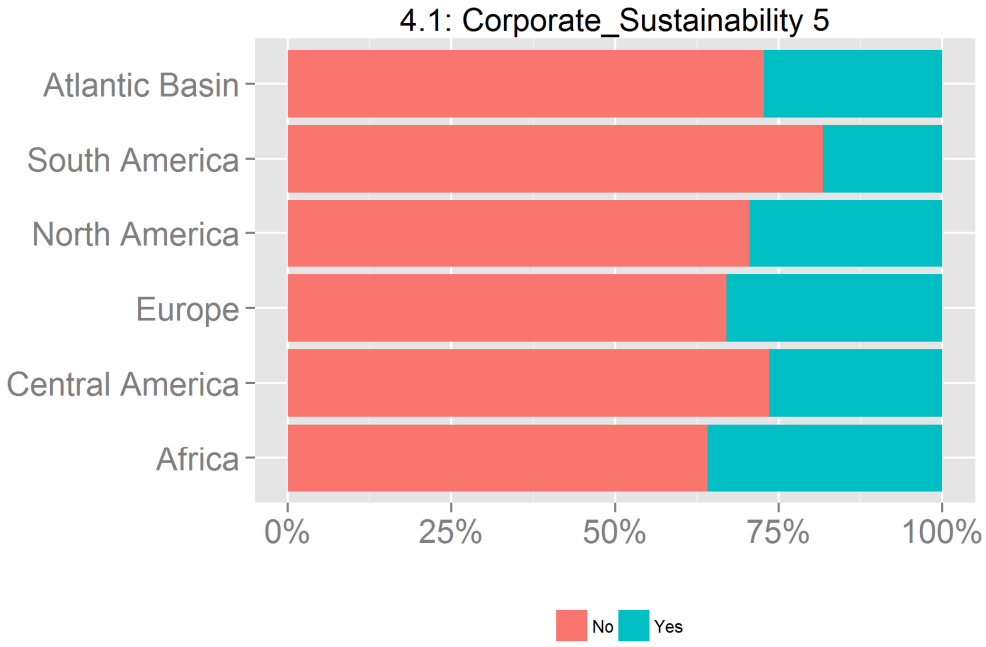
The lack of serious commitment to PRME appears homogenous in the Basin. Either SD experts are unaware of existing efforts or this policy is failing to make effective inroads.

4.1.4. Science-based GMO and Environmental Impact labelling



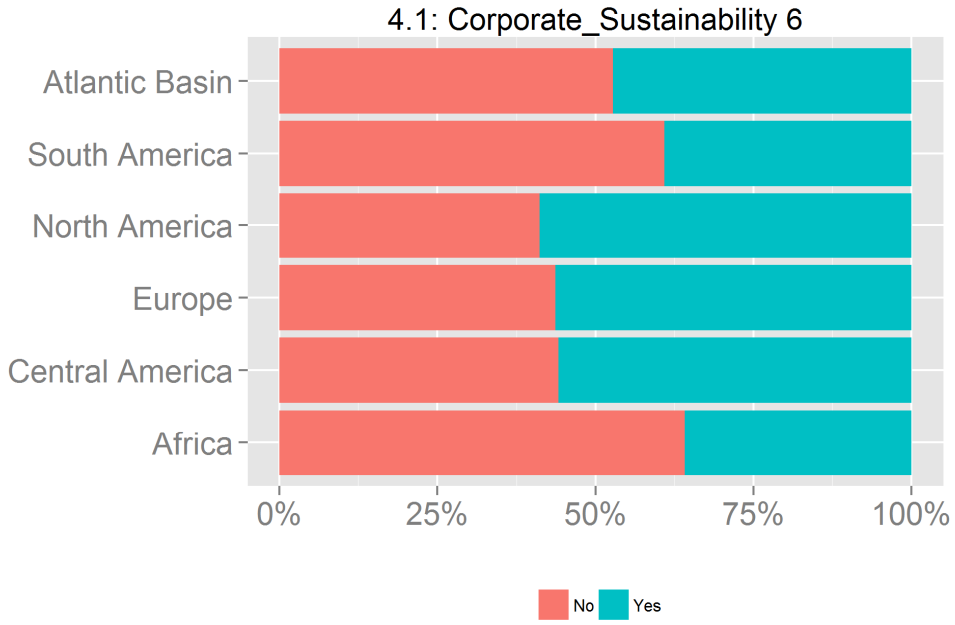
In Europe, nearly half of respondents marked down commitment to this particular policy, followed by Central America. All other regions, however, display very low levels of commitment to this policy, with approximately 75% of respondents declaring lack of commitment to the implementation of this particular policy.

4.1.5. Significantly reducing plastics in consumer packaging



This seems a slight (although unenthusiastic) possibility in Africa and Europe; other regions maintain the same cautious distribution as for previous corporate policies.

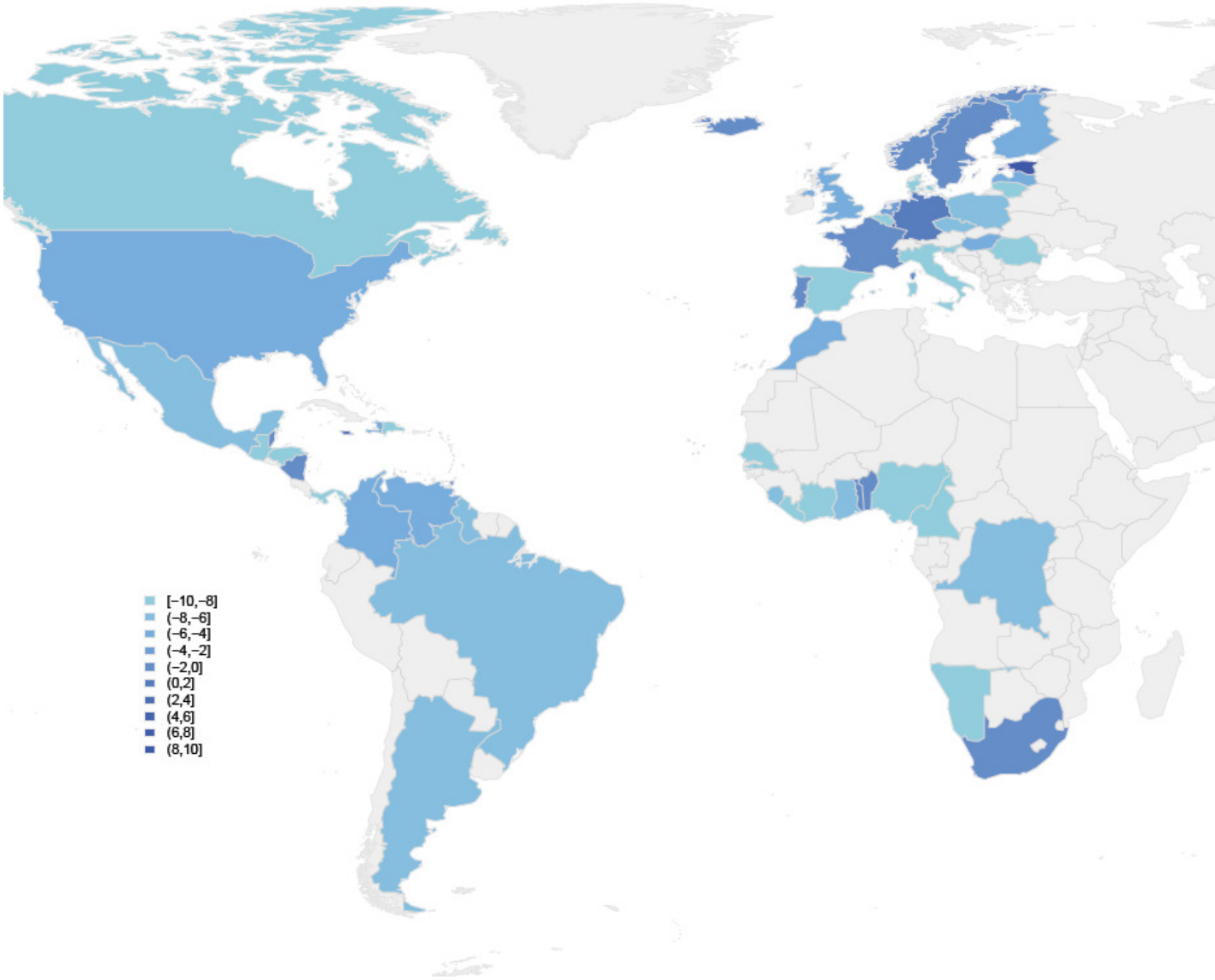
4.1.6. Incentivising the measurement and disclosure of greenhouse gas emissions, climate change risk and water strategies in business via appropriate regulatory mechanisms



This seems a feasible possibility in North America, Central America and Europe, where respondents where predominantly optimistic about this policy. Africa and South America, however, were largely unenthusiastic.

Water strategies and regulatory mechanisms are also mentioned in this item, widening the scope beyond emissions-disclosure. Results suggest a fair degree of openness towards this policy option. It is reasonable to surmise, consequently, that there is potential for rather more daring policies in this vein.

Overall, corporate sustainability policies in the Basin show the following spread:



Only Estonia and Luxembourg showed high marks for corporate sustainability (+10), Jamaica and Germany are next on the ranking, with scores of (+5) and (+1,25) respectively. All other Basin countries have scores of nought or below.

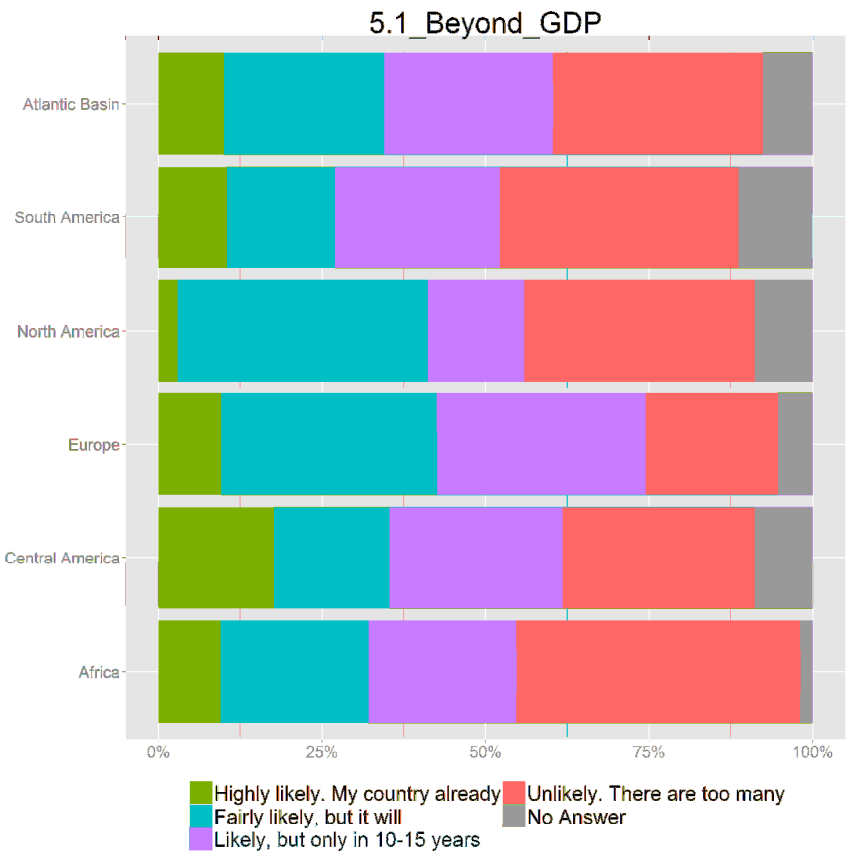
5. Environmental accounting

5.1. Getting Beyond GDP

Q: How likely is it that your country will adopt a Beyond GDP key performance indicator and use it to inform policy within the next 5 years?

- *Highly likely. My country already uses a beyond GDP indicator in most areas of policy making*
- *Likely, but only in 10-15 years*
- *Fairly likely, but it will not trump GDP in any scenario*
- *Unlikely. There are too many difficulties associated to environmental valuation. Even if a new KPI is adopted it will not be used to inform policy*

Many countries already use Beyond GDP indicators (5.1.); the same may be said of carbon taxes, cap-and-trade schemes and fee and dividend mechanisms (5.2.).



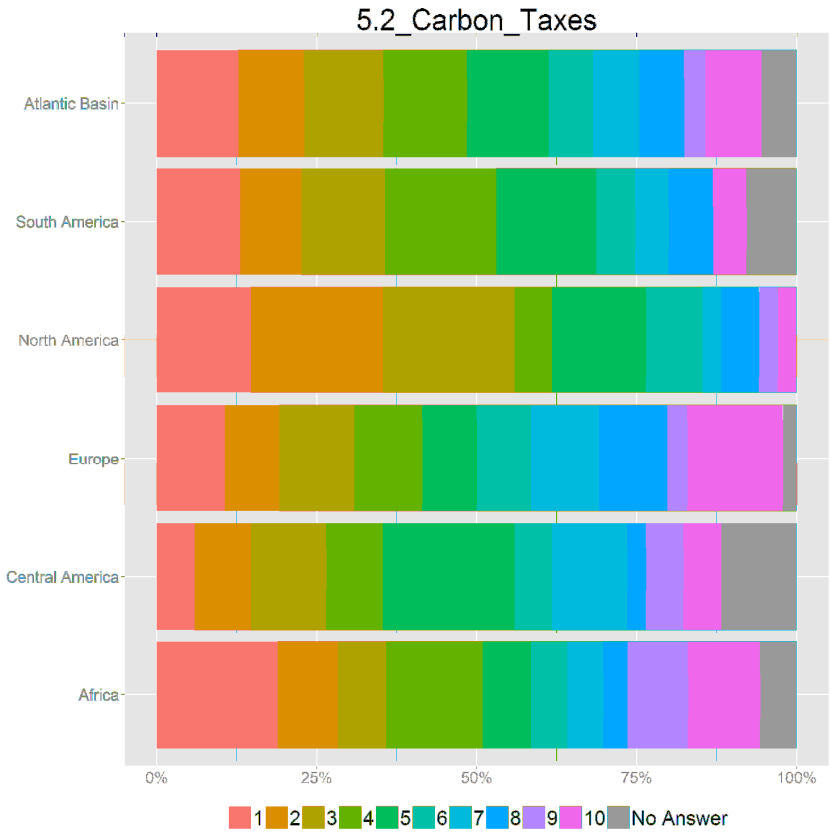
Of the geographical regions considered, Europe appears most open to new Key Performance Indicators, only a small portion of respondents viewing this policy option as unlikely to materialise, most responses, however, preferring to err on the side of caution, considering that a green KPI will not trump GDP in any way, or that if one does come to be in use, it will only occur in 10 to 15 years' time.

Central America has the highest number of experts who responded highly likely or attested to the presence of an index already used to inform policy.

Africa and South America had the highest rates of respondents who considered this policy unlikely to go ahead at all, closely followed by North America, which is also interesting in that it had the smallest number of responses which considered this policy option highly likely.

5.2. *Carbon tax, cap-and-trade, fee-and-dividend / hybrid scheme*

Q: How likely, on a scale of 1 to 10, is it that your country will implement a carbon tax, cap-and-trade, fee-and-dividend, or other hybrid scheme within the next 5 years?

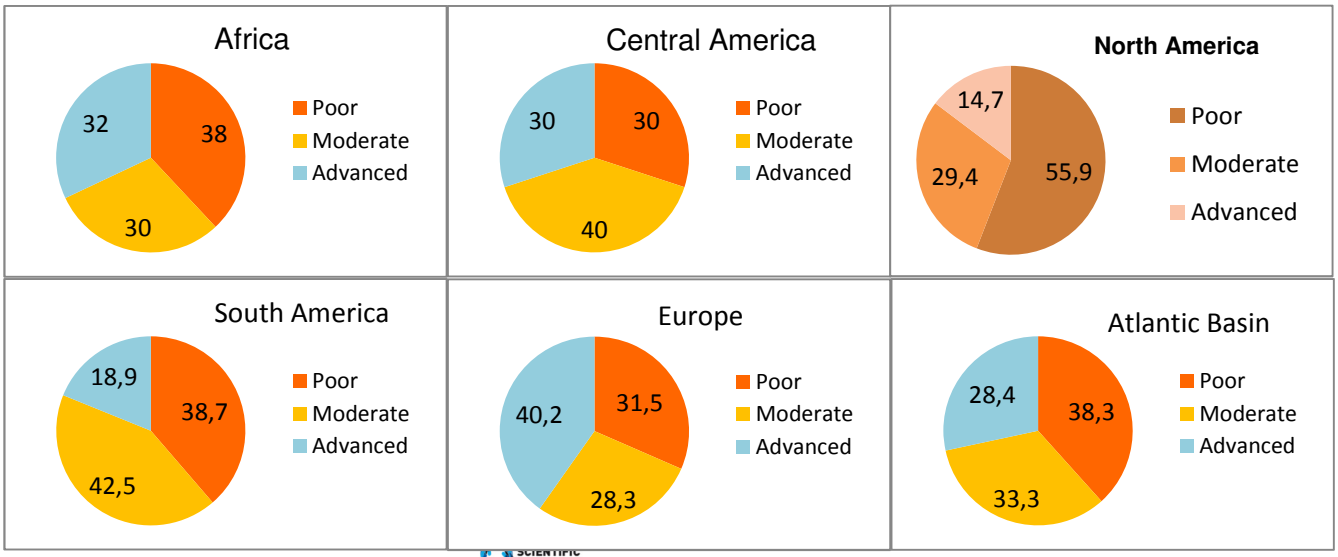


Europe is easily highest placed and North America, lowest. This tallies with the reality of the flagship EU Emissions Trading System (ETS), which, although suffering difficulties, equals an innovative policy step taken by an Atlantic Basin region in the complex field of carbon pricing.

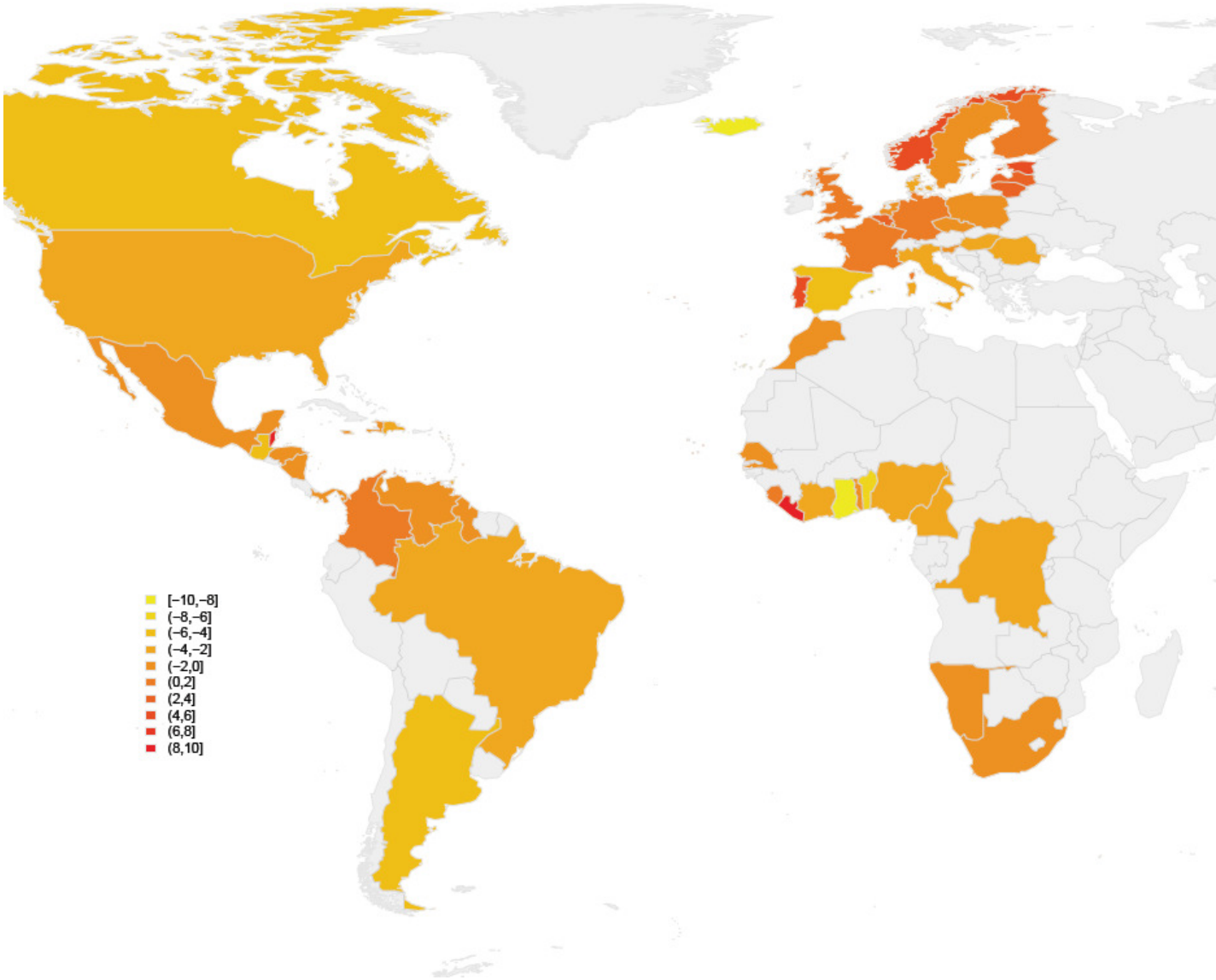
Africa shows low likelihood of this policy being adopted in the near future, while South and Central America sit on the fence.

Considering the Basin as a whole, however, it appears that there is little likelihood of a carbon tax, cap-and-trade, fee-and-dividend, or other hybrid scheme's being implemented soon.

Looking at responses through the GPI ranking, just below 40% of Basin respondents consider the likelihood to be 'poor', as regards the implementation of a carbon pricing/trading scheme in the following years. North America is confirmed as the most determined detractor and Europe, as the most advanced.



Examining Environmental Accounting as a whole, the Basin shows the following spread:



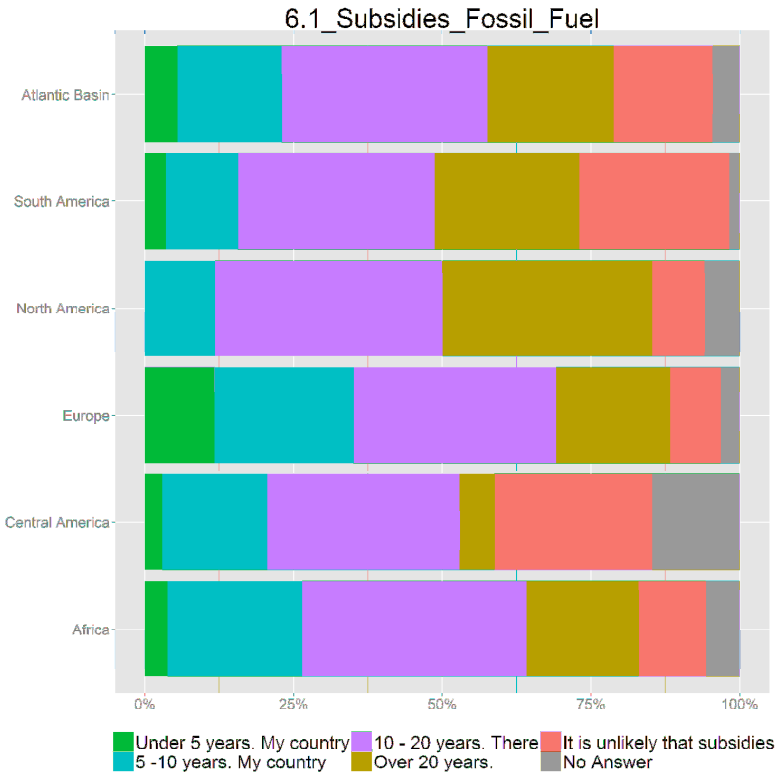
The five best placed countries are: Belize, Liberia, Estonia, Norway and Portugal; the five worst: Canada, Argentina, Benin, Iceland and Ghana.

6. Sustainable Energy

6.1. Phasing out subsidies to fossil fuel: a realistic timetable

Q: *What do you consider a realistic timetable for the phasing out of subsidies to fossil fuel in your country?*

- *Under 5 years. My country is committed to the removal of subsidies to fossil fuel burning industries*
- *-10 years. My country is committed to phasing out subsidies to fossil fuels, but this will be very challenging due to our current energy mix.*
- *10 - 20 years. There are too many entrenched interests in fossil-fuel burning industries for this to be done on a shorter timescale*
- *Over 20 years.*
- *It is unlikely that subsidies to fossil fuels will be phased out at all.*



There was homogeneity across the Basin in the (predominant) belief that the phasing out of subsidies to fossil fuel would, due to the difficulty of entrenched interests, take an average of 10 – 20 years.

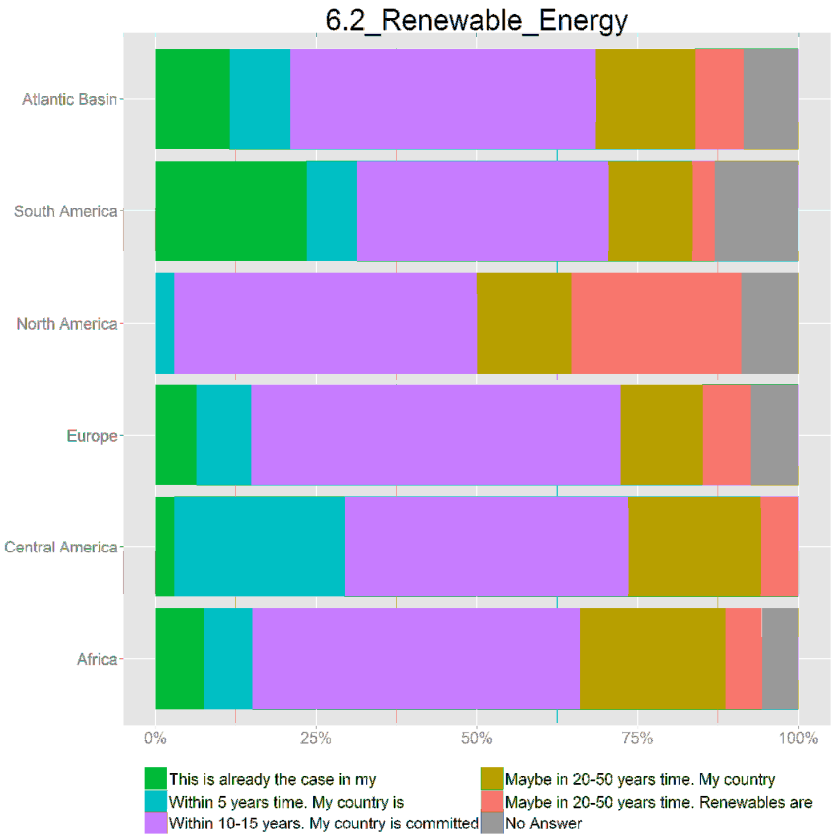
Europe was the only region which had a respectable (albeit small) portion of respondents that considered that the phasing out of subsidies might be done in less than 5 years.

Meanwhile, North America was the region in which most respondents considered that this process would take over 20 years; while South and Central America had the most respondents which considered that subsidies to fossil fuel would not be phased out at all.

6.2. When - if at all - do you think that your country would increase the share of renewable energy in the national energy mix to 60% cross-sectors?

Q: When - if at all - do you think that your country would increase the share of renewable energy in the national energy mix to 60% cross-sectors (government, business, individuals)?(questions 6.2.)

- *This is already the case in my country*
- *Within 5 years' time. My country is committed to achieving low-carbon development and we invest heavily in renewables.*
- *Within 10-15 years. My country is committed to developing renewable energy, but we still rely too heavily on coal, oil and gas.*
- *Maybe in 20-50 years' time. My country still has to develop and industrialise before it can start thinking about renewable energy*
- *Maybe in 20-50 years' time. Renewables are still too unreliable a source of energy.*

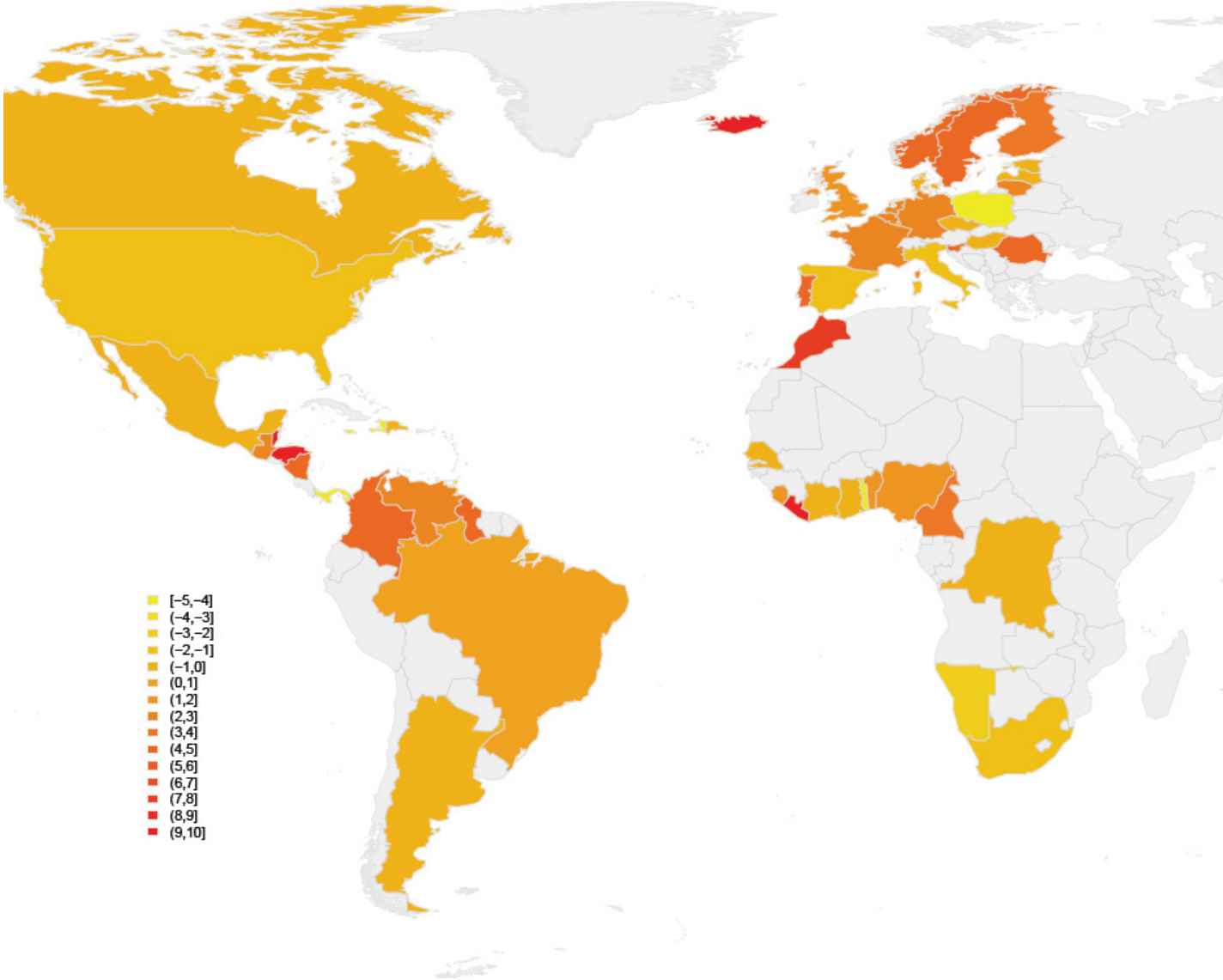


The predominant view, across the Basin, is that this will take 10 to 15 years.

North America had the highest amount of respondents who considered the delay might be even longer – between 20 and 50.

South America had the largest number of respondents who considered that this was the case already, while Central America had the largest number of people who thought it might occur within 5 years' time.

Considering Sustainable Energy as a whole, we are faced with the following spread:

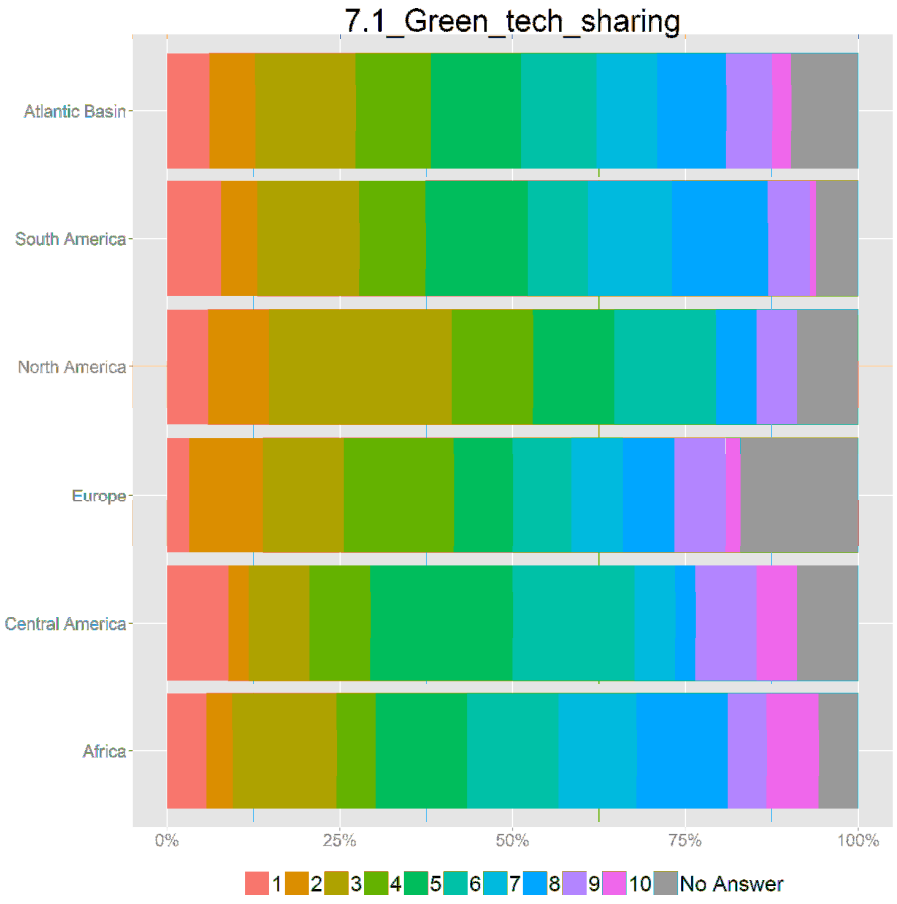


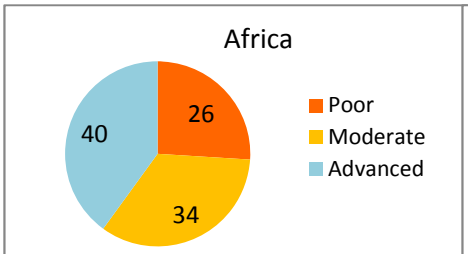
Belize, Liberia, Honduras, Iceland and Morocco are the five best placed countries, the first four all at a score of (+10). Least on track to sustainable energy (considering renewables and subsidies) are Jamaica, Togo, Haiti, Poland and Panama, all scoring (-5) on the GPI for this sub-section.

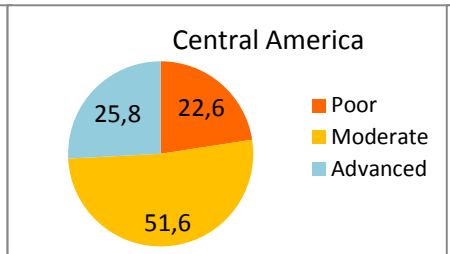
7. Environmental Innovation

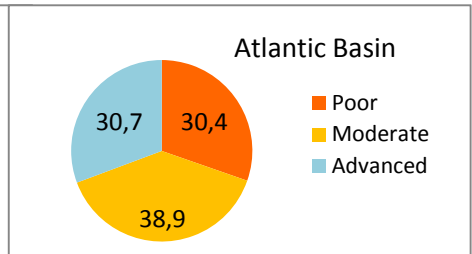
7.1. Eco-Patent Pool: promoting environmentally beneficial technology sharing

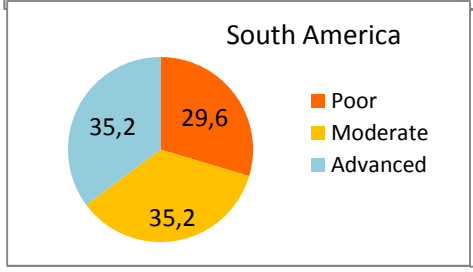
Q: What is the likelihood of your country's adopting [or signing up to] a voluntary Eco-Patent Pool agreement to promote environmentally beneficial technology sharing within the next 5 years?

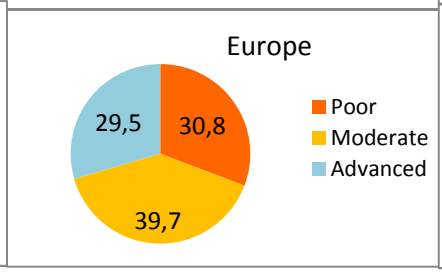


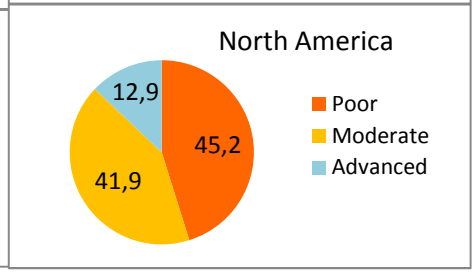










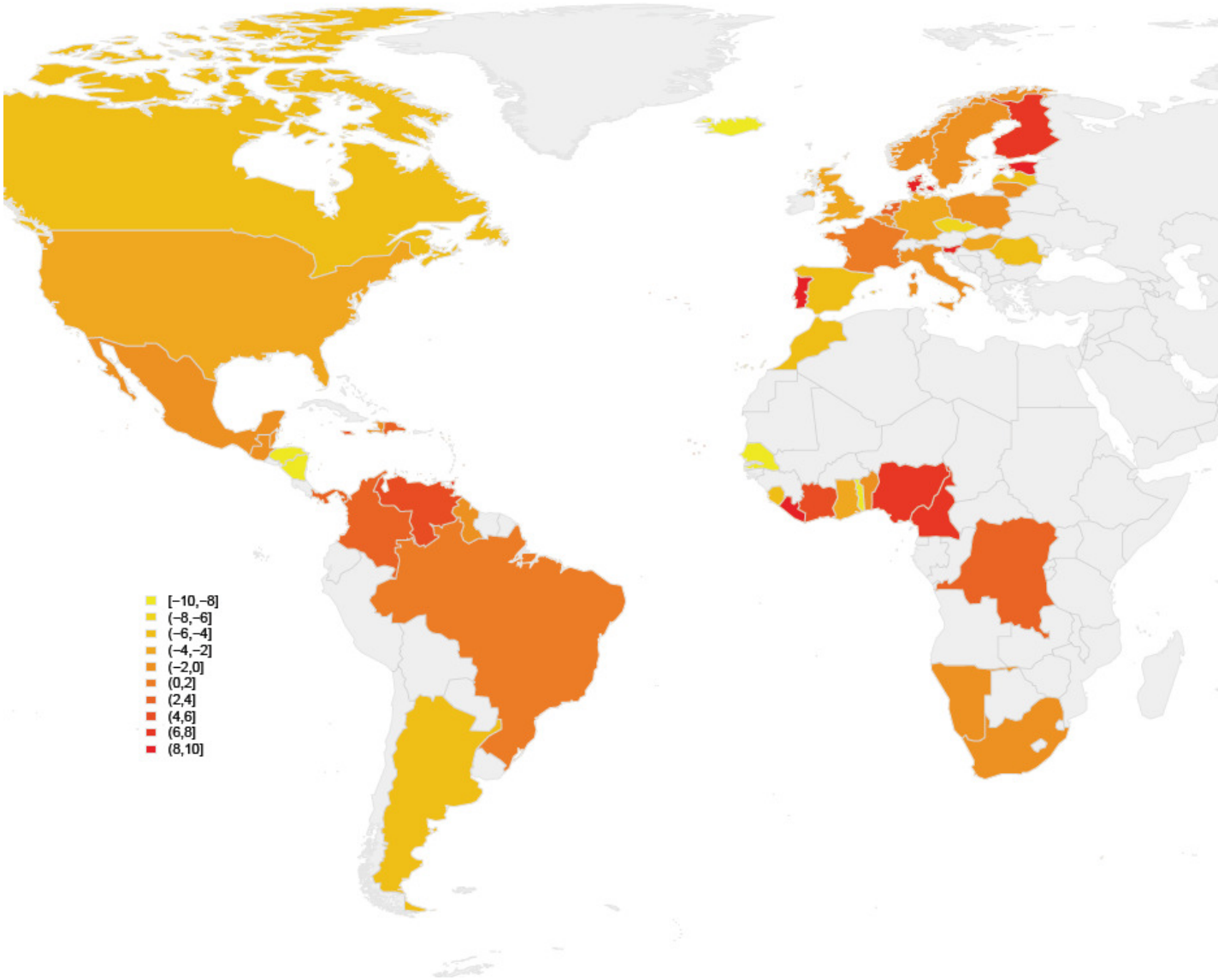


Africa is the most enthusiastic about this policy option; North America, the least. Europe, South and Central America sit somewhere in the middle of these poles.

Although beyond the limitations of the data collected, common sense suggests that it cannot be coincidental that the region in which the least technology is developed is also the most keen to have it shared, - and the one in which the most is developed[16] is also the most reluctant.

In view of this, we consider it unlikely that such a policy will move forward in the short term.

Viewed through the GPI scoring system, the Atlantic Basin, as regards environmental innovation, is organised in the following manner:



Highest ranked countries, all with an 'advanced' GPI score of (+10) are Liberia, Portugal, Cape Verde, Slovenia, Estonia, Denmark and Trinidad and Tobago. Lowest ranked, meanwhile, are Honduras, Iceland, Nicaragua, Senegal and Togo.

[16] In the Atlantic Basin. Taking investment in clean energy as similar to general R&D in green technology, the Asian continent surpassed the United States in 2013. (Pew Trusts, 2013)

8. New Resources

8.1. Hydraulic Fracturing

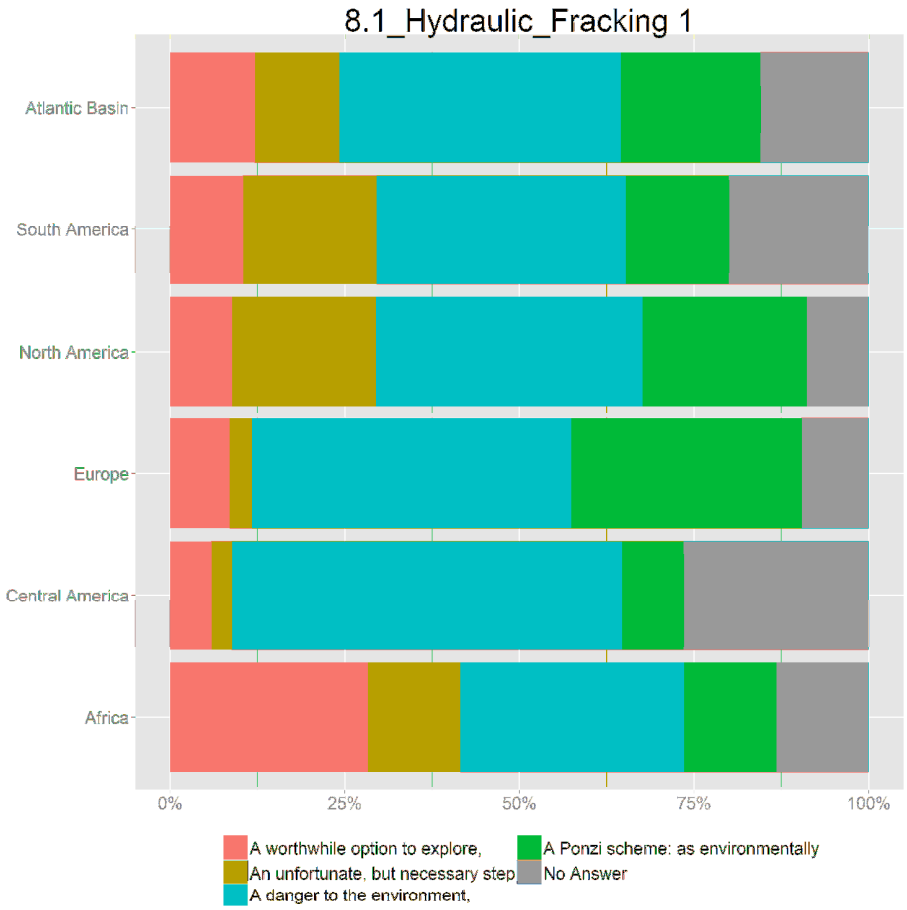
Q: Hydraulic Fracking is:

- *A worthwhile option to explore, allowing countries to reduce their dependency on oil, lower their carbon footprint and diversify their energy sources*
- *An unfortunate, but necessary step in the transition towards renewable energy*
- *A danger to the environment, which should not be used until its impacts are fully understood*
- *A Ponzi scheme: as environmentally destructive as it is economically unsound*

Overwhelmingly, experts, when giving their own personal views, considered – across the Atlantic Basin – hydraulic fracking a danger to the environment, which should not be used until its impacts are fully understood.

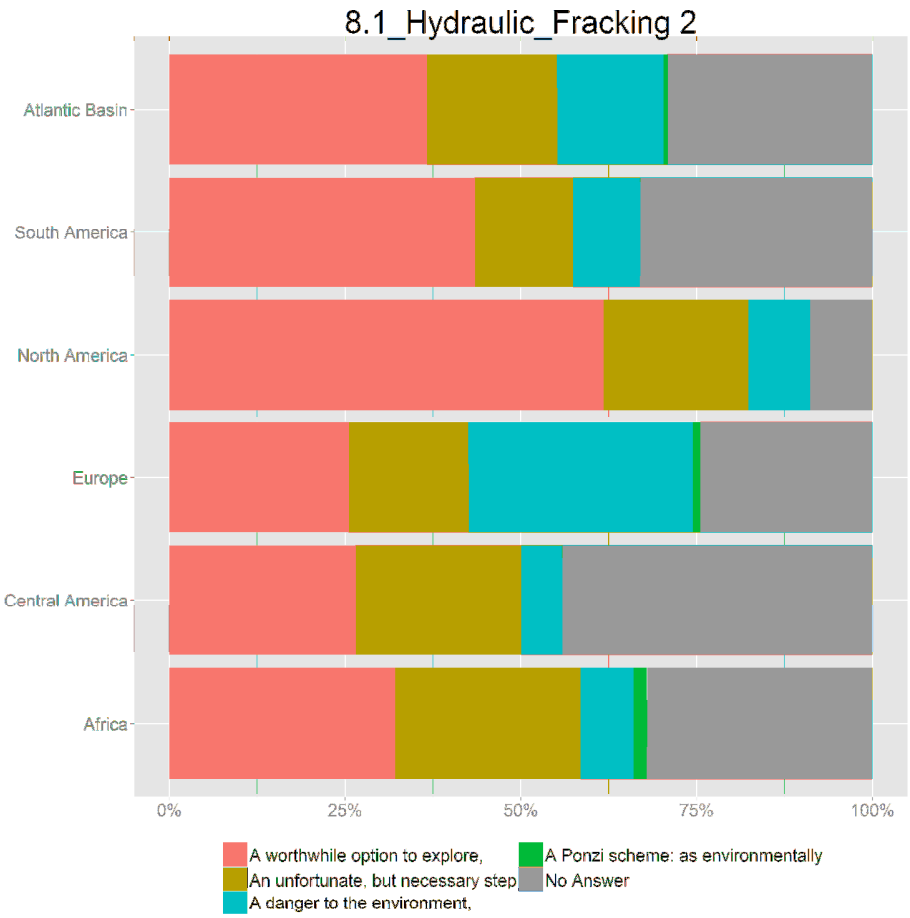
Large numbers in Europe consider it a Ponzi scheme, as environmentally destructive as it is economically unsound.

Africa was the only region in which a significant number of experts – in their personal opinion – viewed HF as a worthwhile option to explore.



Considering the Basin as a whole, 47% of experts considered that hydraulic fracturing as "a danger to the environment, which should not be used until its impacts are fully understood"; while an impressive 24%, the second most voted, view it as "a Ponzi scheme: as environmentally destructive as it is economically unsound".

When considering their countries' position[17], the predominant response was that fracking was a worthwhile option to explore, allowing countries to reduce their dependency on oil, lower their carbon footprint and diversify their energy sources.



This shows a large discrepancy between governmental attitudes toward policies and SD experts' personal opinions.

Europe was the only region to view HF as a danger to the environment, which should not be used until its impacts are fully understood in significant numbers as regards governmental attitude.

Only 14% of experts, in their personal opinion, view HF as "a worthwhile option to explore, allowing countries to reduce their dependency on oil, lower their carbon footprint and diversify their energy sources," however this percentage increases to 51% when it comes to governmental attitudes.

In short, SD experts are far more risk-averse when it comes to the development of hydraulic fracking than their perception of their countries' attitude.

Considering governmental attitudes alone, North America, home of the shale gas boom, is unsurprisingly the most enthusiastic region; Europe, in which HF has so far largely been prevented from coming into play due to a rather more precautionary approach, shows the highest caution. In this way, GPI findings can be said to confirm factual legislative realities, - a scenario which intuitively suggests that SD experts' perception of governmental attitudes is fairly accurate.

The discrepancy, however, between perception of country attitudes and personal opinion leads to a certain feeling of conformism, or defeat on the part of SD experts.

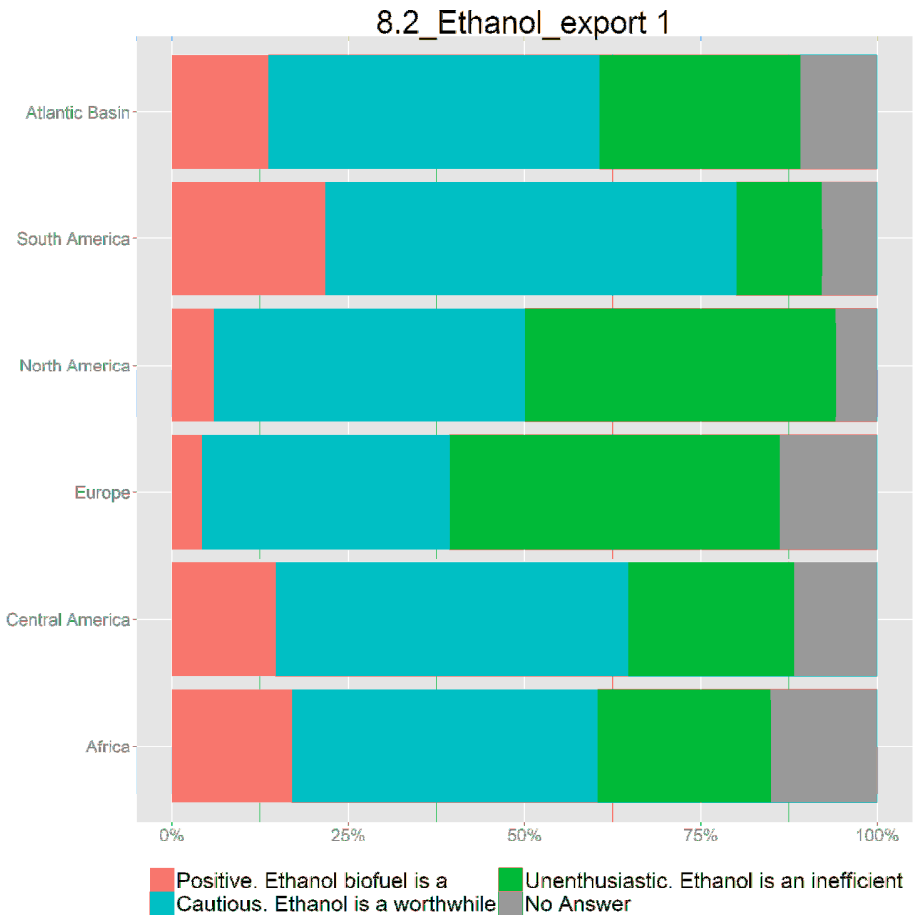
[17] In the previous two sections (*Willingness to Act* and *Anticipated Timescale*) only governmental positions (e.g., respondents were asked to answer based on their understanding of their country's positions) were considered, since both were comprised of policies taken as 'promoting' environmental sustainability. In this third section, *Attitude to Environmental Risk*, however, the policies considered are potentially (although not necessarily) harmful to the environment. As such, we considered it interesting to poll experts' personal opinion as well as their perception of governmental attitudes. This said, only perception of governmental attitudes was aggregated within the GPI, since the Index is intended as an illustration of country positions.

Most experts appear to view policy positions of their countries on HF in a negative light, or certainly as less precautionary than they would be themselves. To examine what can be done in view of this scenario is the next step in the analysis. For example, policy-makers may wish to take note from this gap and review their policies; NGOs may wish to increase mobilisation, using experts' personal opinion as a basis for action; HF industry professionals may wish to address SD experts' concerns.

8.2. Incentivising ethanol as a key sustainable export in the Atlantic

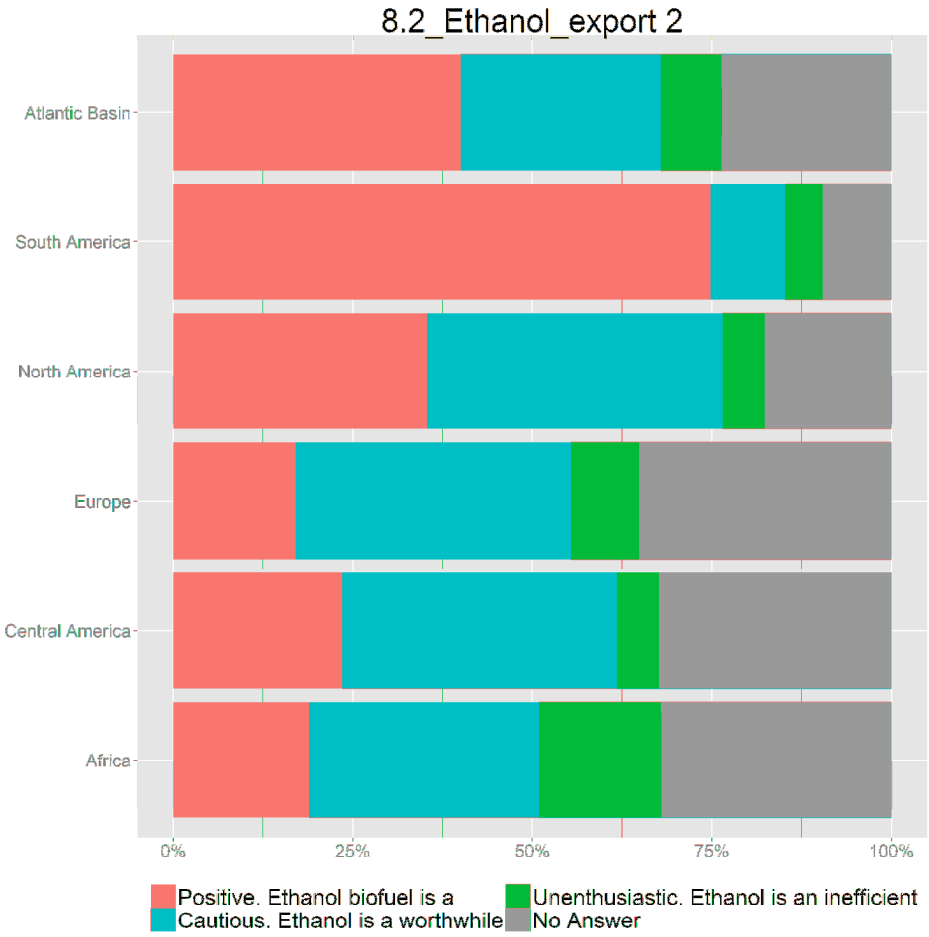
Incentivising ethanol as a key sustainable export in the Atlantic region is (Your view/Position your country has/is likely to adopt):

- *Positive. Ethanol biofuel is a useful technology which should be invested in. Bilateral agreements in this vein are to be encouraged. The Atlantic Basin is well-positioned to take the lead in ethanol produce, trade and use.*
- *Cautious. Ethanol is a worthwhile technology, when considered as one part of a diversified energy portfolio; however it is not a key import/export. International agreements on sustainable energy should focus on advanced renewables, such as solar, wind and geothermal.*
- *Unenthusiastic. Ethanol is an inefficient technology; it emits CO2 and serves as a potential danger to food security due to its high demand for arable land. Bilateral agreements focussed on ethanol trade should either be small-scale, or shelved altogether.*



Experts' personal opinion on ethanol fluctuates between Cautious and Unenthusiastic, with experts from North America and from Europe more Unenthusiastic than Cautious, while those from Central and South America as well as Africa are the other way around.

Only in South America is there a significant number of experts who feel Positive about ethanol, followed, although t a lesser extent, by those in Africa and Central America.



Perception of governmental attitude, however, is predominantly cautious in all regions, excepting South America in which it is overwhelmingly positive.

One may infer, from this strong South American position, that the weight of Brazil, country of the sugar cane boom, is significant. Ethanol exports are generally viewed with favour and even experts' personal opinion can be seen to be more favourable than in other regions. Further analysis of intra-region differences would be worthwhile undertaking, especially as contrasted to effective rates of ethanol production and consumption, as well as volumes of exports and imports.

Interestingly, the only region which shows a larger amount of responses in the 'unenthusiastic' category for governmental attitude to ethanol is Africa – the primary region South American countries have cooperated with in the matter.

All Basin countries share the potential to expand a portfolio of tradable sustainable goods. Many such goods today face tariff and non-tariff barriers in other Atlantic countries. Further versions of the GPI might identify a wider range of key sustainable goods produced in each area so as to determine the existence of complementarities or substitutions with a view to increasing intra-Basin sustainable trade flows.

8.3. Climate change and resource exploitation in the Arctic

Q: Regarding climate change and resource exploitation in the Arctic:

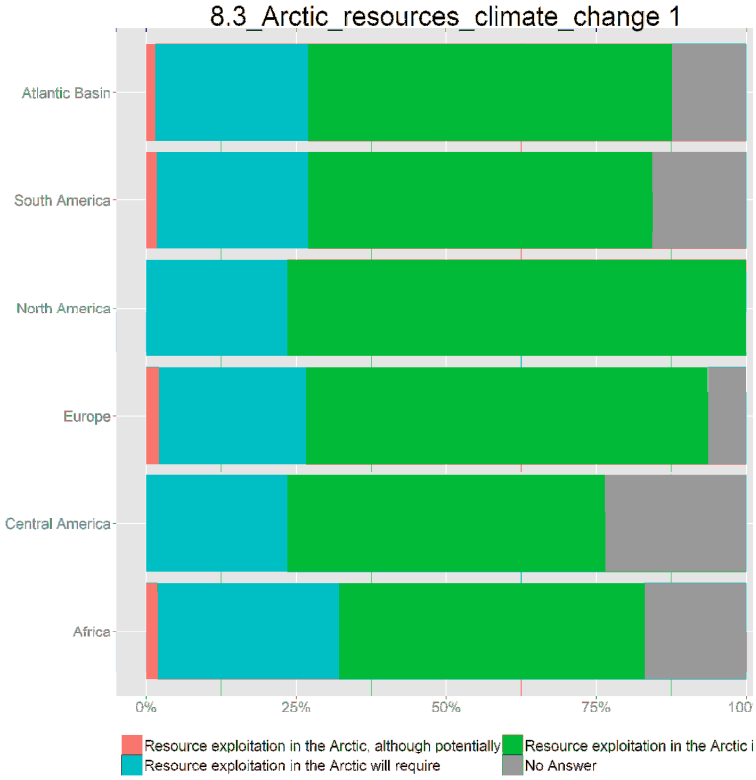
- *Resource-exploitation in the Arctic, although potentially environmentally harmful, will bring a much-wanted abundance of energy resources to the global table. Current regulations, such as the Arctic Council's new agreement on Arctic oil spill response and preparedness, are generally sufficient.*
- *Resource exploitation in the Arctic will require a great deal of regulation and it would be better to take a precautionary approach rather than too enthusiastic regarding oil and gas drilling. Technical and environmental challenges for Arctic*

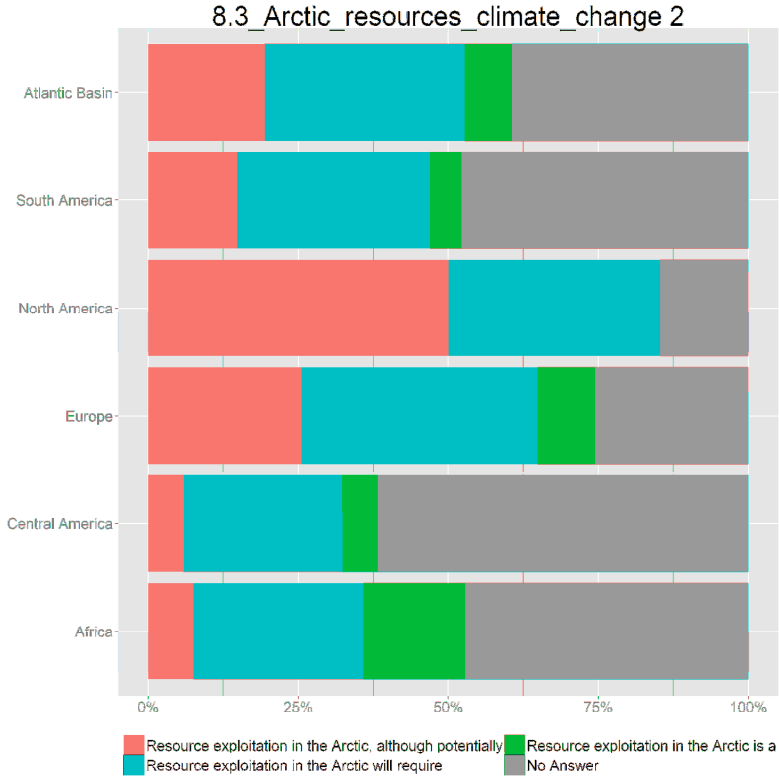
drilling remain extraordinarily high. It is possible to develop available energy sources, however this should only be considered under stringent regulations.

- *Resource exploitation in the Arctic is a major environmental battle of the 21st century. The potential for environmental damage - including, but not limited to, destruction of biodiversity and species' habitats, oil spills or operational discharges, waste and water discharges, air pollution, and impacts to resource-dependent indigenous communities - is immense and significantly outweighs any economic benefits.*

Over half of SD Experts, in every region, when asked their personal opinion, view resource exploitation in the Arctic as a major environmental battle of the 21st century, - an even greater percentage in Europe and North America.

The next largest category, across the Basin, in respect to personal expert opinion is that resource exploitation in the Arctic will require a great deal of regulation and it would be better to take a precautionary approach.





In Africa, Central and South America, with regard to governmental attitude, there were predominantly abstentions, the next largest category being that of necessary regulation and a precautionary approach.

In Europe, governmental attitude is predominantly seen as being wishful of necessary regulation/precaution.

In North America, however, half of respondents consider that the governmental position will be favourable to resource exploitation in the Arctic in view of the abundance of energy resources this would bring to the global table, and would consider current regulations as generally sufficient.

Overall, SD experts' personal opinion is far more precautionary than their perception of governmental attitudes in their country. This gap between degrees of risk-aversion is shown in all questions relating to New Resources, suggesting either that the voices of SD experts are not being sufficiently heard in government, or that other considerations are taking primacy as compared to that of environmental protection.

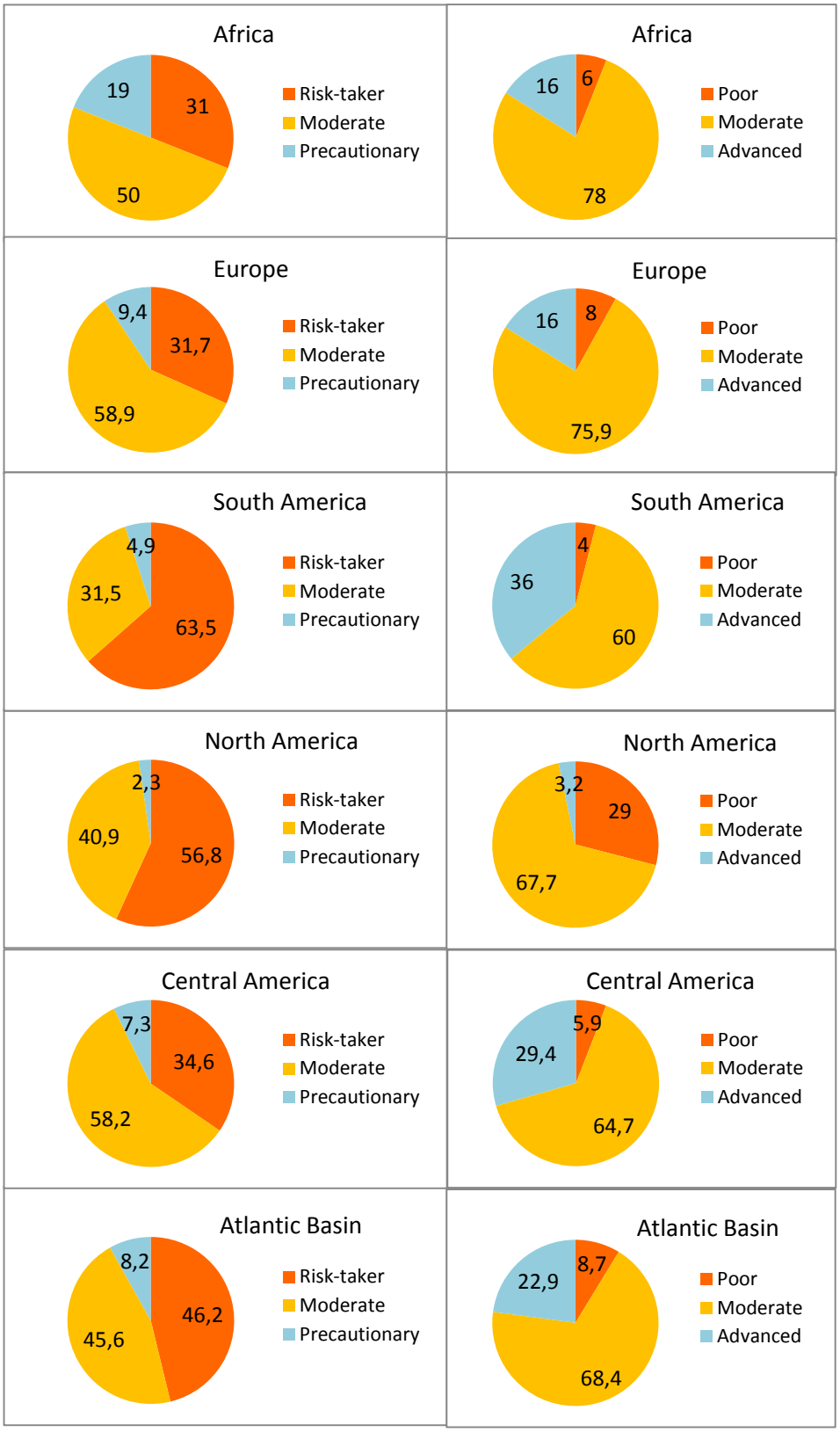
Contrasting governmental positions on New Resources with degrees of policy-openness on renewables, we obtain the following spread (governmental attitudes to New Resources on the left (question 8 as whole[18], minus personal expert opinion[19]), Renewables [question 6.2.], on the right):

[18] To obtain the percentages for question 8 as a whole, we summed all of the frequencies for each response and each region so as to obtain the total number of responses/category/region, and then divided by the total number of responses to obtain the percentage. It should be understood that the "moderate" responses, for instance, could have come from any of the 3 parts of question 8 on New Resources.

[19] Answers regarding personal expert opinion were not included in the calculation for the final Index, since they are taken as having no bearing on perceived governmental positions.

Governmental attitudes to New Resources

Degrees of policy-openness on renewables



As can be seen, there is a fairly large acceptance of the risk of new resources – far more so than there is an advanced position on renewables forming 60% of the energy matrix.

South America – the best positioned as regards renewable energy (presumably largely due to the extensive hydroelectric generation in the region), also shows the largest acceptance of the risk of new resources, suggesting that the region is keen on diversifying resources beyond advanced renewables. However, this may simply be the weight of the importance of ethanol in the region, and primarily, in Brazil.

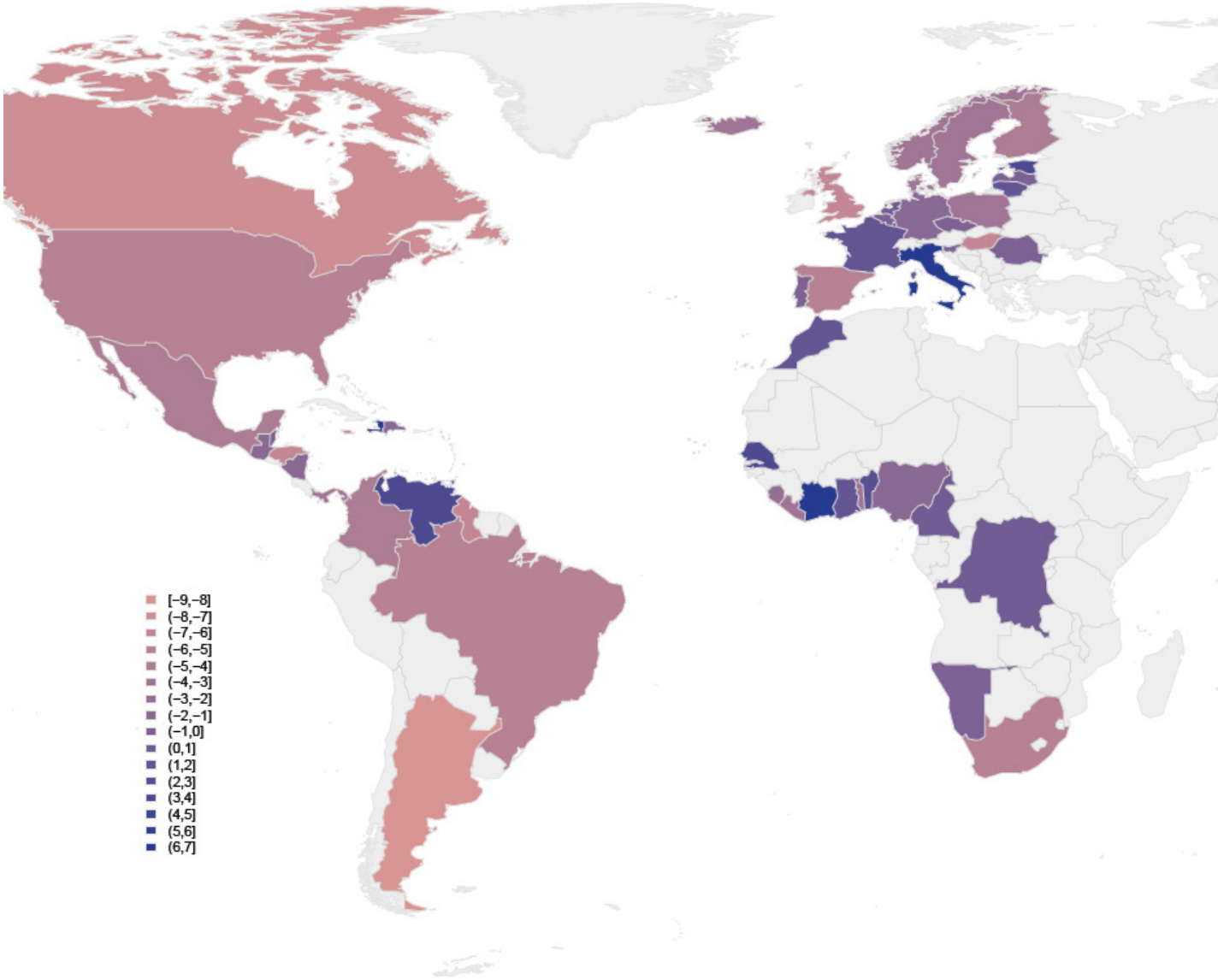
Europe and Africa, the most risk-averse as regards New Resources with potential environmentally damaging consequences, show a surprisingly similar spread on renewables: a predominantly moderate scenario with just under 20%, advanced'.

North America shows the smallest percentages both of precautionary environmental attitudes as well as advanced scenarios when it comes to renewable energy.

Overall, the Basin is predominantly moderate – both as regards the risk of New Resources and the perception of how long it will take for renewables to form a leading part of the national energy mix.

It is interesting to note, however, as mentioned above, that despite the inroads renewables have made and despite the lessening costs of many such technologies, acceptance of environmental risk from New Resources (HF, Arctic Resources and Ethanol) in the Basin is double the likelihood of increasing shares of national renewable energy to 60% in the near future - (at 46 and 22 percent, respectively.)

Considering New Resources overall on the GPI, the Basin shows the following picture, higher scores being allocated to the most risk-averse,

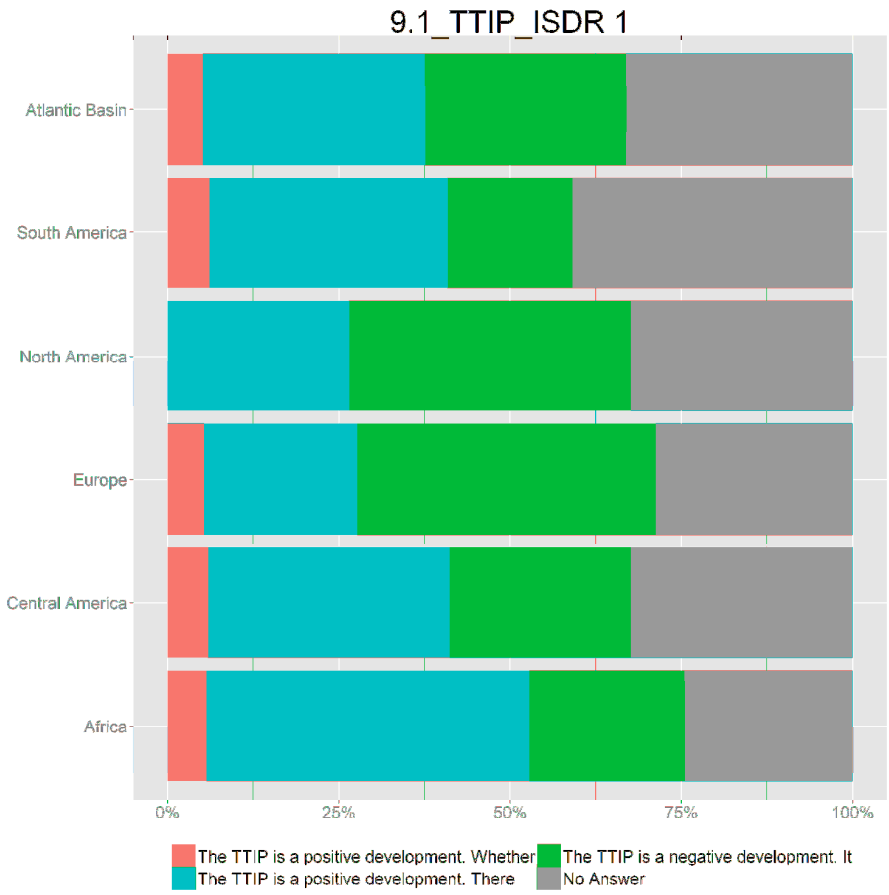


The Ivory Coast, Italy, Haiti, Cape Verde and Estonia show the most aversion to risk as regards the use of HF, incentivising ethanol as an export and furthering resource exploitation in the Arctic.

The five most keen, meanwhile, are Jamaica, Guyana, Honduras, Canada and Argentina.

9. The Transatlantic Trade and Investment Partnership

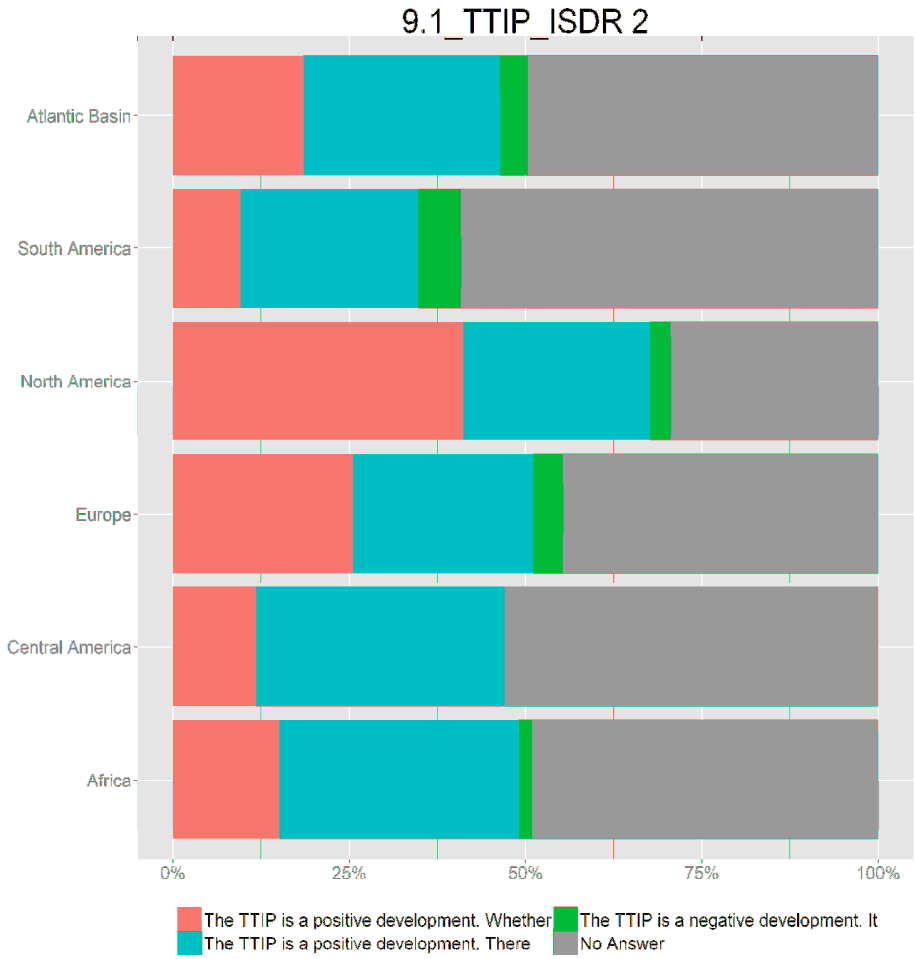
9.1. The Transatlantic Trade and Investment Partnership (TTIP)



In Africa, SD experts giving their personal opinion on the TTIP, pronounced themselves overall in favour of the treaty, although against the inclusion of ISDR.

A similar, but slightly more cautious view was espoused by those in Central and South America, for whom a significant number considered the treaty as a negative development due to its environmental risk.

This reticence increased greatly when considering the personal opinion of experts from North America and Europe, where the cautious view was largely predominant – a point interesting in that these are the two regions between which the treaty is to take effect.



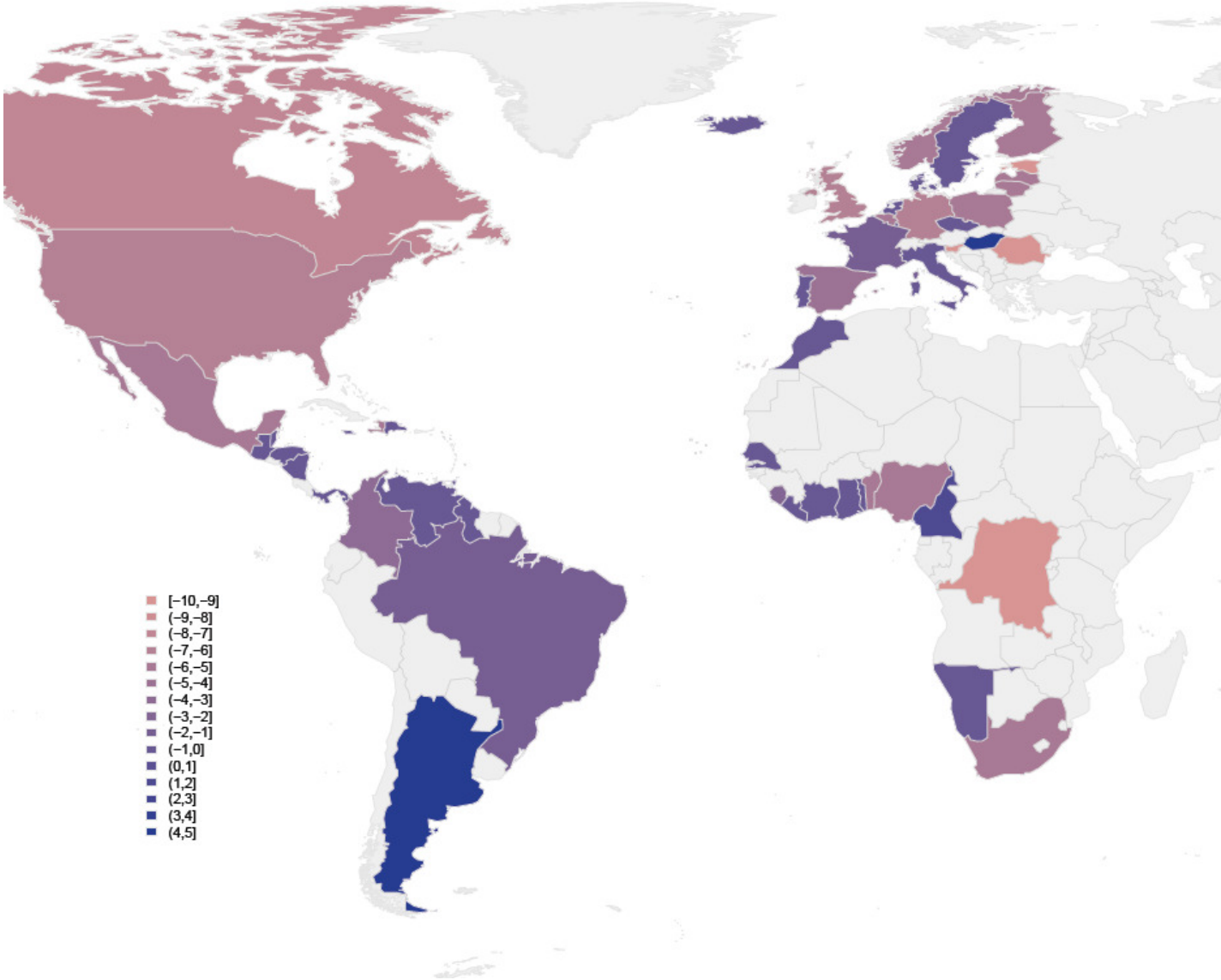
Most SD experts chose not to comment on governmental attitude – in fact, only in North America was the "no response given" category not the largest. This may, however, not be of particular significance, since this category was also fairly large as regards personal opinion. Thus, although some SD experts' may have felt the issue to be excessively politically sensitive, others may have

simply withheld their response due to a sensation of not being sufficiently informed to give one.

Africa maintained its position, in favour of the TTIP, although against ISDR, mirrored by Central America, and to a lesser degree, South America.

Europe was evenly divided between being fully in favour of the TTIP - ISDR included -, and expressing concern about ISDR, despite being, overall, in favour of the treaty. North America, meanwhile, was unsurprisingly predominantly in favour of the treaty, without reservations even in the case of the inclusion of ISDR.

Overall, as regards the TTIP, the Basin was spread thus (darker colours signifying greater hesitations with regard to the treaty and its use of ISDR).



Most risk-averse were: Argentina, Bermuda, Hungary, Cameroon and Antigua and Barbuda; least: Canada, Democratic Republic of the Congo, Estonia, Romania and Slovenia (closely followed by the US and UK).

5.3. The Green Policy Index – detailed

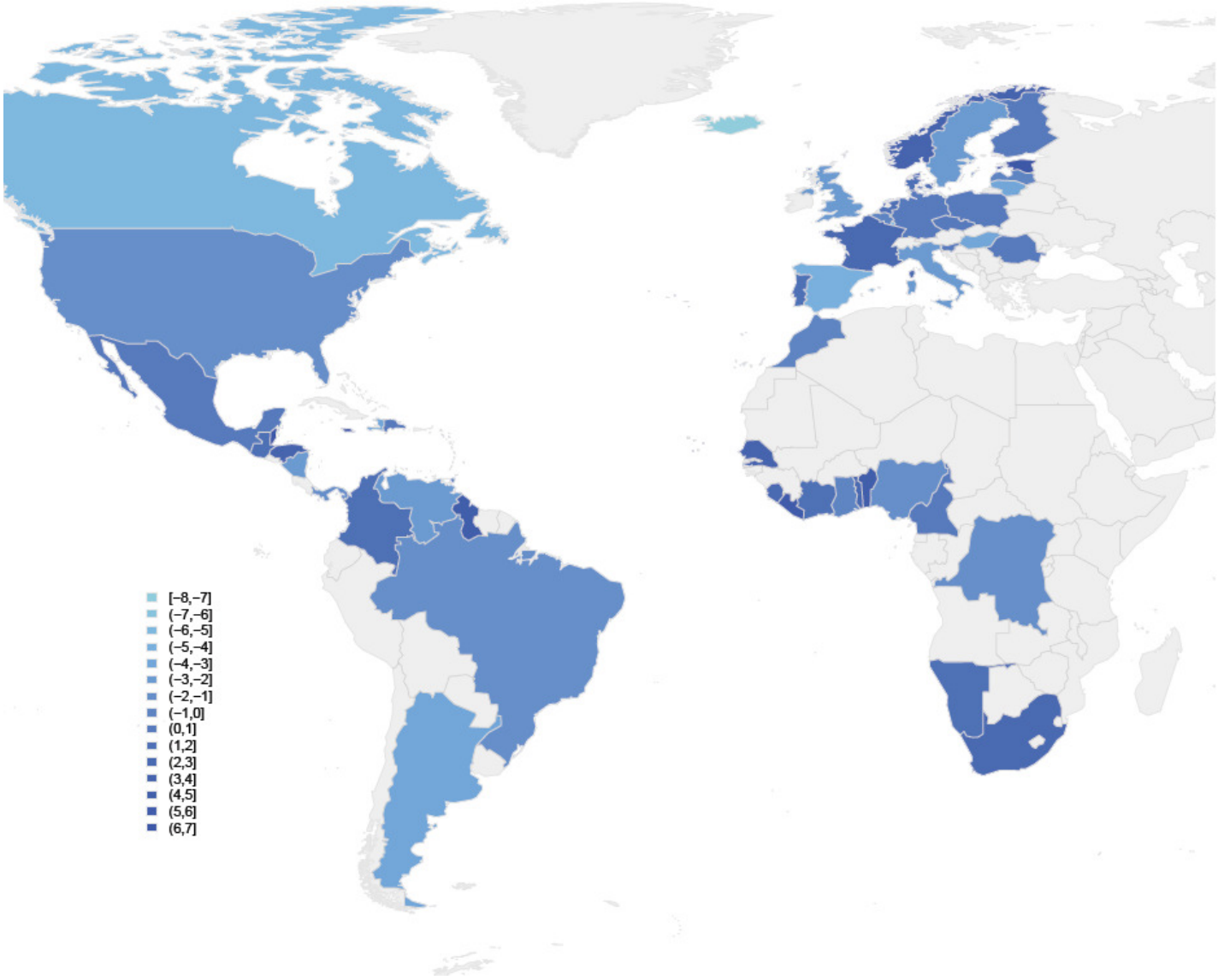
We will proceed to show the aggregated results and corresponding country ranking for each category within the index (Willingness to Act, Anticipated Timescale and Attitude to Environmental Risk) as well as the final Green Policy Index.

It must, however, be reiterated that this exercise is purely illustrative of the potential of the GPI, with a view to developing and maintaining the index, as well as of the policy-based research which becomes possible pursuant to its results.

Concerns of representativeness, risk of distortions and other methodological issues (see Annex 4) ought not to be forgotten.

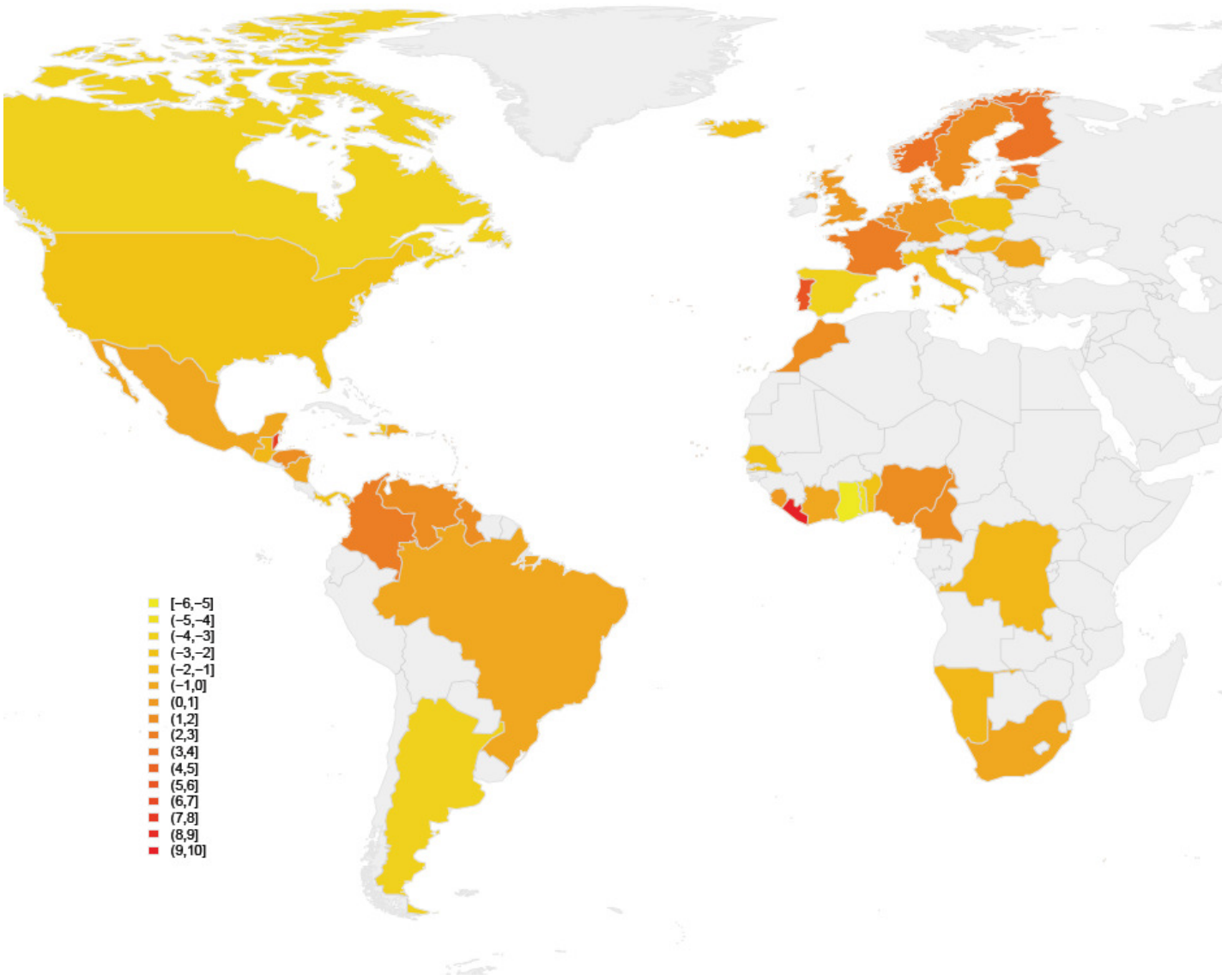
The country-rankings shown, therefore, must be taken with a strong pinch of salt and with a reminder of the pilot status of this project, the primary objective being to show the potential of the index as a tool for the greater comprehension of the Atlantic Basin policy scenario, not draw airtight conclusions from the preliminary results.

5.3.1. Willingness to Act



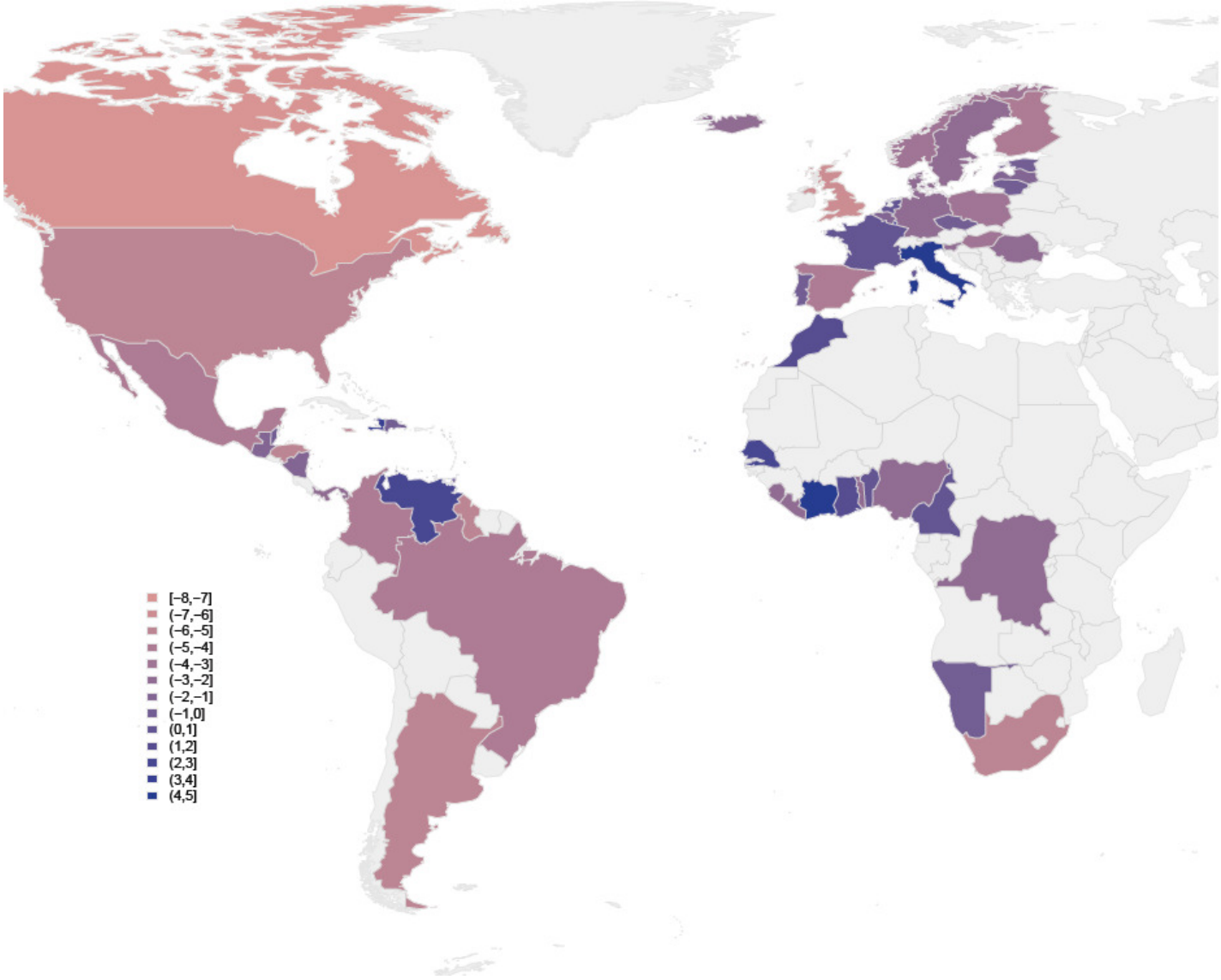
1. Belize
2. Estonia
3. Liberia
4. Cape Verde
5. Benin
6. Guyana
7. Jamaica
8. Senegal
9. Honduras
10. Norway

5.3.2. Anticipated Timescale



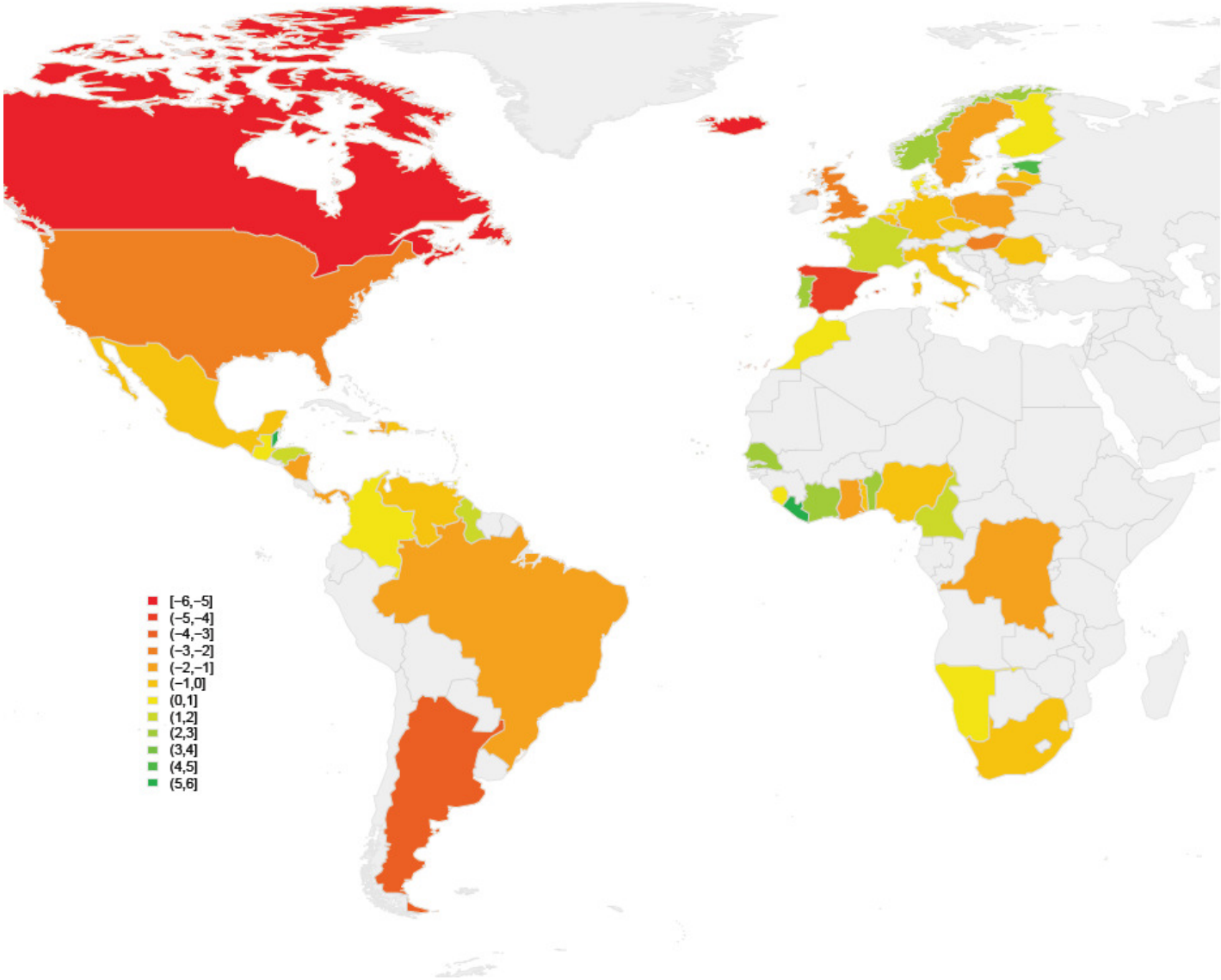
1. Liberia
2. Belize
3. Cape Verde
4. Portugal
5. Estonia
6. Norway
7. Slovenia
8. Finland
9. Colombia
10. France

5.3.3. Attitude to Environmental Risk (Green Risk Barometer)



1. Ivory Coast
2. Italy
3. Haiti
4. Cape Verde
5. Venezuela
6. Saint Kitts and Nevis
7. Luxembourg
8. Senegal
9. Morocco
10. Ghana

5.3.4. Green Policy Index



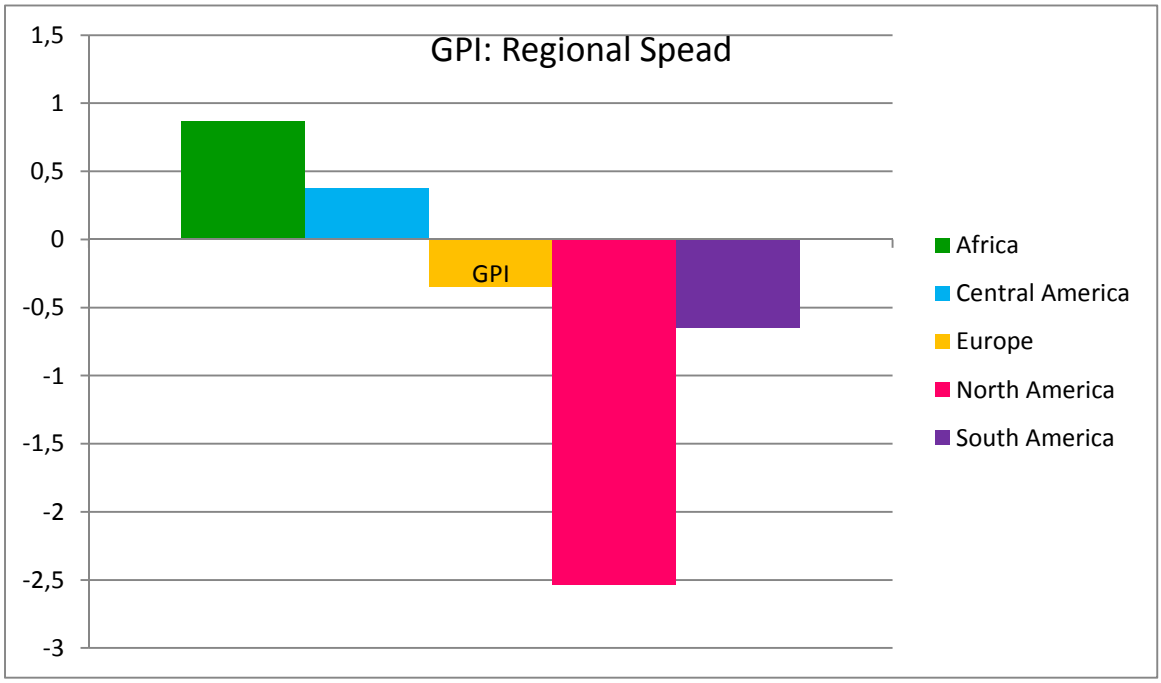
1. Belize	11. Guyana	21. Colombia
2. Liberia	12. Saint Kitts and Nevis	22. Denmark
3. Cape Verde	13. Honduras	23. Guatemala
4. Estonia	14. Cameroon	24. Trinidad and Tobago
5. Portugal	15. Jamaica	25. Finland
6. Benin	16. Slovenia	26. Bermuda
7. Ivory Coast	17. Netherlands	27. Antigua and Barbuda
8. Norway	18. Morocco	28. Belgium
9. Senegal	19. Namibia	29. Togo
10. France	20. Sierra Leone	30. Dominican Republic

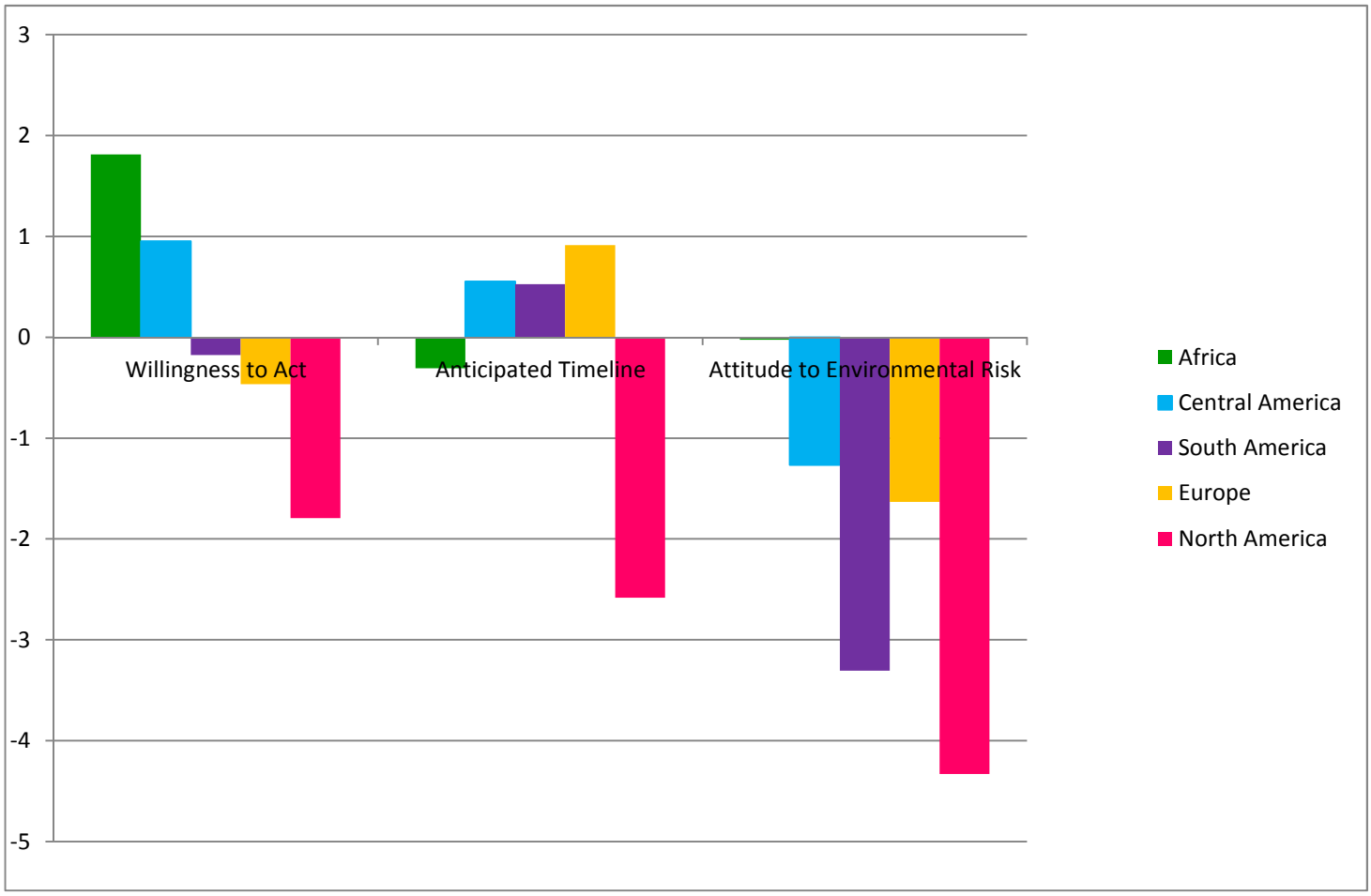
31. South Africa	41. Ghana	51. United States of America
32. Czech Republic	42. Lithuania	52. United Kingdom
33. Germany	43. Poland	53. Hungary
34. Latvia	44. Sweden	54. Argentina
35. Romania	45. Haiti	55. Spain
36. Venezuela	46. Nicaragua	56. Iceland
37. Nigeria	47. Democratic Republic of the Congo	57. Canada
38. Italy	48. Panama	
39. Mexico	49. Brazil	
40. Barbados	50. Luxembourg	

We have chosen to show the data in its simplest possible form, listing countries as they appear in the final (and section) ranking(s). However, there is always risk of oversimplification when considering only the aggregated results.

In view of this, further analyses may be conducted, separating countries into segments of response percentile, or via standard deviation, showing which countries present the greatest variation or dispersion from the average.

5.3.5. Green Policy Index – Regional Spread





As can be seen, Africa impresses, as the overall front-runner when it comes to openness to green policy. This is due to high scores on Willingness to Act and a (comparatively) precautionary Attitude to Environmental Risk.

When it comes to Anticipated Timescale, however, Europe takes the fore, followed by Central and South America.

All regions have a relatively high tolerance to the risk involved in implementing policies which might reasonably cause environmental damage, but which are, for the most part, economically beneficial.

North America is the least advanced region on all categories of the GPI as well as in the overall ranking.

5.4. Conclusions

Noted historian Barbara Tuchman, in her book *The March of Folly*, cited the Trojan horse story as showing that humankind "is addicted to pursuing policy contrary to self-interest." (Tuchman, 1985) For Tuchman, the fall of Troy was only the first of many great acts of folly in history. She describes folly as *"a perverse persistence in a policy that is demonstrably unworkable or counter-productive".*

One such example might be the current amalgam of policies that today comprises what is commonly known as 'Business as Usual', generally accepted as unsustainable and yet still 'persistently' pursued.

To break away from this persistence, it is necessary to consider which mechanisms lead to effective solutions and to look at the alternative paths available ahead. (Stern, 2013)

Via the analysis of policy positions, thus, we hoped to shine a light on whether or not Basin countries were moving forwards as regards the transition to a green economy, or not (UNEP, 2011) with a hope to facilitating bilateral and/or multilateral negotiation by bringing countries with the same ideas regarding green policies to the table, linking very different countries, e.g. Norway and Belize, both high GPI scorers.

From the final GPI it can be seen that although certain policies, taken individually, show potential for intra-Basin cooperation, the overall green policy context in the Atlantic is not, today, very advanced. There are, however, important nuggets to be explored – such as Africa's openness to green policy and Europe's anticipated timeline as regards the transition towards a green economy, which scenario potentially opens up possibilities for North-South collaboration.

Summary of results

- As regards the **policy priority given to SD**, we are faced with a middling scenario in all regions, which is confirmed by data for the Basin as a whole: SD is viewed as being halfway along the scale in all Atlantic regions. This is a prioritisation issue that interest groups may wish to address.

- The Basin as a whole displays a predominantly advanced scenario as regards the **international agenda of development goals**.

- Results suggest that an agreement on the **protection of BBNJ** would likely find traction within and/or between Basin countries, although the legally binding nature of such an agreement may be difficult to achieve. This is an issue that may be considered during the next meeting of the Ad Hoc Open-ended Informal Working Group, in January of 2015 in which the parameters and feasibility of instituting an international instrument under UNCLOS shall be discussed.

- There would appear to be space for an **expansion of MPAs** within the Atlantic - founded upon the logic of the Basin as a community of nations. Even the legally binding nature of such a proposal does not alter the results a great deal – even in

North America where this is often seen to be a problematic issue. Following this logic, the Sargasso Sea Declaration was signed between the governments of Bermuda, the Azores, Monaco, United Kingdom and the United States signed, on the 11th of March 2014, committing to the conservation of the Sargasso Sea – a vast patch of mid-Atlantic Ocean known for its unique floating seaweeds that harbour rich biodiversity.

- As regards a **Rebate Mechanism for the fair and global pricing of carbon in international shipping**, North and South America are quite determinedly on the cautious side, Europe is in the middle, while Africa and Central America maintain their openness to sustainable policies. A legally binding policy in this vein, however, appears to be an unlikely aim. China, Brazil, India and South Africa have all signalled—in the IMO or on the side-lines of the UNFCCC—a new willingness to consider a global approach to tackling emissions from shipping, provided such a global scheme would entail "no net incidence" on developing countries. This discussion is taking place in the IMO, by the Marine Environment Protection Committee (MEPC), who shall meet, in 67th session, to discuss this issue in October of 2014.

- Creating a **network of sustainable cities in the Atlantic** was viewed positively by over 50% of respondents, in every Atlantic region, suggesting that there would be significant space for an Atlantic Project in this vein. There are a host of such initiatives currently ongoing – one of the most visible being the C40 Cities Climate Leadership Group – a network of the world's megacities committed to addressing climate change. An Atlantic network would, seemingly, be welcomed.

- The overall Atlantic Basin scenario was 'poor' as regards **corporate sustainability policies**, with exceptions when it came to openness to CSR/CSV and emissions-disclosure, water strategies and regulatory mechanisms. Implementation of EPR, PRME, plastics reduction and EI or GMO labelling was viewed as unlikely to be implemented. Although civil society initiatives focussed on improving corporate sustainability abound, this is an area which clearly still has a great deal of space in which to improve.

- Of the geographical regions considered, Europe is most open to new **Key Performance Indicators**. Central America has the highest number of experts who responded attested to the presence of an index already used to inform policy, while Africa and South America had the highest rates of respondents who considered this policy unlikely to go ahead at all, closely followed by North America.

- Considering **carbon taxation/cap-and-trade/fee-and-dividend mechanisms**, Europe is easily the highest placed, the EU emissions trading system (EU ETS) is a cornerstone of the European Union's policy to combat climate change, covering more than 11,000 power stations and industrial plants in 31 countries, as well as airlines. North America is the lowest placed, other regions finding themselves between the two. Considering the Basin as a whole, however, it appears that there is little likelihood of a carbon tax, cap-and-trade, fee-and-dividend, or other hybrid

scheme's being implemented soon. This is an area activists may wish to focus upon.

- There was homogeneity across the Basin in the (predominant) belief that the **phasing out of subsidies to fossil fuel** would, due to the difficulty of entrenched interests, take an average of 10 – 20 years. Similarly, as regards the reaching of **60% renewables in the energy mix**, the predominant view, across the Basin, is that such a policy will take 10 to 15 years.

- On **environmental innovation**, Africa is the most enthusiastic about this policy option; North America, the least. Europe, South and Central America sit somewhere in the middle of these poles. Positions being too diverse, we consider it unlikely that such a policy will move forward in the short term.

- Overwhelmingly, experts, when giving their own personal views, considered – across the Atlantic Basin – **hydraulic fracking** a danger to the environment, which should not be used until its impacts are fully understood, yet when considering their countries' position, the predominant response was that fracking was a worthwhile option to explore, allowing countries to reduce their dependency on oil, lower their carbon footprint and diversify their energy sources.

- On **ethanol**, perception of governmental attitude, however, is predominantly cautious in all regions, excepting South America in which it is overwhelmingly positive.

- Over half of SD Experts, in every region, when asked their personal opinion, view **resource exploitation in the Arctic** as a major environmental battle of the 21st century, - an even greater percentage in Europe and North America. Governmental attitude, however, is predominantly seen - in Europe - as being wishful of necessary regulation/precaution. In North America, half of respondents consider that the governmental position will be favourable to resource exploitation.

- As far as governmental attitudes go, Africa was viewed to be in favour of the **TTIP**, although against ISDR, mirrored by Central America, and to a lesser degree, South America. Europe was evenly divided between being fully in favour of the TTIP - ISDR included -, and expressing concern about ISDR, despite being, overall, in favour of the treaty. North America, meanwhile, was predominantly in favour of the treaty, without reservations even in the case of the inclusion of ISDR.

- Overall, SD experts' personal opinion is far more precautionary than their perception of governmental attitudes in their country. This gap between degrees of risk-aversion is shown in all questions relating to New Resources, suggesting either that the voices of SD experts are not being sufficiently heard in government, or that other considerations are taking primacy as compared to that of environmental protection.

5.5. Limitations and Further Study

The limitations of this report are significant. This is above all intended as a pilot project – a preliminary step in the direction of policy-based research for better understanding of Basin countries and the green policy directions they are taking.

Although working with the hypothesis that the polling of SD experts on sustainable policies will yield useful material, this research should be viewed as an investigation into the desirability of producing the GPI on a more regular basis as an informative tool for the understanding of future Atlantic Basin environmental policy.

Ideas for future research include the analysis of:

- Differences of perception between categories of SD expert polled.
- Differences between developed and developing nations
- Correlations of the GPI with countries' official position in international negotiations on the specific policy topics here presented.
- The spread of policy openness when considered through the prism of global governance groupings, such as the G20, G77, G8, etc.
- Correlations with external data sources. Regional/National/Sector-specific GPI scorings crossed with HDI scores, with Yale's Environmental Performance Indicator and GDP per capita, amongst others.
- Correlations between scores on the "Anticipated Timescale" segment with answers from question 12 on the general perception of institutional efficiency.
- Correlations between scores on the subsection on Sustainable Oceans with responses from question 10 on shipping routes.

On a more technical note, a study of standard deviation may be undertaken, in the future, to gauge the dispersion between responses in each country. Since the score for each country is an estimate based on limited information, it is sensible to measure how much confidence we can place in that estimate.

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Annex 1: GPI – Detailed Questionnaire

Willingness to Act (5 questions)

Questions under this section refer to issues which have been much discussed by the international community, but which are either too vague for a policy to be determined (question 1.1.); which relate to general goals without specific policies being directly attached to them (question 1.2.); which refer to ambitious issues under negotiation (2.1. and 2.3), policy suggestions (2.2. and 3.1.) or policies which have been adopted in a patchy manner, without clear governmental incentives or directives. (4.1.)

In sum: policies which have been suggested by the wider environmental community, but about which there is some degree of uncertainty as regards final implementation.

Nota Bene: *Question 2.2 has been considered under the policy category 'Sustainable oceans', however it might also form part of a deeper analysis of 'Transatlantic sustainability'.*

Sustainable development policy priority

What priority, from 1 to 10, do you feel that the government of your country will give to sustainable development, conservation and other environmental policy issues? (question 1.1.)

How likely, on a scale of 1 to 10, is it that your country will meet the current MDGs and the future requirements of the post-2015 development agenda and SDGs currently under discussion? (question 1.2.)

Questions 1.1 and 1.2	**GPI rank**
1-3	Poor
4-6	Moderate
7-10	Advanced

Sustainable Oceans

Regarding the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (BBNJ), how likely is it that your government would adopt

a legally binding agreement designed to protect the High Seas from damage and exploitation? (1-10) (question 2.1.)

	Highly likely (7-10 out of 10)	**Fairly likely (4-6 out of 10)**	**Unlikely (1-3 out of 10)**
Full substantive input			
Legally binding			

Do you believe that your country would be willing to develop an Atlantic network of marine protected areas, while fostering ecosystem-based fisheries management policies? (question 2.2.)

	Highly likely (7-10 out of 10)	**Fairly likely (4-6 out of 10)**	**Unlikely (1-3 out of 10)**
Full substantive input	☐	☐	☐
Legally binding	☐	☐	☐

Both questions 2.1 and 2.2 have been dismembered into two parts. However, in question 2.1 each part will be weighted at half so as to maintain equal weighting with the remaining questions. Meanwhile, in question 2.2, each part shall be weighed as (1), for each segment considers a specific and distinct policy point.

How likely is it that your government would agree to adopt a legally binding agreement providing a Rebate Mechanism for fair and global carbon pricing of International Transport as per the terms determined by, and under the auspices of, the International Maritime Organisation? (questions 2.3.)

	Highly likely (7-10 out of 10)	Fairly likely (4-6 out of 10)	Unlikely (1-3 out of 10)
Full substantive input	☐	☐	☐
Legally binding	☐	☐	☐

As above, in question 2.3 each part will be weighted at half so as to maintain equal weighting with the remaining questions.

Question 2.1.1 and 2.1.2	Question 2.2.1	Question 2.2.2	Question 2.3.1 and 2.3.2	GPI rank
1-3	1-3	1-3	1-3	Poor
4-6	4-6	4-6	4-6	Moderate
7-10	7-10	7-10	7-10	Advanced

Transatlantic Sustainability

How likely is it that your government would sign up to a voluntary project in which all Transatlantic countries would identify at least one key sustainable city per country in which to develop a network for knowledge sharing and innovation, carbon-neutrality, zero-waste and disaster resilience? (1-10 (question 3.1.)

Question 3.1	GPI rank
1-3	Poor
4-6	Moderate
7-10	Advanced

Corporate Sustainability

My country is committed to the implementation (via incentives or prescriptive mechanisms) of the following corporate policies: (question 4.1.)

(Policies which are usually implemented at the sub-national level or by the private sector should nonetheless be treated as national policies for the purposes of this questionnaire, since national governments have the capacity to incentivise such practices.)

- *Corporate Social Responsibility / Corporate Shared Value*
- *Extended Producer Responsibility*
- *PRME (Principles for Responsible Management Education) in all business schools*
- *Science-based GMO and Environmental Impact labelling on all consumer products*
- *Significantly reducing plastics in consumer packaging*

- *Incentivising the measurement and disclosure of greenhouse gas emissions, climate change risk and water strategies in business via appropriate regulatory mechanisms.*

Question 4.1	GPI rank
1-2 items;	Poor
3-4 items	Moderate
5-6 items	Advanced

Anticipated Timeline (5 questions)

Questions under this section refer to policies which have been accepted by, called for by, or are already implemented by part of the international community.

Nota Bene: Question 5.2 has been considered under the policy category 'Environmental accounting', however it would easily fit within that of 'Sustainable Energy'.

Environmental accounting

How likely is it that your country will adopt a Beyond GDP key performance indicator and use it to inform policy within the next 5 years? (question 5.1.)

- *Highly likely. My country already uses a beyond GDP indicator in most areas of policy making*
- *Likely, but only in 10-15 years*
- *Fairly likely, but it will not trump GDP in any scenario*
- *Unlikely. There are too many difficulties associated to environmental valuation. Even if a new KPI is adopted it will not be used to inform policy*

How likely, on a scale of 1 to 10, is it that your country will implement a carbon tax, cap-and-trade, fee-and-dividend, or other hybrid scheme within the next 5 years? (question 5.2.)

Question 5.1	Question 5.2	GPP rank
4	1-3	Poor
2;3	4-6	Moderate

1	7-10	Advanced

Sustainable Energy

What do you consider a realistic timetable for the phasing out of subsidies to fossil fuel in your country?(question 6.1.)

- *Under 5 years. My country is committed to the removal of subsidies to fossil fuel burning industries*
- *-10 years. My country is committed to phasing out subsidies to fossil fuels, but this will be very challenging due to our current energy mix.*
- *10 - 20 years. There are too many entrenched interests in fossil-fuel burning industries for this to be done on a shorter timescale*
- *Over 20 years.*
- *It is unlikely that subsidies to fossil fuels will be phased out at all.*

When - if at all - do you think that your country would increase the share of renewable energy in the national energy mix to 60% cross-sectors (government, business, individuals)?(questions 6.2.)

- *This is already the case in my country*
- *Within 5 years' time. My country is committed to achieving low-carbon development and we invest heavily in renewables.*
- *Within 10-15 years. My country is committed to developing renewable energy, but we still rely too heavily on coal, oil and gas.*
- *Maybe in 20-50 years' time. My country still has to develop and industrialise before it can start thinking about renewable energy*
- *Maybe in 20-50 years' time. Renewables are still too unreliable a source of energy.*

Question 6.1 and 6.2	**GPI rank**
5	Poor
3;4	Moderate
2;1	Advanced

Environmental Innovation

What is the likelihood of your country's adopting [or signing up to] a voluntary Eco-Patent Pool agreement to promote environmentally beneficial technology sharing within the next 5 years? (1-10) (question 7.1.)

Question 6.1	**GPI rank**
1-3	Poor
4-6	Moderate
7-10	Advanced

Attitude towards environmental risk (5 questions)

Questions in this section are intended to scope out the opinions of SD experts with regard to certain policies may have more or less damaging environmental consequences.

Widespread hydraulic fracturing, ethanol-production and expansion, resource-exploitation in the Arctic, as well as the potential effects of the Transatlantic Trade and Investment Partnership (TTIP) - should it come into effect-, are all game-changing issues which still seem to rank as undecided within the wider environmental debate.

Answers shall be ranked within a Green Risk Barometer, a sub-category of the GPI.

Countries will be classified into degrees of caution: 'Risk-takers', 'Moderates' and 'Precautionary'. This will reflect the perception of how flexible they are regarding policies which are potentially environmentally harming.

New Resources

Hydraulic Fracturing is: (question 8.1.)

	A worthwhile option to explore, allowing countries to reduce their dependency on oil, lower their carbon footprint and diversify their	An unfortunate, but necessary step in the transition towards renewable energy (2)	A danger to the environment, which should not be used until its impacts are fully understood (3)	A Ponzi scheme: as environmentally destructive as it is economically unsound (4)

	energy sources (1)			
In your view				
The position your country is likely to adopt / has already adopted				

Question 8.1.2	GRB
1	Risk-taker
2;3	Moderate
4	Precautionary

Incentivising ethanol as a key sustainable export in the Atlantic region is: (question 8.2.)

	Positive. Ethanol biofuel is a useful technology which should be invested in. Bilateral agreements in this vein are to be encouraged. The Atlantic Basin is well-positioned to take the lead in ethanol produce, trade and use. (1)	Cautious. Ethanol is a worthwhile technology, when considered as one part of a diversified energy portfolio; however it is not a key import/export. International agreements on sustainable energy should focus on advanced renewables, such as solar, wind and geothermal. (2)	Unenthusiastic. Ethanol is an inefficient technology; it emits CO2 and serves as a potential danger to food security due to its high demand for arable land. Bilateral agreements focussed on ethanol trade should either be small-scale, or shelved altogether. (3)
In your view	☐	☐	☐

	Positive. Ethanol biofuel is a useful technology which should be invested in. Bilateral agreements in this vein are to be encouraged. The Atlantic Basin is well-positioned to take the lead in ethanol produce, trade and use. (1)	Cautious. Ethanol is a worthwhile technology, when considered as one part of a diversified energy portfolio; however it is not a key import/export. International agreements on sustainable energy should focus on advanced renewables, such as solar, wind and geothermal. (2)	Unenthusiastic. Ethanol is an inefficient technology; it emits CO2 and serves as a potential danger to food security due to its high demand for arable land. Bilateral agreements focussed on ethanol trade should either be small-scale, or shelved altogether. (3)
The position your country is likely to adopt / has already adopted	☐	☐	☐

Question 8.2.2	**GRB**
1	Risk-taker
2	Moderate
3	Precautionary

Regarding climate change and resource exploitation in the Arctic: *(question 8.3.)*

	Resource-exploitation in the Arctic, although potentially environmentally harmful, will bring a much-wanted abundance of energy resources to the global table. Current regulations, such as the Arctic Council's new agreement on Arctic oil spill response and preparedness, are generally sufficient. (1)	Resource exploitation in the Arctic will require a great deal of regulation and it would be better to take a precautionary approach rather than too enthusiastic regarding oil and gas drilling. Technical and environmental challenges for Arctic drilling remain extraordinarily high. It is possible to develop available energy sources, however this should only be considered under stringent regulations. (2)	Resource exploitation in the Arctic is a major environmental battle of the 21st century. The potential for environmental damage - including, but not limited to, destruction of biodiversity and species' habitats, oil spills or operational discharges, waste and water discharges, air pollution, and impacts to resource-dependent indigenous communities - is immense and significantly outweighs any economic benefits. (3)
In your view	☐	☐	☐
The position your country is likely to adopt / has already adopted	☐	☐	☐

Question 8.3.2	GRB
1	Risk-taker
2	Moderate
3	Precautionary

The Transatlantic Trade and Investment Partnership

The TTIP (Transatlantic Trade and Investment Partnership) is under negotiation between the EU and the US. One potentially contentious issue which may be included in the agreement is that of Investor-State Dispute Resolution (ISDR - a form of investment arbitration). Courts of law often become shy of passing new measures on environmental regulation when ISDR is in effect, since corporations benefitting from this clause will often sue the State. (question 9.1.)

	The TTIP is a positive development. Whether or not environmental regulation is (indirectly) reduced by ISDR, the economic benefits are too great to be overlooked. (1)	The TTIP is a positive development. There will be many benefits such as more trade in environmental goods and services. However, ISDR should not be included in the treaty due to environmental concerns. (2)	The TTIP is a negative development. It will increase use of natural resources, global CO2 emissions and waste, while reducing biodiversity. It will also pose an indirect threat (via ISDR and other mechanisms) to environmental regulation. (3)
In your view	☐	☐	☐
The position your country is likely to adopt / has already adopted	☐	☐	☐

Question 9.1.2	**GRB**
1	Risk-taker
2	Moderate
3	Precautionary

Structuring Questions

Future Maritime Policy

Regarding commercial shipping routes: (question 10.1)

	Not at all	To a moderate degree.	Radically
The opening of Arctic Lanes will affect our shipping routes	☐	☐	☐
The expansion of the Panama Canal will affect our shipping routes	☐	☐	☐

Profession and Location

In which category does your work in the environmental field best fit? (question 11.1)

- *Environmental research within academia / think tanks*
- *Climate / Environmental science*
- *The United Nations Environmental projects*
- *Sustainable business / Social entrepreneur*
- *Promotion of sustainable projects within government*
- *NGO activism*
- *Environmental issues news reporting*
- *Transnational celebrity activism*

Which country are you based in? (question 11.2)

General policy capacity

As regards the efficiency of your country's institutions, when passing any given policy, would you expect the process to be: (question 12.1)

- *Slow. There are elevated barriers, high bureaucracy and/or corruption.*
- *Average. There is an acceptable level of bureaucracy. Things are not ideal, but the adoption of new policies moves at an acceptable pace.*
- *Swift. The pace of policy-adoption is rapid and efficient. There are streamlined paths for policies of national interest and few bureaucratic barriers in general.*

Annex 2: GPI – Detailed Methodology

Construction of the GPI composite indicator

Here we set out the methodology for the construction of the GPI indicator and corresponding country ranking, composed from the responses to the GPI questionnaire. The following procedure takes into account a number of issues associated with the dataset, including:

- Large deviations in the number of respondents per country;
- The existence of responses that could not be linked to a country;
- Different lists of respondents per category (Willingness to Act, Anticipated Timescale and Green Risk Barometer);
- The presence of responses from countries not belonging to the focus of the study (Asia and Oceania);
- The existence of incomplete questionnaires.

I. Data normalization

For each question, the response represents a selection from a discrete set of possible alternatives. The first step is to apply a linear normalization to obtain from each such response a numerical grade in the range [-1, 1].

Those questions for which there are only three possible responses (denoted either as "poor", "moderate", "advanced", or "risk-taker", "moderate", "precautionary") naturally generate a normalized score of either -1, 0 or 1. Other questions have different sets of possible response values, such as the integer range from 1 to 10. In this case, the responses are mapped linearly onto the [-1, 1] range, so that the worst possible score (i.e. 1) is transformed to a normalized score of -1 and the best (i.e. 10) is transformed to a normalized score of 1. Other response values are equally spaced between these two extremes.

This procedure leads to a common scale of measurement across all questions, while preserving all of the information in the raw response data. It also affords an intuitive interpretation of the (normalized) scores: positive values correspond to "favourable" performance, while negative scores are "poor".

Note that, due to time constraints, in our initial implementation of the indicator all responses were first mapped onto a common, three-level measurement scale. This temporary measure was employed to simplify the data handling and analysis at the expense of a certain loss of detail in the response data for those questions whose original range contains more than three alternatives.

II. Aggregation by country

Typically, there are multiple respondents for any given country. To obtain a single country score for each question, the arithmetic mean of all responses related to that country is calculated.

Missing (NA) values are omitted from the calculation. Since the normalized scoring

interval is symmetric around zero, this omission will not distort the country scores. (That is not to say that these missing values are irrelevant. They must be clearly reported, but by this mechanism we obtain a score for each question and each country. The only exception will be countries for which there are no responses available for a given question. These should be assigned a missing (NA) value for that question.)

Responses that cannot be linked to a country must be ignored in this procedure. Responses from countries outside of the Atlantic Basin are also discarded at this step.

III. Calculation of the three specific indicators ("Willingness to Act", "Anticipated Timescale" and "Green Risk Barometer")

To obtain each specific indicator, take the average over the normalized question scores in the corresponding category, once again omitting any NA values.

If there exist countries for which all of the question scores (calculated in step II) within a given category are missing (NA) values, then those countries simply do not appear in that specific index.

IV. Calculation of the GPI score (and rank)

The GPI score is obtained by averaging over all of the individual question scores, once again omitting any NA values. Note that the three specific indices are not used in this calculation. Instead, for reasons outlined below, the individual per-country scores calculated in step II are used directly.

In principle, a weighted average may be taken, with different weights assigned to different questions scores in order to reflect their relative importance. In the current GPI, however, all of the questions are equally weighted.

Since there must exist at least one question score for every country in the survey, the GPI score is well defined (i.e. not NA) for each country. This ensures that a GPI score is available for all countries, even those for which one or more of the individual specific indices cannot be calculated due to exclusively missing values in a particular category.

Of course, the presence of missing (NA) values within the dataset will affect the degree of confidence one may place in the GPI score (and ranking) of each particular country. The frequency (i.e. number of responses) and variance within the country scores must also be taken into account when interpreting the results. Therefore this information should be considered alongside the "headline" ranking.

V. Final score renormalization

Given the construction described above, the GPI score lies in the range [-1, 1]. This (arbitrary) scale was found convenient for the analysis phase. However, to aid interpretation of the results, the score may be mapped linearly on to any interval for final reporting.

A scale of [-10, 10] was selected as appropriate, so as to maintain the symmetry around zero and afford a natural interpretation of the intermediate scores.