

Two Unconventional Options to Enhance Multilateral Climate Finance

Shares of Proceeds and Crowdfunding

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EXECUTIVE SUMMARY

Predictability of multilateral climate finance is a key concern for developing countries, as a prerequisite for longer-term planning.ⁱ Currently, however, multilateral climate finance is provided through national budgets and is therefore tied to budget cycles. Governments generally cannot make multi-year pledges beyond a budget period, except in the context of replenishments. National budgets are also tightening in the current economic climate, and it is unlikely that flows from this traditional source will increase significantly in the foreseeable future. Other sources will have to be considered to reach even a fraction of the magnitude of climate finance that projections have indicated will be needed.

This policy brief considers two unconventional sources that would enhance both the predictability and magnitude of multilateral climate finance: a ‘share of proceeds’ from national and sub-national emission trading schemes (for the Least Developed Countries Fund, or LDCF); and crowdfunding from corporate air passengers (for the Adaptation Fund).

Share of Proceeds: The Brief considers two types of shares of proceeds: a share of monetary proceeds of government emission allowance auctions; and a share of allowances that a fund or intermediary can monetize (sell). The brief then describes existing schemes using shares of proceeds, beginning with the European Union’s Emissions Trading Scheme (EU ETS) which currently yields around €4 billion annually. It then considers the application of shares of proceeds to sub-national trading schemes, particularly the Western Climate Initiative (WCI) comprising the Canadian Provinces of [Quebec](#), British Columbia, Ontario, and the [State of California](#).

Crowdfunding: The Brief explores how crowdfunding (contributions from individuals or corporations) can be harnessed for the Adaptation Fund, focusing in particular on air passengers who purchase voluntary offsets for their international flights. It finds that the most promising segment of this market are business travelers, and that if only one in ten of the corporate air passengers that offset their emissions were instead to switch to a “solidarity contribution” of 1% of their ticket price, over US\$ 100 million could be raised annually.

I. BACKGROUND

This ecbi Policy Brief is based on a number of previous publications addressing the issue of climate finance predictability. In the run-up to Paris, in May 2015, an Oxford Climate Policy (OCP)/ecbi think piece on [The Paris Predictability Problem](#) argued that “*funding predictability is of paramount importance, particularly to developing countries, and ... the current multilateral funding regime fails to provide it*”. In the same month, this sentiment was echoed at the Berlin ministerial [Petersburg Climate Dialogue](#), where “*many Ministers stressed that better predictability of public finance ... would be necessary to foster an upwards spiral of ambition on means of implementation and mitigation*”.

The think piece was followed by a Climate Strategies Policy Brief in June 2015, on [Finance for the Paris Climate Compact](#), proposing the use of sub-national innovative sources of finance to address the problem, and an OCP/ecbi Concept Note by the 2015 ecbi Oxford Fellows on the idea of [A Paris Replenishment Cycle for Contributions to the UNFCCC Financial Mechanism](#) (October 2015), for the same purpose.

i. See, for example, Müller, B. (2015). [Finance for the Paris Climate Compact The role of earmarked \(sub\) national contributions](#). Climate Strategies Policy Brief. No.1, June 2015.

Following the successful engagement of sub-national governments in providing support through multilateral channels ([In Paris it became ‘chic’ for sub-nationals to provide multilateral support for climate change finance. Now it must become ‘de rigueur’!](#)), a two-part OCP blog looked at the question of *Whatever happened to the Paris Predictability Problem?* The first part ([The Paris Cycle-wreck: beyond \(partial\) salvage?](#)) considered the fate of the ‘Paris Replenishment Cycle’ – an idea put forward by the Group of Least Developed Countries (LDCs) in Paris – and at whether certain elements of it could be taken forward in the upcoming negotiations.

The second part of the blog ([Unconventional Options for Enhancing the Predictability of Multilateral Climate Finance](#)) considered how alternatives to conventional national budget contributions could be used to enhance climate finance predictability. It concluded that after nearly two decades of conventional multilateral climate finance, it is clear that we have reached the limit of what we can get from national budgetary contributions, and that too in a predictable manner. We may therefore need to reconsider the proposal from Laurent Fabius, President of the Conference of Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC) at its 21st session, which he tabled in Paris on the penultimate night of the COP, to “*establish a process for the consideration of new sources of finance beyond existing bilateral and multilateral sources*”.¹ Moreover, we may actually have to throw caution to the wind and look into how we can get additional innovative resources for multilateral funds.

The blog considered two such unconventional sources: shares of proceeds from sub-national emission trading schemes; and crowdfunding from airline passengers. This Policy Brief takes a closer look at both of these options.

It begins by discussing what exactly ‘innovative finance’ refers to, and why it is important to address the (Paris) Predictability Problem. It then looks in some detail at different Emission Trading Schemes in North America (the [Western Climate Initiative or WCI](#), and the [Regional Greenhouse Gas Initiative](#) or RGGI) and Europe (the EU [Emissions Trading Scheme](#), or ETS) and how they could be used to provide innovative multilateral finance.

Finally, it considers how crowdfunding (voluntary contributions from individuals) can be used to raise funds for the Adaptation Fund. In particular, it finds that targeting corporate air passengers through a ‘Corporate Social Responsibility Air Travel Adaptation Crowdfunding’ (CSR ATAC) initiative has the potential to raise US\$ 100 million annually, if such a scheme is properly marketed.

2. INNOVATIVE FINANCE

2.1. What is it and why is it important?

In the context of providing financial support for climate change activities in developing countries (‘climate finance’), the term **‘innovative finance’** typically refers to (off-budget) earmarked public sector sources, usually (but not always) related to combatting climate change. Examples include:

- proceeds of auctioning of allowances in emission trading schemes;
- proceeds from carbon or other taxes;
- a ‘share of proceeds’ from market mechanisms, such as the [Clean Development Mechanism](#) (CDM) and the new market mechanism under the Paris Agreement.

As ‘public sector’ sources, these involve government decisions but, unlike conventional budgetary contributions (which, by and large, are determined politically) contributions based on earmarked sources of

revenue are co-determined by other, usually market-based, parameters. The **share** of the source that is being earmarked will usually be politically determined, but the **magnitude** of the contribution also depends on the overall size of the revenue stream in question. Moreover, innovative finance is generally provided with a degree of automaticity that enhances its predictability.

To be clear, political decisions are not necessarily less predictable than markets. Indeed, powerful players might well prefer a purely political process. The problem from the vantage point of the (developing country) recipients is that they typically have very little, if any, say in the political processes that determine (conventional) contributions. For them, market-based uncertainties can be more palatable than those arising from the relevant political (developed country) processes: from the outside, markets appear more predictable than individuals.

Another characteristic of innovative finance, in this sense, is that it is generally used to provide grants, as opposed to loans or investments with profit incentives.

Finally, for the purposes of this paper, we differentiate between ‘international’, ‘regional’, and ‘(sub-) national’ innovative finance sources, depending on whether the decision making involves all Parties to an international agreement (like the UNFCCC), just a few, or a single government – which could be national and sub-national (provincial/state etc.).

Examples of innovative finance sources of all kinds abound: international, regional, involving national and/or sub-national governments. Many of these were discussed in a 2008 paper [International Adaptation Finance: The Need for an Innovative and Strategic Approach](#) (Müller 2008) which, in turn, formed the basis of a paper published by the Overseas Development Institute (ODI) on [Innovative Carbon-Based Funding for Adaptation](#).ⁱⁱ The following two sub-sections give an idea of the potential variety of instruments available, and highlight a few options that may be viable in the current circumstances.

2.2. International Innovative Finance

In climate change circles, probably the best known example of international innovative finance is the **share of proceeds** collected from projects under the Kyoto Protocol’s [CDM](#), where 2% of the Certified Emission Reductions (CERs) generated by projects are set aside internationally and given to the Kyoto Protocol’s [Adaptation Fund](#) to be monetized in the relevant carbon markets.ⁱⁱⁱ

The most important outcome from Paris from the predictability point of view was the provision for a share of proceeds in the new international market mechanism, “to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation”.² However, it is not at all clear at the moment how much could be expected from this source.

Another example of an international source of innovative finance is the idea proposed by former Swiss President Moritz Leuenberger at COP 12 in Nairobi in 2006. He called for a global carbon levy based on the polluter pays principle, to be paid by individuals and businesses in proportion to their carbon emissions, to

ii. Due to space limitations, we refer the reader to these two and subsequent references for more detailed and complete accounts of innovative finance instruments.

iii. As national budgets, or treasuries, are not involved, these funds are without any doubt ‘additional’, as they do not displace overseas development assistance.

generate revenue for adaptation measures worldwide.³ The same year also saw the publication of an [Outline Proposal for an International Air Travel Adaptation Levy](#) (IATAL).⁴ At COP 14 in Poznan in 2008, this proposal was submitted to the UNFCCC by the Maldives on behalf of the LDC Group as the '[International Adaptation Passenger Levy \(IAPAL\)](#)'.

In 2007, at a UNFCCC [workshop on investments and financial flows to address climate change](#),^{iv} Norway proposed the auctioning of a share of assigned amount units of all Parties to raise climate finance.⁵

Other, mostly carbon market-based, innovative finance instruments have been discussed and some have even been considered by the [International Civil Aviation Organization](#) (ICAO)^v and the [International Maritime Organization](#) (IMO)^{vi} in the context of reducing international aviation and maritime emissions. None of them has made any real progress so far, and it is unlikely that they will do so in the foreseeable future, not least because international levies are generally regarded as anathema by many national treasuries.^{vii}

This is unfortunate, because as the 2007 Norwegian proposal pointed out, international innovative finance instruments such as the auctioning of allowances, due to their “genuinely international character” have “the potential of overcoming domestic revenue problems... and are therefore ... one particular promising option to generate adequate, predictable and sustainable financial resources”.^{viii}

Fortunately, innovative finance need not only be international. It can also be provided from the national or sub-national level. The following section looks at the innovative finance potential of some existing emission trading schemes in the context of a (voluntary) '[Development Gold Standard](#)'⁶ under which a small share of (auctioning) proceeds is used to provide climate finance for developing countries through multilateral channels.

2.3. Regional & (Sub-) National Innovative Finance

2.3.1. The EU ETS: Overview

The EU ETS is one, if not the most significant, potential source of innovative climate finance among existing emission trading schemes. In the first quarter of 2016, auctions across the EU ETS yielded a total of just over €1 billion⁷ – of which 2% is **€80 million annually** (US\$ 90 million). The revenue from these auctions is expected to increase between now and 2020 given the share of allowances to be auctioned, even if allowance prices fail to increase (*see Box 1*). Could this potential actually be realised?

Some EU Member States may reject the idea of earmarking a share of the auction proceeds for climate finance on the grounds that they are not allowed to '[hypothesize](#)' government revenue as a matter of principle. However, this principle is more honoured in the breach than in the observance,^{ix} as was pointed out in a

iv. With a presentation on '[IATAL: a proposal for an International Air Travel Adaptation Levy](#)' by Laurens Bouwer.

v. See, for example, the presentation on '[Market-Based Measures](#)' by the ICAO Environment, Air Transport Bureau at the *Global Aviation Dialogues (GLADs) on Market-Based Measures to address Climate Change*, Nairobi 14 April 2015.

vi. For example, the Norwegian proposal regarding the [Prevention of Air Pollution from Ships: A rebate mechanism for a market-based instrument for international shipping](#) (IMO MEPC 60/4/55 29 January 2010). Another interesting, well-developed example is the [International Maritime Emission Reduction Scheme](#) (IMERS).

vii. For an account of the state of affairs in ICAO and IMO, see [Aviation, Shipping and the Paris Agreement and](#) Section 3.1 of this paper.

viii. The term 'domestic revenue problem' refers to the fact that funding collected through domestic revenue channels are usually taken to belong to the jurisdiction in question, and as such face difficulties in being sent abroad. See [Müller, B. \(2008\)](#). *International Adaptation Finance: The Need for an Innovative and Strategic Approach*. Oxford Institute for Energy Studies. p.8.

ix. The breach is usually sanctioned by declaring the revenue source 'off budget'.

2008 paper⁸ on the subject of earmarking of EU ETS auction revenue. Most countries practice some form of hypothecation,^x such as earmarking a share of national lottery revenue for certain good causes.^{xi}

According to the EU ETS Directive,⁹ it would be ‘appropriate’ to use at least 50% of the proceeds from the auctioning of allowances for climate change related actions, and to contribute to multilateral funds such as the Adaptation Fund. The idea of the Development Gold Standard would therefore be consistent with the EU ETS Directive. EU Member States continue to exceed the Directive’s recommendation significantly, with **87% of the auctioning revenue spending reported as going to climate and energy purposes** – in a number of them, through earmarking, as the next section shows.

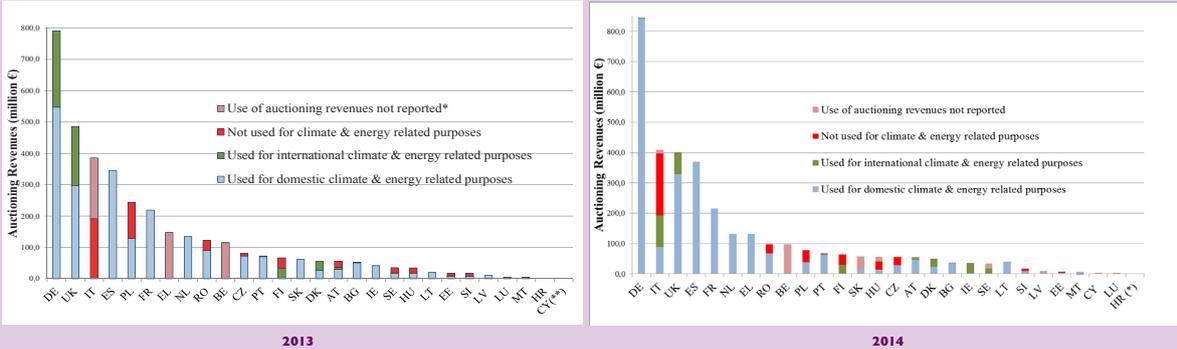
BOX I: Revenues generated from auctioning of EU ETS allowances and reported use

Auctioning was introduced as the default allocation mechanism in the EU ETS from Phase III (2013-2020) for non-leakage exposed sectors, gradually replacing free allocation. Close to 40% of the allowances were auctioned in 2013 and this share is expected to reach up to 50% over the period of Phase III. Some Member States also used some auctioning (~3.5%) in Phase II on a trial basis.

Auctioning revenues have been much lower than expected because of a dwindling carbon price. In 2013 and 2014, revenues amounted to €3.6 billion and €3.2 billion respectively.

It is estimated that approximately 15 billion European Union Allowances (EUAs) will be auctioned together between 2013 and 2030 (Phase III and Phase IV). In a scenario of increasing carbon prices, these are estimated to generate between €230-320 billion in revenue.¹⁰

Reported use of EU-ETS auctioning revenue by Member States for 2013 and 2014



Source: European Commission, 2014; European Commission, 2015. ¹¹

2.3.2. EU ETS: Earmarking Case Studies

Almost two-thirds of the EU Member States^{xii} are in the process of earmarking EU ETS auctioning revenue. They do so mainly through **dedicated funds** and **hybrid earmarking**.¹²

x. In the UK, for example, earmarking precedents include the Climate Change Levy initially used to fund a number of energy efficiency initiatives such as The Carbon Trust; and the Renewables Obligation, under which payments for shortfalls are earmarked to be paid back to suppliers.

xi. Some national lottery funding has already been used to provide climate finance for developing countries – for instance, the Dutch Post Code Lottery funded the ‘Bijli – Clean Energy for All’ project in India.

xii. 18 EU Member States reported earmarking their EU ETS revenues in their 2013 reports to the European Environmental Agency under the EU’s GHG Mitigation Management Regulations: Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, France, Germany, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, Portugal, Romania, Slovakia, Slovenia and Spain. Nine Member States do not earmark, while one State was undecided on their approach (Jalard, M. et al. (2015).

Dedicated funds refer to an off-budget allocation of auctioning revenues into a specialised fund with a specific spending mandate. This could be a new fund (like Germany’s Special Climate and Energy Fund) or an existing one (like Portugal’s Carbon Fund). This approach scores high on predictability of funding.

Some Member States treat ETS revenues as budgetary income, but pre-define their use for a specific purpose and time duration, either by law or through executive decision-making. This is **hybrid earmarking** in the sense that while the recipient is determined politically as part of budget appropriations, the scale of the appropriation is determined by the market. An example comes from France, which has allocated its auctioning revenues for the past three years (2013-2015) to its national public housing authority through a multi-ministerial decision.¹³ In Germany, the on-budget revenues from so-called ‘eco taxes’ are legally ring-fenced for a longer duration of time towards certain public goods.

While most earmarked auctioning revenues are used domestically, some Member States also earmark a portion for supporting developing countries. An analysis of the country reports submitted under the EU’s monitoring mandates reveals that **14.2% revenue** (€240.7 million) of the earmarked revenue **goes to international climate and energy purposes**.¹⁴

Three case studies of how auctioning revenue is earmarked in EU Member States are presented below.^{xiii}

A. Germany’s Climate and Energy Fund

Auctioning revenues: €790.3 million (in 2013)
International funding: €242.8 million (in 2013)
Earmarking instrument: Special Climate and Energy Fund
Spending items: Domestic and international climate and energy

Germany separates its EU ETS auctioning revenue entirely from budgetary appropriations, and allocates them to the Special Climate and Energy fund (EKF). EKF was established in 2010 to receive 80% of its funding from the auctioning revenues, and 20% from the nuclear power sector. However, the funding plan was revised following the German Energiewende (energy transition) – from 2012 onwards, almost all the auctioning revenues were allocated to EKF.¹⁵ In 2013 and 2014, EKF received approximately €800 million annually. **Germany also has a precedent for earmarking funds for a global public good** – EKF served as an interim funding mechanism for Germany’s International Climate Initiative (IKI) between 2010 and 2014.^{xiv} In 2013, IKI received €281 million – almost 20% of the EKF funding.¹⁶

xiii. The values for auctioning revenues and international funding in the summary boxes included in the case studies are from the 2013 annual reports on the use of auctioning revenues by Germany, Portugal and France, from [Eionet – Reporting Obligations Database](#).

xiv. Due to earmarking programming commitments in absolute figures as opposed to a percentage share and the collapse of the carbon price, the international finance component was moved in 2014 from the EKF to that of Ministries of Economic Cooperation and Development (BMZ) and German Environment Ministry (BMUB). See: Kowalzig, J. (2013). [The German 2014 federal budget: climate financing secured, development aid cut? The German contribution to International Climate Finance](#). Oxfam.

B. Portugal's Carbon Fund

Auctioning revenues: €72.8 million (in 2013)

International funding: €2.4 million (in 2013)

Earmarking instrument: Portuguese Carbon Fund

Spending items: Domestic mitigation, adaptation, R&D, cooperation with developing countries

Despite facing a [financial crisis](#) since the beginning of the decade, Portugal passed a national law in 2013 (Decree Law 38/ 2013), earmarking all its auctioning revenues for the **Portuguese Carbon Fund** (FPC), which supports domestic climate policies and cooperation with developing countries.¹⁷ Presently, auctioning revenues from EU ETS are reported to be the main revenue sources for the fund.¹⁸ In 2013, €2.4 million (around 3% of total generated auctioning revenue for that year) were spent for supporting climate action in Mozambique and Cabo Verde.¹⁹ 30% of the fund revenue is allocated for domestic adaptation, with the majority of funding directed at supporting renewable energy.²⁰

C. France's Hybrid Earmarking for domestic housing sector

Auctioning revenues: €219.25 million (reported auctioning revenues in 2013)

International funding: Nil

Earmarking instrument: Revenues appropriated to the National Agency for Housing

Spending items: Domestic energy efficiency programmes

Between 2013 and 2015, France raised on average €249 million per annum from auctioning.²¹ This revenue was used for energy efficiency improvements in the housing sector through the National Agency for Housing (ANAH) – a programme that provides subsidies to households to reduce energy losses from housing.²² France uses a hybrid approach: a multi-ministerial committee agreed to set aside revenues for the public authority, which was incorporated into the Finance Bill. Such hybrid earmarking models offer lower predictability than off-budget earmarking, but they can be successfully applied if political will exists, as France's example illustrates.

2.3.3 EU ETS Regional Innovative Finance

Earmarking of EU ETS revenues is therefore quite common in EU Member States, though it varies in nature and stringency. Allocating a small share of the revenue to support the poorest countries in their effort to combat climate change through multilateral channels is consequently technically possible, and is primarily a matter of political will and leadership.

If earmarking proves genuinely impossible to implement, there is always the Norwegian idea. Member States could opt to allocate a small share of their (collective) allowances to, say, the Least Developed Countries Fund (LDCF), or to an intermediary that will monetize them on its behalf. No national level precedents exist in the EU for setting aside allowances for monetization by a third-party, but 300 million allowances were made available to be monetized by the European Commission for co-financing the NER 300 funding programme. The programme was launched to support carbon capture and storage (CCS) and innovative renewable energy technologies. It provided €2.1 billion to 38 renewable energy projects and one CCS project.²³

The [proposal for Phase IV of the EU ETS](#) (2021-2030) indicates that such allocations are set to increase in the next phase. It includes an **innovation fund**, the continuation of the NER 300 programme, which will be funded by 400 million allowances from Phase IV and 50 million unallocated allowances from Phase III. A **modernisation fund** is also proposed, and allocated 2% of the overall quantity of allowances for low income Member States to modernise their energy systems and improve energy efficiency.

2.3.4. Sub-national Schemes

On 6 December 2015, at COP 21 in Paris, Premier Philippe Couillard of the Canadian province of Québec [announced](#) that his province is going to contribute CA\$6 million to the [Least Developed Countries Fund](#) (LDCF), which is operated by the [Global Environment Facility](#) (GEF).

Former US Vice President Al Gore, [who participated in the event where the announcement was made, thanked](#) the people of Québec for “*becoming true heroes in the world’s effort to solve the climate crisis*”, and setting an example that would reverberate to regions and countries around the world. GEF CEO Naoko Ishii [referred](#) to the contribution as a “*ground-breaking commitment by Québec*”, while a LDC Group [press release](#) described it as a “*historic and innovative pledge*”.

On 10 and 11 December 2015, other sub-nationals followed with announcements of contributions to the [Green Climate Fund](#) – including the city of Paris and the three regions of Belgium. One of the Belgian regions, Wallonia, made a recurring pledge of €7 million annually until 2020. In Paris, it therefore became ‘chic’ for sub-nationals to provide multilateral support for climate change finance, as suggested in the heading of this [OCP blog](#). How can it become *de rigueur*?

The [policy brief](#) that launched the idea proposed a small but regular share of proceeds from sub-national trading schemes for the LDCF, which could be in the form of a share of auction revenue, or free allowances to be monetized through the relevant auctioning/trading platforms by the Fund itself, or by a local intermediary on its behalf. Quebec could, for instance, decide to build on the Wallonia announcement and make its 2016 contribution recurrent, pledging 1% of its auction revenue (about CA\$ 5 million annually) to the LDCF until the end of its current trading phase in 2020.

Some sub-national governments may find it more difficult to earmark a share of auctioning revenue than others. For example, California, Quebec’s partner in the WCI, also auctions a share of its trading scheme allowances (in joint auctions with Quebec). However, according to [Assembly Bill 32](#), which governs the [California Cap and Trade Programme](#) (CCTP), the State government’s portion of the auction proceeds are subject to annual appropriations.^{xv} Revenues from this source would therefore face the same challenges as any other conventional budgetary support relying on domestic revenue. Also, the California Chamber of Commerce have a pending lawsuit against the State government auction portion of the CCTP, on the grounds that auctioning off allowances constitutes an unauthorized, unconstitutional tax.²⁴

However, the CCTP does have an interesting feature that may well offer a way forward. To ensure that the users of utilities (‘rate payers’) do not experience sudden increases in their utility bills due to CCTP, the utilities are allocated allowances. The utilities are required, under the CCTP Regulation, to use the value associated with these allowances for the benefit of the rate payers, to protect them from surges in utility bills.²⁵ To quote The Wall Street Journal: “...two pools of allowances are sold at each auction: one controlled by the utilities, which get all

xv. According to [Assembly Bill 32](#), “The Legislature and Governor appropriate proceeds from the sale of State-owned allowances for projects that support the goals of AB 32”.

of their allowances free, and another controlled directly by the state. Investor-owned utilities are required to sell all of their allowances [for the benefit of their rate payers] and then buy back what they need to cover their own emissions. (It's complicated)".²⁶ In effect, the CCTP uses private sector intermediaries to monetize allowances for the benefit of individuals.

The State government is currently considering how the CCTP can be extended beyond 2020. Given that the programme already allocates allowances for the benefit for others, it should be technically possible for California to show some solidarity with the poorest and most vulnerable across the globe by using a similar arrangement on behalf of, say, the LDCF. Indeed, the long-term future of innovative multilateral funding from the WCI as a whole may well lie in a **WCI-wide post 2020 application of this use of a share of proceeds monetised on behalf of the global poorest and most vulnerable by eligible local intermediaries.**

3. CORPORATE SOCIAL RESPONSIBILITY AIR TRAVEL ADAPTATION CROWDFUNDING (CSR ATAC)

The idea of levying a small charge on air travel to support adaptation efforts in developing countries has been around for over a decade, but it failed to take off as an international instrument (see Section 2.2), which was why a proposal was launched in 2011 to transfer the idea to the national level ([Solidarity Levies on Air Travel](#)). This was followed in 2013 by an award-winning ecbi study on '[Crowdfunding for Climate Change](#)'. Meanwhile, in December 2012, the Adaptation Fund introduced a '[Donate](#)' link on its website, implemented in partnership with the UN Foundation, to receive crowdfunding donations.^{xvi}

Following these developments, and the fact that the Adaptation Fund was the intended recipient of the original IAPAL proposal, it did not take a great leap of imagination to arrive at the idea of developing a crowdfunding tool to solicit voluntary contributions from leisure or corporate air passengers. In order to analyse the feasibility of this idea, this section begins by looking at why air passengers should consider making voluntary contributions in support of adaptation projects in developing countries – particularly since this is likely to compete with the option to offset their flight emissions. It then turns to the question as to why this should be done through the Adaptation Fund and finally addresses some economic issues, such as who should be targeted and the revenue potential of this source.

3.1. Why Should Air Passengers Support Adaptation?

Mitigation (reducing greenhouse gas emissions) and adaptation (adjusting to climate effects)^{xvii} are two sides of the same coin. They both reduce the adverse impacts of such effects: mitigation reduces the strength of the effects, while adaptation increases our ability to cope with the remainder.

xvi. The Adaptation Fund received a small contribution from students of a German High School in 2009, followed by another from the UK non-government organisation World Development Movement in 2010. However, the acceptance of individual small donations come with high transaction costs, as the Fund's Trustee would have to conduct due diligence on the donors of such contributions. For this reason, the Adaptation Fund Board considered ways to make it simpler to receive such contributions, and [decided](#), in July 2011, to enter into a partnership with UN Foundation (UNF), which would raise funds through on-line donations on behalf of the Fund. A partnership with the UNF was established in November 2012, and a 'Donate' button on the Adaptation Fund and the UNF websites was introduced in December 2012.

xvii. The IPCC's [Fifth Assessment Report](#) defines adaptation as "the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects." Mitigation (of climate change) is defined as "a human intervention to reduce the sources or enhance the sinks of greenhouse gases".

In the 1990s, the early days of the global effort to fight anthropogenic climate change, the focus was mostly on mitigation, as it was believed that it was possible to avoid climate change completely solely by reducing greenhouse gas emissions. However, it has become patently clear that this option, if it ever was one, is no longer viable. We have changed the climate, and in order to try and avoid unacceptable impacts of this anthropogenic change, we must mitigate *and adapt*.

Moreover, the poorest in the world, with the least responsibility for the problem, are also among the most vulnerable to adverse climate impacts, and – being poor – the least able to adapt without financial support. Those with the greatest responsibility for the problem, at whatever level of aggregation (individuals, corporations, governments), have a moral if not legal duty to provide this support.

The debate on how to deal with the climate change effects of the aviation sector is still focused almost exclusively on mitigation, and even that with limited success. It is clear that voluntary offsetting by individual passengers will not deliver the required reductions – action by the aviation industry is necessary to bring the sector’s emissions under control.

There are encouraging signs that this is happening. For example, since 2012, flights from, to, and within the European Economic Area are covered under the EU ETS. More recently, on 6 October 2016, ICAO [announced](#) the adoption of a Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) industry offsetting scheme (*see Box 2*) which, if properly implemented, “should enable carbon neutral growth over time”.²⁷

BOX 2: ICAO Carbon Offsetting and Reduction Scheme for International Aviation Scheme

Under CORSIA, carbon emissions of international flights above 2020 levels are to be compensated by the carriers through carbon offsets from 2021 onwards. CORSIA is divided into three phases. In the initial two phases (2021-2026), countries can voluntarily opt-in. After 2026, the scheme will be mandatory for most countries, with some exceptions (for example LDCs and small island developing States).

Key questions on the environmental integrity of CORSIA will include the provenance of the offsets, and how they relate to other offsetting schemes, such as the new market-based mechanisms defined in Article 6 of the Paris Agreement.

Source: EC Fact Sheet: [MEMO: 39th Assembly of the International Civil Aviation Organisation](#)

With the introduction of this international industry-wide offsetting scheme, individual flight offsets by passengers will become less important.^{xviii} However, the 2020-level emissions that are not offset under the CORSIA scheme will still cause climate change and impose the need to adapt, particularly on the poorest and most vulnerable. This is why individual/corporate offsetting should, at least in part, give way to passenger/corporate solidarity through socially responsible adaptation crowdfunding – even more so because passengers/companies who can afford to buy airline tickets will generally be sufficiently well-off to be capable to act on their responsibilities, and to show solidarity with those who are least capable and responsible for the problem.

xviii. In July 2011, a spokeswoman for the UK airline British Airways was [reported](#) as saying that UK passengers could be paying for the environmental impact of their flight three times: through voluntary offsets, the EU ETS, and the UK’s Air Passenger Duty (APD).

Echoing this, a spokesman for the International Air Transport Association, which manages an offsetting programme for numerous airlines, said there is evidence that passengers may be more reluctant to voluntarily offset when they are already being hit with an environmental tax, which is what the UK government has, in the past, presented the APD as being.

3.2. Why the Adaptation Fund?

The Adaptation Fund is one of very few, if not the only, multilateral climate fund with an operational crowdfunding tool (its ‘donate’ button). This gives it a competitive edge for operationalising the idea of multilateral crowdfunding for adaptation, at least in the short term. Crowdfunding has also been mooted by the Green Climate Fund Secretariat (*see Box 3*), so this competitive advantage could be short-lived – although for the time being, the GCF Board does not seem to be particularly interested in this option.^{xix}

There are also significant differences between the crowdfunding methodologies of the two Funds. The GCF’s proposed methodology is to set up a web-based ‘matchmaking’ platform where small/micro private investors can provide (concessional) loans to small and medium enterprises in developing countries, while the Adaptation Fund’s donate button is a fundraising vehicle to provide grant-based funding for small and micro adaptation projects in developing countries.

BOX 3: The GCF’s approach to crowdfunding

A document by the GCF Secretariat on identifying approaches to mobilize funding recognizes that the “recent phenomenon” of crowdfunding introduced the concept of raising additional funds from small private investors, in the form of debt, grants or equity. This nascent industry has grown from having mobilized US\$ 1.5 billion in 2011, to an expected US\$ 10.9 billion in 2015. Solicitations per campaign can now give rise to sums ranging from US\$ 500,000 to more than US\$ 40 million.

The document points to the potential in crowdfunding to complement traditional sources of finance and to channel and mobilize individual contributions into climate-sensitive investments. KIVA, an online lending platform for social projects, for instance, has mobilized approximately US\$ 675 million from 1.2 million individuals for micro-finance projects throughout the world.

The document suggests that the GCF could enable individual contributors to provide funds to their preferred local businesses, in particular to small and medium enterprises, through the Fund’s accredited entities. It proposes an information-based website tool/platform or portal to enable individual contributors to participate in the financing of low-emission and climate-resilient projects in developing countries, while providing individuals and organizations innovative investment opportunities.

Source: Private Sector Facility: Potential Approaches to Mobilizing Funding at Scale, [GCF/B.09/11/Rev.01](#)

While matchmaking platforms could also be used for grant-based crowdfunding, there are at least two reasons why the Adaptation Fund model might be preferable. First, airline passengers might prefer the option of dealing with an intermediary, rather than dealing directly with project developers. They might feel overwhelmed if they have to choose a project to fund, and might prefer to leave this to a body of experts with a proven track record. Second, they might appreciate a mechanism that can ensure that the funds are allocated equitably, so that no one deserving is left behind, and where recipients have a say on allocation decisions.^{xx}

xix. The draft decision prepared by the GCF Secretariat on the matter for consideration of the Board at its ninth meeting included a request to the Secretariat “to launch a ‘crowdfunding’ portal, using the services of an experienced white label supplier of crowdfunding sites, aimed at mobilizing individual contributions towards climate-sensitive investments undertaken through the Fund’s accredited entities.” Instead, the Board “requested the GCF Private Sector Advisory Group (PSAG) to present to the Board at its tenth meeting additional recommendations for activities regarding mobilizing resources at scale ...” The resulting [PSAG Recommendation on Potential Approaches to Mobilizing Funding at Scale](#) had no reference to crowdfunding, however.

xx. In the context of bilateral funding (from national donor agencies), for example, there is the phenomenon of donor ‘darlings’ and ‘orphans’. Recipients are favoured or neglected for a number of reasons, including ‘donor herding’ which, according to UNDP’s [2011 MDG Progress Report](#), “occurs when donors, lacking information, respond to the publicly observed actions of other donors (Desai and Kharas 2010)”. The report notes that this can lead to cascades of money towards some countries (or sectors) or the abrupt withdrawal of resources from others. It found that ‘donor orphans’ are under-aided by around US\$12 billion per year.

Does the Adaptation Fund ensure funds are allocated equitably, and give recipients a voice on allocation decisions to enhance ownership?

The Adaptation Fund is the only multilateral fund that has a majority of (recipient) developing country members on its [Board](#) (at least 10 out of 16 – other funds, such as the Montreal Protocol’s Multilateral Fund, GEF, and the [Clean Investment Funds](#) have parity).^{xxi} There can hence be no doubt about the voice of recipients in decisions on funding in the Adaptation Fund.

What about the Fund’s track record? In 2013, ODI published an [independent review](#) of the effectiveness of the Adaptation Fund. It considered a number of key features of the Adaptation Fund project portfolio (see Box 4), and drew the following conclusion about the role of the Adaptation Fund in the global finance architecture: *“The operationalization of the Adaptation Fund has played an important role in scaling up available finance for adaptation in developing countries, albeit from a very low baseline. It has developed a functional system for delivering adaptation finance that meets high levels of transparency, and has important provisions for accountability and learning.”*

Another comprehensive independent evaluation was carried out in March 2014, at the behest of the Fund’s Board. [TANGO International](#) and ODI evaluated process issues such as resource mobilization, decision-making, resource allocation, access to funding (including access modalities), the project/programme cycle, and knowledge management, with the overall aim of assessing the Fund’s operational performance against its design and implicit logic. The [report](#), submitted in August 2015, gave the Fund high marks for its effectiveness, efficiency, and relevance (see Box 5).

BOX 4: The Adaptation Fund Project Portfolio

Scale: The Adaptation Fund is expressly designed to support sub-national level activity, recognizing the importance of local level impact to adaptation outcomes. All programmes include a sub-national focus, and many programs seek to engage sub-national institutions. Some Adaptation Fund projects seek to direct funding to small projects through a variety of approaches, including support for micro-finance programs at community level.

Enabling Environments: Most Adaptation Fund supported programmes include some efforts to strengthen underlying policies, laws and regulations that will strengthen adaptive capacity. This is a substantial strength of its portfolio and approach.

Innovation: Many programmes of the Adaptation Fund have sought to support the deployment of new technologies in recipient countries, particularly for disaster risk reduction and enhanced food security oriented projects and programmes.

Catalytic outcomes: The Adaptation Fund has played a significant role in raising awareness of climate change and adaptation, although in some countries there is a need to raise the profile of its activities. The accreditation of National Implementing Entities has had important catalytic effects by creating interest in other national institutions to demonstrate that they can also meet robust fiduciary, transparency and management standards. Although mobilising the private sector is not an objective of the Fund, in practice many programmes have engaged private companies (notably in the tourism sector) both as implementation partners, as well as key targets and stakeholders in programme implementation.

National ownership and sustainability: The Adaptation Fund has taken steps to ensure that proposals received are well aligned with national policies and priorities, and reflect wide stakeholder engagement. Direct access has been an important innovation, signaling willingness to work in direct partnership with developing country based institutions.

Source: Trujillo, N.C. & Nakhooda, S. (2013). [The effectiveness of climate finance: a review of the Adaptation Fund](#). Overseas Development Institute. Working Paper.

xxi. One of the main reason for this exceptional situation was that the Adaptation Fund, unlike any of the other funds, was resourced not through developed country contributions, but through an international innovative finance mechanism – a share of proceeds from CDM.

Two points raised need to be highlighted here. The first is that the Adaptation Fund has been at the cutting edge of innovation in a number of ways, beyond the crowdfunding tool and the unique participation of developing countries in the Board. Created to receive a share of proceeds from the CDM as prime source of income, it is the first and only multilateral climate fund to be replenished through international innovative finance (see Section 2.2). Given that the ‘income’ was in the form of Certified Emission Reduction (CER) units, the Adaptation Fund also had to pioneer how to manage the monetization of such assets.

BOX 5: Results of the Adaptation Fund’s independent review

Effectiveness: Short-term outputs indicate substantial organizational development and suggests that the Adaptation Fund is quickly becoming an effective institution capable of achieving its ambitious objective

Efficiency: The Adaptation Fund and its institutional arrangements provide good value for money.

Relevance: The Adaptation Fund’s design is coherent with, and complementary to, other adaptation efforts under the UNFCCC. It contributes directly to various adaptation work streams and complements the role of other climate funds by extending access to all developing countries. Though small in size, the Fund is amplifying financial support to developing countries and helping close the adaptation finance gap. The Fund’s design is appropriate to generating timely lessons about effective approaches to adaptation finance, especially with regards to “direct access,” and scalable and replicable action benefiting the most vulnerable communities and social groups. The design supports pilot activities with substantial potential for scaling up impact at sub-national, national, and regional levels.

Sustainability: Uncertainties surrounding the Kyoto Protocol and carbon markets pose a significant, structural threat to the sustainability, adequacy, and predictability of resources for the Fund. Based on experience to date, voluntary contributions by Annex I Parties are also not expected to provide a reliable solution.

Source: TANGO International & ODI (2015). [First Phase Independent Evaluation of the Adaptation Fund](#). Washington, D.C.

Another pioneering feature of the Adaptation Fund is its ‘direct access’ modality, working with National Implementing Entities (NIEs) instead of international implementers like multilateral banks or UN agencies. The Adaptation Fund is not the first of what have been described ‘New Multilaterals’ – that is “*international initiatives established since 2000 that display various forms of innovation in their governance structures*”²⁸ – to have direct access. It is the default access modality of the Global Fund (to Fight AIDS, Tuberculosis and Malaria), and it is used by the Global Alliance for Vaccines and Immunization (GAVI), where it demonstrated that even the poorest countries “*have managed the direct transfer of funding from an international funding source into their national systems, at scale, and under the control of the national government.*”²⁹ Indeed, *the experiences of global health funds demonstrate that many countries in sub-Saharan Africa have made a success of the direct access modality. These countries have managed the direct transfer of funding from an international funding source into their national systems, at scale, and under the control of the national government.*³⁰

BOX 6: The Role of the Adaptation Fund in the new multilateral financial architecture

At present, the GCF is still in the process of defining its role, and it is not clear which of the possible options the Fund’s Board will ultimately adopt. However, there is one option that has been mooted from the very outset of the GCF design process, namely the ‘wholesale’ model. Under this model, sometimes also referred to as the ‘fund-of-funds’ model, the GCF outsources the management of ‘retail’ (small and micro) activities and only deals with medium and large programmes. This is very much in line with the ideas of programmatic/enhanced direct access, and some have argued it is the only way in which the GCF can function effectively, given the envisaged scale of tens of billions throughput annually.

Such a wholesale model will only be acceptable if it does not make it more difficult for eligible countries to receive multilateral climate finance – and this will need small multilateral ‘boutique retail funds’ to cater to those who would otherwise be left behind. The Adaptation Fund is ideally placed to take up this role for adaptation funding, as a specialized expert multilateral retail outlet for small and micro adaptation projects. Indeed, under the wholesale model, the Adaptation Fund would have to be created if it did not already exist.

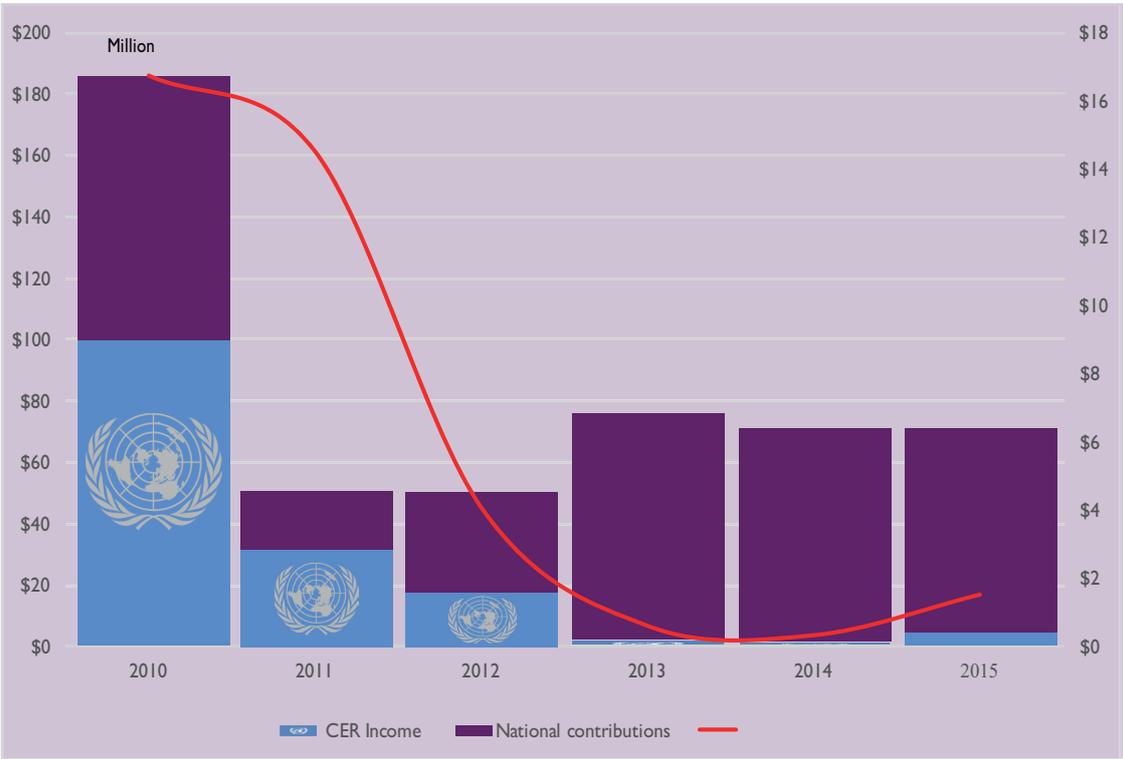
The Adaptation Fund itself has had considerable success with its direct access modality, so much so that it decided to go one step further and approve a programme piloting an enhanced version of direct access: the Innovative Community Program of the [South African National Biodiversity Institute](#), a US\$ 2.44 million community [Small Grants Facility](#) which has recently [approved its first four projects](#). The success of the Fund’s approach is also reflected in the [high demand](#) for it, with the total number of new proposals in the 2016 submission period adding up to a record US\$ 208.6 million.

The scale of funds that could potentially be raised through air passenger crowdfunding (*see section 3.3*) will be insignificant for the GCF. Moreover, the kind of small and micro activities (less than \$50 million in GCF categorization) that the Adaptation Fund undertakes may be more appropriate for crowdfunding, given the ethos behind the concept.

In summation, the problem with the Adaptation Fund is not a lack of projects in the pipeline, lack of expertise or innovation, or the lack of playing a significant role in the multilateral climate finance architecture (*see Box 6*). The key problem of the Adaptation Fund is **a chronic lack of income**. Its intended principal source – the 2% share of proceeds from CDM – failed to deliver, as CER prices crashed from an average of US\$ 15.7 per tCO2 in 2010/11, to US\$ 0.31 in 2014 (*see Figure 1*),^{xxii} due to a lack of mitigation ambition in developed countries.

The Adaptation Fund would seem to be the natural repository for airline passenger adaptation contributions, which could make a significant difference to the sustainability of this essential cog in the multilateral climate finance mechanism.

Figure 1: Average CER price and Adaptation Fund Income Streams



xxii. This was primarily a price effect. The rolling average of CERs received by the Adaptation Fund over the time period has dropped only by around 25%.

3.3. Which Passengers and What Scale?

What could be the scale of such voluntary adaptation air passenger crowdfunding? As there is, to our knowledge, no precedent, the only way to gauge its revenue potential is by looking at similar related instruments. The obvious candidate is voluntary flight offsetting which, for reasons mentioned in Section 3.1., we believe should be replaced with voluntary solidarity contributions of, say, **1% of the ticket price**, for adaptation in developing countries.

Is it reasonable to expect passengers who are willing to pay for offsets to switch to such a solidarity contribution? We believe that it is not unreasonable, particularly in the context of the ICAO decision (see Box 2), because the proposed solidarity contribution of 1% will, on average, be lower than the cost of offsetting (see Table 1).

Table 1: Average cost of offsetting and solidarity contributions				
Comparison between the one-way offsetting costs for the busiest long-haul routes between June 2015 and July 2016, with a 1% contribution of one-way 'reference' fare, ^(a) based on five cheapest economy class tickets offered for sale 1, 4, and 8 weeks before departure dates				
Route	Scheduled Seats ^(a) [million]	Reference fare ^(b) [Euro]	1% of reference fare [Euro]	Offset cost ^(c) [Euro]
London - New York	1.96	1333	13.33	6.84
Dubai - London	1.72	857	8.57	6.78
Bangkok - Dubai	1.11	657	6.57	6
London - Los Angeles	0.97	1223	12.23	11.24
Singapore - Sydney	0.96	390	3.90	7.82
Honolulu - Tokyo	0.96	543	5.43	7.63
London - Hong Kong	0.91	856	8.56	12.55
New York - Paris	0.87	790	7.90	7.22
Melbourne- Singapore	0.84	291	2.91	7.49
Average			7.71	8.17

Sources: (a) [Diio Mi](#). Number of seats sold from 1 July 2015 to 30 June 2016 (b) www.skyscanner.com. accessed on 31 August 2016 (c) [Climate Care Carbon Calculator](#).

3.3.1. Who offsets air travel?

According to a [2011 report](#), airlines struggle to get passengers to sign up to carbon offsets. Surveying European airlines, the report concludes that “most airlines achieve commercial passenger offsetting rates of below 1%”. It also suggests that “take-up rates appear to be most determined by whether airlines offer carbon offsets at the point of ticket purchase”.^{xxiii}

According to the Managing Director of one of the world’s largest offset providers quoted in the report, most offsetting is done by businesses covering their corporate travel. Unlike leisure passengers, he states, “here the appetite not only remains unabated, but is growing”. If this is a general trend, then a two-pronged approach to harnessing this potential revenue source could be in order, focusing not only on airline ticketing sites, but also directly on large corporations or business federations, as part of their Corporate Social Responsibility (CSR) schemes.

xxiii. The report also mentions a July 2007 UK House of Commons Environmental Audit Select Committee report dealing with passenger offsetting and urging the UK government to make it compulsory for airlines to provide the option to offset at the point of purchase, and recommending that it be done on an ‘opt out’ basis.

3.3.2. Potential revenue from the corporate sector air travel market

According to forecasts by the Global Business Travel Association, the global size of the corporate air travel market in 2014 was US\$ 1.2 trillion, projected to grow rapidly over the coming years (see Table 2). Assuming, conservatively, that only one in ten corporate air passengers who offset emissions switch to the proposed solidarity contribution, the **scheme would raise over US\$ 100 million annually** at the suggested contribution of 1% of ticket cost, comparing favourably with the US\$ 75 million [pledged to the Adaptation Fund](#) in Paris.

This conservative estimate of the potential revenue from the corporate sector does not include any additional revenue from non-corporate sources, and we believe that it should be feasible if the scheme is properly marketed.

	2014 [US\$ billion]	Projected annual growth rate	
Asia Pacific	459	7.7%	2015-2019
North America (US 90%)	318	7.7%	2015-2019
Western Europe	271	4.8%	2015
Latin America	52	5.9%	2015-2019
Rest of the world	77		
Total	1,177		

4. THE WAY FORWARD

4.1. Innovative Finance

In light of the failure of the attempts to introduce new international innovative finance instruments (see Section 2.2) and taking into consideration the prevailing preference for ‘bottom-up’ actions in the world of the Paris Agreement, the best way forward would be to build on the sub-national contribution to the LDCF by the Canadian Province of Quebec in Paris (see Section 2.3.4.), and to make sure that what was ‘chic’ in Paris, now becomes ‘de rigueur’.

In concrete terms, the next step could be the provision of genuinely innovative support for the LDCF from Quebec through a small share of allowance auctioning proceeds, complementing the bilateral support announced in Paris for the period 2016 to 2020 of around US\$5 million per annum (1% of the auctioning revenue should be sufficient for this). An announcement by Quebec in Marrakech would not only cement Quebec’s climate finance leadership position, it would also be a key contribution to the finance outcome of COP 22.

The strategic idea is to encourage other sub-nationals and nationals with emission trading schemes to follow Quebec, assuming they are taking the next step in Marrakech, as a matter of best sustainable development practice (‘Development Gold Standard’) for national and sub-national emission trading schemes.

4.2. Crowdfunding

Conceptually, the way forward with regard to operationalising the CSR ATAC scheme is very simple, given that the crowdfunding instrument is already operational. ‘All’ that needs to be done is to get the idea accepted among the global business community. Probably the most effective way of doing this is to bring on board some ‘champions’ with experience in launching CSR ventures. For the scheme to achieve its fundraising potential, there will have to be a considerable marketing push, and sooner rather than later, the Adaptation Fund will have to get actively involved.

4.3. UNFCCC

At the level of the international climate change negotiations, Laurent Fabius’ proposal in Paris “to establish a process for the consideration of new sources of finance beyond existing bilateral and multilateral sources” should be resurrected. In concrete terms, this could be achieved by the COP/CMA requesting the Standing Committee on Finance (SCF), in its ‘resource mobilization’ function, to develop a Work Plan on Alternative and Innovative Sources of Finance. Such a work plan would be similar to the SCF’s existing work plan on the measurement, reporting and verification of support, and could be implemented through the Long Term Finance Work Programme under the aegis of the SCF, with the aim of producing regular (biennial) reports to feed, *inter alia*, into the biennial ministerial roundtables on climate finance organised by the UNFCCC.

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