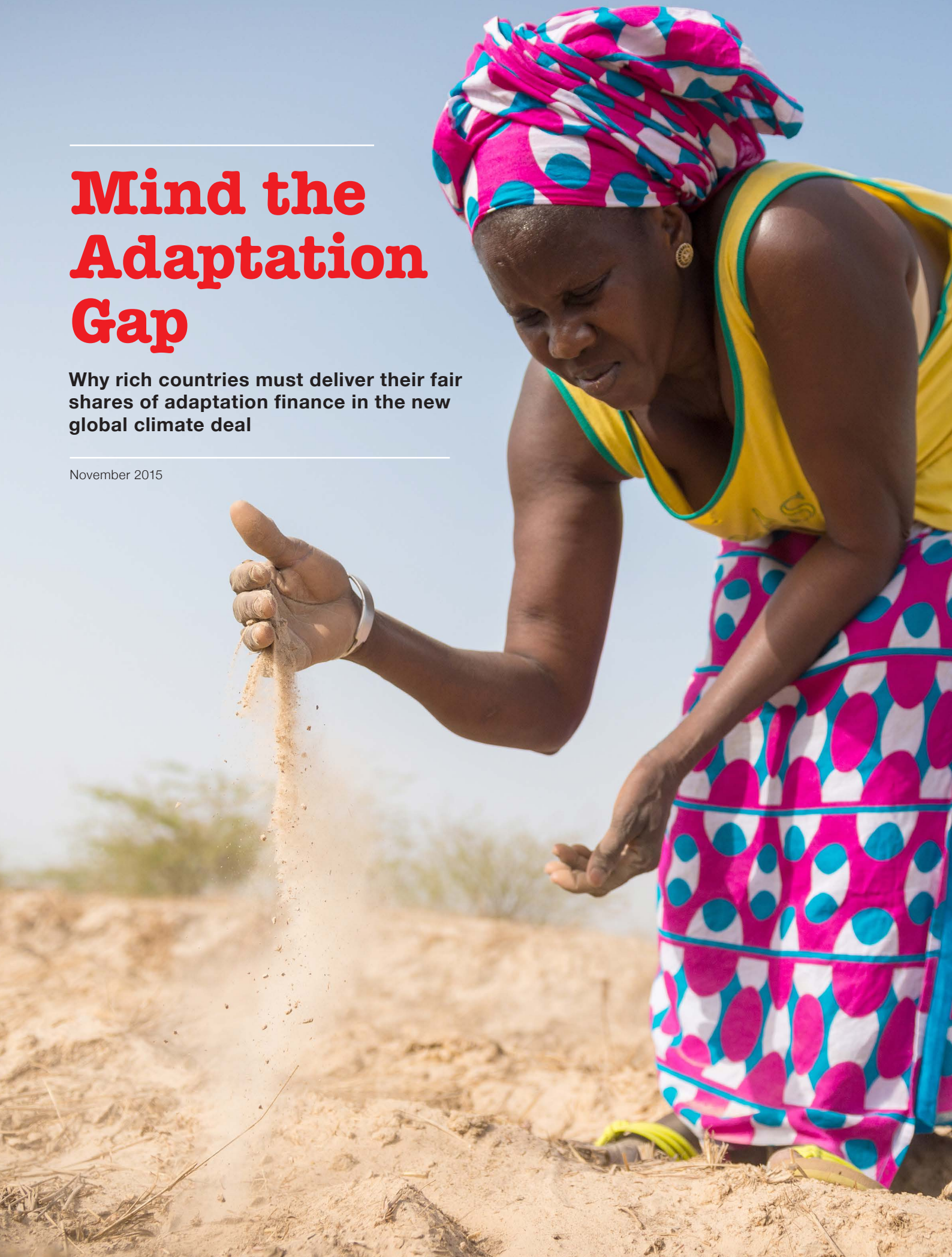
actionaid

Mind the Adaptation Gap

Why rich countries must deliver their fair shares of adaptation finance in the new global climate deal

November 2015



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COVER PHOTO: **Fatou Sarr** shows the dry and salty soil in her rice field, Senegal.
PHOTO: CLÉMENT TARDIF/ ACTIONAID

Executive summary

The world expects a new global climate agreement to be agreed at COP21 in Paris this year. If this new deal is to help developing countries to cope with and adapt to the impacts of climate change, it must ensure that richer countries provide the necessary financial support to meet these challenges. Without such an agreement, there is a serious risk that the world's inaction on climate will worsen the inequalities that are already distorting our economies and creating dangerous divisions in our societies.

Developing countries are particularly vulnerable to climate change. Adaptation in these countries will be challenging, costly, and must take place in addition to ongoing development efforts. There is still a great deal of assessment, trial and learning to be done with regard to adaptation. Investment in technology, communications, infrastructures, institutions, trainings, outreach and many other approaches will all be required. These efforts will require significant financial support from richer countries.

But in spite of political promises from developed countries as a group, individual countries have been slow to produce the finance to meet those promises. This is leaving vulnerable countries worried that they will be left alone to face the severe consequences of a problem that they did not cause.

In this report, ActionAid takes the most credible - yet still conservative - existing estimates of the total cost of adaptation for developing countries and divides up that cost into "fair shares" for individual contributor (developed) countries, taking account of considerations such as their historical emissions of greenhouse gases and their economic capacity. **We find that financial commitments to date made by rich countries fall far short of these fair shares, with serious implications for vulnerable countries.**

Contributor countries will need to massively scale up their financial commitments before and beyond 2020, the year that a new global climate agreement will enter into force. **Grant-based finance provided for adaptation in developing countries will need to increase from US$3-5 billion in 2013, to at least US$50 billion per year by 2020, and at least US$150 billion per year by 2025.** Although the amounts required may seem very large, they pale in comparison to many other public expenditures, for instance on defense budgets or bank bailouts. The adaptation finance gap could easily be closed with sufficient political will for any number of common-sense policies such as redirecting fossil fuel subsidies and implementing a financial transaction tax.

Rich countries only need to pay an amount roughly equal to 0.1% of their collective GDP by 2020 to support developing countries to adapt to the impacts of climate change to meet their fair share. This is a small price to pay for the industrialization advantage they have benefited from over the last century.

Climate finance provided must be *additional* to Official Development Assistance (ODA), and must not affect the amounts countries spend on ODA. Adaptation to climate change *allows* development to go forward, and ideally works synergistically with development efforts. But it does not substitute for the existing development plans, which are also crucial for safeguarding people's rights and social justice.

Recent finance announcements by some countries such as the UK and France may at first appear to be a step in the right direction. However the lack of clarity in these announcements leads to major concerns that

these packages are not new and additional as they are being double-counted as aid and as climate finance, *and* they may not be entirely based on grants. **Climate finance for adaptation must not be provided as loans,** which would further exacerbate the debt and exploitation of countries that are vulnerable to climate change, and would fail to reach the poorest communities which are most in need of support.

This report uses conservative figures, and conservative assumptions. For example, we use rich countries' pledge to provide US$100 billion in climate finance by 2020 to derive the global adaptation finance target for that year, even though this figure is a purely political creation that is not based on a scientific assessment of actual needs, which is likely to be far higher. For 2025 and 2030, we use the estimate of adaptation costs from UNEP's 2014 *Adaptation Gap Report*, which likely significantly underestimates the real costs, yet is the most credible estimate currently available. Yet in spite of these underestimates and allowances, we still find that rich countries are seriously failing in their financial responsibility.

We note that even if adaptation finance *and* mitigation efforts are significantly scaled up, continued temperature rises will mean that vulnerable countries will still experience climate change impacts. The higher the global temperature, the greater the costs for adaptation, and the higher the costs for addressing loss and damage will be. **The new global framework on climate change must therefore include a Global Goal on Adaptation**, which recognises that financial costs for adaptation and addressing loss and damage are not static but will greatly depend on the amount of mitigation action taken in the short-term.

Some key findings:

- Investment in adaptation strategies such as up-to-date meteorological technologies, effective early warning systems, building dykes to protect communities and farmlands from rising sea levels, and transforming extension services and farmer outreach will be extremely costly and beyond the financial capacity of many developing countries.
- Rich nations must increase the total amount of grant-based finance provided for adaptation in developing countries from the 2013 level of US$3-5 billion per year, to at least US$50 billion per year by 2020, and at least US$150 billion per year by 2025.
- Although these figures may sound large, for most countries they would require less than 0.1% of GDP in 2020 and around 0.2% by 2025.
- France, the host of COP21 in 2015, must rapidly scale up its grants for adaptation from just US$0.07 billion in 2013, to US$2.1 billion in 2020.
- The USA must increase its recent adaptation finance provision more than 60 times by 2020.

Part I: Introduction

The need for adaptation is a critical but often under-reported aspect of the climate change challenge. As global temperatures continue to rise, and as climate impacts are increasingly felt around the world, the need to adapt is becoming ever more urgent.

Rich developed countries, which have produced the majority of greenhouse gas emissions in the earth's atmosphere and have the most historical responsibility for climate change, must acknowledge their obligation to support developing countries to adapt to climate change impacts. This must be done through providing means of implementation such as climate finance, technology transfer and capacity building.

Under the United Nations Framework Convention on Climate Change (UNFCCC), countries have agreed to limit global temperature rise to no more than 2°C from pre-industrial levels, as any greater rise will entail unacceptable risk. However, even when current mitigation pledges in all countries' Intended Nationally Determined Contributions (INDCs) that have been submitted to date are added together, the planet is still on track for an average global temperature rise of around 3°C and potentially much more. If countries fail to meet their pledges, we may in fact go beyond this, towards average global temperature rises of 6°C or more by the end of this century.

Many countries are already suffering devastation at the current global temperature of 0.85°C above pre-industrial levels, which is why African and small island states, who are particularly vulnerable to droughts and rising sea levels, are calling for the UNFCCC to agree to limit global temperature rise to no more than 1.5°C.

Adaptation efforts will therefore be a priority focus for many developing countries. Not only have these countries done the least to cause climate change, but they are more vulnerable and **lack the necessary financial resources to cope with climate impacts.** The UNFCCC process aims to facilitate the provision of adaptation (as well as mitigation) finance from richer to poorer countries. However, these countries indicate that they are not receiving the scale of support they so desperately require – and are left to deal with increasingly severe climate impacts on their own.

In this report, ActionAid takes the most credible - yet still conservative - existing estimates of the total cost of adaptation for developing countries and divides up that cost into "fair shares" for individual contributor (developed) countries, taking account of considerations such as their historical emissions of greenhouse gases and their economic capacity. We compare these figures to their track record in providing adaptation finance in recent years, and draw conclusions on the way forward to equitably increase climate finance for adaptation, as well as policy recommendations for the new global climate agreement that can help countries to increase their resilience to the impacts of climate change.

Planting rice paddy, Odisha, India.
PHOTO: SRIKANTH KOLARI / ACTIONAID

Part II: Context – coping with climate impacts

The Need for Adaptation

Every country on the planet must now deal with the reality of climate change. However, as stories of typhoons, floods, rising sea levels, glacial melt, dry spells and drought become ever-more frequent in countries from Bolivia to Bangladesh, and Malawi to Myanmar, it is clear that **developing countries are particularly hard-hit by climate impacts.**

Not only are developing countries more likely to experience disruptive climate impacts than wealthier countries; but poorer countries whose economies are based on rural, farming and coastal livelihoods - which are particularly affected by climate changes - will be especially vulnerable.

Urgent action to reduce greenhouse gas emissions, especially in rich developed countries, is therefore absolutely critical. But mitigation action alone will not be enough. Scientists have warned that even after atmospheric concentrations of CO_2 and other greenhouse gases stabilise, surface area temperatures and sea levels are still projected to rise for a century or more. This means that even if we manage to halt emissions by 2050, climate change will continue to impact people and ecosystems beyond the end of the century.

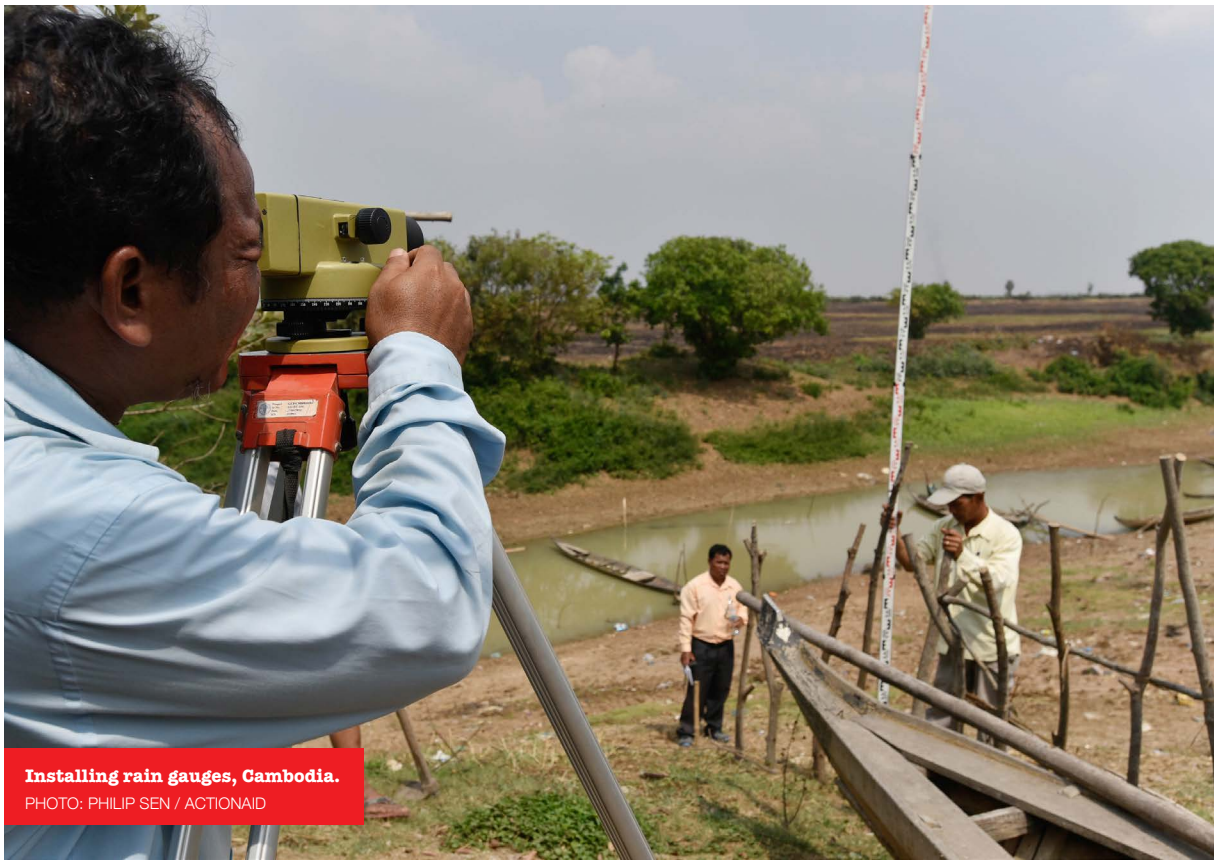
For countries on the front line of climate change, adaptation is therefore an urgent priority, to enable citizens, communities, farmers, economies and entire populations to tackle climate impacts now and in the future. Vulnerable countries and communities must find ways to adapt their farming systems, their communities and their futures to these challenges.

Actors at all levels will need to take action, whether they are farmers, community leaders, business people, extension services, NGOs, research institutes, local and national governments, or regional and international bodies. For developing countries, **adapting to climate change will require major costs and investments on a huge scale** to transform farming systems, protect communities and guarantee human rights and dignity for all.

Examples of adaptation

Communities in almost all developing countries may need to consider taking action to adapt to climate change. Adaptation strategies are diverse and locally specific, and will be as varied as the ecosystems and livelihoods they are based on. They can include such diverse strategies as:

- Creating institutions at village, district and regional level to identify and assess current and future risks and initiate adaptation
- Training extension workers and farmers on climate-resilient sustainable agriculture techniques
- Reviving local seed diversity and seed-saving knowledge
- Building dykes or embankments to protect communities and fields from floods or rising sea levels
- Installing water-harvesting infrastructure and protecting water sources
- Restoring ecosystems and undertaking catchment conservation
- Raising homes above flood levels
- Installing and localizing use of rain gauges
- Updating national meteorology technologies
- Developing farmer-friendly early warning systems
- Weather-proofing infrastructure
- Building cyclone shelters
- Disaster risk reduction strategies such as training community search-and-rescue teams.



Installing rain gauges, Cambodia.
PHOTO: PHILIP SEN / ACTIONAID

Adaptation finance: an essential part of climate action

Financial and technological transfers between countries will be absolutely necessary to ensure equity and fairness. Similar to adaptation finance, the global mitigation action needed – tons of greenhouse gas emissions reductions required to keep the world on a below-2°C pathway – can be divided into "fair shares" for countries. When it comes to mitigation responsibilities, rich countries' fair shares of emissions reductions are so large that they cannot be entirely achieved within their own borders. In addition to radically reducing emissions at home, these countries must provide support for developing countries to undertake mitigation above and beyond *their* fair shares. This cooperative action, facilitated by finance, technology transfer and capacity building from developed countries, is a necessary component of an equitable and effective mitigation agreement.[1]

Developed countries *also* have a moral and legal obligation, enshrined in the UNFCCC, to support poorer countries to deal with climate impacts and to undertake adaptation action. Support in the form of climate finance, technology transfer, and capacity building are therefore all necessary components of an equitable global climate solution on the adaptation side as well.

Of these forms of support, climate finance is the highest profile and the easiest to quantify. This report identifies the total amount of climate finance needed to support adaptation in developing countries, and demonstrates how that amount can be divided into "fair shares" for each of the developed countries that are expected to provide funds.

1. Fair Shares: A civil society equity review of INDCs, October 2015, www.civilsocietyreview.org

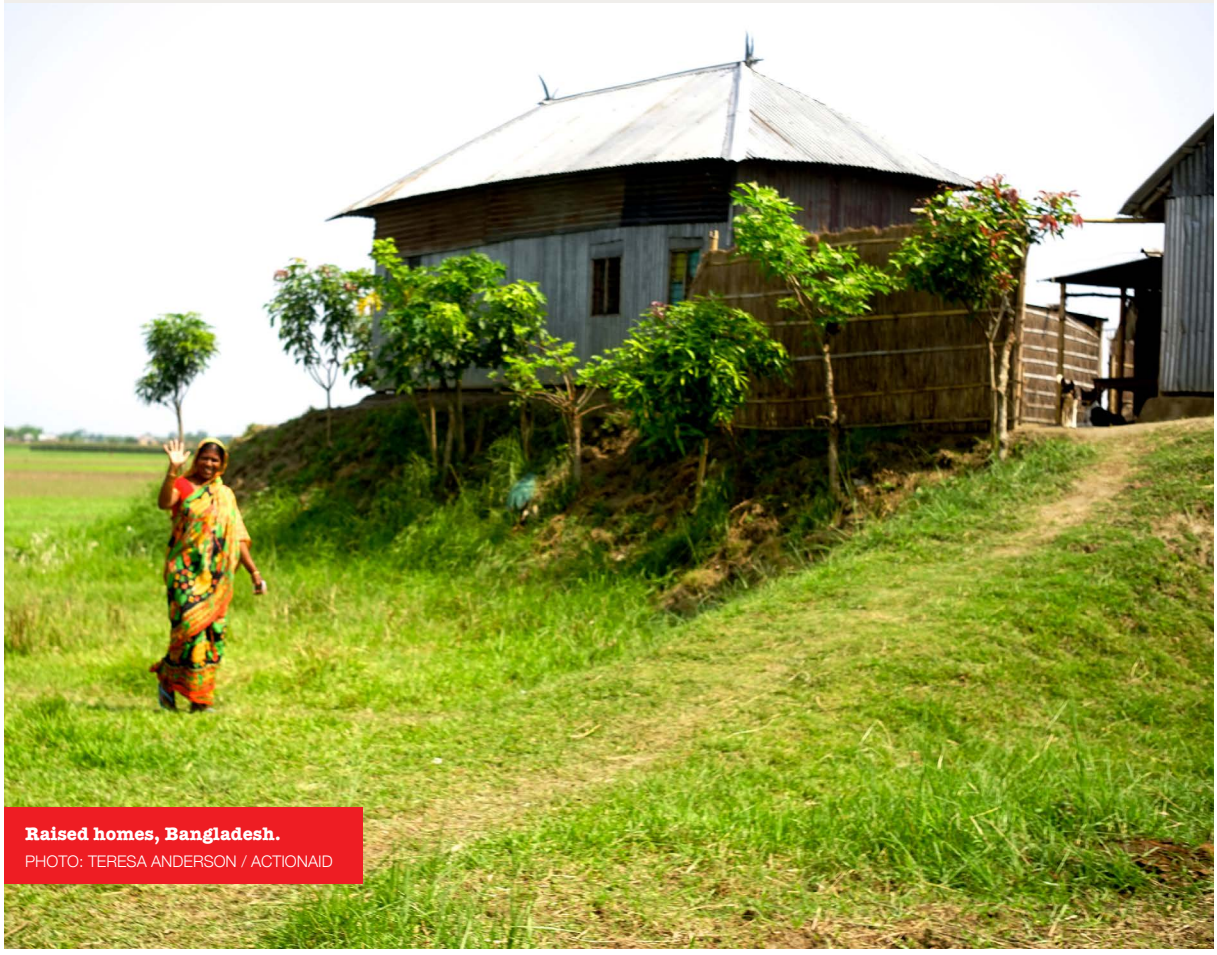
Examples of adaptation

Homes raised above flood level, Bangladesh

Doreen Village is a low-lying sandy island in the lower Ganges, near to the town of Faridpur, Bangladesh. The island regularly and increasingly faces severe flooding as a result of climate change, with crops, homes, livelihoods and health at constant risk.

ActionAid has worked with the community to identify strategies for resilience for a number of years. Through participatory vulnerability analysis, the community has undertaken a number of different activities to take control over their lives and livelihoods.

A grant of GB£50,000 from an individual donor has enabled them to undertake a number of key activities, including raising their homes by 6 feet to protect them from flooding. Each raised homestead now has a toilet, significantly reducing health risks in times of flooding. A community market place has also been built above flood level. Disaster preparedness plans, solar panels for electricity, composting and collectively organising to engage with their local government, are just a few examples of many actions they are taking that are helping to make a difference to their lives in times of climate change.



Raised homes, Bangladesh.
PHOTO: TERESA ANDERSON / ACTIONAID

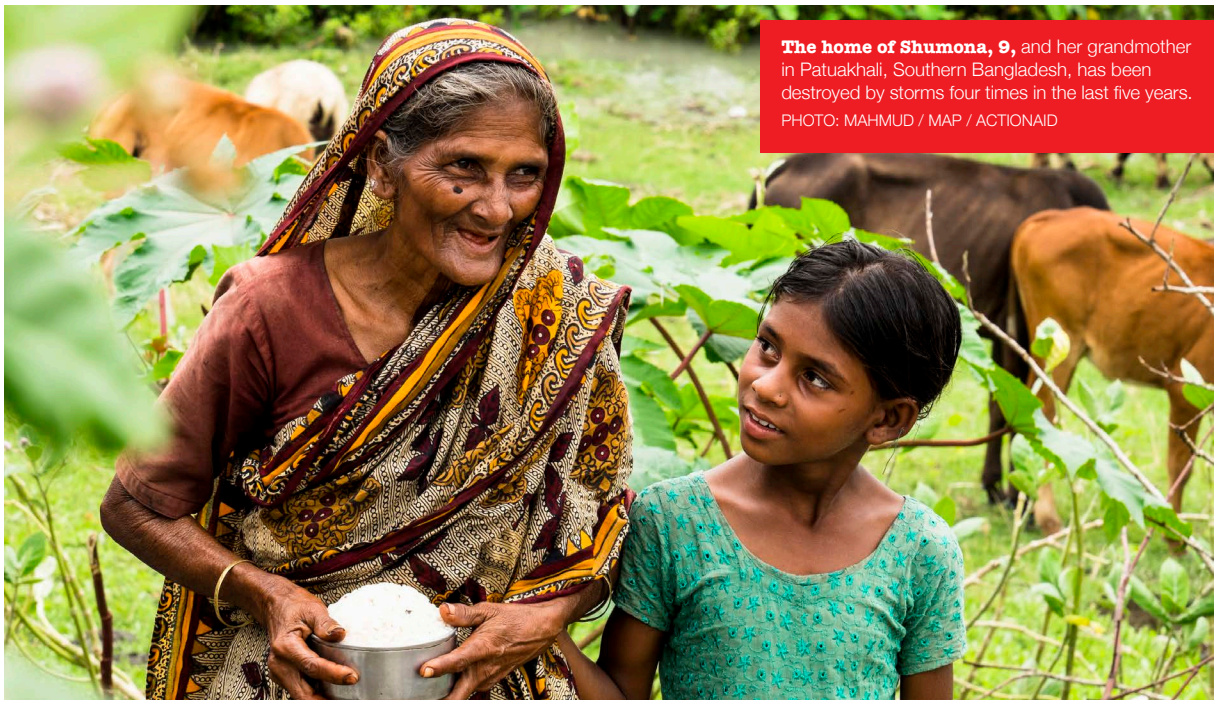
Part III: Key findings – adaptation finance needs and fair shares

Estimating global adaptation finance needs

For 2020: In 2009, at COP15 in Copenhagen, governments committed to a political goal of delivering US$100 billion in climate finance for developing countries by 2020, when the new global climate agreement will enter into force. Developing countries and civil society have demanded that this be "balanced" between mitigation and adaptation finance. The Green Climate Fund (GCF) allocation policy aims for an even 50-50 split between adaptation and mitigation finance over time. Following from this, this report uses half of the US$100 billion pledge, or **US$50 billion, as the overall goal for adaptation finance for developing countries in 2020.** We note that the US$100 billion figure was agreed by a purely political process rather than any scientific evaluation. This report uses this figure in the absence of any rigorous scientific estimates of actual global need for adaptation now or in 2020.

The Paris agreement must therefore establish US$50 billion as the absolute minimum target for new and additional public finance for adaptation for developing countries in 2020. This finance should be provided by Annex II countries, which are, under the Convention, responsible for providing the resources required by developing countries to adapt to climate change. It is therefore these countries that must honour the Copenhagen commitment. High income countries that are not on the Annex II list, and who are therefore not part of the Copenhagen commitment, should provide additional climate finance in the same proportions. The Paris agreement must also include a clear pathway for scaling up levels of public adaptation finance from this level after 2020, based on global temperature rise scenarios.

For 2025 and beyond: For developing country adaptation costs further in the future, we use figures estimated by UNEP in their *Adaptation Gap Report* of 2014: **US$150 billion per year by 2025/30**. ActionAid considers these UNEP figures to be conservative, and understands it is likely that UNEP will revise them upwards prior to the Paris COP in December 2015. We believe it likely that current studies significantly underestimate the actual finance needs. (See box).



The home of Shumona, 9, and her grandmother in Patuakhali, Southern Bangladesh, has been destroyed by storms four times in the last five years.
PHOTO: MAHMUD / MAP / ACTIONAID

Major gaps in current estimates of adaptation costs

ActionAid believes that the UNEP Adaptation Gap Report of 2014 significantly underestimates the likely cost of adaptation in developing countries. Although UNEP have recognized many of the following omissions in adaptation cost studies, their figures have not yet adequately addressed these issues:

i. **Incomplete coverage:** The coverage of sectors and risks within sectors is incomplete in studies to date. Many studies only consider slow onset effects (though not all of these, such as the risk of salt water intrusion), but leave out the considerable and complex costs of dealing with changes in frequency and intensity of extreme weather events. Furthermore, the impact of climate change on biodiversity, which provides critical ecosystem services, is overlooked.

ii. **The cost of trial and error:** Adaptation is a new and emerging field, in which experimentation, trial and error must take place. However, studies tend to assume complete certainty about climate change, its impacts, and the immediate effectiveness of adaptation strategies. In reality, there is uncertainty about future climate change and its impacts, and a portfolio of adaptation measures will need to be developed and trialed. Some strategies will fail while others will succeed, and adjustments will be made over time to these measures through adaptive learning.

iii. **Policy costs:** Estimates tend to count only technical and infrastructural costs, and generally omit the costs of implementing adaptation policies and effecting behavioral change. They also omit the transition costs - compensation required by people whose livelihoods are adversely affected by adaptation policies or interventions, at least during a transition towards a climate-resilient pathway.

iv. **Project management costs:** Adaptation cost estimates omit the often huge technical assistance and project/fund management costs that are often inevitable when developing countries access finance from international funds. Large portions of climate finance - as for aid - end up returning to contributor countries, through payments to international staff, consultants or private companies. Such costs should be limited, but those that remain must be factored in.

v. **Adding winners and losers:** Studies often add the costs and benefits of adaptation on a global level, such that (for example) income gains for farmers benefitting from higher yields in the North may effectively cancel out health costs due to higher disease prevalence in the South. In reality, mechanisms for such transfers do not generally exist, and the poor and vulnerable may lose out regardless of the overall trend.

vi. **Transformation is required:** Given existing vulnerabilities, particularly in high-temperature-rise scenarios, development models may require significant transformation, to bring about the necessary transition to the kind of world in which human rights and the new Sustainable Development Goals can be universally achieved. Yet adaptation cost studies generally envisage only tweaks to business-as-usual, which will not do the job.

vii. **A bottom-up approach is required:** National and sectoral studies are consistent with much higher global costs than the global studies, which apart from their incomplete coverage do not take into

account sufficient national and local detail. Most developing countries are currently in the process of assessing climate risks and are preparing sector-specific strategies to feed into their National Adaptation Plans, as agreed at the UNFCCC. These bottom-up processes require time, effort and resources, but they can deliver more realistic cost estimates.

viii. **Loan charges:** Adaptation finance should be disbursed in grant form, and not in the form of private investment or loans. However, if loans for adaptation are made, these will require developing countries to pay additional interest, and will thus increase the total costs of adaptation action.

ix. **Adaptation efforts are made less efficient by development deficits:** Before adaptation can be effective, other interventions, such as building schools, health centres, transport and communication systems, often need to be undertaken to fill existing development deficits that mean that people are vulnerable to current conditions, even without additional climate change. This does not mean that the cost of these development interventions should be counted as adaptation costs. It does, however, mean that unless these deficits are addressed (with the support of non-climate ODA), attempts at adaptation will be less effective and more expensive.

x. **Mismatch of supply and demand (donor-driven development):** Adaptation costs are calculated on the basis that the finance will be used for projects, programmes and policies that are genuinely targeted at adaptation. However, in reality a large part of development finance, including climate-related development finance, is used for interventions that are driven by political or commercial interests of the contributor. An analysis of the OECD project-level data on the use of ODA labelled as having adaptation as a principal objective reveals that the link to adaptation for some of these projects is tenuous at best.

Taking all of these omissions into account – in addition to certain unfair methodological choices which we discuss further in Annex I to this report – the real cost for adaptation in developing countries is likely to be far higher than UNEP's 2014 estimate,[2] which itself is higher than earlier estimates. Despite this, the UNEP $150 billion figure for 2025/30 is the most credible figure currently available, and thus forms the basis for the fair shares calculations in this report.

This should be considered the minimum adaptation finance target, to be adjusted in light of mitigation action, bottom-up national adaptation needs assessments and the latest scientific evidence.

2. The EC-funded ECONADAPT project goes into further details: see http://econadapt.eu/

Calculating individual countries' fair shares of adaptation finance

ActionAid has calculated the fair share of adaptation finance that developed countries should provide in 2020, 2025 and 2030 for a selection of countries chosen for demonstrative purposes. Our results show that climate justice is not only necessary, but also affordable.

We adapted the general approach of the Climate Equity Reference Project (CERP)[3], developed for determining fair shares of mitigation effort, for the case of adaptation finance. Each country's "fair share" of global effort is calculated based on their historical responsibility for causing climate change (i.e. their accumulated greenhouse gas emissions in the atmosphere, which are currently warming the planet) and their capacity for action (national income above a baseline development threshold).

To determine fair shares of our total adaptation finance targets, the following steps are taken:

i) Identify the responsibility and capacity index (RCI) values provided by the CERP Calculator, for 2020, 2025 and 2030, using the most equitable choice of settings;
ii) Impose the condition that only rich countries should contribute; adjust the fair shares accordingly (with the group of "high-income countries"[4] used as the starting point for the dynamic categorization of contributors); and
iii) Express fair shares both in dollars and as percentage of GDP, by determining credible projected values for GDP.

In order to compare the fair shares we calculated with the levels of adaptation finance provided most recently – and with some recent climate finance pledges for 2020 – we analysed OECD project-level data on climate-related development finance. We did not use the first round of pledges to the Green Climate Fund (GCF) as a basis for comparing adaptation finance provided with countries' fair shares. These initial pledges for 2015-2018 are, on an annal basis and assuming half is allocated to adaptation, generally very small compared with adaptation finance actually disbursed in 2013. We do not consider them a good indicator of adaptation finance likely to be provided over this period.

Please refer to Annex III of this report (and the more detailed Annex IV available at http://www.actionaid.org/publications/mind-adaptation-gap/annex) for a more detailed description of the methodology used to determine fair shares and actual levels of adaptation finance provided.

Adaptation finance fair share figures

Table 1: adaptation finance fair shares by country

Contributor countries' fair shares of adaptation finance for 2020 and 2025, expressed in billions (bn) of US dollars and as a percentage of GDP. Please see Table 3 in Annex II to this report for 2030 figures.

Country/ group	2020		2025	
	Fair share of adaptation finance	Fair share of adaptation finance/GDP	Fair share of adaptation finance (minimum)	Fair share of adaptation finance (minimum)/GDP
Australia	$1.7bn	0.11%	$4.4bn	0.26%
Denmark	$0.3bn	0.09%	$0.9bn	0.23%
EU[i]	$14.3bn	0.07%	$36.9bn	0.17%
France	$2.1bn	0.07%	$5.5bn	0.17%
UK	$2.5bn	0.06%	$6.3bn	0.15%
USA	$26.3bn	0.12%	$67.5bn	0.27%
Annex II[ii]	**$50.0bn**	0.10%	$128.5bn	0.23%
High income[iii]	$55.4bn	0.09%	**$150.0bn**	0.21%

i,ii & iii: Notes as for Table 2 on page 13.

3. CERP is a project of the Stockholm Environment Institute and EcoEquity, through which fair shares can be calculated using the Greenhouse Development Rights approach.
4. We recognize that the World Bank definition of high-income countries is an imperfect means of categorizing "contributors" of climate finance. We therefore combine this with additional criteria: see Annex III.

Table 2: adaptation finance gaps by country

What countries provided in adaptation finance in 2013 (the most recent year with sufficiently disaggregated data) and the amount they would have to increase their adaptation finance by annually in 2020 and 2025.

Country/ group	2013	2020		2025	
	Adaptation finance provided in 2013	Annual adaptation finance gap to bridge by 2020[iv]	Annual adaptation finance gap factor to bridge by 2020	Annual adaptation finance gap to bridge by 2025[v]	Annual adaptation finance gap factor to bridge by 2025
Australia	$0.22bn	$1.5bn	x7.9	$4.2bn	x20.4
Denmark	$0.23bn	$0.1bn	x1.5	$0.7bn	x3.9
EU[i]	$3.23bn	$11.0bn	x4.4	$33.7bn	x11.4
France	$0.07bn	$2.1bn	x29.6	$5.4bn	x75.9
UK	$0.45bn	$2.0bn	x5.5	$5.9bn	x14.1
USA	$0.44bn	$25.9bn	x60.2	$67.0bn	x154.5
Annex II[ii]	$4.87bn	$45.1bn	x10.3	$123.7bn	x26.4
High income[iii]	$5.09bn	$50.3bn	x10.9	$144.9bn	x29.5

i This is the combined fair share for EU members and therefore includes the fair shares shown separately for Denmark, France and the UK. Note only the high-income country members of the EU are included as contributors, i.e. all bar Bulgaria and Romania in 2020 and 2025, so the fair share is shown for these 26 members.

ii Annex II countries are those responsible, under the UNFCCC, for providing support to developing countries for their climate change efforts, including financial support for adaptation.

iii High income denotes all countries that we classify as contributors to adaptation finance for developing countries: these comprise those countries that have been high-income countries, as defined by the World Bank, for three successive years. The figures shown for adaptation finance refer to adaptation finance provided by OECD DAC members plus the UAE.

iv Fair share of adaptation finance in 2020 minus adaptation finance provided in 2013

v Fair share of adaptation finance in 2025 minus adaptation finance provided in 2013

The adaptation finance gap

It is clear that wealthy countries are largely failing in their obligation to support developing countries to adapt to climate impacts. This is particularly stark for countries that bear the most historical responsibility for climate change, and have the largest capacity to support others' adaptation and mitigation efforts, such as the United States.

Our findings demonstrate that **rich countries need to pay only around 0.1% of their GDP towards adaptation finance by 2020** (in fact between 0.06% and 0.12%, with an average of 0.1% for Annex II countries). These figures will be higher for 2025, based on the scientific UNEP estimates of total needs, coming to an average of 0.2%.

Climate finance must be counted separately and additional to ODA. We note that many developed countries also have a huge historical shortfall in meeting their commitments to provide 0.7% of GNI towards ODA (See Annex II Table 4). This means that poor countries must deal with climate impacts without sufficient adaptation finance support, *on top of* the struggle to meet their basic development needs.

In 2013, developed countries provided between US$3 and US$5 billion in grants for adaptation in developing countries.[5] The uncertainty in this estimate

5. Authors' own analysis of OECD Development Assistance Committee members using OECD project-level database for climate-related ODA in 2013. See Annex III for details.

is due to a lack of transparency on the proportion of project costs that are actually dedicated to adaptation. Only a tiny proportion of this is actually given on top of ODA commitments. Even if we accept the upper end of this estimate, in order to meet the escalating reality of climate change adaptation needs on the ground, **public grant-based adaptation finance must be 30 times greater by 2025** even according to the conservative UNEP figures.

Progress does not look good so far. Incredibly, new data from OECD and the Climate Policy Initiative[6] indicates that overall public development finance for adaptation in grants and soft loans, actually *fell* dramatically in 2014 to around 30% of its 2013 level. The bilateral component directly to countries fell even more sharply, to around 20% of its 2013 level.

Australia provided US$0.22bn in adaptation finance in 2013. To meet its fair share adaptation in 2020, it would need to increase this amount to US$1.7bn in 2020, and US$4.4bn 2025. This would mean increasing its 2013 levels by a factor of nearly 8 by 2020, and by more than a factor of 20 in 2025. These figures, while sounding large, come to just 0.11% of projected GDP in 2020, and 0.26% of projected GDP in 2025.

Denmark provided US$0.23bn in adaptation finance 2013. It would need to increase this amount 1.5 times to meet its fair share of US$0.3bn in 2020, and 3.9 times to meet its fair share of US$0.9bn in 2025. This comes to 0.09% of GDP in 2020, and 0.23% GDP in 2025. Recent changes in government and policy mean that historic and dramatic cuts are expected in adaptation finance from a country that has been widely seen as a global leader in climate change and ODA policy.

The EU (only the 26 high-income member countries are counted here) provided US$3.2bn towards adaptation finance in 2013. To meet its fair share of US$14.3bn in 2020, it would need to increase this by a factor of 4.4, and 11.4 to meet its 2025 fair share of US$36.9bn. The EU's fair share in adaptation finance would come to just 0.07% of projected GDP in 2020, and 0.17% in 2025.

France provided just US$0.07bn in grants towards adaptation finance in 2013. It will need to increase this nearly 30 times to meet its 2020 fair share of US$2.1bn, and more than 75 times for its 2025 fair share of US$5.5bn. Nonetheless, this would still only come to 0.07% of projected GDP in 2020, and 0.17% in 2025. President Hollande has made two recent announcements on climate finance in the lead-up to COP 21, which may be a step in the right direction. However, the lack of transparency regarding the financial instruments involved leaves many questions about the sufficiency of France's pledge, especially given that France has made heavy use of loans in previous climate financing. (See box: "Paying Climate Debt with Climate Loans?")

The UK provided US$0.45bn towards adaptation finance in 2013. Its fair share for 2020 will be US$2.5bn, and US$6.3bn in 2025. This means that the UK must increase its 2013 adaptation finance by a factor of 5.5 in 2020, and by more than 14 times in 2025. This would still only require 0.06% and 0.15% of GDP in 2020 and 2025, respectively. We note that the UK's recent climate finance pledge lacks the transparency and detail to judge with certainty whether any of this will be additional to ODA, and its sufficiency and real contribution towards its fair share. (See box: "Paying Climate Debt with Climate Loans?")

The USA gave just US$0.44bn for adaptation finance in 2013 – slightly less than the UK, even though the USA is many times larger and wealthier. In fact, the USA's fair share for 2020 will be US$26.3bn, and US$67.5bn in 2025. This means that it will need to increase its adaptation finance contribution more than 60 times in 2020, and more that 154 times in 2025. The USA's higher historical emissions means that it should now give a higher proportion of its GDP to helping vulnerable countries cope with the impacts of climate change. Thus in 2020 it should put 0.12% of GDP towards adaptation finance in 2020, and 0.27% of GDP in 2025.

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6. *Climate Finance in 2013-2014 and the USD100 billion goal*, OECD-CPI . Note, this new data is insufficiently disaggregated to be used as a basis for our above fair share calculations, which is why 2013 data was used. We further note that ActionAid has heavily criticized this report for its inflated figures achieved through inclusion of market-rate loans, export credits and private finance.

The US fair share for adaptation finance in 2020 is actually only about two-thirds of what the US government spends on fossil fuel subsidies each year.[7] It is also a fraction of the nearly US$600 billion the USA alone will spend on its military in fiscal year 2015.[8] To put this into perspective, if the USA reduced its 2015 military budget by a mere 4.5%, that alone could cover its 2020 fair share for adaptation finance. There are numerous other policy tools available for raising money on this scale. For example, a small tax on financial transactions could raise hundreds of billions of public dollars from the US financial markets alone.[9]

Closing this gap should start with an agreement in Paris to mobilise and allocate at least half of the promised US$100 billion per year, i.e. at least US$50 billion per year, to adaptation by 2020 - all from public funds and disbursed in grants.

Although these adaptation fair shares figures may seem large, they are not unrealistic. The adaptation finance gap could easily be closed with sufficient political will for common-sense policies such as redirecting fossil fuel subsidies[10], implementing financial transaction taxes, and a progressive carbon tax in developed countries.[11]

The 0.1% of their GDP that rich countries need to pay by 2020 to support developing countries to adapt to the impacts of climate change is a small price to pay for the industrialization advantage they have benefited from over the last century. It pales in comparison to the 2% of GDP that NATO members commit to spending each year on defense. The IMF reported that the US and a group of eight advanced economies in the EU spent an average of 7% of GDP, or a total of US$1,729 billion, on bailing out the banks after the financial crisis.[12]

Paying climate debt with climate loans?

France and the UK have recently made new pledges for climate finance in 2020 (US$5.6 and US$2.7 billion, respectively, for both mitigation and adaptation).

Unfortunately, the lack of transparency in these pledges makes their figures appear larger than they really are. They are likely to include loans or other non-grant instruments to inflate their figures. While France provides much of its adaptation finance in loan form, the UK's first pledge to the Green Climate Fund was made as a capital contribution, which can only be disbursed as loans (it has done this before with an earlier climate fund).

If the French contribution is distributed between grants and loans in the same way as France's climate-related ODA in 2013, then it would be paying only 7% (US$150 million) of its 2020 adaptation fair share.

If the UK pledge follows the pattern of its most recent GCF pledge, again with half going to adaptation (as it has promised), it would amount to only 11% of its fair share, excluding money disbursed in loans.

These examples highlight the importance of governments providing their fair shares of adaptation finance in grant form.

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7. "Cashing in on All of the Above: U.S. Fossil Fuel Production Subsidies under Obama." 2014. Oil Change International. http://priceofoil.org/content/uploads/2014/07/OCI_US_FF_Subsidies_Final_Screen.pdf. This report finds a sum of $37.5bn in US exploration, production, consumption and overseas fossil fuel subsidies.
8. "Military Spending in the United States." National Priorities Project. https://www.nationalpriorities.org/campaigns/military-spending-united-states/?gclid=Cj0KEQjwqNiwBRDnq93MioaqtKQBEiQAb7Ezn2E-hkzIcgAk2hufzRMautXYcUWAGIKwjrwZyjPtIaIaAuke8P8HAQ
9. "The Potential Revenue from Financial Transactions Taxes," 2009, Dean Baker et al. http://www.cepr.net/documents/publications/ftt-revenue-2009-12.pdf
10. OECD estimates fossil fuel subsidies in 2014 at over US$60bn in OECD countries and over US$100bn in the BRICS plus Indonesia. These OECD figures do not include the government support to maintain domestic prices at artificially low levels. IEA (in their 2014 World Energy Outlook) do include such support and estimate total global fossil fuel subsidies in 2013 at US$548bn. (See http://www.oecd.org/environment/support-to-fossil-fuels-remains-high-and-the-time-is-ripe-for-change.htm.)
11. In 2012, the UN proposed a package of international taxes and innovative financing mechanisms that could generate US$400 bn per year for urgent development needs including climate change. See http://www.un.org/en/development/desa/policy/wess/wess_current/2012wesspr_en.pdf
12. http://www.imf.org/external/pubs/ft/fm/2013/01/pdf/fm1301.pdf.

Part IV: Key definitional issues for climate finance

Why climate finance must be public and grant-based

Real "climate finance" that serves the needs of developing countries must be public, grant-based money from developed countries to developing countries to support climate action (for both mitigation and adaptation) in those countries.

Grant-based finance is necessary for climate justice when applying the principle of "polluter pays". Rich industrialised countries owe an ecological debt to poorer developing countries, of which climate debt is one component - and climate finance is one way of repaying that debt from North to South. And practically speaking, only grant-based finance can effectively reach the world's poor – who have no capacity to repay loans, even if it could be morally justified that they be asked to do so.

Unfortunately, **some contributor countries are attempting to define "climate finance" in the broadest possible terms, using a variety of accounting methodologies to pretend that the finance gap is being filled.** This approach seeks to include not only public grant finance, but also private investments, the face value (not only the grant element) of concessional loans[13], and even market-rate commercial loans.[14]

By definition, loans and private investments will inevitably seek repayment – with interest or profits except in the case of highly concessional loans – which the poor cannot afford to repay. Especially for adaptation, these approaches would create an unfair burden on those who did not cause climate change in the first place; and they may ultimately serve to increase developing countries' levels of poverty, debt and obligations to developed countries. As many decades of international debt dynamics have shown, rich contributor countries and international financial institutions would also likely gain significant and unwelcome influence over developing countries' policymaking.

Furthermore, the experience of climate finance to date shows that the vast majority of international climate finance has flowed to mitigation projects (which often can be profitable for a foreign investor) in middle-income countries. According to OECD-CPI figures, 77% of total climate finance in 2013-14 was for climate change mitigation only, 16% for adaptation only, and 7% for activities designed to address both adaptation and mitigation. Over 90% of private climate finance mobilised in this period targeted mitigation.[15] There is a huge gap in adaptation finance, especially for the poorest countries in the world. If future climate finance is comprised mainly of private investment or non-grant financial instruments, adaptation in these countries will continue to be under-funded, further perpetuating an existing injustice.

Climate Justice and ActionAid's human rights-based approach in the UNFCCC

ActionAid views the problem of climate change from the perspective of inequality. The climate crisis we face today is a result of greenhouse gas emissions produced by careless industrialisation in developed countries over the last 150 years. Climate change is not just a consequence of the inequitable use of natural resources, but is now one of the greatest obstacles to ending impoverishment and inequality and to realising full human rights. All of our work is premised on the inherent dignity of all people.

13. Concessional loans are often known as "soft" loans, and usually have lower interest rates or longer grace periods than those available on the market, to reduce the cost to the borrower.
14. *Climate Finance in 2013-2014 and the USD100 billion goal*, OECD-CPI
15. *ibid.*

It is widely accepted that climate change disproportionately affects the world's poorest people. It is increasingly recognised that climate change is driven heavily by overconsumption and overexploitation of resources by the wealthy elite, enabled by highly deregulated market economies.

This illustrates a deep injustice. The communities that are most in need of adaptation are those that are poor, marginalized, and thus highly vulnerable to climate impacts such as droughts, floods, storms, sea level rise, and so on. Climate change is an additional challenge that undermines efforts to eradicate poverty. Yet these communities also tend to be those that are *least* responsible for causing the problem. Because of this injustice, rich countries have a moral obligation to support poorer countries in adapting to a crisis not of their making.

While developing countries are accountable to their citizens, and have an obligation to enable them to adapt, the international aspect of climate justice requires developed countries to provide support to developing countries for adaptation and dealing with climate impacts.

The UNFCCC is therefore a key institution for bringing about climate justice, where all countries should be treated equally regardless of their income. It has the capacity and the mandate to devise a system in which the costs of climate action are shared equitably among countries based on their historical responsibility for causing climate change, their capacity to implement solutions, and their developmental needs.

Why climate finance must be new and additional

In addition to being public and grant-based, climate finance must also be new and additional to ODA, so that existing financial assistance for development is not slashed to pay for mitigation or adaptation finance. Climate change *exacerbates* development challenges; it does not *replace* them. Clear and transparent accounting from contributor countries is absolutely necessary to ensure that the same flows of money are not "double counted" as both ODA and climate finance, as currently happens. These are two complementary but separate obligations.

Adaptation finance is meant to cover the incremental costs of adapting to man-made climate change. However, as many developing countries already have huge development deficits, it will be impossible for them to simply start adapting to the incremental impacts of future climate change. A city cannot raise a flood defence by a metre if it does not have one in the first place. A farmer cannot improve her irrigation efficiency if she lacks an irrigation system. First of all it is necessary to close the development deficit. This situation has led many to throw up their hands at the impossibility of distinguishing adaptation interventions (and therefore costs) from development interventions. However, this largely academic argument should not be used as an excuse for failing to provide the required finances for adaptation in addition to conventional development spending.

The development deficit cannot be filled by ODA alone: developing countries must be enabled to improve their domestic resource mobilisation capacity. This has many facets and goes beyond the scope of this report, but international cooperation to tackle tax dodging by multinationals and big foreign companies conducting affairs in developing countries is one important part,[16] as are capacity development for the raising and collection of taxes, debt cancellation, and trade and investment regimes that allow countries the necessary policy space to serve the interests of their citizens and environment, rather than prioritizing the needs of foreign investors and multinational corporations.

The cumulative and annual shortfalls in ODA,[17] and the ongoing debt payments developing countries face,[18] underline how starkly current shortfalls in adaptation finance are being felt by developing countries and their poorest, most climate-vulnerable citizens.

16. ActionAid 2015, Levelling up: Ensuring a fairer share of corporate tax for developing countries. http://www.actionaid.org.uk/sites/default/files/publications/levelling_up_final.pdf
17. In 2014, OECD DAC members provided an average of 0.29% of GNI in ODA, leaving a shortfall with respect to the 0.7% target of $190bn. In 2013, this shortfall was $180bn: $135bn of ODA was provided, whereas 0.7% of GNI would have amounted to $315bn. (See Annex II.)
18. In 2013, developing countries paid US$732bn in debt servicing, of which US$153bn was interest payment. US$81bn went to official creditors. (See http://data.worldbank.org/data-catalog/international-debt-statistics)

Examples of adaptation

Land reclamation, The Gambia

The North Bank region of the Gambia River is a formerly fertile area on which generations of farmers have lived and farmed. Rice, peanuts, couscous, green peas, millets, as well as fruit trees such as banana, mango and cashew nuts have traditionally been important for local food security, nutrition and livelihoods.

For the last decade or more, however, rising sea levels caused by climate change have increasingly brought salt water into the fresh water of the Gambia River, and flooded the low-lying banks all along the river. Communities have suffered major crop losses due to salt contamination, and soils have become infertile.

The loss of fertile land has meant that families have lost their major source of livelihoods, as well as their main source of staple food and nutrition. Struggling families who are left behind have had to choose between buying rice to eat and paying for their children's school fees.

Many thousands of hectares of land along the Gambia River have become saline, been abandoned and are no longer farmed as a result of rising sea levels caused by climate change.

But now, some major adaptation investments along the banks of the river are showing dramatic results.

Lamin Jarju of Gambian community-based organisation Agency for Development of Women and Children (ADWAC) stands atop a 4km-long dyke, recently built near the village of Salikene as part of a land reclamation project funded by the Spanish Agency for International Cooperation (AECID).

Along the length of the dyke are "spillways" which act as gates to prevent salt water intrusion and regulate the flow of rainwater out of the fields and into the river.

The new dykes are finally helping the community to adapt to climate change impacts, by acting as a barrier to protect the fields from the saline water of the river. Now when the rains come, the community monitors and manages the system to allow the rainwater to collect behind the dyke and dissolve the salt that has accumulated in the fields. The spillway is then opened, allowing the salt water to drain away. By repeating this process regularly during the rainy season, the community can successfully flush away the salt and reclaim the land for agriculture.

The dykes and spillways have the additional benefit of retaining and controlling the level of rainwater to ensure that there is enough water for the growing season.

The Salikene dyke was built in 2012, and farmers began planting that year, for the first time in many years. Crops have already been harvested as a result of the successful land reclamation.

"We have seen a very significant transformation in the livelihoods of the people here," explains Lamin. "The potential here is very high. If the dyke is managed well, and if it can capture enough water, the area may be able to produce rice year-round.

"This project has reclaimed over 2,000 hectares of land. Every household in Salikene is now producing rice here. The entire community are farmers. So this 4 km dyke is now taking care of the livelihoods of

4,000 people. And we hope this is going to increase because more people are coming back from the urban areas to join their families and do production on this land."

Nyarra Fatty, a woman farmer and trader in the market agrees. "Before the construction of the dyke we had a lot of difficulties because the rice fields in the swampy areas were abandoned due to salt intrusion.

"But when the dyke was constructed, we started using those rice fields. We get a lot of rice from there, and that is improving our livelihood."

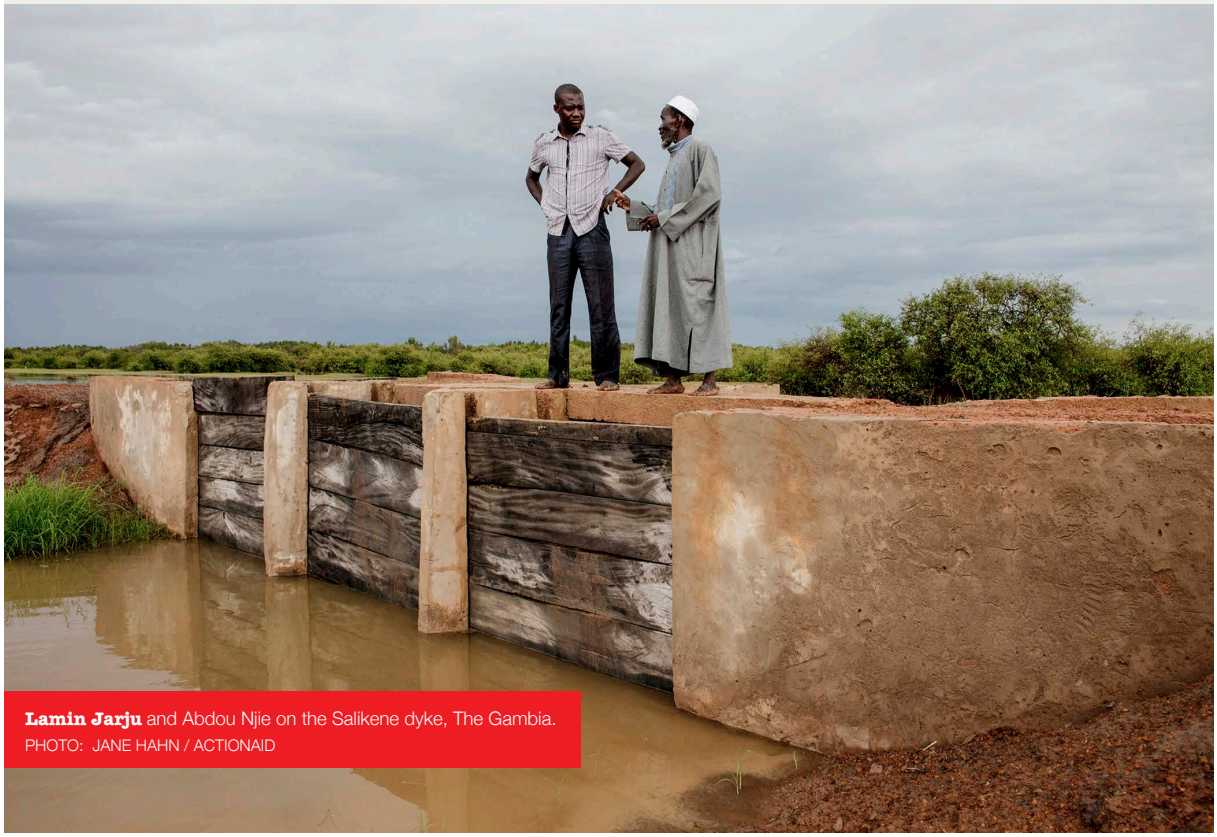
But this effective adaptation has not come cheap.

"It costs between 12 million and 15 million Dalasi (US $306,000 - $383,000) to be able to make this 4km dyke," explains Lamin. "It is really a very expensive capital investment project."

However the government of The Gambia does not have the money available to invest in all such climate-affected communities across the country. As a least-developed country (LDC), the costs of helping the nation's population to adapt to climate impacts are far beyond its means. Other farming communities along the Gambia River desperately need investment that the government simply cannot afford without the help of the international community.

Binta Fadera, from the village of Juffureh further along the river bank, has a message to world leaders. "We want these kinds of projects in our villages. Let them help us with these kinds of projects to improve our livelihoods in this climate change.

"I'm appealing to all the leaders to help us so we can take care of our families."



Lamin Jarju and Abdou Njie on the Salikene dyke, The Gambia.
PHOTO: JANE HAHN / ACTIONAID

Part V: Key policy needs beyond finance for adaptation

Beyond the limits of adaptation: loss and damage

This report focuses on the finance that is needed to support adaptation efforts in the context of today's world at 0.85°C above average pre-industrial temperatures, with an eye towards what will be needed in a world with 1.5° or 2°C of warming. Unfortunately, as mentioned before, currently the world is on track for global temperature rise of 3°C or more by the end of this century.

We are already beginning to witness impacts that are too severe for people to adapt to. There are already clear limits to adaptation, and these will become tragically clearer as global temperatures continue to rise. At 3°C or more, adaptation may not even be possible in some situations. These limits may be physical, ecological, technological, economic or social. When these limits are exceeded, climate change leads to loss and damage. This could be mass migration, loss of human life, loss of livelihoods and food security, or damage to culturally important sites, for example.

Loss and damage is a separate phenomenon from adaptation, and it requires a different set of policy responses. Loss and damage must therefore be a separate pillar of the new climate agreement in Paris this year, alongside adaptation and mitigation.

Hawa Jammeh shows the impact of salt intrusion, Nema Kunku, The Gambia.
PHOTO: JANE HAHN / ACTIONAID

Recognising the links between mitigation, adaptation and loss and damage:
The need for a global goal on adaptation

The amount of future adaptation required by developing countries will greatly depend on the speed and effectiveness of mitigation action done in the next years and decades. As implied above, many adaptation efforts designed for a 2°C warmer world are likely to fail in a 3°C or warmer world.

The UNFCCC must therefore consider mitigation, adaptation and loss & damage as separate issues, but also consider the ways in which they are interlinked. Each of these three pillars represents qualitatively different responses to climate change that all exist on a continuum: the weaker our mitigation efforts, the greater our adaptation efforts will need to be. The weaker our mitigation and adaptation efforts, the more loss and damage we will face.

UNEP states that adaptation costs will rise after 2030 from around US$150 billion per year to around US$250-500 billion per year by 2050 if warming is limited to within 2°C. However, if we fail to take necessary and urgent mitigation action, we could be heading towards 4°C warming or worse. In this scenario, UNEP estimates that adaptation costs by 2050 are likely to be double this number, i.e. between US$500 billion and US$1 trillion per year. In fact, it seems likely that this doubling of costs significantly underestimates the real impact of poor mitigation performance.

Looking further ahead, whilst acknowledging increasing levels of uncertainty, UNEP's *Africa's Adaptation Gap* report suggests that by 2100, Africa's adaptation costs (including loss and damage) at full adaptation effort would reach 1% of African GDP with 2°C of warming but 4% with 4 degrees of warming. Without adaptation, loss and damage costs would rise to 7% of GDP. This indicates that loss and damage will increase substantially if mitigation and adaptation efforts are insufficient.

Thus, the more we do now to reduce our greenhouse gas emissions, the less the planet's weather systems will be disrupted, reducing the pressure and future costs associated with adaptation, and with loss and damage from climate impacts. On the other hand, failure to take urgent mitigation action will mean even higher average global temperatures, and the associated costs of adaptation and addressing loss and damage will increase accordingly.

A human rights-based approach to adaptation means that sufficient support for vulnerable and poorer countries and communities to cope with the increasing impacts of climate change must be guaranteed regardless of the global temperature scenario. In order to enable sufficient adaptation and preparedness at different temperature scenarios, a Global Goal on Adaptation is needed in the new global climate agreement.

A UNFCCC Global Goal on Adaptation would recognize that requirements for adaptation and addressing loss and damage – including the levels of finance needed to support appropriate action to safeguard lives and livelihoods – will depend on mitigation trajectories.

This global goal will not only drive adaptation, but will also incentivize scaled-up mitigation action, and minimisation of loss and damage, by creating a process to ensure sufficient finance and other support is provided to meet adaptation costs at different temperature scenarios.

Making the global goal on adaptation operational

The new UN climate agreement must include a Global Goal on Adaptation that recognises that requirements and finance for adaptation and addressing loss and damage will depend on mitigation ambition and action in the short-term. It must aim to build resilience of people and ecosystems to the impacts of climate change. The goal must contribute towards the fulfilment of human rights, and address inequality in order to achieve sustainable development. The goal should minimise avoidable loss and damage through scaled-up adaptation and Disaster Risk Reduction (DRR) efforts.

To further ensure that developing countries have the means to adapt to different climate scenarios,[19] adequate financial and technical resources for adaptation will be needed, and these must be in line with increasing impacts due to temperature rise and corresponding increased needs of developing countries.

Institutions will need to be created or strengthened, from national to global level, to ensure that National Adaptation Plans are developed and implemented, and to enable linkage, learning and financial support. Such adaptation institutions can also benefit from linkages with other relevant international efforts on DRR and achieving the Sustainable Development Goals (SDGs).

To assess progress on adaptation milestones, ensure accountability and respond to temperature rises, the UNFCCC must develop indicators and targets. To ensure that these are fair and do not put an undue burden on poorer countries, the indicators must take account of institutional capacity, while holding both developed contributing countries, and developing implementing countries to account. Reviews must be held periodically, to assess progress and requirements according to mitigation and temperature trajectories, to drive progress towards building resilience for all.

19. These objectives were developed by ActionAid, building on the initial work of WWF, in collaboration with fellow members of climate action networks (CAN), and were originally published here: http://www.climatenetwork.org/blog/building-global-adaptation-goal

Conclusion & recommendations

With global temperatures expected to continue rising in the coming decades, the need for developing countries to scale up their adaptation efforts has never been more urgent. But without financial support from wealthy developed countries that are responsible for causing climate change, vulnerable countries and communities will simply be unable to cope with the challenges ahead.

Our analysis finds that, based on highly conservative estimates of the cost of global adaptation needs and a division of these costs into "fair shares" for contributor countries, there is a massive adaptation finance gap. **No contributor country is giving its fair share of adaptation finance, and almost none are anywhere near it – especially if we rule out dubious accounting practices such as the inclusion of loans. Very little of adaptation finance is additional to ODA, and the vast majority of it is double-counted."**

Yet while the numbers are daunting, they pale in comparison to the cost of inaction – economic as well as non-economic costs, such as loss of countless lives and livelihoods. Furthermore, they become considerably less daunting when compared to government expenditures in other areas, including defense, fossil fuel subsidies, lost revenues to tax avoidance schemes, and more. It is clear that even though our figures are large, we are not facing a shortfall in money, but rather in political will.

Two key policy recommendations flow from our findings:

- **Developed countries must significantly raise their ambition in providing adaptation finance, at levels that accord with the fair shares calculated in this report. This must be additional to ODA commitments, and in the form of public grants.**

- **The new global climate agreement must include a Global Goal on Adaptation, which establishes a link between different temperature rise scenarios and resulting impacts, future adaptation finance targets, and the costs of addressing loss and damage.**

Training government extension workers on climate-resilient sustainable agriculture in The Gambia

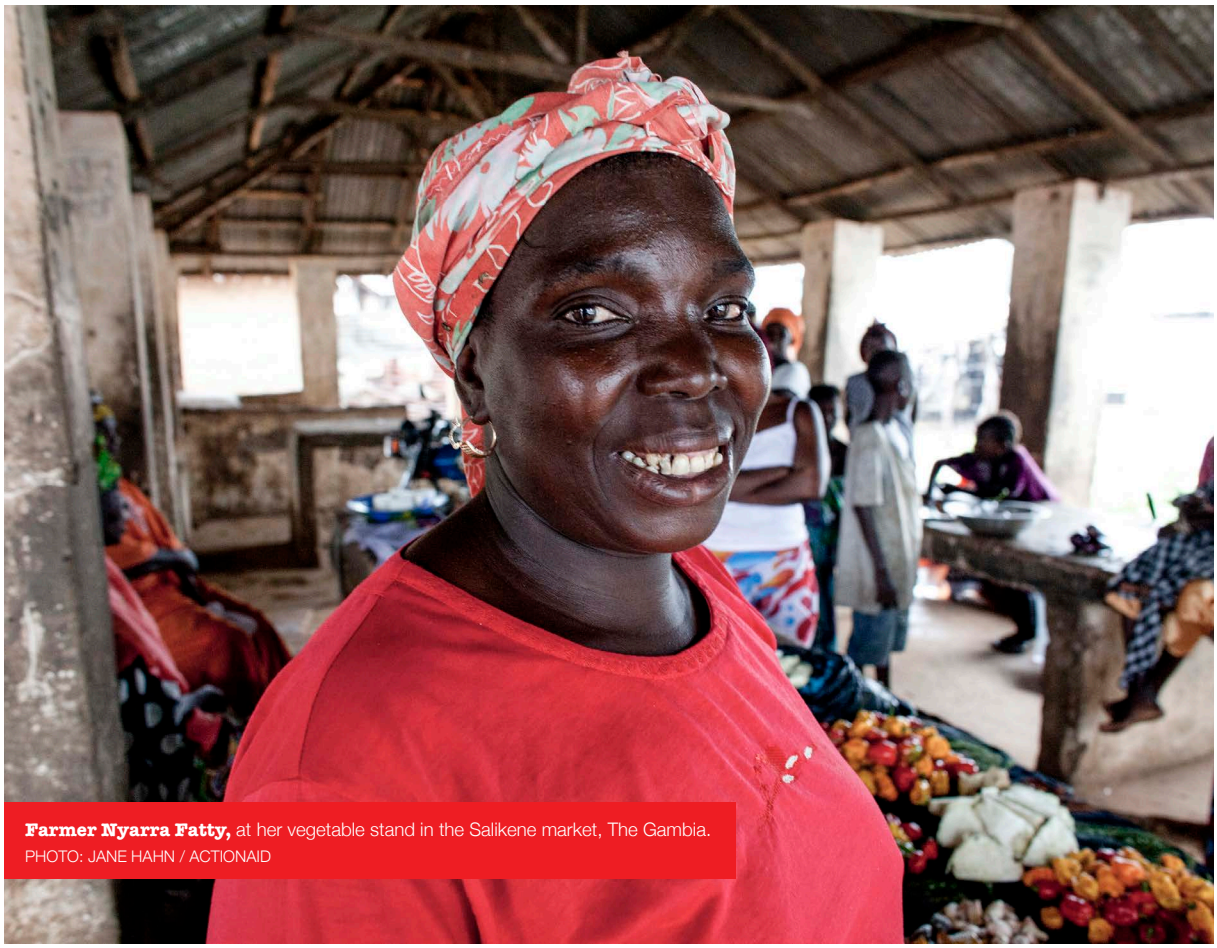
In 2011-12, The Gambia and the wider Sahel region were hit by a severe drought that caused wide-spread crop failures and food insecurity. As a result, the Gambian government became highly aware of the population's vulnerability to climate change.

ActionAid The Gambia offered to collaborate with the government to strengthen farmers' resilience. They now provide training in Climate Resilient Sustainable Agriculture (CRSA) techniques based on agro-ecological principles, to government extension workers across the country. This has helped thousands more farmers than could have otherwise been reached to adapt their farming systems to climate change and to become more resilient.

When surveyed, extension workers were convinced of the value of CRSA techniques for increasing farmers' resilience to climate change, and strongly encouraged the government to further expand their training for greater impact.

But according to Alpha Jallow, The Gambian government's UNFCCC focal point, scaling up the necessary training for adaptation will be impossible without significant international financial support.

"If there is more finance we will go beyond the current level we are at. Otherwise we can only do a few training and sensitisation sessions annually for farmers and extension workers. We are limited by the funding that we currently have."



Farmer Nyarra Fatty, at her vegetable stand in the Salikene market, The Gambia.
PHOTO: JANE HAHN / ACTIONAID

Annexes

Annex I: Why current estimates of adaptation costs are unfair to developing countries – a political analysis

In Part III of the report, we present a list of omissions commonly made in studies that estimate adaptation costs for developing countries. ActionAid finds that certain further assumptions or methodological choices are often made that are inequitable or unfair to developing countries and to climate-vulnerable people.

a. **Adaptation must not shift climate risk from the rich to the poor and vulnerable:** Some studies include climate insurance, including schemes whereby developing country smallholders have to pay premiums to access insurance payouts when adverse weather strikes, as an adaptation solution. Firstly, insurance cannot be considered a form of adaptation - it should be considered a form of compensation for loss and damage. More importantly, farmers with no responsibility for climate change should not have to shoulder the burden of climate risk transferred onto them from rich nations in schemes through which insurance company shareholders profit from the effects of climate change for which their nations bear responsibility.

b. **Adaptation must not undermine the right to food:** The major World Bank study allows food import dependencies of developing countries to increase considerably as an adaptation response, thereby resulting in lower adaptation costs. According to the EC-funded ECONADAPT review, "[s]tudies that report very low adaptation costs generally assume very high levels of trade - and imply huge changes in levels of imports in some countries, ignoring the costs that would be borne by local farmers as part of this transition, as well as the externalities associated with lower food security levels."[1]

c. **Adaptation must not diminish policy space or sovereignty:** Some estimates of adaptation costs are based on adaptation options that are not societally accepted in the countries where they are envisaged in modelling. Examples include the use of genetically modified crops.

d. **Unequal values put on life and property:** A life is a life, and the value of life should not depend on geography or wealth. However, adaptation cost estimates are based on the assumption that the life of a human from a developing country is worth less than the life of a human from a rich one. The same holds true for infrastructure and property. The same level of protection to climate risk should be afforded to all countries and all people when calculating adaptation costs. Such undervaluing of human lives also means that studies tend to allow for more loss and damage and less adaptation, considering more death to be economically "optimal".

e. **Beyond money – the cost of inequality:** Since climate change hits the most vulnerable, including women, the elderly and the sick, hardest, it tends to amplify inequalities within and among nations. These increases in inequality bring with them associated costs for society, which are not reflected in the estimates.

1. See http://econadapt.eu/.

Annex II: Additional figures on adaptation finance fair shares and ODA gaps

Table 3: Adaptation finance fair shares for 2020, 2025 and 2030

In Table 3 we present the responsibility and capacity index (RCI) values and fair shares of adaptation finance for 2020, 2025 and 2030 using two different equity settings: strong (with an 1850 baseline for GHG emissions and highly progressive income accounting) and medium (with a 1950 baseline for GHG emissions and weakly progressive income accounting).

Country/ group	2020						2025						2030					
	RCI (%)		Adaptation fair share ($bn)		Adaptation fair share (% GDP)		RCI (%)		Adaptation fair share ($bn)		Adaptation fair share (% GDP)		RCI (%)		Adaptation fair share ($bn)		Adaptation fair share (% GDP)	
	1850 strong	1950 medium	1850 strong	1950 medium	1850 strong	1950 medium	1850 strong	1950 medium	1850 strong	1950 medium	1850 strong	1950 medium	1850 strong	1950 medium	1850 strong	1950 medium	1850 strong	1950 medium
Australia	2.6	2.2	1.7	1.7	0.11	0.11	2.6	2.1	4.4	4.1	0.26	0.24	2.5	2.1	3.9	3.5	0.20	0.18
Bangladesh	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00
Brazil	3.3	3.5	0.0	0.0	0.00	0.00	3.3	3.5	5.7	6.7	0.23	0.27	3.3	3.5	5.3	5.9	0.17	0.19
China	5.7	8.1	0.0	0.0	0.00	0.00	7.1	9.4	0.0	0.0	0.00	0.00	8.6	10.7	13.5	18.0	0.04	0.06
Denmark	0.5	0.4	0.3	0.3	0.09	0.09	0.5	0.4	0.9	0.8	0.23	0.21	0.5	0.4	0.8	0.7	0.19	0.16
EU[i,iv]	21.9	24.0	14.3	18.5	0.07	0.09	21.4	23.3	36.9	44.1	0.17	0.20	21.0	22.7	33.2	38.0	0.14	0.16
France	3.3	3.4	2.1	2.6	0.07	0.09	3.2	3.3	5.5	6.2	0.17	0.20	3.1	3.2	4.9	5.3	0.14	0.15
India	0.1	0.5	0.0	0.0	0.00	0.00	0.1	0.7	0.0	0.0	0.00	0.00	0.1	1.0	0.0	0.0	0.22	0.00
Japan	7.4	7.0	4.8	5.4	0.10	0.11	7.2	6.7	12.4	12.8	0.25	0.26	7.0	6.5	11.0	10.8	0.00	0.21
Malawi	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.11	0.00
UK	3.8	3.8	2.5	2.9	0.06	0.08	3.7	3.7	6.3	7.0	0.15	0.16	3.6	3.6	5.6	5.9	0.21	0.12
USA	40.4	29.3	26.3	22.6	0.12	0.10	39.2	28.4	67.5	53.9	0.27	0.21	37.8	27.4	59.5	45.9	0.18	0.16
Annex II[ii,iv]	76.8	65.0	50.0	50.0	0.10	0.10	74.7	62.9	128.5	119.3	0.23	0.21	72.3	60.7	113.9	101.4	0.13	0.16
High income[iii,iv]	85.1	76.6	55.4	58.9	0.09	0.10	87.2	79.1	150.0	150.0	0.21	0.21	95.2	89.7	150.0	150.0	0.00	0.13

Table 4: ODA gaps by country and group

In Table 4 we show the gap between the target to which advanced economies committed in a UN resolution of 1970 of providing 0.7% of GNI for official development assistance (ODA) and the ODA actually provided in 2013. We used projected values of GNI for 2020 and 2025 to calculate the ODA owed in these years. See online Annex IV for details of methodology.

Country/group	Annual ODA gap in 2013	Annual ODA gap to bridge by 2020	Annual ODA gap to bridge by 2025
Australia	$5.4bn	$5.9bn	$7.4bn
Denmark	-$0.5bn	-$0.3bn	-$0.1bn
EU[i,iv]	$47.3bn	$63.0bn	$75.8bn
France	$8.2bn	$9.1bn	$10.7bn
UK	-$0.2bn	$7.6bn	$10.9bn
USA	$89.6bn	$130.2bn	$152.3bn
Annex II[ii,iv]	$169.5bn	$222.7bn	$261.1bn
High income[iii,iv]	$181.8bn	$233.6bn	$274.4bn

i Note the fair share for the EU is the combined fair share for high-income country members of the EU only.

ii Annex II countries are those countries responsible, under the UNFCCC, for providing support to developing countries for their climate change efforts, including financial support for adaptation.

iii High income denotes all countries that we classify as contributors to adaptation finance for developing countries: these comprise those countries that have been high-income countries, as defined by the World Bank, for three successive years.

iv ODA (and ODA gap) is only included for OECD DAC members.

Annex III: Summary of methodology applied

Summary of methodology used to calculate fair shares of adaptation finance

We first reviewed literature and consulted experts to determine the most credible yet conservative targets for total adaptation finance for developing countries in 2020, 2025 and 2030. In the absence of a widely accepted, science-based adaptation finance need for 2020, we started from the political agreement made in the Copenhagen Accord of 2009 to mobilise US$100 billion per year in climate finance by 2020. We determined that half of this should be allocated to adaptation, and that all of this US$50 billion should be provided in public grants by Annex II members. Other rich nations should contribute proportionately. For 2025 and 2030, we used UNEP's figure of US$150 billion per year, which they indicated as the most plausible total in their *Adaptation Gap Report* of 2014.

To determine fair shares of these totals, we applied the following steps:

1. **Look up responsibility and capacity index (RCI) values**, as provided by the Climate Equity Reference Calculator (CERC)[2]

- The RCI combines measures of responsibility (given by a country's share of global cumulative GHG emissions) and capacity (given by a country's share of global income). It represents the percentage of global climate effort a country should contribute if all countries do so.
- The RCI can be evaluated for different equity settings. For the figures shown in the main body of this report, we chose the most equitable settings. This means we chose 1850 as the baseline year for cumulative GHG emissions. We also chose the most progressive form of income accounting, which only includes income of an individual above a "development threshold" of US$7,500 (PPP) per year and only counts a percentage of their income above this threshold that starts at zero and rises to 100% when their income reaches a "luxury threshold" of US$50,000 (MER). We also gave equal weight to the responsibility and capacity components of the index.
- We show fair shares resulting from less equitable settings in Table 3, Annex II. The medium equity setting uses 1950 as the baseline for GHG emissions and includes the same development threshold for income but then counts all income above this threshold.

2. **Impose the condition that only rich countries should contribute**

- The set of contributor countries in 2020, 2025 and 2030 should reflect the graduation of countries out of developing country status by these years. We therefore selected as the main criterion for a country to be categorized as a contributor their having been a high-income country (HIC) for at least three consecutive years. The World Bank developed this classification and currently a country must have a GNI per capita of over US$12,736 (calculated using the World Bank's Atlas method) to be classified as a high-income country. This classification is also used by the OECD Development Assistance Committee to determine eligibility for ODA: once a country has exceeded the HIC threshold for three consecutive years, it is no longer eligible to receive ODA. We recognize that GNI per capita is an imperfect measure of country capacity and citizens' well-being, and that World Bank and OECD methodologies exist outside the UNFCCC context. In the absence of a more widely-accepted method for categorizing countries as "contributors" of climate finance up to 2030, we used this threshold combined with additional case-by-case analysis of borderline cases in order not to include among contributors countries whose poverty levels were - or were likely to become, including as a

2. http://calculator.climateequityreference.org/

result of climate change - so high that it would be unreasonable to expect them to contribute to international adaptation finance. In practice, the set of contributor countries and their fair shares should be reviewed periodically and confirmed, say, five years in advance. (See online Annex IV for more details http://www.actionaid.org/publications/mind-adaptation-gap/annex)

- We then used projections for growth in GNI per capita and case-by-case analysis of issues like poverty levels and climate vulnerability to identify countries likely to meet the conditions for becoming contributors in 2020, 2025 and 2030.
- We then scaled up, for each year, the fair shares for contributors so that the total adaptation finance target would be met by contributors alone. This involved adding up the total RCI for all contributors in each year.

3. Express fair shares both in dollars and as percentage of GDP

- In order to express the fair shares of adaptation finance as percentages of GDP for each year in question, we used IMF projections for GDP in 2020 and the most credible and internally consistent projected growth rates we could find for the period from 2020 to 2030 to estimate GDPs in 2025 and 2030.[3]

Summary of methodology used to estimate adaptation finance provided in 2013

On the basis of an analysis of reporting methods used for climate finance, we decided to use the project-level data from the OECD on climate-related development finance[4] as the source of our raw data.

We count only grants, not loans, in accordance with the principles of climate justice. We include 100% of grants for projects which have adaptation marked as a principal objective and 30% of grants for projects which have adaptation marked as a significant objective. We also include the share of finance spent on adaptation by multilateral development banks and climate funds that can be attributed to core contributions from contributor countries. This is known as the "imputed multilateral contribution".[5]

For our global estimate of adaptation finance provided for developing countries in 2013 we state a range of US$3–5 billion. The lower end of the range includes 100% of grants for projects with adaptation marked as a principal objective. The upper end of the range also includes 30% of grants for which adaptation is marked as a significant objective. Both ends of the range include the total amount of imputed multilateral contributions of US$0.7 billion. Our estimates for adaptation finance provided by countries and groups of countries shown in tables and used in calculations use the upper end of the range only.

(Please see Annex IV online for more information detailing how we derived these numbers: http://www.actionaid.org/publications/mind-adaptation-gap/annex)

3. We used the projected growth rates used by USDA for 2020 to 2030: http://www.ers.usda.gov/data-products/international-macroeconomic-data-set.aspx
4. http://www.oecd.org/dac/stats/climate-change.htm
5. See http://www.oecd.org/dac/environment-development/Climate-related%20development%20finance_June%202015.pdf.

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FRONT COVER:
FATOU SARR SHOWS THE DRY AND SALTY SOIL IN HER RICE FIELD, SENEGAL.

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