

# Climate Finance - Policy Brief

## Leveraging climate finance for the Global South

Context and tools – a brief overview

by Dr. Matthias Kroll



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## 1. Introduction

In 2015, world leaders agreed to limit global temperature increase, caused by human induced greenhouse gas emissions, to well below 2.0°C, ideally to 1.5°C with the Paris Climate Agreement. They also set a deadline for net zero greenhouse gas emissions in the second half of the century to combat the climate crisis. A massive scaling up of global renewable energy is necessary in order to remain below this dangerous benchmark.

Scaling up renewable energy can also mean delivering on other important factors of sustainable development: creating jobs, improving health, strengthening gender equality, reducing economic inequalities, protecting ecosystems and reaching 100% energy access. The conversion of wind-power and solar radiation into electric and thermal energy has no extra fuel cost, this means large amounts of fuel-imports and related costs will be saved. Furthermore, switching to renewable energy on a global scale requires only a fraction of costs that otherwise would be needed for energy generation.

However, much in contrast to the many announcements about increasing green finance, global RE-investments have stagnated since 2011, at around \$300bn<sup>1</sup> per year. Yet, an amount in the scope of \$2.4tn is necessary to finance an energy transition in line with 1.5°C.<sup>2</sup> The bulk of that investment happened in high income countries and China while only a very small part was invested into renewables in the Global South.<sup>3</sup> Only 0.1% of total clean energy investments accumulated in the 31 poorest countries between 2009 and 2018.<sup>4</sup> Yet, the main barrier to more RE-investments in the Global South is not a lack of (green) investment capital, but rather a lack of bankable projects.<sup>5</sup>

A basic conditions for any investor to engage in the energy sector is the upfront investments needed for the power plants, and different (perceived) risks, such as technological or regulatory risks associated with policy interventions such as subsidies. Despite the absence of any fuel costs for many

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<sup>1</sup> Cf. FS – UNEP; Global Trends in Renewable Energy Investment 2019, p.21

<https://wedocs.unep.org/bitstream/handle/20.500.11822/29752/GTR2019.pdf?sequence=1&isAllowed=y>

<sup>2</sup> The IPCC estimated annual investment of \$2.38tn per year between 2015 and 2035. See: [ipcc.ch/sr15,chapter4, p.87 https://report.ipcc.ch/sr15/pdf/sr15\\_chapter4.pdf](https://report.ipcc.ch/sr15/pdf/sr15_chapter4.pdf)

<sup>3</sup> cf. Climate Finance Leadership Initiative; Financing the Low-Carbon Future, September 2019, p.29 [https://data.bloomberglp.com/company/sites/55/2019/09/Financing-the-Low-Carbon-Future\\_CFLI-Full-Report\\_September-2019.pdf](https://data.bloomberglp.com/company/sites/55/2019/09/Financing-the-Low-Carbon-Future_CFLI-Full-Report_September-2019.pdf)

<sup>4</sup> Ibid. p. 6.

<sup>5</sup> cf. IRENA; Scaling up renewable energy investment in emerging markets, 2018, p.3 [https://coalition.irena.org/-/media/Files/IRENA/Coalition-for-Action/Publication/Coalition-for-Action\\_Scaling-up-RE-Investment\\_2018.pdf](https://coalition.irena.org/-/media/Files/IRENA/Coalition-for-Action/Publication/Coalition-for-Action_Scaling-up-RE-Investment_2018.pdf)

renewable energy sources, the required capital investments for renewable energy technologies remain an important barrier.<sup>6</sup>

The main challenge for legislators, member of parliaments (MPs) and policy makers in the Global South is to overcome these challenges for a clean energy transition and put in place frameworks which enable the scaling up of national climate finance to accelerate deployment of renewables. After all, the business case of renewable energy is not different from anywhere else; ultimately, investors expect sufficient monetary revenues for their investments but at price that is affordable for the respective community (SDG 7 - affordable clean energy for all, on the other side). As different finance tools and instruments are increasingly being tested in practice, we gain better understanding of what works well and what can be improved.

This paper provides an overall assessment of climate finance mechanisms in the context of domestic and international finance in the Global South. Due to the concise nature of the paper, examples from the Global South, where strategies to access climate finance have been effective, have not been provided, but further information is indicated where appropriate.

## 2. Create enabling frameworks to increase RE financing by minimizing investment risk

Decisions about new energy infrastructure can have an enormous impact on the mid- and long-term development of a country. Larger investments today, for example, new fossil fuel technologies are likely to become stranded assets. With emissions due to be taxed, they soon become a financial burden that will have to be factored into overall calculations when assessing economic viability. Scaling up renewable energy also requires some mid- and long term thinking since the upfront costs require a sustainable pay-back mechanism over time. Therefore, a legally stable and reliable investment environment helps to increase investment security. Especially, if existing government subsidies are the basis for making RE-investments profitable.

Countries of the Global South who want to increase their share of renewables in the energy sector must therefore create an enabling environment for investments, especially adapted to the characteristics of renewable energy. This first and foremost includes a roadmap outlining the local

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<sup>6</sup> cf. OECD, UNEP, World Bank Group; Financing Climate Future, 11/2018, p.24 <https://www.oecd-ilibrary.org/docserver/9789264308114-en.pdf?expires=1570716710&id=id&accname=guest&checksum=8B35EA9C980F72FFB3C87174F0FF2BC7>

RE-potential, a decent policy analysis, plus concrete project proposals including capacities, site information and budget plans.

This roadmap should analyse the existing legal and policy framework as well as the one necessary in order to implement the roadmap. This would also require an analysis of how credit guarantees could attract investors. It should further identify how many grants would be required from international climate finance institutions (e.g. the GCF) or through partnerships with industrialised countries to make projects bankable. The relevant country, together with a Development Financial Institutions (DFI), could proceed by turning such a roadmap into implementable, calculable and low-risk projects for investors.

Partners should then identify the amounts of financial resources available in their domestic currency and additional credits needed from foreign sources in other currencies, in order to pay for the bulk of the RE equipment imports. Building the investment also on local currency is crucial as revenues from selling the electricity will be in respective domestic currencies, while repayment of the international investors will be undertaken in a foreign currency. Hence, small shares of foreign investments mean higher independence from potential currency fluctuations. Ultimately, it could avoid a destabilisation of the local currency as the necessity to change huge amounts of home currencies into foreign currency (probably mostly US-Dollar and Euro) is small. Changing huge amounts of home currencies to meet reimbursement requirements of credits could lead to a permanent devaluation pressure of the domestic currency.

In economic terms, if the demand for a currency decreases, the price of that currency will also decrease. This volatility of the exchange rate would be a source of new financial risk. In the current global financial system, each country would need to increase their own exports to gain additional US-dollars (or other important foreign currencies) to compensate for the resulting imbalance. The problem of currency imbalance can be reduced, if the new renewable energies substitute imported fossil fuels which were paid for with foreign currencies. The saved foreign currencies can offset the sums needed for the imported RE equipment. In many cases in the Global South, the use of renewable energy will lead to reducing costs for land cultivating by farmers and reduce the dependency of the imported fuels for diesel generators.

If such adjustments are not possible the devaluation pressure will remain a source of financial instability. In the case of a devaluation, an increased sum of home currency is necessary for covering the same sum of in the redemption rate in terms of the foreign currency. To meet these additional burdens, raising energy prices becomes necessary and achieving the 'affordable energy for all' goal (SDG 7) will be difficult.

## 3. Sources of public climate finance instruments

The level of electricity prizes and the affordability of energy for all remains one of the most relevant success factors of a modern energy sector. The deployment of public finance instruments therefore should play an important role in future designs of energy markets as they can help bridge the gap between consumer prices and profitability for investors. Public finance can help in attracting investments from the private sector as risks associated with projects decline.

### 3.1. Domestic public finance instruments

Countries have a range of instruments at their disposal, in order to scale up RE investments domestically and independently from international investors. Most prominent examples are:

- **Shifting taxes:** Unburden the production and selling of electricity generated with renewable energies from domestic taxes or fees as a mean to decrease the energy price and to ensure affordability. It could also be considered whether a shift of taxes towards increased fossil fuel taxes is possible.
- **Redirecting subsidies:** Domestic subsidies for fossil fuel energies could be redirected towards the use of renewable energies. Any RE roadmap developed should quantify the amount of fossil fuel subsidies in the respective country and already stipulate necessary steps for re-direction into renewables.
- **Small/micro and medium credits:** Domestic public banks could be requested to offer small or medium credit for micro off grid photovoltaic (PV) and micro or medium grids with PV and the related storage system under affordable financial conditions.<sup>7</sup> This growth of grid systems should be supervised to ensure compatibility with other mini grids or even a nationwide grid.
- **Feed-in Tariffs:**  
Feed-in tariffs are first and foremost a performance-based payment-system for the generation of renewable electricity that has been fed into an electricity grid and shared with consumers.<sup>8</sup> The electricity grid therefore also functions as an interim storage electricity grid. In combination with a purchase obligation, this policy has proved successful in accelerating the deployment of renewable electricity generation in many parts of the world. Public authorities must determine a sufficient and calculable price for feeding renewable energy into the domestic grid based on the premises of calculable revenues for domestic as well as international investors. Beyond this, Feed-in Tariffs can support increased citizen engagement, by allowing them to install their own RE equipment and selling (excess) power to the grid. Feed-in tariffs can also work on a regional and

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<sup>7</sup> For more information on Bangladesh's micro-credit scheme for solar home systems (SHS) please refer to: <https://sustainabledevelopment.un.org/content/documents/4943khan2.pdf>

<sup>8</sup> For an overview of how Feed in Tariffs can work an example from Germany: <https://www.futurepolicy.org/climate-stability/renewable-energies/the-german-feed-in-tariff/>



subnational scale or even in micro-grids when combined with a national or international fund for example to advance energy access. 111 countries, states or provinces had FiT policies in place by the end of 2018.<sup>9</sup>

The challenge:

Domestic finance instruments would also trigger increased import rates for RE equipment which cannot (yet) be produced in the country itself. For this part, another source of foreign currencies is needed. Possible international instruments are elaborated on below.

### 3.2. International public finance instruments

Co-financing renewable energy by foreign sources should be limited as explained above. However, they remain an important funding source, as additional RE equipment from other countries is most likely required. Therefore, a revenue scheme of foreign currencies is needed to which countries from the Global South could gain access through international or national Development Finance Institutions (DFIs).

- **Using the concessional window of DFIs:** Public Development Banks usually have a so called ‘concessional window’. This ‘window’ enables the bank to lend money at reduced interest rates, and/or to favorable, long-term pay-back conditions. These improved terms of finance could help to unlock several additional RE-investments, as they reduce the burden of high upfront costs for investors. In some cases, and in a very small amount, development banks can also provide grants for countries from the Global South. These grants could be blended with private money from international investors to increase profitability of more RE-projects. Parliamentarians and policy makers from the Global South should persistently demand a massive increase of this ‘concessional window’ from the owner of the DFIs.
- **Using direct grants from developed countries:** Countries from the Global South can try to receive money from selected countries from the industrialised world in a direct way in the form of a composition of credits and grants to increase RE-investments. The grant part would limit the financial burden of the repayment and could support a low energy price in line with SDG 7. This finance option can be a win-win situation if the value creation is distributed between the beneficiary country and the grant making country.
- **Using international finance schemes like the Green Climate Fund (GCF) or the African Renewable Energy Initiative (AREI):** The financial support of climate mitigation and adaptation measures is at the core of many international funding schemes. For example, in the first finance round of the Green Climate Fund<sup>10</sup> \$10.3bn had been granted since the year 2010. A second round

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<sup>9</sup> [https://www.ren21.net/gsr-2019/chapters/chapter\\_02/chapter\\_02/#sub\\_6](https://www.ren21.net/gsr-2019/chapters/chapter_02/chapter_02/#sub_6)

<sup>10</sup> Detailed information on how to get funding from the GCF can be found here:

<https://www.greenclimate.fund/gcf101>

with \$9.8bn over the next four years is underway.<sup>11</sup> However, the funding provided still falls short of commitments made by UN member states to spend some \$100bn every year. Even in this case, parliamentarians and policy makers from the Global South should persistently demand the fulfilment of the full sum of \$100bn promised at COP16 in Cancun 2010.

## 4. Developing bankable projects will help mobilising foreign private investment

Being aware and precise about technical requirements and financial needs is crucial. The key to unlocking private money lies in the bankability of projects. Having said that, predictability of expected financial returns combined with guaranteed payback times is at the heart of every bankable project.<sup>12</sup>

- **Supporting long term credits for smaller projects:** Today, the financial sector is mostly focused on large scale projects with well predictable returns. This resulted in many cases in a lack of long-term credit availability for smaller projects that are already commercially viable, and could stimulate green growth, mitigate climate change and simultaneously address social and environmental challenges the country faces. A cooperation of international private finance institutions with international public organisations and domestic stakeholders could tackle this problem and distribute risks of RE projects among several investors.<sup>13</sup>
- **Financing by traditional credits:** In many cases financing new RE-Investments by loans from private investors seem to be the preferable option for national or regional governments of the Global South. After all the reimbursement, all the revenues from the installed RE remains in their respective countries and the installed energy systems still belongs to the national energy supplier.
- **Public Private Partnership (PPP):** In other cases, governments authorise private entities with the installation of a part or a complete renewable energy system. Those Public-Private Partnerships, however, should ensure that all contracts are transparent, produced energy remains affordable for all, and public partners receive a fair part of the profits. It should also be ensured that PPPs have agreed expiration dates (e.g. 20 years) so that ownership and operation of the energy system can be renegotiated or even handed over to the public authority.

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<sup>11</sup> Green Climate Fund: <https://www.greenclimate.fund/news/green-climate-fund-board-commits-over-usd-400-million-to-combat-climate-crisis?inheritRedirect=true&redirect=%2Fwhat-we-do%2Fnewsroom%2Fnews-stories>

<sup>12</sup> Cf. Climate Finance Leadership Initiative, 2019, p. 36 ff.

<sup>13</sup> On example for such a co-operation is the new established Tropical Landscape Finance Facility (TLFF) in Indonesia: <http://tlffindonesia.org/about-us/>



- **Managing challenges resulting from foreign private finance:** Financing the renewable energy transition with private money from foreign countries bears the challenge of foreign currency fluctuation and stability of the local currency, as already stated above. Stable exchange rates with only small volatility are therefore important, because a continuous devaluation of the domestic currency would lead to an increase of the financial burdens. A successful way of responding to this challenge could be by limiting financing with foreign currencies at a certain level.
- **Increase national value creation along the value chain:** To avoid spending in a foreign currency and taking the risk of being subject to fluctuating exchange rates, it is advantageous for countries in the Global South to substitute imports by producing as many services and parts of the necessary RE equipment as possible within the country. Therefore, it is also a benefit for the international RE-manufacturer to relocate relevant parts of the RE production which will be sold to the Global South into, ideally, the same countries where parts are being sold to mitigate the risk of fluctuating exchange rates. To foster such relocation, the countries should provide stable economic and legal framework conditions for the RE manufacturer. This makes it possible to pay an enlarged part in the energy transition with the home currency and incomes and benefits remain within the country.

If the whole RE system is completed the country would benefit from the fact that all energy production is now domestic, and no further imports of fossil fuels are necessary. The amount of foreign currencies saved can now be spent for the fulfilment of the other SDGs. Using RE will also avoid the danger of creating future stranded assets of e.g. new fossil fuel power plants.

## 5. New climate finance tools on the horizon: Mobilising the economic capabilities of central banks from the industrialised world

To remain under the dangerous benchmark of 1.5°C global temperature increase, as stated in the Paris Agreement, the current financial resources for the global energy transition are far from enough. A new financial tool which could expand the ‘concessional window’ (see above) of DFIs and the capability of the GCF to provide grants and back guarantees is urgently required to increase the public part of climate finance.

### Central banks as the new player in town

As demonstrated during the financial crisis, central banks are the most powerful economic institutions in our current economic system; they are the producer of the legal tender (in their countries) and the lender of last resort for the banking system. Central banks cannot become

insolvent in their own currency and were therefore able to finance a bailout program for the struggling banking system in an amount of several trillions. Thus, 10 years after the global ‘bank bailout’, we need the engagement of the central banks from the industrialised world for a global ‘climate bailout’, which essentially facilitates the global transformation to 100% RE. Parliamentarians in countries from the Global South can build alliances with international political decision makers to demand such a “climate bailout”.

Even the central banks themselves and the new Network of Central Banks and Supervisors for Greening the Financial System (NGFS)<sup>14</sup> announced they would be tackling the financial risk of climate change as part of their mandate. The prospect that central banks will support climate finance measures is a realistic option and indeed timely.

A ‘climate bailout’ tool could strengthen co-operation between countries from the Global South, DFIs, the GCF and central banks of the industrialised world. The central banks could back guarantees and purchase very long term, standardised Green Climate Bonds which are issued from the GCF or other DFIs to finance a massive increase of their concessional window.<sup>15</sup>

- **Guarantees:** The lack of reliable risk calculation methods for countries of the Global South often locks access to funding, despite the potential profitability of the RE project itself. An approved roadmap, however, could identify promising RE-investments, including potential credit guarantees from the DFIs which would help de-risking the investment. Since DFIs alone can only cover a small part of the risk, central banks should cover the bulk of the risk of the guarantees. Thus, the DFIs create a new standardised, low risk and low interest asset category which could be issued to private institutional investors. The guaranteed assets issued by DFIs and backed by central banks would transform the RE-investment into a low risk, long term and sustainable investment. Central Banks would only become involved in the case of a default e.g. when project development fails.
- **Grants:** If a RE-investment needs not only a guarantee to gain profitability, but a one-time or permanent grant, the involvement of central banks has to increase. In this case the DFIs or the GCF would issue standardised and virtually perpetual Green Climate Bonds to central banks of industrialised countries which have agreed to purchase also new “non-financial sustainable goal assets”. The standardised Green Climate Bonds establish a new class of ‘non-financial’ assets, for central banks, as only they have the ability to purchase virtually perpetual bonds with very low (if any) interest rates. The new capability of the DFIs to receive new and virtually repayment-free

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<sup>14</sup> See: Network for Greening the Financial System (NGFS); A call for action, Climate change as a source of financial risk, April 2019 [https://www.banque-france.fr/sites/default/files/media/2019/04/17/ngfs\\_first\\_comprehensive\\_report\\_-\\_17042019\\_0.pdf](https://www.banque-france.fr/sites/default/files/media/2019/04/17/ngfs_first_comprehensive_report_-_17042019_0.pdf)

<sup>15</sup> See: World Future Council; Financing 100% Renewable Energy for all in Tanzania, Climate Finance – Policy Brief, 6/2018 [https://www.worldfuturecouncil.org/wp-content/uploads/2018/07/Financing-100RE-For-All-In-Tanzania\\_Matthias-Kroll\\_06-2018.pdf](https://www.worldfuturecouncil.org/wp-content/uploads/2018/07/Financing-100RE-For-All-In-Tanzania_Matthias-Kroll_06-2018.pdf)

money by issuing the ‘non-financial’ Green Climate Bonds to the central banks opens new possibilities for massive expansion of their concessional window to fund many new RE-Investments through using blended finance mechanisms.

## **The last step for central banks to become the game changer**

Even though central banks declared climate change as part of their mandate, their engagement in climate finance measures is far from being anywhere near the level of engagement during the financial crisis. To avoid the systemic risk resulting from a meltdown of the banking system, central banks purchased trillions of financial assets and multiplied their balance sheets largely for a permanent time horizon. Today, the looming systemic risk of the climate crisis is much higher than the risk resulting from the banking crisis, while the necessary financial efforts of the central banks to avert the climate crisis are much smaller. Central banks of the industrial world could purchase virtual perpetual Green Climate Bonds in the needed amount of several hundred billion dollars per year without getting in trouble (risk of inflation, stability of banking system etc.). If they substitute matured assets with green bonds they wouldn’t even affect the money supply.

It is only a small last step from purchasing ‘normal’ Green Bonds from public financial institutions (what e.g. the ECB has already done in the amount of €48bn)<sup>16</sup> to also purchasing virtual perpetual Green Climate Bonds from public financial institutions. If a group of relevant central banks from the industrialised world agreed to buy this type of bonds, between 100 and 300 billion USD could be generated per year.

Central banks have the toolbox to integrate this new type of very long term (or revolving) climate bonds into their usual monetary policies without the danger of triggering inflation. Moreover, they get a new tool to stimulate the economy in a direct way.

This engagement of central banks can be the ‘game changer’ by implementing a global energy transition in line with the 1.5°C goal. It is now the duty of parliamentarians and policymakers from the Global South, NGOs and the global civil society to build international alliances that foster this action from central banks and policymakers from the industrialised world to take the last step for the urgently necessary transformation to a renewable based energy system.

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<sup>16</sup> Cf. European Central Bank, Economic Bulletin, Issue 7/2018 p. 26.

<https://www.ecb.europa.eu/pub/pdf/ecbu/eb201807.en.pdf?224d7c18a6757e6369b6b881cbff054e>

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