

A Comparison of Selected Stimulus Packages in
2008 and 2020: investing in Renewable Energy,
Sustainable Agriculture and Food Security, and
Gender Equality and the Empowerment of Women
for Structural Economic transformation

NOTES

Where the designation “economy” appears, it refers to a country, territory or area. The assignment of economies to specific groups is done for statistical convenience and does not imply any assumption regarding the political or other affiliation of these economies by the authors. Likewise, the designations “developing”, “transition” and “developed” are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular economy in the development process.

Unless otherwise specified, the values of groups of economies represent the sums of the values of the individual economies included in the sample of countries within a group. Calculation of these aggregates may take into account data estimated by the authors that are not necessarily reported separately. Due to rounding, values do not necessarily add up exactly to their corresponding totals.

United States dollars (US\$) are expressed in current United States dollars of the year to which they refer.

The publication has not been formally edited

CLASSIFICATION OF ECONOMIES AND COUNTRIES

There is no established convention for the designation of “developing”, “transition” and “developed” countries or areas in the United Nations system. The designation of economies used in this document is the classification used by UNCTAD or the classification used by the World Bank. The differentiation between developing and developed economies follows, in general, the definition of the M49 classification¹ (United Nations, 2019a). However, there are exceptions. Notably, the group ‘transition economies’ that was established to take account of the particular circumstances of that group of economies; shaped by socialism and now in transition to a market economy.

Throughout the document, the group of developing economies is further broken down into the following groupings:

- o LDCs, according to the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States (UN-OHRLLS)² (United Nations, 2019b),
- o Low-income countries, according to the World Bank Country groups (The World Bank, 2020)³
- o Lower-Middle-income countries, according to World Bank Country groups (ibid.),
- o Upper-Middle-income countries, according to World Bank Country groups (ibid.),
- o High-income countries, according to the World Bank Country groups (ibid.),

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The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the United Nations or its officials or Member States.

1. EXECUTIVE SUMMARY

Facing the second global financial crisis in the past twelve years, governments are spending in the trillions to support workers and businesses and revive their economies. The calls for governments to target these funds to accelerate achievement of the Sustainable Development Goals (SDGs) are growing. From a selected sample of 20 countries⁴ and the European Union, this paper compares the response to the global crises of 2008 and 2020 with respect to the extent of the use of government stimulus packages to enact structural economic reform to achieve SDG 7 (affordable and clean energy), SDG 2 (zero hunger, improved food security and sustainable agriculture), and SDG 5 (gender equality and women's empowerment). While acknowledging that we are still in the phase of immediate responses, the hypothesis is that now that the 2030 Agenda for sustainable development has been adopted in 2015 by all nations, which committed in September 2019 to a decade of actions to accelerate its implementation and delivery, more funds will be channeled to the SDGs than in 2008 before their adoption. And, given that several meta studies have shown that achieving the SDGs by 2030 is feasible if we invest massively in SDG2, SDG5 and SDG7, we expect these sectors to be targeted.

Surprisingly, we found that renewable energy packages were more common in 2008 than so far in 2020, despite the successful implementation of several renewable energy stimulus packages in 2008. The 2008 renewable energy stimulus packages proved uneven, with some countries such as South Korea, Canada and China implementing bold policies to accelerate the transition to renewable energy, while others in the sample lacked the fiscal space or political will to provide large stimuli. In 2020, despite committing to the 2030 Agenda, most countries doubled down on existing support to carbon-intensive and polluting industries.

We also found that stimulus packages targeting sustainable agriculture and food security have been more prevalent in response to both crises, especially among low- and middle-income countries, which spent more on rural and agriculture support compared to developed countries. However, more countries supported food security and sustainable agriculture in 2008-2009 than in 2020, so far.

Despite strong public commitment to SDG 5, we also found that few countries have used stimuli to advance gender equality and women's economic empowerment in response to either crisis. This is especially concerning given the disproportionate effect of the COVID19 crisis on women and girls which risk setting them back decades.

The lack of alignment of stimulus packages so far with the 2030 Agenda and its 17 SDGs is a missed opportunity to advance the SDGs, especially in advanced economies with deeper pockets

risking locking societies into economic models that advances the well-being of some people at the expense of others and the planet.

2. INTRODUCTION

When UNCTAD first estimated the annual investment gap of \$2.5 trillion to achieve the Sustainable Development Goals (SDGs) in developing countries, the global community realized that to move from billions to trillions, business as usual would not work, and that massive investments from both the public and private sectors would be needed.⁵

The global response to the COVID-19 pandemic has shown that the international community is capable of radical and forceful societal responses and investments in time of crisis. Unfortunately, that investment gap is widening with UNCTAD forecasting a 40% decline in global foreign direct investment (FDI) and 4.5% decline in global GDP for 2020. Yet, G20 countries have put in place stimulus packages that approaches \$11.5 trillion.⁶ If these fiscal policies aiming to revive national economies were also aligned with the SDGs, they could provide needed investment to accelerate implementation and delivery of the SDGs. This is particularly true in developing countries facing the most severe economic and social impacts of the crisis (along with the climate and biodiversity crises) and most in need of investment often limited by real or perceived risks. However, only 2% of these funds are dedicated to developing countries. The unprecedented mobilization of resources by governments to revive national economies provides an opportunity to recover better if aligned with the SDGs in all countries if done with international solidarity instead of decrease in ODA commitments.

This paper compares how government stimulus packages in the crisis of 2008-09 and in 2020, until September, have facilitated or impeded structural economic reform in line with the SDGs, particularly how countries' packages advanced (or not) efforts to meet SDG 5 (gender equality and women's empowerment), SDG 7 (affordable and clean energy) and SDG 2 (zero hunger, improved food security and sustainable agriculture). We used a representative sample of 20 countries and the European Union, selected based on geographic and income level diversity, as well as availability of data.

Although the severity of each crisis and the mechanisms through which each economy was affected vary by country, these two crises nonetheless provide a natural experiment where different countries are faced with relatively similar problems that occur in the same time period. This makes a comparison across countries more feasible than trying to compare fiscal responses to purely domestic crises in each country. The caveat is of course that the current crisis is still ongoing, and several governments have yet to announce their stimulus packages beyond initial responses or as a whole.

3. GENERAL OVERVIEW OF STIMULUS SPENDING

Table 1: Average of stimulus spending for different income level in constant United States dollars¹

	Average of 2008-2009 Stimulus package in 2015 constant \$ million	Average of 2020 Stimulus package in 2015 constant \$ million	Change in %
Developed	104,591	673,372	544
Developing	79,654	89,952	13
HICs	51,395	123,617	141
UMICs	179,262	133,498	-26
LMICs	7,260	50,856	601
LICs	101	365	262
Transition economies	172,968	49,055	-72

Table 1 above shows the averaged amounts in 2015 constant United States dollars (USD) disbursed in stimulus packages by the sampled countries of this study during the Global Financial Crisis (GFC) and the Covid-19 pandemic, until September 2020. While International Organizations and developing countries continue to plea for more resources to be devoted to fight the health and economic impacts of the crisis, figures in Table 1 show that developed countries have mobilized on average about six times more funds after 6 months of crisis than for the entire GFC while high-income countries have mobilized on average well over twice the amount for the GFC. Similarly, but at a different magnitude, poorest countries (LICs and LMICs) have mobilized on average 3.6 to 7 times more in the COVID crisis than in the GFC.

The picture is more contrasted for Transition economies and, upper middle-income countries which have so far mobilized less than during the GFC. This could reflect the limited size of the sample used in this study with the Russian Federation the only representative for Transition economies, while China, the main actor in the UMIC sample has effectively mobilized less funds to cope with the current crisis so far than it did for the GFC.

Still, while the gap of funds directed to stimulus packages between developed and developing countries was on average about USD 25 billion for the GFC, it amounts to USD 583 billion for the current crisis and increasing. In other terms, as of end September 2020, the gap in money spending

¹ Selected countries have been grouped according to their income level in table 1 and table 2. Australia, Canada and EU are in developed countries. Russian Federation is in Transition economy. Saudi Arabia and Korea are in HIC. Argentina, China, Costa Rica, Mexico and South Africa are in UMIC. Bangladesh, India, Indonesia, Kenya and Vietnam are in LMIC. Rwanda is in LIC.

between developed and developing countries is 23 times wider during the Covid-19 pandemic than during the GFC.

Table 2: Average of stimulus spending for different income level countries as % of their GDP

	Average of 2008-2009 Stimulus package as a % of GDP	Average of 2020 Stimulus package as a % of GDP	Change in %
Developed	2.63	9.73	270
Developing	4.62	5.46	18
HIC	7.65	8.40	10
UMIC	6.04	6.42	6
LMIC	2.50	3.76	50
LIC	2.00	3.30	65
Transition economies	13.20	3.40	-74

Table 2 shows the disbursed stimulus packages as an average percent of GDP per country for the selected countries of this study, categorized by income level. On average, developed countries were able to mobilize more than 10% of their GDP in stimulus packages, the level advocated by the UN Secretary General, to fight the Covid-19 pandemic and its impacts. It equals to an increase of 270 per cent compared to the GFC.

Developing countries show an increase in mobilized funds but to a much lesser extent with 18 percent increase on average per country compared to the GFC. Among developing countries, LICs and LMICs are making the biggest effort, with an average per country of 65 percent and 50 percent of increase respectively. However, these increases translate to USD 201 million on average for LICs and USD 43 billion on average for LMICs in additional money from the GFC times, which pales in comparison to the additional average of USD 569 billion per country for developed countries (see table 1). The situation for UMIC and Transition economies shows an even bigger gap to catch up than for LICs and LMICs, if they would address the pandemic impact at par with what is done in developed countries.

Possible sources of funding to allow developing and transition economies, with the exclusion of China, to catch up with the level of support of developed countries, at least in terms of per cent of GDP, are narrowing down with a reducing fiscal space aggravated by an economic downturn and debt levels already high with several developing countries facing potential debt default. That limits the prospects for further borrowing, while remittances have fell, and international trade revenues are expected to decrease by more than 10 per cent and investments, in particular FDI, are expected

to contract by 40 per cent in 2020/2021². In addition, the ability of developing countries' central banks to supply their economies with added liquidities, as happened in developed countries, is limited without triggering severe inflation and currency devaluation. In the short run, ODA remains the primary lifeline for many developing countries. That said, one should also count on reducing illicit financial flows which accounts for up to an estimated USD 89 billion in lost revenues per year just in Africa³.

4. RENEWABLE ENERGY

The crisis of 2008-09 and the ensuing economic downturn decreased greenhouse gas emissions, but that trend reversed as the global economy recovered.⁷ The COVID-19 crisis has led to a rapid decline in economic activity, which has once again led to a sharp decline in greenhouse gas emissions.⁸ Just as in 2008, if governments around the world don't channel resources to decarbonize the economy, emissions levels will quickly rise when economic activity picks up and another opportunity will be missed to recover better. Fiscal stimulus directed toward projects with large economic multiplier effects can achieve both economic and environmental objectives. Policies such as green construction, energy efficiency retrofits, renewables projects and grid expansion all have a track record of being good for job creation, the planet and long-term economic growth.^{9,10,4}

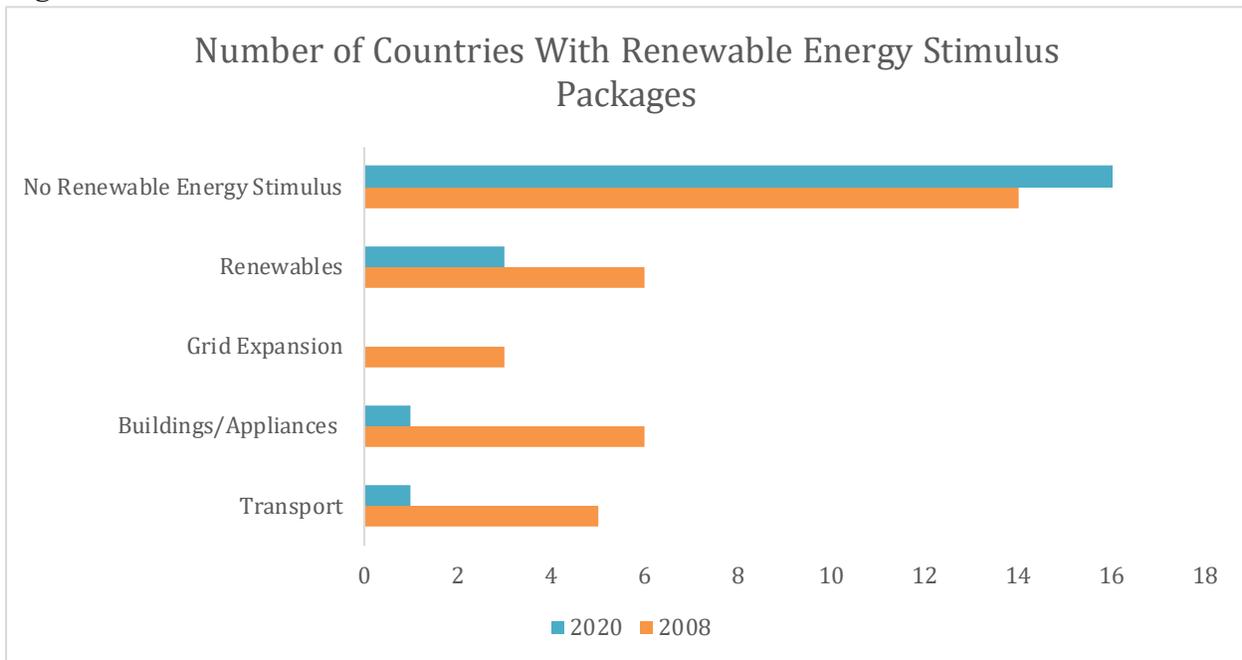
While the fiscal stimulus in 2008 was far from a sufficient response to the climate crisis, it was an unprecedented mobilization of resources by many countries to advance ambitious green objectives. South Korea, China, the United States, the European Union and Canada all prioritized green infrastructure and clean energy projects. While a surge in emissions followed, especially in Asia, the stimuli marked a clear turning point in realizing the potential of green development goals and their effects lingered on long after. Wind and solar technologies have seen costs fall by 70 and 90 percent, for example, in the decade following the crisis of 2008. That holds true especially for some of the countries that led the way in the production of clean energy inputs.¹¹

² UNCTAD, World Investment Report 2020, <https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2769>

³ UNCTAD, Economic Development in Africa Report, 2020, https://unctad.org/en/PublicationsLibrary/aldcafrica2020_en.pdf

⁴ Investment in the care economy or purple economy also has great social returns especially in gender equality creating decent jobs for women and freeing more of their time to work but is beyond the topic of this paper.

Figure 3a.



Source: Open source research. Random sample of 20 countries and the European Union.

As figure 3a shows, the responses in 2008 sought to achieve different renewable energy goals, with investments in renewables, buildings and appliances, and transportation systems being the most popular. Thus far in 2020, few countries have come forward with stimulus targeting renewable energy investments, instead focusing on supporting household incomes and preventing rising unemployment. That may be starting to change, however, as governments begin crafting recovery packages providing more targeted funds to industries and projects. The European Union, for example, just released the topline numbers for its stimulus package and the green portion of the package is still in discussion at the time of writing this paper. The European Commission has identified more than 1,000 green projects that could be targeted for funding, which include projects in renewable energy, energy storage, building upgrading, low-carbon transport, and green manufacturing.¹² The example reaffirms the importance of interpreting the 2020 numbers reported in this paper *as a snapshot at early stage in the crisis*, given that more recovery packages will come in the months ahead and many may involve green projects.

South Africa and China were the only middle-income countries that took ambitious steps to accelerate the clean energy transition in 2008. China implemented a RMB 4 trillion (12.7 percent of GDP) package that included a mix of fiscal policies and investments in the required infrastructure for a low-carbon economy.¹³ Estimates suggest that the green component of the stimulus package was in the hundreds of billions of dollars. Much of these investments were financed by national development and commercial banks and were disbursed to local and provincial governments and state-owned enterprises. The policies included massive subsidies (USD 1.5 billion) to low-carbon vehicle companies, and a halving of the sales tax for cars with

small engines. USD 50 billion went to energy efficiency (subsidies to purchase energy-efficient light bulbs) and environmental improvement, USD 85 billion to rail transport investments, and USD 70 billion to new grid infrastructure.¹⁴ The stimulus impacts have gone beyond increasing investments in renewables. By making alternative energy sources cheaper worldwide, dirtier energy sources have become relatively more expensive, as indicated by slowing growth in the cement sector and a decline in annual steel output. One study provided strong evidence that the parts of China that focused on clean energy and green jobs found higher increases in employment, debunking the myth that clean energy investments and job creation are at odds.¹⁵ That said, China's carbon emissions still rose by 27 percent from 2007 to 2010. In 2008 the government also supported the industrials sector (airlines, auto manufacturers), the construction sector, and the oil and gas industry, which employ millions of people, with billions, without any conditions attached towards decarbonized economies.¹⁶

CASE STUDY A: South Korea's Green New Deal (2008-2009)

South Korea spent USD 36 billion on fiscal stimulus over four years broken up into four key areas: conservation (green cars, clean energy, and recycling), quality of life (green neighborhoods and housing), environmental protection (river and water resources), and future green transportation and IT infrastructure. Energy efficiency was the top priority: USD 5.84 billion was allocated to public buildings and households to upgrade their energy efficiency, and two million green homes were built. USD 1.8 billion went to fuel efficient vehicles, USD 7 billion went to low-carbon railways, bicycle tracks, and other public transit systems, and USD 1.8 billion went to low carbon power. USD 14 billion went to river and forest restoration as well as medium-sized dams. The government also set up a USD 72 million fund to attract private investment in renewable power projects, and provided research and development support to its large companies for investments in electric vehicles.¹⁷

Some investments were criticized for propping up construction companies in the short-term. Projects to construct dam and embankments along rivers (USD 20 billion in total), and investments in the cement sector (albeit to create new bike paths on roads) rose concerns.¹⁸ The investment in renewables were also lackluster compared to other areas, with less than USD 100 million going to investments like solar-powered homes, photovoltaic heating, and geothermal sources for apartment blocks. The key barrier to these investments according to government sources was limited land potential for large projects like solar and wind, and limited hydro potential due to lack of rivers. Per an independent evaluation, the recovery did not achieve the objectives of green growth as set out in the government's strategy.¹⁹ An emissions trading system (ETS) or carbon tax could have provided the incentives for economic restructuring, rather than a situation with significant investment in renewables but high carbon-intensive growth still driving the recovery and the uptick in economic activity. The ETS was in place by 2012 at which point CO₂ increases were far lower than GDP growth, indicating declining CO₂ energy intensity, counteracting the spike in fossil fuel use in 2009 and 2010.²⁰

CASE STUDY B: South Africa's Environmental Fiscal Reform (2009)

Though the South African government never announced it explicitly as a stimulus package, there was nonetheless an increase in the 2009/2010 fiscal budget of ZAR 39 billion, or around 1.2% of GDP. The package centered around large increases to public welfare programs, some infrastructure spending, and tax cuts for consumers.

The budget also included a modest increase in spending on climate-conscious policies in the form of new or revamped taxes, branded as “Environmental Fiscal Reform”. With a particular focus on improving energy efficiency in the country, the measures called for an additional ZAR 500 million in government expenditure²¹. Made up of incremental changes to incentives and tax policies, the reform package called for these “mitigation and adaptation measures to address climate change”²²:

- a new accelerated depreciation allowance for companies who make any **investments in energy-efficient equipment**, given there is proof of the increased efficiency;
- an increase in the **tax on plastic bags** by 33%, from 3 to 4 cents per bag;
- Introduction of a new **tax on incandescent light bulbs** of ZAR 3 per bulb. With a dual purpose of reducing energy demand and improving efficiency, the tax was applied to manufacturers and importers.
- a **tax exemption for Certified Emission Reductions (CERs)** was proposed for any income from the sale of primary CERs.⁵
- A change in the calculation of **excise taxes on new vehicles** to reduce the “luxury” tax (based solely on price) and add a new portion based on emissions.
- the **international air passenger departure tax was raised** to ZAR 150 per passenger headed to an international destination (from 120) and ZAR 80 (from 60) per passenger on flights to other Southern African Customs Union member states.
- an **increase to fuel taxes** of 23 cents per liter of petrol and 24 cents per liter of diesel.

Climate change has become increasingly evident to the general population as droughts, wildfires, and floods increase in frequency and intensity, temperatures continue to rise, and millions migrate due to climate-induced disaster. The UN Intergovernmental Panel on Climate Change Fifth Assessment Report underscored that much of the contribution of climate change has been caused by human activity, and that a 1.5 C global average temperature increase would be catastrophic for economic growth, poverty reduction efforts²³, and the global financial system.²⁴.

Despite all this, the urgency to act does not seem to be reflected in the stimulus packages issued so far to recover from the current crisis. Thus far, governments have shied away from using green stimulus in response to the COVID-19 crisis as a “big push” compared to 2008-2009. The immediate responses across both developed and developing countries have centered around cash transfers and employment protections due to the COVID-19 induced lock down. It remains to be

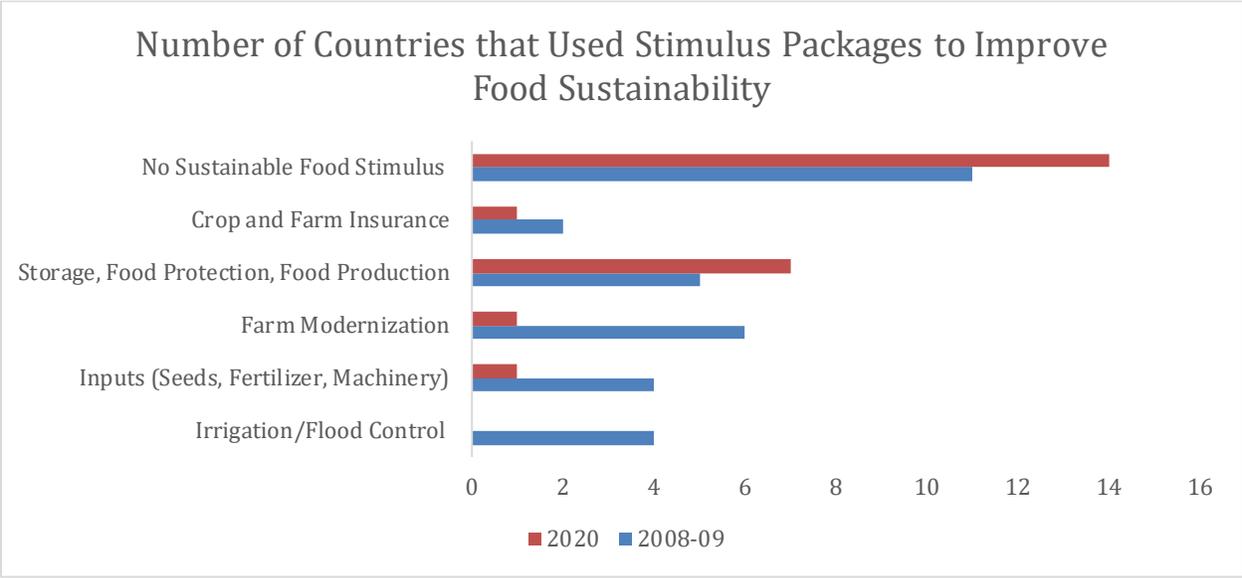
⁵ According to the Kyoto Protocol these certifications are issued to recognize reduction in the emission of greenhouse gases and can then be traded on a secondary market.

seen if later packages will target clean energy, as the EU package seems intended to do with its Green New Deal. The experiences of China, South Korea, and South Africa offer a few examples of how to drive down the costs of clean energy and reduce carbon intensity, while using a range of investment and fiscal tools to shape outcomes.

5. SUSTAINABLE AGRICULTURE AND FOOD SECURITY

In our sample, stimuli to the agriculture sector tend to focus on supporting food production and primary goods exports in times of crisis, especially in 2008 when the financial crisis followed in the steps of a food crisis.²⁵ In 2020, the COVID-19 crisis underscored the risks of zoonotic diseases and the depletion of natural resources on the world’s food systems. In a recent paper, UN Food and Agricultural Organization tied the lack of investment in sustainable agriculture and industrial livestock production processes to risks of increased animal and human health.²⁶ Countries in both the 2008-2009 crisis and the COVID-19 crisis have used stimulus packages as a mechanism to channel investment to sustainable projects in the agricultural sector.

Figure 4a.



Low-and middle-income countries in our sample have taken the lead on crafting sustainable food production stimulus packages in both crises. Many of those low-and-middle income countries have either not industrialized or are at an early stage of industrialization, with a greater proportion of the population working in agriculture. These countries directed investments to each of the different areas we examined, and did so using a mix of grants, loans, insurance, subsidies, and public investment.

Several of the measures introduced are not clear cut in their effects on food sustainability. Many of these policies, such as support to primary food exports, agri-insurance, investments in inputs, and food storage all support farmers and the agricultural sector and reduce the likelihood of food waste. That said, governments rarely conditioned these support measures on improving sustainable agricultural practices, and sometimes sustainable food stimulus went to products that are considered unsustainable. For the purposes of this study and each of the packages in question, we did count packages as being sustainable if they met these categories, but did not count the parts of those packages that clearly had no sustainable impact, and maybe had a negative impact (such as support to the meat industry). We did not exclude countries that supported unsustainable practices and have aimed to document those instances of potential negative harm in the annex.

Kenya in 2008-09 represents a mobilization effort perhaps worth emulating, distributing USD 11 billion in funds, some of which went to support food systems in parts of the country in most need and using locally available labor. Despite being hard hit by the crisis, limiting spending to 1 percent of GDP, Nairobi ran a reasonable budget deficit of 6 percent of GDP and managed to subsidize improvements in inputs (seeds and fertilizer), sustain its competitive advantage in flowers and horticulture, and offer a sustainable infrastructure bond.²⁷ Its package also increased financing for irrigation schemes, allocated funds to increase the Strategic Grain Reserve, and more.²⁸ Development spending was re-allocated to fund a surge of investment in water supplies, including a USD 16 million investment in fish pond construction and sustainable fish farming techniques.²⁹ 35,000 acres of land were earmarked for irrigation programs, most of which were in the central regions which have been historically the poorest. The investments in irrigation came at a time of water insecurity due to melting glaciers and declining rainfall, supporting adaptation to climate change.³⁰ The agricultural focus of the stimulus program limited the crisis' negative impact on rural employment and contributed to efforts to invest in environmental conservation.³¹

CASE STUDY C: Canada's Response to the COVID Crisis

Canada's 2020 stimulus package in response to COVID-19 marked an unseen level of ambition to transition the country to sustainable food systems. To improve agriculture practices, bolster food security, and encourage sustainable farming, the government appropriated additional funds to a number of existing programs, including³²:

- USD 77.5 million emergency fund to get food producers PPE, and help them automate their facilities and processes
- Increased the Dairy Commission's borrowing limit by USD 200 million to help with storage and avoid food waste
- Expansion of the Surplus Food Purchase Program with an initial USD 50 million fund to redistribute unsold inventories to local food organizations supporting vulnerable Canadians
- Agri-Insurance to include labor shortages as an eligible risk in the horticulture sector,

insuring against lost production due to labor shortages

- USD 62.5 million to the Seafood Stabilization Fund to support new manufacturing and automated technologies to improve productivity and quality of seafood products (distributed via regional development agencies)
- Fishermen grants (up to \$10,000 per self-employed fishermen, targeted at freshwater fishermen, excluding commercial and recreational fishermen)
- Agri-insurance for those in the horticulture sector to insure against lost production due to labor shortages
- USD 1.72 billion to provincial governments to clean up orphan and inactive oil and gas wells

CASE STUDY D: Bangladesh's Response in 2008-09 and 2020

In 2009, Bangladesh implemented a USD 500 million (.5 percent of GDP) stimulus package focused on propping up the power and agriculture sectors, along with key export industries. Extra subsidies were provided for the export of jute, leather, and frozen food. Traditional sectors like garments and ceramics were not included in the package. 43 percent went to the agricultural sector, 18 percent to power and energy, 15 percent to export promotion, and 13 percent to social security spending.³³

The package included the recapitalization of agricultural loans and additional farm subsidies. Along with the stimulus package, the newly elected Prime Minister in 2009 slashed the prices of diesel (for irrigation) and non-fertilizer items. A program in 2010 to distribute organic, green, and bio fertilizers to 9.7 million families helped popularize the use of natural fertilizers. Bangladesh also extended insurance to some farmers, extended and rehabilitated irrigation facilities, and froze fertilizer prices to boost production.³⁴³⁵³⁶

Developing a targeted package in 2009 allowed the government to quickly surge available resources to mitigate worst case scenarios in 2020. Bangladesh's COVID relief package is already over USD 12 billion, 24 times the amount from 2009 and nearly 4 percent of GDP, relatively higher than its wealthier neighbors Malaysia, Vietnam, and Pakistan. It includes funds to make loan refinancing more easily available to farmers and the agricultural sector. It also includes increased allocations to transfer programs that provide cheaper staple foods, like rice, and other programs that distribute food to the poor. Nearly 20 percent of the package is earmarked for small, medium, and micro-enterprises.³⁷

The government relied on banks to disburse the funds. So far, there have been challenges due to interest rate caps for banks at 9 percent and the expectation that the banks will also need to ensure the loans. The central bank has stepped in to subsidize interest rates, but some banks are still

wary of SME lending due to higher or perceived higher default rates.³⁸ Bangladesh is trying to channel some money through microfinance institutions, which charge even higher rates, but will reach the more remote and poor parts of the country.

6. POLICY TOOLS AND BENEFICIARIES

In addition to the issue areas outlined above, this paper also looked into how governments structured their fiscal stimulus packages along two axes. The first is what policy tools were used; what were the main methods used to spend money in each of the target areas. The second was who were the direct beneficiaries; which groups or sectors were the ones who first received support from the government in each area as part of the packages. In regard to direct beneficiaries, this paper also investigated how frequently stimulus packages directly targeted women as a vulnerable group and budgeted for policies intended to promote gender equality. Looking at these two characteristics and observing any changes in the structuring of stimulus packages can provide better insight into what governments see as the most significant changes since 2008 and the best feasible ways to carry out these packages, both politically and economically.

Policy Tools

From the sample of countries this paper identified 10 major policy tools that were used by governments during the observed time period: (a) Providing easier access to credit; (b) Loans; (c) Direct grants; (d) Tax changes; (e) Conditionalities on government funds; (f) Public investment and research; (g) Infrastructure spending; (h) Social insurance programs; (i) Consumption subsidies; and (j) Export/import subsidies. These categories are not meant to be exhaustive, and this list was created organically by observing what tools emerged from this sample of countries. This list was meant to capture the most common ways expenditure is structured and any commonalities between countries.

One important note is that there was a use of more tools overall in the areas studied during the 2008-09 crisis than in 2020 thus far, so there is a higher use frequency across most of the tools for the period of 2008-09. For the purposes of counting, one “use of a tool” is defined as an instance of a government using one of the above ten policy tools as a part of the economic stimulus package directly targeted to one of the two target areas, renewable energy or sustainable agriculture. For example, if a government announced stimulus to the renewable energy sector through tax cuts and direct grants, that would count as two “uses of a tool”. However, if they did so through a variety of tax cuts but no other tools, that would still only count as one “use of a tool”, independent of how many different taxes were altered. Counted this way, there were 40 “uses of a tool” in the

2008-09 crisis, compared to 27 in the COVID-19 crisis. Figure 4b also shows that the total number of countries in the sample that took no action in the renewable energy area increased in 2020, as well as the total number of countries that took no action in either area.

Figure 5a.

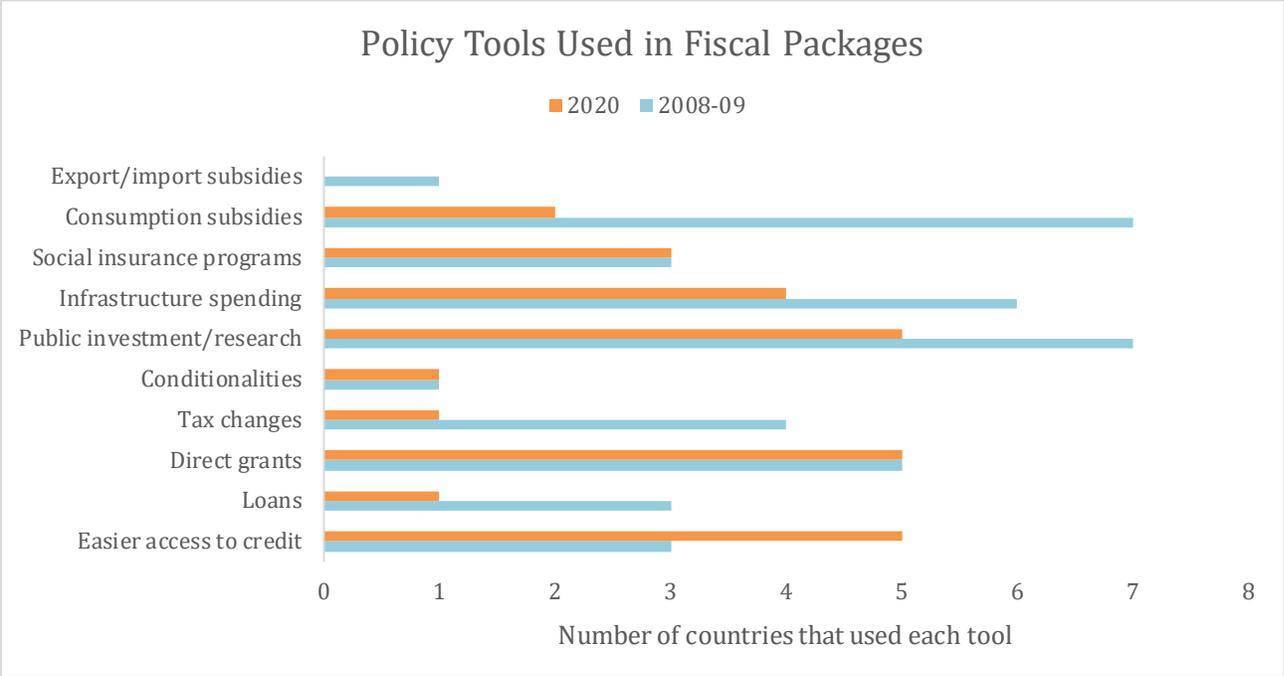
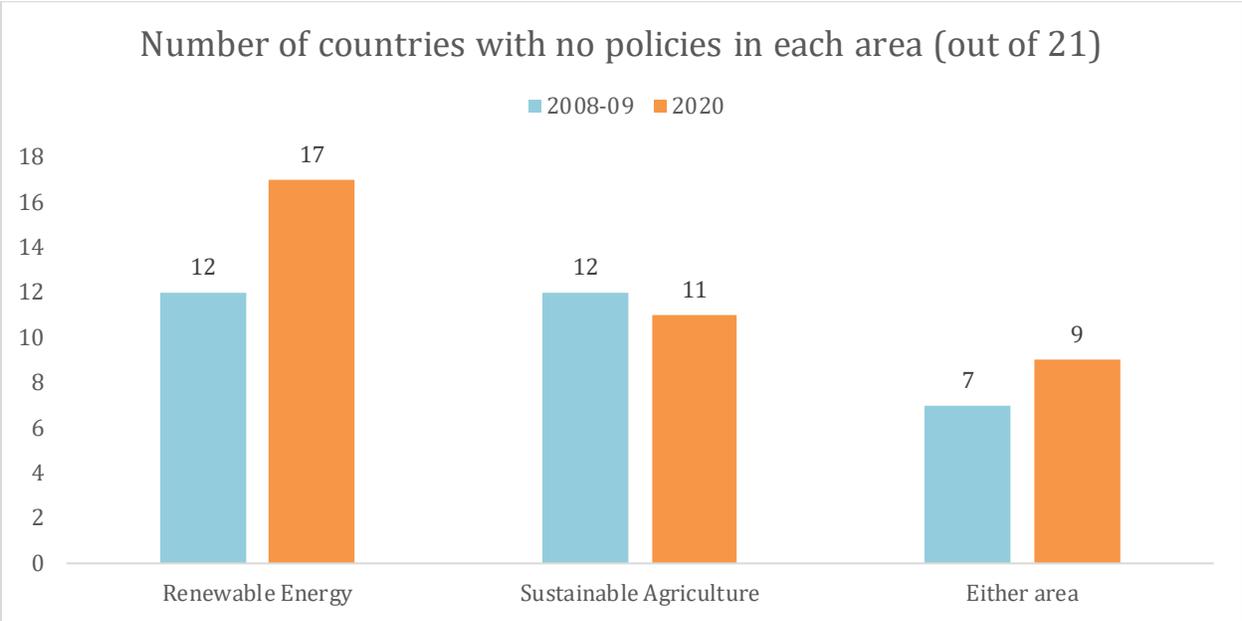


Figure 5b.



The two policy most popular tools during both time periods are “Direct grants” and “Public investment and research”. Possibly because they are seen as a quick method to get money into the economy, and typically involve fewer hurdles than projects which might require contractors and bidding.

Some of the common policy tools in the 2008-09 crisis were not used as much during the current COVID-19 crisis: “Consumption subsidies”, “Infrastructure spending”, and “Tax changes”. Consumption subsidies went from being used by 7 countries in 2008-09 to only 2 countries in 2020. Infrastructure spending likewise decreased from 6 to 4, and tax changes from 4 to 1.

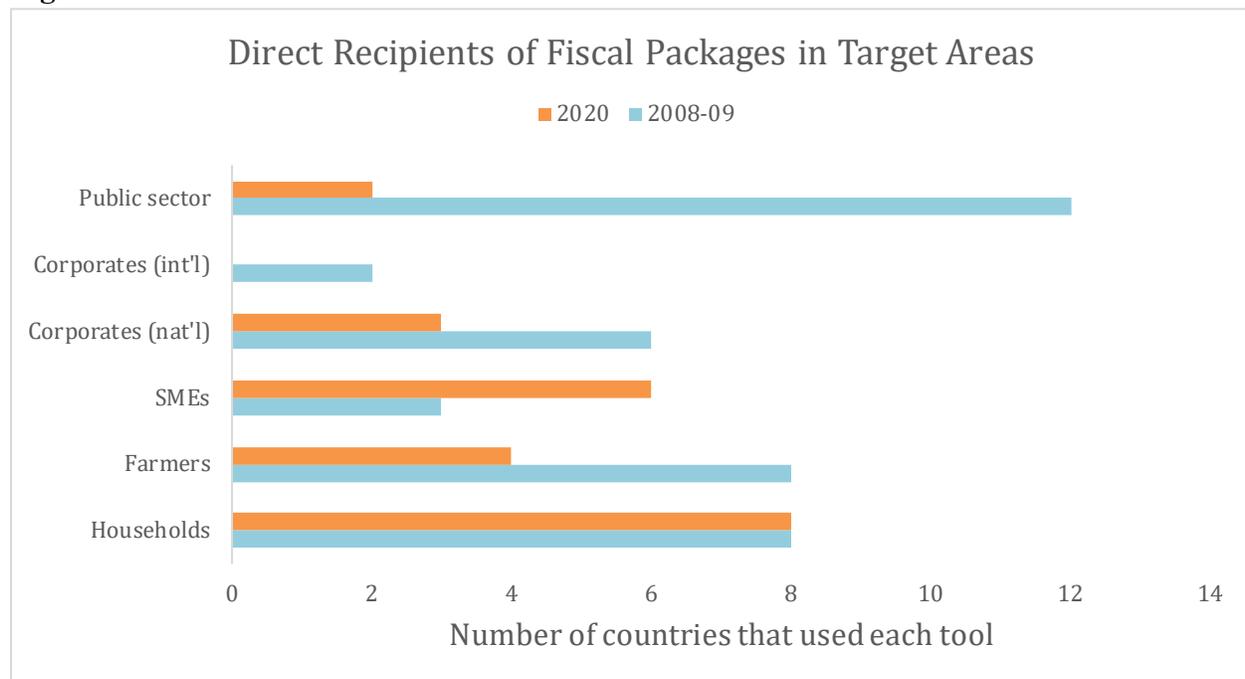
One tool has been used frequently in the COVID-19 crisis, and even more often than it was in 2008-09: “Easier access to credit”. While in 2008-09 it was used by only 3 countries in the sample, in 2020 it has already been used by 5 countries.

Beneficiaries

Equally important to how governments spend stimulus funds put in place to control the pandemic, are the target sectors or groups, especially MSMEs and women, which are hardest hit during the lockdown. We identified, where possible, the primary recipient of this spending versus those targeted at economy at large, especially in the three subject areas this paper focuses on. To this purpose 6 main targets of government funds were identified: (a) “Households”, (b) “Farmers”, (c) “SMEs”, (d) “Corporates (national)” and (e) “Corporates (international)”, and (f) the rest of the “Public sector” at large. These are not meant to be exclusive groups; often an agricultural program will provide funds for both small and large farms, which can include anything from smallholder farmers to multinational agricultural exporters. The same policy might also have two recipients. This paper also looked more in-depth at women and girls as the direct target of these stimulus programs; see section below.

Before the analysis we have to highlight two caveats. The first is that this list looked only at the primary recipient of the spending as outlined on official stimulus packages. For example, if a program was passed at the federal level to send funds to state and local government to spend on food programs, the primary recipient of this spending would be “Public sector”. The reasoning behind this is that there might be many layers to where the money moves before it reaches a final target, and it is useful to see how directly governments are structuring their spending. The second caveat is that the recipient of policies and programs was not always clear, especially during the 2020 crisis that is still ongoing. It was not uncommon for governments to announce spending but not provide a detailed plan for it, in which cases it was difficult to identify a primary beneficiary.

Figure 5c.



As Figure 5c illustrates, there were fairly different patterns in the recipients of spending in the three policy areas and between the two crises. In 2008-09, it was much more common for funding to go towards “Farmers”, “National corporates”, and the rest of the “Public sector”. One possible explanation is tied to the trends in different policy tools outlined in the previous section: since 2008-09 packages were relatively more long-term and with more focus on infrastructure spending, the target of this spending would more likely be other parts of the public sector. Similarly, expenditure directly to farmers makes more sense as a medium to long term strategy for transformational policies in improving food sustainability, rather than providing immediate relief and food security.

One group of recipients which seems to already be receiving more attention in the current crisis is small and medium enterprises (SMEs). Partly this could be due to increased awareness on the importance of supporting firms which are the backbone of many countries’ economies and provide a majority of jobs. It could also be due to the nature of the COVID-19 crisis and the resulting lockdowns, which tend to disproportionately affect smaller firms which depend more on face-to-face business and are less likely to have access to large amounts of savings and/or alternative sources of credit to smooth over their costs.

The group that is equally favored during both periods is households. This makes sense both politically, as politicians and governments often try to support their constituents and direct voters, and economically, as households face similar problems as SMEs in terms of lack of savings and vulnerability to shocks in the economy. Additionally, many countries in our sample and beyond

lack sufficient social safety nets to cope with a shock of this magnitude, and so it becomes even more urgent for governments to address extraordinary support to them to ensure households are able to survive.

Women and Girls as the Direct Beneficiary

This paper also explores in more detail how women and girls received particular policy attention from governments as part of these stimulus packages. The 1995 Beijing Declaration and Platform for Action identified 12 areas where urgent action was needed to ensure greater equality and opportunities for women and men and girls and boys, among which were “women and the economy” and “institutional mechanisms for the advancement of women.”³⁹ Similarly, the 2030 Agenda for Sustainable Development, adopted by Heads of State and Government in 2015, included this issue in Goal 5, which sought to achieve gender equality and empower all women and girls. It committed the international community to “ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life.”⁴⁰ The Club of Rome also identifies economic empowerment of women as one of the 5 requirements to achieve the SDGs by 2030.

This year, 2020, that marks the 25th anniversary of the Beijing Declaration has seen COVID-19, a new crisis that further exacerbates these gender inequalities, spread across the world. According to a UN Secretary-General policy brief, the economic impact of the pandemic differently and disproportionately affects women, as they earn less, save less, are more likely to have jobs in the healthcare and informal sectors, and are more likely to be closer to the poverty line.⁴¹ In addition, unpaid care work, which is much more likely to fall on women, has increased greatly as children are out of school and at-risk elderly family members require more care, while at the same time scarce public health resources are being moved away from women’s health programs to try to contain the COVID-19 outbreak. The social isolation measures enacted to stop the spread of the virus also have the unfortunate side effect of greatly increasing the number of women and girls in immediate danger of gender-based violence.⁴²

Policies are not neutral and many of them aim directly at limiting women’s opportunities. A gender-sensitive stimulus package thus offers a venue to close the gender gap instead of widening it. We take a broad definition of gender-budgeting of stimulus packages in this report including any policy that was part of a fiscal stimulus package that directly addressed an issue in gender inequities. This included for example providing more educational and job opportunities for women; investments in women and women-owned businesses; policies that ensured increased representation of women in decision-making and leadership roles; or any measure that specifically addressed how women were affected differently by these economic crises. Nonetheless, despite this broad definition the results were still underwhelming.

Generally, fiscal packages in response to the 2008 financial crisis did not include policies that directly targeted issues of gender equality. Some countries did increase funding to programs towards vulnerable groups that are disproportionately women, such as Kenya's investment in fish farming or South Africa's investment in the fight against HIV/AIDS.⁴³⁴⁴ However, these decisions rarely stated a purpose to combat gender inequality or provide more opportunities to women and can be considered social support as opposed to gender support.

The current COVID-19 crisis has similarly not yet yielded much focus on combating gender inequalities, though there is room to be more optimistic.⁴⁵ At the time of writing, a few countries have made efforts to look at the recovery through a gender lens: the European Union has supported research into how the pandemic differently affects women, and has made broad commitments that gender equality "should be taken into account and promoted throughout the preparation, implementation and monitoring of relevant programmes."⁴⁶⁴⁷ Canada has made more specific commitments, providing CAD 15 million in new funding to the Women Entrepreneurship Strategy (WES), a program that seeks to double the number of women-owned businesses by 2025.⁴⁸

For the most part, however, countries in our sample have dedicated little attention to addressing gender-biases in most stimulus to combat the COVID-19 pandemic. Larger commitments and much more progress needs to be made to ensure that the current crisis does not roll back progress made on women participation in the workforce and salary gap, for example, and even more needs to be done to guarantee that the economic recovery will bring equal opportunities for women and men. As with the other areas, opportunity to address gender issues is still available for soon-to-be approved stimulus packages, but state and non-state actors, including women groups may need to apply pressure to ensure this opportunity is not missed.

7. CONCLUSION

The response to each crisis has differed, with so far more relative emphasis on transformational economic policies in 2008 and more action on immediate relief in 2020. Part of this could be due to the fact that the COVID-19 pandemic is still ongoing in most countries in the world, and as such, the policies proposed to date have focused on immediate social safety net and health needs and short-term stimulus to maintain employment. Countries are only now starting to be able to think about longer-term economic recovery in a post-COVID-19 world: the European Union's package was only realized in July, for example. As many countries are still fighting to get the pandemic under control, countries are still in the process of determining what policy interventions might be needed while accounting for limited fiscal space.

Accordingly, there was more attention dedicated to renewable energy policies in 2008 and more attention towards food security in 2020. Nine of the 20 countries and the European Union in our sample included renewable energy promotion measures in their 2008-2009 stimulus packages, compared to four thus far in 2020. The policy actions in the area of sustainable agriculture and food security is more even between the two crises, with nine countries acting in 2008-09 and ten so far in 2020. This discrepancy in part stems from the immediate need for measures to secure access to food, including through production, in a crisis that has seen much economic activity grind to a halt and in countries that have little if any permanent social safety net programs. On the other hand, while climate change is a global threat and the transition to renewable energy a crucial one for the survival of billions of people, efforts to boost clean energy and fight climate change can take more time to materialize; as such they tend to be politically more vulnerable in many countries, and require public investment with an eye over the medium- to long-term.

There is a lack of meaningful policies that target gender inequalities and actively promote opportunities to women during both crises. This is harmful twice-over. First, because by neglecting to proactively include women and initiatives towards gender equality in stimulus packages, governments miss a large spending opportunity to move towards realizing SDG5. And secondly, women and girls tend to be even more vulnerable to loss of jobs, education, and economic opportunities in recessions and crises; by failing to act, governments are failing to close the gender gap and indeed allowing it to widen further.

A common reason for failing to make meaningful progress in pursuit of the sustainable development goals is that there simply isn't enough fiscal space. This can be true in many instances, especially for developing countries that have smaller tax bases and are much more vulnerable to external shocks and fluctuations in the global economy. However, the response to the devastating COVID-19 pandemic has shown that governments, particularly in developed countries, are indeed capable of large spending and investment programs in the face of extraordinary circumstances: 12 of the 20 countries and the European Union examined had announced stimulus packages greater than 4 percent of their GDP. Now that this money is being injected into economies around the world, it is crucial that it is used in impactful ways guided by the sustainable development goals to support economies to recover and be more resilient and equitable. Popular support for and expert consensus on the severity of these problems and the kind of action that is needed has grown for many of these areas— certainly in the three examined in this paper: renewable energy, sustainable agriculture and food security, and gender equality and empowerment of women. However, this support does not automatically translate into political action and economic support. It is crucial that stakeholders and action groups in each country build coalitions to reinforce this message and continue to apply pressure on their own governments to act. These destructive crises provide a chance to support economic recoveries that are more inclusive and sustainable. The trillions invested now will affect our trajectory in the coming decades. We can't afford to not use them to better prepare for the next crisis and accelerate the

transition towards decarbonized, sustainable, and equitable economies that can deliver on the SDGs.

ANNEX A – Methodology

For this paper, 20 countries and the European Union were chosen to be a part of the sample across both crises. This group of countries was selected based on three criteria:

- a) *Geography* – the sample was designed to be geographically diverse and representative of different regions in the world, avoiding an oversampling of any one particular region wherever possible. In the end the group consisted of 5 countries from Africa, 7 from Asia, 4 from Latin America, 2 from North America, 1 from Europe and the European Union, and 1 from Oceania, with further geographic diversity within each continent as well.
- b) *Income level* – the sample was designed to be diverse in terms of income level as well, with a mix of developed and developing countries. Special attention was given to ensure the inclusion of Least Developed Countries (LDCs), which are referred to in the document as low-income countries for statistical comparison purposes with other World Bank Country groups, and in the end four LDCs were selected: Bangladesh, Rwanda, Senegal, and Zambia.
- c) *Availability of data* – the last criteria is based on how much information and data was available for each country. While in general data was more readily accessible for developed countries, for many developing countries there was often a lack of detailed information on how much money was being spent on specific projects, especially when looking back at 2008-09. In the end this meant that in four cases there was insufficient data available, either because no evidence of a stimulus package could be found or there was evidence of a package but no details on size or scope. Three of these cases were in 2008-09, one was in 2020; none of the countries included had missing data in both periods.

All of the research was conducted online, so this paper was restricted by what was readily and publicly available at the time of writing. Specifically, we looked for information on stimulus packages during the two periods in: official government publications and budgets; media articles from the time; and aggregate reports from academia and international organizations. Any initiatives or policies that directly targeted one of the areas of interest, broadly defined, were recorded.

The objective was to look at the intent of stimulus packages at the time they were announced, seeing what received attention and priority from governments at the time of planning and drafting of legislation. This paper did not investigate where stimulus funds were eventually spent and how true to the original plan that was, nor did it analyze if this spending was effective in achieving the stated policy goal. Given that it is still too early to do much of that analysis for the COVID-19 crisis, since it is still ongoing in most countries, it made more sense to keep the comparison between the two periods as equal as possible and only look at announcements. While this does not capture the effectiveness of particular policies, it nonetheless offers valuable insight into what

problems governments are dedicating attention to in a time of crisis, and if this has evolved to include more concerns in renewable energy and sustainable agriculture and food security.

In the 2008-2009 crisis, any stimulus packages and economic recovery programs announced between 2008 and 2010 were included. In the 2020 crisis packages announced up until 1 August 2020 were included.

Countries received credit as having taken action in a particular area if they announced any program or spending that would directly target either renewable energy or sustainable agriculture and food security. As such, there was no comparison between countries on the relative magnitude of these programs: a country which used 1% of their stimulus package in renewable energy initiatives would receive the same amount of credit as one that used 25% of their total package.

ANNEX B – Tables

a. Tools Matrix

Country	Region	Time Period	Stimulus Size (% of GDP)	Renewable Energy	Sustainable Food
Argentina	Latin America	2008-09	8.8		b
		2020	5		a
Australia	Oceania	2008-09	3.9	c, f, i	
		2020	7.2		a, c
Bangladesh	South Asia	2008-09	0.5		j
		2020	2.5		a, c
Canada	North America	2008-09	2.5	b, c, d, f, g	a, c
		2020	12.4	e	a, c, f, g, h
China	East Asia	2008-09	12.7	d, f, g, i	g, i
		2020	4.1	d, f, i	a
Costa Rica	Central America	2008-09	2.8		a, h
		2020	11.8		
Ecuador	South America	2008-09	5		
		2020	no data		
EU	Europe	2008-09	1.5	b, c, f, i	
		2020	9.6	f, g	
India	South Asia	2008-09	1.2		
		2020	6.8		b, c, g
Indonesia	Southeast Asia	2008-09	1.4		d, h
		2020	4.4		c
Jamaica	Central America	2008-09	No data		
		2020	1.1		
Kenya	Sub-Saharan Africa	2008-09	1		c, f, g, i
		2020	0.9		h
Mexico	North America	2008-09	4.7	i	
		2020	1.2		
Russia	Eurasia	2008-09	13.2		
		2020	3.4		
Rwanda	Sub-Saharan Africa	2008-09	2		
		2020	3.3		h,i
Saudi Arabia	Middle East and North Africa	2008-09	11.3	f	g
		2020	2.8		f
Senegal	Sub-Saharan Africa	2008-09	No data		
		2020	7		
South Africa	Sub-Saharan Africa	2008-09	1.2	d	h
		2020	10		
South Korea	East Asia	2008-09	4	a, e, f, g	
		2020	14	f, g	
Vietnam	Southeast Asia	2008-09	8.4	i	
		2020	4.2		
Zambia	Sub-Saharan Africa	2008-09	No data		
		2020	2.5		

Key:	
a	Easier access to credit
b	Loans
c	Direct grants
d	Tax changes
e	Conditionalities
f	Public investment/research
g	Infrastructure spending
h	Social insurance programs
i	Consumption subsidies
j	Export/import subsidies

b. Renewable Energy

Country	Region	Time Period	Transport (Vehicles, rail)	Buildings/ Appliances	Water	Grid Expansion	Renewables
Argentina	Latin America	2008-09					
		2020					
Australia	Oceania	2008-09	X	X			
		2020					
Bangladesh	South Asia	2008-09					
		2020					
Canada	North America	2008-09		X	X	X	X
		2020					X
China	East Asia	2008-09	X	X	X	X	X
		2020	X				X
Costa Rica	Central America	2008-09					
		2020					
Ecuador	South America	2008-09					
		2020					
European Union	Europe	2008-09	X	X		X	X
		2020					
India	South Asia	2008-09					
		2020					
Indonesia	Southeast Asia	2008-09					
		2020					
Jamaica	Central America	2008-09					
		2020					
Kenya	Sub-Saharan Africa	2008-09					
		2020					
Mexico	North America	2008-09					
		2020					
Russia	Eurasia	2008-09					
		2020					
Rwanda	Sub-Saharan Africa	2008-09					
		2020					
Saudi Arabia	Middle East and North Africa	2008-09					X
		2020					
Senegal	Sub-Saharan Africa	2008-09					
		2020					
South Africa	Sub-Saharan Africa	2008-09	X	X			X
		2020					
South Korea	East Asia	2008-09	X	X	X		X
		2020		X			X
Vietnam	Southeast Asia	2008-09					
		2020					
Zambia	Sub-Saharan Africa	2008-09					
		2020					

c. Sustainable Food

Country	Region	Time Period	Irrigation/Flood Control Projects	Inputs (Seeds, fertilizers, machinery)	Farm Modernization	Storage, Food Protection, Food Production	Insurance
Argentina	Latin America	2008-09			X		
		2020				X	
Australia	Oceania	2008-09					
		2020				X	
Bangladesh	South Asia	2008-09	X	X		X	X
		2020					
Canada	North America	2008-09			X		X
		2020			X	X	X
China	East Asia	2008-09	X	X			
		2020					
Costa Rica	Central America	2008-09				X	
		2020					
Ecuador	South America	2008-09					
		2020					
European Union	Europe	2008-09					
		2020					
India	South Asia	2008-09					
		2020				X	
Indonesia	Southeast Asia	2008-09			X		
		2020				X	
Jamaica	Central America	2008-09					
		2020					
Kenya	Sub-Saharan Africa	2008-09	X	X	X	X	
		2020				X	
Mexico	North America	2008-09					
		2020					
Russia	Eurasia	2008-09					
		2020					
Rwanda	Sub-Saharan Africa	2008-09		X		X	
		2020		X		X	
Saudi Arabia	Middle East and North Africa	2008-09	X		X	X	
		2020					
Senegal	Sub-Saharan Africa	2008-09					
		2020					
South Africa	Sub-Saharan Africa	2008-09			X	X	
		2020					
South Korea	East Asia	2008-09					
		2020					
Vietnam	Southeast Asia	2008-09					
		2020					
Zambia	Sub-Saharan Africa	2008-09					
		2020					

d. Beneficiaries

Country	Region	Time Period	Stimulus Size (% of GDP)	Renewable Energy	Sustainable Food
Argentina	Latin America	2008-09	8.8		b, e
		2020	5		c
Australia	Oceania	2008-09	3.9	a, d	
		2020	7.2		a, c
Bangladesh	South Asia	2008-09	0.5		
		2020	2.5		a, b
Canada	North America	2008-09	2.5	a, f	b
		2020	12.4	d	b, c
China	East Asia	2008-09	12.7	c, d, f	b
		2020	4.1	a	a
Costa Rica	Central America	2008-09	2.8		b, f
		2020	11.8		
Ecuador	South America	2008-09	5		
		2020	No data		
EU	Europe	2008-09	1.5	d, f	
		2020	9.6	f	
India	South Asia	2008-09	1.2		
		2020	6.8		a, b, c
Indonesia	Southeast Asia	2008-09	1.4		a, b, e, f
		2020	4.4		a
Jamaica	Central America	2008-09	No data		
		2020	1.1		
Kenya	Sub-Saharan Africa	2008-09	1		a, b, f
		2020	0.9		a
Mexico	North America	2008-09	4.7	a	
		2020	1.2		
Russia	Eurasia	2008-09	13.2		
		2020	3.4		
Rwanda	Sub-Saharan Africa	2008-09	2		
		2020	3.3		a, b
Saudi Arabia	Middle East and North Africa	2008-09	11.3	f	f
		2020	2.8		d
Senegal	Sub-Saharan Africa	2008-09	No data		
		2020	7		
South Africa	Sub-Saharan Africa	2008-09	1.2	a, c, d, f	a, b, f
		2020	10		
South Korea	East Asia	2008-09	4	a, c, d, f	
		2020	14	c, d, f	
Vietnam	Southeast Asia	2008-09	8.4	d	
		2020	4.2		
Zambia	Sub-Saharan Africa	2008-09	No data		
		2020	2.5		

Key:	
a	Households
b	Farmers
c	SMEs
d	Corporates (natl)
e	Corporates (intl)
f	Public sector

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