



AFRICA CLEAN ENERGY (ACE)

TECHNICAL ASSISTANCE FACILITY (TAF)

SURVEYS SHOW COVID-19 IS SLOWING DOWN UNIVERSAL ACCESS TO ENERGY

SURVEYS SHOW COVID-19 IS SLOWING DOWN UNIVERSAL ACCESS TO ENERGY

Off-grid solar (OGS) has been instrumental in increasing electricity access globally. According to the 2020 Market Trends Report, solar home systems and mini-grids were serving 420 million people by the end of 2019. Companies in OGS were moving to new locations to electrify underserved populations. Projections showed that the sector could serve 823 million users by 2030. However, the progress and the projections are now threatened by the Covid-19 pandemic. Ecosystem players such as industry associations, financiers and other support organisations conducted surveys to find out how the global pandemic was affecting OGS companies and their consumers. This blog presents a summary of the main surveys carried out since March 2020 at two levels – industry and consumer, followed by a brief analysis of the findings.

ACCESS TO OFF-GRID LIGHTING IS THREATENED AS COMPANIES FACE FINANCIAL DISTRESS

<i>Survey details</i>	<i>Perceived disruption</i>	<i>Key Challenges</i>	<i>Financial sustainability</i>	<i>Technical Assistance Needs</i>	<i>Financing needs</i>
<p>Survey by: <i>GOGLA</i></p> <p>Date: <i>March 2020</i></p> <p>No. of respondents: <i>55</i></p> <p>Data from: <i>GOGLA Members</i></p>	<p>Pay-as-you-go (PAYG) companies anticipated the highest level of disruption on their businesses.</p>	<p>The biggest challenges were ceased operations, inventory management, human resource capacity and attracting new investment.</p>	<p>Many of the companies could only financially sustain for about 3-4 months if COVID-19 continued to spread. The most fragile companies were (1) distributors and (2) companies with a PAYG business model (See Annex 1).</p> <p>Companies with a cash models seemed to be in a better financial position than companies with a PAYG model.</p>	<p>The breakdown of the technical assistance needed by companies (See Annex 2):</p> <ul style="list-style-type: none"> 26% - bridging loans 10% - technical guidance 9% - working group calls 27% - relief funds 12% targeted lobbying 2% - nothing 14% - peer-peer cooperation/coordination 	<ul style="list-style-type: none"> • Most distributors would require less than \$1M funding. • Most manufacturers needed more than \$1M but less than \$10 M. • PAYG companies need between <\$200k – \$20M.
<p>Survey by: <i>GET.Invest</i></p> <p>Date: <i>April 2020</i></p> <p>No. of respondents: <i>40 from 14 countries</i></p> <p>Data from: <i>Get.Invest finance catalyst portfolio</i></p>	<p>73% of the companies anticipated severe disruption and 24% moderate disruption.</p> <p>For 57% of the companies, the disruption would occur almost immediately while for 24% it would occur in 6 months</p>	<p>The top four challenges were (See Annex 3):</p> <ul style="list-style-type: none"> • Decrease in revenue • Human resource concerns • Working capital shortage • Supply-chain disruptions 		<p>The highest ranked technical assistance need was introduction to funds (See Annex 4).</p>	<p>84% of companies prefer relief funds (See Annex 5)</p>
<p>Survey by: <i>SE4All</i></p> <p>Date: <i>April 2020</i></p> <p>No. of respondents: <i>82</i></p> <p>Data from: <i>GOGLA, AMDA, Smart Power</i></p>	<p>-Supply chain concerned about the expected complexity associated in importing goods and clearing customs.</p> <p>-63% of SHS companies, and 44% of mini-grid companies</p>	<p>-28% of mini-grid companies and 39% of SHS companies concerned about possible staff lay-offs in two months .</p> <p>35% of SHS companies concerned about effect of movement restrictions on staff productivity.</p>	<p>-Off-grid companies expect to lose between 27% (SHS) and 40% (mini-grid) of their revenues in the coming months.</p> <p>- 67% of mini-grids and 75% of SHS companies only had</p>	<p>-Categorization of off-grid as an essential service</p> <p>-Advocacy support to facilitate clearing of goods and ease import challenges</p>	<p>Support mechanism to maintain key infrastructure projects already underway</p> <p>Provision of working capital facility to enable</p>

Survey details	Perceived disruption	Key Challenges	Financial sustainability	Technical Assistance Needs	Financing needs
<i>India. Additional interviews with mini-grid companies and Solar Home System (SHS) companies</i>	concerned with the human resource	-65% of SHS companies expected supply chain challenges compared to 52% of mini-grid companies. -Possible risk of investors getting burned by an off-grid company investment and thereby shunning the industry.	two months or less of operating expenditure available.	-Investing upstream in the supply chain to ensure minimal disruption	investment for growth moving forward -Shifting results-based financial facilities to allow for some up-front payment (e.g., NEP in Nigeria)
Survey by: EnDev <i>Date:</i> May 2020 No. of respondents: 674 from 22 countries Data from: Companies that EnDev works with. Includes cookstove companies, biogas, minigrids, SHS	-Smaller local companies were more affected: already 29% had ceased operations, 75% were severely affected and 25% would not survive more than 3-months with continued Covid lockdowns. -Companies with 5-20 staff members are more likely to have ceased operations .	-Solar and mini-grid companies more affected than biogas and cookstove companies. -Challenges of Inventory management, financing and customer sales were more severe for SHS and mini-grid companies compared to biogas and improved cookstove companies -Over 4000 jobs from EnDev's portfolio were at risk.	-40% of companies expected staff layoffs within 3 months -30% of the companies could only sustain their operations for a few weeks. 40% of these were solar and mini-grid companies.	Companies need support to tap into existing relief funds	-56% of companies needed financial relief funds 40% of minigrid, and 60% of solar compnies needed relief of Euros 25,000 or less
Survey by: EnDev <i>Date:</i> Aug 2020 No of respondents: 613 from 44 countries. Includes clean cooking, mini-grids, household solar & appliances.	70% of companies are facing significant disruption. Almost 30% have ceased their operations (hibernation or permanent closure)	-Sales volumes have decreased substantially – 44% of companies have experienced more than 50% decline in sales. For another 23% the declines was 25-49%. This is mainly due to low demand, shift in consumer spending and logistical restrictions.	% of companies survival duration 15% no longer sustain operations 43% 1-2 months 27% 3-5 months 16% 6-9 months	-59% of companies need support to access Covid-19 relief funds	-70% of companies have not accessed any funding during the crisis. -76% of companies need grant funding (Covid-19 relief to cover e.g. operational costs). This is needed to complement

<i>Survey details</i>	<i>Perceived disruption</i>	<i>Key Challenges</i>	<i>Financial sustainability</i>	<i>Technical Assistance Needs</i>	<i>Financing needs</i>
<i>Data from: Endev, Africa Mini Grids Association, Alliance for Rural Electrification, Ashden, Clean Cooking Alliance, Efficiency for Access, ESMAP, Global Distributors Collective, GOGLA, SE4All</i>		-Companies are also experiencing cash flow problems. Between March – May 2020, collection rates for mini-grid and PAYG companies decreased by 25%.			concessional loan relief funds in the pipeline. -57% of companies need less than USD 50,000 to survive the next 6 months

CONSUMERS' ABILITY TO PAY HAS BEEN AFFECTED

60 Decibels carried out a survey in Kenya, Uganda, Cote d'Ivoire, Nigeria, Rwanda and Zambia among 5,368 consumers of PAYG companies via phone interviews, between May -July 2020.

Key findings:

- 94% of consumers acknowledge that their lives have improved since they purchased the SHS product(s).
- 90% of the companies did not offer any financial support or repayment flexibility to consumers since the start of the pandemic. Where companies availed financial support, 69% of consumers used it.
- Only 25% of consumers were coping with the pandemic. 75% felt vulnerable. The level of vulnerability reduced from 75% in May to 68% in July. Up to 50% of those feeling extremely vulnerable have had their repayments affected during the pandemic.

- For 86% of the consumers the financial situation of their families became worse after the pandemic, compared to before. Incomes of at least 67% of the consumers decreased, but the situation improved slightly in July, with only 49% of consumers reporting decreased income the previous month. 60% of consumers resorted to using their savings, though only 35% had savings. 63% have had to borrow from family or friends to cope with the Covid-19 situation.
- For 34% of the consumers, repayments for their SHS products have been affected (male – 32%, female – 39%). 36% of those affected live in rural areas, while the rest live in towns or cities.
- 53% of consumers feel the repayments are a burden to them, with 19% indicating they are a heavy burden.

SDG 7 IS AT GREAT RISK

- There has only been one major survey on consumers by 60 Decibels that shows that 47% of pay-as-you-go consumers have kept pace with their repayments. **However, 53% of the consumers feel that the repayments are a burden.** This points to a need to cushion consumers, especially because incomes have reduced causing at least 63% of consumers to borrow from family/friends or use their savings to cope with the Covid 19 pandemic.
- With companies also in financial distress, only 10% of PAYG were able to extend financial support to consumers. Moreover, **the burden on consumers is likely to get worse** as predictions by World Bank show that Covid-19 will likely push between 71-100 million people into extreme poverty¹.
- **SDG 7 is at risk:** At least five surveys focusing on companies have been conducted since March 2020. **The results show that 85% of the companies will not survive more than 5 months.** This will have a significant negative effect on energy access among the rural population and job losses.
- **All the surveys show that majority of the OGS companies (large and small; distributors, PAYG, manufacturers) are in financial distress.** Sales for the first six months of this year have dropped by more than 1 million units when compared to the same period last year². Access to finance is identified as the most significant challenge. Stand-alone solar and mini-grid companies are more affected than biogas and cookstove companies. In terms of geographical regions, East Africa seems to be hardest hit – **50% of the companies in the region can only survive for 1-2 months, while 15% can no longer sustain their businesses. Investors and the support ecosystem need to move with speed to address this situation.** In terms of business models, distributors are severely affected.
- **What companies need most is short-term grant relief,** followed by long-term equity/debt and concessional loans. So far only about 30% of companies have received assistance from government agencies (central/state/provincial/local government authorities), and 17% of companies have accessed relief funds.

¹ World Bank (2020, August) Profiles of the new poor due to the Covid-19 pandemic

² GOGLA (2020, September) [Off-grid solar market: Covid-19 Drives 26% drop in sales, slowing energy access but investors remain positive about industry performance](#)

WHAT ACTION IS NEEDED?

Inclusion of OGS in economic recovery plans

African governments should include energy access in their recover better economic plans³ as it catalyses development of other sectors. Specifically, greater deployment of OGS will lead to:

- *Cost effective electricity access:* especially for remote, vulnerable and underserved population segments. **Off-grid solar has been identified as the least-cost and expedient electrification pathway** for the rural populations in Sub-Saharan Africa⁴.
- *Powering jobs:* Off-grid renewables could create 4.5 million jobs in Africa and Asia by 2030, while solar home systems could create 1.3 million jobs in the same region by 2022^{5,6}. Furthermore, **renewables are creating opportunities for integrating more women and youth in the value chain⁷**.
- *Powering opportunity:* Evidence from sub-Saharan Africa and South Asia shows that between **12-34% of people with solar home systems undertake additional economic activities** and 11-28% generate additional monthly income of up to \$ 31-65. Furthermore, jobs are created at household level. For every 100 SHS sold in East Africa 21 jobs were created, 8 in West Africa and

4 in Asia. In East Africa, 52% of these jobs were held by women.

- *Productive use of off-grid solar:* holds **great promise in generating additional income** that consumers can use to pay for electricity and improve their livelihoods. This ranges from phone charging businesses to powering appliances such as televisions, dryers, irrigation pumps and grain mills.
- *Reduction in carbon emissions:* Governments have a greater role to play in supporting transitions towards net-zero emissions. Currently, power and heavy industry together account for about 60% of global emissions. Accordingly, the International Energy Agency notes, **'achieving global energy and climate goals will demand dramatic scaling up of renewable energy**

³ SE4All (2020, June) Africa has once-in-a-generation opportunity to recover better with sustainable energy

⁴ Phillips, J., Plutshack, V. and Yeazel, S. (2020) Lessons for modernizing energy access finance, Part 1: What the electrification experiences of seven countries tell us about the future of connection costs, subsidies and integrated planning.

⁵ Power for All (2019, July) First annual powering jobs census released, showing large opportunity employment opportunity

⁶ GOGLA & VIVID Economics (2019) Off-grid solar: A growth engine for jobs

⁷ Energia (2020) Gender and energy at center stage in Covid-19 battle: Powering a more gender-equal recovery

technologies like solar⁸ Replacing kerosene lighting with solar home systems could reduce a household's carbon emissions by 45kg a year⁹.

Appropriate financing

Consumers need cushioning so that they do not slide back to an 'unelectrified state' as they struggle to allocate diminishing incomes to competing needs like food, rent, healthcare, education and lighting¹⁰. Governments and development partners should deploy demand side subsidies which directly benefit consumers and will go a long way in 'keeping the lights on' and increasing electricity access among vulnerable population segments.

OGS companies need relief funding to keep the lights on for those who are already electrified and reach new consumers. Funding is also required for companies to meet their operating costs as revenues decrease. **Additionally, attention needs to be paid to smaller companies that have been severely affected by the Covid-19 pandemic, yet the financing available does not meet their needs.** However, some progress is being made through initiatives such as the Energy Access Relief Response¹¹.

More international finance is required for Africa to make progress on universal energy access targets especially in the post Covid-19

⁸ IEA (2020, September) Energy Technologies Perspectives 2020

⁹ Overseas Development Institute (2016) Accelerating access to electricity in Africa with off-grid solar: the impact of household solar solutions

¹⁰ ACE TAF (2020, September). [Demand-side subsidies in off-grid solar: A tool for achieving universal energy access and sustainable markets](#)

¹¹ [Covid-19 Energy Access Relief Response](#)

era. Even before the pandemic, the amount of international finance going to the off-grid sector had flattened at 12% since 2018.

Local currency financing is needed to address the problem of limited access to capital for locally owned off-grid companies¹². In addition, technical assistance and first loss facilities are needed to bridge the gap between local financial institutions and the locally owned off-grid companies.

Coordination

In the same way that Covid-19 has re-shaped the way we work, **how do the various actors supporting the OGS work together so that 'the sum of the total is greater than its parts?'** National coordination mechanisms need to be revived or established so that all efforts towards universal energy access are harmonised and recognised as contributing to national electrification targets¹³. Cross-sector linkages and multi-stakeholder partnerships are part of the enabling environment that will be required to expand electricity access and support governments in implementing recovery plans¹⁴.

¹² Green for Access (2020, September) Local financial institutions: A major untapped source of financing for energy access in Africa

¹³ (ACE TAF, 2020, August) [Coordination in Africa's off-grid sector is accelerating progress towards universal energy access](#)

¹⁴ IRENA (2019). Off-grid renewable energy solutions to expand electricity access: An opportunity not to be missed.

By Esther Kahinga*, Francis Wainaina** and Patrick Tonui **

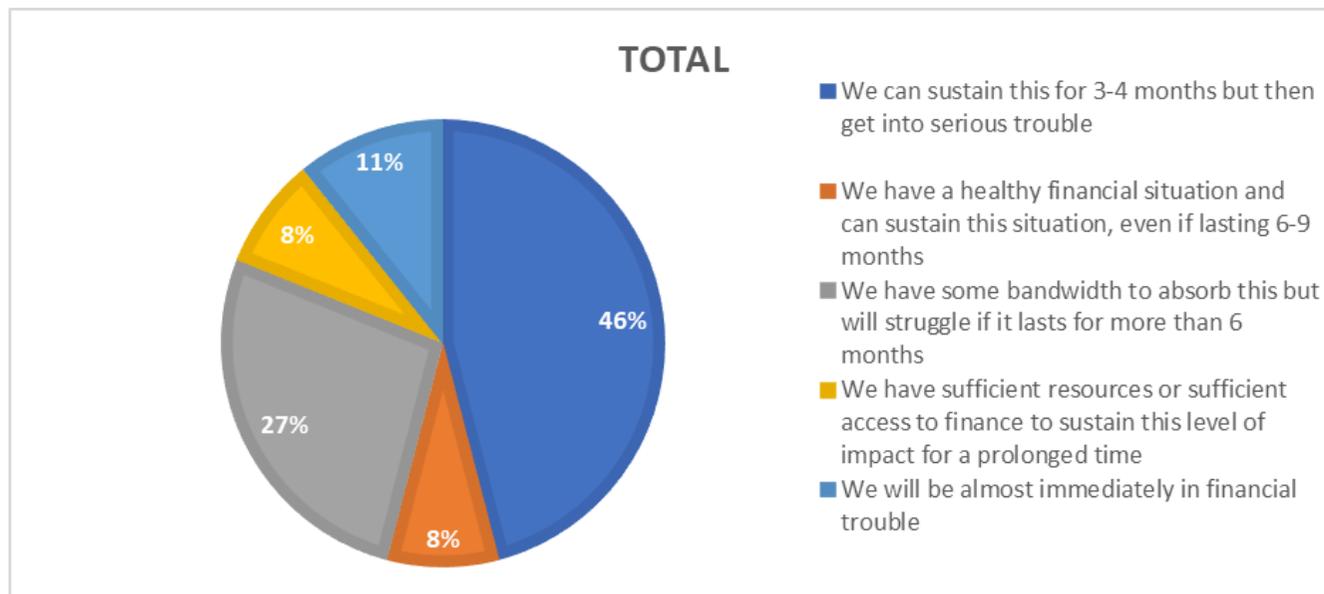
*Africa Clean Energy Technical Assistance Facility

** Global Off-Grid Lighting Association

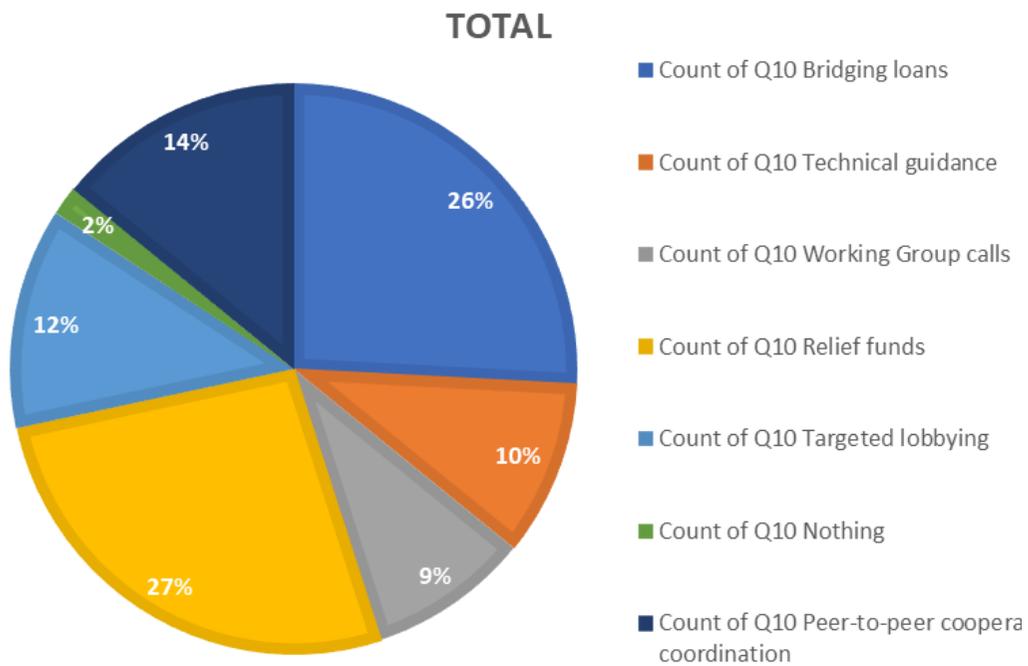
This article will be updated with results from future surveys

ANNEXES

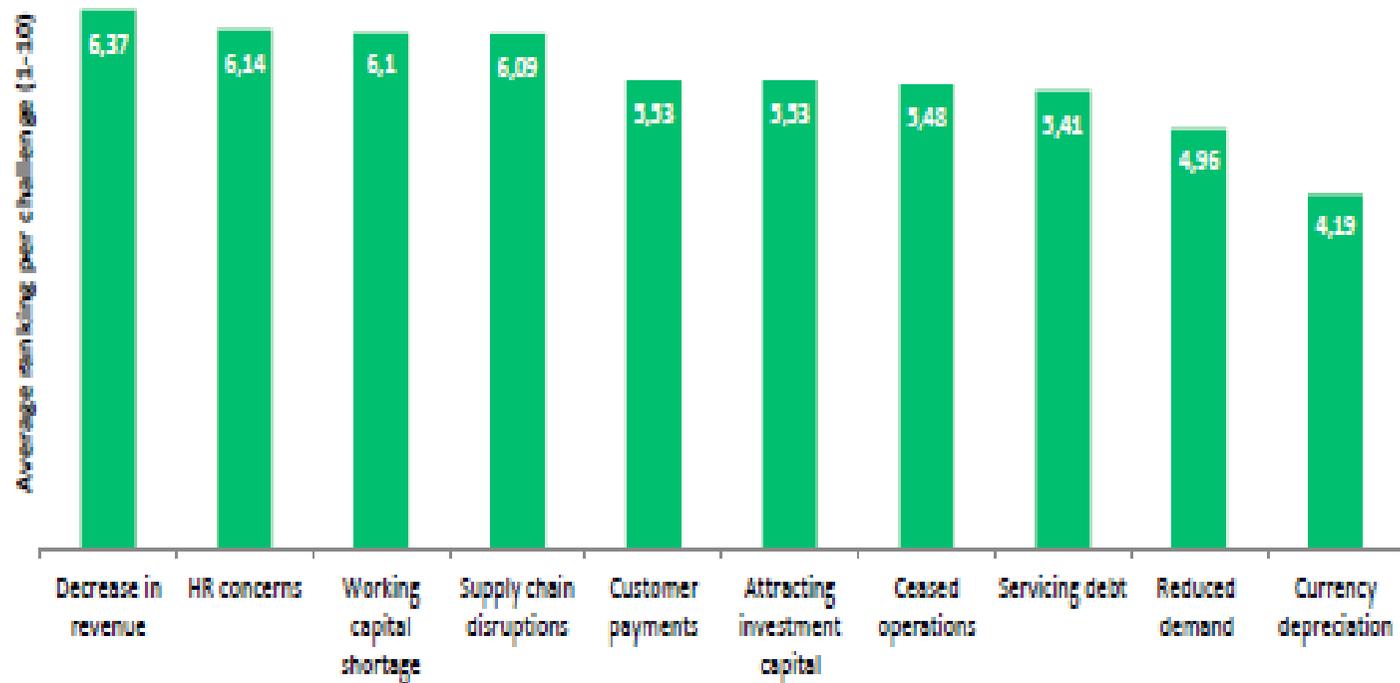
ANNEX 1: Financial sustainability for companies (Source: GOGLA)



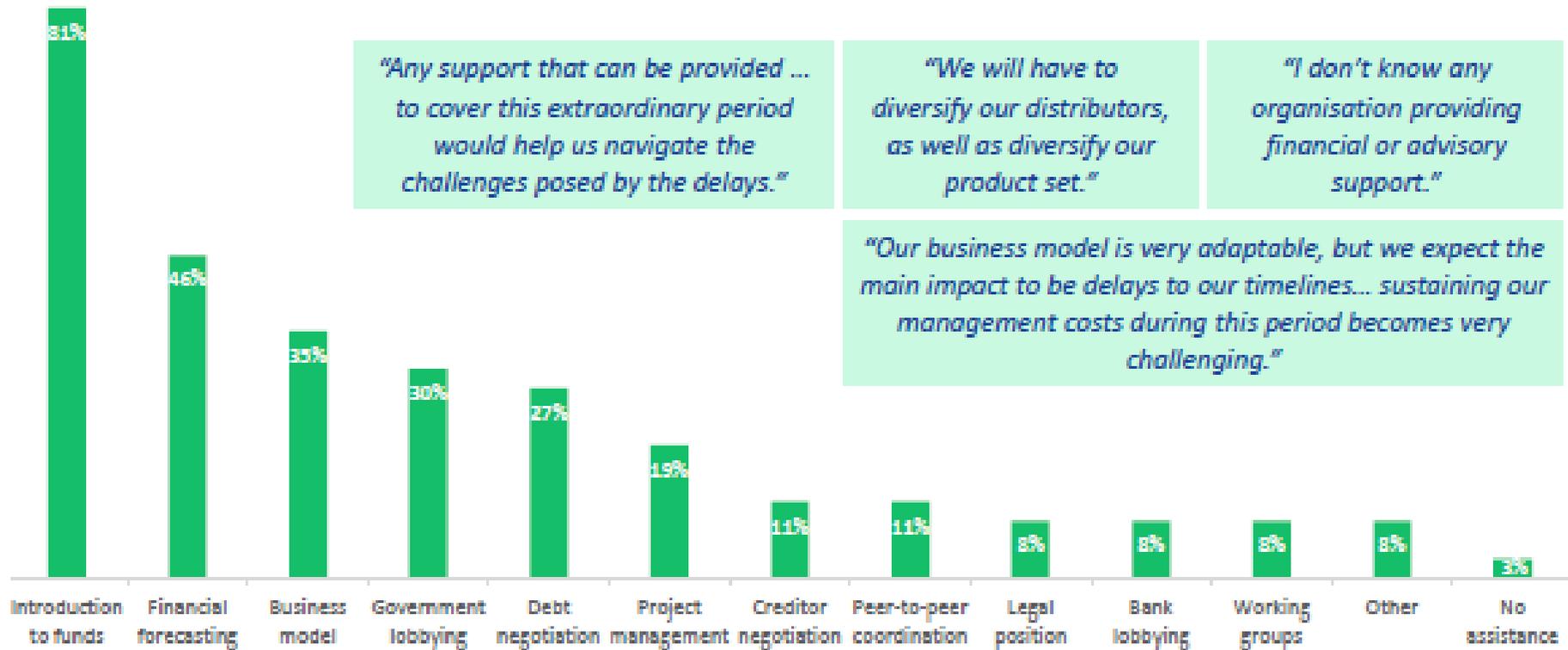
ANNEX 2: Breakdown of technical assistance needs (Source: GOGLA)



ANNEX 3: Key challenges faced by companies (Source: GET.Invest)

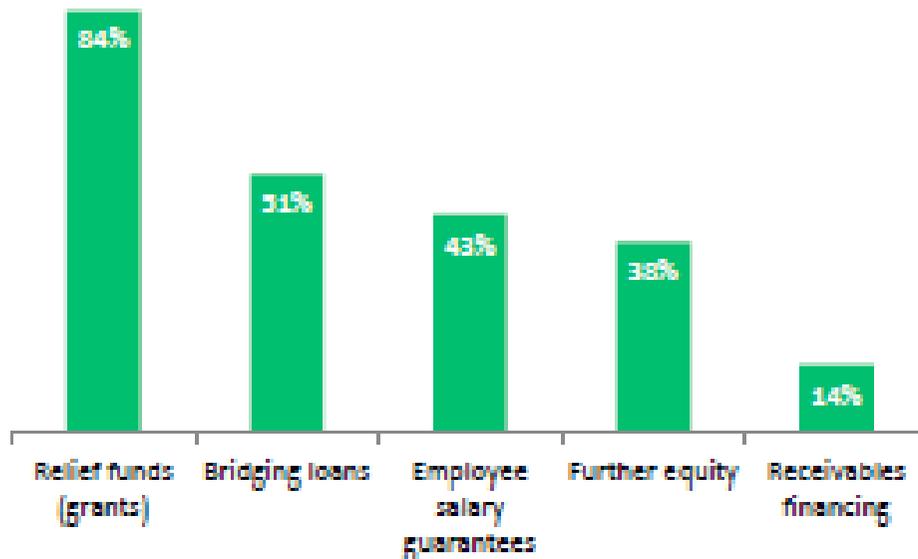


ANNEX 4: Technical assistance needs of companies (Source: GET.Invest)



ANNEX 5: Capital preferences for companies (Source: GET.Invest)

Capital preferences



"We are exploring opportunities with existing investors (but not new ones)."

"We need bridging finance urgently, as foreign exchange rates have plummeted for many developing countries."

"We could launch campaigns to refinance existing client principle repayments with a 12 month payment holiday. ... but this depends on all of our investors buying in, which may be difficult to secure in time."