Post Covid and Ukraine Crisis: Implications for Green Energy in Developing Countries

Insights from the GET.invest Finance Catalyst, and Recommendations for Donors and Financiers

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Abbreviations

AfDB	African Development Bank
CC	Clean Cooking
EPC	Engineering, Procurement and Construction
EV	Electric Vehicle
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
IPP	Independent Power Producer
PUA	Productive Use Appliance
PV	Photovoltaic
SDG	Sustainable Development Goal
SHS	Solar Home System
SME	Small and medium-sized enterprise
SSA	Sub-Saharan Africa
UN FAO	The Food and Agriculture Organization of the United Nations
UN IFAD	The International Fund for Agricultural Development (IFAD), a specialised agency of the United Nations

Introduction

Two years of a global pandemic have had a profound negative impact across developed and developing economies alike, though the impacts at the household level have varied considerably depending on public fiscal resources allocated to addressing these impacts. Already fragile post-covid circumstances in developing countries, particularly in sub-Saharan Africa (SSA), are now being compounded by secondary effects of Russia's invasion of Ukraine. In addition to driving a spike in fossil fuel commodity prices and a corresponding increase in essential goods and imported products, the invasion is also jeopardising grain yields which contribute to food security across much of northern and eastern Africa.

The market has already witnessed a profound slowdown in progress towards achieving universal access to sustainable energy (SDG7) within the last several months:

- While richer countries generally have the fiscal resources to subsidise strategic priories like electricity generation and fuel, widespread inflation will limit many countries' available fiscal or policy levers and energy access may be deprioritised.
- In the private realm, sponsors and owners of renewable energy projects and companies have encountered this same fiscal pressure, both on the sourcing and, for those in off-grid renewable energy, on the demand side. For example, several Independent Power Producers (IPPs) in sub-Saharan Africa, for both renewable and non-renewable technologies, have failed to reach financial close because they are unable to stay within cost contingencies due to drastic increases in input costs; projects are on hold or are being cancelled.
- Specifically related to renewable technologies and battery storage, the international isolation of Russia has constrained the supply of key input minerals, particularly copper, nickel, platinum alloys and cobalt.
- Relatedly, some countries that are also producers of these key minerals have seen an appreciation of currency valuation over the past two months, reflecting a reallocation of demand due to sanctions on Russia; however, ability to move these resources from extraction to manufacture into renewable energy components is still severely constrained by the global logistics and shipping crunch.

If the goals of the just transition and universal access are to be achieved, tailored resources and responses need to be mobilised to stabilise and protect ongoing and planned investments. This briefing note seeks to summarise the key issues as observed by the GET.invest Finance Catalyst (hereafter Finance Catalyst) advisory team, through our engagement with our more than 100 active clients, comprising renewable energy companies and project developers, and outline specific interventions that promote stability and investment readiness within our focal market segments in the renewable energy sector.

IPPs and Mini-grids

The pandemic-driven economic slowdown caused by serial lock downs, particularly in China, caused major disruption in the solar PV (and other technology) supply chains and the cost of shipping has skyrocketed. The spike in oil prices driven by Russia's invasion of Ukraine is further driving up the delivered cost of all forms of renewable technology, almost none of which are produced in SSA.

For IPP projects reaching financial close, we observe EPC turnkey suppliers having exhausted their contingencies before projects have even started because of significant increases in material and transport costs. Mini-grid developers are faced with similar challenges, drastically increasing the cost of adding new clients while expected revenue from those clients has likely declined. With the tight margins that these projects are built on, several are in limbo as the investors are not meeting their already low return targets.

Specifically, projects are stuck because international shipping prices have skyrocketed and are showing little sign of declining while the invasion and pandemic continue in parallel. Inflationary pressures on finished goods combined with reduced input availability are also contributing to overall cost increases that were not anticipated even a few months ago.

IPPs are smashing through the normal levels of EPC contingencies prior to commencing work on the plants. We have seen examples of this across Africa. Starting construction without contingencies is a risky undertaking, solely based on input costs before endogenous uncertainties are even addressed.

What the Finance Catalyst is doing

— The Finance Catalyst is engaging with clients to discern the impact of rising costs, and we are working to engage with specialty financiers to mobilise affordable capital if client business models can sustain additional (albeit relatively cheap) debt

— The Finance Catalyst is working with clients to mobilise tailored [reimbursable] grants to free up contingencies and unblock project implementation, but more resources may be required to keep implementation on track

— We are also making our clients aware that further instability is to be expected in the coming years, together with rising prices and anti-inflationary measures such as higher base interest rates. This awareness has led to a stronger focus on competitive pricing, increased transparency and tighter allocation of risks. This is especially useful for young companies.

— In the case of mini-grid clients, we are working to expand their revenue base by, for example, integrating rental electric vehicle (EV) capacity into their network as end-user demand for electricity tapers

How donors and financiers can help	—	Provide precisely targeted cost overrun subsidisation for projects stalled because of rising shipping or component costs could unlock a few “shovel ready” projects that will otherwise remain in limbo, and are at risk of total cancellation
	—	Deploy more flexible, ideally concessional bridge financing to allow for capital re-structuring of IPP projects

Solar Home Systems, Productive Use Appliances (PUA) and Clean Cooking

Increased Equipment Costs

Like the IPP and mini-grid segments, most of the SHS, PUA and CC products that are sold in Africa are produced by Chinese manufacturers. The supply chain challenges faced by IPPs are arguably no different for operators in these other decentralised segments, except that there are likely no contingencies in corporate budgeting to address external shocks. Another key challenge is the increase in equipment costs and corresponding longer lead times to production. This results in many companies entering a vicious cycle where they have insufficient capital to place new orders which is exacerbated by decreased cash flows because they do not have sufficient inventory to sell to customers.

As an alternative to Chinese suppliers, at least two of the Finance Catalyst’s clients have started to identify producers in Europe given the severity and duration of China’s zero Covid lockdowns. Furthermore, Chinese suppliers are pressuring Finance Catalyst clients to order more inventory sooner, and make requisite down payments now, or face substantial cost increases in a few weeks or months.

What the Finance Catalyst is doing	—	The Finance Catalyst is supporting clients in identifying and negotiating new supplier arrangements; advisors are also working with some clients on analysing and securing finance for on-shoring of assembly or even manufacturing of SHS, PUA and CC products
	—	The Finance Catalyst is continuing its support to numerous CC and clean fuel companies, particularly those that are focused on localising production of clean fuels

How donors and financiers can help	— At the policy level, provide financial and tax incentives to produce SHS/PUA/CC products in Europe for distribution in sub-Saharan Africa and other developing countries; this could improve the availability and delivered cost of some of these key products — Increased presence of concessional, long-term working capital is needed to bolster inventories over the near and medium-term else companies will not be able to grow due to a lack of affordable products — Create concessional re-financing facilities to restructure expensive, short-term debt options into more manageable long-term liabilities, preferably with grace periods — Increase availability of import guarantees or letters of credit so equipment suppliers can offer more attractive terms to companies — Co-invest in climate finance facilities, in particular via pre-financing the significant future carbon revenues deriving from clean cooking, towards e.g. working capital and potentially grant support

Decreased Demand Due to Widespread Inflation

Increased oil prices have driven consumer price inflation up in most countries in the world, developing countries included. Since SHS/PUA/CC companies generally serve household clients, their client base is generally facing increasing prices without change to household's disposable income. When faced with a decision between electricity and food, and not enough money to pay for both, households are understandably prioritising basic needs. This has had a significant impact on the revenue for Finance Catalyst clients in the last two months. For example, the pandemic-related adjustment of school fees in Kenya impacted the expected sales figures of one of the Finance Catalyst's clients by approximately 20%, which compounded by the current crisis in Ukraine, has led them to postpone and track a more conservative growth plan for 2022.

What the Finance Catalyst is doing	— The Finance Catalyst is advising clients on scenario modeling and contingency planning around reduced sales, and, where necessary, advising on how best to engage with financiers to restructure loans and payment plans as necessary

How donors and financiers can help	— Providing minimum revenue guarantees for household-focused SHS/PUA/CC (and mini-grid) companies will help them weather inflationary pressure on their clients without increasing prices — End-user subsidies are also in critical need

Disruption of IT Support Availability

Software development expertise, particularly for pay-as-you-go and other related mobile-based platforms, is concentrated in Ukraine. While this is often cited in the news as impacting large technology companies, it is also having a profound impact on the availability of key expertise to drive growth in SHS/PUA/CC markets. Some of the Finance Catalyst clients have been surprised to find that they are adjacent to the battlefront because of where their software contractors are based. Building this capacity elsewhere is not feasible in the near-term, so ongoing support to relocate Ukrainians to safer environments and continued diplomatic pressure to end the invasion is the only practical solution to this challenge.

Impact on Food Supply for Rural Customers

Global trade uncertainties deriving from the war in Ukraine and the associated sanctions to Russia have not only manifested via disruption of cereals imports in Africa but may well influence the trade of inputs to Africa's agriculture sector, starting from chemical fertilisers, where Russia is among the top four producers of nitrogen fertilisers. This issue is compounded by the persistent drought in East Africa and the ongoing war in Ethiopia, on top of already stark food challenges in many places where the Finance Catalyst operates.

In the immediate term, the war in Ukraine may cause fertiliser price increases (because of constrained natural gas availability) and a spike in staple food prices, thus reducing household disposable income. Several Finance Catalyst clients are focused on the supply of productive use of energy solutions to smallholders, for instance, solar water pumps, sprayers, small mills, and cold chain solutions.

Smallholders, on their hand, are the largest producers of food in the African continent and can easily adopt (when they do not already practice) sustainable agriculture and soil enhancement practices. Similarly, There is thus a need to ramp up financial support of energy access SMEs that improve the agriculture value chain, as they have the capacity to reach smallholders with appropriate technologies, that increase output and resilience of agricultural systems.

What the Finance Catalyst is doing	— The Finance Catalyst is advising clients on scenario modeling and contingency planning around reduced sales, and, where necessary, advising on how best to engage with financiers to restructure loans and payment plans as necessary
How donors and financiers can help	— Provide additional growth finance in the form of quasi-equity and equity with long-term time horizons and an even higher than historic risk appetite — Work through specialised funds and platforms to deliver corporate debt finance with longer tenors than those typically offered, either by creating new blended finance instruments or by injecting more concessionality in existing instruments — Energy access funding programmes should more strongly explore the Energy-Food nexus and seek strategic partnership with the global institutions with high level expertise in smallholder farming (i.e. UN FAO, UN IFAD, AfDB) to forge specific RBF grant-funding programmes.