Youth Impact Framework





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Suggested Citation. Student Energy (2023). Youth Impact Framework.

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Global Covenant of Mayors for Climate and Energy (GCoM) GCoM is the largest global alliance for city climate leadership, built upon the commitment of over 12,500 cities and local governments, across 6 continents and 144 countries, representing over 1 billion people. GCoM serves cities and local governments by mobilizing and supporting ambitious, measurable, planned climate and energy action in their communities by working with city/regional networks, national governments, and other partners to achieve our vision.

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EXECUTIVE SUMMARY

Young people play an integral role in contributing to progress in the climate and energy movement, ranging from directly implementing climate solutions to advocating for policy and behavioral change. However, despite their active leadership, youth continue to face significant challenges in accessing resources to support and scale their work, and are largely disenfranchised from community level to national government, and international processes.

To ensure that increasing awareness of the significant potential of youth results in increased support for youthled work, Student Energy has developed a Youth Impact Framework in partnership with the Global Covenant of Mayors for Climate & Energy (GCoM) and Melbourne Centre for Cities University of Melbourne. The purpose of such a framework is for youth to be able to measure and communicate the impacts of their work with all levels of government, and for decision-makers beginning with cities and local governments - to understand the tangible contributions of youth-led work. The Framework aims to be a first step towards a shared language effectively communicating and evaluating qualitative and quantitative youth-led initiatives in climate and energy.

To inform the creation of the Youth Impact Framework, we consulted a total of 16 youth leaders and 10 industry stakeholders to seek their input on the framework in the context of what industry experts value as an impact, and what barriers youth leaders face in maintaining their work. To supplement these consultations, we also conducted a literature review of 17 examples of impact measurement frameworks in the field of sustainable development and community projects, with examples including both broader theoretical frameworks and frameworks based on specific case studies and regions. Despite this review of existing frameworks, we found a **significant gap in exploring the impacts of youth-led initiatives in sustainability.**

We learned from the consultations that there is a positive inclination from industry experts in supporting youthled initiatives but some who we interviewed do not have proper funding mechanisms to provide that support. On the other hand, youth leaders shared that **communicating their impact** to funders remains a primary challenge to secure the funding they need to scale their work, and most remarked that adding a framework would prove beneficial to continue their efforts in the overall energy and climate action. Apart from receiving funding to implement their initiatives, some youth have shared that funding towards **mentorship**, **providing government support**, **capacity building**, and **offering media visibility** would minimize the barriers they often encounter to continue their work. In response to this, the Youth Impact Framework aims to provide local, regional, and national level decision-makers with an evidence-based, transparent, and action-oriented framework to assess their existing engagements with youth and opportunities to strengthen them.

Why estimate energy and climate impacts?

Some types of impacts of youth-led initiatives can be far-reaching and difficult to assign metrics to. At the same time, there may be other impacts that can be estimated and/or measured, such as emissions reduced or avoided, clean energy capacity installed, waste diverted, or resources conserved. The Youth Impact Framework suggests some impacts to measure as a way to encourage both organizations and young people leading projects to estimate the contributions they are making towards emissions reductions and increased sustainability, using tools like the <u>Greenhouse Gas Equivalencies Calculator</u> or the <u>Simple Emissions Reductions Calculator</u>. This can help youth decide how they want to focus their activities, and to draw clearer links between their activities and the achievement of national or international climate targets.

KEY INSIGHTS & RECOMMENDATIONS

While the Youth Impact Framework's set of impacts, outcomes, and indicators are intended to be used as a starting point for both youth and industry stakeholder organizations to understand the impact of youth-led projects, the research and interview process also revealed some more holistic recommendations and calls to action that can be immediately acted upon. Summarized below are the key insights synthesized from research and interviews, each with an actionable recommendation for decision-makers at organizations of all types.

Table 1. Key Insights and Recommendations

KEY INSIGHTS	RECOMMENDATIONS
Most youth noted that funders tend to favor singular projects or new initiatives rather than providing funding for organizations and ongoing projects. This makes it challenging for many youth leaders to invest in the sustainability of their work or organization.	Provide unrestricted funding to youth-led initiatives which can be used for hiring and paying staff, maintaining budgets, establishing governance, and purchasing supplies, which would help sustain their overall work in climate and energy for the long-term.
While unrestricted funding is crucial, youth also noted that other types of support would be beneficial in maintaining their initiative. These additional forms of support include mentorship, training or skills building, and awareness-raising media visibility.	 Provide dedicated mentorship for youth-led projects in technical or scientific knowledge, impact measurement, project management, or entrepreneurship, in conjunction with funding calls, grants, and awards. Amplify youth-led work, by featuring youth in organizational newsletters, speaking engagements, and profiling youth projects and teams in media. Organizations should also consider researching youth-led work in their field or region, to ensure that diverse and impactful youth projects are amplified.
Youth leaders expressed that they generally find it difficult to communicate or demonstrate impacts of their initiatives in a way that resonates with decision-makers, or with funders' priorities.	Use plain language, and be transparent about funding or strategic priorities so that young people can easily understand the criteria and requirements that decision-makers and funders have. Create accessible training resources for youth to better communicate their impacts, or create channels for youth to ask questions directly to funding experts mentors and other industry leaders

Both industry experts and youth value youth- specific indicators such as "increased youth empowerment", "increased awareness & skills" & "greater youth influence in policy and strategy".	Include language on the value of youth engagement, awareness-raising, and skills building in organizational strategic plans and priorities, so that it is embedded in the organization's activities and program development.
Youth noted that they would like increased support from governments (especially youth leaders in the African region) to ensure they can access high-level decision making spaces, and be heard in a meaningful way.	Provide support , including funding, for youth of all backgrounds to attend high-level conferences or other decision-making spaces where they can share their work and stories, demonstrating tangible roadmaps for how youth can scale their impact.
Industry experts recognized the impact of youth in influencing policies and suggested capturing indirect impacts which are a result of youth influence at a policy level.	Dedicate staff capacity to researching youth- led projects in your region . Often, youth may be indirectly supporting emissions reductions by pushing for clean energy policies, taking action to stop future fossil fuel projects, or calling for more liveable cities. Recognizing these contributions can provide a foundation for more meaningful youth engagement.
Industry experts and most youth leaders recognized the difficulty of quantifying all types of impacts through metrics, and suggested additionally defining the impact of youth-led initiatives as a story of change meaning, sharing the impact of the work through storytelling and experiences.	Consider whether there is a clear organizational understanding of how youth (can) contribute to change in your field, and create space in calls for funding or in youth-facing programming for youth to share their story of change, in addition to meeting other criteria.
The impacts that youth identified as being most difficult to measure are emissions and energy-related indicators, such as "reduction or avoidance of GHG emissions," or, "improved energy access."	Provide education or share industry standard tools, best practices, and frameworks for youth to better estimate the emissions-reductions potential, adaptation, resilience, increase in energy access, and or poverty reduction aspects of their work.

Measuring such indicators and using this framework can help aggregate and quantify impacts of youthled organizations, making it accessible for local governments or companies to collaborate with youth and catalyze advocacy efforts in the climate and energy space. One way to do this is by introducing Youth City Research and/or Challenge Teams where youth and their local government work together to test the framework. The aim is to train young people to engage with local governments and facilitate matchmaking between local government leaders and youth to collaborate on climate and energy policy solutions.

LITERATURE REVIEW

To inform the creation of the Youth Impact Framework, we surveyed existing scholarship on two key questions:

- 1. What does existing research and evidence say about the impact and contribution that young people and youth-led initiatives have made towards strengthening climate action?
- 2. What are some examples of impact frameworks which aim to quantify and describe the impact of climate, energy, and sustainable development-related projects?

Key Question 1: What does existing research and evidence say about the impact and contribution that young people and youth-led initiatives have made towards strengthening climate action?

Out of the 17 examples of impact

measurement frameworks we researched, only **2 existing reports** on impact measurement shed light on the influence and power of youthled organizing. For instance, the first literature by Ho, Clarke, and Dougherty (2015) categorizes scales of impact as individual, community or interorganizational, and national or international; and offers a 3x3 matrix of strategies and impacts that highlight multidimensional outcomes of youth-led initiatives. Based on this, Ho, Clarke, and Dougherty created a <u>new framework</u> that acknowledges partnerships as an additional strategy that youth use, and organized the framework to measure youth-led contributions according to:

- Four strategies (socialization, partnership, influence, and power);
- Seven categories of topic (environment, human health and safety, education, culture and religion, human rights and democracy, equality & empowerment & social justice, science & business & technology & development);
- Three scales of impact (individual, community, systemic);

- Eight types of youth-led engagement (philanthropy, volunteerism, political engagement, public policy, economic activity, arts, research and innovation, and other);
- Six youth organizations (individual group, social enterprise, for profit company, non-profit organization, and advisory body).

The framework illustrates that youth are successful in creating positive change as long as the aforementioned strategies are implemented (Ho, Clarke, and Dougherty, 2015).

The second example is a report by the <u>Youth</u> <u>Sustainable Energy Hub (YSEH)</u> that showcases the work and impact of youth initiatives in the sustainable energy sector (Khan, 2021). The report primarily focuses on advancing SDG7, policy advocacy, education and capacity-building, and finally, social, economic and environmental dimensions (Khan, 2021). In the report, there is no clear distinction between youth-led and youth-founded initiatives, and it does not contain a specific framework in measuring the impacts of the aforementioned dimensions. The YSEH report does however consider the reduction of GHG emissions and water use as well as waste diversion intersecting with issues of gender, marginalized and displaced communities as important indicators on defining clear impacts of youth initiatives (Khan, 2021).



While both frameworks are helpful in studying the dynamics between strategies and impact of youthled engagements, mapping the depth of impact based on project archetypes and its associated indicators and consideration of context-specific factors can further refine our understanding of the impacts that youth-led projects have on climate and energy action overall.

Key Question 2: What are some examples of impact frameworks which aim to quantify and describe the impact of climate, energy, and sustainable development-related projects?

One example of an existing framework that is not related to youth-led initiatives is a multidimensional assessment of environmental and socioeconomic impacts of community based initiatives (CBIs). Celata and Sanna (2018) offer a methodological framework that assesses 37 CBIs against 6 typologies including: community gardens, solidarity purchasing groups, food cooperatives, community energy, recycling, and mobility initiatives. Alongside considering the environmental impacts such as the reduction of GHG emissions, their framework also includes indicators that measure social inclusion, social capital, human capital, economic benefits, financial sustainability, and innovation (Celata & Sanna, 2018). Through the multi-criteria analysis method (MCA), they measure projects based on the aforementioned typologies to assess the best performing initiatives. Following the MCA test, they also conduct a sensitivity analysis to test the influence on the results produced from the MCA method (Celata & Sanna, 2018). While the

framework provides an understanding of best and worst performing initiatives within each impact dimension, it does not yield exact measurements. Another existing <u>report</u> published by Towards European Societal Sustainability (TESS) provides a framework for yielding exact measurements. In their summary report, TESS assesses the impacts of European CBIs using the Specific Measurable Achievable Relevant and Timebound (SMART) Framework within the domains of food, transport, energy, and waste by estimating avoided GHG emissions as the primary indicator (Towards European Social Sustainability, 2017).

To capture local-level impacts, Esther C. van der Waal (2020) conducted a <u>case study</u> of a community-led wind turbine project in the Scottish Island, Shapinsay. She used the change mapping methodology that illustrates the dynamics between a project, host community, and contextual factors by developing theories of change (van der Waal, 2020). The study revealed that the initiative increased local economic development, employment, knowledge and skills (van der Waal, 2020). This framework sheds perspective on measuring impacts of local projects but lacks a system that measures longterm impacts.

There are also existing frameworks that measure progress towards SDGs. For instance, Nicholas Schone (2021) also applies the SMART method in measuring the <u>SDG indicators</u> to assess energy access projects. The author studied the relevance



of each indicator and access to energy by factoring in contributions of electricity, cooking fuel, and transportation service. Using a 6-point scale ranging from 0 to 6, each indicator is assessed by relevancy, followed by using the Multi-tier framework that considers capacity, duration, and availability (Nicholas Schone, 2021). While the SDG indicators provide a holistic assessment framework by showing outcomes of any access-to-energy project, the SDGs themselves do not capture the impacts of local projects. A report by the Inter-American Development Bank, on the other hand, uses the SMART framework to assess impacts of both climate mitigation and adaptation projects by identifying indicators based on different scenarios such as social, economic, and policy-related dimensions (McCarthy, Winters, Linares, Essam, 2012).

In the current literature on energy indicators, we looked at Global Covenant of Mayors' (GCOM) Energy Access and Poverty Pillar (2022) which lists a comprehensive set of global indicators that analyzes three key energy elements-secure energy, sustainable energy, and affordable energy. The Energy Access and Poverty Pillar is a reporting framework for local governments to play a key role in facilitating climate mitigation and adaptation through reducing energy poverty and/or providing energy access (GCoM, 2022). Pillars under Sustainable Energy and Affordable Energy informed the creation of the "Energy Transition & Climate Change Mitigation" impact category of the Youth Impact Framework (see Table 2) that houses indicators such as "Improvement in Energy Efficiency and/or Energy Conservation" and "Increase in Clean Energy Supply".

In terms of monitoring and reporting, literature from the <u>CDP-ICLEI Track</u> (2021), the world's leading climate reporting platform for cities, measures and tracks risks, hazards, emissions, energy efficiency, increased green spaces, and data related to water, transport, waste, urban health and social equity. The submitted data in the Track helps bring cities, investors, and businesses together to create a resilient future and better understand the status of current climate policies (CDP-ICLEI, 2021). The <u>International Climate Initiative (IKI)</u> has

been implemented by the Federal Ministry for Economic Affairs and Climate Action (BMWK) as part of the German government's international finance commitment (International Climate Initiative [IKI], 2022). Through the IKI (2022), the ministries support approaches to emerging countries to develop their National Determined Contributions (NDCs) that are grounded in the Paris Agreement. It measures how to adapt to the impacts of climate change, to conserve and rebuild natural carbon sinks while considering social, economic, and environmental implications (IKI, 2022). The IKI (2022) also funds projects that are related to mitigating greenhouse gas emissions, climate change adaptation, conserving biological diversity, and conserving natural carbon sinks that focus on reducing greenhouse emissions from deforestation. This has informed our understanding of the relevance of measuring natural climate solutions and its connection to the reduction of greenhouse gas emissions.



The overall exploration of the above-mentioned literature, especially the Energy Access Pillar, CDP-ICLEI, and the IKI, was a starting point for designing the Youth Impact Framework and its relevant indicators. Reflecting on the priorities of these organizations, the Framework further aims to connect these indicators to how youthled projects, especially in the African region, are creating meaningful changes in their communities.

METHODOLOGY

Our literature review provided a foundation for the development of the Youth Impact Framework and its defining indicators. It also highlights the gap in existing literature on methods to quantify the impacts of youth-led initiatives, as well as the lack of supportive evidence of the significant contribution of youth-led projects to policy advocacy.

We explored African cities to understand the intersections of climate and energy given their potential in the energy transition and to better develop our indicators by studying how African cities are measuring impact in their regions. This has also fostered a conversation in defining impacts. For instance, is quantifying impacts enough to dictate the power of youth-led initiatives or is demonstrating short term impacts just as important as long-term impacts? Taking these questions into consideration, the Youth Impact Framework suggests indicators to measure both quantitative and qualitative impacts of youth-led activities which can be later tailored by youth leaders, policymakers, business, and academia - across regional contexts - for the purposes of their own impact evaluation.

The <u>GIIN report</u> (Global Impact Investing Network Impact Measurement in the clean energy sector, n.d) states the difference between outcomes and outputs to create an effective impact measurement framework. It states that outcomes are changes or effects on individuals or the environment that subsequently followed after implementing a service or delivering a product while outputs are tangible practices, products or services that are resulted from the activities (Global Impact Investing Network Impact Measurement in the clean energy sector, n.d). For the purposes of our research, we borrowed the definition of 'outcomes' to demonstrate the changes youth brought in their communities following the delivery of their initiatives. We suggested indicators to measure each possible outcome (or activity) that youth have undertaken in their communities and referenced available tools of measurement for the respective indicators.

10 industry stakeholders and 16 youth leaders

in the energy and climate sector were consulted to share their perspectives and considerations on the Youth Impact Framework. We selected industry experts based on their work in energy, government, research, finance, current youth engagement strategies (if they have any), and their involvement in higher decision-making processes, including 2 from academia, 4 from non governmental organizations (NGOs), 2 from UN-affiliated organizations, 1 from finance, and 1 from the energy sector, to identify how these organizations perceive and value youth-led projects, and which kinds of impact they prioritize. We interviewed 16 youth between the ages of 18 and 35 who are leading initiatives towards energy and broader climate action to better stand the barriers and challenges they encounter in measuring their impact. We selected initiatives that have been in operation for at least a year, youth-led or youth-founded, have a direct focus on energy or climate, and can be classified as a start-up, nonprofit, public campaign, community or grassroots group, or a clean energy project. Both youth and industry perspectives influenced the design of the Framework (Table 2) and the relevant indicators for us to consider when measuring impacts of youth-led initiatives.

The interviews were conducted and recorded on Zoom and were later transcribed by a computer software program, Adobe Premiere Pro. Participants also had the chance to respond to survey questions in substitute of the interview process. The texts were later coded and qualitatively analyzed for themes in the conversations. The key texts and phrases were assigned a code to help capture important connections between youth and stakeholders' perspectives on the framework. Avoiding commonalities or duplicates, the words were grouped into themes, capturing the positive and negative elements of the topic which helped foreground the development of the Youth Impact Framework.

WHY IS IT IMPORTANT TO MEASURE YOUTH-LED PROJECTS?

Given the few existing scholarships on measuring youth-led projects, we wanted to understand the different ways that youth contribute to social change and consulted the framework created by Ho, Clarke, and Dougherty (2015). The framework explores topics, engagement types, organization types, and strategies young people use along with the approaches that are the most effective in achieving higher scale impact. The impact strategies are based on the following:

- **Socialization** refers to awareness-raising or making someone care about a social cause through marketing or educational campaigns to generate public discourse
- **Influence** refers to indirectly influencing individuals, constituencies, organizations, communities and/or decision makers to take action in addressing certain issues
- **Power** refers directly impacting the social problem by being or becoming the decision makers who are able to take direct action
- **Partnership** refers to directly impacting the social problem through cooperation with individuals, constituencies, organizations, decision makers, etc

After interviewing 16 youth leaders, our report showed that many youth-founded and youth-led initiatives engage in multiple activities in mobilizing climate action, and are grounded in intersectional work. The Framework allows us to demonstrate the impact and importance of youth-led initiatives in the climate and energy space.



CASE STUDY: SHAKE UP THE ESTABLISHMENT (SUTE)

Shake Up The Establishment (SUTE), a Canadian youth-led non-profit organization, engages in these types of activities. Manvi Bhalla, the President and Co-founder of SUTE shared that an Indigenous youth reached out to the team to raise awareness about a burial site in Oka, Quebec that was at risk of being turned into a parking lot. They co-wrote a social media post, and it was shared widely after being thoroughly verified by the community. The post gained much attention across Canada and led to a shutdown of the mayor's office as a result of an overwhelming number of community-driven emails and calls to the office to stop the parking lot development. Manvi says that they did not do this alone and only with the help of other groups and supporters was this change possible. Online audiences have actively engaged with their post which also received media attention. This is a clear example of local-level policy change, as the government did not pursue the project at that time due to the inundation of emails, calls, and community action. SUTE's work is primarily rooted in the climate justice approach and publishes content that makes climate education more accessible. Their 2021 <u>Annual Report</u> shows that they have **30 resources** with **23,935 website hits**, with **150,839 impressions across their social media**.

This example highlights the skills and motivation youth have in achieving large-scale impacts in the climate change movement. According to the Ho, Clarke, and Dougherty (2015) framework, SUTE's environmental activism intersects with policy, research advocacy, and awareness-raising. Their work achieved high levels of impact in terms of **influencing** local-level policy, **socializing** communities to take action, and actively **partnering** with an Indigenous community to ensure the dissemination of accurate information of community issues.

While this framework was useful to categorize impacts of youth-led projects overall, other sources, such as the <u>C40 Playbook</u>, provides examples of youth projects making an impact by collaborating with local governments. The playbook is a case study-based report that provides recommendations on meaningful collaboration between mayors and youth, particularly in policy and planning, raising awareness through storytelling, active participation in decision making spaces, and through youth climate councils. The report claims that young people are likely to present solutions that are different from how a city would approach them because of their diverse experiences and perspectives on the youth climate movement (Youth Engagement Playbook for Cities, 2021). One of the more compelling reasons why it is important to measure impacts of youth-led projects is because youth have special expertise, such as digital literacy, that can facilitate meaningful youth and city collaboration in amplifying awareness and knowledge across networks beyond the city. Social media platforms can also facilitate increased engagement and strengthen youth and citizen participation in city decision-making processes in a more accessible way (Youth Engagement Playbook for Cities, 2021).

They also recommend partnering with youth when pushing for national level action such as the "Our City 2030: Youth Visions and Solutions', a global project initiated by the World Wide Fund for Nature Philippines (Youth Engagement Playbook for Cities, 2021). Young people who participated in this project produced a report that shares their vision of a city where voices of youth and citizens are integrated in developing a clean, safe environment with quality education, technological advancements, and proper social, economic, and health care services by 2030 (Youth Engagement Playbook for Cities, 2021). Followed by the report, youth forums were held where young people had the opportunity to share their ideas with important stakeholders and city officials, providing them exercise their plans as future leaders of the city (Youth Engagement Playbook for Cities, 2021). This is a clear example of the potential of young people in creating high-level impact collaborating with local governments to tackle the climate crisis.

Given the diverse expertise of youth, and their driving force to achieve broader energy and climate action, it is important to measure the impact of youth-led projects to better support their work long-term. In response to this, we explored the **nexus of climate, energy, youth leadership, and cities and local governments** to tackle the climate crisis and developed **15 indicators** to measure youth-led projects in their communities in order to catalyze meaningful collaboration.

PROPOSED IMPACT CATEGORIES AND INDICATORS

African Cities and Design of the Youth Impact Framework (YIF)

The Youth Impact Framework can be used to measure the impact and contribution of youthled projects towards achieving broad climate and energy action priorities, including:

- 1. Directly reducing greenhouse gas emissions (GHG) and negative environmental and climate impact associated with the energy systems inefficiencies.
- 2. Influencing policy and social changes at local, national, and international scales.
- 3. Contributing to the achievement of specific indicators within Sustainable Development Goals (SDG) 7 and 13, which focus on a clean energy transition and climate action, respectively.

To understand the **critical intersections of energy** and climate, our research explored African cities as a case study for the Youth Impact Framework since there is a huge potential for energy transition in the African region, primarily with respect to energy access. In fact, there is an anticipated 60% increase in energy demand on the continent by 2024, illustrating the pressing need to overcome its social and structural barriers to access clean water and electricity (RES4Africa: 10 years of promoting the sustainable energy transition in Africa, 2022). This is an opportunity to further our understanding of current knowledge gaps on the road to a clean energy transition. While recognizing African cities as a region is quite broad, we explore one selected region to understand the array of existing metrics that would be applicable to a particular social, energy, or youth project.

The REN21 Renewables in Cities 2021 Global

<u>Status Report</u> highlights six rapidly growing Sub-Saharan African cities - Cape Town, Cocody, Dakar, Kampala, Tsévié, and Yaoundé IV - that are currently preparing the transition to renewable energy (REN21 Global Status Report, 2021). The region is experiencing rapid urbanization where the urban population has increased 16-fold between 1950 and 2018, from 33 million to 548 million (REN21 Global Status Report, 2021). According to the 2021 report, this increase in population is also a big factor in high energy consumption, with an average annual energy use increasing 2.5% between 2010 and 2018. Traditional biomass such as charcoal and wood remains a significant source of energy, accounting for 66% of total fine energy consumption, and is used across all non-transport sectors in the region (REN21 Global Status Report, 2021). The Greening African Cities report by the World Bank Group shows that charcoal production for energy consumption is the main driving force for forest degradation in Sub-Saharan Africa, with three distinct waves of forest degradation originating from Dar es Salaam - high-value timbre, medium-value timbre, and charcoal (White, Turkey & Letley, 2017). Due to this, the forest reserves close to Dar es Salaam have experienced a loss of more than 30% of forest cover (White, Turkey & Letley, 2017).

Renewable energy only accounts for 7% of total energy supply, 8% of total energy consumption, and 26% of power generation as of 2018 (REN21 Global Status Report, 2021). However, many Sub-Saharan African governments are making significant efforts in integrating renewable energy into their planning. For instance, by 2018, 53 African countries submitted Nationally Determined Contributions for reducing GHG emissions under the Paris Agreement (REN21 Global Status Report, 2021). Regionally, the Economic Community of West African States (ECOWAS) set a target that 48% of electricity will be sourced from renewable energy by 2030, and the East African Community (EAC) aims for 21% renewables in the power generation mix by 2038 (REN21 Global Status Report, 2021). Despite the legislative, financial and technological constraints, many cities have joined global clean energy initiatives such as the Covenant of Mayors in Sub-Saharan Africa, voluntarily committing to implement climate and energy actions in their communities (REN21 Global Status Report, 2021). Furthermore, the Climate Action Planning Africa Programme, led by C40 Cities, gathered 11 Sub-Saharan cities including Accra, Ghana and Nairobi, Kenya to achieve net zero by 2050 (REN21 Global Status Report, 2021).

Existing literature indicates that African cities are particularly interested in strengthening urban policies that commit to the reduction of GHG emissions, improve water supply and air quality, and build transportation and facilities with an intersection of gender inclusiveness.

The Urban and Municipal Development Fund

(UMDF), an African Development Bank multidonor Trust Fund, highlights a few projects in their report that discuss the pressing issues and solutions in African cities (Supporting more livable and sustainable cities in Africa, n.d). For instance, the Gabal El-Asfar Wastewater treatment in Cairo is designed to improve sanitation and protect water resources as well as increase economic opportunities in the region (Supporting more livable and sustainable cities in Africa, n.d). Others include the Bus Rapid Transit System in Dar es Salaam that aims to improve urban traffic flow, accessibility, and roadside air quality (Supporting more livable and sustainable cities in Africa, n.d). Urban policies in Senegal, such as the Promoville City Modernization Program, are committed to building facilities and transportation that have a gender focus (Supporting more livable and sustainable cities in Africa, n.d). There is also an integrated urban development program in Abidjan that aims to build a strategy for adaptation and reduction of GHG emissions by introducing sustainable traffic flow management (Supporting more livable and sustainable cities in Africa, n.d). The strategy also includes a robust drainage system to regulate rainwater, and reduce flooding and erosion in the city (Supporting more livable and sustainable cities in Africa, n.d).

Reflecting on how African cities and other organizations that prioritize certain indicators, such as the Youth Sustainability Energy Hub (YSEH), Ren 21 Global Status Report and GCOM's Energy Access and Poverty Pillar to name a few, are measuring impact, the Youth Impact Framework includes "Energy Transition & **Climate Change Mitigation**" as an impact category with reduction or avoidance of GHG emissions, Improvement in Energy Efficiency and/or Energy **Conservation, Increase in Clean Energy Supply,** Switch to Clean Cookstoves or Cooking Fuels. Also based on other reports such as the **Global Impact** Investing Network (GIIN) report that considers access to energy, job creation, and gender impact as well as the C40 Playbook that outlines meaningful youth engagement, the framework contains Social Impact as an impact category identifying indicators such as increase in access to decent work, and jobs created, improved energy access & reduced energy poverty, progress toward gender equality, increased youth empowerment, and improved awareness and skills.

As discussed earlier in this report, existing literature does not measure impacts of youth contributions to policy advocacy, which remains a critical discussion in the youth climate space. In Student Energy's 14 years of youth engagement experience, we have seen stakeholders increasingly noticing the role of young people in influencing policy change. Recognizing this gap in existing scholarship and interviewing youth leaders who extensively work in this area, the framework includes Policy Advocacy as an impact category in which increased civic engagement, and greater youth influence on policy and strategy aims to capture indirect and qualitative impacts of youth influencing high level spaces to adopt sustainable policies. Adding this impact category in the Framework hopes to link youth stakeholders and industry stakeholders to meaningfully co-create and achieve broader climate goals on a systemic level.

Lastly, in the <u>African context</u>, food, water, energy, and climate, also known as the WFCE Nexus, are interconnected systems (Chirisa & Bandauko, 2015). This nexus portrays the interactions between water, food, climate and energy. For example, water is needed to generate energy, energy is needed to supply water; energy is needed to produce food, and food can be used to produce energy; water is needed to grow food while food is always using energy (Chirisa & Bandauko, 2015). Demographic growth, urbanization, and climate change are exacerbating the pressure on these limited resources, and it is estimated that there will be a 40% water gap for covering the global food, drinking water and energy needs (Chirisa & Bandauko, 2015). Land scarcity is also a major factor towards rising food insecurity (Chirisa & Bandauko, 2015).

Rapid urbanization also raises concerns surrounding access to drinking water, and waste management in the African context of sustainable development. The <u>Greening African Cities</u> report highlights that in seven Sub-Saharan cities - Addis Ababa, Accra, Nairobi, Lagos, Dar es Salaam, Luanda, and Maputo, the average number of people living in informal settlements is 55%, and most of the residents do not have access to water, waste management, or sanitation services (White, Turkey & Letley, 2017).

Water supply problems are also worsened by excessive pumping of aquifers in coastal cities, resulting in the contamination of groundwater resources (White, Turkey & Letley, 2017). For example, in Dar es Salaam, water samples from Oyster Bay, Mokcheni, and other central areas of the city show high levels of chloride, sulfate and sodium concentrations that not only threaten water quality but directly affect food security and public health as well (White, Turkey & Letley, 2017).

In researching the **WFCE Nexus** as well as speaking with youth leaders who are leading projects related to it, we added the WFCE nexus as an impact category containing the following indicators: **Reduction in Food-Related Emissions, Food Waste, Increase in Food Security, Increased implementation of nature based solutions natural climate solutions, Reduced Plastic, Solid, Industrial Waste, Improved Water Quality.**

African youth voice concerns around employment, energy accessibility and affordability as key issues of Africa. The <u>UN Climate Champions</u> asked young people from 20 different African countries, and from all five main African regions about the priorities and concerns that are in relation to their socio-economic background (Owen-Burge, 2021). They collected firsthand data and engaged with organizations such as African Youth Initiative on Climate Change, Greenpeace Africa, Green Africa Youth Organization, Africa Youth Climate Hub, Surge Africa, East African Community Young Ambassadors (Owen-Burge, 2021). The data showed that 40.5% of African youth claimed that digital inclusion was a challenge while 27.7% respondents shared challenges around access to reliable and affordable energy (Owen-Burge, 2021). Other key concerns included access to clean water, food security, lack of employment, and security issues (Owen-Burge, 2021).

Based on the literature, we have identified the following pillars for the Youth Impact Framework-**Energy Transition and Climate Mitigation**, Social Impacts, Policy Advocacy, and the Water, Food, Climate, and Energy Nexus (WFCE Nexus). Lastly, exploring the Impact Framework by Ho, Clarke, and Dougherty, Clarke (2015) demonstrated that the impact of youthled initiatives is significant in their communities. Given its power in creating meaningful change, we proposed the following indicators in our Youth Impact Framework to support quantifiable evidence of youth contributions to energy and climate action with the intention that high level institutions can better recognize their work, and for youth leaders to communicate their impact to funders as a way to scale and maintain their work.



HOW WILL THIS WORK?

In order to measure the impact of youth-led initiatives, we suggested measures for the most common youthled initiatives as a way to encourage both organizations and young people leading projects to quantify the impact they are making for emissions reduction and resilient future cities. For example, we know that a solar power system in Australia can reduce approximately **"8.5 tons of CO₂ per household, per year"** (SunEnergy). If there is a youthled project that has led to installation of 200 solar panels, we can say the project reduced 1,700 tons of CO₂ emission.

Table 2. Youth Impact Framework

	ENERGY TRANSITION & CLIMATE CHANGE MITIGATION			
	Impacts	Outcomes (or "activities")	Suggested Indicators ¹	How does it have an environmental impact?*
1	Reduction or Avoidance of GHG Emissions	Closing of a fossil fuel generation or extraction source Reduced overall/ per capita carbon footprint of households or city Decarbonizing buildings, transport, industrial processes	Metric tonnes of CO2e reduced, captured, or avoided Measurement can be complicated but can be referred to existing research. For instance, we know that a solar power system can reduce approximately <u>8.5 tons of</u> <u>CO2 per household, per</u> <u>year</u> . If there is a youth- led project that installed 200 solar panels, we can easily measure that the project has reduced 1,700 tons of CO2 emission	Reduction or avoidance of GHG emissions directly impacts climate change. According to the <u>Climate</u> <u>Change 2022 Climate Change</u> <u>and Mitigation IPCC report</u> , a direct linkage to climate mitigation and adaptation is the reducing the use of unsustainable energy use, land use, lifestyle, patterns of production and consumption. One of the ways to measure GHG emissions but is not limited to, is by using the <u>GHG Calculator</u> . ²
2	Improvement in Energy Efficiency and/or Energy Conservation	Installing new technology or retrofit that reduces energy use Households or buildings with reduced energy demand	Reduced energy use compared to baseline, in kWh or GJ Reduction in energy required to provide service, in kWh	The IPCC report and the International Renewable. Energy Agency (IRENA) states that in order to contain global warming to within 1.5 degree celsius, there should be a substantial growth in renewable energy. There is an anticipated increase in energy demand in the African continent by 60% in 2024, illustrating the pressing need to overcome its social and structural barriers to access clean water and electricity. One of the many ways to measure energy efficiency or conservation is using the Efficiency Calculator ³

¹ Suggested Indicators refer to the units of measurement to measure the impact listed in the table. Suggested indicators are not limited to this table and other indicators may be used to measure the impacts.

^{*} Initial concepts from literature review and interviews

² US EPA, O. (2015, August 28). Greenhouse Gas Equivalencies Calculator [Data and Tools]. <u>https://www.epa.gov/energy/green-house-gas-equivalencies-calculator</u>

³ Efficiency Calculator. (n.d.). Retrieved October 3, 2022, from <u>https://www.omnicalculator.com/physics/efficiency</u>

	ENERGY TRANSITION & CLIMATE CHANGE MITIGATION			
	Impacts	Outcomes (or "activities")	Suggested Indicators⁴	How does it have an environmental impact?*
3	Increase in Clean Energy Supply	Installation of clean energy generating facility Households switched to primary reliance on clean energy	Generation capacity installed, in kWh Definition: Clean energy refers to any source of energy that is pro- duced from a renewable source.	Clean energy supply remains inaccessible, especially in the African continent. For example, traditional bio- mass such as charcoal and wood remains a big source of energy, accounting for <u>66%</u> of total fine energy consump- tion, and is used across all non-transport sectors in the African region. One of the many ways to measure access to energy is using the <u>SDG 7 Tracker</u> ⁵
4	Switch to Clean Cook- stoves or Cooking Fuels	Project that introduces clean cooking stoves/fuels to households Clean cookstoves installed	Number of people who currently use clean cook- ing stoves Kg of food produced by gas versus kg of food produced by traditional biomass such as char- coal briquettes Number of clean cook- stoves installed	Traditional biomass such as charcoal and wood remains a big source of energy, ac- counting for 66% of total fine energy consumption, and is used across all non-transport sectors in the African region. In the stakeholder and youth interviews, many have men- tioned that usually stoves that are installed in commu- nities are from a top down approach, meaning they are not designed to fit the needs of communities. For example, the stoves have changed the taste of food, resulting in a high abandonment rate of the stoves.

⁴ Suggested Indicators refer to the units of measurement to measure the impact listed in the table. Suggested indicators are not limited to this table and other indicators may be used to measure the impacts.

* Initial concepts from literature review and interviews

⁵ Goal 7: Affordable and Clean Energy - SDG Tracker. (n.d.). Our World in Data. Retrieved October 3, 2022, from <u>https://sdg-tracker.org/energy</u>

		SO	CIAL IMPACTS	
	Impacts	Outcomes (or "Activities")	Suggested Indicators	How does it have an environmental impact?
5	Increase in access to decent work, and jobs created	Job opportunities for youth, by gender, and for historically excluded communities Effective re-skilling programs, transi- tion programs, or opportunities for communities reliant on fossil fuel sector	Number of jobs (full time & part-time), disaggre- gated by gender, youth (18-35), ethnicity, and region Number of people who changed jobs from fossil fuel to clean energy or other sustainable jobs; collecting data from employment history questionnaire	According to the <u>Internation- al Renewable Energy Agency</u> , in order to maintain the global temperature within 1.5 degree celsius, there must be a substantial growth in the renewable energy labor market, surpassing today's 300,000 to 8 million jobs by 2050. Some references to measur- ing job creation or under- standing decent work are: <u>Measuring Job Creation GIIN</u> <u>Report⁶ and ILO Definition of</u> <u>Decent Work⁷</u>
6	Improved Energy Access, Reduced Energy Poverty	Households, community facilities and other buildings electrified, with clean and reliable energy	Number of households or buildings newly electrified or with improved reliability, since launch of initiative	According to the <u>Ren 21</u> <u>Global Status Report</u> , renewable energy only accounts for 7% of total energy supply, 8% of total energy consumption, and 26% of power generation as of 2018. Energy access and energy poverty remains a critical factor in the world of energy transition, especially in the African continent. <u>World Bank Data Country- Level</u> ⁸ is one of the data banks to access data related to energy access or energy poverty in various countries.

⁶ Global Impact Investing Network (GIIN) Impact Measurement in the clean energy sector. The Impact Program. Retrieved September 3, 2022, from <u>https://thegiin.org/assets/FINAL_GIIN_cleanenergyreport_PRINTREADY_singles_nocropsFINALFINAL.pdf</u>

⁷ Employment and decent work. (n.d.). Retrieved October 7, 2022, from <u>https://international-partnerships.ec.europa.eu/</u> policies/sustainable-growth-and-jobs/employment-and-decent-work_en 8 World Bank Open Data | Data. (n.d.). Retrieved September 29, 2022, from <u>https://data.worldbank.org/</u>

		SO	CIAL IMPACTS	
	Impacts	Outcomes (or "Activities")	Suggested Indicators	How does it have an environmental impact?
7	Progress toward Gender Equality	Increased funding for women-led ini- tiatives	Dollar value of funding given to women-led proj- ects and initiatives	The <u>Youth Sustainable Energy</u> <u>Hub (YSEH)</u> showcases the work and impact of youth
		Increased partici- pation of women in clean energy training programs, energy sector, and in energy governance	Number of women par- ticipating in clean energy initiatives and renewable energy training pro- grams; number of wom- en in senior positions in energy sector	initiatives in the sustainable energy sector. It considers the reduction of GHG emis- sions and water use as well as waste diversion intersect- ing with issues of gender, marginalized and displaced communities as important
		Equitable pay for all genders	Dollar value of wage compensation; disag- gregated by race, age, disability, education, length of time in posi- tion, relative to region	indicators on defining clear impacts of youth initiatives. Reports such as the <u>Global</u> <u>Impact Investing Network</u> (<u>GIIN</u>) <u>Impact Measurement</u> in the clean energy sector reference the <u>IRIS+ system</u> , which are generally accepted performance metrics that guide impact investors to measure the social, environmental and financial results of their investments. The GIIN network considers access to energy, job creation, reduced GHG emissions, cost savings on fuel, gender impact, poverty level of end users, opportunities for job creation and productivity, and health benefits to track progress of renewable energy initiatives. One of the ways to measure gender equality is available through the <u>Gender Equality</u> . <u>Toolbox</u> ⁹

⁹ Gender Equality Toolbox. What gets measured matters: a method note for measuring women and girl's empowerment. Bill and Melinda Gates Foundation. Retrieved September 3, 2022, from <u>https://www.gatesgenderequalitytoolbox.org/wp-content/uploads/BMGF_Methods-Note-Measuring-Empowerment-1.pdf</u>

		SO	CIAL IMPACTS	
	Impacts	Outcomes (or "Activities")	Suggested Indicators	How does it have an environmental impact?
8	Increased Youth Empowerment	Inclusive and accessible capacity- building or training programs geared towards youth Active inclusion and consultation of youth in programs and decision-making spaces	Change in youth perception of control over their own future, personal freedom, access to resources, inclusion in decision- making, before and after participating in initiative (collected through youth opinion surveys)	The <u>C40 Playbook</u> by the C40 Global Youth and Mayors Forum was created to strengthen the meaningful youth engagement in
9	Improved Awareness & Skills	Programs and campaigns designed to inspire cultural and behavioural change, contribute to social movements	Number of new youth- led or locally led projects since the launch of initiative	cities around the world. The Playbook highlights collaboration between mayors and youth, many of which are in policy and planning, raising awareness through storytelling, active participation in decision- making spaces and through youth climate councils.
		Programs and resources for learning and building new skills	Number of youth employed, or otherwise utilizing skills, as a result of training	empowerment can be found in this discussion paper series: <u>Measuring</u> <u>Youth Empowerment: An</u> <u>illustration using the example</u> <u>of Tunisia</u> ¹⁰

¹⁰ Goedhuys, Grimm, Meysonnat, Nillesen, Reitmann. (2021, October) Measuring Youth Empowerment: An Illustration Using the Example of Tunisia. IZA Institute of Labour Economics. Retrieved September 29th from: <u>https://docs.iza.org/dp14760.pdf</u>

	POLICY ADVOCACY			
	Impacts	Outcomes (or "Activities")	Suggested Indicators	How does it have an environmental impact?
10	Increased Civic Engagement	Initiatives or campaigns to increase civic engagement at the individual, household, or community level	Number of people participated in or interacted with referenda, elections, or petitions Number of people reached to provide access to voting resources and support to vote Increase in attendance or level of participation in community decision- making events (council meetings, committees)	Increased voting facilitated by the influence of youth led campaigns, or engagement leads to community-focused and centered decision making that contributes to environmental and climate impacts One of the ways to measure advocacy and policy is found in this brief: <u>Measuring</u> . <u>Advocacy & Policy</u> ¹¹
11	Influence on Policy and Strategy Active inclusion of youth voices in decision-making processes through representatives, councils, vote	Active inclusion of youth voices in decision-making processes through representatives, councils, vote	Number of youth participating in decision making spaces and in policymaking	Increased youth influence and engagement in decision- making spaces leads to more long-term success and sustainability of policies
		Number of youth under age 35 holding positions in governance		
		Programs or campaigns to increase youth focus and youth inclusion in existing climate and policy plans	Specific mentions of youth and youth involvement in climate policies and pledges	
			Climate policies (institutional, local, national) implemented or influenced by youth advocacy	

¹¹ Reisman, Geinapp, Stachowiack. (2007). A guide to measuring advocacy and policy. Organizational Research Services.

		WATER, FOOD, CLIM	ATE, AND ENERGY (WFCE) N	IEXUS
	Impacts	Outcomes (or "Activities")	Suggested Indicators	How does it have an environmental impact?
12	Reduction in Food-Related Emissions, Food Waste, Increase in Food Security	Initiatives that facilitate shifts toward planet- friendly diets for households, organizations, or through governments	Reduced ecological footprint (ha), fresh water use (litres), and CO2e, at per capita or community level	The <u>WFCE Nexus</u> shows the interactions between water, food, climate, and energy where water is needed to generate energy, energy is needed to supply water; energy is needed to produce food, and food can be used to produce energy; and water is needed to grow
	Initiatives that improve physical and/or economic access to healthy, sustainable, affordable food	Household Expenditure Survey Method (HESM)	food while food is always using energy For instance, if there is land scarcity due to increased impacts of climate change, it will affect food supply, resulting in the rise of food insecurity.	
		Initiatives that reduce or repurpose food waste	Amount of food waste diverted from landfill	Some ways to measure food security are: <u>Measuring</u> <u>Food Security</u> ¹² and <u>Metrics</u> <u>of Food Security</u> ¹³
13	Increased implementation of nature based solutions natural climate solutions	Projects that conserve and protect existing forests and oceans, or new reforestation and rewilding	Area of land rewilded; Area of forest protected or number of trees planted; Number or size of Marine Protected Areas (MPAs) created	Protecting biodiversity can help us adapt and be resilient to climate change. Ecosystems regulate global temperature by storing greenhouse gasses. For example, trees remove CO ₂ from the atmosphere and store it in their tissues.

¹² Bashir, M. K., & Schilizzi, S. (2012). Measuring food security: Definitional sensitivity and implications. AgEcon Search.

¹³ What Are We Assessing When We Measure Food Security? A Compendium and Review of Current Metrics | Advances in Nutrition | Oxford Academic. (n.d.). Retrieved October 3, 2022, from <u>https://academic.oup.com/advances/article/4/5/481/4557948</u>

		WATER, FOOD, CLIM	ATE, AND ENERGY (WFCE) N	IEXUS
	Impacts	Outcomes (or "Activities")	Suggested Indicators	How does it have an environmental impact?
14	Reduced Plastic, Solid, Industrial Waste	Initiatives or campaigns that reduce waste at the household, community, or industry level. Projects that directly recycle or upcycle waste products	Mass of waste (tonnes) diverted from landfill since the launch of project initiative	Plastic pollution affects natural ecosystems that have the ability to adapt to climate change.Improper disposal of plastic on land or open burning can lead to the release of toxic chemicals in the air causing air pollution and public health hazards.Some ways to measure waste reduction are: Measuring Waste Reduction, Reuse & Recycling ¹⁴
15	Improved Water Quality	Initiatives or campaigns that reduce water pollution through policy change, clean-up, or technological change	Water Quality Index - pH, dissolved oxygen, salinity, and nutrients (nitrogen and phosphorous)	The <u>ocean generates</u> 50% of oxygen and absorbs 25% of CO ₂ , and captures 90% of the excess heat generated by these emissions. It is considered the biggest carbon sink and climate change mitigator. Other indicators for measuring water quality can be found here: <u>Water Quality Indicators</u> ¹⁵

14 Visvanathan. C. (2013). Measuring Waste Reduction, Reuse, and Recycling through Industrial Symbiosis. Institute for Global Environmental Strategies

15 Ecosystem health indicators. (2003, July 9). Department of Environment and Science. Retrieved from: <u>https://environment.des.qld.gov.au/management/water/health-indicators</u>



Findings: Insights from Interviews

Industry stakeholders on the Youth Impact Framework

By consulting 10 industry stakeholders¹⁶ from various sectors, including academia, NGOs, UN-affiliated organizations, finance, and energy sector, we gathered insights on how these organizations perceive and value youth-led projects, and which kinds of impact they prioritize. Generally industry stakeholders see the value in youth-led initiatives and their contributions to overall energy and climate action but have highlighted that youth must communicate their impacts in ways that align with the funder's corporate priorities. We learned that the stakeholders interviewed for this research do not have a set funding mechanism to support youth work but are either working directly with youth engagement or acting as an intermediary to connect them with interested parties who fund youth projects. Interestingly, stakeholders working in local government recognize the **role of youth in policy** and the creation of policies made as a result of youth actions. In addition to policy advocacy, the following table summarizes which indicators are prioritized by the stakeholders we interviewed, categorized by sector.

SECTOR	EMERGING THEMES
Non-Governmental Organizations (NGOs)	NGO respondents generally prioritize gender equality and energy mitigation with intersections of policy advocacy. They also are interested in indicators related to youth empowerment and overall well-being. There is a need to capture small-scale impacts to highlight the work of grassroots and youth-led initiatives to maintain their longevity.
	They are also interested in the unique contributions of youth in policy advocacy, energy poverty, mitigation, and adaptation. They suggest capturing indirect impacts which are a result of youth influence at a policy level.
Energy Sector	Respondents from the energy sector see high importance in the role of youth in clean energy, especially in the realms of policy advocacy and quality job creation. They also place a focus on gender, especially young women in training and mentoring opportunities.
Intergovernmental Organizations	Respondents from intergovernmental organizations place a large focus on technology transfer in the Just Transition, especially adopting alternative technologies for clean cooking and energy access. Involving youth in decision- making processes and training programs are seen as a big opportunity for energy transition. They also highlighted the importance of defining 'energy transition' with relation to energy and work resilience.
Research & Academia	Building young people's capacities, confidence, civic literacy, knowledge and relationships with local authorities is highly relevant. Respondents from Research & Academia also suggested redefining the impact of youth-led initiatives as a story of change since some projects are difficult to quantify. There is also a need for value- based approaches when securing funding.

Table 3. Summary of Industry Stakeholder Insights on the Youth Impact Framework by Sector

¹⁶ Industry stakeholder consultation predominantly included non-youth perspectives which was later used to compare and contrast youth perspectives from the Youth Interviews (see youth perspectives under "Youth stakeholders on the Youth Impact Framework"

SELECTED QUOTES FROM STAKE-HOLDER INTERVIEWS:

"I would love to see this project packaged in a way where it is really accessible for local governments, and really compelling. I think it would be great to have a package there where you talk about why youth-led initiatives are important in a really accessible way. Indicators and metrics would be great to put in front. Policymakers need that. They need to be realistic indicators as well, potentially having suggested data sources for that stuff. " (Interviewee from cities-focused governmental organization)

"Perhaps having something publicly accessible to many organizations overall, in general, that can also give visibility to youth-led initiatives because there is a gap there and the youth engagement is missing." (Interviewee from cities-focused NGO)

"[Having] language that multiple people are using is really useful and having similar base indicators is so good because if funders are looking at different kinds of initiatives and they are sort of saying different things with different language, that's fine. But if they're trying to say the same thing and using different language, it can be really confusing... usually unfortunately more marginalized people in our community because of systemic injustices." (Interviewee from NGO supporting youth-led work)



YOUTH STAKEHOLDERS ON THE YOUTH IMPACT FRAMEWORK

In addition to industry stakeholder consultations, we interviewed 16 youth (18-35) who are project leaders to better understand the barriers and challenges they encounter in measuring their impact. Youth respondents generally shared that unrestricted access to funding would make their work more accessible and easier to implement. Apart from funding restrictions or lack thereof, youth we interviewed shared that tokenism in decision-making spaces is apparent, and access to tangible technical skills in the climate and energy space remain a critical barrier for young people to participate meaningfully. Summarized below are key factors that youth respondents think are important to consider when building the indicators for the Youth Impact Framework.

YOUTH LEADER(S) IN	EMERGING THEMES
Non-Profit Organizations	There is a critical need to view impact from a justice lens, and to emphasize the human element in climate justice movements. People feeling inspired by their work has an impact, and not all aspects of youth-led initiatives are quantifiable. Most grassroots organizations will receive less funding because government or funding institutions do not value community issues as much as they would value projects dedicated to GHG emissions reduction. Funding should go towards maintaining youth-led projects in their daily operations, project planning and management skills, and monitoring and evaluation skills for projects.
Entrepreneurial Start-Ups	Funding and mentorship have been scarce resources for youth-led start-ups. Youth in start-ups typically lack the technical skills, business and/or scientific knowledge in growing their initiative. They also face challenges in the market as there is little awareness around climate and energy-related issues. They see a value in creating a framework that measures the outcomes of youth-led initiatives so it is easier for them to communicate their impact to larger funding institutions. Youth entrepreneurs are also driven by community values to create direct impact on the ground.
Non-Governmental Organizations	There is a general theme in tokenizing youth in policy advocacy and there is an urgent need of meaningfully inviting youth to decision-making spaces and ensuring proper implementation of youth consultation. Apart from focusing on mitigation and adaptation, it is also important to highlight resilience as an impact indicator for youth-led projects because marginalized groups are disproportionately affected by impacts of climate change.
Platforms	A big part of this work is capacity building, visual storytelling, building constituencies, and successfully advocating to levels of government and institutions. For this line of work, improved awareness and skills, awareness-raising, and policy advocacy are important indicators; adding indicators around constituency building would be helpful for measuring impact. Understanding how to frame our social and political discourse towards progress and its current needs require an impact indicator as well. Funding should go towards narrative development programs to mobilize communities on the urgent need towards climate action.

Table 4. Summary of Insights of Youth leaders on the Youth Impact Framework by Types of Engagement

Selected quotes from youth interviews:

"Personally I would share from my own personal experience, I have spent over \$6,000 out of pocket this year alone, trying to be as relevant globally and represent the constituency, and my coach as well, who is based in the US at the moment, has had to spend her money. For example, we had [a conference in the US...] First of all, it was guite a challenge trying to get the relevant visas to be at this event [...] after even the event organizers mentioned that they would provide a lot of support, the truth is, it was just kind of like turbulence. A lot of youth who expressed that they could fund themselves were not given or were not even able to get the visas to attend this event [...] I got my visa on the day this event started."

Youth interviewee from SDG 7 Youth Constituency

"With this framework, I was exposed to things that I wasn't exposed to before. So especially the framework that you got from Student Energy, I feel that it is going to save me a lot of stress in measuring most of those things."

Youth Interviewee from Ecovital Nigeria

"So there's a lot of buzz around supporting youth-led work and we were just getting started around that time. So I got pretty lucky and we got some funding and also like a lot of I would say like mentorship and support from non youth allies. What's been difficult is maintaining and growing that support now that we have grown and we're not no longer the sort of shiny new thing. I think there's still a lot of recognition for young people, especially in the climate spaces, as being important actors. We've been able to have some funding where we've been able to pay for things like professional development training sometimes, but it would be great to have some of that offered to us for free. And obviously we don't have a whole lot of budget for something like that. And that's also kind of been challenging for us to fundraise for."

Youth Interviewee from Youth4Nature



YOUTH STORIES

All the youth leaders interviewed showed that their work is intersectional in the climate and energy space, along with their continued dedication to supporting their communities in raising awareness, capacity building, gender and youth empowerment. The following are stories of youth leaders in the African region who shared their experience in how they maintain their initiatives and track their impact, and the challenges they face in scaling their growth. They were selected to amplify the focus on youth leaders in the African region, the challenges they encounter when maintaining their work, and what goals they hope to achieve in 5 years.

CASE STUDY 1: DEBORAH FADEYI

Type of initiative: Non-governmental Organization Name of initiative: Renewable Energy and Environmental Sustainability for Africa Initiative (REES Africa) Location: Nigeria

What are your main goals within your initiative and how do you accomplish them?

"REES Africa (Renewable Energy & Environmental Sustainability for Africa Initiative) is a youth-led non-governmental organization positioned to redefine lifestyle by creating renewable energy access in most vulnerable rural & marginalized areas and promoting environmental sustainability through advocacy & actionable projects. We aim to redefine the actions of Africans, ultimately their lifestyle towards environmental sustainability- local government at a time.

We accomplish this through our pillars: **Empower, Educate and Connect**. Empower Africa is one of our solution pillars that enables affordable, sustainable, and off-grid electricity access in unelectrified rural and marginalized areas. This initiative deploys renewable energy solutions to communities that have never been connected to the grid, solutions for the Water-Energy-Food nexus for the most vulnerable. Also, we collaborate with other organizations to provide financial inclusion for energy access and basic amenities to these communities. We have led and supported interventions for **11 unserved communities** without prior access to electricity for **5,000 beneficiaries**.

Under **Connect Africa** is another pillar where we deliver free corporate sustainability training to small and medium-sized enterprises to make their business processes locally sustainable. We also organize subsidized renewable energy and sustainability training for different target audiences. We have enabled over **200 youths** in Nigeria and Ghana to deliver **25 advocacy campaigns** toward environmental sustainability.

Educate Africa creatively raises and educates champions of clean energy and environmental sustainability irrespective of age, gender, or background. This program is built around interdisciplinary approaches identified as subcategories to fulfill the bottom line." Apart from funding, Deborah shared that some of the challenges in maintaining her initiative are **media visibility**, and **support from the government**. She says that her initiative puts great emphasis on localizing the issue to their local government with the hopes of expediting the process to the state and national level. For instance, the issues are currently not captured in the Nigerian NDCs (Nationally Determined Contributions).

Deborah says that they do not want to "work in silos or work in a way that contradicts data". They work with partners to install clean cooking stoves, especially solar cookstoves, because they do not have the technology to implement them. Media visibility also remains a challenge as people are not aware of the type of work REES Africa is doing for their communities.

REES Africa has facilitated peer-to-peer mentorship such as training youth to install solar technology in their communities. They have trained over **20 youth** in their communities that have become proficient in solar technology and exposed to a new career path in sustainability. Deborah says that now these youth volunteers have moved to Lagos City as there are more opportunities for jobs in the city to further their professional development.

Deborah hopes to prequalify to serve another 10 rural communities in Nigeria, and intends to deploy decentralized grids with an aggregate of 100kW for these communities.



CASE STUDY 2: PATIENCE ALIFO

Type of initiative: **Environmental Startup** Name of initiative: **Econexus Ventures Limited** Location: **Ghana**

What are your main goals within your initiative and how do you accomplish them?

"Our main, main goal is to provide clean cooking fuel and efficiency tools for women in rural communities and urban communities. Why are we doing this? We are doing this purposely to help reduce carbon emission and household air pollution that is causing that high death rate in developing countries. According to the World Health Organization, as of 2021, household air pollution has been responsible for more than 3.2 million deaths. If nothing is done about it, it is really going to affect a lot of women, especially because in developing countries in Africa, such as Ghana, women are the ones who cook. So *if they continue to use outdated fuel [like] charcoal,* wood, fuel, and inefficient cooking stoves, that means they are exposed to smoke or household air pollution that may affect their health.

Currently, we have had more than **5 volunteers** come from African Leadership University in Rwanda to do their internship with us. In Ghana, here we have something called National Service. When you graduate, you need to serve the country for at least one year. So instead of them going to other companies, we give them opportunities to come and work with us so that they can also understand what we are doing, appreciate the industry, and appreciate what we are doing. So when they go back to various communities or homes, they can educate the family about [clean cooking fuel].

So far we've been able to serve **512 households** in Ghana here and we are looking forward to expanding the households. We've been able to give **10 women businesses**, they are now green entrepreneurs/business agents so they retail our fuels in their various communities." Patience says that one of the main challenges her initiative faces is the **lack of funding to pay and recruit employees** because the majority of funding is spent on purchasing machines like distillery used for production. Since their initiative is growing, their current need is employing people, especially youth. There is also a need for an immediate assistant to procure enough cookstoves to meet the demand in Ghana.

She hopes that there is more education around clean cooking and renewable energy that should be integrated into school syllabuses, along with funding for women-led initiatives in the field. In 5 years, she hopes that her business qualifies for carbon credits financing which will help them lower the production cost for the stoves and reduce the price of fuel; and also target communities that are difficult to enter to distribute clean cooking stoves.



Overall, the interviews show a pressing need for developing indicators that not only capture direct impacts such as GHG emissions reduction but also consider how youth-led work has indirectly impacted climate change mitigation. In particular, youth's role in advocacy and policy changes are recognized by both stakeholders and youth leaders, which informs our Policy Advocacy impact categories with its associated indicators. In doing so, the YIF intends to provide a set of universally recognized indicators that also capture indirect impacts that are not housed in traditionally formed measurement frameworks.

DISCUSSION

Interviewing industry experts, stakeholders in NGOs, intergovernmental organizations, and research and academia showed that they value vouth-led initiatives, and while some have taken other forms of engagement to actively involve youth, many do not have a direct mandate, suitable funding mechanisms, or existing communication channels to provide that support. Some organizations mentioned that while they do not or cannot fund youth projects, they could potentially connect youth to other organizations or sources of funding using their networks. Out of the 10 industry stakeholder organizations interviewed, only one currently had mechanisms set up for young people to access funding for projects, and three organizations currently already do some form of youth engagement, whereas the others either do not, or are still developing their channels for youth engagement. Some stakeholders in intergovernmental organizations, government, and the energy sector collaborate with youth by providing them with technical training or inviting them into decision-making spaces. For instance, in our stakeholder roundtable discussions, we learned that the UN-Habitat tries to train youth on local assembly for their solar gadgets in many parts of Africa. According to their experience, some of the technical failures are caused by the lack of technical knowledge in energy, and involving youth in these spaces will help minimize those issues. The European Covenant of Mayors also has a youth component in their initiatives where they have witnessed strong participation young people have on policy advocacy. Sustainable Energy for All (SEforALL) is actively changing the criteria in selecting youth who normally do not receive funding or have the opportunity to share their voice in the climate space to avoid having the same youth voices dominate the discourse.

ACCESS TO FUNDING

As mentioned in the "Insights from Interviews" section of this report, youth leaders identified that **unrestricted access** to funding would help them to sustain their overall work long-term. This would help them secure supplies to maintain daily administrative operations, purchase products, maintain budgets, establish governance, and pay employees to maintain their work. Youth interviewees also have shared that even after securing funding for their projects, they find themselves doing additional unpaid labor such as administrative work to ensure that deliverables are submitted on a fixed schedule. The main challenge youth emphasized is that grant organizations are not interested in funding the same project more than once, which continues to contribute to the unpredictable nature of securing funding for their initiatives. There is a **potential for stakeholders** in all sectors to support youth-led initiatives by providing funding to support daily operations of youth projects rather than prioritizing projectbased grants. This is a step closer in ensuring youth well-being in a climate activism space to help them maintain their work.

Figure 1: Elements included in Unrestricted Funding



COMMUNICATING THE IMPACTS OF YOUTH-LED PROJECTS

In addition to the challenges in securing funding for their initiatives, youth have noted that it is particularly difficult for them to communicate their impact to funders. Most of the time, youth have to put in extra effort to show that their work goes beyond satisfying criteria such as the reduction of GHG emissions as their projects and initiatives are grounded in intersectional work. Stakeholders can support youth by **providing** mentorship in impact measurement, project planning and management skills, creating accessible resources, and opportunities for youth to ask questions directly to funders will help young people properly share their dedicated impact to their communities and climate. For grant organizations, using plain language would help youth understand the funding priorities and the criteria that decision makers or funders. have. Additional support in technical or scientific knowledge, project management, and upskilling can also be facilitated through the grants that they receive.

Generally stakeholders and youth leaders recognize the importance of storytelling as a way to describe the impact of youth-led initiatives since it is difficult to quantify all types of impacts through metrics, especially in their role in policy change. They suggest adding a qualitative aspect of an indicator to contextualize the metrics (i.e before and after scenarios) or provide space for youth-produced indicators that can be relevant for all types of youth-led initiatives. In the interviews, both stakeholders and youth leaders favoured indicators such as "greater youth influence on policy and strategy", "improved awareness and skills", "increased civic engagement", and "increased youth **empowerment**" when asked which indicators were relevant to them. For youth specifically, these indicators are more relevant as they see the value in developing their skills in the energy sector as well as amplifying their work in advocacy, policy, and civic engagement.



For stakeholders however, they were interested in these indicators because they recognize that albeit youth's contribution to policy changes are significant, there are no current ways to measure those changes in a traditional impact measurement framework and would like to see how those metrics can be useful for them to engage with youth meaningfully. In response to this, stakeholders can consider **creating spaces for youth in funding calls or youth-facing programming** to share their experiences and stories of what impact they made through their initiatives as opposed to solely focusing on quantitative indicators that define impact.

Stakeholders and youth also value "decent jobs" as a relevant indicator and suggest explicitly defining what "decent" means. In Evidence to Action Dialogue Series: Young People's Well-being in Southern Cities (Das, Butcher, Marathe, Fattah, 2021), selfdetermination and autonomy are identified as important aspects to youth empowerment and that if a job is particularly disempowering to young people in the way it discriminates against age, then it fails to provide meaningful support and engagement for youth. Typically, youth leaders, especially those in non-profit organizations or entrepreneurial start-ups, have created job opportunities for other youth through capacity building, peer-to-peer training, and seeking funding from multiple sources. Stakeholders can include language value of youth engagement and skills**building** in their organizational strategic plans and ultimately create further job opportunities that will support and empower their work in the process.

Youth both in non-profit organizations and start-ups mentioned that support from the government and media visibility would help scale and maintain their initiative given the lack of awareness of youth-led contributions towards energy and climate action. These challenges include securing industry partnerships, particularly with start-ups as most of their initial work is to raise awareness before they can offer their services or product to the community. Youth also mentioned that while there is a rise in youth engagement in high decision-making spaces, **tokenism** remains present as well as cases of inviting the same youth leaders make it inaccessible for others, particularly youth of color, to share their voices and stories to influence policies for long-term environmental changes. One youth from Nigeria suggested including representation in the indicators since the experience of African youth is significantly different from Asian or Caucasian youth. On this note, stakeholders can support youth leaders by providing funding for youth of **all backgrounds** to either attend high level conferences or participate in high level decision making spaces so their stories are heard, making

it accessible for youth to also scale their impact by doing so. Stakeholders can also set aside **staff capacity to research youth-led organizations in their own communities** that are making tangible and indirect impacts towards reducing GHG emissions or taking action for clean energy projects which also serves as a meaningful opportunity for youth engagement.

Conversations between youth leaders and stakeholders revealed an opportunity for cocreating meaningful solutions through the shared values as mentioned above, particularly, defining impact as a story of change- meaning sharing the impact of their work through storytelling and their experiences. The Youth Impact Framework provides a menu of all 15 indicators discussed throughout this report. These indicators are intended to recognize the impact of youth-led projects by helping young people to strategically communicate the impacts of their initiative(s). The identified impact indicators are a guide and can be amended to include shared values for both youth and stakeholders with the goal of facilitating meaningful intergenerational connections in the climate and energy sector.

PRIORITIES OF INDUSTRY Stakeholders

- No clear funding
 mechanism
- Youth engagement
- Communicate impact based on corporate priorities
- Energy transition and climate mitigation

OVERLAP OF Priorities

- Redefine the impact of youth-led initiatives as a story of change
- Capacity building & training
- Policy advocacy
- Gender & youth
 empowerment
- Decent jobs

PRIORITIES OF YOUTH LEADERS

- Funding
- Justice & intersectional framework embedded in climate & energy work
- Support from government
- Media visibility
- Avoid tokenism

Image 2. Venn Diagram showing priorities of both stakeholders and youth leaders

CONCLUSION AND NEXT STEPS

The design of the framework is grounded through the exploration of existing scholarships that focus on impact measurement overall, and impact measurements of youth-led initiatives. Given the scarcity in this field, our report therefore seeks to address this gap by providing a universal Framework that aims to introduce a shared language and understanding of impact by youth leaders, local government, funders, and other industry stakeholders. While the set of 15 indicators in the Framework may not be applicable to all, it provides a comprehensive list of recognized indicators that were consulted by both youth and stakeholders in our interviews. The Framework aims to provide a useful guide for youth who want to communicate the impacts of their projects in cities, in relation to funding, and for funders and other stakeholders to understand the impact of youth's work in an accessible manner - with a particular focus on city and local government stakeholders.

LIMITATIONS OF THE YOUTH IMPACT FRAMEWORK

Given the time constraints and scope of this project, we recognize that the framework can be tested and later amended accordingly. Some ways to build off of the framework, suggested by the stakeholders and youth participating in our interview process, include:

- 1. Make space for youth-produced indicators in the framework so it is applicable to all youth-led initiatives
- 2. Restructure the framework as a Theory of Change to demonstrate clear pathways on how youth uniquely contribute to energy and broader climate action
- 3. Redefine impact as a story of change and use qualitative indicators to contextualize quantitative indicators
- 4. Consider defining impacts that are short-term successes. Often, the biggest impacts are not seen until many years later when the individual is no longer considered youth. Acknowledging short-term success could also alleviate burnout in the activism space

- 5. Add "resilience" as an indicator because communities in the Global South are disproportionately battling the effects of climate change as opposed to other parts of the world
- 6. Youth specifically recommended providing survey resources or questionnaires to track before and after/pre- and post- impacts

RECOMMENDATIONS FOR CITIES AND LOCAL GOVERNMENTS, FUNDERS, AND OTHER STAKE-HOLDERS

Further, in using this framework, we recommend cities and local governments, funders, and other stakeholders to set aside dedicated staff capacity to engage youth-led projects that are already working towards achieving any of one of the 15 indicators, and build meaningful partnerships with them in one of the following ways:

- 1. Reach out to youth-led organizations and coach them in impact measurement, tangible policy changes, and/or provide them a platform to speak about their work to collaborate in policy advocacy and help aggregate youth impact in the context of overall community activity
- 2. Connect or provide funding for youth-led organizations that are working to achieve any of the 15 indicators in the Youth Impact Framework, which in turn can help aggregate youth-led climate and energy-related indicators as part of overall city actions
- 3. Research and create policies to ensure a grant system that can provide unrestricted funding for long-term youth-led work in the climate and energy space



NEXT STEPS

We also recommend these specific pieces of work as follow up to this report:

- 1. Introduce Youth City Research and/ or Challenge Teams where youth and their local government work together to test the framework. The aim is to train young people to engage with local governments and facilitate matchmaking between local government leaders and youth to collaborate on climate and energy policy solutions
- 2. Finalize this primary research piece to be published in an open access peer reviewed journal.

With the hopes of testing this framework, we aim to close the gap between youth leaders, local governments, and industry stakeholders by advocating for organizations to reflect how they are currently facilitating youth engagement and adapt the framework to inform their strategic planning, as well as youth to properly communicate their own impacts to larger institutions in a more accessible way.

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