YOUTH SOLUTIONS REPORT 2019

SDSN YOUTH

YOUTH SOLUTIONS PROGRAM

SDSN Youth is an initiative of the UN Sustainable Development Solutions Network; a program launched by UN Secretary-General in 2012 to mobilize global expertise around the Sustainable Development Goals (SDGs).

Partners

The following partners have collaborated with the Youth Solutions Program:

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FOREWORD BY JEFFREY D. SACHS

Professor Jeffrey D. Sachs
Director, United Nations Sustainable
Development Solutions Network

I welcome with great pleasure the launch of the Youth Solutions Report 2019, prepared by the global youth initiative of the Sustainable Development Solutions Network (SDSN Youth). This is the 3rd edition of the Report, and it again fulfills its role as a key tool to harness youth-led innovation for the implementation of the 17 Sustainable Development Goals (SDGs).

This year's report is very timely. As SDSN highlighted in the 2019 Sustainable Development Report earlier this year, no country is fully on track to meet all the SDGs by 2030. The recent Global Assessment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) also demonstrates that the continuing destruction of biodiversity threatens humanity and the economic progress needed to end poverty.

Building on the work of The World in 2050 Initiative (TWI2050), SDSN's Sustainable Development Report outlines six major transformations needed to implement the SDGs, including education, health, energy, land use, cities, and digital technologies. These grand transformations require the mobilization of all stakeholders in society. Youth will play an enormous role.

Thanks to the rise of social media, the unprecedented interconnectedness of today's societies and economies, and the role of youth in setting cultural trends, young people have already emerged as true leaders of the new global movement for sustainable development.

In just a few months, the increasing popularity of the Fridays for Future network, inspired by the Skolstrejk för Klimatet initiated in 2018 by Swedish activist Greta Thunberg, has resulted in the engagement of millions of young people in school strikes demanding bold climate action at the government level and swift implementation of the Paris Agreement on climate change.

Beyond these highly effective and meritorious protests, young advocates, entrepreneurs, inventors, policymakers, and educators are charting innovative and integrated approaches to achieve well-being within planetary boundaries. To showcase how youth-led innovations can add value to existing societal efforts to achieve the SDGs, this Report adds 50 new for-profit and not-for-profit solutions to those identified in previous editions.

This year's Report includes solutions that target areas such as digital health and education, financial inclusion, innovation in agricultural practices, sustainable livelihoods, and circular economy. Taken together, the 50 awardees contribute to expanding the global cohort of youth-led innovations that SDSN Youth has been supporting since 2015. Thanks to a new partnership with Junior Chamber International (JCI) and its Global Youth Empowerment Fund, five of the most promising not-for-profit solutions will directly receive micro-grants that will help them scale up their activities and impact.

This report will be widely read and will inspire young people around the world to join the global movement for sustainable development. Youth have the digital knowhow, the education, the motivation, and the inspiration to change the world, and to achieve the bold goals that we have set with the SDGs and the Paris Climate Agreement.

STATEMENTS OF SUPPORT

With 25% of the global population between 10-24 years old, it's time we not only get the young at the table but frankly give them the table. The future belongs to them and we need their passion, creativity, determination and ownership to reach the Global Goals. Creating the right policy frameworks is a big enabler. The Youth Solutions Report serves as a platform that will bring young innovators to the next level and increase exposure to these projects that will hopefully push policy reform in the future.

Paul Polman
Co-Founder and Chair
IMAGINE

UNLEASH and SDSN Youth share the belief that empowering young people to innovate and create new solutions is the only way we will be successful in reaching the SDGs. The Youth Solutions Report is an outstanding tool to bring positive change and we are happy that several UNLEASH solutions have been featured.

Flemming Besenbacher
Chairman
UNLEASH

This selection of 50 are truly remarkable examples of what a difference empowered and brilliant youth are making in sustainability action all around the world. In order to scale these kinds of solutions faster, it is our duty to also make the voices of youth heard in the dialogues that shape powerful policy and investment decisions for our common future. Get ready for SDSN Youth and JCI's inspiring display of African entrepreneurship around the Sustainable Development Goals that carries hope for a bright future.

Stefan Henningsson
Senior Advisor Climate, Energy & Innovation
WWF

Our planet is in danger - and our young people can convince us to save it. Swedish teenager Greta Thunberg has shown the power of young people to push for action to combat climate change. Now, we need a new Greta to urge us to eat sustainably, for people's health and that of our Planet. Education is key: For this reason, SDSN Youth and BCFN, are strongly committed to empowering new generations for a concrete change, towards the achievement of the 2030 Agenda.

Anna Ruggerini
Operations Director
Barilla Center for Food and Nutrition

The SDGs are the world's challenges, and can only be achieved through directed, mission-oriented, innovation activities, taken on through bold new partnerships between the public sector, business and civil society. TheYouth Solutions Report provides a loud, dynamic forum for youth to be heard and learned from in this critical solutions-oriented process.

Mariana Mazzucato
Director
Institute for Innovation and Public Purpose, UCL

Through our foundation, we collaborate with African universities to train young social entrepreneurs, that positively impact on the SDGs with their entrepreneurial activities. We thank SDSN Youth for the work it does through this report, enabling entrepreneurs like the ones we train, and other young leaders around the world, to showcase their experiences in building a better future.

Fabio Petroni
Director
E4Impact

JCI is proud to collaborate with SDSN Youth on their 2019 Youth Solutions Report. We are excited to offer young people the recognition, tools, training and resources needed to scale their SDG-focused projects in order to tackle global problems

Earl Sawyer
Interim Secretary-General
Junior Chamber International

ADVISORY PANEL MEMBERS

Advisory Panel

For the selection of the Solutions which are included in the Report and showcased in the Youth Solutions Hub, SDSN Youth and JCI work together with a high-level Advisory Panel, comprising world-renowned experts from different disciplines, representatives of the SDSN Secretariat and members of SDSN Youth Executive.

Members

Djaffar is originally from Tehran, Iran, where he was born in 1961. He has lived in Copenhagen, Denmark since 1970. Djaffar obtained a bachelor's degree in constructional engineering in 1988. In 1999 he founded his own construction company, which flourished rapidly and led to great financial success.
Djaffar is an accomplished entrepreneur in the property development business and at the forefront of philanthropic activities focusing on ending extreme poverty. After successfully building up many property companies, Djaffar decided to dedicate the majority of his time and fortune to eradicate extreme poverty. He is the Founder and Executive Director of Move Humanity.

DJAFFAR SHALCHI

Stefan Henningsson acts as Senior Advisor Climate, Energy & Innovation at WWF Sweden and is in the Leadership Team for WWF's global Climate & Energy Practice. In the Leadership Team role, he oversees WWF's strategic work and prioritises global initiatives in relation to all climate & energy issues within policy, business, finance & city sector action platforms.

Previously, he was the programme manager for Sweden's SME business development programmes focusing on environmental sustainability as a driver for profit and innovation. He worked on the Food and Drink Industry at the Environmental Management and Business Research Unit of the University of Hertfordshire, UK from 1998 to 2001.

STEFAN HENNINGSSON

Marie Fischborn works as the Lead for Protected Area Solutions at the International Union for the Conservation of Nature (IUCN), engaging with a wide range of partners and stakeholders as the IUCN partnership coordinator for the PANORAMA - Solutions for a Healthy Planet Initiative initiative. Marie has also played a leading role in the emergence of PANORAMA, a global partnership that seeks to identify and promote examples of inspiring, replicable solutions across a range of conservation and development topics.

Marie holds a master's degree in Biodiversity and Ecology and a bachelor degree in Biology.

MARIE FISCHBORN

CHERIE NURSALIM

Cherie Nursalim is Vice Chairman of GITI Group, a Member of the International Advisory Board of Columbia University and the Asia Advisory Board of the MIT Sloan School of Management. She also sits on the boards of the Yale Center for Environmental Law Policy and the University of Indonesia Climate Change Center, as well as the China Disabled Persons Foundation Board and the United in Diversity Foundation.

Ms. Nursalim has recently been appointed to the Executive Board of International Chamber of Commerce. She organizes international and education forums and has won the Baiyulan Award from the Shanghai government. She was listed among Forbes' 48 Heroes of Philanthropy.

JAMES GOMME

James is the Director of Sustainable Development Goals at the WBCSD, where he supports companies' efforts to integrate the SDGs into their strategic considerations and works with individual industry sectors to develop detailed roadmaps exploring how they can maximize contributions to the SDGs.

James joined WBCSD in March 2016 from Mitsubishi Corporation, where he led teams across a variety of corporate sustainability, public affairs and investor relations roles in both Europe and Japan over ten years. He has an undergraduate degree from Durham University, an MBA from Madrid's IE Business School, and a Certificate in Investor Relations.

FRANNIE LÉAUTIER

Dr. Frannie Léautier is Chairperson and Co-Founding Partner of Mkoba Private Equity. Dr. Léautier previously served as Executive Secretary of the African Capacity Building Foundation (ACBF). A Tanzanian national, she served as Vice President of the World Bank and Head of the World Bank Institute from December 2001 to March 2007.

She also served as Chief of Staff to the former President of the World Bank from 2000 to 2001. Cumulatively, Dr. Léautier served in various capacities at the World Bank from 1992 to 2007. From 2007 to 2009, she was a Managing Partner at The Fezembat Group, a company focused on risk management and leadership development.

GIOVANNI BRUNA

Giovanni Bruna is a Program Associate on the SDSN Secretariat, tasked with developing and managing national and regional networks in Latin America. Prior to joining the SDSN, he worked as an Account Manager at Guinness World Records. He also worked in Corporate Relations at the Council of the Americas, an international organisation committed to socio-economic development, the rule of law, and democracy in the Western Hemisphere.
Giovanni holds a Master's degree in Global Governance and a B.A. in International Relations, both from Florida International University in Miami. Giovanni also obtained a postgraduate certificate in Cultural Management and Communications from the Facultad Latinoamericana de Ciencias Sociales.

ESBEN LANTHÉN

Esben is the Managing Partner of Nordic Sustainability. He leads the organisation's business development efforts with the ambition to move clients towards sustainability impact. He advises Nordic and global clients on sustainability strategies, SDG impact, and thought leadership across sectors. Esben has a background working for sustainability think tanks in partnership with foundations and NGOs as well as advising international organisations and companies.

He has worked with organisations such as Storebrand, Nykredit, C40, Realdania, the Asian Development Bank, etc. and was formerly the Director of Insights at the think tank Sustainia. Esben holds an MSc in political science from the University of Copenhagen.

JENNIFER GROSS

Jennifer Gross founded the Blue Chip Foundation, which focuses on alleviating extreme poverty in the developing world; education in the United States, and social enterprise at the local level. Ms. Gross is a member of the Gross Family Foundation which has donated to Mercy Ships, Doctors Without Borders, the Earth Institute and Duke University, among others. She also serves on the board of the SDSN, Duke Global Health Institute and LA Kitchen.

She has 10 years of philanthropic and business experience and earned her undergraduate degree from Duke University. She is currently partnering with PixHug, a social media platform designed to bring money to charitable campaigns through member participation.

ANNA RUGGERINI

Anna Ruggerini is Operations Director and Member of the Board at the Barilla Center for Food & Nutrition (BCFN).

She is committed to translating evidence based scientific data into effective policy recommendations to enable stakeholders to make informed choices on food and the related systems for our health and for the one of the Planet. Anna previously served as Marketing Manager for European countries and as Group Communication and External Relations Manager being in charge of Corporation equity and events at the Barilla Group. Among others, she gave birth to an Italian private-public alliance promoting healthy food and life-styles for the future generations and in 2014 she established the BCFN Foundation.

KATE ROLL

Dr Kate Roll is an Assistant Professor in Innovation, Development and Purpose at the UCL Institute for Innovation and Public Purpose (IIPP).

Prior to joining IIPP, she was based at the University of Oxford, where she was a faculty member at the Saïd Business School, contributing to the strategy and innovation curriculum, and ran the Mutuality in Business Project, a large multi-year research partnership on responsible business. She also taught undergraduates in Oxford's distinctive tutorial style as a Lecturer in Empirical Politics for Somerville College and Lecturer in General Management, Lady Margaret Hall. In recognition of her dynamic teaching, she was nominated for the Most Outstanding Lecturer award in 2018.

LAUREN BARREDO

Lauren Barredo is Head of Partnerships for the SDSN, where she manages relationships with institutions, companies, and individuals, finding new ways to collaborate on SDG implementation. In addition, she manages three Thematic Networks (Health, Agriculture, and Extractive and Land Resources) as well as three Regional Networks (Amazon, Australia Pacific, and Caribbean).

From 2010 to the SDSN's founding in 2012 she worked as a Special Assistant to Jeffrey D. Sachs at The Earth Institute, Lauren also held positions at the National Fish and Wildlife Foundation, the US Environmental Protection Agency (EPA), the Smithsonian Museum of Natural History, and the Yale University Herbarium.

ANNA NORDÉN

Anna is an Assistant Professor in Economics at the Jönköping International Business School of Jönköping University. Previously, she served as the Network Manager of SDSN Northern Europe. She holds a PhD degree in Economics from the University of Gothenburg and has also worked as a Research Fellow at the Department of Physical Geography and Ecosystem Science of Lund University.

Her primary research interest is in policy design and behavioral economics for sustainable development. Her research has so far focused on policies for sustainable forest management and biodiversity conservation, especially in Costa Rica, with topics like crowding out of donations to national parks, spillovers of payment for ecosystem services and environmental impact of forest certification.

CATHERINE BARBA

Catherine is one of the top global experts in the intersection of retail and digital transformation since 1996. She develops the PEPS Lab, a Retail Innovation Lab that offers guidance to brands and retailers seeking to adapt to new consumer behaviours and values.
P
rior to that, Barba founded and sold several digital businesses in France. A trusted angel investor and mentor, she serves on the board of directors of successful tech startups, including Euveka, Reech, Retency, Popshop, and on the board of multinational organizations such as Renault. In 2015 and 2016, she was named one of 50 most influential figures in Europe's digital economy and in 2014 one of the three most influential female figures in France. Barba is a Knight of the French National Order of Merit and Knight of the National Order of the Legion of Honor.

ALEXANDER DALE

Alexander Dale leads MIT Solve's Sustainability work, where he supports people and organizations passionate about tackling food, energy, water, and climate challenges. He has an academic background in the life-cycle impacts of energy and water infrastructure, and a professional background in environmental policy, engineering education, and nonprofit management.

Alexander was Executive Director of Engineers for a Sustainable World (ESW) from 2013 until 2015 and continues to serve on the organisation's board. From 2015 to 2017, he was an AAAS Policy Fellow hosted by the US EPA's Transportation and Climate Division. He has also taught courses in social entrepreneurship, energy and science communication, and technical sustainability.

MAUD ROURE

Maud is the Head of Programmes at the Kofi Annan Foundation, where she leads the areas of Transitions to Peace and Promoting Youth Leadership and the work of the Foundation on the issues of transitional justice and reconciliation. She also coordinates the Extremely Together initiative, a youth-led effort to improve young people's capacity to reject the narratives of violent extremists.

Before joining the Foundation in 2017, Maud was the Head of Learning and Policy and a member of the Strategic Management Team at Interpeace, and she also worked on political transitions, disarmament, demobilization and reintegration and human rights at the French Ministry of Foreign Affairs, the French Embassy in Namibia, the United Nations Development Programme (UNDP) in Niger and Amnesty International in Paris.

FABIO PETRONI

Fabio is the Director of Programmes at the E4Impact Foundation, the spin-off of the Catholic University of Milan aiming at growing impact entrepreneurs in Africa. In partnership with African universities E4Impact has trained and accelerated 600+ entrepreneurs in Kenya, Uganda, Ethiopia, Ghana, Sierra Leone, Ivory Coast and Senegal.

Previously, Fabio worked for Italian oil company Eni as a Sustainable Development Expert contributing to Eni's work on to the UN Rio+20 Conference, the Sustainable Energy for All Initiative and UN Global Compact LEAD programme. He interned in the European Parliament where he contributed to legislative & policy processes in the Culture and Education Committee and the Delegation for Interparliamentary relation with the Parliament of Azerbaijan.

CRISTIANE LOURENÇO

Cristiane Lourenço is Global Food Stakeholder Manager for Bayer Latam. In this position, she is responsible for establishing strategies and relationships with the main stakeholders of the food chain in Latin America countries. The proposal is to create solid partnerships and promote connections between the main players in the food chain by encouraging sustainable food production and diets.

Cristiane Lourenço graduated in Public Relations from the Federal University of Paraná (UFPR) and is a specialist in Sustainable Business from the University of Cambridge. Prior to joining Bayer, she worked with Sustainability and Innovation for many years at Unilever and in the energy sector. The executive has extensive experience in the area of sustainability and innovation, managing projects in India, USA, Europe and Latin America.

OLIVER LIBBY

Oliver B. Libby is the Chair & Co-Founder of The Resolution Project. Resolution identifies and empowers undergraduate students around the world who wish to launch new social ventures, supported by Resolution's global network of resources.
Oliver is also a founding Managing Director of Hatzimemos/Libby, a global

growth catalyst firm based in New York, focusing on the energy and advanced technology sectors. He serves as a Trustee of the philanthropic Harvard Club of New York Foundation and a member of the Clinton Global Initiative's LEAD program. He graduated magna cum laude from Harvard.

ITAI MANYERE

Itai Manyere is a young active citizen who has been a member of JCI since 2004. He has served over the years at the local Level (JCI Harare); at the national level (JCI Zimbabwe Board); and at the international level (JCI Board of Directors). He currently serves as Chief Executive Assistant to the President. He is well travelled in JCI and in his professional life, with over 15 International JCI Events. He was conferred a life member as Senator #74629

Professionally he is an IT Professional with BlueDOT Technologies. They have interests in ICT Security and Mobile Value Added Services within Africa and beyond.

TERESA POON

Teresa Poon is the director of three companies and resides in Hong Kong. She currently serves as 2019 JCI Vice President for Asia and the Pacific, and is assigned to Japan, Korea, Mongolia, Taiwan and Vietnam.

She joined JCI City Lady in 2008 and served as the Local President in 2011. She became Secretary-General for the 2012 JCI Asia-Pacific Conference in Hong Kong. She was appointed as a 100th Anniversary Committee Member and Growth and Development Chairperson, and in 2017 she became JCI Hong Kong National President and initiated the first SDGs report for JCI Hong Kong.

JAY JOHNSON

Jay Johnson is an internationally renowned speaker specializing in behavior and organizational development. He currently serves as the 2019 JCI Vice President for Europe. Jay joined JCI Redford in 2009 and has served in leadership at every level of the organization. He is a graduate from the 2018 JCI Academy in Himeji, Japan and has been honored as JCI Senator No. 75257.

Professionally, Jay works with Fortune 100 companies and national organizations such as Ford Motor Company, United Way, Consumers Energy, Keller Williams, Kentucky Fried Chicken, Crain Communication, Junior Chamber International, UM Health Systems, the Detroit Chamber, and AmeriCorps. He holds a Master's Degree in communication, is a designated Master Trainer from the ATD, and was twice honored with the Excellence in Training Award by the APCC. He has served in government and a variety of NGO boards of directors.

KATHERINE SPARKES

Katherine Sparkes is a global entrepreneur and charity changemaker. Sparkes founded Flamingo Creative, a corporate responsibility consultancy group which helps businesses function ethically and responsibly as well as providing management consultancy services to the third sector. Her work also includes acting as CEO for a variety of charities. Sparkes has worked with global corporations such as KPMG, Accenture and Credit Suisse, as well as with the British government, where she is a regular speaker at the Cabinet Office. Sparkes also founded two not-for-profit organizations; Styleabilityand inclusive dance school Flamingo Chicks, which sees 3000 disabled children come through its doors each year. She has won numerous awards for her contribution to the global community including the JCI Ten Outstanding Young Persons of the World Award in 2012and a Point Of Light Award from the British Prime Minister.

REEM ABDEL-HADI

Reem Abdel-Hadi has a degree in Industrial Engineering. She is currently the M&E and Capacity Building Advisor at USAID Takamol project focusing on gender mainstreaming. She resides in Amman. Abdel-Hadi is currently serving as 2019 JCI Africa and Middle East Development Council Chairperson. She previously served as the 2017 JCI Vice President assigned to Africa and the Middle East. Abdel-Hadi was a founding member of JCI Jordan where she served as the first President of the first established Local Organization JCI Amman in 2010. She continued to serve as National President in 2012. She has attended ten JCI Area Conferences and seven JCI World Congresses. She speaks Arabic, English and French.

ZHANNA LEVITINA

Zhanna Levitina interned with the International Union for Conservation of Nature (IUCN) under the supervision of Marie Fischborn.

Zhanna is currently undertaking a Bachelor's degree in Geography at the University of Cambridge and is interested in conservation and sustainable development. She participated in the Advisory Panel supporting the review conducted by Marie Fischborne.

SUMMARY

After two successful editions of the Youth Solutions Report, published in January 2017 and June 2018, respectively, this year's publication continues to expand its scope and objectives. Not only do we celebrate the efforts of young innovators towards achieving the 2030 Agenda, we also seek to provide all public and private stakeholders with actionable insights on the value and opportunity of investing in youth-led innovation as a key enabler of sustainable development.

The Report aligns in particular with the Sustainable Development Goals (SDGs) that have been reviewed at the 2019 High-Level Political Forum, focusing on the role of young people in improving access to quality education, promoting decent work for all, reducing inequality, combating climate change, promoting peaceful societies, and supporting a renewed global partnership for sustainable development.

The Report has three key components. The first part focuses on the young innovators who are spearheading the implementation of the 2030 Agenda, showcasing and mapping the efforts of 50 youth-led solutions that have been selected by a panel of 24 leading experts covering all thematic sectors and geographical regions. A second part zooms in on the challenges and opportunities facing young innovators who are working in the areas of quality education, climate change mitigation, sustainable economic growth and peaceful societies are helping meet Agenda 2030. Finally, the last part addresses two critical gaps in the promotion of youth-led innovation for sustainable development, namely the expansion of access to finance and the development of tools that can help young problem-solvers make their solutions more sustainable by tailoring them to the local contexts in which operate (Chapter 9 and 10).

After this Summary, Chapter 1 provides an analysis of the key trends and insights arising from the for-profit and not-for-profit solutions that have been submitted for consideration in this year's Report. The chapter details the submission and review processes which led to the final selection of 50 solutions. In addition, the chapter provides a brief overview of the way in which submissions are divided based on geography, targeted SDGs, and funding sources. Overall, the diversity and scope of the over 4,300 solutions submitted this year has greatly increased since the publication of the first edition in January 2017, as has the awareness about the need to take SDG interactions into account when implementing youth-led projects. By contrast, the identified challenges of access to finance, mentoring opportunities and visibility, which were predominant in last year's edition, largely remain the predominant concerns of young innovators.

Chapter 2 contains the fifty solutions that have been selected by the Advisory Panel, including the five solutions that have won the JCI Grant. The chapter divides them by organizational type (for-profit and not-for-profit) and provides a one page-summary about each project highlighting the name of the solution, gives

out the website links of the solutions for the reader to reach out, mentions the type of organization, the location where it operates, its current reach and budget range in USD, and the SDGs is addresses. It also describes the main problem that the project is trying to solve backed by evidence, data and statistics. Most importantly, it adds the solution description and highlights all forms of success and impact to date.

In closing Part I, Chapter 3 consists of a progress review of the Youth Solutions Program's activities in 2018 and 2019, including the recent launch of the Youth Solutions Hub which expands on the previous editions of the Youth Solutions Report as well as on the Investment Readiness Program that we provide to our cohort of innovators in partnership with Babele.co and Bayer AG.

Opening Part II, Chapter 4 contains a contribution from United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), which analyses the elements of youth involvement contained in the Voluntary National Reviews submitted by selected countries at the annual High-Level Political Forum. The chapter elaborates on how, when properly engaged, young people can make positive contributions across the full spectrum of the SDGs by utilizing their unique skills, ideas and worldviews in support of a truly transformative agenda of sustainable development.

Chapter 5, co-authored by two innovators who have been featured in the 2017 and 2018 editions of the Report, describes the importance of youth-led solutions in promoting lifelong learning opportunities for all through both traditional and digital innovations. In particular, the chapter explores two case studies, Teach for the Philippines and Openshkola in Russia, that are taking different approaches to expanding access to education and improving its quality, while also supporting the broader movement of education for sustainable development (ESD).

Chapter 6 addresses Goal 8 and 10 by focusing on the role of social entrepreneurship narrative in addressing youth unemployment and promoting economic growth in developing and developed countries alike. The chapter looks at the benefits of youth entrepreneurship, what is the status quo, what barriers need to be overcome, and what existing successful programs look like. The key takeaway is that any initiative focused on building a new generation of founders needs to create an ecosystem that provides education and training, mentorship and role models, and funding, while involving all relevant stakeholders.

Chapter 7, prepared by former awardees from the Student Energy project, focuses on the role of young innovators in fighting climate change, explaining how youth-driven societal and policy innovations can often be complementary to technological solutions. The chapter also shows how youth-led innovation on climate looks like in practice, introducing stories of young people in Student Energy's network.

Chapter 8, authored by Sofia Anton of the Kofi Annan Foundation, discusses the power of youth leadership in preventing violent extremism and more broadly promoting access to justice and peacebuilding. Through the case study of the

peer-to-peer approach used by the Foundation's Extremely Together initiative, the chapter illustrates how the convening power of young people can mobilize entire communities around the values of tolerance and optimism.

In Part III, Chapter 9 looks at the needs of young entrepreneurs working on the SDGs and the barriers faced in scaling their projects. It provides a comparison with the solutions submitted to last year's Youth Solutions Report. It then elaborates on possible funding options for young entrepreneurs, a look at alternative financing mechanisms, and the need to develop robust investment pipelines to attract capital on more traditional terms. In conclusion, the chapter features a large overview of existing funding mechanisms and opportunities for young innovators all over the world.

Finally, Chapter 10 uses the case of the Active Citizen Framework methodology developed by Junior Chamber International (JCI) in order to explain how youth-led solutions can contribute to the creation of measurable results only if their founders adopt a community-based, needs-focused approach that is centered on grassroots action, sustainable impact, development of partnerships, and rigorous monitoring and evaluation. The chapter particularly argues that the prioritization of specific SDGs is fundamental in order to achieve long-term success. According to the authors, the 2030 Agenda can only be achieved once basic needs of communities are met, as health and well-being, education and economic empowerment can become the foundations on which peace and environmental sustainability are built.

Taken together, the chapters of this Report contain an array of views coming from young innovators themselves, UN bodies, non-governmental organizations, social entrepreneurs and private foundations. In providing a range of different perspectives on the challenges and opportunities of youth-led innovation as a means of implementing the SDGs, they also illustrate how the meaningful engagement of young people will critically depend on existing societal and economic systems becoming more inclusive of youth voices. Innovation systems, business environments, policy-making fora and the development sector should strengthen the global partnership for sustainable development by understanding that young people's skills and enthusiasm can add value to efforts in all sectors, and that transformative solutions can often be found in the most unlikely of places.

PART I

YOUNG INNOVATORS IMPLEMENTING THE AGENDA 2030

Analysis of Key Trends and Insights from the Solutions

Kanika Joshi and Madeleine Setiono

CHAPTER

01

INTRODUCTION

After the successes of its previous editions, the 2019 version of the Youth Solutions Report is released during the opening week of the 74th Session of the United Nations General Assembly (UNGA). This edition, unlike its predecessors, introduces a new collaboration with Junior Chamber International (JCI), a global youth-led organisation with members in over 120 countries that since the establishment of its first local chapter in 1915 has helped hundreds of thousands of young people get engaged in the social and economic development of their countries. The collaboration was developed in order to make it possible for a number of chosen not-for-profit solutions, out of the 25 non-profits and 25 for-profits included in the report, to receive small grants through the Global Youth Empowerment Fund (GYEF), which is an initiative developed jointly by JCI and the UN SDG Action Campaign. This report is the result of a months-long process in which the Sustainable Development Solutions Network - Youth (SDSN Youth) Solutions Team and JCI assembled youth-led solutions from across the world to showcase the most innovative and promising approaches that young people are taking to achieve the Sustainable Development Goals (SDGs) contained in the 2030 Agenda for Sustainable Development (UNGA 2015).

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	

The Report builds upon one of the three pillars of SDSN Youth (SDSN Youth 2019), which mandates an operational focus on "supporting young people in the creation and scaling of innovative solutions for the SDGs." This year's edition continues to identify and celebrate youth-led solutions that are contributing towards the 2030 Agenda in all SDG sectors encompassing business, charity, education and research. The Youth Solutions Report aspires to inform the policies and actions of all SDGs stakeholders through research and analysis in order to bring impactful support for young innovators in their respective regions and countries.

The first two editions of the Youth Solutions Report in 2017 and 2018 have helped young innovators bring their projects from their local context onto a bigger stage. SDSN Youth has offered many of these young innovators the opportunity to present their solutions and take part in international conferences and events, including the UN High-Level Political Forum, the International Conference on Sustainable Development (ICSD), the Conferences of the Parties to the UN Framework Convention on Climate Change (UNFCCC), the Youth Assembly at the United Nations, the Global Festival of Action for Sustainable Development, the Vatican Youth Symposium and the UNLEASH Lab programs. SDSN Youth has also built on the Report to help youth-led solutions become more visible online, not just through its media channels but also oh websites and media outlets including National Geographic, Forbes, Impakter, Virgin Unite, Connect4Climate, the SDG Knowledge Hub of the International Institute for Sustainable Development (IISD) and Sustainable Brands, among others.

Since 2017, SDSN Youth stepped up its support to the solutions featured in that year's Report by sharing funding and mentoring opportunities, matching innovators with interested experts and supporters, and launching the first two iterations of its Investment Readiness Program in collaboration with Babele.co in January and September 2018. More recently, SDSN Youth has also shifted away from piecemeal approaches to fulfilling its mandate, adopting a systemic approach to youth-led innovation that has culminated in the announcement of a global Youth Solutions Hub in November 2018. The Youth Solutions Hub is an online community-building platform that connects young SDG innovators with dedicated mentors and experts from industry, business and academia. The goal is to provide innovators with an ecosystem wherein they can obtain valuable advice, educational and training resources, skills and opportunities that can facilitate the implementationand scaling up of their solutions.

The creation of the Youth Solutions Hub marks another step in the long term process through which SDSN Youth, in collaboration with the Sustainable Development Solutions Network (SDSN) at large, aims to directly support youth-led projects in business, charity, education and research by addressing three key challenges of access to funding, access to expertise and increased visibility. SDSN Youth remains committed to working with partners at all relevant levels, including UN agencies, governments, NGOs, universities and the private sector to overcome the key challenges that youth are facing in developing their solutions, enabling young people not only to be a key demographicin the implementation of the 2030 Agenda, but also as main contributors to its success.

WHAT IS A YOUTH-LED SOLUTION?

SDSN Youth defines youth-led solutions as "transformative projects and endeavours, ranging from entrepreneurial ventures to educational programs, and including research activities, charity initiatives and so forth, that showcase the innovative approach that youth are taking in solving the multiple challenges of sustainable development" (SDSN Youth 2017:16). For the purpose of this Report, these projects have been grouped into two categories in order to facilitate submissions and highlight the diversity of youth-led innovation for the SDGs: solutions that are non-profit projects, and those that are for-profit projects.

Six eligibility criteria were developed when selecting projects to be included in the Report. As discussed below, these criteria were also used by the Advisory Panel of the Youth Solutions Report for assessing the applications that were received.

Relevance of the Challenge Addressed	In order to qualify, projects must seek to address a challenge which is relevant in the context of the 2030 Agenda for Sustainable Development. They must also describe why tackling said challenge will help achieve the SDGs.
Innovative Character of the Solution	The projects must be founded by individuals aged 15-40 and they must showcase the skills and creativity of the proponent(s). Success is not the sole factor looked at when evaluating solutions. The Youth Solutions Report aims to celebrate innovative, game-changing ideas which have the potential to build transformative change and shift the behavior of people, businesses and countries. Since last year, the age threshold to participate was raised from 30 to 40 in order to align it with the requirements used by our partner JCI in its disbursement of funds to not-for-profit initiatives.
Financial Viability	Solutions must be self-sustaining in the long-term. In other words, they must be able to become financially sustainable through the resources they generate and/or the investments and donations they attract.
Scalability	Projects must have the potential to perform as well or better after expanding in scope or size and/or being implemented in other regions. The Youth Solutions Report looks at projects which could potentially help others beyond their immediate community.

Current or Potential Impact	The solutions must be effective in solving the challenge(s) it seeks to address. Ideally, they should also go beyond short- to medium-term effects and show the potential to have positive long-term consequences for the consequences for the community(ies), country(ies) or region(s) in which they operate. This includes positive environmental impacts (e.g. innovations which are capable of reducing carbon emissions, developing sustainable consumption and production patterns, reducing the loss of terrestrial or aquatic biodiversity, or more generally respecting the earth's planetary boundaries), as well as positive social impact (e.g. generating employment, eradicating poverty, or developing skills).
Integrated Approach to the SDGs	The solutions should take into consideration the synergies and trade-offs among the SDGs, beyond the immediate Goal that they try to address. They should demonstrate an attempt to create positive feedback or mitigate negative impacts in other areas. Finally, they should ensure that their impacts have been adequately measured and/or that they are in principle measurable, and if possible, that such measurement is aligned with the SDG indicator framework developed to monitor the implementation of the 2030 Agenda (UN Stats 2017).

WHAT WAS THE PROCESS OF SUBMISSION

A: Call for submissions

The call for and screening of submissions for the third edition of the Youth Solutions Report was a combined effort between SDSN Youth and JCI. In May 2019, JCI and SDSN Youth launched a joint eligibility form to screen potential applicants. The initial pool of Solutions was developed based on: (a) SDSN Youth's outreach efforts to youth groups and communities; (b) SDSN Youth's cooperation with SDSN Regional and National Networks, SDSN Youth's Member Organizations, and other external partners, (c) nominations and direct submissions through the Report's website, and (d) the dissemination of the submission form within JCI's global network. In this first phase, over 4,300 applications from 174 countries were received. In June, the full application opened and a longer submission form was only sent to those applicants who had been found eligible at the end of the previous phase. More specifically, the eligible solutions included those that: (a) had been founded by a person aged 15 to 40; (b) were legally registered in one or more of their countries of origin; and (c) had successfully targeted at least one SDG. In July, the full application closed and JCI and SDSN staff prepared a first shortlist of 200 promising applications to be reviewed by the Advisory Panel of the Youth Solutions Report.

B: The review of submissions

In August 2019, JCI and SDSN Youth convened an Advisory Panel comprising 24 individuals, including world-renowned experts from different disciplines, members of the SDSN Secretariat and representatives of the JCI network.

The Panel had the task of ranking the shortlisted projects provided by SDSN Youth and JCI by assigning a mark ranging from 1 (lowest mark) to 3 (highest mark) through an online survey. The ranking system was composed of the following separate marks:

Relevance of the Challenge Addressed

Reviewers were requested to either assign a score of 1 if the solution did not address a real need or if the challenge was not relevant in the context of the SDG framework; assign a score of 2 if the solution addressed a real need across the environmental, social, economic or governance dimensions of sustainable development, or if the challenge was in any other way relevant in the context of the SDG framework; or assign a score of 3 if the challenge was a central and/or cross-cutting one in the context of the SDG framework.

Innovative Character of the Solution

Reviewers were requested to assign a score of 1 if the solution neither improved nor redefined existing concepts, products, services or processes, but merely applied them; assign a score of 2 if the solution improved or redefined existing concepts, products, services or processes, or if it sought to apply them to new sectors or regions in an innovative way; assign a score of 3 if the solution introduced radically new concepts, products, services of processes driven by sustainability considerations.

Financial Viability

Reviewers were requested to assign a score of 1 if the solution did not appear to be economically sustainable in its current form; assign a score of 2 if the solution appeared to be potentially sustainable after minor adjustments or if it might be suitable to becoming sustainable after receiving substantial external support; assign a score of 3 if the solution already appeared economically sustainable or if it was already well-suited to attract investments and/or other forms of support.

Scalability

Reviewers were requested to assign a score of 1 if the solution did not appear to be replicable and/or scalable outside of its current areas of operation; assign a score of 2 if the solution showed promising potential to perform as well or better after being replicated or expanded in scope and/or size; assign a score of 3 if the solution was already in the process of being replicated or scaled to a successful extent.

Current or Potential Impact

Reviewers were request to assign a score of 1 if the SDG impacts of the solution appeared negligible, or if there was no way of measuring them; assign a score of 2 if the solution appeared to be able to deliver positive SDG impacts in the short- to medium-term; assign a score of 3 if the solution appeared to be able to create positive SDG impacts and long-term value for the communities, countries and/or regions in which it operates.

Integrated approach to the SDGs

Reviewers were requested to assign a score of 1 if the solution only mentioned the SDG(s) it directly tries to address, without discussing potential synergies and tradeoffs with other SDGs; assign a score of 2 if the solution attempted to discuss potential synergies and tradeoffs between SDGs affected between SDGs affected by the solution, but failed to explain how these synergies and tradeoffs are harnessed or mitigated in the project activities; assign a score of 3 if the solution effectively discussed the interactions between different SDGs and explained how these are appropriately taken into account in the project activities.

With the help of the Advisory Panel, 50 solutions were selected to be included in the 2019 Youth Solutions Report, 25 in the not-for-profit category and 25 in the for-profit one. Among the 25 not-for-profit, the Global Youth Empowerment Fund Board selected 5 of these projects to receive funding from the GYEF. The grant winners are Bright Inventors, Education for Sharing, World Change Makers Academy, Gift a Sanitary Pad, and Code Mobile.

ANALYSIS OF THE SELECTED SOLUTIONS

As noted above, the selection committee received 4,344 solutions originating from 174 countries. In this short chapter, however, we only choose to analyse data from the 50 solutions that have been selected for inclusion in the 2019 Youth Solutions Report, in order to avoid the potential consideration of incomplete and/or unreliable information submitted by some of the projects that were not shortlisted. Among these solutions, the average age of for-profit founders is 30 years old and the average age of non-profit founders is 26 years old.

Non-profits
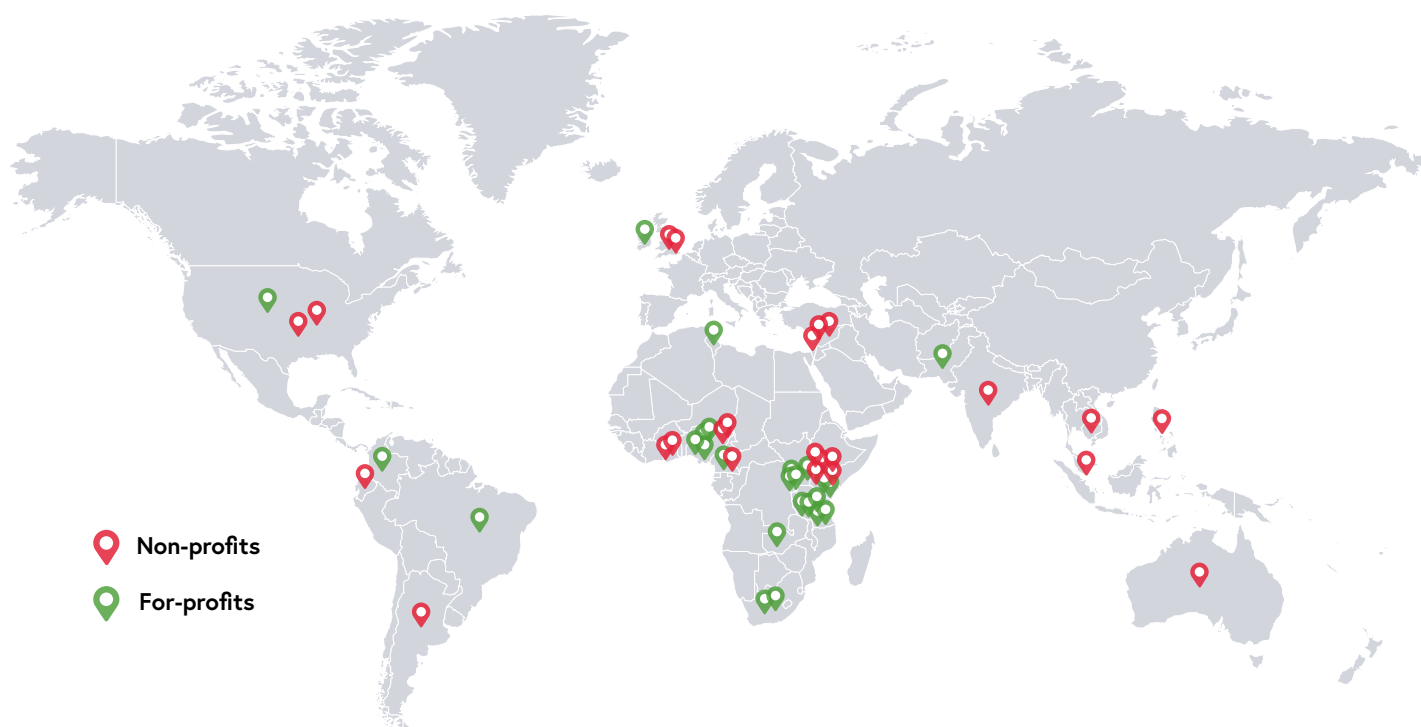
For-profits

GEOGRAPHIC FOCUS

A majority of both not-for-profit and for-profit solutions selected this year are registered and active in Africa, highlighting the continuous contribution of the continent's young people towards the implementation of the SDGs and the ongoing boom of the African social entrepreneurship movement. Unlike previous editions of the Youth Solutions Report, most of the solutions selected this year run programs that aim to reach the countries and communities in which they were registered, instead of remotely targeting other geographical areas. In particular, the Report is characterised by a high representation of solutions from Tanzania and Rwanda in its for-profit category. In the not-for-profit category, Kenya is the country with most selected projects. In the African context, the presence of pervasive challenges including youth unemployment, digitalization, climate smart agriculture, access to healthcare and energy, and waste management provides a strong indication of existing market gaps and business opportunities, leading to the design of solutions that are tailored to the local communities in which they are expected to operate. 19 out of the 25 for-profit solutions are based in and run programs in Africa. The proportions are quite different in the non-profit category because 70 percent of all not-for-profits are registered in Africa and Asia (7 not-for-profit solutions are from Asia), while only 1 for-profit solution is registered and is operating in Asia.

The geographical context also implies that each youth-led solution deals with its own challenges differently, as policymakers, educational institutions and private supporters are inevitably influenced by local contexts, policy frameworks and opportunities. This background influences the legal structure of the organizations that are set up (e.g. non-profit versus for-profit), the sources of funding, the use of impact assessment tools, and so forth.

MAIN SDGs ADDRESSED (AS IDENTIFIED BY THE SOLUTIONS)

Most of the selected applications have identified their solutions as effectively addressing multiple SDGs, and were asked to provide an explanation of how the interaction between the different goals was taken into account in the projects' design and activities. This is extremely important when one considers the complex interconnectedness that exists amongst the 17 SDGs and 169 related targets, as contributing to one Goal is capable of providing co-benefits but also, potentially, negative impacts in other areas of the 2030 Agenda.

TACKLING WASTE:
A POWERFUL TOOL TO MEET SDG3 AND BEYOND

Featured Projects:
ECOACT TANZANIA, From Waste to Organic, Prev Leak (For-Profits)

Waste management is one of the most recurring themes from this year's solutions, especially within for-profits. 3 not-for-profit solutions have waste-related projects, while 5 for-profits work with waste in their respective social enterprises. Social enterprises all over the world (these solutions come from Africa, Asia and S. America) are turning waste into money, and therefore are solving the basic issues of health and sanitation in poor or rural communities while making profit. It should also be noted that each for-profit addresses the problem differently with their own unique business models. Because of this, each social enterprise also contributes to other interrelated SDGs differently, thereby branching out to multiple positive impacts from just one simple problem-- waste.

For example, ECOACT TANZANIA recycles and transform post-consumer waste plastics into durable and long lasting plastic lumbers. Plastic lumbers are affordable alternative to timbers, which reduces the need for building material manufactured from wood and therefores helps to reduce deforestation and mitigate climate change (SDG 13 and 15). From Waste to Organic, on the other hand, correlates Good Health and Well-being to Gender Equality (SDG 5) and Reduced Inequalities (SDG 10). Its founders collect food scrap from different sources and convert it into microbe and nutrient-rich compost using a profit-sharing scheme which involves the work of women and youth in marginalized communities. Finally, the Prev Leak device in South Africa detects wsewage buildup in a manhole using a wired water sensor which prevents overflowing. Prev Leak works through a model according to which locals are elected and trained in partnership with the Johannesburg Water agency to be local service providers, and are then paid by the communities through a contribution scheme, thereby also contributing to Decent Work and Economic Growth (SDG 8) and No Poverty (SDG 1).
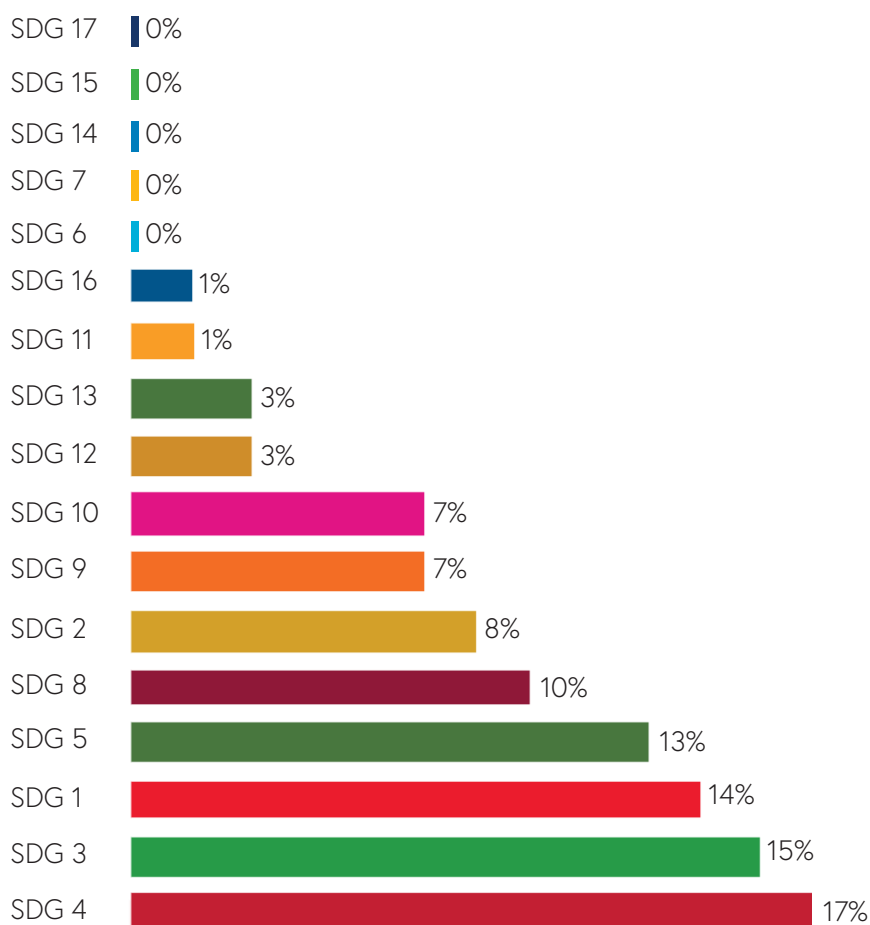
SDGs Addressed by Non-Profit Solutions

SDG	%
SDG 17	0%
SDG 15	0%
SDG 14	0%
SDG 7	0%
SDG 6	0%
SDG 16	1%
SDG 11	1%
SDG 13	3%
SDG 12	3%
SDG 10	7%
SDG 9	7%
SDG 2	8%
SDG 8	10%
SDG 5	13%
SDG 1	14%
SDG 3	15%
SDG 4	17%

Figure 3 - Bar Graph of SDGs, Non-profits

SDGs Addressed by For-Profit Solutions

SDG 1
SDG 2
SDG 3
SDG 4
SDG 5
SDG 6
SDG 7
SDG 8
SDG 9
SDG 10
SDG 11
SDG 12
SDG 13
SDG 14
SDG 15, SDG 16, SDG 17
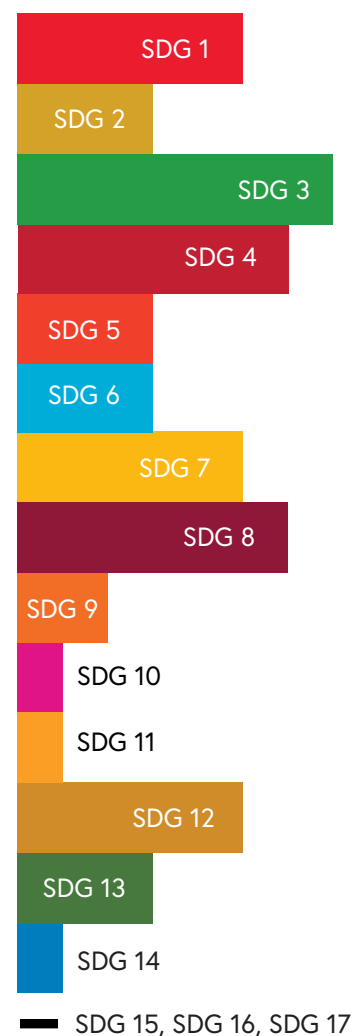
Figure 4 - Bar Graph of SDGs, For-profits

Figures 3 and 4 show the SDG focus of the 50 selected solutions. The results come from self-assessment conducted by the innovators themselves, despite the fact that SDSN Youth's own evaluation has led to slight changes in some of these self-assessments. It is important to know how young innovators themselves perceive their efforts in supporting the achievement of the SDGs. This will give insights to better understand knowledge, skills and resource gaps as well as to mobilize the contribution of young people in areas with more enthusiasm and impact.

In the for-profits category, the main SDGs addressed by the selected solutions are SDG 3, SDG 4, and SDG 8. Meanwhile, the most popular SDGs addressed by not-for-profit solutions are SDG 1, SDG 3 and SDG 4. Much like the noticeable trend from past years, Goals 14 and 15 on life below water and on land continue to be relatively unaddressed in the selected solutions. Not-for-profit solutions are more focused on socio-economic Goals and issues like poverty, health and education, while for-profits have a focus on the creation of economic opportunities (Decent Work and Economic Growth, SDG 8). It can be assumed that these are solutions that are more easily integrated into a business model and therefore cater to social enterprises. For example, SIGNS MEDIA in Kenya works to increase financial inclusion for deaf people using their own television channel, SIGNS TV, as a platform. Another for-profit solution called Cloq in Brazil provides opportunities for financial inclusion to low-income and unbanked customers, while educating them to make better financial decisions.

BUDGET AND FUNDING SOURCES

Funding is an important aspect for youth-led solutions, as different levels of access to capital and financial services often define not only the operations and scaling-up of the project activities, but also the legal form in which the solutions themselves are structured. Within the selection solutions, the data indicates that the majority of for-profits operate on a medium annual budget ($20,000-$50,000) while not-for-profit projects operate with small budgets ($5,000-$10,000) and medium budgets ($20,000-$50,000). The fact that some not-for-profit solutions are now operating with a larger budget can indicate that there has been an increase in interest in the Youth Solutions Program of SDSN Youth by larger non-profits within the last year, since most of the solutions selected in the 2018 edition still operated in the $5,000 budget range.
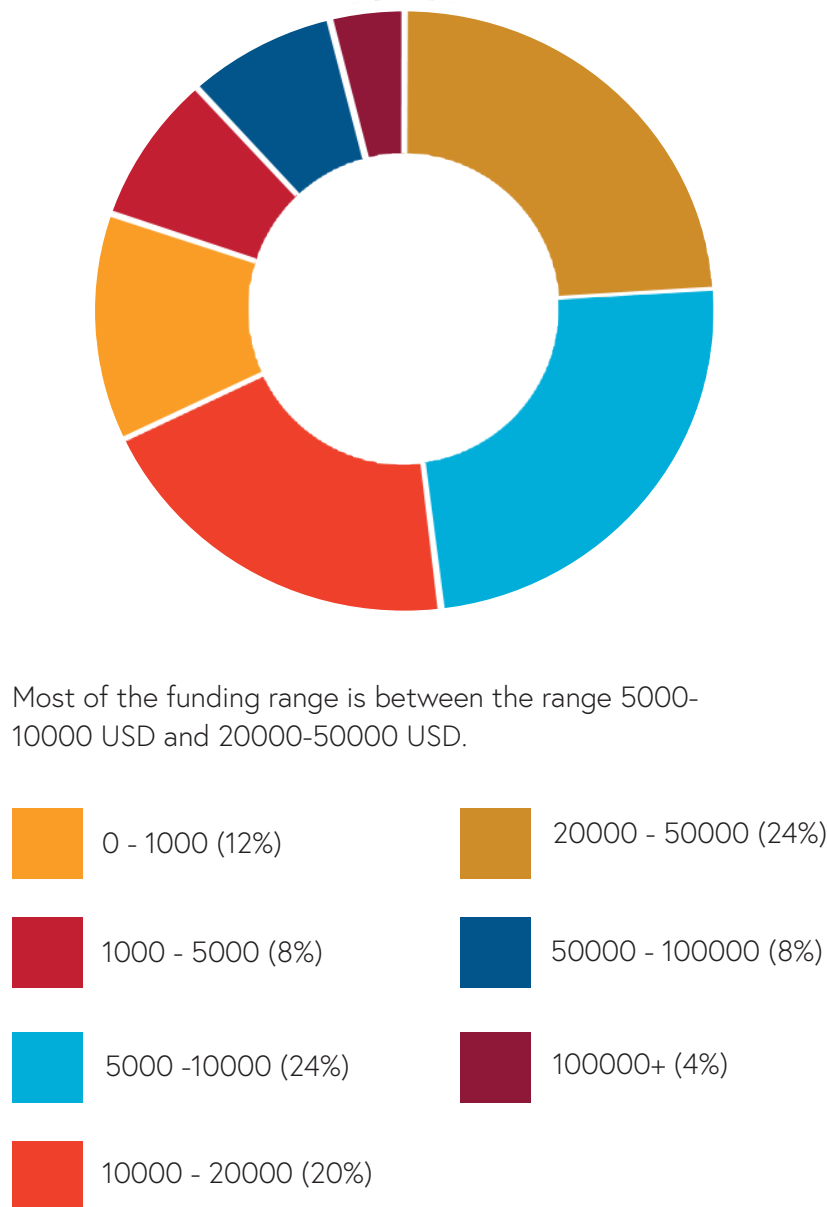
Most of the funding range is between the range 5000-10000 USD and 20000-50000 USD.

- 0 - 1000 (12%)
- 20000 - 50000 (24%)
- 1000 - 5000 (8%)
- 50000 - 100000 (8%)
- 5000 -10000 (24%)
- 100000+ (4%)
- 10000 - 20000 (20%)

Figure 5 - Budget, Non-profits
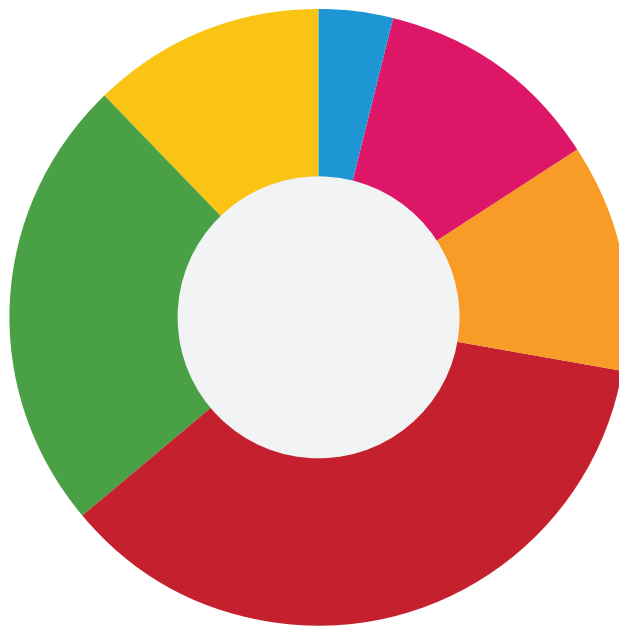
COUNTA of Organization Name (Translation) vs. Current Budget

- $50,000 - $100,000 (12%)
- $100,000+ (12%)
- $10,000 - $20,000 (12%)
- $5,000 - $10,000 (24%)
- $20,000 - $50,000 (36%)
- $1,000 - $5,000 (4%)
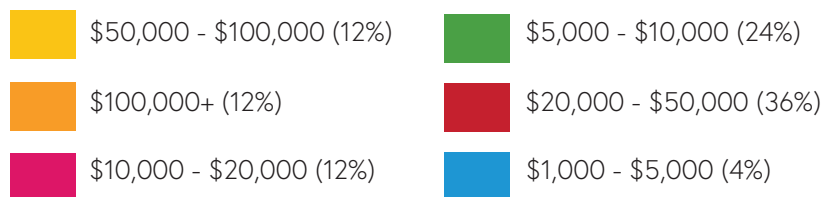
Figure 6 - Budget, For-profits

At the same time, it is not surprising that many not-for-profit budgets are still operating on the lower end of the spectrum. This finding could be a compelling argument for young innovators to consider the social enterprise model when finding ways to contribute to the SDGs. For not-for-profit projects, it is often difficult to find early stage donors and supporters who are willing to take risks to invest in the skills of young people in the sector. As it happens for for-profit startups, lack of patient finance may lead larger supporters to wait until a subsequent stage, when solutions have already passed the 'valley of death' of innovation by their own means.

The data, which is further elaborated in Chapter 9 of this Report, also shows us that the selected solutions have tried to diversify their funding sources and consequently ended up relying on multiple ways to raise capital. Within such a diversified portfolio of options, innovative forms of finance, such as crowdfunding, hybrid or insufficiently formalized forms ("other"), or grants and subsidies play a major role as funding sources for youth-led solutions, adding further insecurity in the implementation path of innovations. Only a small proportion of the overall funding sources is represented by access to concessional loans and equity, commercial loans, and convertible grants.

The biggest source of funding for both for and non-profit solutions are grants followed by crowdfunding. For-profits specifically also get funding from concessional loans, which makes sense looking at their identity as business units. The usage of convertible grants is still low within for-profits, raising the question of whether or not blended finance[1] methods have been implemented or advocated for in areas where these social enterprises operate. Moving forward, more social enterprises should move towards this framework to help them scale up. Therefore, governments, youth activists, and NGOs working in the Global Goals should open up channels for these youth innovators to learn and apply blended finance.

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1 Blended finance is defined as a financing scheme that incorporates public grants with private loans, usually in the form of convertible grants (OECD 2019).

EDUCATION FOR ALL: SDG 4

Featured Solutions:
O'GENIUS PANDA and Virtual Sasa (For-Profit),
LiteHaus and Young Women Leaders' Network (Non-Profit)

SDG 4 is another common SDG addressed by both non and for-profits. This year's solutions that work with SDG 4 are unique because they focus on a range of different aspects relating to access to education, from menstrual hygiene to tech-related innovations in education. The latter is a recurring theme in our solutions this year.

O'GENIUS PANDA in Rwanda develops virtual science laboratories to children in rural schools that do not have physical science labs, utilizing programming to help children learn science. Virtual Sasa, a for-profit in Uganda, provides easy accessibility to immersive and experiential learning opportunities for all by ensuring that national curriculum-aligned virtual reality content is readily available and can be easily accessed by every learner across the country. In addition to e-learning, Virtual Sasa even hosts field trips for students all across Uganda. LiteHaus, a non-profit based in Australia, works to increase digital literacy for students in Papua New Guinea. Litehaus delivers reliable digital learning infrastructure in the form of laptops, projectors, and LiteHaus-produced bilingual computer basic skills guidebooks to its primary school partners in Papua New Guinea. On the other hand, Young Women Leaders' Network works to educate girls about the menstrual cycle and to understand their periods, thereby reducing female absenteeism in schools across Ghana.

As noted before, many of the education related solutions this year rely on digital literacy and the use of technology. It can be assumed that this trend would only increase and that the development of digital platforms will continue to represent a highly effective means to tackle SDG 4, suggesting the need for increased provision of hardware, software and IT skills to children and young adults as a prerequisite for the rollout of such programs.

ESCAPING THE POVERTY TRAP:
SDG 1 AND SDG 8

Featured Solutions:
Performing Life International, Desk Empowerment Society,
Institute for Green Development (Non-Profits)

It is obvious that SDG 1, No Poverty and SDG 8, Decent Work and Economic Growth, are interrelated and co-dependant on each other. The creation of decent work with good pay and opportunities contributes to economic growth that will reduce poverty. Therefore, many of the 2019 solutions in the non-profit category are focusing on decent work as a critical instrument for poverty reduction.

From this perspective, one of the most creative solutions from this year's Report is provided by Performing Life International (PLI), a social circus program based in the United States but operating in Bolivia. Performing Life International offers 'Social Circus' training in high-risk, low-income communities where staff members help young people leave the streets, register for school and join the program. PLI classes are free and open to both boys and girls aged 6 to 18. PLI also provides food for class participants after each class. By keeping young people away from the streets, this solution is giving them training to be able to get decent jobs in the future and escape their poverty trap.

The second featured solution is the Desk Empowerment Society of Kenya, which aims to create and clear work opportunities for the deaf. The solution supports the development of the national legal framework to ensure the inclusion of persons with disabilities in the country's job market. Finally, the Institute for Green Development directly provides decent and environmentally sustainable jobs. The solution recruits 25 households and trains them on how to install vegetable gardens so that they can be utilized as sources of income. The Institute for Green Development also gives a capital incentive for the "farming groups" to start their businesses.

From these solutions, it is apparent that youth-led solutions to poverty are rarely one-stop-go solutions, but rather try to provide a comprehensive approach simultaneously involving policy advocacy, job creation, and training or skills development. This emphasizes again that youth solutions cannot create long-lasting, impactful change on their own, but need the active participation of all stakeholders at the local, national and regional level.

CHALLENGES AND NEEDS

Challenges

Access to finance remains to be the most challenging aspect faced by non-profits followed by Awareness Raising and Lack of Visibility. Education, skill development and Technology exchange and innovation were also identified as challenges.

- Lack of Visibility (15%)
- Awareness Raising and Networking (15%)
- Access to Finance (33%)
- Technology Exchange and Innovation (11%)
- Education and Skills Development (14%)
- Regulatory Barriers (7%)
- Other (4%)

Figure 7 - Challenges, Non-profits
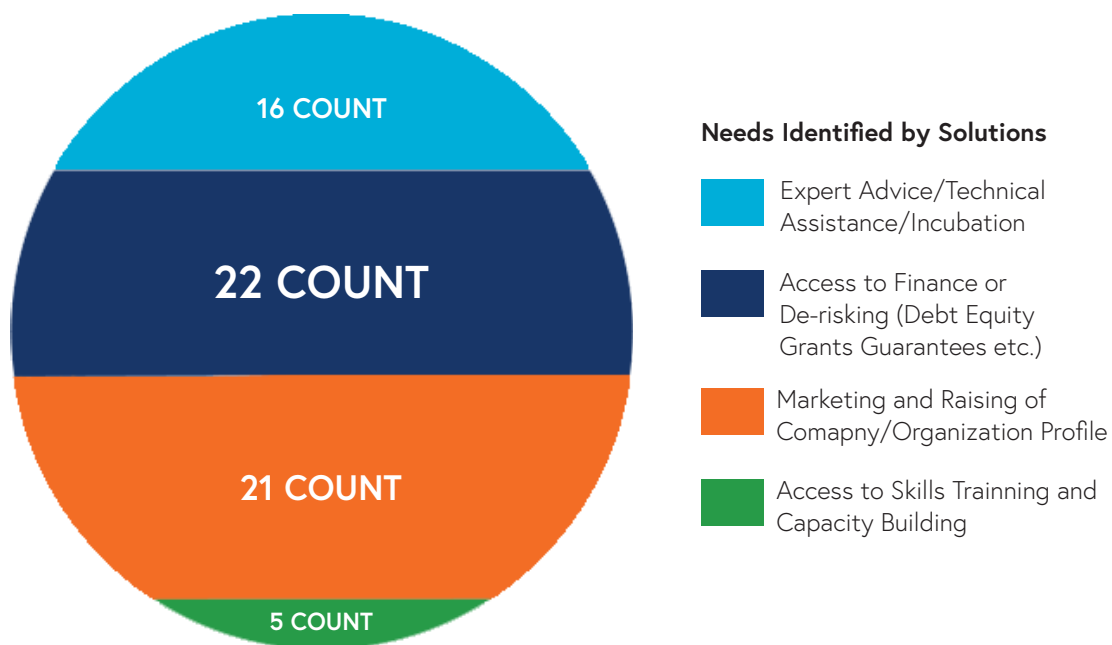
Figure 8 - Challenges, For-profits

Needs Identified by Solutions

- Expert Advice/Technical Assistance/Incubation
- Access to Finance or De-risking (Debt Equity Grants Guarantees etc.)
- Marketing and Raising of Comapny/Organization Profile
- Access to Skills Trainning and Capacity Building

In its application form, the Report asked the applicants to rank the challenges and needs they face in scaling up their innovations, in order to identify the types of assistance or training most needed by young innovators. Around two thirds of the selected not-for-profit solutions suggested that access to finance is the number-one need to start and scale their activities, followed by awareness raising and visibility. Meanwhile, a majority of for-profits stated that both access to finance and marketing represent their most pressing challenges. The need for expert advice and incubation (education and skills development) is similarly widespread among the two categories.

These findings suggest that there is no one fit-for-all solution for youth solutions; even a simple categorization into for and not-for-profit shows different perspectives on the most pressing challenges their founders face. Thus, the success of scaling up youth-led innovations is contingent on the comprehensive and integrated ecosystem in which different actors (the UN system, governments, cities, the private sector, acceleration programs, academia, civil society) can provide different forms of support to young people. A long-term vision is crucial because opportunities such as innovation prizes and charitable grants only provide temporary assistance but fail to provide sustained financing and continuous training and expert advice. An integrated ecosystem also serves to mobilize the specific competences of different stakeholders that can help young innovators in their efforts to scale up solutions.

An innovation ecosystem that is fit for the purpose of helping young innovators contribute to the SDGs therefore needs to first have permanent funding streams (e.g. supported by private donors, multilateral development banks, and public-private partnerships) and forms of patient finance that are consistent with the needs of youth-led solutions. Second, it requires quality training and acceleration programs provided by universities as well as private and public actors (Leydesdorff and Etzkowitz 1998). Third, it can benefit from local support offered by city and territorial governments in order link solutions to the communities where they can have tangible and direct impacts (e.g. in terms of sustainable transportation, air quality, greening of urban spaces, waste management). Fourth, it requires country governments to incorporate solutions into national strategies and action plans for implementing the SDGs. Finally, it extends to the international dimension, which is necessary to ensure that young people's initiatives can be exported, replicated, disseminated, and ultimately used to support a paradigm shift towards the full recognition of youth skills as a key enabler of sustainable development.

REFERENCES

Leydesdorff, L., and Henry Etzkowitz (1998). The Triple Helix of Modern Innovation Study. Science and Public Policy 25(3): 195-203.

OECD (2019). Blended Finance. Available from: http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/blended-finance.htm (accessed 12 September 2019).

SDSN Youth (2017). Youth Solutions Report - 1st edition. New York and Paris: SDSN Youth. Available from: http://www.youthsolutions.report/publications (accessed 15 September 2019).

SDSN Youth (2019). About. Available from: https://sdsnyouth.org/about#our-mission (accessed 15 September 2019).

UN Stats (2017). Global Indicator Framework for the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development. A/RES/71/313. New York: United Nations.

UNDESA (2015). Youth population trends and sustainable development. Resource document. UN. http://www.un.org/esa/socdev/documents/youth/fact-sheets/YouthPOP.pdf. Accessed 26 July 2018.

UNGA. (2015). Transforming Our World: The 2030 Agenda for Sustainable Development. A/RES/70/1. New York: United Nations.

The 50 Solutions of 2019

FOR PROFIT

E-ivur

SALUTEM TECH

- ■ **Lead:** Adrien Mugimbaho
- ■ **Website:** http://www.salutemtech.rw/e-ivuriro
- ■ **Type:** For-Profit
- ■ **Location:** Kigali, Rwanda
- ■ **Current** Reach: Provinces of Rwanda
- ■ **Budget:** 10000-20000 USD

PROBLEM

In Rwanda, the health sector lags behind in incorporating technology in its operations. Keeping patient data or records, multidisciplinarity in healthcare service delivery, effective follow-up with patients, and delayed services delivery are all challenges facing the country. Most health facilities fill in medical records on paper and keep them on shelves. It is hard to share patients' records easily between departments and to retrieve the datafor the next patient visit. As patients consult different hospitals, sharing patients' data between hospitals is also not possible. To know someone's previous medical history is not an easy task, and the only option is relying on the patient despite health literacy being extremely low in the country. This delays service delivery, increases cost, and impairs follow-up for patients with chronic diseases.

SOLUTION

The solution is a computer-based application for use by hospitals, clinics, health centers, and health posts. The software records a patient's data at the time of the consultation, including past medical illness, drug history, surgical history, social history, family history, previously treated conditions, medical plans, rendezvous, follow-up plans, laboratory results, and radiological history. It has a doctor, nurse, pharmacy, radiology, and laboratory section; an outpatient and inpatient portal; an emergency department; a rendezvous portal; and it will be also adding a patient portal in the near future. It is fed with inbuilt templates and order sets, but also lets users create their own clinical notes, saving time when tracking patient data and their treatments in the system and allowing much of the information to be automatically generated.

IMPACT

The solution currently serves 13 health facilities in Rwanda, with plans to reach 40 by September 2019. It has so far provided tangible benefits to both health practitioners and patients, such as data transfers between different departments and hospitals, digitalization of medical records, more efficient patient workflow and overall increased productivity and quality service delivery, reduced operational expenses such as medical transcription services, significant reduction of medical errors, advanced e-Prescribing and medical records capabilities, enhanced diagnosis and treatment, reduced waste of money spent on unnecessary exams or procedures, faster decision making, and a more secure, collaborative environment for managing sensitive patient data within a quick reach.

AlIGNMENT WITH SDGS

By promoting the digital storage and use of medical data, the solution aims to reduce doctor time per patient and to provide additional time for the personal activities of healthcare users, which is consistent with SDG indicator 4.13 'Universal Health Coverage Tracer Index (0-100)'. It will not only make doctors more efficient, but patients will spend less time waiting in the clinics and thus have additional time for their personal activities, thus targeting multiple SDG 3 indicators. The business also reduces paper usage in hospitals, in line with indicator 12.8 'Non-Recycled Municipal Solid Waste'.

3 GOOD HEALTH AND WELL-BEING

Hellomed

HelloMed
.Medical services at your doorstep!.

- **Lead:** Aloys Rukundo
- **Website:** http://www.hellomed.rw
- **Type:** For-Profit
- **Location:** Kigali, Rwanda
- **Current Reach:** Kigali, Rwanda
- **Budget:** 20000-50000 USD

PROBLEM

According to the Rwanda Biomedical Centre, 10,000 Rwandans are infected with HIV every year. 50% of them die, despite the fact that 94% of HIV-positive individuals aged between 15 and 50 years have free access to ARVs. More generally, the stigma attached to chronic diseases such as HIV, tuberculosis, diabetes, heart diseases, and hepatitis keeps people away from seeking treatment. In addition, according to the Rwandan Ministry of Health, hospital congestion is one of the main problems affecting public health. An average Rwandan spends 3-5 hours in line waiting for medical services, but according to the Ministry of Health 40% of these patients can be treated at home for minor conditions.

SOLUTION

Hellomed is a smartphone application through which patients can directly request medical services and get a doctor to treat them from the comfort of their own home. Patients contact Hellomed through a direct call or send a request through the app and the Hellomed team sends a doctor to attend them from home. Hellomed also delivers medicine to patients, especially those living with chronic illnesses like HIV, tuberculosis, diabetes, hepatitis B and C, and heart diseases. This service offers greater confidentiality, convenience, and privacy to patients. While a patient normally spends about US $10-12 to access even free medicine, the Hellomed system reduces that to US $3 and is working to bring it to less than $1.

IMPACT

Hellomed piloted its smartphone app with 500 patients over a period of four months, and is now expanding. Among its pilot patients is Mukeshimana Florence, a single mother with 4 children who is HIV/AIDS positive. Florence takes her ARVs, but she used to have to travel to receive her medication, which would cost her $10-15, in addition to requiring her to close her shop and leave her four children with neighbors. With Hellomed, she has been able to receive her medication at home, reduce the cost to $3, and keep her small shop open. She is now healthy and has already recommended the app to two of her friends who had previously stopped taking HIV medicine. In 2019, Hellomed was invited by SANOFI to showcase their work in Paris, where it made it to the top 3.

AlIGNMENT WITH SDGS

Hellomed is designed to directly contribute positively to the SDGs by reducing the incidence of tuberculosis, the prevalence of HIV, and premature death due to cardiovascular disease, cancer, diabetes, and chronic respiratory disease. One challenge is that the full implementation of the project could cause doctors to quit public hospitals to work for Hellomed, which may bring shortages in public hospitals. However, another impact would be that Hellomed may reduce the number of people attending hospitals for minor illnesses.

My Waste My Energy (Soo Green)

■ **Lead:** Aondosoo Ijir

■ **More info:** Ijirsam1987@icloud.com

■ **Location:** Makurdi, Nigeria

■ **Reach:** Makurdi, Nigeria

■ **Type:** For-Profit

■ **Budget:** 50000-100000 USD

PROBLEM

This innovation intends to solve the challenge of unsustainable felling of trees for domestic energy. Fuelwood accounts for over 50% of Nigeria's overall domestic primary energy consumption, with a daily consumption of 0.120 million tons. Dependence on fuel wood resources causes an estimated 93,000 deaths of Nigerian women yearly from exposure to smoke and related respiratory related diseases, as a result of cooking with firewood. In addition, Nigeria faces deforestation at a rate of 410,000-hectares per annum, leading to desertification and soil erosion, and adversely affecting the socio-economic well-being of the people.

SOLUTION

This project aims to produce "My Waste My Energy Rice Husk Briquettes", a green, cheap, and viable substitute for fuelwood, by converting 300,000 metric tons of rice husk waste from Benue State into energy for cooking and heating. Benue State produced 1.5 million metric tons of rice in 2018, and 300,000 metric tons of rice husk waste deposits. Benue State has an estimated 400,000 households, the majority of which are dependent on fuelwood for domestic energy. Using 2 units of 200 kilogram/hour rice husk briquetting machines, 4 tons of briquettes will be produced daily and sold to meet the needs of 5% of Benue State households in 2020. In addition, free briquette stoves will be given to schools, prisons, and restaurants in exchange for a 5-year contract to be their sole supplier of briquettes.

IMPACT

The project raised US $8,000 in 2019, which allowed 9 staff to develop and successfully test prototypes of the products. Thus far, the persons engaged are able to earn a living from the project. In addition, 3 partnership agreements have been signed with Benue State University, Makurdi, TOTAL Nigeria, and the Benue Investment and Property Company (BIPC) for research and development (R&D), mentoring, and business purposes, respectively. It is estimated that the solution has the capacity to provide sustainable, clean, and cheap cooking fuel to at least 20,000 households by 2020.

ALIGNMENT WITH SDGS

My Waste My Energy is directly relevant to indicator 7.2 "Access to clean fuels & technology for cooking". The solution offers a carbon-neutral product with no net increase in GHG emissions when put into use and prevents emissions from rice husk waste dumpsites. It also preserves forest resources. Secondly, the project is directly linked to indicator 3.7 "Age-standardised death rate attributable to household air pollution and ambient air pollution". Nigeria records an estimated 93,000 deaths of women yearly from smoke exposure and respiratory diseases. This clean solution is smoke free and will improve on energy efficiency through the provision of free and more efficient stoves to institutional users on startup. The project is negatively contributing to the SDGs by encouraging the use of biomass only as a domestic fuel, possibly limiting revenue earnings in Benue State and reducing employment opportunities from other domestic energy sources.

Remba Island Mini-Grid (Dream EP Global Energy(K) Ltd

- **Lead:** Arnold Oduor Ayoma
- **Website:** http://www.dream-kenya.com
- **Location:** Remba Island, Kenya
- **Reach:** Remba Island, Kenya
- **Type:** For-Profit
- **Budget:** 20000-50000 USD

PROBLEM

Only 36% of Kenyans have access to electricity. The team believes it is possible to accelerate economic development through using access to electricity to offer employment, better health services, and basic education. For economic development to be achieved, there must be a more equitable allocation of resources to unlock the productive capacity of citizens. During the construction of this project, the team employed 30 local residents, while post-construction and in operation they employed 3 permanent workers. The project also aims to offer 24hr services to schools and hospitals. Finally, it boosts internet connectivity and communication on Remba Island, a territory with a greatly unexplored potential to establish a reliable clean energy supply.

SOLUTION

The Remba Mini-Grid is a decentralized, renewable energy solution, coupled with energy efficiency measures. It has created great potential to provide quality health access and reliable electricity to many low-income settings where the grid has been non-existent, while offering opportunities for various business to grow because of access to electricity. The project is unique and innovative as mini grids and stand-alone off-grid systems play a key role in extending electricity to rural areas that currently do not have access to national grids. This mini-grid provides service up-time of more than 98%, AC power 24/7 at 230 volts, and connects consumers at a much lower cost than extending the national grid to Remba Island. The project also balances community needs with the project's costs: households used to spend about US $120 per annum on kerosene, while with this solution they spend US 4100 per annum. The project has generated over 28,000 kWh since the start of operations, displaced 8 tonnes of CO_2 since commissioning, and saved over 2,000 liters of water.

IMPACT

In a first phase the project connected 80 households, benefiting over 500 people directly, increasing the number of hours businesses operated to 10 pm, and ensuring the clinic could operate 24hrs. In a second phase, the project increased the connections to 120 households and connected the only school on the island. This increased the enrollment and retention of students in school. Finally, the project increased the number of connections to 150 households, leading the regional administrative government to request the introduction of streetlights on the island to help curb crime. The project also connected the island's base transmission station to provide reliable power and to ensure communication and internet coverage stays uninterrupted.

ALIGNMENT WITH SDGS

Access to electricity makes communities safer, helps small businesses thrive, and powers essential services such as schools and clinics (target 7.1 on affordable clean energy). This is a very reliable, independent, and cost effective solution, with low operation and maintenance costs. In addition, the project offers reliable and sustainable power for health care – from lighting in delivery rooms to attending to patients at night (target 3.2 on Neonatal mortality rate). However, the use of a diesel hybrid generator (introduced as a backup for emergencies and poor weather) impacts target 7.3 negatively (CO_2 emissions from fuel combustion).

3 GOOD HEALTH AND WELL-BEING

7 AFFORDABLE AND CLEAN ENERGY

SkillsFund (Scholarx)

- **Lead:** Damilola Emuze
- **Website:** http://www.skillsfund.africa
- **Location:** Lagos, Nigeria
- **Reach:** Lagos, Abuja and Ibadan in Nigeria
- **Type:** For-Profit
- **Budget:** 100000 USD +

PROBLEM

ScholarX was launched to fill the gaps faced by Africa students to access education financing opportunities, in order to avoid consigning a whole generation of children and youth to a future of poverty, insecurity, and unemployment. Nigeria has an average growth rate for people between 18-24 years old of 50%, making it possible for the total population of the country to exceed 300 million in the next 25-30 years. Without urgent action in terms of ensuring inclusive and equitable quality education, the potential of tens of millions of Nigerian youth would be wasted and the nation's social and economic progress will stagnate.

SOLUTION

SkillsFund by ScholarX exists to upskill 1 million high potential students, ages 18 – 28, through a low-cost loan. With SkillsFund, students get the opportunity to get funded to acquire a valuable skillset and be gainfully employed after successfully completing the course. They can access high demand training in fields such as coding, music management, design, and data science. These trainings are otherwise inaccessible due to low household incomes and socio-economic disparities. The returns are plowed back into funding more students, thereby creating a sustainable pool of funds dedicated to education.

IMPACT

Currently, SkillsFund is raising $350,000 to begin its official pilot, and is well on its way to completing this fundraising goal. The funds will be used to upskill 100 unemployed youths. Through partnerships with well established trainers, all the students carefully selected will go through upskilling, and after course completion, they will be placed in jobs by placement partners.

ALIGNMENT WITH SDGS

SkillsFund is actively contributing to ensure that African students get equitable access to education (SDG 4). In particular, it is ensuring that youth get access to skills that will ensure employability, which is relevant to indicator 8.4(b) (Unemployment rate as a % of the total labor force). Unfortunately, due to the lack of available resources, the solution is unable to upskill more than 100 students at a time, which is just a minor dent in the huge gap that exists.

4 QUALITY EDUCATION

Carvy Crafts Limited

- **Lead:** Caroline Maumba
- **Website:** http://www.carvycrafts.com
- **Location:** Dar Es Salaam, Tanzania
- **Reach:** Dar Es Salaam, Tanzania
- **Type:** For-Profit
- **Budget:** 5000-10000 USD

PROBLEM

The problem Carvy Crafts is solving is resource use efficiency (water and electricity) and poor irrigation systems that lead to under-watering or overwatering of plants, damage to the soil (leaching), and failure in attaining production targets in Tanzania's agricultural industry.

SOLUTION

Carvy Crafts is a technology company that is disrupting the African agriculture industry using automation in the irrigation sector. The project, designed and manufactured locally, is dubbed the Mucci Box. It is an irrigation automation box, aimed at small-scale farmers with minimal budgets and legacy irrigation infrastructure. It helps them better irrigate their farms by automating the irrigation experience via irrigation scheduling, the use of crop- and soil-specific irrigation profiles, and the ability to control the pump at one's convenience. All the operations can be controlled from a farmer's smartphone. Its vision is to help farmers increase their yield and better manage their financial, water, and energy resources. It does so in a unique way, because it utilises Internet of Things technology to enable farmers with legacy irrigation systems get the benefit of new, smart technologies at a cheaper price and without needing to upgrade their existing infrastructure.

IMPACT

Carvy Crafts recently got US %5,000 seed capital from the Tony Elumelu Foundation, which was used to set up the business in Tanzania. The project employed two electrical engineering interns to start developing the first Internet of Things assembling unit in Tanzania. In addition, it started three pilot studies with small scale farmers to help understand how the solution can benefit farmers. By mid-2020, the team hopes to have 100 farmers using the irrigation box and a partnersip with the Irrigation Commission of Tanzania.

ALIGNMENT WITH THE SDGS

The indicator that best describes the project's impact is indicator 12.6 "Nitrogen production footprint (kg/capita)". In Tanzania, 940,800 farmers receive government subsidised fertilisers. Statistically, 80% of nitrogen is lost from agriculture through leaching and run-off of nitrate or organic nitrogen, which is usually caused by poor irrigation practices. Hence, the project aims at decreasing the nitrogen production footprint by ensuring less nitrogen is lost during irrigation. Carvy Crafts is also designing and assembling our automation box locally, but planning to patent it other countries in the East Africa region, in line with indicator 9.9 (Triadic Patent Families filed). In terms of trade-offs, the automation box needs electricity to fully run, and with farmers using legacy systems, their energy source is usually a generator using fossil fuels. Hence, the project is negatively affecting indicator 7.3 "CO2 emissions from fuel combustion per unit of electricity output". A way to mitigate this trade-off would be to encourage farmers to invest in solar based energy sources.

Recypuntos (Ecomunidad Sas)

- **Lead: Andrés Fernando Urrego** Laiton
- **Website:** http://www.recypuntos.co
- **Location:** Bogotà, Colombia
- **Reach:** Colombia
- **Type:** For-Profit
- **Budget:** 5000-10000 USD

PROBLEM

In Colombia, only 17% of the solid waste generated is recycled and there is no culture to sort waste in homes, companies, and public institutions. Although there are robust laws and several options to dispose of waste correctly, many companies still do not comply with this legislation, and people's interest in good waste management is very low. Many landfills in the country have few years of useful life left, so we urgently need to change the mode of waste disposal to one that uses recyclable materials, not to mention the added benefits this would have in reducing the negative effects of poor waste management, including contamination of soil and water sources.

SOLUTION

Recypuntos is an initiative that seeks, through a technological tool, to promote and systematize waste management in Colombia. The team connects different actors involved in the integral management of waste in Colombia through a digital platform, facilitates the logistics of waste management from its generation to its use, treatment, or final disposal, and creates incentives for the separation at the source and responsible disposal. The platform enables Recypuntos to reach as many people as possible and make use of various communication channels, including social networks and traditional media, while also capturing useful information on waste management for companies and institutions. Through the support of various companies and organisations, in 6 years Recypuntos has developed a database of more than 7,000 waste collection points nationwide, and more than 200 companies and authorized managers for waste disposal.

IMPACT

As a result of Recypuntos, six affiliated post-consumer programs have received increased queries about waste collection rates. In 2019 the project was selected to partner with the EAN University and the Mayor of Bogotá, which will allow the team to work on a full update of Recypuntos on all its platforms, incorporating new functions and improving the design. In the next 12 months the team hopes to involve at least four more post-consumption programs, and to expand to an additional eight private companies, ten recycling and waste collection stations, and five associations of recyclers from Bogotá.

ALIGNMENTS OF SDGS

Recypuntos has the mission of increasing the percentage of waste that is reused, indirectly decreasing contamination of soil and water by solid waste. This is directly relevant to indicators 12.2, 12.5, and 12.8. This will be achieved by: (a) including more actors in the waste chain, to increase the quantities of waste collected and properly disposed of or reused; (b) working with companies and people to designate new waste collection points and managers to attend them; (c) improving the handling of hazardous waste at existing collection points and increasing the quantities collected. Recypuntos may contribute negatively to indicator 13.1, to the extent that the project encourages the use of electronic devices, which consume energy that in Colombia comes from various sources such as hydroelectric or thermal.

Ecoact Tanzania

- **Lead:** Christian Mwijage
- **Website:** www.ecoact.co.tz
- **Location:** Dar Es Salaam, Tanzania
- **Reach:** Dar Es Salaam, Tanzania
- **Type:** For-Profit
- **Budget:** 20000-50000 USD

PROBLEM

According to UN Environment, every year more than 9 million tonnes of plastic garbage end up in oceans, posing a threat to marine life, and by the year 2050 the oceans could contain more plastic than fish. Plastic pollution hurts both marine species and human beings because as plastic debris floats in the seawater, the latter absorbs dangerous pollutants which are highly toxic and have a wide range of chronic effects. Another relevant problem is deforestation; a 2017 report by the United Nations Food and Agriculture Organization estimated that Earth continues to lose about 13 million hectares of forest per year.

SOLUTION

Ecoact has developed a chemical-free, energy-conserving plastic extrusion technology called "Waxy II technology," which recycles and transforms post-consumer plastic waste and packaging materials into durable, long-lasting plastic timber. Plastic timber is an affordable alternative to wood, and reduces the need for building materials manufactured from wood, preserving forests and mitigating climate change. Plastic timbers are ideal for building, construction, and furniture making, and are normally made in 10-foot round or square segments. In contrast to most plastic extrusion facilities, which use chemicals to speed up the process, Ecoact is the pioneer of a chemical-free and energy-conserving plastic extrusion technology.

IMPACT

In one year, Ecoact removed over 5.5 million kilograms of plastic waste from the environment and prevented it from ending up in the oceans, instead using it to manufacture plastic lumber. The project has saved an estimated 450 acres of forest that would have been cut, and at the same time prevented 4,500,000 kg of CO2 emissions, further mitigating climate change. Ecoact plans to push branding and sales efforts countrywide, but also to access regional markets in Kenya, Uganda, Rwanda, and South Sudan. It will also introduce new products, such as roofing tiles and pavement applications.

ALIGNMENT WITH THE SDGS

All plastic lumbers are manufactured from post consumer plastic waste and are completely recyclable. 25 metric tons of plastic waste are permanently withdrawn from the environment every month, consistent with target 12.5. Moreover, the lumbers offer an alternative building material to wood and hence curb deforestation, in line with target 15.2. This project also generates reliable employment opportunities for individuals who manage the collection and the sorting of plastic and then sell it to the company (target 8.5).

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

OutGrow It - ZamHive (Dytech Limited)

- **Lead:** David Mwabila
- **Website:** https://civicus.org/index.php/what-we-do/innovate/actionac-celerator/david-mwabila
- **City Country:** Kaoma, Zambia
- **Reach:** Four provinces of Zambia and two town in Southern DRC
- **Type:** For-Profit
- **Budget:** 50000-10000 USD

PROBLEM

65% of the population of Zambia lives below the poverty line. Many rural communities depend on the production and sale of charcoal made from cutting down trees for their livelihood. The Ministry of Lands has estimated the resulting deforestation at roughly 1.98 million acres annually. Furthermore, the primary method to produce honey is unproductive, expensive, and harmful to the environment, as it involves cutting down, burning, and removal of trees to make beehives. This process has led to serious environmental consequences such as desertification and reduction in the productivity of fertile lands, which are detrimental to the livelihood of communities.

SOLUTION

OutGrow It is a rural livelihood improvement project that seeks to offer positive social and economic impacts to rural communities in Africa by engaging them in producing honey for export. The model is commercially scalable, economically viable, and sustainable, utilizing thousands of low-cost, high-production (Zam-Hives®) beehives in rural outgrower schemes. To date, 2,700 rural outgrowers have been trained, of which 40% are women and 80% are youth. This solution creates scalable, income-generating opportunities, lifting thousands out of poverty, and lowering the alarming rates of deforestation in the region. ZamHive® is an eco-friendly beehive, designed to boost productivity by 250%, and made from recycled wood waste and offcuts from commercial wood processing centers.

IMPACT

The grants received by OutGrow It have allowed the team to produce 1000 ZamHive® beehives and train 200 more farmers in Mumbwa and communities near the Kafue National Park in Zambia. This project was supported by the International Trade Centre and other partners to help improve its export growth strategy, and as a result the beehives have been introduced in 4 provinces of Zambia and 2 towns in DR Congo. This will ensure that economically depressed rural community can have access to the project, where access to such services was non-existent. After winning the Open to Export – International Business Awards 2018, OutGrow It was able to scale up the model across the continent, resulting in export demands of 40,000 units of Zam-Hive® beehives from Nigeria and Mozambique.

ALIGNMENT WITH THE SDGS

OutGrow It creates scalable, tangible income generating opportunities that can lift thousands of rural communities out of poverty across the continent through rural outgrower schemes. This is relevant to indicator 1.1.1. Second, the project provides skills training to rural farmers with a "Value Matching Payment" model, offering payment for honey in physical assets as well as cash, which enables rural communities to have access to basic services and ownership of property (indicator 1.4.1.) Third, the project has managed to reduce deforestation in engaged communities by 95%, as well as bolstering local bees and plant populations which are under threat. An unintended benefit has been the reduction in human–animal conflict in rural farming communities and wildlife areas, thereby accelerating the progress towards sustainable forest management relevant to indicator 15.2.1. On the negative side, the activities of the project only target rural and a few carefully-selected suburban communities, thereby leaving behind urban communities.

Solar Comm
(Cirlex Systems Ltd)

- **Lead:** Edwin Joseph Mwachula
- **More information:** tressj.ej@gmail.com
- **Location:** Dar Es Salaam, Tanzania
- **Reach:** Tanzania
- **Type:** For-Profit
- **Budget:** 20000-50000 USD

PROBLEM

About 9.8 million households in Tanzania today have no access to electricity, encompassing over 49.2 million people. According to some studies, these households spend US $70 annually on substandard lighting solutions, such as kerosene lamps and candles. Additionally, families spend US $15 per year to charge mobile phones, which they typically do in nearby towns in a day's time, thereby reducing their availability for communication purposes.

SOLUTION

Cirlex Systems is an experienced engineering, procurement, and construction firm that helped pioneer the solar industry in Tanzania. The company's highly-trained staff develop, design, construct, and sell PV solar power systems. Through SolarComm, it provides a clean energy solution to substitute kerosene lamps,which can improve health and illuminate small houses. A single lantern flashlight can be used as a study lamp by placing it on the table, and can also be used to charge mobile phones via a USB port. The company also sells a three-lamp system that is used for bigger houses, businesses, or community events.

IMPACT

The project hopes to reach 800 households in the next 12 months, amounting to 4m000 people and and US $60,000 in total savings on energy costs. By the end of this period, the company should be able to run on its own capital and secure deals for solar maintenance and distribution across the whole Tanzania.

ALIGNMENT WITH SDGS

The activities of the project are directly relevant to indicator 7.1 "Access to Electricity," to which it is positively contributing by providing the off-grid population with access to clean energy. The project is also directly contributing to indicator 7.4 " Share of renewable energy in total final energy consumption."

Lumen Noctis

LUMEN NOCTIS
Insights for Sustainable Energy
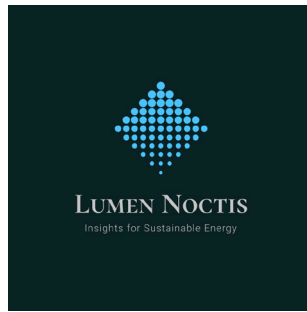
- **Lead:** Lebogang Phasha
- **More information:** lebo.phasha@gmail.com
- **Location:** Johannesburg, South Africa
- **Reach:** South Africa, Lesotho, Swaziland, Botswana, Namibia, Mozambique, Zambia
- **Type:** For-Profit
- **Budget:** 20000-50000 USD

PROBLEM

Energy efficiency is a critical component of a sustainable energy system. Current solutions in the South African market focus on using only technical analysis of energy generation and industrial machines to optimise energy use. This project primarily addresses the environmental and financial costs of operating inefficient energy systems by connecting non-digitised legacy assets to the Internet of Things and analysing operational data from these assets as well as modern connected assets to optimise energy use.

SOLUTION

The project focuses on providing data-led, industrial energy efficiency solutions to its clients. By combining energy systems knowledge, data science, Internet of Things, and facilitation of government grants, energy efficiency solutions are provided to customers with short payback periods. Energy generation and industrial machinery produce large amounts of data that the clients do not have the capacity to exploit. The project uses data mining techniques to turn this data into cost savings and create competitive advantages for clients. Lumen Noctis also educates energy and industrial sector clients on the importance of energy efficiency by helping the teams who operate industrial assets to understand the consequences of their operations.

monitor industrial assets and initiate preventative maintenance to reduce expensive machine failures. In addition, the project's clients have all benefited from their engagement by better understanding the importance of energy and operational efficiency. They are now aware of the importance of not only cost savings, but also of the positive environmental impact of their actions.

IMPACT

Customers benefit from a higher return on the capital invested in expensive capital machinery. This is achieved by reducing downtime and increasing operational efficiency. They were also able to remotely
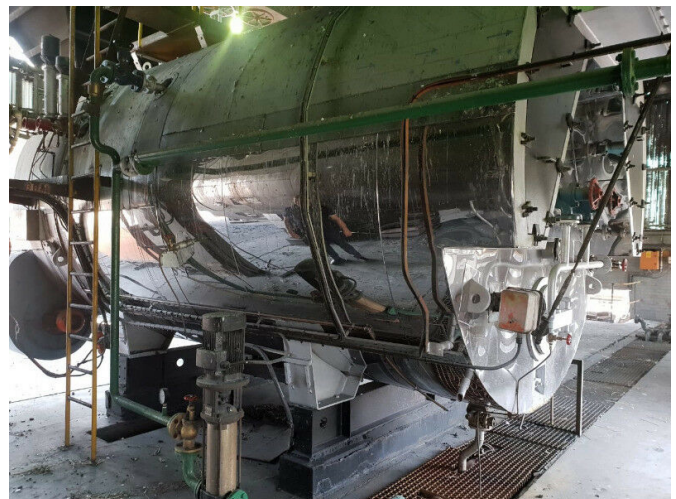
ALIGNMENT WITH THE SDGS

The project contributes to indicator 7.4 "Share of renewable energy in total final energy consumption" by optimising systems to allow energy producers to operate more efficiently, reducing operating costs and increasing energy output.

7 AFFORDABLE AND CLEAN ENERGY

Menstrual Hygiene Management - Reusable Sanitary Towels (Women Choice Industries)

- **Lead:** Lucy Achieng Odiwa
- **Website:** http://www.womenchoice.co.tz
- **Location:** Tanga, Tanzania
- **Reach:** Tanzania
- **Type:** For-Profit
- **Budget:** 50000-100000 USD

PROBLEM

Girls and young women aged 9-24 from poor households increasingly face menstrual hygiene management challenges in Tanzania. There is a lack of information, products, and services, which results not only in the use of unhygienic materials, but also has driven some females to trade sex for pads, exposing them to earlier pregnancies, unsafe abortions, and sexually-transmitted infections, including HIV/AIDS. In Tanzania, only 11% of school-based sanitary facilities meet the minimum standard; 26% of schools with 100 pupils have no latrines, only 9% of latrines are clean, only 1% of schools have soap, 38% have no access to water, 52% have latrines with no doors, 63% have no sanitary disposal facilities, and 82% lack sufficient knowledge to manage menstruation. This means that girls often stay home from school for 4-8 days per month while menstruating, or 48-84 days annually. This impacts their academic performance.

SOLUTION

The project supports menstrual hygiene with reusable sanitary towels. These towels have been designed as a low-cost, high-quality solution for young women and girls from poor households. They are made from locally-available, second hand cloth and polyurethane waterproof material (PUL). The pads are soft and comfortable for the user, and environmentally friendly as they can be reused for up to 3 years.

IMPACT

The project's reusable sanitary towel cuts costs by 75-90% annually. By June 2018, at least 150,000 schools girls in Tanga were provided with reusable sanitary towels, which increased their attendance in school and improved their academic performance. Additionally, the enterprise has empowered over 500 vulnerable women, by providing them with small scale business management skills and employing them as vendors and sales agents, offering them 10% commission on every product sold. This has in turn increased rural outreach and delivery services.

ALIGNMENT WITH THE SDGS

By increasing young girls' access to low-cost, high-quality, reusable sanitary towels, this has reduced girls menstrual related school absences and improves academic performance. This is directly relevant to SDG Indicator 4.1 which aims to "ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes."

Signs Media Kenya Ltd

- **Lead:** Luke Kizito Ojiambo Muleka
- **Website:** http://signstv.co.ke/
- **Location:** Nairobi, Kenya
- **Reach:** Kenya
- **Type:** For-Profit
- **Budget:** 100000+ USD

PROBLEM

Women and men with disabilities can and want to be productive members of society, but are often not seen beyond their disability. Many disabled people in Kenya, as in most developing countries in the world, live in poverty, have limited opportunities for accessing education, health, suitable housing, and employment opportunities. There is a need to remove barriers, especially in attitudes and mistaken assumptions about people with disabilities. There is little representation of people with disabilities on traditional media, because disability issues do not attract as many advertisers.

SOLUTION

Signs Media Kenya Ltd runs a television station, Signs TV, broadcasting in sign language with voice overdubbed. Signs TV has individuals with various disabilities, including blindness, deafness, albinism, cerebral palsy, and other physical disabilities as hosts of various shows. The project paints a different picture of the capabilities of people with disabilities (PWD), letting them tell their own stories in a language they best understand.

IMPACT

The project directly employs a staff of 60% PWDs, and seeks to increase this number to 80% by 2022. Having PWD representation on television has attracted many PWDs to advocate for policies that will help them excel in Kenyan society. A change in mentality through positive reporting creates a space for role modelling and esteem boosting, which has encouraged parents to take children with disabilities to school, employers to employ PWDs, and PWDs to hold legislative posts. Signs TV viewership has reached 14 counties and rated at 4% of the 20 million population.

ALIGNMENT WITH THE SDGS

By breaking down barriers for PWD, employing them, and involving them in the creative economy, the project addresses Target 1.1 to "eradicate extreme poverty for all people everywhere".

Reinventing the Devil Fish in Mexico (Acari)

- ACARÍ -
Reinventing the Pez Diablo
Est. 2016

- **Lead:** Mike Mitchell
- **Website:** https://www.acarifish.com/
- **Location:** Oakland, USA
- **Reach:** Mexico
- **Type:** For-Profit
- **Budget:** 20000-50000 USD

PROBLEM

The invasive devil fish has decimated Mexican freshwater fisheries and left thousands of fishermen without work. The devil fish, also known as the armored catfish, was first captured in Michoacán in 1995. Since then, the fish has spread to at least 13 states across Mexico. Currently, it accounts for 70% to 80% of wild freshwater capture. This has had a particularly deleterious effect in the state of Tabasco, where an estimated 13,000 families depend on freshwater fishing as their primary economic activity. Native to the Amazon region, the fish is highly territorial and consumes the eggs of native fish species, leading to a dramatic decline in the native fish population. The fish is also covered in rough, bony plates that shred nets and cut fishermen's hands, contributing to its hated status. Owing to this stigma and poor information, the fish is generally discarded as by-catch.

SOLUTION

The project has developed an industry around the devil fish in Mexico, creating new economic opportunities by using a fish previously discarded as by-catch. Local fishermen are trained to process and package fillets, providing a valuable new source of employment while mitigating environmental damage caused by the devil fish. The fillet is marketed to restaurants and corporate kitchens. Their primary product, however, is El Diablito jerky, which tastes and feels like beef jerky but with more protein and less fat. Every bite of El Diablito helps remove the destructive devil fish from freshwater ecosystems in Mexico, restoring the natural environment while boosting the incomes of affected fishermen.

IMPACT

The project has provided financial stability to fisherman who were no longer able to support their families because the devil fish had decimated local fisheries. Throughout the town and neighboring communities fishermen are now selling us their devil fish instead of throwing it back or on the riverbank. This is an additional source of revenue for them while removing over 50 tons of devil fish from ecosystems to date. Another sign of success is the emergence of similar projects across the region. The project was featured in a recent UNDP report on best practices in managing invasive species and is consulting with several communities in the region to install processing plants and manage the sale and distribution of their devil fish fillet.

ALIGNMENT WITH THE SDGS

The project addresses target 8.5 to "achieve full and productive employment and decent work for all" by fostering fair, equitable and sustainable employment opportunities to those in Mexico. It also addresses target 14.4 to "maintain the proportion of fish stocks" by improving freshwater fisheries in Southern Mexico.

A Helping Hand for Life (Cure)

Cure

- ■ **Lead:** Mohamed Dhaouafi
- ■ **Website:** https://dhaouafimed.wixsite.com/curetunisie
- ■ **Location:** Sousse, Tunisia
- ■ **Reach:** Tunisia
- ■ **Type:** For-Profit
- ■ **Budget:** 1000-5000 USD

PROBLEM

More than 30 million people worldwide are upper-limb amputees. Children make up 35%, yet only 5% of them have access to prosthetics due to the high price tag, which can sometimes reach $100,000. Moreover, children need a new limb every 6 months until they are fully grown. Throughout the different ages for an amputee, difficulties will appear in many different aspects of their lives. Academically, children face difficulties integrating into school like their peers. Professionally, amputees have a hard time finding a job with a missing limb and are often financially dependent on others. Psychologically, most amputees struggle due to the trauma of their injury and their inability to support themselves. On top of all this, many countries do not have any physical therapy solutions for amputees, especially those living in rural areas.

SOLUTION

The project is a bionic company that aims to empower children to overcome their fears and help them build confidence. A Helping Hand for Life aims to provide 3D printed, ultralight, AI enhanced, customized bionic arms with muscle control to one hundred children in order to allow them to grab life with both hands. The arms are easy to use, adjustable, and, most importantly, very affordable compared to what is on the market already. The project also aims to provide hospitals with affordable physical therapy training kits to allow children to play while going through rehabilitation and training.

IMPACT

The project has a successful and satisfied first recipient, and more than 20 children in the testing pipeline waiting for the development period to be completed. A Helping Hand for Life has pre-confirmed partnerships with the two biggest hospitals in Tunisia that work with amputees, and has succeeded in promoting their vision and raising awareness about disabilities, and specifically amputations, in more than 15 countries. They aim to give 100 children the ability to live a normal and fulfilling life.

ALIGNMENT WITH THE SDGS

By providing children with bionic arms, the project address target 4.5 by "ensuring equal access to all levels of education... including persons with disabilities." It also serves to address target 10.2, "empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status."

The HelpYourself Project (Maealth Tech Ltd)

- **Lead:** Akwo Ashangndowah
- **Website:** https://www.maealth.com/
- **Location:** Cameroon
- **Reach:** Cameroon
- **Type:** For-Profit
- **Budget:** 5000-10000 USD

PROBLEM

The project aims to address inaccessibility to health assistance in Cameroon. Due to challenges including inadequate numbers of doctors and health facilities, rural areas being inaccessible to healthcare services, and the current political crisis that has left hundreds of thousands displaced, millions lack access to emergency health assistance. There is a very limited number of practicing medical doctors in Cameroon, where the doctor-patient ratio is closer to 1 for every 40,000 inhabitants, instead of the WHO-recommended 23 for every 10,000. This issue, along with the current political and terrorist crisis in many regions, has left over 1.5 million people in need of emergency health assistance.

SOLUTION

This mobile health platform allows individuals to instantly talk to a certified medical doctor, from anywhere, at anytime, with or without access to the internet. It is also a platform to share targeted health messages relating to ante- and postnatal care, family planning, and first aid, all through smartphones. The goal is to provide instant access to life-saving basic healthcare services to individuals who lack immediate access. The solution is designed to work with or without a smartphone or the internet. The free Android application contains many resources that work offline, including information on first aid, period tracking, and pregnancy tips, and also offers users the ability to connect to a medical doctor through a live chat feature. A second communication platform on the cloud permits individuals to be registered and subscribe to different services. These services include customized and time-specific health messages on ante- and postnatal care, family planning methods, and reminders for clinic visits, vaccinations, or appointments through voice calls or text messages. There are also two medical doctors at the back end of the platform so that registered users can directly ask questions or receive emergency care.

IMPACT

The project is unique in its use of mobile phones to deliver healthcare, as 80% of Cameroonians own a mobile phone. By the end of 2017, the project registered more than 600 expectant mothers from 4 different health facilities for ante-natal care monitoring. The application has been downloaded more than 500 times, and receives an average of 4 health inquiries per day on the live chat feature. The solution was selected by the prestigious Tony Elumelu Foundation in 2018 for the prize of Entrepreneurs of Africa.

ALIGNMENT WITH THE SDGS

The project aligns with several targets of SDG 3 "Ensure healthy lives and promote well-being for all at all ages." Access to care and information through this solution improves the health of Cameroonians. The project also addresses target 5.6 to "ensure universal access to sexual and reproductive health" through the family planning service.

SosoCare (Jara Internet Services Ltd)

- ■ **Lead:** Nonso Opurum
- ■ **Website:** https://www.sosocare.com
- ■ **Location:** Abuja, Nigeria
- ■ **Reach:** Nigeria
- ■ **Type:** For-Profit
- ■ **Budget:** 10000-20000 USD

PROBLEM

In Nigeria, a country of 200 million people, less than 10% have health insurance. Healthcare access presents a significant economic burden on slum and suburb residents, especially women with unstable income and little savings. With over 70 million people living below the poverty line, insurance and micro capital is considered an expensive luxury. In addition, Nigeria generates over 34 million tons of waste annually and consumes over 20 billion PET bottles. Less than 5% are collected and recycled, leading to poor health outcomes, sanitation, and environmental sustainability.

SOLUTION

SosoCare is a social enterprise that aims to use garbage as a financial resource to enable over 50 million uninsured suburb and slum dwellers - mostly pregnant women and kids - to access micro health insurance and raise micro capital. By linking over 35 million tons of waste and 20 billion PET bottles to micro capital and health insurance premiums, the project: 1) provides access to healthcare, reducing infant and maternal mortality and supporting family planning; 2) improves sanitation and environmental conditions in these slums and suburbs; and 3) creates jobs for waste collectors. They do so in partnership with the Hygeia HMO insurance company who underwrites the risk.

IMPACT

The project's innovative approach brings micro capital and micro health insurance to millions of people who have never had it before. By enabling people to pay for health insurance with recyclable waste, profit is created while ensuring environmental sustainability. Corporations as well as citizens have agreed to donate waste. Customers in the pilot testing phase have been able to raise micro capital and be trained in employable skills.

ALIGNMENT WITH THE SDGS

SosoCare is relevant to several SDGs by building partnerships towards access to capital and health care. It addresses indicator 1.1, to "eradicate extreme poverty," as families who collect PET bottles raise micro capital and start businesses by selling their waste for cash. It also addresses several indicators of SDG 3, to "ensure healthy lives and promote well-being," as vulnerable people are able to access healthcare insurance by having their recyclable waste sold and the cash used to cover insurance premiums. It also addresses indicator 12.5, "substantially reduce waste generation through prevention, reduction, recycling and reuse," by targeting the enormous amounts of waste and plastic created in Nigeria.

O'Genius Panda

PROBLEM

In Rwanda, 78.4% of schools don't have access to laboratories, which makes it hard for students to adequately understand certain subjects and affects the quality of education. African countries face various challenges using digital educational content in the local context, despite the fact that digital content can make learning fun, interactive, and engaging. Another challenge is ensuring the comprehensiveness of complex subjects, especially the sciences, from grassroots to specialization. The sciences are some of the most complicated subjects, but are often not taught properly due to poor teaching methodologies. Current education practices are dominated by an emphasis on theoretical skills, even in hands-on subjects. In Rwanda, 78.4% of secondary schools do not have access to scientific laboratories due to their high cost. And in those that do, there have been several dangerous and fatal incidents due to misuse of chemicals.

SOLUTION

O'Genius Panda is a digital laboratory that provides the same practical experience as an actual laboratory would. The platform helps students understand their studies, experiment, and develop practical skills through interactive simulations and animations accessible anywhere, anytime, both on and offline, using computers or mobile phones. The main objective is to transform the experience of learning and teaching science into an exciting activity for students to deeply understand, both visually and practically. This solution also targets the dangerous use of chemicals in schools for environmental protection as well as for student safety. The program was created collaboratively with teachers and educational institutions, and the interactive scientific content features life-like laboratory experiences to enable every young person to learn without limitation, especially in rural areas.

IMPACT

In the past, students from elite schools used to visit laboratories at maximum once a week and those from poor schools had no exposure to labs, or had to travel very far to reach one. Now, all students can learn through computers. The platform receives over 725 individual visits on a daily basis. The initial development stage had enough support to be tested in 12 schools across the country, wherein close to 25,000 science lessons were created, involving teachers from 40 schools, and creating 8 full-time jobs. The project now has support from the Rwanda Education Board and around 8,000 students are benefitting from the program. The program also has a positive impact on teachers, who are now able to teach a wider variety of concepts with more competency.

ALIGNMENT WITH THE SDGS

The project contributes to SDG 4 "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." By eliminating the need for access to laboratories, the quality of learning and teaching in the sciences are improving in Rwanda. Indicator 12.4 "achieve environmentally sound management of chemicals" is addressed as virtual labs resolve schools' poor chemical waste management capacity.
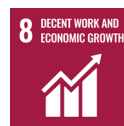
From Waste to Organic (Tintobi Agrobusiness Ltd)

TINTOBI AGROBUSINESS LIMITED®

- **Lead:** Otaigo Elisha
- **Website:** https://tintob.co.tz
- **Location:** Dar Es Salaam, Tanzania
- **Reach:** Tanzania
- **Type:** For-Profit
- **Budget:** 5000-10000 USD

PROBLEM

In Tanzania, food production is often laden with pesticides and excessive fertilizer. These chemicals have negative effects on the environment, contributing significantly towards land degradation and soil infertility. There are also various negative health effects from high chemical levels in food production. Despite a growing demand for organic products, very few farmers in Tanzania are willing to convert their farms from conventional methods to organic farming. Food waste is also a pressing challenge in Tanzania, making up over 40% of the total waste in the country. The majority of this waste is dumped in open landfills. Besides straining resources (both land and economic), landfills also present a huge environmental concern. As a very large source of methane, landfills contribute significantly towards increased greenhouse gas emissions.

SOLUTION

The project collects food scraps from different sources, diverting it from being burned or dumped in landfills and instead converts it into microbe and nutrient-rich compost. The compost allows farmers to grow safe and nutritious vegetables and fruits using sustainable, organic methods. Marginalized women and youth are hired as distributors and obtain a share of the profit, allowing them to earn $4-6 per day. The project also plans to sell their surplus compost and liquid fertilizer to neighbouring farms, providing an organic alternative to chemical fertilizers and pesticides in the near future.

IMPACT

By collecting food waste from commercial food markets, food processing factories, restaurants, and hotels, organic waste is diverted from being burned or dumped in landfills, and instead is converted into nutrient-rich compost. The organic compost helps in regenerating previously degraded soil, restoring soil fertility and improving the efficiency of land use. Over 1,000 tons of food have been transformed into compost and 8 acres of previously degraded land have been restored through regenerative farming. Locals are provided with access to organic vegetables and fruit with no chemicals added in the production process, which has improved health and has strengthened the sense of community. Over 30 youth have also been trained on good agricultural practices and organic farming. The youth and women in the project's business ecosystem earn on average $5 per day as profit, making their return on time invested substantial.

ALIGNMENT WITH THE SDGS

The project is aligned closely with SDG 12 which is "to ensure sustainable consumption and production patterns." By transforming food waste into organic compost, food waste and solid waste are directly being addressed. The project also addresses Goal 8 of "promoting sustained, inclusive and sustainable economic growth" by including women and youth in their business, which targets several indicators, such as 8.5 and 8.6.
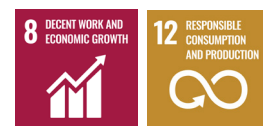
CloQ

PROBLEM

In Brazil, 80% of the low income population do not have access to credit. They cannot request loans via formal credit institutions because they do not have proof of income, a positive traditional credit score, or access to a financial institution. Financial exclusion is a business inhibitor, hinders the risk management of families, and enhances other forms of socio-economic exclusion. According to the World Bank, 1.7 billion people do not have a bank account; in Latin America, this makes up 51% of the population. Low-income families in developing countries often have no other options besides using loans provided by credit-card companies or illegal lenders charging interest rates of up to 500%.

SOLUTION

CloQ is a project inspired by Muhammad Yunus' concept of microcredit and microfinance. His idea has made a tremendous impact, yet has not been updated in its processes since the 1970s. CloQ updates the traditional microcredit process, using technology to improve results, increase reach and scalability, and minimize costs. CloQ is a mobile app for loan requests that contains financial education content and gives a CloQ credit score based on behavioural data. CloQ has the potential to reach millions of new clients with services such as savings accounts, insurance, and other basic financial services that help clients live a stable life. The project does not require proof of income, a credit score from a traditional credit bureau, or financial data in order to offer a loan. CloQ thus serves as a platform to connect credit providers to those who need credit the most, and provides tools such as credit analysis and financial education developed specifically for the poor and unbanked. CloQ credit analysis is based on behavioral and public data. By leveraging behavioral data, insight on clients can be obtained and quantify their risk without a financial history, and thus open up a large niche that is traditionally deemed to be too risky.

IMPACT

CloQ updates the traditional microcredit model through a new tool to empower the disadvantaged at a lower cost, reduced bureaucracy, and no limitations due to the widespread use of smartphones. CloQs default rate from the very beginning has been smaller than that of other app loan providers. After the first 5 months in beta mode, they reached the market average default rate. After 7 months, CloQ has enabled over 160 people to access credit, 75% of which are women aged 25-45.
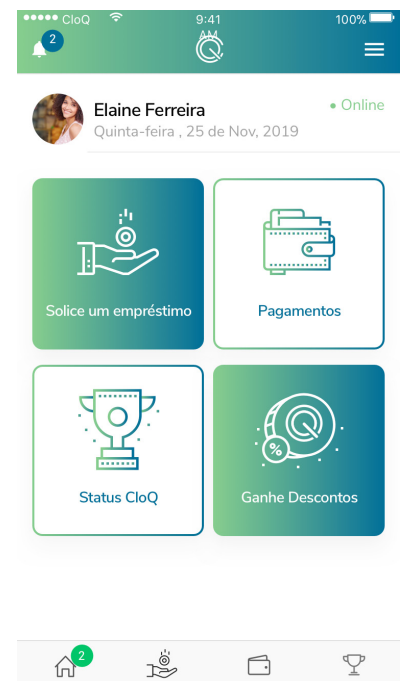
ALIGNMENT WITH THE SDGS

CloQ addresses SDG 1 "end poverty in all forms everywhere." The project aims to diminish financial vulnerability with the inclusion of the poor and the unbanked in the financial system and expand financial services focused on this group of the population. By providing a cheaper form of credit as well as financial education, CloQ contributes to target 1.4 of "ensuring that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources … as well as access to financial services, including microfinance."

Nutri-Garri
(Uyai Inwang)

Lead: Rita Robert Otu

Website: https://thestoryexchange.org/nigerian-entrepre-neur-beau-haven-farms-teaches-women-farm-grow-selfconfidence

Type: For-Profit

Location: Akwa Ibom State, Nigeria

Current Reach: Nigeria, Ghana, Uganda and Gambia

Budget: 10000 - 20000 USD

PROBLEM

According to a World Bank global health status report, malnutrition is the most pressing health problem implicated in the deaths of 16,000 children worldwide everyday and adversely affects the physical and cognitive development of generations of children. Many diets, especially those of rural communities, contain insufficient amounts of vitamins and minerals due to poor dietary diversity and/or the consumption of predominantly processed foods. Cassava is a primary staple in Nigeria; however, most of the varieties currently grown by women farmers are low yielding, with little protein and very few vitamins. There needs to be an innovation addressing the interrelated problems of malnutrition and lack of economic opportunity with environmentally sustainable cassava farms.

SOLUTION

Families that cannot afford a healthy and nutritious diets suffer from various health problems. This decreases productivity and hinders people's ability to get out of the poverty cycle. A common solution to chronic malnutrition, including protein deficiency, is the importation of nutrition supplements. To fill the nutrition gap, Nutri-Garri is a scientifically-designed and tested garri that offers the simplest, fastest, and most cost-effective approach for replenishing essential vitamins and minerals in chronically malnourished children. Nutri-Garri fortifies staple flours and garri for over 100 million children and young women who are limited by expense and imprecision to access iron, vitamin A and zinc. Nutri-Garri contains all vitamins ideal for human consumption and provides people with the skills to produce their own low-cost and environmentally sustainable source of vitamins to improve their health.

IMPACT

We have reached out to 200 stores for effective delivery of the product. In 2018, the solution won the British Council's Entrepreneurial Award in Sub-Saharan Africa for empowering women farmers, which enabled a partnership with Harvest Plus Nigeria, tripling production. About US $4,000 was raised in 2018 during the cassava festival, of which 40% was used in establishing Nutri-farm in five schools in Akwa Ibom State Nigeria. 20% was used to buy improved cassava stems for women farmers, and the remaining 40% was for scholarships and the organisation.

ALIGNMENT WITH SDGS

Nutri-Garri is an environmentally sustainable social enterprise that provides training to build cassava farms, improve nutrition, and turn cassava into vitamin-rich flour that can be incorporated in local staple foods or sold to bakeries and markets. It intersects peace, prosperity, and planet by promoting improved health and economic opportunity for women. This project has a mission to improve nutrition through the sustainable farming of organic cassava. The project works with women-led farming cooperatives and small family farms to drive economic growth, women's empowerment, and sustainable agricultural development in line with SDGs 1, 2, 3, 12, and 13.

VirtualSasa: Education in the Experience Age (Maarifasasa Ltd)

- **Lead:** Robert Bob Okello
- **Website:** https://www.maarifasasa.com/services#virtualsasa
- **Type:** For-Profit
- **Location:** Kampala, Uganda
- **Current Reach:** Wakiso, Lira, Gulu, Mukono, Adjumani, Yumbe
- **Budget:** 5000 - 10000 USD

PROBLEM

As education shifts from the information age to the experience age, widening disparities between urban and rural schools are increasingly pertinent. Around the world, educators experience major challenges as a result of this shift. Many teachers today still rely heavily on transmissionist methods, such as lectures, which in many cases isolate knowledge from context. Furthermore, for authentic learning contexts to be achieved, many factors are required. These factors are often very difficult to attain, or absent from traditional teaching methods. As a result of these challenges, many students are passive, disengaged, and struggle to see the relevance of what they are learning to their lives.

SOLUTION

VirtualSasa delivers immersive learning experiences to schools with limited financial resources through virtual field trips and our custom-tailored virtual reality content. This flips the traditional model. Instead of learners completely missing out on the benefits of field trips and experiential learning, we offer them immersive and experiential learning opportunities by bringing the field trip destinations to the comfort of their classrooms. This ensures field trip opportunities for all using affordable virtual reality headsets that are rechargeable and stream offline content developed with experienced local teachers.

IMPACT

Through partnerships with Avantis Education UK, the world's leading player in the virtual reality for education sector, VirtualSasa provides easy access to affordable VR headsets to over 3,000 students in both rural and urban Ugandan schools. This has increased student attendance, leading to improved performance, especially in geography. Thanks to a 2018 Tony Elumelu Entrepreneurship award the team has set up an office space in Kampala to centralize and streamline operations, resulting in improved team synergy and quality service delivery for schools and students. Around US $15,000 has been raised to-date, enabling several pilot projects to iterate and better match services to the needs of the schools.

ALIGNMENT WITH SDGS

VirtualSasa has a mission to give more Ugandan children access to quality education opportunities, and this is directly relevant to indicator 4.3, 'Literacy rate of 15-24-year-olds, both sexes (%).' The immersive virtual reality fully engages learners in an experiential learning environment, aiding 90% memorization of subject content. VirtualSasa also seeks to break down traditional financial barriers that limit access to experiential, project-based learning, which is directly relevant to indicator 4.7 'Resilient students (%).' The immersive learning experiences provided will cut down the cost of field trips by close to 80%, ensuring that students from underprivileged backgrounds can access project- based learning.

Prev Leak (Technological Plumbing Solutions)

- **Lead:** Thulani Kumalo
- **Website:** https://www.facebook.com/TechnologicalPlumbingsolutions
- **Type:** For-Profit
- **Location:** Soweto, South Africa
- **Current Reach:** South Africa
- **Budget:** 5000 - 10000 USD

PROBLEM

South Africa has become increasingly vulnerable to overflows of sewage, exposing many townships, urbanized areas, and rural areas to a serious waste water pollution. This is a serious threat to human health and water sources. National statistics show that over 65% of South Africa's rivers and dams are choked with sewage, which impacts the environment, quality of life, and the development potential of poor communities. For example, diarrhoea is the leading killer of South African children under five, and poor sanitation is a major cause of diarrhoea. One estimate puts the cost at R 3.5 billion per year, with the problem rising each year by 24.5%.

SOLUTION

The Prev Leak device detects sewage buildup in a manhole using a wired water sensor which is triggered if sewage is detected; should this happen an email notification and SMS will be sent to the local plumber. The sewage unit is fitted on a sewage manhole wall close to the opening where the monitoring sensor interfaces with the microcontroller using a RS 485 protocol. The system is able to detect sewage buildup in a manhole and send a notification email and SMS to a service provider. The email and SMS notification includes the location of the unit and the system is powered by wired batteries. It uses GSM communication to send emails and SMSs. It monitors the battery level and sends email and SMS notifications to the service provider when maintenance is required.

IMPACT

In 2018, R 180,000 was raised by winning an innovation award from The Innovation Hub; this covered product development and resulted in 4 ready-to-pilot prototype units. Around 435 people visiting Zola clinic in Soweto on a daily basis are prevented from navigating around sewage to access health care, and another 1,220 primary school kids are prevented from coming into contact with raw overflowing sewage at the school gate. Additionally, 3 local employees responded to alerts of blockages at these venues. The impact is thus measured by the number of issues detected and reported by the technology, the number of sewer manholes unblocked by local plumbers, and the number of people prevented from being exposed to sewer overflows per clinic, school, and/or street.

ALIGNMENT WITH SDGS

The activities of the Prev Leak project are directly relevant to SDG indicator 11, improved water source, piped % of urban population with access. The project positively contributes to this indicator by preventing raw sewage from overflowing into residential areas and the environment.

ModulusTech - Affordable and Sustainable Housing Solutions

PROBLEM

Rapid urbanisation is a global phenomenon; 70% of the total population is expected to live in urban centers by the year 2030, and consume 80% of the total energy. It is these mega cities the issues of climate change, social inequality, immigration, and economic development will overlap. Hence, at Modulus-Tech, we realize that to improve the overall quality of life we have to move past the traditional construction approach for housing and small scale infrastructure. A manufacturing approach reduces waste, carbon emissions, and the environmental effects of houses, and allows every product manufactured to have a salvage value. This is also a solution to the global problem of how to house large numbers of immigrants and refugees in a short time and with reasonable capital requirements.

SOLUTION

ModulusTech uses technological advancements to revolutionize the low-cost housing sector for poor, displaced, and/or homeless people. It works is through an innovative flat-packed house design that can be assembled in as little as 3 hours by 3 workers using simple hand tools. The flat-pack nature allows 11 houses to be transported in a standard 40-foot container. Modular construction allows houses to be easily customized for various uses and spaces. The house also comes with electrical and plumbing utilities included. Hence, the structure is ready for use as soon as it is assembled. Once assembled, the houses offer complete privacy and hygienic conditions. This ensures that the inhabitants are provided with security, minimizing the social problems and epidemics that are prevalent in shelters and camps globally.

IMPACT

We have undertaken several projects including building a coal testing laboratory for a mining company, expanding a school to accommodate an additional 100 female students, installing hygienic washrooms at a construction site, and building employee accommodations and offices on an organic farm. With these projects we have been able to save over 1,350 tons of carbon emissions while promoting energy efficient and sustainable construction. Taken together, these projects impacted over 300 people and reduced the clients' energy loads. ModulusTech was awarded the Low Carbon Lifestyle Award and US $10,000 in prize money by the United Nations Environmental Program for work in the Asia Pacific region and the National Award of the Global CleanTech Innovation Program for sustainable housing design, organized by the United Nations Industrial Development Organization.

ALIGNMENT WITH SDGS

ModulusTech provides affordable, sustainable, and durable housing solutions to disaster-stricken populations, directly affecting SDG indicator 3.14. Allowing occupants to use electricity in the structures in refugee camps is relevant to indicator 7.1. The project also affects indicator 6.4, as it provides hygienic sanitation within the houses.

Verge.Capital

PROBLEM

The European Union lacks a common credit score provider and this is a challenge for EU citizens who need to access credit facilities across the EU. Although EU citizens are free to relocate, work, and do business across EU countries, their credit history does not follow them; they have to start from scratch every time they relocate. Moreover, financial institutions lack a comprehensive and intelligent tool to assess credit risk; the tools that are currently used are outdated, static, and based mainly on negative events. Further, many EU citizens, such as millennials, young professionals, and self-employed individuals, do not have access to credit facilities. In this way it is impossible for them to build their credit score and access credit products.

SOLUTION

Verge.Capital solves these issues through the use of machine learning, cloud technologies, and an easy-to-use mobile app, taking advantage of the updated European framework for open banking, PSD2. Verge.Capital utilizes next generation models, which are based on both subject matter expertise and machine learning. PSD2 ensures that banking institutions make their data available and that these data are uniform throughout the EU.

IMPACT

Verge.Capital can empower individuals in the EU and the whole world by promoting financial inclusion and allowing everyone access to high-quality financial services. At the same time, it enables intra-EU and international mobility. Both founders were named in Fortune's 2019 "40 Under 40" list and were awarded a €100,000 research grant by the EU. they are also finalists of M12, Microsoft's Venture Fund; finalists in the SVB and EQT Female Founders global competition, which had 700 participating companies; winners of Disrupt Greece 2018; winners of the NYU Stern Business School $300,000 Entrepreneurial Challenge (NVC); and Stern Venture Fellows in 2019. They were also finalists at MasterCard's innovation forum, and were awarded a Seal of Excellence from the European Commission for Verge.Capital's research and development and overall business plan.

ALIGNMENT WITH SDGS

Verge.Capital enables access to fair credit to all, in a clear and transparent way, regardless of sex, marital status, type or years of employment, race, color, age, religion, or nationality. Greater financial inclusion has an indirect impact on several Sustainable Development Goals, including eliminating poverty (SDG 1), reducing hunger and food security (SDG 2), achieving good health and well-being (SDG 3), fostering quality education (SDG 4), promoting gender equality (SDG 5), promoting shared economic growth (SDG 8), innovation and sustainable industrialisation (SDG 9), and equitable and peaceful societies (SDG 10 and 16).
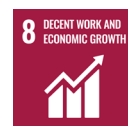
Urban Farming (Institute for Green Development)

■ **Lead:** Isaac Omondi Okoth

■ **Website:** https://instituteforgreend.wixsite.com/ig4d

■ **Type:** Non-Profit

■ **Location:** Nairobi, Kenya

■ **Current Reach:** Nairobi, Kenya

■ **Budget:** 1000 - 5000 USD

PROBLEM

The project aims to address food insecurity in urban informal settlements and, by extension, in Kenya as a whole. According to recent studies, food insecurity has been increasing in the Nairobi informal settlements, exacerbating existing vulnerabilities. In Nairobi, only 15 percent of slum dwellers are food secure, with 50 percent being severely food insecure. Consequently, the project aims to use local resources in order to enhance food production and reduce economic vulnerability among the informal settlements residents.

SOLUTION

The project entails the identification of 25 households through purposive sampling. Once onboarded, the members of these households are trained on how to install innovative vegetable gardens. The recruits are brought together to form two groups, through which they can add value to the farm produce and have bargaining power when selling their products. The groups are also given a capital incentive of about $200 so that they can have a collective income-generating activity and become economically empowered. Finally, the organization facilitates the registration of the groups, links them with financial institutions, and trains them on matters such as bookkeeping and project management, in order to ensure the sustainability of the economic activities.

IMPACT

The project has been able to directly impact 25 households who have been able to become food secure and economically secure with each of the beneficiaries living above $1.9 a day. The project has seen the 25 households come together to form 2 groups that able to accumulate resources and start additional income generating activities. The project has helped the 2 groups establish sites for the production of compost manure for household and commercial use, thus promoting social entrepreneurship. It has improved the cleanliness of the informal settlement of Kayole-Soweto and enhanced solid waste management in the area by fostering the sorting of solid waste at the household level and its conversion to compost manure. It has ensured that about 65 young people are employed directly. With another 300 employed indirectly, the project is contributing to minimizing the insecurity in Kayole.

ALIGNMENT WITH SDGS

The project ensures that beneficiaries are food secure and financially empowered. Therefore, the project is directly relevant to indicators 2.1, 2.2, and 1.1 that focuses on "Prevalence of undernourishment (% of population)", "Prevalence of stunting (low height-for-age) in children under 5 years of age (%)", and "Poverty headcount ratio at $1.90/day (% population)" respectively. The project is positively contributing to indicator 2.1 and 2.2 through the production of healthy food at the household level. It also contributed to indicator 1.1 by helping beneficiaries sell the surplus produce and produce compost manure for commercial purposes.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

The Purple Early Engineering Kit (PEEK) (Purple Future Trust)

Lead: Ian Nyasha Mutamiri

Website: http://purpletrust.org/introducing-the-peek-kit/

Type: Non-Profit

Location: Harare, Zimbabwe

Current Reach: Harare, Bulawayo, and Mutare

Budget: 20000 - 50000

PROBLEM

Zimbabwe has recently gone through a 3-year reform of its educational curricula. The new curriculum framework is premised on the development of competences (knowledge, skills, attitudes) and highlights the important role played by science and technology. However, Zimbabwe suffers from lack of skills and resources to serve all of its 6,000 primary schools, 16% of which are satellite/remote schools which have suffered the greatest 'brain drain'. A February 2019 report states that Matebeleland South Province primary schools are operating with only 210 qualified Early Childhood Development teachers out of an expected 1294.

SOLUTION

The mission of PEEK is to ease the burden represented by lack of resources to be used in education, especially in remote areas. The solution focuses on the "Education and Economic empowerment" stage of community development. PEEK identifies schools that serve underrepresented communities, and confirm their need for learning resources. They connect them to organizations who, through their corporate social responsibility policies, would be able to assist these schools and leverage on grants. They then set up a team of college students, train them on how to teach the kids, and oversee the training. The entire process is governed by a simple yet effective monitoring and evaluation framework that has been designed iteratively over the past few years, with well defined and measurable success indicators.

IMPACT

PEEK raised over USD 20000 during Africa Science Week 2018. 70% was used to purchase equipment for that week and equipment that we are also currently using for the workshops we do at different schools. During Africa Science Week, 500 primary school students and over 50 high school students participated in learning workshops. The project has conducted two additional workshops which have benefited an additional 40 students coming from disadvantaged communities. The programme was supported by the Ministry of Science and Technology, who also provided duty-free waivers for the equipment which was imported.

ALIGNMENT WITH SDGS

The solution provides quality STEM foundation education (Goal 4) through a well-designed curriculum that is practical and has affordable tools and resources. This should reduce the number of students performing under level 2 in science. Affordability should increase the number of children from low-income communities accessing science education, resulting in reduced inequalities (Goal 10). PEEK also encourages women and girls to take part in its programme, aiming for an increase in the number of those taking up science and engineering careers (Goal 9). This would also increase the ratio of female-to-male labour force participation rate (Goal 5). In terms of trade-offs, the programme is designed to fill the resource shortage gap by using lean methods and automation (online/remote teaching, self-teaching), so it could potentially cause unemployment in areas that may be well (human-) resourced, thereby negatively impacting Goal 8.

Project Inocul8 (Community Based Participatory Immunization Foundation)

■ **Lead:** Dr Emmanuel Egbroko

■ **Website:** https://cbpi.com.ng/

■ **Type:** Non-Profit

■ **Location:** Lagos, Nigeria

■ **Current Reach:** Lagos

■ **Budget:** 1000 - 5000 USD

PROBLEM

Over 18 million Nigerians are infected and living with hepatitis B infection, and the prevalence of the disease is assumed to be on the increase. Inadequate awareness and education on hepatitis B and its mode of infection and transmission, as well as poor access to hepatitis B vaccination services remain contributing factors to the rising prevalence of hepatitis B. Nigerians face several challenges in accessing vaccination services, including unavailability of vaccines, individual schedules not aligning with clinic vaccination days, long waiting time in clinics, and long distance to vaccination clinics.

SOLUTION

The project will increase access to hepatitis B vaccination services using a web-based platform that enables people to book their vaccination online. A medical team is then sent to screen the patient and administer the vaccine in the comfort of the user's home or office. The team also ensures follow-ups and regular reminders about subsequent vaccine doses. Social media platforms are also used to create awareness and educate the public on ways to prevent viral hepatitis B. In addition, outreach will be conducted to ultra-poor and underserved communities (churches, mosques, and corporate organizations) in order to create awareness on viral hepatitis B and increase screening and vaccination against the virus.

IMPACT

The project was launched in May 2019, and 415 persons have since been screened for viral hepatitis B in Lagos State. 241 persons have been vaccinated against the hepatitis B virus infection. 23 persons positive with hepatitis B virus have been referred to healthcare facilities for treatment and management of the disease. An estimated 40,301 people have been reached with educational messages on hepatitis B through the project's social media handles within 2 months of project launch.

ALIGNMENT WITH SDGS

The Inocul8 project vision is to eliminate viral hepatitis as a public health problem in Nigeria, which is in line with Sustainable Development Goal 3.3 which aims to combat hepatitis, water-borne diseases and other communicable diseases. The project is also in line with the World Health Organisation's strategy to combat hepatitis (i.e. Global Health Sector Strategy on Viral Hepatitis), which aims to reduce new infections by 90% and mortality by 65% by 2030.

3 GOOD HEALTH AND WELL-BEING

Behaviour Change Hackathon (WASH In Southeast Asia Ltd)

- ■ **Lead:** Thye Yoke Pean
- ■ **Website:** http://www.washinseasia.org/
- ■ **Type:** Non-Profit
- ■ **Location:** Singapore
- ■ **Current Reach:** Singapore
- ■ **Budget:** 20000 - 50000 USD

PROBLEM

Youth around the world are passionate about tackling the SDGs. However, surveys conducted in Singapore and the wider Southeast Asia region over the past three years have highlighted the frustration that many young people feel in terms of their inability to influence meaningful change. Young people often report losing confidence in their problem-solving skills as they transition into the workforce. There are two main causes of this frustration and subsequent lack of confidence, namely: (i) lack of required skills and tools to design and implement projects effectively, and (ii) a shortage of effective mentors that can share relevant advice and provide encouragement and support within both formal and informal education.

SOLUTION

The solution develops the ability and confidence of youth to effect meaningful change in their communities through a six-week long hackathon focusing on behaviour change, which is often required to achieve environmental and social change. The project addresses the problem in the following ways. First, lessons provide practical skills that are reinforced through weekly team assignments. These are related to real-world problems provided by a project partner. Second, facilitators from the organisation mentor participants and build their confidence in applying the skills learned, while mentors from the project partner expose them to the real-world considerations of implementing a project in order to achieve social/environmental change.

IMPACT

Several organisations have actively publicised the hackathon to their networks, including Enactus Singapore, which inspires students to improve the world through entrepreneurial action, and A Good Space, which supports changemakers to champion social issues they care about. USD 7,500 in grant funding was awarded to the pilot run of the hackathon by the National Youth Council, enabling the Project to deliver a hackathon to at least 30 young people (participants are measured by the number of people who have met the 80% attendance requirements). Six project partners are participating in this pilot run. This means that the hackathon will produce at least six solutions related to the SDGs.

ALIGNMENT WITH SDGS

The intention of the project is for participants to provide project partners with relevant and feasible solutions to tackle their problem statement. These problem statements are related to SDGs ranging from Indicator 2 'Prevalence of undernourishment' to Indicator 12 'Municipal Solid Waste'. However, there is no guarantee that participants will offer an appropriate or implementable solution, or that project partners have the capacity to implement the solution.

A Water Kiosk at School (International Transformation Foundation)

PROBLEM

About 31,000 people live in the Makongeni community of Nairobi with no tap water system. Consequently, schoolchildren often walk long distances to secure water for their families before or after going to school, thereby causing absenteeism and resulting in school drop-outs. In 2013, members of the project team worked together on a country-wide research project about sustainable drinking water systems. One of the main insights gained was that all communities wish to improve their water system. Some communities do not have a working tap water system at all, prompting children and women to walk very long distances to secure water from neighboring communities' wells or rivers. There are three main areas that current water projects in Kenya's communities should therefore focus on: (i) the water system, with the technical components to get groundwater to the tap; (ii) the paying system, that describes what to pay for, how to maintain the system and how a business is set up; (iii) the wider social system.

SOLUTION

The objective is to set up a pilot water kiosk at the Patriana educational centre located in Makongeni, a community with no working tap water system. The kiosk will be providing clean tap water and associated benefits to 652 students and about 3000 people residing in Makongeni. It will represent a school-based and student-managed business selling clean tap water to community residents at an affordable price. The project consists of financing the community school to set up the water kiosk with sustainable products for the students to transport tap water from school to their homes. It is both an educational and profitable business teaching the students business and entrepreneurial skills, and generating much-needed income for schools. It provides practical education bridging the gap between school and work, and contributes to community development by supporting the self-sustainability of the school.

IMPACT

Beside the Makongeni community, the team has already used this system to build twelve water kiosks built at schools across Kenya and Rwanda, reaching at least 6557 school children (aged 6 – 14) that no longer have to leave school to secure water for their families. 120358 people in general have access to clean tap water at an affordable price within their communities. Profits are directed towards developing local education and an entrepreneurial spirit among young people. The Water Kiosk at School project has received awards including The Spindle's Third Prize as part of the Best Innovation in Development Award 2018. It has also been exhibited among Africa's Top 50 Innovations at tge 2018 Africa Innovation Summit..

ALIGNMENT WITH SDGS

The Water Kiosk at School's social business model develops community's solidarity, local education and an entrepreneurial spirit. SDG 6 is a prime SDG as the micro-credit project for schools with a sustainable business model creates money for WASH activities in schools. The solution also impacts on SDG 3, as all sanitation facilities are improved around the school, and the money from the water kiosk is used to purchase soap and toilet paper for the school children. In addition, SDG 4, is also impacted due to increased school attendance, as children no longer need to leave school to secure water for their families.

Model City Council
(Ignite Philippines)

- **Lead:** Saje Molato
- **Website:** https://siklab.org.ph
- **Type:** Non-Profit
- **Location:** Philippines
- **Current Reach:** Tabaco City, Masbate City and Municipality of Tinambak, Philippines
- **Budget:** 50,000-100,000 USD

PROBLEM

Despite ongoing efforts to sustain its youth program called the Sangguniang Kabataan (SK), the Philippine government has often struggled to respond to the evolving needs of young Filipinos. The sustainability of its projects has been unclear, while allegations of corruption remained rampant to date. Resources meant to be used for young people have not been efficiently allocated to those in need. As key representatives of young people in their own community, SK falls short in voicing out their concerns. The lack of proper consultative mechanisms for young people is a significant challenge to youth civic engagement, given the fact that almost half of the population of the Philippines is below 24.

SOLUTION

Model City Council is a social venture that aims to foster the value of civic engagement, discourse, and social responsibility among young Filipinos, especially the marginalized ones. It was developed to address the gap in youth representation in local government. Through collaboration with partner communities, it creates democratic spaces for young people to develop community-led solutions: first assessing the key challenges experienced by young people, then providing them with the resources and support system to develop their own solutions. The program stands out from other youth conferences, leadership training courses, and youth empowerment campaigns in the Philippines, as it tackles the root causes that exclude young people from the decision-making process of their local communities. The program is also tailored to the individual needs of each partnering community. Through partnership with local governments as well as the constit-

uents, the program ensures national requirements on creating a youth development plan per community are met, and accountability is maintained upon the program's departure from the community.

IMPACT

So far USD 180,000 has been cumulatively secured and raised through partner communities. The funds were used to research the key issues affecting young people, offer training to help them develop solutions to the challenges facing them, and provide seed funding for their projects. The program is now finalizing a national partnership with UNICEF, National Youth Commission, and ING to run a pilot test on the provincial scale, with the aim to eventually implement it on the national level for greater impact. The program has received awards and recognitions by The Resolution Project, Yunus & Youth, and Cordes Foundation which opened doors to mentorship and funding.

ALIGNMENT WITH SDGS

The program contributes to SDG Indicators 16.4 'Government Efficiency (1-7)' and 16.7 'Corruption Perception Index (0-100).' For example, Tabaco City saw 700 local young people join the program and 43 youth-led social impact projects developed. In the subsequent election for young officials in the city, over 60% of the candidates were delegates of the program, who are able to influence decision-making around youth development within the city. The program has also mobilized over an estimated USD 140,000 of the city's budget to fund youth-related activities -- without lost to corruption.

THE MODEL CITY COUNCIL
Shaping leaders, building solutions

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Srijan Bachpan (Pratigya)

Pratigya
to build nation through education....

- **Lead:** Ajay Kumar
- **Website:** http://www.pratigya.in
- **Type:** Non-Profit
- **Location:** Jharkhand, India
- **Current Reach:** Khunti and Ranchi District, Jharkhand, India
- **Budget:** 5000-10,000 USD

PROBLEM

According to the National Commission for the Protection of Child Rights (NCPCR), 12.5% of children in India are between the ages of 5 to 9 years old. 65%-70% of them are enrolled in the primary education system, but the dropout rate remains high at almost 30%. Jharkhand, in particular, has the highest dropout rate for schoolchildren in the country, with only 30 out of 100 actually finish school. Violence, abuse, harassment, and gender discrimination have been some of the reasons leading to dropouts and poor educational outcomes. The violence that schoolchildren experience not only has a profound impact on their ability to attend school and learn, but also a lasting impact on their physical and psychological well-being.

SOLUTION

With the mission of creating a safe learning environment for tribal children in schools and communities, the solution "Srijan Bachpan" (Nurturing Childhood) is a program which ensures schoolchildren are engaged and empowered. It offers modules on life skills, financial management, and civic education, in the form of lectures and activities, to improve the academic, personal, and social development of schoolchildren. It also helps them better understand their rights and responsibilities as active members of society, while breaking down gender bias and discrimination amongst them. To make sure that the program will be sustainable in the long run, it focuses on training peer leaders and children-run clubs in schools and communities, and involving teachers, school authorities, community leaders and experts in its implementation. Combining Pratigya's 11 years of experience working with children ranging from urban slums to rural areas of Jharkhand (in particular the Scheduled Castes and Scheduled Tribes of India, who are historically disadvantaged people in the country), the program is able to tackle the socio-cultural, political and economic challenges facing local communities which affects the development of children.

IMPACT

So far, 3,500 children benefited from this program. It has mentored more than 20 young leaders (12-18 years old) who are working as representatives of local clubs in their communities. They are also able to present their ideas at the meetings of Gram Sabhas in their own villages. Due to the success of the program, local and government bodies such as the Department of Social Welfare, the Department of Health and the Department of Education are also incorporating similar training into their own programs.

ALIGNMENT WITH SDGS

The program Srijan Bachpan aims to empower children by creating a safe and supportive learning environment. By keeping more children engaged at schools, it helps lower the dropout rate, thus in line with SDG indicator 4.2 'Mean years of schooling.' The module's emphasis on gender equality and ending gender discrimination also contributes to 5.2 'Ratio of female to male mean years of schooling of population aged 25 and above.' By providing training and opportunities, the program works towards SDG indicator 3.14 'Subjective Wellbeing (average ladder score, 0-10).'

Circular Cities Week (Circular Economy Club)

CIRCULAR ECONOMY CLUB

Lead: Sara Arjmandnia

Website: https://www.circulareconomyclub.com

Type: Non-Profit

Location: London, United Kingdom

Current Reach: 35 countries in Europe, Africa, Asia and Latin America

Budget: 5000-10,000 USD

PROBLEM

Growing population and rapid economic development, coupled with ineffective sustainable resource management, means that the world will experience a scarce abundance of resources for future generations. This can be attributed to the current linear economy of 'take, make, dispose', which is no longer a viable economic model. Circular Economy (CE) is an alternative to this unsustainable model. It aims to change the concept of waste by designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. However, there is a lack of government engagement for CE; only a number of cities have created a CE roadmap, thus more efforts are needed.

SOLUTION

CEC's Circular Cities Week aims to generate a call to action to over 250 cities worldwide by holding workshops in cities, which 1) bring together stakeholders ranging from citizens to city council members that can enact change at a local level; 2) discuss the opportunities, challenges and next steps for the city in implementing Circular Economy; 3) convince and support cities to develop a local circular economy strategy with clear objectives. The insights generated from the workshops will offer a deeper understanding of the constraints and enablers for CE at the city level, with which local governments can use to create a CE strategy. After the workshops, CEC will produce a report with insights on CE at both global and city levels. Pledges made by city councils will be posted on the website, and progress towards CE in each city will be monitored and reviewed through this annual event.

IMPACT

Circular Cities Week has the potential to leverage 200 CEC organizers, 3,500 members, its network of over 40,000 followers in social media, and 300 media contacts. Earlier at CEC's Mapping Week, organizers in 65 cities brought together 2,100 participants who mapped 3,000 circular economy initiatives worldwide. It gives a comprehensive overview of what is already being done around the world, while also informing the Circular Economy strategy development process at the Circular Cities Week. So far more than 60 have cities signed up for the Circular Cities Week. This encourages not only knowledge sharing of CE among cities, but also commitments from the local governments to developing a CE roadmap. The goal is to bring together local actors to create CE strategies in 200 cities.

ALIGNMENT WITH SDGS

Circular Cities Week works towards realizing the Circular Economy model in cities worldwide, setting an end of to the age of waste. It is closely linked to waste-related SDG indicators such as 12.1 'Municipal Solid Waste (kg/year/capita)', 12.2 'E-waste generated (kg/capita)' and 12.8 'Non-Recycled Municipal Solid Waste (MSW in kg/person/year times recycling rate)'. By encouraging local governments to adopt a CE strategy during Circular Cities Week in their cities, it is estimated that municipal solid waste, e-waste and non-recycled solid waste will be reduced. More products will be designed to last or remain within the loop. This allows for resources to be used in a smart and sustainable manner, reducing the harmful impact caused by waste mismanagement and irresponsible consumption and production.

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

Jina Al Dar - Mobile Bus (ABAAD - Resource Center for Gender Equality)

أبعاد
abaad

- **Lead:** Narod Haroutunian
- **Website:** abaadmena.org
- **Type:** Non-Profit
- **Location:** Beirut, Lebanon
- **Current Reach:** Lebanon
- **Budget:** 50,000-100,000 USD

PROBLEM

2019 marks eight years since the conflict in Syria began. With some 1.5 million Syrians -- in addition to a large community of Palestinian refugees -- Lebanon continues to host the highest number of displaced people per capita in the world. The influx of refugees has put a strain on the already scarce public resources. Cuts to cash-based assistance, eviction orders and social tensions between host and refugee communities have caused problems for thousands of affected families among Syrian refugees. Protracted displacement and increasing vulnerabilities related to legal status, economic insecurity, and harsh living conditions in crowded settlements further increased the incidents of gender-based violence (GBV).

SOLUTION

ABAAD's Jina Al Dar program was established to "reach the unreachable'. It is a bus touring in 200 of the most marginalised areas, towns and villages in Lebanon, which provides services on the prevention and reduction of all forms of violence against women and girls, as well as promoting social cohesion between Syrian refugees and their host communities. Jina Al Dar's services include awareness, education and information sessions on legal rights, sexual and reproductive rights, and health of women and girls; referral to relevant psychological and social support, legal and medical services provided by ABAAD's centres; and recreational activities targeting boys and girls, as well as families, women and men, such as interactive theatre, puppetry, and screening of documentaries. An integral part of the Jina Al Dar program is ABAAD's RESPOND Mobile Application, which disseminates knowledge on available GBV-related support services in Lebanon, and links disclosed cases to the nearest available support.

ALIGNMENT WITH SDGS

The program is one of ABAAD's initiatives to end GBV and achieve gender equality in the MENA region. It directly contributes to SDG Indicators 16.1 'Homicides (per 100,000 people)' and 16.3 'Proportion of the population who feel safe walking alone at night in the city or area where they live (%)', especially in the case of women and girls in vulnerable areas.

IMPACT

As a leading actor on gender equality in the region, ABAAD is perceived as a reliable reference and partner by the local, regional and international entities that are working to promote gender equality and empowerment. Over the period between August 2016 and December 2018, the program reached a total of 8123 women, 1542 men and 9464 children who had poor to non-existing access to GBV-related, legal, and health services. 98% of women who took part in legal/ health sessions found these sessions important. 15% of women who called ABAAD's GBV hotlines were referred from the awareness-raising sessions, and many more knew about them through tours made by Jina Al Dar.

3 GOOD HEALTH AND WELL-BEING

5 GENDER EQUALITY

Elimination of Mother-to-Child Transmission (Voice of the Mothers Advocacy)

Mother & Child Health

- **Lead:** Mustafah Otieno
- **More information:** mustafah@sautiyamamaadvocacy.org
- **Type:** Non-Profit
- **Location:** Nairobi, Kenya
- **Current Reach:** Nairobi, Kenya
- **Budget:** 5000-10,000 USD

PROBLEM

Mother-to-child transmission (MTCT) is the main mode of HIV transmission in children under 15 years old. This is a serious problem in the Sub-Saharan African countries, where there are more than 80% of children living with HIV. Approximately one-third of children born to mothers with HIV will be infected with HIV in the absence of preventive measures. Although only 14% of children who have been breastfed for up to two years are infected during breastfeeding, they account for 40–64% of children who are HIV-positive. The risk of transmission is particularly high if the mother-to-child transmission occurs during pregnancy or breastfeeding, because viral loads tend to be the highest during early stages of infection.

SOLUTION

Sauti Ya Mama (Voice of the Mothers) Advocacy informs and supports new and expectant mothers and infants in vulnerable areas. Through the use of SMS messages/ calls as well as community health volunteers who offer advice on antiretroviral therapy (ART), it strives to prevent the transmission of HIV to the infant during and after pregnancy. The SMS are structured in a specific format to ensure adherence to antiretroviral therapy (ART) regimen and remind expectant HIV-positive of their upcoming clinic appointments. It also continuously monitors mothers and infants to make sure prescribed medication is taken. Meanwhile, experienced health volunteers offer additional s upport by educating and assisting these mothers who are HIV-positive.

IMPACT

In 2018, the program was awarded $12000 by D-Prize to carry out a pilot program at Mathari. In partnership with local health facilities, the program enrolled and monitored at least 300 expectant mothers who are HIV-positive. At least 98% of infants were born HIV-negative. Paired with peer support groups, the program proved to be a sustainable model to eliminate mother-to-child transmission. It also showed that despite the availability of HIV medications, there is a need for comprehensive follow-ups on the patients. Such a model was found to be able to increase the adherence rate to 85%. The work of the Sauti ya Mama Advocacy has been recognized by the Nairobi City County Government.

ALIGNMENT WITH SDGS

The program helps eliminate mother-to-child transmission of HIV among vulnerable populations in Kenyan slums. It is directly linked to SDG indicator 3.5 'HIV prevalence (per 1,000)'. The project is positively contributing to this indicator by making sure expectant mothers with HIV attend their clinic appointments and adhere to their medications, so that they can give birth to HIV-negative infants. It also indirectly relates to indicator 3.4 'Incidence of tuberculosis (per 100,000 people)', as HIV weakens the immune system and increases the risk of tuberculosis among people with HIV.

3 GOOD HEALTH AND WELL-BEING

Promoting Social Justice for Women Working in Small Workshops (Palestinian Center for Communication and Development Strategies)

- **Lead:** Mohammed Sallam
- **More information:** m.sallam@pccds.com
- **Type:** Non-Profit
- **Location:** Hebron, West Bank
- **Current Reach:** Hebron, West Bank
- **Budget:** 20,000-50,000 USD

Palestinian Center
For Communication & Development Strategies
المركز الفلسطيني للاتصال والسياسات التنموية

PROBLEM

24% of working women in the West Bank Governorate are working in small workshops and the non-governmental sector. They suffer from serious violations of their economic and social rights and are subjected to verbal/ physical abuse and sexual harassment by their employers. Also, they are not affiliated with Palestinian trade unions. According to a survey conducted by the PCCDS among women working in small workshops:

- 87% are working without job contracts;
- 86% are paid less than the minimum wage law;
- 83% do not get paid leaves;
- 97% do not have health insurance.

SOLUTION

As part of the project, a study has been conducted on the needs of women working in small workshops, whose rights have been violated. Representatives of working women are involved in the development of the monitoring, evaluation and follow-up plan of the activities that promote social justice and women's rights. Instead of seeking external support from officials, these women are empowered to be women human rights defenders themselves. Partnerships have also been built with multiple stakeholders including representatives of women working in small workshops, the Federation of Trade Unions, the Ministry of Labor, and the Ministry of Women.

IMPACT

With the implementation of the project, working conditions within small workshops have improved by 50% according to ILO and Palestinian Ministry of Labor standards. Verbal and physical violence against women working there has decreased by 45%. Equal opportunities at small workshops have also improved by 35%. In general, women working in small workshops are more able to get their voices heard -- six of them have even joined the municipal councils to advance their agenda.

ALIGNMENT WITH SDGS

The project helps improve the working conditions of women in small workshops, which is linked to SDG indicator 5.5 'Gender wage gap (Total, % male median wage)'. Enhanced gender equality at workplace also contributes positively to indicator 5.3 'Ratio of female to male labour force participation rate.'

5 GENDER EQUALITY | **8 DECENT WORK AND ECONOMIC GROWTH** | **10 REDUCED INEQUALITIES**
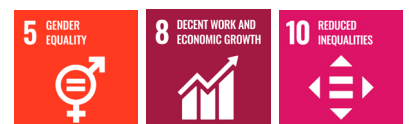
Empowering Displaced Women through Mushroom Cultivation (Hope for a Better Future Cooperative)

H4BF

- **Lead: Mbimenyuy Marius Kongnso**
- **Website:** http://www.h4bfcooperative.com
- **Type:** Non-Profit
- **Location:** Bamenda, Cameroon
- **Current Reach:** Bamenda, Cameroon
- **Budget:** 10,000-20,000 USD

PROBLEM

Since the wake of the Anglophone Crisis in late 2016, over 160,000 people have been internally displaced, and over 50,000 people have been registered as refugees in Nigeria, with more than 500,000 schoolchildren denied access to education. Internally displaced female households heads have increased tremendously as many men have left their families to join armed groups, who were then jailed, killed, or gone missing during the conflict, while some others just fled the country. More than 70% of these women have neither received education nor worked in a decent job. They often turn to illegal jobs such as prostitution to support the family, and live in city slums with limited access to nutrition and medical care. Sexually transmitted diseases (STDs) are also prevalent among this population.

SOLUTION

The project seeks to address the current Anglophone Crisis through training internally displaced female household heads in organic household mushroom cultivation. It is not only an alternative source of income but also a food source with high nutritional value. Household mushroom farms are low-cost and can easily be constructed with the use of waste materials like automobile tires, sawdust, rice husks, and bamboos. Seeds and equipment are provided to these women to kick-start their own mushroom production. Hands-on training in organic household mushroom cultivation, as well as basic agribusiness/ project management skills, are also offered. The project will bring these women together to form a cooperative of mushroom producers, so as to increase their access to markets and financial support.

IMPACT

The pilot project trained 25 unemployed young people in organic household mushroom cultivation. A follow up was done and these 25 people were able to train another 50 people, thus increasing the multiplier effect of the project. It also brought together 30 students from the Department of Agricultural Engineering at the University of Bamenda to contribute to the project.

ALIGNMENT WITH SDGS

Organic mushroom farming offers an alternative source of income and food to displaced female household heads. It contributes to SDG indicator 1.1 'Poverty headcount ratio at $1.90/day (% population)' and 2.1 'Prevalence of undernourishment (% population)'. Since the project targets vulnerable women, it also relates to indicator 5.5 'Gender wage gap (Total, % male median wage).'

| 1 NO POVERTY | 2 ZERO HUNGER | 3 GOOD HEALTH AND WELL-BEING | 5 GENDER EQUALITY | 8 DECENT WORK AND ECONOMIC GROWTH | 10 REDUCED INEQUALITIES |

The Wellbeing Economy Alliance Youth (WEAll Youth)

Lead: Mara Tippmann

Website: https://wellbeingeconomy.org

Type: Non-Profit

Location: United Kingdom

Current Reach: Zwolle, The Netherlands; Melbourne, Australia; Warwick and Edinburgh, UK; Kampala, Uganda

Budget: 0-1000 USD

PROBLEM

The current capitalistic economic system has prioritized profit over people and the planet, which are exploited as resources and means to make money. A new economic system that ensures the well-being of the planet of its inhabitants is needed, but transitioning to it requires systematic change. One of such changes is to rethink the idea of 'growth'. Growth should not be about exploiting the planet and its people, nor should it be about making the rich richer and the poor poorer; it should be about equitable distribution of wealth and health for current and future generations, humans and other species on Earth. As young people are next in line when it comes to inheriting the earth, it becomes ever more important for them to rethink the current economic system and inspire each other to promote one that is sustainable and equitable.

SOLUTION

WEAll Youth is a network that envisions a global movement of regional youth communities that work together to facilitate a well-being economy. As a youth-led arm of the global Wellbeing Economy Alliance, it educates young people about new economies and sustainable lifestyles and empowers those who share the same vision. It gives them a platform to connect with each other and to collaborate on building an economy that is fit for our future, one where the planet and its people are at the heart of the system. It also supports these young people through a network of sustainability experts and organizations.

IMPACT

5 hubs have been established in just 4 month's time in the UK, Australia, the Netherlands and Uganda. In total, there are around 30 individuals working within WEAll Youth. These hubs are essential in creating a global network of empowered youth. 61 partners currently make up the network of WEAll Youth. The network consists of youth-organizations, universities, companies, NGOs, and individuals. These partners all play a part in the Wellbeing Economy Movement. It is through the collaboration of all these partners and hubs that change can be inspired.

ALIGNMENT WITH SDGS

The most important SDG indicator for WEAll Youth is 3.14 'Subjective Wellbeing' since it spreads the awareness of the importance of well-being for people and the planet. The promotion of a more sustainable economic system is also relevant to waste-related and emission-related indicators spanning SDG 12 and 13.

Women and Youth Empowerment Project (Cambodian Community Dream Organization)

- **Lead:** Leangseng Hoy, Tevy Rithy
- **Website:** https://www.theccdo.org
- **Type:** Non-Profit
- **Location:** Angkor Thom District, Siem Reap, Cambodia
- **Current Reach:** Angkor Thom District, Siem Reap, Cambodia
- **Budget:** 5000-10,000 USD

PROBLEM

Cambodian women today face many challenges and enjoy fewer opportunities compared to their male counterparts, such as lower employment rate and less financial autonomy within the household. When it comes to healthcare in rural Cambodia, only 23.5% of women use public health services for initial treatment. 12% of women begin childbearing at a young age (15-19), but a substantial number of them still do not receive medical assistance during pregnancy, and 17% of births are delivered at home.

SOLUTION

The project empowers women through various means, which include supporting women to start and run their own businesses with training and coaching, educating them on topics like health, nutrition, pregnancy, parenting, and family planning, and providing them access to professional healthcare services, thus contributing to reducing the mortality and morbidity rate of mothers and children in the communities. It focuses on rural communities in need and over time improve the sustainability and well-being of these communities through implementing different project streams, followed by continuous monitoring and support. It works closely with local authorities to identify and mobilize beneficiaries, and to better allocate public resources towards community objectives.

IMPACT

In just 2019, more than 1,000 women attended workshops about parenting, pregnancy, family planning, and nutrition. Since the implementation of the Women Empowerment Project in 2014 in different areas of Siem Reap Province, it has significantly increased the knowledge of women's health within the community. It has been able to provide health services free of charge to women and young people, as well as training to village health support groups (VHSGs) and other key stakeholders, so that they can become their community's own workshop trainers and facilitators after the project phase-outs.

ALIGNMENT WITH SDGS

Through educating women about health, nutrition, puberty, parenting, family planning and pregnancy, the project helps prevent health issues, especially during pregnancy. This directly contributes to SDG indicators 3.1 'Maternal mortality rate (per 100,000 live births)' as well as 3.2 'Neonatal mortality rate (per 1,000 live births)' and 3.3 'Mortality rate, under-5 (per 1,000 live births)' respectively. It also promotes female employment and entrepreneurship, thus relevant to indicators 5.3 'Ratio of female to male labour force participation rate' and 5.5 'Gender wage gap (Total, % male median wage)'.

Rural Community Development Project(Asociación Civil Monte Adentro)

Monte Adentro

- **Lead:** Juan Carlos Chalbaud
- **Website:** http://www.monteadentro.org
- **Type:** Non-Profit
- **Location:** Chaco Province, Argentina
- **Current Reach:** 20 rural communities in Chaco province, Argentina
- **Budget:** 0-1000 USD

PROBLEM

The main problem facing rural communities nowadays is emigration. In general, young people are forced to leave their land in order to get access to basic needs, such as health and education, or to further their education. This causes depopulation in rural areas and, in the long run, eventual disappearance of rural communities. The lack of opportunities further accelerates the movement of the rural population. And the families who have migrated to urban areas rarely moved back to their own community.

SOLUTION

The Rural Community development project significantly improves the livelihoods of the people from rural communities so as to offer a viable alternative to emigration. Specifically, it seeks to positively impact access to education, employment, healthcare, and connectivity: children and adolescents will have access to schooling and educational assistance; adults will have access to vocational training and higher education online; small producers will have access to professional support for livestock production, agriculture, and forestation; families will have monthly access to medication as well as health and nutritional care; and people will have internet access.

IMPACT

With the implementation of the project, 200 school-children and another 200 adults will benefit from various forms of education and training; 300 families will receive healthcare and medication; 300 small producer families will get support for their businesses; 1200 people will gain access to the internet. What's more, the project helps create commissions which encourage people to contribute to the decision-making within their own community. It was recognized by Premios Latinoamérica Verde as an effective model for supporting rural communities.

ALIGNMENT WITH SDGS

By giving rural families monthly access to health and nutritional care, the project is directly relevant to SDG indicator 2.1 'Prevalence of undernourishment (% population)'. Additionally, it allows children and adolescents access to education, contributing to indicator 4.1 'Net primary enrolment rate (%)'. As for those who are over 18 years old, they are able to receive vocational and specialized training that enables them to secure a job, thus positively contributing to indicator 8.5 'Employment-to- Population ratio (%)'. More than a thousand people will have internet access and connection through this project. This is related to indicator 9.1 'Population using the internet (%)'.

Social Circus Program (Performing Life International)

- Lead: John Theodore Shan Ts'ai Connell
- Website: www.performinglifebolivia.org
- Type: Non-Profit
- Location: Cochabamba, Bolivia
- Current Reach: Cochabamba, Bolivia
- Budget: 20000 - 50000 USD

PROBLEM

Bolivia's income inequality is the highest in Latin America. Two-thirds of Bolivia's 11.3 million people, including 2.6 million children, live in extreme poverty. 88% identify as being of Amerindian ancestry. In Cochabamba, 220,000 youth, ages 4 to 16 work eight or more hours daily; 2%-5% live on the streets; 60% do not attend school. Parental unemployment, poor nutrition, poor family health, and daily crises force youth to work in degrading and dangerous circumstances. Bolivia ranks at or near the bottom among Latin American countries in health, development, poverty, education, malnutrition, mortality, and life expectancy. Bolivia's SDG poverty rating is 7.7; it 26.4% child labor; 15.9% undernourishment; infant mortality at 35.4/1000 live births; primary school enrollment, 81.6%, and score 5.9 on 0-10 subjective well-being. Street youth are clear about the reasons for their situations: generational trauma, oppressive poverty; societal prejudice; lack of basic resources; and family dysfunction resulting from relentless challenges.

SOLUTION

The project begins by working with at-risk youth where they are. It offers Social Circus classes in Montenegro, a low-income indigenous rural community 10 miles outside of Cochabamba. The staff help youth leave the streets, register for school and join the program. Classes are held in a safe, central location, are free and open to girls and boys ages 6 to 18. A local youth circus instructor is employed to teach two sessions per day, Tuesday through Friday. For 2.5 hours each session, youth learn juggling, diabolo, poi, aerial silks, acrobatics, clowning, and improvisation. Because many youth work to feed themselves, the project serves a healthy meal cooked by a local mother in the center's cafeteria after each class. Volunteers also offer Educational Enrichment classes. After-hours family programs include financial literacy and health. The participants present monthly free performances in communities and schools. At least 30 young people participate weekly, and the project engages over 180 family members.

IMPACT

The organisation managing the project has over 13 years of experience supporting street youth through social circus programs. For its latest project, it received USD 15,000 in funding which is being used to operate Social Circus and Music Programs serving over 80 at-risk young people in Cochabamba. The organisation is seeking to open another Social Circus center in Montenegro to serve 30 additional at-risk youth and families, providing them with circus and educational instruction as well as a healthy meal at the end of each class.

ALIGNMENT WITH SDGS

The solution creates a community for at-risk youth, providing them daily trainings and meals, in a safe and creative environment. Therefore, the solution directly aligns with SDG 2, 3, and 4. Because the organisation deposits profits from their youth enterprise to the participants, the solution also covers SDG 1 and 10. The fact that participants come out with an expertise in circus also directly influences their employability in the sector, thus contributing to SDG 8.

Digital Learning: Leave No One Behind (LiteHaus International)

- **Lead:** Jack Growden
- **Website:** https://litehausinternational.org/
- **Type:** Non-Profit
- **Location:** Townsville, Australia
- **Current Reach:** Western Highlands of Papua New Guinea
- **Budget:** 10000 - 20000 USD

PROBLEM

Digital literacy is a quintessential skill in the twenty-first century, and it impacts heavily upon an individual's ability to seek educational and employment opportunities. In the case of remote Papua New Guinea, the digital divide is profound as even high schools students often do not know the basic fundamentals of using a computer due to a lack of access to digital infrastructure. Devoid of these skills, a generation of rural Western Highlanders have found themselves pigeon-holed to low-income work or, most predominantly, subsistence farming. Even those who do attain the highest educational qualifications available the country are left with limited employment opportunities due to digital illiteracy. Engineering firms in Port Moresby and Australia regularly receive hand-written resumes from university graduates who do not have access to nor the skills to operate a computer.

SOLUTION

The program delivers reliable digital learning infrastructure in the form of 12 laptops, a projector, and 12 LiteHaus-produced bilingual computer basic skills guidebooks to each primary school attended to. Each of the professionally refurbished laptops has an estimated lifespan of 1.5 million hours and perpetual lines of IT support are maintained with each school. Education in Papua New Guinea becomes increasingly difficult to access for children in remote areas as the level increases. However, universal primary education is a right and (almost entirely) a reality, and as such by providing primary schools with digital infrastructure, the program maximises its reach. The organisation's mission statement revolves around removing barriers to a relevant and quality education. In the twenty-first century context, digital illiteracy is a significant roadblock to individuals reaching their full potential. Further, in 2019, only an educational experience which contains digital learning can be considered quality and relevant education.

IMPACT

LiteHaus International has established the first four functional computer labs in Papua New Guinean schools, with another three completed in August 2019. This has resulted in 2,200 students finally having access to tools which can only be considered essential for relevant and quality education in the 21st Century, with this total soon to become 5,000 by August. Due to the requirements of reliable electricity supplies which LiteHaus International insists on from schools who apply for assistance, many communities have put rapid plans in place to improve energy infrastructure in order to meet this requirement. The solution's model of 12 laptops, a projector and 12 basic skills guidebooks has every chance of becoming national government policy as LiteHaus has planned to meet the Prime Minister of Papua New Guinea this year. Thus far, the program has raised $27,500 USD and reached almost 150,000 people on social media.

ALIGNMENT WITH SDGS

By providing computer labs and assistance in schools, while promoting the digital skills of young people, this solution directly works on SDG 4 and 9. Consequently, participants that have gained digital literacy can then find better jobs, increase their income, and pursue a higher quality of life. Therefore, the solution heavily aligns with SDG 1, 8, and 10.
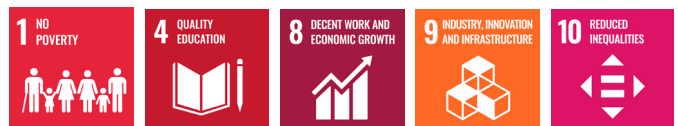
Strengthening livelihoods and employment opportunities for deaf and hard of hearing people in Kenya (Desk Empowerment Society of Kenya)

- **Lead:** Jacob Mwaniki Ireri
- **Website:** www.deskkenya.org
- **Type:** Non-Profit
- **Location:** Embu, Kenya
- **Current Reach:** Meru, Nakuru, and Embu, Kenya
- **Budget:** > 100000 USD

PROBLEM

People with Disabilities (PWD) face greater challenges in accessing employment opportunities due to inadequate employment policies and poor knowledge and skills caused by protracted underinvestment. PWDs are more likely to experience disadvantages, exclusion and discrimination in the labour market. Employment disparity between disabled and non-disabled people is evident in many countries: 40.4% of the population in Kenya is employed, against 33% of the disabled population. 67% of the disabled population lives in poverty, against 52% of the total population according to Global Disability Rights. Women with disabilities suffer a double discrimination, both on gender and impairment. Moreover, the alignment of Kenya's policies with the Convention on the Rights of Persons with Disabilities has been weak.

SOLUTION

The solution seeks to promote awareness of the Convention on the Rights of People with Disability (CRPD), support alignment to CRPD (including through mainstreaming of disability in the national or local development agenda) and build relationships to national development strategies, policies and programmes. Further, it seeks to create clear and accessible livelihood and employment opportunities for PWDs. Interventions include building the capacity of stakeholders to improve livelihood and well-being of persons with disabilities, establishment of a Cooperative Society (SACCO) for the deaf, and mentorship support.

IMPACT

With technical support from the Ministry of Cooperative Affairs, SDP, and UNDP, the project has been able to establish one national SACCO, including seed capital devoted specifically to ensuring that deaf people have access to affordable financial services. 200 people living with deafness or hearing loss have benefited from access to loans to establish small and medium enterprises. 150 out of 300 targeted county government and civil society officials and decision makers have been trained to promote greater awareness on the CRPD and disability issues more generally. As of now, the project has built the capacity of 1000 people living with deafness or hearing loss to improve their livelihoods, including by providing mentorship support.

ALIGNMENT WITH SDGS

The project aims to improve livelihoods and reduce employment gaps in comparison to non-disabled persons. It is therefore directly relevant to SDG indicators 1.1, and 8.5. The project also involves setting up legal and economic systems that increase participation of PWDs in mainstream economic activities, thereby contributing to reducing inequalities under both Goal 5 (by giving consideration to marginalised and vulnerable women in the selection of beneficiaries) and Goal 10 (especially Target 10.2).

Code Mobile
(Teens Can Code)

- **Lead:** Isaac Damian Ezirim
- **Website:** www.teenscancode.com.ng
- **Type:** Non-Profit
- **Location:** Lagos, Nigeria
- **Current Reach:** 4 states in Nigeria
- **Budget:** 20000 - 50000 USD

PROBLEM

Young people in rural Nigeria face marginalization in terms of both the quality of the education they receive and the opportunities they have access to, either because of where they live or the status of their parents. They do not have equal playing ground compared to their counterparts living in urban areas. Around the world, millions of young people are preparing to enter the working world — one that is increasingly being driven by automation and innovation. However, these young people in under-served areas in Africa lack the skills to be prepared for automation.

SOLUTION

Through the CodeMobile project and by setting up mobile technology labs in rural communities, the solution aims to prepare young people for the future and create decent job opportunities in rural Africa. The solution seeks to repurpose a 50-seat bus no longer suitable for transportation and convert it to a mobile technology lab equipped with all the tools needed to teach computer programing. An estimated 100+ young people will be trained every 3 months, and at least 10% would be connected to remote jobs and internship opportunities. The solution has a volunteer base of over 100 software developers. However, 10 volunteers will be on the ground to deliver this project for the two labs.

IMPACT

So far, the organisation has trained 550 young people on computer programming/coding in 20 centers and 5 communities, connected 10 young people to remote jobs and 5 to internship programs, pioneered the first teens technology conference ('Teens Code Conference', which is the largest gathering of teenagers for a technology event since its inception in 2016) and reached over 6,000 teenagers in 2 states of Nigeria. The solution has also hosted multiple hackathons over the years that gave seed funding to winners.

ALIGNMENT WITH SDGS

Due to its nature as a coding training project, this solution directly works on SDG 4 on quality education, and particularly on Targets 4.4 (which aims to increase access to relevant skills, includingModulusTechnical and vocational skills) and 4.6 (which seeks to increase literacy and numeracy among young people). Consequently, teens that are able to code will then become entrepreneurs or get better jobs (consistent with SDGs 8 and 9). The project thus particularly contributes to Target 8.6, which seeks to reduce the proportion of youth not in employment, education or training.

Gift a Sanitary Pad (Young Women Leaders Network)

- **Lead:** Hajar Diko Osman
- **Website:** https:/youngwln.wordpress.com/
- **Type:** Non-Profit
- **Location:** Accra, Ghana
- **Current Reach:** Ghana
- **Budget:** 5000 - 10000 USD

PROBLEM

Most young girls and women from urban poor communities face stigmatization during their menstrual period. Other girls from rural and urban poor communities feel too shy or guilty to tell their parents and teachers that they need sanitary pads. They also have little or no education about menstrual hygiene before their first period. This has caused many school-age girls to become school dropouts, either because they are ashamed of getting their period or because they do not have sanitary pads to wear in school.

SOLUTION

The project team organizes three separate Menstrual Hygiene Management (MHM) education courses in primary schools in each quarter of the year (two in urban poor communities and one in a rural community). The team assembles teenage students of both genders for the MHM program after a prior arrangement with the school administration. The program is divided into two phases. The first segment of the program commences with a counseling session on future career prospects for the students and demystifies the stigma associated with menstruation. The second segment consists of menstrual hygiene management education and demonstrations, including a presentation and the dissemination of menstrual tips and sanitary pads.

IMPACT

2500 Ghanaian Cedi has been raised since January 2019 as part of the "Gift a Sanitary Pad to the Girl Child" program, benefitting 600 girls in Ghana. This specific program itself has effectively reduced the number of female absenteeism as students now do not ask for permission to go home just because they got their periods at school. The solution has also taught girls to safely dispose of their used sanitary pads, calculate their monthly cycle, prepare for their periods, and empower girls to not be ashamed of their bodies. This solution effectively decreased inequality in education, as now girls are able to stay in school more than before they were educated and equipped for their menstrual cycles.

ALIGNMENT WITH SDGS

This solution reduces female absenteeism in school, which is linked to SDG 4. Furthermore, because it is female absenteeism that is reduced, this solution directly works on SDG 5. Equal attendance in school between boys and girls may mean a lot to their future-- girls are now enabled to learn the same amount as boys in school. Therefore, this solution also touches on SDG 10.

World Change Makers Academy (Corporación Para el Desarrollo del Emprendimiento y la Innovación Social)

- **Lead:** Francesco Xavier Abad Guerra
- **More information:** f.abad.ecu@gmail.com
- **Type:** Non-Profit
- **Location:** Ecuador
- **Current Reach:** Ecuador
- **Budget:** 0 - 1000 USD

PROBLEM

Unemployment and informal work are a difficult reality in Ecuador. According to the Statistics Institute, 4 out of 10 people aged 15-24 don't have a job and only 9.7% of the other 60% has a formal job. Lack of opportunities, economic crisis and migration issues have worsened this situation. Young people cannot have access to decent jobs or are exploited and unfairly paid. In vulnerable communities, young people tend to start working at early ages to financially help their households. However, this situation has affected their perception about the possibility of a better future for them and their communities.

SOLUTION

World Change Makers is a social entrepreneurship academy for low-income youth that teaches social entrepreneurship to vulnerable groups with potential. It has 6 modules for 6 months, and follows a play-learn methodology. The topics in these modules are: Leadership, Purpose, Empathy, Vulnerability, Human Centered Design, Personal finance, Rapid prototyping, Value proposition design, Business models, Theory of Change, Pitching and storytelling, Adaptive leadership, Corporate law, Governance, Financial modeling, Sales, Digital marketing, and Negotiation. The project has adapted international content to fit the pedagogy, adapting methods and examples and simplifying the jargon and technicalities. It is also offering a scholarship model supported by companies' CSR programs, and it will continue to sell these sponsorships to fund its activities in the mid-term.

IMPACT

The Hult Prize Ecuador was the solution's first project, reaching 45000 people in 22 cities of Ecuador and 47 universities through social enterprise workshops, talks and information sessions. The solution raised around USD 20000 in cash and USD 50000 in-kind to send more than 90 social entrepreneurship teams to more than 15 regional finals of the Hult Prize in 2017-18 and 2018-19. Since its inception, the solution has invested more than 20000 manhours in mentoring, teaching, and judging social enterprises together with the Hult Prize. With World Change Makers, the solution has held 4 ideathons, 3 bootcamps, 1 investment round, and 2 innovation challenges in 2018. Within these events, the solution has raised USD 40000 to impact 1500 youth with in-depth teaching, follow-up and mentoring with experts. Currently, the solution is teaching social entrepreneurship and impacting 150 youth.

ALIGNMENT WITH SDGS

Because this solution hosts events to promote social entrepreneurship in Ecuador, including providing seed funding to qualified young participants, it directly supports Targets 8.3, 8.5 and 8.6. The innovative nature of social enterprises contributes to SDG 9, while the provision of job opportunities to marginalised youth is also linked to SDGs 1 and 10.

| 1 NO POVERTY | 8 DECENT WORK AND ECONOMIC GROWTH | 10 REDUCED INEQUALITIES |

Out-of-School Girls' Entrepreneurial Promotion (HASPEG Organization)

- **Lead:** Faith Nduku Manthi
- **More information:** manthifaith@gmail.com
- **Type:** Non-Profit
- **Location:** Kenya
- **Current Reach:** Kenya
- **Budget:** 10000 - 20000 USD

PROBLEM

In Kilifi County, women suffer more adversely than men from poverty, including lower school enrolment rates and higher dropout rates for girls. Women and young girls are especially vulnerable to inhibitive social and cultural practices. In Kilifi, for instance, the most recent Kenya Demographic Survey Report indicates that 19 percent of girls aged 15-19 have had a live birth, while 3 percent are pregnant with their first child. Nationally, approximately one in five teenage girls between the ages of 15-19 has begun child bearing. Promoting young women's economic empowerment and skills development is a key pillar of this project. Encouraging entrepreneurship is one of the most impactful steps that can be taken in addressing gender disparities in society. Empowering young women with entrepreneurial skills does not make them wage-earners, but also job-creators, something that is imperative in achieving the 2030 Agenda and for eradicating poverty.

SOLUTION

The initiative aims at imparting entrepreneurial and business management skills to out-of-school girls and dropouts. This training programme helps turn their ideas into tangible business opportunities. The selected trainees are trained by trainers from business schools and institutions for six weeks. Thereafter, tools of trade specific to their business area of interest are provided to them, with a clear monthly follow-up and monitoring strategy.

IMPACT

The organisation running the project piloted it in a training conducted in June 2018 at county social hall in Kilifi Town. Twenty out of school girls were trained with exemplary results. Massive interest was displayed through the training and there was so much demand from the girls for further training. Therefore, the team developed the intention and commitment to execute the project at a larger scale, covering more girls and young women in Malindi and then moving to Machakos County during the second year. The pilot project was run successful: eight of the trainees were able to start their own business from the salary they were paid and about eight got employed.

ALIGNMENT WITH SDGS

The project clearly aligns with SDG 5 on Gender Equality as it works with girls, as well as SDG 10 because some of the girls targeted in the program are youth at risk. Providing tools of trade to girls also covers SDG 4 and will hopefully increase the participants' future income, aligning with SDG 1 and 10

School Farms (Reach out to Future Leaders Movement)

- **Lead:** Alfred Godwin Adjabeng/Josephine Agbeko
- **Website:** www.schoolfarms.org
- **Type:** Non-Profit
- **Location:** Ho, Ghana
- **Current Reach:** Ghana
- **Budget:** 5000 - 10000USD

PROBLEM

Rural schools in Ghana are increasingly faced with the challenge of funding school meals due to limited government support, the rise in food cost, and market failures. This challenge is affecting school attendance, student retention, active teaching and learning activities in schools. Also, despite the huge arable land in rural areas, rural young people continue to migrate to urban areas in pursuit of jobs instead of tapping into the potential for agricultural work in their home villages. When properly engaged, young people in rural areas can become the future of food security, yet around the world, few of them see a future for themselves in agriculture.

SOLUTION

The solution provides secondary school students in Ghana with access to nutritious food using the school farm model systems. In particular, it aims to teach community schools to grow organic food that is processed to become daily meals for their students. Students are also offered the opportunity to gain practical agricultural skills for future work through the School Farms Club, which offers training and mentoring. Club participants get the opportunity to enter into School Farm's Best Student Farmer Award Program in which they can undertake an independent agriculture project during school vacations. School Farms collaborates with local schools, community leadership, the Ministry of Food and Agriculture and the local government to commence their program.

IMPACT

School Farms raised 10000 USD in 2017 to develop school farms in two senior high schools in Ghana. Every 2 USD out of the 10000 USD used in farm cultivation equals one year of feeding and gaining practical agricultural skills for each kid in any of the listed schools. School Farms has helped provide school meals to 5000 children in school, achieving its mission of ensuring food availability and access to school meals as the project recognises the link between education, nutrition and skill development.

ALIGNMENT WITH SDGS

The School Farms Project is being utilized within schools to improve nutrition status of students through the consumption of organic staple foods and vegetables grown in farm models at school. This is also aimed at increasing enrolment in secondary schools, and is directly relevant to indicators 2.1("Prevalence of undernourishment (%)") and 4.3 ("Literacy rate of 15-24 year olds, both sexes (%)"). Ghana has achieved no undernourishment and is on track to achieve lower secondary completion rate (%) targets by 2030. Since the introduction of the school feeding program, many parents enrol their wards in school and the complimentary meals offered by the School Farms project keeps many students in school, resulting in a higher percentage of youth completing secondary school and in turn, increasing the literacy rate of people between 15-24 years in Ghana. However, the activities of the School Farms Project also have negative impacts because virgin lands sometimes are cleared to ensure these farm models are made in schools. Therefore, the School Farms Project is also directly contributingto indicator 15.4 ("Annual change in forest area").

Education for Sharing, Inc.

- **Lead:** Dina Buchbinder
- **Website:** www.educationforsharing.org
- **Type:** Non-Profit
- **Location:** Mexico City, Mexico
- **Current Reach:** Bolivia, Guatemala, Argentina, Mexico, New York City (USA)
- **Budget:** 20000 - 50000USD

PROBLEM

According to a 2017 UNESCO report, 246 million children and young people worldwide experience school violence every year. A recent WHO report indicates that about 340 million children and adolescents have overweight or obesity problems.

SOLUTION

E4S (Education for Sharing) contributes to social justice by providing an accessible innovative educational model for any social, economic or political context to ensure that all girls, boys, and teachers receive quality education. Social Emotional Learning encourages playing, reflection, and actions related to challenges such as inequality, violence, or unequal access to opportunities. In order to change the world children need to have self confidence and believe in their own ability to do so. The solution makes this a reality by providing them with the tools to be problem solvers and take action within their communities to work towards the SDGs. E4S programs have a pedagogy that involves the entire community; children, families, teachers, local facilitators, and ambassadors. All these connections help build a social capital, which in turn, fosters long-term impact — an essential aspect of the SDGs.

IMPACT

According to the organisation's own surveys, the solution increased students' confidence about their future by 22%, while their ability to express the ideas in public grew by 10%. 95% of teachers stated that E4S programs improved classroom behavior and decreased violence in their classes. 86% said the program instilled healthy habits among their students. Knowledge of SDGs among students increased by 50%, and the number of students who said they practiced gender equality increased by 24%. The solution fosters an openness to cultural diversity and inclusion. This is especially highlighted during the treasure box exchange project in which children from two different parts of the world create "cultural treasures" and exchange them with those who represent another culture. During the subsequent video call, the students recognize how much they appreciated receiving each other's "treasures". Our project develops active citizens who become local change agents. Many of the solution's beneficiaries have gone on to conduct community service projects.

ALIGNMENT WITH SDGS

E4S as a social justice education provider works on SDG 4. The solution emphasizes capacity building for students to be confident and promote peace. Therefore, it also works on SDG 16. By helping students become more confident and providing them a community to grow, the solution can also contribute to these students' future careers and incomes, thereby aligning to SDG 1, 8, and 10.

Program for Invention and Innovation (Bright Inventors)

- **Lead:** Majed M. Alazzawi
- **Website:** https://www.facebook.com/bright.Invetors/
- **Type:** Non-Profit
- **Location:** Syria
- **Current Reach:** Syria
- **Budget:** 10000 - 20000USD

PROBLEM

There is a big number of young people in Syria who have creative and innovative ideas but are unable to develop those ideas to become tangible inventions and get patents afterwards. The solution was founded to solve this problem in order to help young, aspiring inventors become patent holders.

SOLUTION

The solution aims to train university students in Syria on how to develop their creative and innovative ideas into real, tangible and on-the-ground inventions. It gathers university students from different fields of study and supports them by providing all the tools and instruments they need to establish their own inventions, while also educating them on how to get patents and preserve them at the Syrian Patent department. The project attracted the applicants by opening a professional application form and then selected the best depending on specific criteria. Its 1st initiative for invention and innovation was launched in 2018 and resulted in more than 60 inventions from different fields. The solution partners with NGOs, the private and public sectors and civil societies in order to create a strong network between 9 universities in Syria.

IMPACT

The solution was granted 10000 USD to help implement 60 medical, dental, electrical, engineering and environmental inventions that are firmly related to achieving the SDGs. The program also connected students from 9 universities and built strong relations between them. It could link the civil society in Syria with the international organizations, the private sector and the public sector. Bright Inventors has participated in the Damascus International Fair in September 2018 and has won several awards since then, such as the Golden Medal for the Best Invention from the International Federation of Inventors' Associations in Geneva, Switzerland. The solution has also been awarded the Cham Bank honoring memorial and the Al-Basel Prize from the Minister of Internal Trade and Consumer Protection of Syria.

ALIGNMENT WITH SDGS

By providing inventors the resources they need to develop their ideas, this solution works on SDG 8 directly. As these inventors can then become patent-holders and entrepreneurs, this solution is also consequently aligned with SDG 1 and 8, relating to work and income. Most importantly, however, this solution contributes to SDG 9 (and particularly target 9.2) as it seeks to encourage innovation in developing countries.

How We Work with Youth-Led Solutions for the SDGs: Summary of the Youth Solutions Program's Work in 2018 and 2019

Kira Mullally, Fernanda Martinelli and Sushil Rajagopalan

Ever since its launch in 2015, the Youth Solutions Program has emerged as the largest division of the Sustainable Development Solutions Network's youth initiative (SDSN Youth). Its work aims to overcome barriers to youth-led innovation, focusing on the multiple challenges that prevent young innovators in business, education, research, and the not-for-profit sector from implementing and scaling their projects. Unlike most youth-oriented initiatives, the Youth Solutions Program addresses these barriers to sustainable innovation, which include limited access to finance, lack of mentoring opportunities and business development services, inadequate skills training, and insufficient channels to obtain visibility, in concrete ways. Rather than focusing on one-off grants and innovation challenges, it takes a systems approach. It makes young entrepreneurs more visible, raises awareness of their projects, gives them the business skills they need to take their ideas to scale, and connects them with a community of mentors and experts who can help them refine their projects, attract investors, and achieve their objectives. Further, it specifically addresses the relationship between the SDGs and the potential of young innovators to contribute to their achievement. To increase SDG-aligned action, the Program produces toolkits and resources focused on SDG-based impact assessment, ensuring that young innovators develop effective ways of monitoring their impacts across all 17 Goals. The Youth Solutions Program is also unique in that it combines many of the valuable aspects of a hackathon, an incubator, an innovation lab, a social network, and an advocacy campaign. It covers the full journey of the innovator, from idea to reaching full scale. Much of this work draws on the strength of SDSN Youth Networks: 20 national- and regional-level networks that boast more than 750 member organizations in 85 different countries. With these Networks, the Youth Solutions Program is able to spread messages and engage young people like few other organizations.

With a view to helping young innovators from around the world scale up their contribution towards the achievement of the 2030 Agenda, the Program headed five main initiatives in 2018 and 2019: (i) the Youth Solutions Report; (ii) the Youth Solutions Hub; (iii) the Investment Readiness Program; (iv) the MY DATA initiative; and (v) SDSN Youth's Module on Youth and SDG Data.

1. YOUTH SOLUTIONS REPORT

In 2018, SDSN Youth successfully launched the second edition of the Youth Solutions Report (YSR), which featured 50 new solutions founded by young people from different regions of the world. The preparation of report lasted around 6 months, which included the call for submissions, review of the submitted applications, and report preparation. The production team of the report, consisting of eight team members within the Youth Solutions Program, worked on various aspects and different stages of the report preparation. In its efforts, SDSN Youth collaborated with stakeholders including Fundacao Amazonas Sustentavel, Ashoka, the Barilla Centre for Food and Nutrition, Babele.co, Bayer AG, E4IMPACT Foundation, Luigi Lavazza S.p.A., MIT Solve, the Panorama - Solutions for a Healthy Planet initiative, Sustainia, the Circle of Young Intrapreneurs, The Resolution Project, the UN Major Group for Children and Youth, and Unilever.

The report was divided into two parts, with Part I highlighting the overall global trends of youth-led innovation and its impact across various Sustainable Development Goals (SDGs). For the second edition of YSR, the Solutions Team evaluated over 200 applications from 61 countries, and after careful consideration and evaluation, 50 solutions operating in more than 100 countries were selected to be showcased in the report. Given the urgent need to address socio-economic challenges in developing countries, many of the submitted solutions came from the African and Asian regions. While solutions broadly demonstrated a willingness to contribute to all the SDGs, the predominant ones were SDG 8 (Economic Growth and Decent Work), SDG 4 (Quality Education) and SDG 1 (No Poverty).

Part II of the 2018 Report contained eight different chapters that delved deeper into the discussion of existing opportunities and challenges for youth-led solutions, debating issues ranging from access to finance as the main barrier impeding the scaling of solutions to lack of visibility and limited exposure, and including the role of startup acceleration programs as key actors in the training of young innovators, pathways for youth inclusion in global policy dialogues, the emergence of social intrapreneurship approaches to youth-led innovation, the rise of impact entrepreneurship in Africa, the collaboration between young people and the private sector, and the importance of SDG-based impact reporting and impact assessment strategies for youth-led solutions.

Ever since the publication of the first YSR, the initiative has helped more than 100 youth-led solutions become more visible online, publishing over 50 blog posts, articles and news items on media channels; has offered over 20 young innovators the chance to present their solutions and take part in international conferences and events; has formed 25 partnerships with other solutions-oriented initiatives, foundations or companies.

Youth Solutions Report 2018. Read the full version here:
http://www.youthsolutions.report/read-the-2018-report

2. YOUTH SOLUTIONS HUB

After having innovative SDG-oriented solutions showcased through the YSR, the team of the Youth Solutions Program worked to provide continuous visibility, mentoring and networking opportunities for the young innovators who founded these projects. That was how the Youth Solutions Hub was born: initially as a platform for connecting innovators who had been featured in the YSR, later as a growing 280-member platform for connecting and sharing events, funding and mentoring opportunities, and educational and training materials. Although the YSR remains a fundamental part of the Youth Solutions Program, being selected for it is not anymore a necessary precondition for accessing the Hub community, which represents a wider ecosystem of support for young innovators, their mentors, and any interested partner organisation.

The Youth Solutions Hub launched in October 2018 operates on two essential levels. First, it directly supports youth solutions by centralizing all the relevant funding and event opportunities into a single, free-of-charge, user-friendly online space, and by disseminating their stories through the platform. Secondly, it provides a direct channel of communication between the innovators themselves and a cohort of pro bono mentors. Through the Hub, the Youth Solutions Program ensures that young innovators are connected to fellow innovators, mentors, investors and partners with an interest in their areas of work. Among the mentors and partners who are already contributing to the Hub are SDSN's own web of experts, private sector experts in innovation and social entrepreneurship, and other researchers from academic institutions around the world whose work aligns with the SDG framework. When connected, young innovators are able to communicate their stories, crowdsource ideas, collaborate to better seize financial and innovation opportunities, receive advice and invitations to events which would otherwise be inaccessible to them.
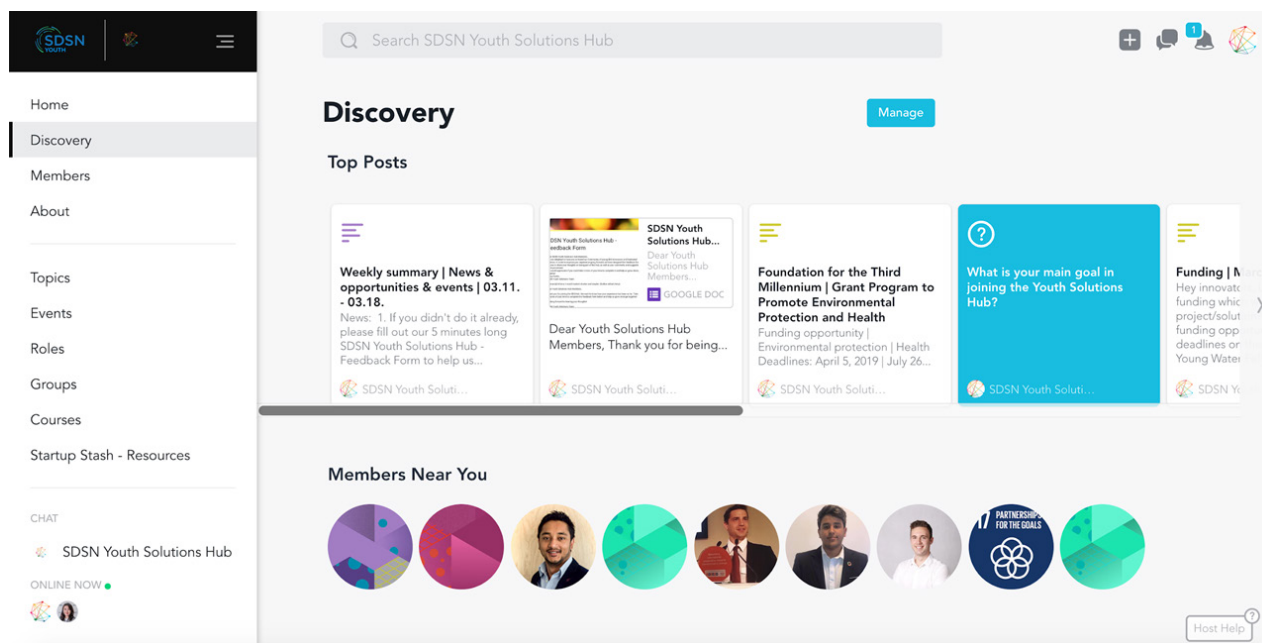
Youth Solutions Hub front page. Find out more at:
https://www.youthsolutionshub.org

Above all, the Solutions Hub intends to shift boundaries by changing the narrative about the role of youth in the 2030 Agenda: instead of being the ones demanding for solutions, the Hub enables them to be the ones building skills and creating solutions to address the world's biggest challenges. As an organisation largely consisting of students and early-career professionals, SDSN Youth itself knows the difficulties facing young innovators. Therefore, its mission is to not only mobilise a network of support for young people, but also to make their solutions more visible and credible through the SDSN brand. The Youth Solutions Program offers equal opportunity for young innovators from all countries to apply, free-of-charge. Moreover, the platform positively contributes to raising awareness among youth communities about the SDGs and the opportunities to concretely engage with them.

3. YOUTH INVESTMENT READINESS PROGRAM

Through discussions with the featured YSR projects, it became apparent that they face many barriers in getting their projects off the ground, or in scaling them up. Common challenges include gaps in the necessary entrepreneurial knowledge or skills, financial constraints, and lack of meaningful networking opportunities.

The Youth Investment Readiness Program (YIRP) was founded to support these entrepreneurs and address these 3 common challenges. It helps them develop the skills needed to launch a successful social business or non-governmental organization (NGO), links them to a network of mentors and peers that can further their objectives, and leaves them with a professional investment deck which can be used to raise funds. The curricula of this 16-week online acceleration program was developed jointly by SDSN, SDSN Youth, and Babele.co, a youth-led consulting firm with a technology focus. The program consists of 3 phases: Define, Market Testing, and Storify. The individual modules are as follows:

Define phase	Market testing	Storify phase
1. Orientation	6. Market Testing and Experiments	12. Stakeholder management
2. Problem, vision, theory of change	7. Revenue Model, pricing & Forecast	13. Negotiation
3. SGD Framework	8. Marketing & Salest strategy	14. Pitch training & SDG storytelling
4. Lean startup and market segment	9. Key metrics & SDG impact assessment	15. Investment proposition
5. Perceived challenges & validation plan	10. Financial modeling	16. Investor deck review
	11. Development Strategy & action plan	

Each week the students listen to a 1-hour lecture by an expert in the field. They then perform a homework assignment in which they apply the week's lesson to their social business or NGO. As they progress through the program, these assignments taken together build up their investment deck. As assignments are completed, they are reviewed by mentors, who are paired with entrepreneurs for the full 16 weeks of the program, and provide tailored feedback on each assignment. Participants who complete all of their assignments before the end of the course also receive feedback from a real-world investor, who looks at their work as a whole. This provides an opportunity to further refine their materials. The lecturers, mentors, and investor-reviewers are all volunteers who are vetted by the SDSN and SDSN Youth to validate their expertise.

Thanks to generous support from Bayer AG, the program has run twice, in the spring and fall of 2018. The spring cohort consisted of 55 students with about 50% of them coming from the 2017 Youth Solutions Report and the other 50% from the 2017 Bayer Youth Ag Summit. Innovators came from over 40 countries. The second cohort consisted of 36 students, again with about half coming from the 2018 Youth Solutions Report and the other half being alumni of earlier editions of the Youth Ag Summit.

As next steps, the Youth Solutions Program team expects to offer the YIRP again in both 2019 and 2020 to participants from both the Youth Ag Summit (2019 program and alumni) and the Youth Solutions Report (2018 and 2019 publications). The team aims to enroll 30 projects in the third and fourth editions, respectively, and expects at least half of the project teams to finish the course with a complete investment deck. SDSN Youth has reached approximately 20 countries each time the program has been offered and it seeks to increase this number, with most of the innovators coming from lower-income countries where entrepreneurial education opportunities are not readily available to this age demographic. Additionally, SDSN Youth plans to continue to improve the quality of the YIRP as well as to explore partnerships with other accelerator programs, so that the graduates of the Youth Investment Readiness Program seeking to learn more can expand their training further.

4. MOBILIZING YOUTH ON DATA FOR ACTION AND TRANSFORMATION IN AFRICA (MY DATA)

SDSN Youth, in partnership with President's Emergency Plan for AIDS Relief (PEPFAR) formed a network of organizations working in the space of youth and SDG data called Mobilizing Youth on Data for Action and Transformation in Africa (MY DATA). MY DATA was formed with three main objectives:

1. **Regular exchange of knowledge and best practices**
2. **Exploration of new and emerging collaborations for youth data engagement; and**
3. **Development of a web page hosting community resources, knowledge, and expertise**

MY DATA was launched at the Data for Development Festival 2018, which was organized by the Global Partnership for Sustainable Development Data (GPSDD) in Bristol, UK from 21 to 23 March 2018. The launch event featured a series of talks from organizations including IREX, dLAB, Ushahidi, Humanitarian OpenStreetMap Team, Youth Advocates Ghana and Youth Advocates Zimbabwe which focused on the theme of young people's contribution to SDG data collection, monitoring, reporting and use. As part of its activities, MY DATA organized a series of conference calls which saw the participation of governments, business, civil society, and academic partners working to directly engage with and mobilize youth in data generation, advocacy, and leadership to advance sustainable development in Africa by 2030. Since its launch, MY DATA has organized six calls with an average participation of 10 organizations during each call. Organizations including IREX, Radiant Earth, Microsoft Philanthropy, YouthMappers, and Leonard Cheshire have shared their experiences and best practices involving youth and data in the form of talks, toolkits and presentations shared during the calls. MY DATA, through its website, has shared various blogs contributed by participating organizations as part of its knowledge generation and dissemination efforts.

5. THE MODULE ON YOUTH AND SDG DATA

Finally, the Youth Solutions Program has also started its efforts to prepare a toolkit on youth and their role in the SDG Data Revolution. The toolkit, which upon publication will be made available to young innovators who seek to align their work with the SDG Indicator Framework (UN Stats 2018), as well as to any stakeholder interested in involving young people in the monitoring of SDG achievement, intends to contribute to the Data4SDGs Toolbox started in 2017 by the GPSDD.[1] On the one hand, the toolkit (called a 'module' in SDSN Youth's parlance) aims to educate young innovators and social entrepreneurs about the SDG Indicator Framework, encouraging them to align their impact assessment activities with the framework in order to better communicate their results, engage with funders, and track their progress. On the other hand, the module will also address the need for policymakers to devise pathways for citizen-generated data to inform SDG implementation and the monitoring of progress. Building capacity for increased youth-led data generation, while also including this data in national and subnational data ecosystems, could lead to youth-led organizations and youth communities to generate a substantial body of knowledge relevant to the SDG Indicator Framework, especially in geographical context where official data capacity is still limited. With these objectives in mind, SDSN Youth has administered a survey and a call for case studies to be included in the module. In consultation with other stakeholders, the Youth Solutions Program team has proposed an outline of the module, and two case studies have been finalized to be included in the module. The module is now scheduled to be released by the end of December 2019.

1 See http://www.data4sdgs.org/index.php/resource-listing (accessed 17 August 2019).

REFERENCES

UN Stats (2017). Global Indicator Framework for the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development. A/RES/71/313. New York: United Nations.

PART II

ROLE AND CHALLENGES OF YOUTH-LED INNOVATION IN THE IMPLEMENTATION OF SELECTED SDGS

Youth Involvement in the Voluntary National Reviews and at the HLPF

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CHAPTER
04

INTRODUCTION

When properly engaged, young people can make positive impressions across the sustainable development arena by utilizing their unique energy, ideas and contemporary worldviews that are more informed and sensitive to the most pressing issues of today—and their position as the inheritors of the future. This extends to the follow-up and review (FUR) of the 17 Sustainable Development Goals (SDGs) set by the United Nations (UN) General Assembly in 2015.

FUR is defined as a systematic assessment of progress, which can be instrumental in guiding and accelerating achievement of the SDGs, including through improved accountability and mobilization of support.

The main responsibility for FUR lies with national governments that have certain modalities to report on implementation, with the main one being the Voluntary National Review (VNR). VNRs are voluntary, country-led assessments of progress towards the 2030 Agenda at the national and sub-national levels. These reviews are intended to be both regular and inclusive, as well as serve as a basis for a global assessment at the High-level Political Forum (HLPF)—the apex United Nations (UN) body on sustainable development—held annually in New York under the auspices of the UN Economic and Social Council in July and every four years under the auspices of the General Assembly.

The scope of the examination is expected to be broad: reflecting on national priorities and circumstances, reporting on actions taken to advance implementation and the progresses that have been made. By sharing experiences, best practices and lessons learned, the preparation of the report can spark multi-stakeholder support that improves awareness around the SDGs and the 2030 Agenda across governments and societies. Furthermore, it provides a chance to anchor sustainable development at the highest political level under the guidance of key ministries. However, data availability and reliability remain a major constraint. This is often linked to the availability of funds, internal capacity and other resources to overcome data gaps.

Putting emphasis on the comprehensive and inclusive nature of the 2030 Agenda, VNRs involve a broad range of actors not only in the preparation of the report itself but also in the overall SDG endeavours. Local governments, youth, academia, volunteers, the private sector, and civil society organizations are all contributing to effective implementation with several references to their active role in the reports.

At the country level, the UN system has often been tasked with assisting member States with the reporting in several ways such as, facilitating of consultations with different stakeholder groups like children, adolescents and marginalized groups. In several cases, consultations with young people have been supported by the United Nations Children's Fund (UNICEF) to ensure that children's and adolescents' perspectives are reflected in the report.

So why is youth involvement in the VNRs specifically important?

As key drivers of innovation and change and one of the world's largest stakeholder groups, youth involvement in FUR is vital to ensuring both the effectiveness and inclusiveness of the review process.

Agenda 21 as a critical predecessor of the 2030 Agenda that was adopted by UN member states in 1992 made it clear that sustainable development cannot be achieved without the active participation of and partnership with key stakeholder groups. According to Agenda 21 and subsequent agreements, these "major groups and other stakeholders" encompass social groups such as women, indigenous peoples, workers and trade unions, persons with disabilities, older persons, and of course, children and youth. Young people intersect all other central rights holder groups except for older persons. Young people can be women or be of diverse sexual orientation and gender identity; they can be workers and trade unionists; they can be indigenous or live with disabilities. They can help bring radical, fresh, effective, and representative perspectives to the work of operationalizing complex global agreements on sustainable development and ensure a coherent FUR process.

In addition to the intersectionality of youth, there is also a mathematical element to their importance. The world is facing an ever-growing youth bulge; populations, especially in developing countries, are becoming younger and younger. This demographic reality means that young people are now, more than ever, an absolute necessity to changing how the world works. As young people make up larger proportions of their countries, their contributions to society become ever more essential and their need to drive sustainable development becomes more critical. Without their active participation, a whole of society approach cannot be achieved, and governments will fail to live up to their commitments to meaningfully engage people in sustainable development implementation and review.

In addition, youth can offer unique skills and creativity that can be leveraged. One venue for harnessing this is through volunteerism. As such, it is duly important to examine the role of volunteers in FUR. Volunteers not only represent one of the various potential youth subsets but are also a key group for empowering and engaging other young people. Volunteering is regarded as a powerful means to engage all people to work together to deliver the 2030 Agenda, which recognizes the vital role played by volunteers in a range of fields, from post-disaster reconstruction to the provision of technical assistance. With over 1 billion active volunteers—many of which are youth— making economic and social contributions to development processes globally, volunteers represent a massive and influential stakeholder group. Therefore, the UN actively encourages member States to track and recognize the role of volunteers in the implementation of the 2030 Agenda through a series of resolutions. As a result, references to volunteerism in the VNRs continues to increase. However, how can volunteers make contributions towards the VNR's development?

Volunteers have a unique advantage when it comes to harnessing the participation of individuals and communities, particularly those who are at risk of being left behind, such as children and youth. Thus, volunteers represent a tool that can be utilized to ensure a whole of society approach in the VNR process. Moreover, their data collection ability can help fill the data gaps in the VNRs and, depending on the volunteer, assistance. These are the reasons why, volunteers should be prioritized in the VNR preparations and should be viewed as essential complements to youth involvement and one vehicle through which youth can become involved, as will be referenced later in the chapter.

For now, let us take stock of youth involvement in the VNRs since the first report was submitted at the HLPF back in 2016.

Youth Involvement in the VNRs: An Overview

As key drivers of innovation and change and one of the world's largest stakeholder groups, youth involvement in FUR is vital to ensuring both the effectiveness and inclusiveness of the review process.

There have been 158 VNRs since 2016 with an additional 46 planned for 2020 and 2 planned for 2021, representing most UN member States. Youth engagement in the VNR process has been somewhat wanting and lacking in dynamism. There is often little clarity on the terminology of youth and insufficient details concerning how youth and children were consulted, including follow-up actions as results of the consultation. In addition, youth consultation in the VNRs does not imply youth collaboration on the VNRs, nor are the terms of involvement in this context necessarily controlled by the youth.

Nevertheless, that is not to say that youth involvement has been absent. In fact, 60 percent of all VNRs submitted in the first triennium (2016-2018) referred to consultations with youth and children. The 2019 HLPF, held under the theme empowering people and ensuring inclusiveness and equality, saw an increase in child and young people' participation in all areas of the forum, including VNR presentations. ECOSOC President Mrs. María Fernanda Espinosa Garcés remarked that this shall be the new standard in the UN, with youth and children more actively involved in future meetings.

Regardless of their quality, countries are still commended for this consultation and can build off this foundation in subsequent VNRs as well as learn from other cases where youth involvement in the VNRs was both clearer and more robust. Some countries where youth involvement in the VNR process was noted more generally include Ethiopia, Indonesia, Lesotho, Madagascar, and Thailand. Countries where youth involvement was noted to be particularly strong or that made concerted efforts to consult the youth are Afghanistan, Australia, Belgium, Cambodia, Egypt, Guatemala, Ireland, Jordan, Laos, Mexico, Mongolia, Netherlands, Slovenia, and Tanzania. For example, for their VNR, the Government of Afghanistan conducted around 50 workshops with national and international stakeholders including youth and students.

As the VNRs are a not a singular process, there are other opportunities for youth to become involved outside of the creation or preparation of the VNR itself. For example, during the 2017 HLPF, youth delegates from Belgium, Denmark, and the Netherlands among other countries were given a space to highlight their involvement in preparing the VNRs. Likewise, Australia, Ireland, Jordan, Mexico, Slovakia, and Switzerland each included a youth representative in their delegation to co-present the VNR at the 2018 HLPF.

In addition, youth from Australia, Belarus, Belgium, and the Netherlands have submitted independent statements regarding the VNR process. The statement issued by the Belarusian National Youth Council (RADA) in 2017 highlighted the exclusion of major groups such as youth in the VNR preparations, despite Belarus' VNR highlighting active youth policy among its priorities. A lack of official government recognition, as in the case of RADA, remains one of the challenges facing some youth groups who may be interested in becoming involved in the VNR preparations. Going further, shadow reporting has also been conducted by youth in several cases. For example, Amit Timilsina, President of the Nepalese youth-empowerment organization YUWA, engaged in shadow reporting for Nepal's 2017 VNR. Her organization also took a more proactive, rather than reactive role in driving Nepal's VNR consultations. According to Timilsina, "At YUWA, we have held the government in Nepal accountable for the SDGs by engaging in consultation processes for the 2017 Voluntary National Review."

Case in Focus

Tanzania

Tanzania presented its first VNR at the 2019 HLPF. In the months preceding the drafting of the main report, a youth consultation was held under the theme "Leave no youth behind". The session centred on the SDGs that have been identified by the World Youth Report as having the highest impact on youth: SDG 3 - Good Health and Well-Being; SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8 - Decent Work and Economic Growth; SDG 10 -Reduced Inequalities; and SDG 16 - Peace, Justice and Strong Institutions. The meeting, which was organized in collaboration with the UN Association, Restless Development, Mulika Tanzania, the African Youth Adolescents Network on Population and Development, and the UN Population Fund (UNFPA), saw the active participation of 50 youth-led and youth-serving organizations working across mainland Tanzania and Zanzibar. At the session, key questions guided the consultation to ensure that youth priorities are realized. They included identifying challenges facing youth, effective means of youth engagement, and best practices and innovations from youth organizations for the SDGs. Its results were incorporated in the VNR and presented at the HLPF.

Australia

Australia applied a whole of society approach throughout the VNR consultation process, seeking inputs from the broader society, including youth and volunteer groups. To this end, their first VNR presented in 2018 is notable, having dedicated sections describing how youth and volunteers are actively participating in the implementation of the 2030 Agenda. The Government partnered up with different stakeholders, such as SDSN, to broaden the reach of the consultation by leading the youth discussion. The report acknowledges the key role played by youth-led initiatives in mobilizing resources and raising awareness about the global goals as well as volunteerism as a tool to bring local communities on board and promote inclusiveness.

Lao PDR

In Lao PDR, the Government, through a concerted effort, conducted several consultations in three different provinces to seek inputs from stakeholders for its 2018 VNR. These stakeholders included both volunteers and youth groups. The report cites numerous ways these groups can positively contribute to achieving the SDGs: raising awareness about the global goals, becoming active players embracing a whole of society approach; becoming role models for younger generations, to enhance community involvement; and contributing to specific goals, like the Youth Resource Centre, run by volunteers that work to empower vulnerable young groups, disadvantaged families, and victims of human trafficking.

Mongolia

Mongolia presented its VNR in 2019. The report mentions "Leaving No One Behind" as its guiding principle and specifically mentions, among other groups, children and youth at risk of being neglected. Focus group discussions were held among identified key groups at-risk in March of that year. The youth group discussions, facilitated by World Vision and UNICEF, informed a segment of the report on air pollution, which is one of the most pressing issues facing Mongolian children and youth.

Singapore

Singapore underwent its first VNR in 2018. In order to raise awareness about the SDGs and encourage youth involvement in the overall process, the Government launched a youth video competition on the SDGs with the intent to collect young people's opinions on solutions related to the goals under review at the 2018 HLPF: SDG 6 - Clean Water and Sanitation; SDG 7 - Affordable and Clean Energy; SDG 11 - Sustainable Cities and Communities; SDG 12 -Responsible Consumption and Production; SDG 15 - Life on Land; and SDG 17 - Partnerships for the Goals. Young people were asked to share their ideas on how to tackle the challenges that Singapore faces in relation to those goals. The video contest was quite successful, attracting a high number of entries from students and covering multiple topics.

Belgium

Belgium has promoted active youth engagement in policy and decision making via multiple channels such as local, regional, and school councils. The government regards youth councils as a strong way to connect authorities with younger generations, keeping them informed about their capacities within the 2030 Agenda and promoting intergenerational solidarity. The VNR cites several measures that these councils have adopted to promote alignment of their activities to the SDGs; for instance, through campaigns to reduce inequalities within and beyond educational systems, fostering green practices at universities, encouraging ownership towards the goals and creating job opportunities. In addition, Belgium's official youth delegate highlighted the formal participation of youth in the VNR at the 2017 HLPF.

Denmark

To broaden and strengthen youth participation in the FUR process, Denmark relaunched the national UN Youth delegate programme in 2015, collaborating with the Ministry of Foreign Affairs and the Danish Youth Council (DUF). This was highlighted in their 2017 VNR in a chapter by the DUF that elaborates on its role in promoting sustainable and inclusive societies and its core values, such as participation, dialogue, inclusion, influence, and volunteerism. Denmark's official youth delegate was also given space to underscore Danish youth's participation in the VNRs.

Netherlands

The Netherlands includes youth among the implementing partners section of its first VNR, stating that younger generations are highly involved in achieving the goals and paving the path to 2030. The Government has appointed youth representatives and the National Youth Council is carrying out awareness raising activities about the SDGs, especially on topics of main concern for young people, such as climate action and sustainable development; quality education; health, wellbeing and healthy cities; equality; and labour market. The Dutch Youth Council drafted a 10-page paper on youth's perception on the status of the goals in the country, based on consultations with the Council's youth constituency. This formed a part of the final VNR, including the proposed recommendations on youth engagement. In addition to this, the 2017 VNR was co-presented at the HLPF by the Dutch UN Youth Representative for Sustainable Development.

Ireland

Similarly, Ireland has been widely praised for involving youth voices among their delegation at the 2018 HLPF. Ireland is often regarded as a front runner for children and young people's inclusion in the implementation of the SDGs. Youth groups, in fact, not only participated in the country's VNR through the National Youth Council but were also invited to partake in a series of consultations and workshops to share their perspectives on the SDGs. Their views were captured in a report led by the Department of Children and Youth Affairs, on the SDGs through the lens of a child, presented by a youth delegation at the UN Youth Forum in April 2019.

Serbia

Serbia included the views of young people as a core element of its first re-view in 2019. To reinforce the central role that young generations have in the development of the country, a youth delegate was invited at the HLPF to introduce a short clip showcasing youth views on the SDGs. UNICEF country office organized a mobile journalism workshop in support to the VNR consultation process, to gauge perspectives of young people aged 15 to 24, from across the country, on how their communities are making progress towards the SDGs. Results of the discussions formed part of the final report.

Slovenia

The National Youth Council of Slovenia was consulted and provided with the opportunity to contribute throughout the preparation and the presentation of the VNR in 2017. The report included a special section on youth in Slovenia in the context of the 2030 Agenda, drafted by the National Youth Council itself. The report consisted of two parts: a reflection on the sustainable development work done by the national government from a youth perspective and a commitment from the youth to actively engage in the achievement of the global goals. The chapter highlighted both the challenges faced and strengths of Slovenian youth.

Egypt

For its second VNR, in 2018, Egypt also held extensive stakeholder consultations, including with youth groups. A dedicated initiative called "The Youth Sustainable Development Initiative" was launched to increase youth participation in the review process, create a platform to enhance the communication among youth groups and the Government, and build capacities for young generations to become future leaders. To widen the outreach and scope of the consultation, a mobile application—"Sharek" ("Participate")—was also launched as a digital platform to increase youth participation in the review process.

Jordan

Jordan's 2017 VNR acknowledges the importance of youth and volunteers in SDG implementation and monitoring, including the Government's commitment to strengthening the role of youth in volunteerism and community service. The report dedicates a whole paragraph to the importance of engaging youth as global citizens and recognizes the needs for capacity building for volunteers. According to the report, Jordan paid "special attention" to ensure the inclusion of children and women in the VNR through meetings and workshops. Jordan's youth delegate also co-presented the VNR at the HLPF.

Ecuador

Ecuador's first VNR in 2018 provides a good view on child- and youth-related goals and targets. UNICEF country office supported consultations with children, adolescents and youth to capture their voices and ideas on the national development strategy and on the overall 2030 Agenda and the SDGs. Through focal point groups and advocacy efforts with local and national government, the information collected on young people's perspectives and perception were shared with the National Secretary of Planning, the government body in charge of producing the VNR, to be included in the civil society section of the VNR.

Guatemala

Guatemala in its 2017 VNR noted the importance of consulting with children and youth, including individual sections dedicated to children and youth perceptions for the goals under review at the 2017 HLPF: SDGs 1,2,3, 5 and 9. To this end, similarly to Ireland, Guatemala utilized the U-Report, a social messaging tool and initiative of the UNICEF to engage young people around the world, discuss topics and issues that matter to them, conduct surveys on various topics pertaining to the SDGs in general and more specifically explore topics under in-depth review. The results of the online polling formed part of the report.

Institutionalization of Youth Involvement

Institutionalizing youth involvement is required for the best and sustained results. Without it, replicating and building off the above cases will prove difficult indeed. The institutionalization of engagement can be complex and can vary based on the nature and culture of society. Nevertheless, there are several key features that help define what institutionalized engagement looks like.

Institutionalization requires a social and political embrace of people's participation in decision-making, where stakeholders are partners in governance, and the democratic process moves far beyond scheduled elections. Institutionalization is not a simple, quick process. It is something that does not often work well with the status quo in many countries. Nevertheless, by institutionalizing engagement, by modifying the machinery of the state and society, a country will be in line with its 2030 Agenda commitments, as well as move closer to making its sustainable development priorities a reality.

According to literature, there are seven areas of society that are critical to help bring about more formal, institutionalized engagement. These include:

- A legislative mandate for participation;

- Safe, accessible physical spaces;

- Broader access to technology;

- A facilitation infrastructure;

- Organization infrastructure;

- A trustworthy, fact-based media;

- Robust civic education.

At the core of these areas is the need for political will to realize stakeholder engagement, in truth, and public participation in society. A legislative mandate is number one on the list because if the government moves to formulate a policy on stakeholder engagement, this means that the state is taking serious steps towards ensuring that participation is a cornerstone of how society operates. From this legislative mandate, the foundation upon which mechanisms for stakeholder engagement can be built, upon which participatory infrastructure and robust educational curricula can help students and young people become political actors and institutionalization becomes a real possibility.

Young people need specific support when it comes to meaningful participation and institutionalization of engagement because, often, youth lack the capacity to fully engage in their societies. They are one of the most marginalized groups and therefore require the permanence and transparency afforded by institutionalization to best participate seriously in their societies. Governments must work with young people and move to carry out the above areas about the achievement of sustainable development and to maximize the potential of youth in policy making.

In many countries, self-organized national youth councils are supported by the government, as seen in some of the country cases, and provide the space to bring youth-led and youth-serving organizations together to have a collective voice in society. Youth councils present governments with a meaningful, democratic, and representative partner in the work of reviewing progress on the implementation of the 2030 Agenda.

Get Involved! What can you do?

So, what can you do to influence your country's VNR?

As already mentioned, many VNRs are informed in part by consultation with national youth counsels or assemblies in an institutionalized capacity.

Membership in these organizations can offer youth a direct line to the VNRs and their reporting governments and are steppingstones for more substantive involvement by the reporting government. Some governments also have a UN Youth Delegate Programme such that young people's views are represented in their official delegations. Through this, certain youth have had the ability to co-present the VNRs at the HLPF. If no such programme exists, the UN Department of Economic and Social Affairs suggests collaborating with other youth organisations to lobby for one.

However, while institutionalization of youth engagement at the impetus of the government and in partnership with relevant stakeholders is necessary to ensure the greatest outcomes for youth involvement, there are other existing venues for youth to become involved in the VNR process. For example, if youth are not consulted or are otherwise inadequately involved, they are advised to reach out to their government representatives and lobby to become involved, highlighting the contributions they can make in supporting the process. They can also go a step further and organize their own consultation, both online and offline. In the Digital Age of today, where technology has the unparalleled ability to empower people and is, online consultation deserves special attention. Not only can youth drive their own e-consultations, they can lobby for their government to do the same. Furthermore, this can be a more inclusive option when compared with offline consultations. Already, Iceland has gathered the views of various parties on the government's e-consultation portal, the feedback of which was considered when writing their VNR. Meanwhile, Guatemala used the online U-Report initiative.

Many governments also facilitate official civil society consultations as part of their VNR processes. Therefore, affiliation with a civil society organization can offer youth another direct line to the VNRs. Similarly, volunteer groups offer another venue of participation. Volunteerism is gaining increasing attention for its major role in implementing the 2030 Agenda and this has been reflected in the VNRs. Through volunteerism, youth can play a critical role in bridging reporting gaps in the VNRs and in mobilising other youth. Furthermore, submitting a statement on the VNRs or conducting a shadow report is also an effective way for youth organizations to highlight their recommendations and viewpoints outside of the VNR itself. Meanwhile, creativity remains one of youth's greatest capitals. As such, youth can also engage in creative expression, such as they had through Singapore's video contest.

Last, fostering solidarity and building partnerships can be a significant enabler and catalyst for youth empowerment in the context of their involvement in the VNRs.

By sharing ideas and experiences with each other, the government, and other stakeholders; the youth can contribute to its own empowerment in the VNR process (and in an increasingly meaningful manner) including its institutionalization.

Conclusion

In order to ensure a whole of society approach and to harness the unique perspectives and contributions of youth in the implementation of the 2030 Agenda, it is critical that they be seen as partners in the FUR process and that their involvement in the VNRs and beyond is institutionalized. Also, in the absence of this, youth are encouraged to take charge and promote change. Already, youth have made contributions to the VNRs to various degrees and in different capacities although their involvement has been non-existent or marginal in some cases. In others, it has been more substantive through either official consultation and collaboration or through independent youth-led initiatives such as shadow reporting. Either way, there are several venues for youth to become involved, such as through national youth councils, other youth organizations, volunteerism, civil society, and independent action. Finally, national governments would do well in their reporting processes to follow examples where youth involvement in the VNRs was noted to be relatively strong as highlighted in this chapter's country cases.

REFERENCES

Agenda 21 (1992). Strengthening the Role of Major Groups. Available from: https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf (accessed July 2019), paras 23.1-23.4.

Gillette, K. et al. (2018). European Youth Organizations' Contributions to the 2030 Agenda. *European Youth Forum*. Available from: https://www.youthforum.org/sites/default/files/publication-pdfs/YFJ%20Study%20Layout_Ines.pdf (accessed July 2019).

Lebada, A. (20 July 2017). Youth Discuss Role in VNRs, HLPF. *SDG Knowledge Hub*. Available from: http://sdg.iisd.org/news/youth-discuss-role-in-vnrs-hlpf/ (accessed July 2019).

Lukensmeyer, C.J. with Wendy Jacobson (2012). *Bringing Citizen Voices to the Table: A Guide for Public Managers*. San Francisco: Jossey-Bass.

Mulika Tanzania (1 April 2019). Leave NO youth behind: The National SDGs Youth consultation workshop to inform the Voluntary National Review (VNR) of the United Republic of Tanzania. Medium. Available from: https://medium.com/@mulikatanzania/leave-no-youth-behind-the-national-sdgs-youth-consultation-workshop-to-inform-the-voluntary-720193524d3d (accessed July 2019).

PRB (2018). 2018 World Population Data Sheet With Focus on Changing Age Structures. Available from: https://www.prb.org/2018-world-population-data-sheet-with-focus-on-changing-age-structures/ (accessed July 2019).

RADA (10 July 2017). Statement of the Belarusian National Youth Council "RADA" regarding the voluntary national review of the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals that Belarus is undergoing at the High-Level Political Forum (HLPF) at the UN Headquarters in New York, July 10-19, 2017. Available from: https://www.youthforum.org/sites/default/files/2017-11/10.07.2017-ENG_Statement-of-the-Belarusian-National-Youth-Council---RADA--4.pdf (accessed July 2019).

Rajagopalan, S. (25 August 2017). The 2017 High Level Political Forum: A Growing Awareness on the Role of Youth. *SDSN Youth*. Available from: https://sdsnyouth.org/blog-posts/2017/8/24/a-growing-awareness-on-the-role-of-youth?rq=VNR (accessed July 2019).

Restless Development. Youth Power: Powering the Voluntary National Reviews. Available from: https://restlessdevelopment.org/file/print-version-vnr-powerpack-pdf-1 (accessed July 2019).

Risse, N. (6 June 2019). Asia-Pacific VNRs to Address SDG Institutional Arrangements, Engagement, Initiatives. *SDG Knowledge Hub*. Available from: https://sdg.iisd.org/news/asia-pacific-vnrs-to-address-sdg-institutional-arrangements-engagement-initiatives/ (accessed July 2019).

SDSN Youth (2018). Final Statement Youth sector consultation towards Australia's Voluntary National Review on Agenda 2030 and the SDGs. Available from: https://static1.squarespace.com/static/57610ab18a65e2414e2f-561f/t/5ac2e322352f533cbdc15b31/1522721574492/Youth-VNR-Consultation-Final-Statement.pdf (accessed July 2019).

https://restlessdevelopment.org/file/print-version-vnr-powerpack-pdf-1 (accessed July 2019).

Together 2030 (2017). Voluntary National Reviews: What are countries prioritizing? Available from:
 https://www.together2030.org/wp-content/uploads/2017/07/FINAL-Together-2030_VNR-Main-Messages-Review-2017.pdf (accessed July 2019).

UNFPA (16 April 2019). Leaving no youth behind in Tanzania. Available from: https://tanzania.unfpa.org/en/news/leaving-no-youth-behind-tanzania (accessed July 2019).

UNICEF. The Agenda 2030 Unit (2017). An analysis of the reports of the 43 governments who presented a national review, from a child rights lens. New York: UNICEF.

UNICEF. The Political and Public Partner Advocacy Hub (2018). *An analysis of the reports of the 46 governments who presented a national review, from the lens of children and young people*. New York: United Nations.

UNICEF. The U-Report. Available from: https://www.unicef.org/innovation/U-Report (accessed July 2019).

United Nations. Division for Sustainable Development (DSD) Department of Economic and Social Affairs (DESA). (2017). Synthesis of Voluntary National Reviews 2017. Available
from: https://sustainabledevelopment.un.org/content/documents/17109Synthesis_Report_VNRs_2017.pdf (accessed July 2019).

United Nations. Division for Sustainable Development (DSD) Department of Economic and Social Affairs (DESA). (2018). Synthesis of Voluntary National Reviews 2018. Available from:
https://sustainabledevelopment.un.org/content/documents/210732018_VNRs_Synthesis_compilation_11118_FS_BB_Format_FINAL_cover.pdf (accessed July 2019).

United Nations. Division for Sustainable Development (DSD) Department of Economic and Social Affairs (DESA). (2018). Voluntary National Reviews Database. Available from: https://sustainabledevelopment.un.org/vnrs/ (accessed July 2019).

UN Volunteers (2019). Reflecting Citizen Contributions through Volunteering in Voluntary National Reviews 2019. Available from: https://sustainabledevelopment.un.org/content/documents/21105UNV_Knowledge_Exchange_Final.pdf (accessed July 2019).

UN Volunteers (October 2018). Volunteerism and the SDGs. PowerPoint Presentation. Available from: https://www.unescap.org/sites/default/files/Session%208%20-%20Volunteerism%20and%20the%20SDGs_SSWA%2001102018_short.pdf (accessed July 2019).

Young Innovators Promoting Lifelong Learning Opportunities for All:
Current Challenges and Opportunities

Anne Brigitte Lim *(Teach for the Philippines Alumna)*
and Nelya Rakhimova *(Openskhola)*

CHAPTER

05

INTRODUCTION

In many countries, youth lack proper channels to fully engage in development practices. However, young people still want to and are already contributing to the resilience of their communities. Throughout the years, they have proposed innovative solutions that have driven social progress and inspired political change, as highlighted in the previous editions of the Youth Solutions Report (SDSN Youth, 2017; 2018). However, none of these would have been possible without access to proper education. According to the United Nations (UN) "provided with the necessary skills and opportunities needed to reach their potential, young people can be a driving force for supporting the development and contributing to peace and security" (United Nations, 2019). In other words, education is a key element for youth development and to achieve the SDGs.

5,274,181 votes for All Countries & Country Groups / All Genders / All Education Levels / Age Group (16-30)

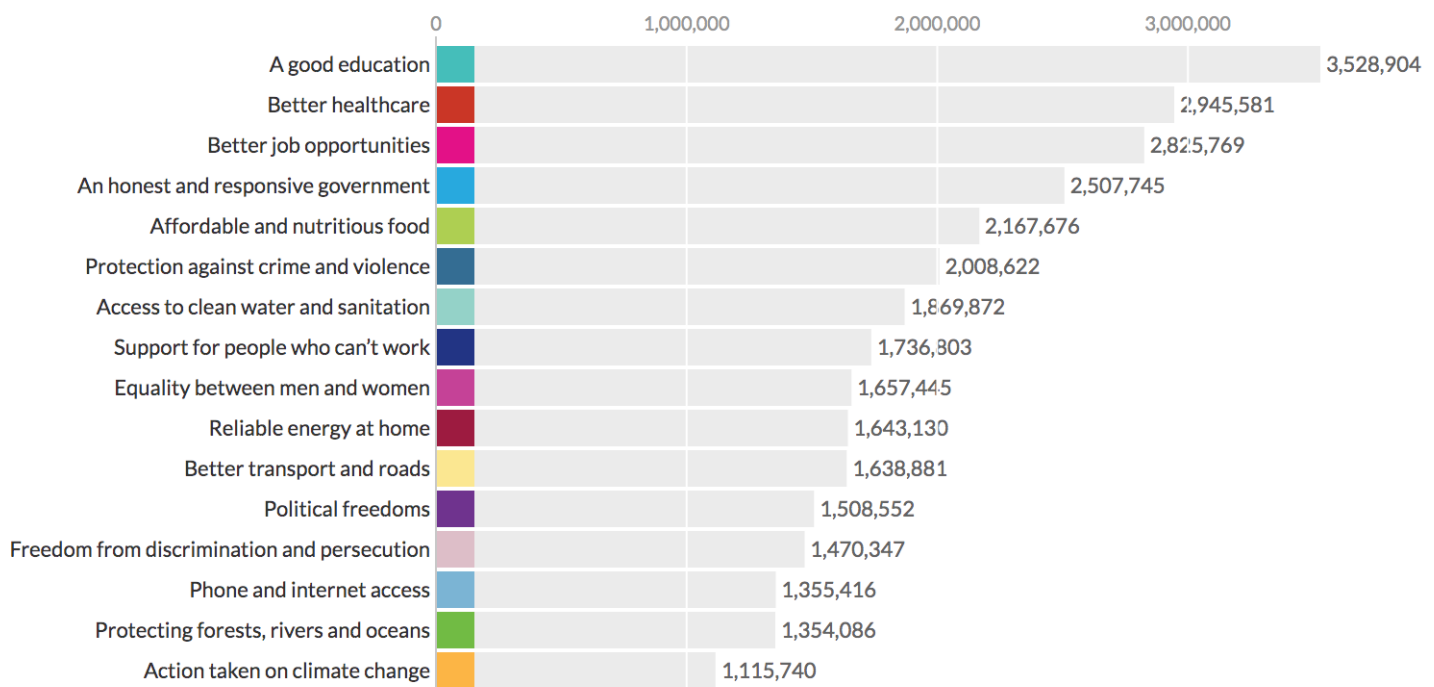| Issue	Votes
A good education	3,528,904
Better healthcare	2,945,581
Better job opportunities	2,825,769
An honest and responsive government	2,507,745
Affordable and nutritious food	2,167,676
Protection against crime and violence	2,008,622
Access to clean water and sanitation	1,869,872
Support for people who can't work	1,736,303
Equality between men and women	1,657,445
Reliable energy at home	1,643,130
Better transport and roads	1,638,881
Political freedoms	1,508,552
Freedom from discrimination and persecution	1,470,347
Phone and internet access	1,355,416
Protecting forests, rivers and oceans	1,354,086
Action taken on climate change	1,115,740

Figure 1. Results of the MYWorld2015 Global Survey in numbers. Most important issues to people between 16 and 30 years old and their families are illustrated in descending order, with "A good education" being the most important. Source: MYWorld2015 (2013).

In 2013, young people worldwide confirmed the importance of a good education through the UN's MYWorld2015 Survey.[1] In one question, the survey asked citizens to vote for the top 6 out of 16 issues that were most important to them and their families – from better healthcare to clean water and sanitation, to freedom from discrimination. The results from this question (Figure 1) show that over 5 million young people aged between 16 and 30 around the world highlighted that a good education is one of the most important things for them and their families. In addition, almost 67% of respondents replied that a good education is an important aspect of their life. The results of this survey were used in planning the post-2015 process, defining the Agenda 2030 and creating the Sustainable Development Goals.

In 2013, young people worldwide confirmed the importance of a good education through the UN's MYWorld2015 Survey. In one question, the survey asked citizens to vote for the top 6 out of 16 issues that were most important to them and their families – from better healthcare to clean water and sanitation, to freedom from discrimination. The results from this question (Figure 1) show that over 5 million young people aged between 16 and 30 around the world highlighted that a good education is one of the most important things for them and their families. In addition, almost 67% of respondents replied that a good education is an important aspect of their life. The results of this survey were used in planning the post-2015 process, defining the Agenda 2030 and creating the Sustainable Development Goals.

TOTAL VOTES 346,412

ARE YOU AWARE OF THE SUSTAINABLE DEVELOPMENT GOALS?   YES 210,963   NO 135,309

WHICH SIX OF THE FOLLOWING GLOBAL GOALS ARE OF IMMEDIATE CONCERN TO YOU AND YOUR FAMILY?

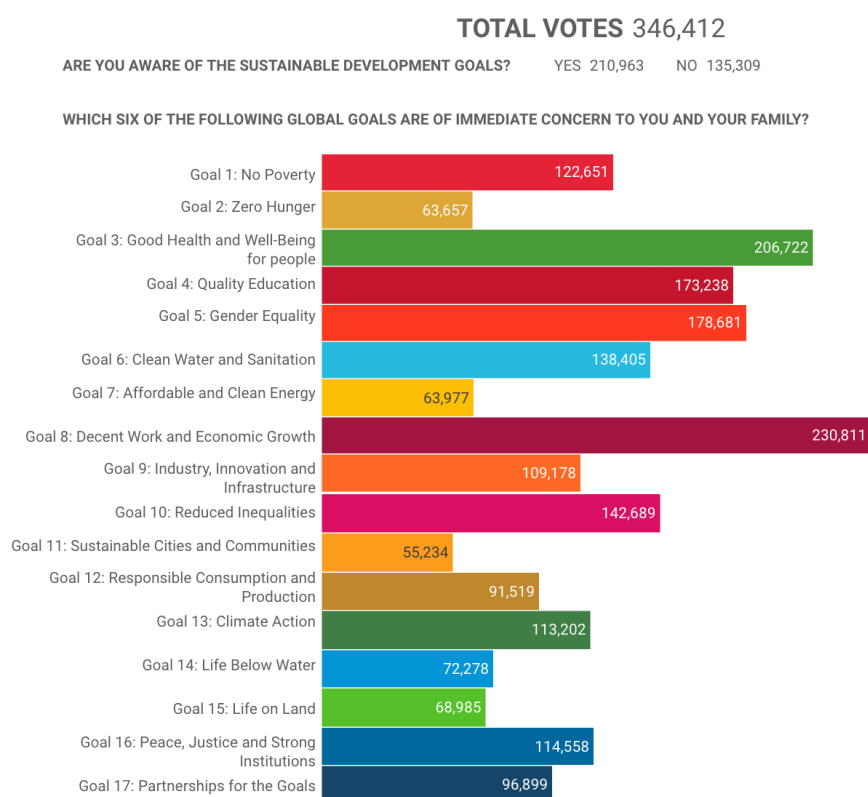| Goal	Votes
Goal 1: No Poverty	122,651
Goal 2: Zero Hunger	63,657
Goal 3: Good Health and Well-Being for people	206,722
Goal 4: Quality Education	173,238
Goal 5: Gender Equality	178,681
Goal 6: Clean Water and Sanitation	138,405
Goal 7: Affordable and Clean Energy	63,977
Goal 8: Decent Work and Economic Growth	230,811
Goal 9: Industry, Innovation and Infrastructure	109,178
Goal 10: Reduced Inequalities	142,689
Goal 11: Sustainable Cities and Communities	55,234
Goal 12: Responsible Consumption and Production	91,519
Goal 13: Climate Action	113,202
Goal 14: Life Below Water	72,278
Goal 15: Life on Land	68,985
Goal 16: Peace, Justice and Strong Institutions	114,558
Goal 17: Partnerships for the Goals	96,899

Figure 2. Results of the MYWorld2030 survey in numbers. Most important SDGs to people between 16 and 30 years old and their families. Source: MYWorld2030 (10/08/2019).

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1 The MYWorld2015 Survey was the United Nation's public online survey that aims to "capture people's voices, priorities and views, so world leaders can be informed as they begin the process of defining the next set of global goals to end poverty". See http://data.myworld2015.org/ (accessed 12 September 2019). For the current MYWorld2030 Survey, which builds upon its predecessor, see http://about.myworld2030.org (accessed 12 September 2019).

Despite acknowledging the importance of having a good education, many young people evaluate the current situation with education as stable or worse. From the graph we can see that only 19% of the global youth population can say that education in their communities has improved in the last 12 months, 36% sees it as stable, while almost 40% indicate a negative trend: education in their communities is getting worse.
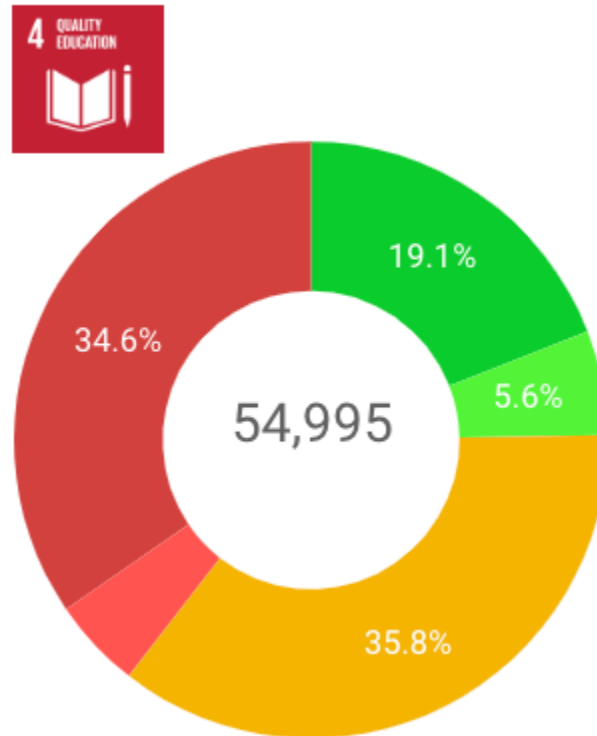

Figure 3. Percentage of people between 16 and 30 years old evaluating if the situation with SDG4 got better, stayed the same or got worse over the past 12 months (respondents who highlighted SDG4 as the most important to them and their families). Source: MYWorld2030 (10/08/2019).

With this looming problem of education getting worse in communities, young people have been taking more initiatives to improve the situation. Worldwide, local and international youth-led organizations have been working to create opportunities for lifelong education for people from different generations and sectors. These organizations help members from all walks of life receive quality education--starting with education for the youngest at preschools, to their peers and even to the elderly in their communities. Young people see SDG4 not only as a challenge for themselves, but also as an opportunity to contribute to their communities.

In this chapter, we present cases of youth-led initiatives in the Philippines and Russia that provide access to quality education to different sectors in their communities. We will present the challenges these organizations face, the opportunities that they encounter, and the services they provide to their communities.

Youth-led Initiatives for Quality Education in the Philippines

For every 100 Filipino children, 95 enroll in elementary school. Out of this 95, 6 students drop out before finishing 6th grade. Among the 81 students who finish 6th grade, 74 enroll in secondary education, and 62 graduate (Philippine Statistics Authority, 2019). Having 38 in every 100 children not finish basic formal education is a significant problem, especially in meeting SDG target 4.1, which aims for all boys and girls to complete primary and secondary education.
T
here is a multitude of reasons why Filipino children do not complete their education, even when free education is provided by the government. Fortunately, the youth-led nonprofit Teach for the Philippines (TFP), sees the complexity and the magnitude of the problem faced by the Department of Education (DepEd) and aims to work alongside the DepEd to help address it. TFP works across both the public and private sectors to achieve an excellent education for all Filipino children.

Learning through play. TFP Teacher Fellows run a series of life skills workshops called the Batang Bayani ("Young Hero") Program in their assigned public schools nationwide. The Batang Bayani Program fosters students' self-esteem, social skills, and sense of citizenship to help them become more empowered and engaged in their classrooms, communities, and the country. Photo by RJ Belen

Teach for the Philippines

TFP was founded in 2012 with a vision to provide all Filipino children access to an inclusive, excellent, and relevant education (Teach for the Philippines, 2019). To

achieve this vision, TFP works with youth communities to implement three unique programs that create system-wide impact. These programs are (Teach for the Philippines, 2018):

1 **Teacher Fellowship program**
Since 2013, 253 recent college graduates and young professionals have been recruited and trained to teach for two years in public schools across the archipelago. The participants become teachers and valued community leaders. Over 70,000 students have been taught by TFP trained 'Teacher Fellows'.

2 **Alumni Ambassadors Program**
Since 2015, over 100 former 'Teacher Fellows' have extended their Fellowship and have served as Technical Assistants in local and national government agencies that are involved with education and youth policy. With TFP's support, 'TFP Ambassadors' join the government and pursue ways in which experiences and insights from their two years in the classroom can help contextualize decisions that affect children all over the country. It is also a way for Filipino constituents to rebuild trust in public institutions - a critical part of any country's progress.

Lifelong education advocates. 80% of TFP's Alumni continue to work in education reform after their two-year Fellowship commitment. Since 2015, TFP Alumni have been working in several branches of goverment, such as the Department of Education, Commission on Higher Education, and even the Senate of the Philippines. TFP Alumni (featured here with TFP CEO and Co-Founder Clarissa Delgado, fourth from left) regularly interface with each other to align on and foster a better understanding of policies and programs that their respective offices implement on-the-ground. Photo by Sarah Co

3 **Public School Teachers Pathways**
Finally, TFP recognizes the assets that already exist within the DepEd. TFP offers a specialized two-year professional development program for licensed and tenured teachers in the Department of Education (DepEd). On average, these 'Teacher Leaders' have between 7-10 years of experience in teaching.

Coaching Session for Teacher Leaders. In line with supporting the talent that already exists in the Department of Education, TFP provides individualized coaching and mentoring for public school teachers to help in their professional development and career growth.

To keep updated on developments in education happening internationally, the organization is affiliated with Teach for All, a global network of 50 independent, locally led partner organizations with a common mission to provide quality education for all (Teach for All, 2019). Although the independent partner organizations of Teach for All have their own unique approaches to achieve this mission, improving the quality of teachers in disadvantaged communities--which is target 4.c of SDG4--is a commonality among the network members.

Challenges and Opportunities for TFP

Clarissa Isabelle Delgado is a youth leader who co-founded TFP and currently serves as the organization's CEO. She reveals that the top 3 challenges for the organization include alignment at all levels in the country's largest bureaucracy, broad country-wide investment in data, and capacity-building and professional development for educators. Since the DepEd accommodates 26 million students and employs over 1-million teachers and administrators across 7,600 islands, aligning communications, priorities and programs that benefit the student is a challenge. Data analysis is also a challenge because although manual data collection is possible, providing a complete and meaningful picture of the students' progress and well-being in their school environment remains difficult. Basic electricity and IT infrastructure still needs to be developed across many islands in the Philippines. Moreover, education reform relies on data that goes beyond the classroom and which may involve multiple government agencies. Lastly, Clarissa believes that teachers, principals, and school administrators

have the biggest impact on students' learning, but do not always have adequate professional development opportunities; hence, "caring for the care-givers" remains a challenge that TFP readily takes on.

As for opportunities, Clarissa has found the support of the DepEd and the national government in prioritizing education a great contributor to TFP's growth. With the thought partnership and support of public servants, TFP has been able to grow its programs from solely a 2-year Fellowship, to having an Ambassadors program for Alumni, and a Public School Teachers Pathway program for licensed and tenured public school teachers. With the cooperation of local government units, TFP has expanded all three core programs to more public schools nationwide. Clarissa also sees an opportunity in being of help to the National Educators Academy of the Philippines (NEAP)—the agency in charge of the research, training and development of the DepEd—in the implementation and alignment of professional standards for teachers. Finally, with the creation of TFP's new function team focused on collective impact assessment, Clarissa sees an opportunity to understand the communities that they work with more deeply. This would uncover existing communal resources that the organization can help the community leverage.

TFP's Alumni Program

It is TFP's goal to ensure that its Alumni Fellows remain committed to education and the country's children for their lifetimes. Karleen Zambas is a TFP Alumna who served as a fellow from 2014-2016. After her Fellowship, she joined TFP's Ambassador's program and worked with DepEd for another year as a Technical Assistant. Not long after this, she continued to pursue her passion for teaching by working with the multinational social enterprise, People Systems Consultancy, on their project with Maybank Foundation called Reach Independence & Sustainable Entrepreneurship (RISE). Karleen is currently the Project Executive of RISE in the Philippines.

TFP Alumna Karleen. Karleen (center, 2nd row from bottom) takes her students from Nueve de Febrero Elementary School in Metro Manila, Philippines, to a field trip to De La Salle University during her time as a TFP fellow. Photo by Sarah Co

RISE for SDG 4

According to Karleen, RISE is a program designed to train, coach and mentor disadvantaged communities, particularly Persons with Disabilities (PWDs), to increase their income and become financially independent. The program involves regular training on practical topics in running a business, such as financial goals, operational planning, budgeting and tracking, sales and customer analysis. As an economic empowerment program, RISE aims to improve their participants' overall standard of living. To date, RISE has trained over 6000 participants in Malaysia, Indonesia, the Philippines, and Laos, and is helping achieve SDG targets 4.4[1] and 4.5[2] (Maybank Foundation, 2019).

Promoting Business Sense. Karleen facilitating a RISE training workshop on practical business topics in Iloilo City, Philippines, to empower marginalized community members to become financially independent

The pilot implementation of RISE in the Philippines involved 255 participants, of which 70% were PWDs. From the RISE pilot program, the average income of the top 40% of participants increased by 565%. With the success of the pilot program, RISE expanded to accommodate 1,037 more participants in the country, where the income of the top 40% increase by 674.9% (Maybank Foundation, 2019).

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1 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

2 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

Challenges and Opportunities of RISE

Karleen shares that the top three challenges for RISE includes fixing the logistics of their programs, maintaining the commitment of their participants over the program's cycle, and having long lasting effects with their mentoring program. Firstly, logistics is a big challenge to implement RISE's programs because PWDs have special needs like wheelchair access and elevators, which are rare luxuries in the rural areas that RISE goes to. Secondly, commitment of the participants in attending the program's whole duration is another challenge, as PWDs usually face health problems and may even pass away in the middle of the program. Some of the participants also do not feel compelled to run their business, so they stop attending after a few sessions. Lastly, mentoring is a daunting task because mentors need to get to know their participants on a personal level. Mentors would need to empower and motivate the participant to run a business, which can be a struggle for participants who fall back to their original mindset of feeling helpless. Mentors also have hundreds of mentees in different location, which makes mentoring very difficult.

Even with the challenges, Karleen is optimistic that RISE has the opportunity to help their participants become financially independent by equipping them with practical knowledge to start their own business and manage their own finances. By promoting this, RISE would be helping the marginalized sectors to contribute to the economy, and inspire others to see the capacity of PWDs and vulnerable people despite their disabilities and unfortunate circumstances.

Empowering People. A RISE participant shares his thoughts during a training session conducted in Davao City

RISE has been operating since September 2014, and it has become sustainable because of the program's positive results. RISE owes its success to its dedicated mentors who are mostly passionate young professionals, eager to help others strive for a better life. RISE also does not issue loans, as this would put their participants into debt and make them used to handouts. Instead, Maybank Foundation invests in training programs that educate the participants to harness their own talents and skills to make a living.

Youth-led Initiative for Education for Sustainable Development in Russia

SDG4 in Russia for many aspects can be considered as almost achieved due to the educational system inherited from the Soviet Union. 96% of Russians have education not lower than full secondary, which is significantly higher than the average for the OECD and BRICS countries. Russia is also a leader in the share of adults (aged 25–64 years) with tertiary education - 58%. There is no gender related problems in education system. However, there are still some important issues that need attention (Analytical Center for the Government of the Russian Federation, 2016):

- There is a high proportion of those who dropped out of 5-9 classes of school without graduating from grade 9;

- There is huge diversity between the regions in terms of quality of education;

- In general, improvement of the quality of education, including the development of modern teaching materials and relevant training programs, remains relevant for Russia;

- The target of creating modern skills that are in demand by the market, especially the skills of the future, remains unsolved for young people and adults.

Indeed, the biggest global challenge in the field of education is quality. In Russia, for example, elements of education for sustainable development and global citizenship (Target 4.7) are completely missing in the formal educational system while informal education is just the beginning of its introduction. The lack of a systematic approach, critical thinking and the formation of skills in making rational decisions that are based on environmental, social and economic aspects, can lead to the fact that Russians will not have those skills and the competencies required for competitiveness in the international labor market. In the future, this will affect the work of all sectors of the country's economy, as in the developed countries where the principles of sustainable development at all levels of functioning are being introduced more and more. The lack of elements of education in the interests of sustainable development in formal education will lead to the lag of Russian companies, which will have to resort to training their employees abroad to fill the gaps in their knowledge. The lack of informal education on sustainable development also has negative consequences, as the country's population will not be aware of the interconnectedness of all processes and realize their direct impact on the world in which we all live.

Open School of Sustainable Development

Open School of Sustainable Development or Openshkola (Open School of Sustainable Development, 2019) is an initiative developed by two young women from Russia in the beginning of 2013 in order to promote ideas of sustainable development among Russian-speaking communities. The initiative was honored by SDSN Youth as one of 50 game-changing projects in sustainable development led by young people around the world in 2016 (SDSN Youth, 2017). Openshkola uses innovative technologies and tools to make education in sustainability affordable and accessible to people. The program provides a solution to overcome remoteness and geographical isolation in Russia and other post-Soviet countries. All activities are managed by volunteers who are mainly students at Russian universities or young professionals; almost all members are younger than 32 years old.

As mentioned before, in Russia as well as other post-Soviet countries, education for sustainable development is not widespread, as a consequence, understanding of sustainability is limited. Openshkola provides online and offline informal education about sustainability in Russian, which engages people not only from Russia but also from other post-Soviet countries. The aim of the project is to spread ideas of sustainable development as a concept for the further development of society in Russia, Russian-speaking countries and the global community as a whole. We think it is necessary to deliver information to everyone who wants to know more and be a responsible inhabitant of the planet Earth or simply a Global citizen. Openshkola has several activity directives:

Creation of Massive Open Online Courses (MOOCs) in Russian
In 2016, a full-fledged massive online course on sustainable development was launched at stepik.org. As of July 31, 2019 these courses have around 9000 students in total. In 2019, together with another Russian NGO, a MOOC entitled "SDGs for NGOs" was launched;

Awareness campaigns on SDGs
Two massive online campaigns on SDGs were conducted and attracted more than 70 partners from Russian-speaking countries, the third campaign is coming in September 2019 with support from more than 100 partners;

Translation of MOOCs in Russian
11 MOOCs were adapted from The SDG Academy's courses and translated into Russian with the help of 500 volunteers from around the world;

Coordination of Sulitest
Openshkola is coordinating with the organizers of the International Sustainability Literacy Test (Sulitest), so that the Sulitest could be adapted into Russian;

Educational events
Conducted many in-person and online workshops and seminars on the SDGs for the public;

■ **Creation of Russian speaking communities on Sustainable Development**
Openshkola puts together 20 permanent activists who are younger than 30 years old, more than 500 volunteers from all over the world and has more than 15 000 subscribers in social networks from 23 countries promoting sustainable development.

Openshkola's main goal is to attract the attention of Russian-speaking civil societies and populations towards sustainability issues, and foster a systems perspective of understanding. With a systems perspective, individuals will have the ability to see how society, economy, and environment are interconnected and interdependent. In effect, this will change lifestyle patterns, and provide solutions to the critical condition of our planet. Openshkola's audience and network of partners is growing fast as well. Openshkola reaches audiences from different fields (school teachers of geography, biology, and foundations of social studies, university teachers of different fields, social entrepreneurs, business people and so on) and enlightens them on how they can implement and integrate the principle of sustainable development in their work. This diverse audience could then influence different spheres of life such as environmental protection, economic prosperity, and social justice.

Openshkola informs people about sustainable practices and lifestyles that they can directly implement in their lives. This is done by creating teaching materials that are used by teachers who attend the courses and webinars. The participants would then conduct lessons using the materials to spread the word about sustainability further to their students. This process transforms Russian-speaking communities by providing alternative information to the next generations. Such information is significant for the formation of civil society in countries with transition economies as Russia, and other post-Soviet countries. Making information on sustainable development available and accessible also updates people with the skills and knowledge relevant to the modern market demands.

*Openshkola's session on Education for Development at the **World Festival of Youth and Students 2017.***

Challenges and Opportunities of Openshkola

As with any civil society organization Open School of Sustainable Development faces challenges in its work:

Rejection of sustainable development
Among many politicians and scientists there is an opinion that the concept of sustainable development is a concept imposed by the Western countries and this concept cannot be applied in Russian conditions. Moreover, this concept, according to skeptics, also leads to environmental degradation and is aimed only at poverty eradication through extensive economic growth.

Suppression of civil society
The current political situation generally limits the activities of civil society organizations (CSOs) in Russia, and Openshkola is not an exception. An organization can at any time receive the status of a 'Foreign Agent' due to cooperation with various international organizations and due to the promotion of such ideas as sustainable development, human rights, equal opportunities for everyone.

Limited funding
This challenge is directly related to the two previous ones. Due to the limited awareness of donors and political circles about sustainable development, financing opportunities for organizations working in the field of sustainable development are quite limited. Also, there are limited funding opportunities due to the current political situation when the state does not accept organizations receiving funding from abroad.

Limitations of volunteers
Following from all of the above, the organization is completely volunteer-based. Since all the volunteers work in the organization on top of their careers and studies, the time of their work is quite limited. Therefore, the management process in the organization should be adapted to the capabilities of volunteers, which often limits the implementation of projects and the development of an Open School of Sustainable Development as an NGO.

Nevertheless, there are also opportunities for further developments of Openshkola due to:

Youth support
The main opportunity today is the support of sustainable development and SDGs by the youth. Young people, as the most open part of society, actively support the activities of Openshkola; most of the volunteers attached to the work of the organization are young people, and it is the young people who are ready to learn about sustainable development and SDGs and implement specific projects on the ground for its implementation.

Support of CSOs and business
In general, civil society and businesses start to wake up and realize that the SDGs and Agenda 2030 is important for them. Therefore, these organizations are ready to cooperate with an Openshkola, by supporting its projects aimed at educating and raising the awareness of various sectors of society on sustainable development.

Conclusion

According to the World Youth Report 2018, "education is a fundamental right for all youth throughout the world. The 2030 Agenda holistically addresses key priorities for the education of youth within a broader sustainable development framework" (United Nations, 2018). In keeping with this notion, this chapter presented two case studies of youth-led initiatives that improve the quality of education in two very different parts of the world. The Philippines is a tropical archipelago composed of more than 7,600 islands, while Russia is the largest country in the world in terms of land mass. With its contrasting geography, history, culture and current way of life, the challenges and opportunities towards achieving quality education in both countries differ.

In the Philippines, where only 62% of the population finish secondary education, Teach for the Philippines works towards inclusive quality formal education, while RISE promotes vocational training and economic empowerment for marginalized adults. On the other hand, Russia has a relatively high rate (96%) of its population completing secondary education. Here, Openshkola promotes quality education by creating awareness about how sustainable development can be implemented in Russia and Russian-speaking communities. Even with the differences in their mission, operations and activities, the initiatives described have youth leadership and participation as a common denominator contributing to their success.

To achieve its vision of quality education for all Filipinos, Teach for the Philippines works alongside the Department of Education, which is the country's largest bureaucracy. This task comes with daunting challenges, but Clarissa believes deeply in openly and warmly engaging with the Philippine government for national support and in building allies across private and NGO stakeholders. Coming from an asset-based mindset, Teach for the Philippines is committed to working alongside its stakeholders to overcome these significant challenges in the best interest of Filipino children.

Clarissa, the Board, and the team at Teach for the Philippines are dedicated to working to giving each Filipino child a relevant and excellent education because Clarissa believes that "for [The Philippines] to become the best version of itself, all Filipino children must have access to quality education – education that is inclusive, relevant, and excellent; education that produces students who are functionally literate and possess life skills. Quality education plays an important role in reducing poverty and promoting equal opportunity to improve the lives of individuals, their families, and communities."

The challenges in these countries look different, but at the root of it, they affect one common thing - the future of the next generation. If young people don't have the opportunity to basic education or to learn key values that influence their daily behavior to achieve the sustainable development goals, it can lead to the destruction of our civilization. By the example of Greta Thunberg we can see that proper education and adequate set of values promoted in the society can produce young leader that eager to change the world making it a better place for everyone.

REFERENCES

Analytical Center for the Government of the Russian Federation (2016). Report on Human Development in Russian Federation: UN Sustainable Development Goals and Russia. Available from from:
http://ac.gov.ru/files/publication/a/11138.pdf (accessed 27 July 2019).

Maybank Foundation (2019). Reach Independence & Sustainable Entrepreneurship (RISE). Available from:
https://maybankfoundation.com/index.php/our-impact/rise (accessed 27 July 2019).

MYWorld2015 (2013). MyWorld2015 Analytics. Available from:
http://data.myworld2015.org/ (accessed 12 September 2019).

MYWorld2030 (2019). MyWorld2030 - Live. Available from:
 https://datastudio.google.com/u/0/reporting/14nxNJIeenggWkXv5PzHOsPNrclibx-uHH/page/GHXR (accessed 12 September 2019).

Open School of Sustainable Development (2019). About Openshkola. Available from:
https://www.openshkola.org/en (accessed 27 July 2019).

Philippine Statistics Authority (12 April 2019). SDG Watch: Goal 4. Available from:
https://psa.gov.ph/sdg/Philippines/baselinedata/4%20Quality%20Education (accessed 27 July 2019).

Teach for All (2019). About Teach for All. Available from:
https://teachforall.org/about (accessed 27 July 2019).

Teach for the Philippines. (2018). SY 2017-2018 Annual Report. *Teach for the Philippines.* Available from:
https://www.dropbox.com/s/0zuz6e0fhriad04/TFPAnnualReport_SY2017-2018.pdf?dl=0 (accessed 17 July 2019).

Teach for the Philippines. (2019). Our Story. Available from:
http://teachforthephilippines.org/about/ (accessed 27 July 2019).

SDSN Youth (2017) Youth Solutions Report - 1st edition. Available from:
http://www.youthsolutions.report (accessed 27 July 2019).

SDSN Youth (2018) Youth Solutions Report - 2nd edition. Available from:

http://www.youthsolutions.report/publications (accessed 27 July 2019).
United Nations (2018). *World Youth Report: Youth and the 2030 Agenda for Sustainable Development.* New York: United Nations. Available from:
https://www.un.org/development/desa/youth/wp-content/uploads/sites/21/2018/12/WorldYouthReport-2030Agenda.pdf (accessed 27 July 2019).

United Nations (2019). Youth and the SDGs. Available from:
https://www.un.org/sustainabledevelopment/youth/ (accessed 27 July 2019).

Young Entrepreneurs, Unemployment and the Skills Mismatch

Emanuele Musa and Martina Orlea (Babele)

CHAPTER
06

INTRODUCTION

The possibility for young men and women to enroll in school, receive training, or have a stable job has important implications for future economic growth, development, and stability. If overlooked, youth unemployment has the potential to have significant and serious social repercussions, both at the individual and macro-economic level. Meanwhile, youth unemployment can lead to social exclusion and unrest. It can negatively affect the physical well-being of youths, impede their skills development, potentially cause youth homelessness, lower output, cause the loss of human capital, and increase poverty, especially in developing countries.

This is why reducing youth unemployment is one of the primary targets of the 2030 Agenda for Sustainable Development, under Goal 8 on "Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all." However, given the huge gender disparity in emerging and developing countries, the goal of reducing the youth unemployment rate is also directly linked to SDG 4, "Ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all," and SDG 5, "Achieving gender equality and empower all women and girls."

One possible way to address youth unemployment is to support young people in creating their own businesses. Young people have the interest and potential to become self-employed. Young people are more likely to prefer self-employment than adults and are more likely to believe that self-employment is feasible. However, youth entrepreneurship and self-employment rates tend to be considerably lower than that of adults. Moreover, young men are more likely to be self-employed than young women. Similarly, older youth are more likely to be involved in running enterprises than younger youth.

The Problem: Unemployment

Overview

The sad reality is that youth unemployment remains an urgent global problem in 2019. According to the International Labour Office (ILO), despite the modest economic recovery of the past 2 years, over 71 million young people are trained but have no job. This is a population greater than that of the United Kingdom!
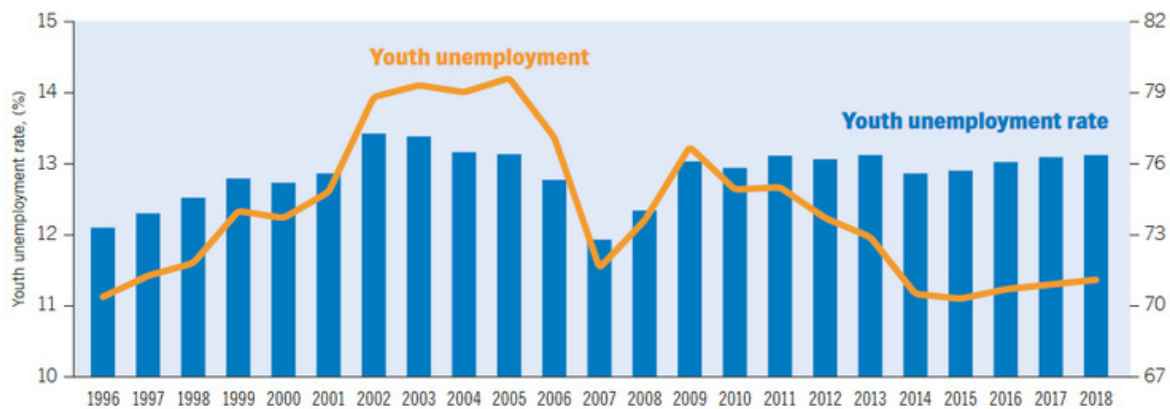

Figure 1. Global youth unemployment rate, 1996-2018. Source: ILO, Calculations based on ILO Trends Econometric Models.[1]

Deborah Greenfield, Deputy Director-General for Policy at the International Labour Organization (ILO), said: "The alarming rise in youth unemployment and the equally disturbing high levels of young people who work but still live in poverty show how difficult it will be to reach the global goal to end poverty by 2030 unless we redouble our efforts to achieve sustainable economic growth and decent work. Our research also highlights wide disparities between young women and men in the labour market that need to be addressed by ILO member States and the social partners urgently."

Youth Unemployment in Numbers

The global youth unemployment rate in 2018 was 13.1%, which is three times higher than the figure for adults, 4.3% (See Figure 1).
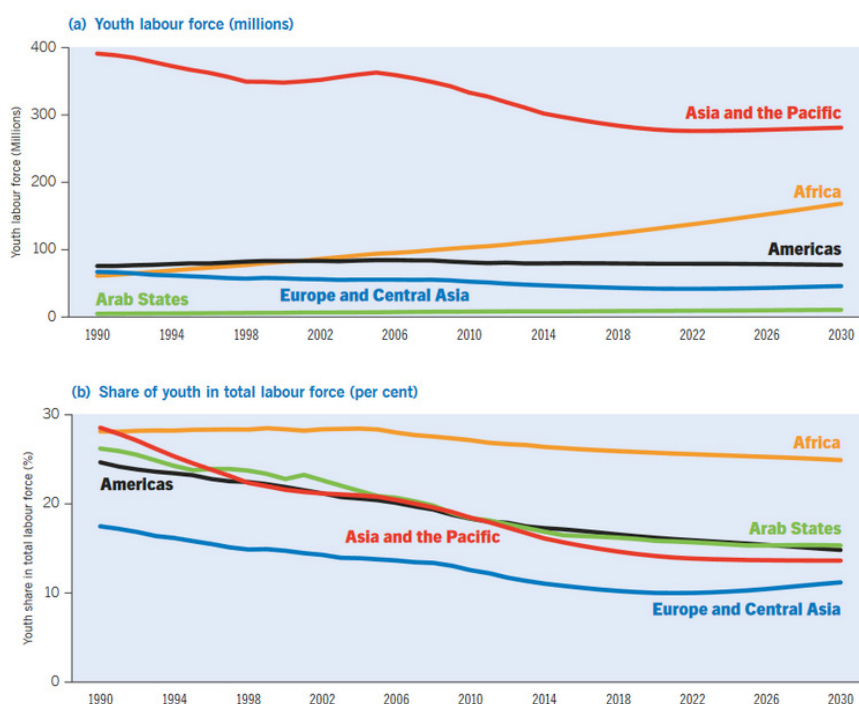Changes in youth unemployment rates vary across different countries and regions:

- Increasing in Latin America and the Caribbean, parts of Asia and the Pacific, and Northern America

- Stable in sub-Saharan Africa, and Eastern and Southern Asia.

- Falling slightly in Europe, Northern Africa, and the Arab States.

1 Available from: https://www.ilo.org/ilostat/ (accessed 18 September 2019).

	Unemployment rate (%)			Unemployment (millions)		
	2016	2017p	2018p	2016	2017p	2018p
World	**13.0**	**13.1**	**13.1**	**70.7**	**70.9**	**71.1**
Africa						
Northern Africa	29.0	28.8	28.6	3.7	3.6	3.6
Sub-Saharan Africa	11.0	11.1	11.2	11.5	12.0	12.4
Americas						
Latin America and the Caribbean	18.7	19.6	19.5	10.3	10.7	10.7
Northern America	10.6	10.4	11.1	2.7	2.6	2.8
Arab States	30.4	30.0	29.7	2.7	2.7	2.7
Asia and Pacific						
Eastern Asia	10.4	10.4	10.5	10.9	10.5	10.2
South-Eastern Asia and the Pacific	11.7	12.0	12.2	7.0	7.2	7.3
Southern Asia	10.9	10.9	10.9	13.8	13.9	13.9
Europe and Central Asia						
Northern, Southern and Western Europe	19.3	18.2	17.8	4.2	4.0	3.9
Eastern Europe	17.0	15.2	14.2	1.9	1.6	1.4
Central and Western Asia	16.9	17.5	17.4	2.1	2.2	2.2

Table 1: Unemployment rate and total numbers across different geo-
graphical regions. Source: International Labour Organization (2019).

By 2030, the global youth labour force (aged 15–24) will increase by 41.8
million people, driven by trends in Africa. Young people aged 15–24 in Africa and
Asia and the Pacific will comprise 77% of the world's youth labour force by
2030. However, the overall share of youth in the global workforce will decrease,
as the population ages.

(a) Youth labour force (millions)

(b) Share of youth in total labour force (per cent)

Note: Youth is defined as persons 15–24 years old. Total labour force is measured as persons aged 15–64 years.
Source: ILO Labour Force Estimates and Projections, July 2015.

Figures 2 and 3: Youth Labour Force (millions) and Share of Youth in Total
Labor Force (per cent). Source: ILO, Labour Force Estimates and Projections.[1]

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1 Available from https://www.ilo.org/ilostat/ (accessed 18 September 2019).

Working Youth Living in Poverty

Of greater concern is the share and number of young people, often in emerging and developing countries, who live in extreme or moderate poverty despite having a job. In fact, 156 million, or 37.7%, of working youth live in extreme or moderate poverty, earning less than US $1.90 a day, while only around 26% of employed adults live in such a situation. In sub-Saharan Africa, almost 70% of young people continue to suffer the highest youth working poverty rates. The gap between the youth and adult working poverty rates remains narrow, but there has been virtually no improvement in the working poverty situation for youth since 2012.
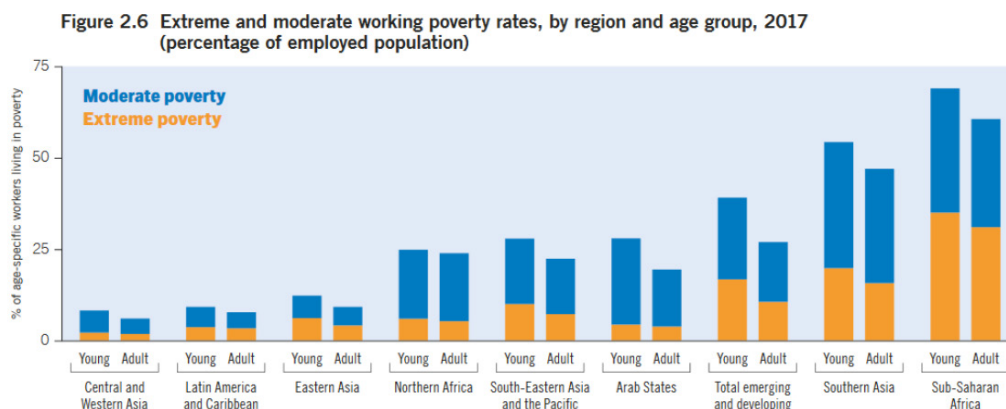

Figure 4: Percentage of age-specific workers living in poverty across different world regions. Source: International Labour Organization (2019).

Women are the Real Victims

Across most labour market indicators, wide disparities exist between young women and men, underpinning and giving rise to wider gaps during the transition to adulthood.

It is estimated that 21.8% of young people are neither in employment nor in education or training (NEET), and most of them are female. Globally, the female NEET rate is 34.4% (621 million young people), compared to 9.8% for males. The challenge is particularly acute in the Arab States and Northern Africa, where the female youth unemployment rate is almost double that of young men, reaching as high as 44.3 and 44.1%, respectively.

Girls and young women face distinct barriers in securing decent employment:

> Women are more likely to engage in "invisible" domestic work outside the home, which is poorly paid and regulated. There were 52.6 million domestic workers in the world in 2010, of which 80% are women.

> According to the World Bank, 90% of countries have at least one law that is acting as a barrier to economic equality for women. This research also highlighted that in 18 countries a woman has to ask for her husband's permission to work.

Globally, women earn on average 24% less than men, and more than 30% less in sub-Saharan Africa and Southern Asia.

Gender norms often discourage women from accessing education or employment, especially outside the home.

Causes of Youth Unemployment

One of the main reasons youth are unemployed is because they lack the right skills to fit into today's job market; this is because school curriculums are not updated fast enough to meet the present day needs of employers. Furthermore, courses in most tertiary programs lack entrepreneurial content that would enable graduates to become job creators rather than job seekers. This problem affects youth in both developed and underdeveloped countries, although youth in developing countries are mostly unemployed for different reasons than those in developed countries. Other key reasons for youth unemployment in developing countries include:

Rural-urban migration
Rural life is unattractive for many reasons, including the seasonal cycle and the lack of infrastructure. Youth move to urban areas in the hope of securing lucrative employment in industry. In addition to this, there is a concentration of social amenities in urban centers.

Rapid population growth
The high population growth rate has resulted in the rapid growth of the labor force, which is far outstripping the supply of jobs.

The rapid expansion of the educational system
More educational opportunities increase the supply of educated manpower, surpassing the corresponding demand. Ordinarily economies can grow to accommodate more educated labour, but most emerging economies are too weak to absorb large numbers of graduates.

The digital divide
Employment today has gone digital, which means that most professions now require digital literacy. To acquire these skills, young people need access to the internet and related technologies, but youth from low-income countries often lack the resources to develop these skills.

Corruption
Funds meant for development projects have been misappropriated, diverted, or embezzled and stashed away in foreign banks, robbing developing countries of the chance to use the funds to develop a vibrant economy, creating jobs for youth.

In developed countries the key challenges are:

Labor markets and regulations
A high level of employment protection causes employers to be cautious about hiring more than the minimum number of workers, since they cannot easily be laid off during a downturn, or fired if found to be unmotivated or incompetent. Second, the development of temporary forms of work, such as internships, seasonal jobs, and short term contracts, have left young workers in precarious situations. Because their jobs are temporary, youth are often the first to be laid off.

Assistance and dependency
Many countries around the world provide income assistance to support unemployed youth until labour market and economic conditions improve. Although this support is strictly related to active job searches and training, it has led to an emerging debate on whether or not it creates dependency among youth and has a detrimental effect on them.

The Impact of Youth Unemployment

The effects of unemployment on youth are long-term and lead to a greater risk of poverty.

Unemployment affect earnings for about 20 years
Because the unemployed are not able to build skills or experience, unemployed youth see a decrease in lifetime earnings when compared to those who had steady work or those who were unemployed as adults. A lower salary (relative to peers) can persist for 20 years following a period of unemployment. One estimate is that a single year of unemployment during youth can reduce annual earnings at age 42 by up to 21% (Gregg and Tominey, 2005), and that an extra three months of unemployment prior to the age of 23 results in an extra two months of unemployment, on average, between the ages of 28 and 33 (Gregg, 2001).

High unemployment rates can contribute to migration
The share of young people between 15 and 29 years old who are willing to move permanently to another country stood at 20% in 2015. The highest inclination to move abroad, at 38%, is found in sub-Saharan Africa and Latin America and the Caribbean, followed closely by Eastern Europe at 37%.

Unemployment also impacts their families
oday, youth in many countries live with their parents into their late twenties. This contributes to what is called the "full-nest syndrome." In 2008, 46% of 18- to 34-year-olds in the European Union lived with at least one parent; in most countries the stay-at-homes were more likely to be unemployed than those who had moved out. Prolonged unemployment magnifies these problems and increases the chances that they are passed on to their children. In addition to these pronounced individual costs, the unemployed represent a significant stock of unused economic resources, lowering output and the potential for economic growth.

■ Mental health risks and social exclusion

Being unemployed for a long period of time in youth is linked to decreased happiness, job satisfaction, and other mental health issues. Unemployed youth also report feeling isolated from their community. They are progressively marginalised from the labour market and in turn can develop anti-social behaviour. Few job opportunities for young graduates can create problems like violence due to desperation and idleness.

# The Solution: Entrepreneurship

Overview

One of the most promising solutions to youth unemployment is youth entrepreneurship or self-employment. The 21st century is considered by many to be the "age of the entrepreneur," which creates a friendly environment for young people to start their businesses. However, studies show that there is a significant gap between youth wanting to start a business or be self-employed and actually doing it, with only 4% of businesses in the US started by people under 30.

When thinking about entrepreneurship, it is important to note that entrepreneurship should not be defined only by techpreneurs and the Silicon Valley style of businesses, but also SMBs. Young people could lower unemployment by creating small enterprises, like shops, manufacturing facilities, or HORECA businesses, where they could be self-employed and create jobs for an additional 2-3 people. This is important given that most entrepreneurship programs today are focused on building scalable tech start-ups and not SMBs. Additionally, van Ryzin (2010) and Harding (2010) came to the conclusion that young people tend to be more interested in building social enterprises than older people, suggesting that they are "happy people, interested in politics, giving to charities, extroverted, and more liberal in their political ideology."

With regards to gender, there is a significant gap between male and female entrepreneurs. According to the OECD, around 6% of young women are entrepreneurs or self-employed, compared to 7.5% of young men. As with youth unemployment, women seem to lag behind men in setting up new businesses (except for Chile and Mexico), with differences ranging from 0.5% in Japan to 9% in Greece. Looking at the chart below, it can be seen that the difference is bigger in developing countries such as Brazil, Slovakia, Czech Republic, Romania, and Poland.

Percentage of total employment less than 30 years old, average 2015- 2016 or latest available year

Women ■   Men ◆
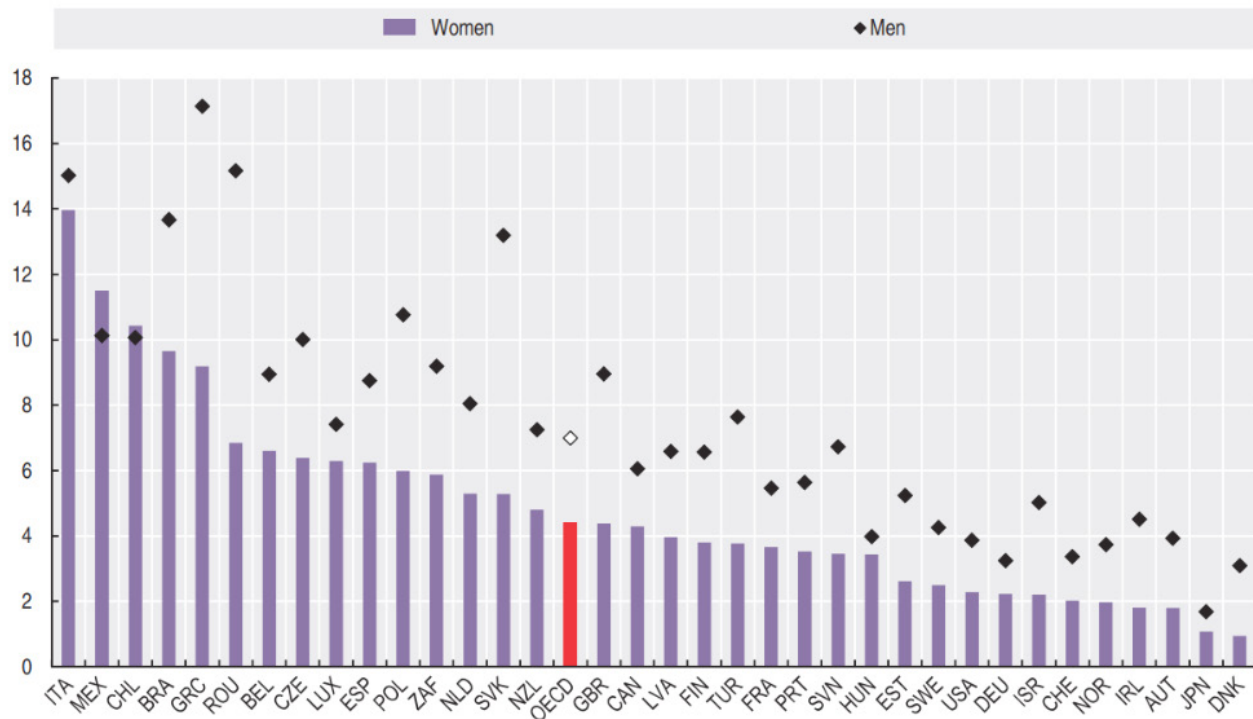
Figure 5. Share of self-employed in the population of young employed
in OECD countries, by gender. Source: OECD (2017a).

Looking at the current number of young entrepreneurs, it can be said that older youth (above 25) are more entrepreneurial than younger youth. This probably happens because youth are more reluctant to start a business right after finishing college, feeling that they lack the practical skills needed. Most education systems emphasize theory over practice, despite the fact that entrepreneurship requires both skills. A study focused on European university students came to the conclusion that immediately after studies only 7.5% of graduates intended to become entrepreneurs, compared to 79.1% that wanted to find traditional employment. However, when asked again 5 years after completing study, the numbers changed dramatically, with 33.5% wanting to start a business and only 49.7% wanting to be traditionally employed.

Figure 2. Career intentions: 5 years and immediately after studies

	Employee	Founder	Successor	Other
5 years after studies	49.7	33.5	4.4	12.5
Directly after studies	79.1	7.5	1.3	12.2
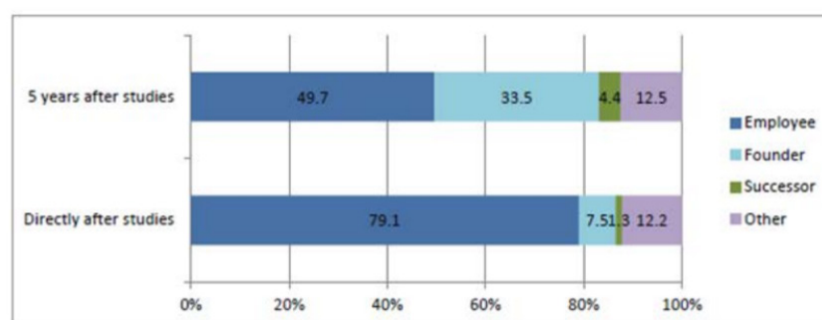
Source: University students GUESSS data 2014

Figure 6: Career intentions for young people in European universities, 5 years and immediately after studies. Source: OECD (2017a).

Figure 6: Career intentions for young people in European universities, 5 years and immediately after studies. Source: OECD (2017a).

Skills

Traditional education systems do not prepare young people to become entrepreneurs. Scholars consider that teaching entrepreneurship means teaching a mind-set, which is more easily said than done. Young people face information imperfections both pre- and post-startup. Young people may simply be unaware of the potential of entrepreneurship, their entrepreneurial aptitude, or the skills needed to be an entrepreneur.

Young people usually lack the human, financial, and social capital needed to successfully set up and run a new business. With few years of previous employment experience, they do not have deep practical experience, making them vulnerable when seeking business partners, who may not offer them legitimacy. However, in the European Union, people whose parents were entrepreneurs are more likely to start businesses, due to the fact that they have an entrepreneurial mindset.

Positive Impact

The main outcome of youth entrepreneurship as highlighted by this paper is reducing youth unemployment. However, a strong SME environment offers other long term benefits, such as creating a more stable economic market and increasing tax revenue.

Moreover, encouraging statewide entrepreneurship will create a generation of founders that can mentor other people to become entrepreneurs, creating a spill-over effect. A culture of entrepreneurship takes years to build, but once developed can play an important role in creating new generations of founders.

To understand the potential scale of such initiatives, we can look at the example of the GIST initiative, an entrepreneurial program funded by the US congress, that supported young entrepreneurs in 55 countries. In just 3 years the program created 2,000 jobs, raised US $32 million in venture capital, and generated $300 million in annual revenue.

Natalie Kyriacou is based in Australia and started a social enterprise focusing on wildlife protection and education. She developed a game app, called World of Wild, for children. She also launched Kids Corner, a subscription-based website for schools and families, promoting the work of wildlife charities.

She invests at least half of her profits in wildlife charities, giving this business the social approach.

Barriers and Challenges

There are many barriers faced by young entrepreneurs. These include an underdeveloped entrepreneurial mindset, lack of practical experience, and biases against young entrepreneurs.

The barriers faced by young entrepreneurs include:

Lack of awareness about entrepreneurship opportunities

Negative social attitudes

Traditional education not teaching entrepreneurship skills

Lack of prior work experience and entrepreneurial resources

Few financial resources

Limited business networks

Market barriers, including bank financing

Financing is one of the main problems for entrepreneurs because they do not have enough personal funds to build a successful business. Financiers are often biased against them because of their limited credit history, perceived higher risk, or inability to adequately judge their business proposition. Many decide not to fund youth-led enterprises. However, the Internet has brought some solutions to this problem, with many entrepreneurs crowdfunding for their ideas on websites such as kickstarter and indiegogo.

Another challenge is the lack of models. Most of the young entrepreneurs promoted by the mainstream media are tech giants such as Mark Zuckerberg and BillGates, whose status seems impossible to reach. Programs should promote more diverse models from the local community, who made it using the same resources as the ones at youths' disposal and whose businesses are not billion dollar corporations. Additionally, by recognizing and meeting these entrepreneurs, young people could find mentors.

The gender problem is striking, with more males involved than females. Some drivers are that in many countries women are less educated than men and therefore have weaker entrepreneurship skills, as well as negative social attitude towards female entrepreneurship. Even in well developed countries, such as the US or Europe, female entrepreneurship is at a disadvantage, with more funds going to male-founded enterprises.

For less-developed countries, such as those in sub-Saharan Africa, infrastructure is a big problem. With limited access to the Internet, young entrepreneurs lose e-business opportunities and cannot access online resources to help them build a better business.

Support & Best Practices

A number of successful youth entrepreneurship initiatives have been implemented all over the world. As emphasized by last year's Youth Solutions Report (SDSN Youth, 2018), what is important in these programmes is to build an entire ecosystem rather than focusing on one element, such as funding or capacity building. In most countries these initiatives need to be government-led and involve MNCs as well, to finance successful ventures.

In addition, creating programmes to encourage entrepreneurship requires:

Entrepreneurship education helps young people understand the importance of entrepreneurship, discover if it is a desirable option for them, and learn fundamental skills, such as how to develop a business plan. Basic entrepreneurial education should be mandatory in traditional school curricula; as an example, the EU has implemented mandatory entrepreneurial education classes in high schools.

Financial support for youth entrepreneurs needs to be segmented. SMEs and self-employed young people should receive different funding than start-ups. They should also have equal access to financing instruments.

Entrepreneurial networks are important. They provide motivating environments to exchange ideas, information, and advice, and help founders recruit business partners, employees, and customers. Networks vary widely in their nature, from private networks (family and friends), to market networks (business collaborators), to identity-based networks (e.g. ethnic affiliation). Different networks also foster different strengths of ties between actors. Networks can help young people overcome their lack of experience by providing mentorship and support.

Partnerships involving all relevant stakeholders, including government, schools, large companies and SMEs, and media. Without this mix, programmes and progress will not be sustainable.

There are many successful initiatives happening all over the world that try to incorporate one or more of these elements. One example is Garage Hamburg, which provided training, funding, and a business incubator for unemployed people under the age of 35 in Germany. Two years after the start of the programme, 83% of participants were self-employed as entrepreneurs and another 10% were employed or enrolled in apprenticeship programs. Another best practice is The Prince's Trust Youth Business Scotland in the UK, which focused on helping youth businesses overcome limited access to financing. The Prince's Trust offered entrepreneurs financing, coaching, and mentoring. From this, 416 start-ups moved from early stage to seed stage, and more businesses were started. Finally, The National Open Apprenticeship Scheme (NOAS) in Nigeria attempted to link education and training to the workplace. Under this scheme, vocational education and training on over 100 occupations was provided to unemployed youth, and the participants had the possibility to be self employed after the programme.

Conclusion

SDG 8 aims to "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all." This goal is crucial for all activities looking at youth unemployment and entrepreneurship. With the young population in Africa and Asia projected to double in the coming decades, youth unemployment will become a major problem, leading to massive economic migration, social unrest, and poverty. One way to address youth unemployment is through youth entrepreneurship - encouraging young people to start and run SMEs and startups.

Youth entrepreneurship has the potential to reduce youth unemployment and create economic prosperity, especially since young people are very interested in becoming entrepreneurs. This chapter looked at the benefits of youth entrepreneurship, what is the status quo, what barriers need to be overcome, and what successful programs look like. The key takeaway is that any initiative focused on building a new generation of founders needs to create an ecosystem that provides education and training, mentorship and role models, and funding, while involving all relevant stakeholders.

REFERENCES

Alton, L. (15 February 2017). Are Millennials More Or Less Likely To Start Their Own Businesses? Available from:
https://www.forbes.com/sites/larryalton/2017/02/15/are-millennials-more-or-less-likely-to-start-their-own-businesses/#4a4bef291301 (accessed 27 July 2019).

Elert, N., Fredrik Andersson, Fredrik and Karl Wennberg (2014). The impact of entrepreneurship education in high school on long-term entrepreneurial performance. Journal of Economic Behavior & Organization. 111. 10.1016/j.jebo.2014.12.020.

Francken, F. (24 April 2017). Boosting Female Entrepreneurial Skills to Combat Youth Unemployment. Available from:
https://www.spark-online.org/boosting-female-entrepreneurial-skills-com-bat-youth-unemployment/ (accessed 27 July 2019).

Halabisky, D. (2012). Entrepreneurial Activities in Europe - Youth Entrepreneurship. OECD Employment Policy Papers, No. 1. Paris: OECD Publishing. Available from: https://doi.org/10.1787/5jxrcmlf2f27-en (accessed 12 September 2019).

ILO (12 May 2010). Youth Employment Resources for Some Upcoming Youth Entre-preneurship Activities. Available from:
https://www.ilo.org/empent/Informationresources/WCMS_127057/lang--en/index.htm (accessed 12 September 2019).

ILO (2019). *World Employment Social Outlook*. Geneva: ILO. Available from:
https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/docu-ments/publication/wcms_443480.pdf (Accessed 18 Sep. 2019).

Jones, L. (30 July 2018). Going solo: The rise of self-employment. BBC News. Avail-able from:
https://www.bbc.com/news/business-44887623 (accessed 17 September 2019).

Hougaard, K.F., and Tine Andersen, eds. (2017). *Youth work and entrepreneurial learning: final report*. Brussels: European Commission. Available from:
https://publications.europa.eu/en/publication-detail/-/publication/8f5910d8-6b64-11e7-b2f2-01aa75ed71a1 (accessed 17 September 2019).

Mansfield, M. (28 March 2019). STARTUP STATISTICS - *The Numbers You Need to Know*. Small Business Trends. Available from:
https://smallbiztrends.com/2019/03/startup-statistics-small-business.html.

Mhone, Guy C.Z., Godfrey Kanyenze, and Theo Sparreboom (2000). Strategies to Combat Youth Unemployment and Marginalisation in Anglophone Africa. Discussion Paper, Southern Africa Multidisciplinary Advisory Team. Harare: International Labour Organization.

OECD (2017a). *Entrepreneurship at a Glance 2017*. Paris: OECD Publishing.

OECD (2017b). *Unlocking the Potential of Youth Entrepreneurship in Developing Countries: From Subsistence to Performance.* Development Centre Studies. Paris: OECD.

Potter, J., and David Halabisky (2014). Summary report of a policy development seminar organised by the Oecd and the European Commission, Brussels, 22nd-23rd September 2014. Paris: OECD. Available from: https://www.oecd.org/cfe/leed/SummaryReportSeminarYouthEntrepreneurshipRev.pdf (accessed 17 September 2019).

SDSN Youth (2018). *Youth Solutions Report - 2nd edition.* New York and Paris: SDSN Youth.

Beyond Climate Advocacy: Youth-led Innovation Fighting Climate Change

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INTRODUCTION

In 2019, young people around the world are bringing a renewed sense of urgency to climate action as the world faces record-breaking sea ice loss, heat waves, biodiversity loss, and other climate change-related impacts. In addition to advocating for urgent, ambitious action from governments and industry, young people are also leading the way in developing and implementing innovative solutions, from developing novel energy technologies and policy instruments, to implementing ecological restoration projects. However, the role of youth-led innovation in fighting climate change remains undervalued and under-researched, particularly within the national climate plans developed by governments and intergovernmental organizations.

This case study explores the work of Student Energy, a global non-profit that empowers young people to accelerate the sustainable energy transition. Throughout the organization's ten year history of working with post-secondary students and young professionals around the world, there are a few factors that seem to consistently enhance youth innovation:

1 **Actively empowering young people with opportunities and resources to develop critical soft skills that complement their academic and professional education.**

2 **Connecting young people to a diverse global network of peers, and providing opportunities for collaboration.public institutions - a critical part of any country's progress.**

3 **Creating spaces for young people to directly engage with established actors in the energy system.**

4 **Advocating for organizations to sufficiently value and meaningfully engage young people throughout their work.**

The chapter begins by setting the context for Student Energy's (and other youth-led movements') work, followed by a brief overview of Student Energy's theory of change and core programs, through which the organization engages a network of over 50,000 youth. The chapter then identifies some of the factors that make young people particularly good innovators, drawn from Student Energy's experiences and stories from the network, as well as from emerging research. The section 'Youth-Led Innovation in Action' features seven profiles of young people in Student Energy's global network and illustrates the many ways young people conceptualize innovative climate action.

This case study demonstrates how organizations like Student Energy can help bridge gaps between young people and large institutions to accelerate climate action, and demonstrates how young people's innovative abilities can be unlocked and supported by the right resources, networks, and platforms.

Context

To fight climate change and limit warming to below 1.5°C, scientists are calling for an urgent transition to a low-carbon energy system, as the energy sector is the largest source of global greenhouse gas emissions (International Energy Agency, 2018). The global energy sector is already undergoing large shifts that contribute positively to decarbonization, including increased electrification and rapidly declining prices of renewables, allowing clean energy sources to compete with fossil fuels. However, overall demand for energy is projected to continue to increase in the coming years, due to growing demand for electricity, heating, and cooling services in warming regions (International Energy Agency, 2018). Keeping up with rising demand, particularly in the Global South, is of critical importance as providing sufficient and reliable energy access is one of the key factors in alleviating poverty. Currently, approximately 840 million people globally still lack reliable energy access, with the majority being people in rural communities.

As energy intersects nearly every aspect of society, transitioning the energy system requires innovation on all fronts: decarbonizing the energy supply, improving energy access, reducing the ecological impacts of energy development projects, and reducing energy use on a large scale.

About Student Energy

Student Energy, a global charity, creates the next generation of energy leaders who will accelerate the transition to a sustainable energy future. Founded in Calgary, Canada, in 2009, by three post-secondary students, the organization's network has now grown to include 50,000 young people in over 130 countries.

Student Energy's vision is centered on the knowledge that we need to transition the energy system to one that is both equitable and sustainable. A guiding theory of change document identifies six building blocks that are necessary to realize this sustainable energy future:

1. **Intergenerational and Global Equity**

2. **ultural Shifts**

3. **Collaboration and Cooperation**

4. **Mobilized Finance**

5. **Policy Frameworks**

6. **Technologies Developed and Implemented**
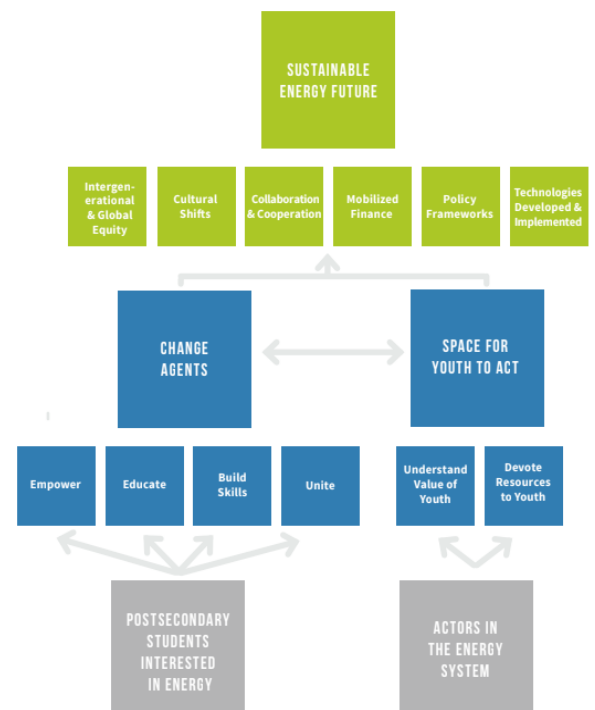
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Core Programs

Energy Systems Map

Student Energy's digital Energy Systems Map reaches over 2 million unique visitors annually, providing an accessible, simplified overview of the energy system.

Chapters

Student Energy Chapters are university-level clubs that empower students to take action in their local communities. Currently, Student Energy has 40 chapters in 19 countries. Chapters have engaged over 20,000 people through their local events and initiatives, with over 5,000 people engaged in the first half of 2019.

International Student Energy Summit

The international Student Energy Summit (SES) is the largest student-led energy conference in the world, taking place every two years in a different region, and organized by a team of students in the host country, with support from members of Student Energy staff. SES 2019, the sixth Student Energy Summit, took place in London, UK, and brought together 650 students from 98 countries.

Space for Youth

Through the Space for Youth program, Student Energy partners with governments and other institutions to create meaningful opportunities for young people to engage with decision-makers. For example, Student Energy worked with Natural Resources Canada to bring 60 young leaders from all 25 member countries to the Clean Energy Ministerial and Mission Innovation (CEM/MI) forum in 2019. Typically, these ministerial meetings have not included young people, so this marked a first for CEM/MI. Young people were not only in the audience, but participated in bilateral meetings, as panellists, and held official side events.

How do young people redefine innovation?

A theme that is evident in Student Energy's programming is that young people are constantly redefining and broadening the scope of what 'innovation' means, by prioritizing social and policy innovations on par with technological innovations.

One of the ways Student Energy facilitates open-ended opportunities for students to define innovation for themselves is through the 'Innovation Jam'. The Innovation Jam is a fast-paced collaborative brainstorm session where students pitch solutions to a room of their peers, and form groups to brainstorm and refine their solutions, often pivoting and iterating on their original idea based on the group's feedback and knowledge. Students often name these sessions as their number one highlight, and many ideas that were initially generated at an Innovation Jam have gone on to become fully-fledged start-ups and conferences, or have inspired participants to pursue new career paths (see the 'Youth-led Innovation in Action' section for some in-depth examples from Student Energy's network).

What makes young people particularly good innovators?

"They are collaborative, creative, observant, curious, willing to experiment, willing to challenge the status quo, risk-takers, action oriented, and visionary." (Dougherty and Clarke, 2017)

The idea that today's young people think and work differently than previous generations is not a new one – however, diving into why young people are good innovators reveals a compelling case for why there is an urgent need to invest resources into youth-led innovation. By examining Student Energy's programs and impact reports, there appear to be four factors that contribute to young people's unique ability to create change in institutions:

1. Ability to raise the level of ambition

As national governments continue to move slowly on setting and meeting emissions reductions targets, young people have been advocating for bold climate action in creative ways, from direct action, to youth voting initiatives, to engaging with the policy creation process at forums like the UNFCC COP.

Student Energy's Space for Youth program identifies opportunities where young people can directly engage with high level energy actors, particularly in spaces where youth are typically underrepresented. For example, at the 2019 Clean Energy Ministerial and Mission Innovation Forum, youth delegates participated in an informal Q&A with the Canadian Minister of Natural Resources, Amarjeet Sohi, where they asked about Canada's plans to upskill and transition fossil fuel workers to renewable energy, Canada's industrial and residential energy consumption, and how the government plans to address the impact of energy projects on local Indigenous communities. The discussion that followed made it clear that young people have clear priorities for federal governments that sometimes differ from and often go beyond the discussions taking place between member states.

Research shows that young people are more willing to question the status quo, examine why things are done the way they are, and radically reimagine alternative systems (Jones, Reedy & Weinberg, 2014). Constructive spaces to engage directly with decision-makers, like the exchanges at CEM/MI, let young people exercise their own political agency and break down traditional structures of authority and expertise, allowing for innovation in discourse within traditional institutions.

2. Ability to raise the level of ambition

Young people today are connected to each other across disparate geographies and backgrounds, owing greatly to technology access. This growing global consciousness and access to information, coupled with knowledge gained from their lived experience, allows young people to develop innovative local solutions that tackle multiple aspects of energy and climate issues at once.

Student Energy runs Greenpreneurs, a 10-week, virtual, green entrepreneurship accelerator, in partnership with the Global Green Growth Initiative and Youth Climate Lab. In two years, Greenpreneurs has helped 25 teams from developing and emerging economies take their local energy solutions from idea to fully viable business plan, and has provided winning teams with seed funding. A central focus of the program is that the solutions presented must be based on an in-depth understanding of the teams' local context, identifying the social, ecological, cultural, and economic aspects of their selected program, in addition to addressing sustainability. The story of WEYE Clean Energy Enterprise and Kakembo Galabuzi Brian, described in the 'Youth-led Innovation in Action' section, illustrates how young people innovate to address multiple local challenges at once.

3. Valuing and implementing diversity of thought

Another theme that emerges from Student Energy's global network is a broad consensus that all climate action must be just and equitable. Climate change is inherently a justice issue; relatively few countries have contributed the majority of greenhouse gas emissions, while some communities (the poor, island nations, women, and racial minorities) bear a disproportionate burden of climate impacts. Research suggests that Millennials and Generation Z have a "heightened awareness" of their social context and relationships, supported by broad, global interconnectedness through technology (Ito et al., 2008; Tapscott, 2009). Given this unprecedented exposure to diverse people and communities, collaborations between young people (and intergenerational collaborations led by young people) prioritize creating space for diverse voices and ideas.

In January of 2019, Student Energy's Mount Royal University Chapter in Calgary, Canada, hosted SevenGen, the first Indigenous Student Energy Conference. The goal of SevenGen was to create space for Indigenous youth to connect with each other and with Indigenous leaders in Canada to see how they could take a leadership role in Canada's energy transition. Recognizing that Indigenous

communities have historically been left out of this conversation, SevenGen aimed to build new networks between Indigenous youth across Canada, and with the Canadian government and actors in the energy industry.

4. Ability to engage their peers

The ability of young people to engage and mobilize their peers is a key climate innovation, as building widespread public support is one of the biggest barriers to taking bold climate action, according to many governments and industry. Student Energy Chapters address this challenge by leveraging peer-to peer engagement and providing engagement pathways for people who are new to climate action. Chapters are led by local students, allowing them to respond to their communities' needs. This means that Chapters' annual activities range widely – from running regional Summits and collaborating on local energy issues, to hosting green building tours and documentary screenings, to installing solar power projects in their cities.

Youth-led Innovation in Action

The following profiles are a sample of the innovative work led by young people in Student Energy's network. These stories have been selected to demonstrate the broad ways innovation takes place in youth-led climate action.

Kakembo Galabuzi Brian – Uganda
CEO, WEYE Clean Energy Company, Ltd.

Kakembo Galabuzi Brian was inspired to start the Waste to Energy Youth Project at an Innovation Jam at the 2015 Student Energy Summit in Bali, Indonesia. The project rallies youth to transition East Africa from wood fuel to affordable fuel briquettes and biogas. Initially, Kakembo's initiative engaged over 200 young people, with the goal of providing energy to the 85% of Ugandans who cannot afford clean energy sources. As of 2019, the project has become a fully-fledged commercial enterprise with 12 full-time and 4 part-time staff working across two production units. In addition to producing and distributing briquette stoves, WEYE Clean Energy Company also holds training workshops for women and youth, for which they were awarded the iF Social Impact Prize. Demand for WEYE's technology and products is currently growing faster than their production capacity, a positive indicator that the sustainable energy transition in Uganda is underway.

"Diversity in education, gender, language, location, origin, culture, and nationality will be a very big advantage to any initiative. In my case, my finance background was helpful in sourcing and managing funds, but every colleague in the initiative plays a unique role." – Kakembo Galabuzi Brian

Emma Wiesner – Sweden
Energy Marketing Analyst at SWECO;
Centerpartiet First Substitute for the European Parliament

Emma gained valuable understanding of the international perspective on energy while attending SES 2015 in Bali, Indonesia. Her experience there inspired her to work in the European energy system and ultimately to run for European Parliament in the 2019 election as an engineer wanting to change the energy system politically. As a young candidate, she's working to empower youth in the energy sector. With a foot in both the energy industry and in energy policy, Emma helps her clients understand the energy transition, create scenarios for the future energy system, and analyse policy instruments.

"Student Energy gave me this really international perspective. I've always been involved in politics, so I've been mixing politics with engineering and energy engineering and always knew that I wanted to work with policy to influence society, but before Student Energy I was more interested in national politics. But Student Energy really broadened my perspective, I was starting to think more in an i nternational way, how can we influence the energy system on a global level. So being at Student Energy Summit in Indonesia really gave me perspectives from all around the world and really seeing that the energy system is much broader and you have to work with it on a global level." – Emma Wiesner

Alec Macklis – USA
Founder and CEO of Gridspan Energy

At SES 2017 in Merida, Mexico, Alec gained access to key advisors and mentors who have helped him to build his company, Gridspan Energy. The company is pioneering new markets and new use-cases for energy storage systems with a clear value and market in small island developing states (SIDS). To date they have raised over $700,000 in funding, and have signed publicly-facing agreements for their 1st project with both the Government of Anguilla and ANGLEC, the local utility. Alec has lived the Student Energy experience of creating a company that understands the multi-disciplinary nature of energy and the challenging road of commercializing a novel, technology-enabled business model.

"Student Energy has had a huge influence on my career path. I ended up meeting a great mentor who was a founder of Student Energy, a co-founder of Student Energy: Janice Tran and she played a big role in mentoring me and advising during the last two years of starting this company." – Alec Macklis

Ashley Pilipiszyn – USA
Project Lead, Grid Resilience & Intelligence Platform Participant,
Global Himalayan Expedition

Ashley first attended SES 2013 in Trondheim, Norway, as a biotech student at Harvard. Inspired by her participation in the Summit, she decided to switch gears to work on energy systems, after learning that transitioning the energy sector is one of the greatest challenges facing the planet. Now, Ashley's mission is to create a sustainable energy future by using AI for Planetary Good. Ashley is currently a PhD student at Stanford University in Management Science & Engineering and Computer Science, the Project Lead for the Grid Resilience & Intelligence Platform, the Science Communicator of OpenAI, and participated in the 2017 Global Himalayan Expedition where she electrified one of the most remote villages in the Himalayas by installing three solar microgrids.

Joshua Miguel Lopez – Philippines
Assistant Program Coordinator, Friedrich Ebert Stiftung Philippines

Attending SES 2017 introduced Joshua to climate and renewable energy work, where he was exposed to changemakers who, despite their youth, had pursued leadership roles in shaping the energy future. Joshua works in the Friedrich-Ebert-Stiftung Philippine Office on climate action and renewable energy and created Renewable Energy Bootcamp, or REBOOT, a program that trains youth from various professions to pilot renewable energy projects that also solve development needs in marginalized communities. Joshua also created the Renewable Energy Congress, a national, multi-stakeholder conference that brings together leaders from politics, local government, industry, academia, and civil society. Its goal is to build a broad consensus and develop catalytic projects that will accelerate the renewable energy transition in the Philippines.

Churchill Agutu – South Africa
Founder of the Africa Green Collar Project

Churchill attended SES2017 in Merida, Mexico, where he first began to explore energy solutions from a socio-techno-economic perspective. Churchill has a background in chemical engineering, and presented some of his research findings on improving the performance of solar cells during SES 2017. Residing in South Africa where the energy transition is still in its nascent stages and an estimated 60% of the population are youth, he's pursed work focusing on the intersection between youth empowerment, climate change, and energy policy. Churchill founded the Africa Green Collar Project, which works to build a knowledge economy for young people in Africa, to enable them to create a sustainable future for the continent. He also works as an analyst at a global not-for-profit company working in the low carbon space. Previously, he worked as a Climate Change Advisor at a firm working in South Africa's climate change environment.

Churchill is also a former project leader for the Engineers Without Borders UP Litre of Light (LOL) Project in South Africa, and he has been involved in other projects that originated at SES 2017, including a project where he worked with an

international cohort of students to build cooking stoves for a local community in Zavalla, Mexico.

Cory Beaver – Stoney Nakoda First Nation, Alberta, Canada
Co-Chair, SevenGen the Indigenous Student Energy Summit 2019
Former President of Student Energy at Mount Royal University

At SES 2017 in Merida, Mexico, Cory Beaver first shared his vision for a Canada-wide Indigenous Student Energy Summit. The International Student Energy Summit was an empowering experience for Cory, showing him that young people could lead and implement large-scale, impactful projects in different contexts around the world. Just over a year later, Cory, along with Co-Chair Disa Crowchief (also a SES 2017 delegate), realized their vision and ran Canada's first-ever Indigenous youth-led energy summit in Calgary. SevenGen united 200 Indigenous youth from every province and territory across Canada to learn how they can lead in Canada's energy transition. The success of SevenGen led Cory to bring a delegation of Indigenous youth to the 2019 International Student Energy Summit, to provide pathways for more Indigenous youth to take action on energy issues in their communities.

REFERENCES

Dougherty, I., and Amelia Clarke (2018). Wired for Innovation: Valuing the Unique Innovation Abilities of Emerging Adults. *Emerging Adulthood* 6(5): 358-365.

Jones, B., E.J. Reedy, E. J., and Bruce A. Weinberg (2014). Age and Scientific Genius. In Simonton, D. K. (ed.), Handbook of Genius. Chichester: England.

International Energy Agency. (2018). CO2 Status Report 2017. Paris: International Energy Agency.

Ito, M., et al. (2009). *Living and learning with new media: Summary of findings from the Digital Youth Project.* Cambridge: MIT Press.

Tapscott, D. (2008). *Grown up digital.* Boston: McGraw-Hill Education.

Zeldin, S. (2004). Youth as agents of adult and community development: Mapping the processes and outcomes of youth engaged in organizational governance. *Applied Developmental Science* 8(2): 75-90.

An Untapped Resource: The Power of Youth in Preventing Violent Extremism

Sofia Anton *(Kofi Annan Foundation)*

'Once we, young people, are considered to be key players, this will be game-changing in the fight against violent extremism.' – Bjørn Ihler, Extremely Together Young Leader, Norway

Young people are fundamental in responding to the threat that violent extremism poses to peace and security. The securitized responses to violent extremism need to be complemented with inclusive approaches to efficiently address what makes people engage with violent groups in the first place.

Supporting youth-led programs to prevent violent extremism (PVE) not only helps to identify the root causes of violent extremism, but also mainstreams the PVE agenda in the broader nexus of peace, security, and development. The Kofi Annan Foundation, through its youth-led initiative Extremely Together, works with ten young leaders to carry positive narratives to their peers and to create a global movement of young people countering violent extremism - from the bottom up.

The drive to join violent extremist groups

Violent extremism is a global threat. In Africa, violent extremism has resulted in over 33,000 deaths between 2011 and early 2016, notably in Nigeria, Somalia, and South Sudan (UNDP, 2016). Between 2014 and 2015, the OECD countries saw an increase in terrorist-related deaths from 77 to 577 and countries affected by deaths or incidents of violent attacks have significantly increased since 2015 (Global Terrorism Index, 2017; UNDP, 2016).

Conflict-affected countries and countries with high young populations are more vulnerable to violent extremism for several reasons. First, young people are easily manipulated, making them a key target of extremists. In Somalia, more than 75% of the population is under the age of 30; nearly three decades of conflict have left an entire generation of youth only knowing war. In South Asia, the youth population constitutes over 800 million people, almost half of the total population in the region (Bill & Melinda Gates Foundation, 2018).

Young people are not only direct and indirect consumers of hate speech, disinformation and political propaganda in their communities, but also online where they are exposed to disruptive narratives. Young people's vulnerability to extremist messages is further increased due to the lack of critical thinking skills and social media literacy. For example, in Bangladesh, social media has become young people's primary source of obtaining information and the capital of Dhaka holds the second most-active Facebook users in the world (Murad, 2017).

Second, conflict-affected societies with complex social, economic and political dimensions constitute more fertile grounds for extremist groups to target young people, infiltrate communities with extremist narratives and appealing recruiters. Consequently, volatile politics and security vacuums give rise to violent extremism, and varied factors either push or pull youth in their radicalization (Murphy, 2019).

The prevalence of socio-economic, religious and political grievances can drive people to join extremist groups in the hope of a better livelihood or due to the deep frustration derived from the lack of justice and access to political participation.

A study on violent extremism in Eastern Uganda indicated that a variety of structural, social and personal factors such as poverty, abuse by security forces, or involuntary recruitment could push young people to adopt more extremist views (BRICS, 2019). Engaging in extremist groups becomes attractive for young their search for belonging and meaning or due to the influence of family members, peers, religious leaders, and social media contacts.

The powerful role of youth in preventing violent extremism

Violent extremism affects young people disproportionately, both as perpetrators and victims. In 2017, 45 percent of the people arrested for terrorist offenses in Europe were between 20 and 30 years old. Furthermore, data shows that 20 percent of suicide bombers were between 15 and 18 years old (Europol, 2018). Attacks against the Pakistani Army Public School in Peshawar in 2014 and the Bataclan concert hall in Paris in 2015 substantiate that extremist groups specifically aim to target young people.

Misconception regarding the role of youth prevails along gender lines: While young women are often regarded as victims and young men as the perpetrators of violent extremism, there is a limited understanding of their critical role in preventing violent extremism.

Youth agency has the potential to avert radicalization of young people as well as the capacity to contribute to peace and stability in communities. Youth are well-positioned to notice early signs of radicalization among their friends and can create a safe space for dialogue with vulnerable peers. However, young people are mostly excluded from the programs and policies aimed at responding to violent extremism.

To give a leadership role to young people in the prevention of violent extremism, the Kofi Annan Foundation launched the youth-led initiative, Extremely Together (ET) in 2016. Led by ten young leaders who were each personally selected by the late Kofi Annan, ET promotes positive values and offers alternatives to narratives in the face of the threat that violent extremism poses globally.

Extremely Together: A peer-to-peer approach to PVE

'If we are the problem, let us find the solution.'
– Hajer Sharief, Extremely Together Young Leader, Libya

The UN Secretary-General's Plan of Action to Prevent Violent Extremism states that young people 'must be empowered to make a constructive contribution to the political and economic development of their societies and nations.'

Accordingly, Extremely Together empowers youth to take affirmative action in their communities. At the core of the Extremely Together initiative are its young leaders from different backgrounds, nationalities, religions, gender and profession who share the commitment to building a future based on cooperation and respect for diversity.

In 2017, the young leaders published the first-ever digital peer-to-peer toolkit entitled Countering Violent Extremism - A Guide for Young People by Young People. Through digital campaigning and face-to-face training sessions, the initiative inspires youth to play an active part in tackling violent extremism.

As highlighted by ET Young Leader Fatima Zaman, the initiative's online presence enabled her and Extremely Together 'to enter a space that until then was comfortably occupied by radicals and by extremists without competition, without dissent and without voices that offer hope and unity instead of division, hate and violence.'

A peer-to-peer method is the most effective way to engage youth. Extremist groups have long understood the convening power young people have: 'whether jihadist or alt-Right, mass recruitment is not primarily top-down but peer-to-peer' (Atran, 2017). Extremely Together has applied a similar recruitment strategy to mobilize youth around the values of tolerance and optimism to counter violent extremism instead.

Extremely Together's strategy is founded on reclaiming the meaning of extremism. While rebellion is part of adolescents' and young adults' identity construction, the initiative aims to demonstrate that being extreme can be powerful and positive, as long as the intention is toward a non-violent outcome. The ten young leaders lead by example, empowering their peers to take ownership of issues that matter.

At the policy level, Extremely Together focuses on elevating young voices and advocating for young people's meaningful participation in international fora as invaluable agents of change. To increase the impact and reach of ET, the Kofi Annan Foundation partners with youth networks around the world including One Young World and the Junior Chamber International.

At the local level, Extremely Together equips young people with the capacities to identify and reject the narratives of violent extremist groups. In 2018, over 3,000 young people were trained in the UK, Uganda, Somalia, South Sudan, and Morocco to detect early signs of radicalization and in turn prevent violent extremism from uprooting.

Increasing the Impact of Extremely Together

To deepen its engagement with youth Extremely Together is expanding its footprint by setting up national chapters in several countries, including Somalia and Uganda. After an Extremely Together training workshop in Somalia, the young participants decided to open their chapter. Within a year, the chapter now covers three regions in Mogadishu, Baidoa, and Galmudug, multiplying the number of active members.

In Mogadishu, the Chapter members target youth living in camps for Internally Displaced People (IDP) with PVE education and networks to share information and prevent youth recruitment. The chapter facilitates positive exchanges between IDP youth and security forces following the tensions created by recurrent security operations in IDP camps. These trust-building efforts contribute to mitigating the discontent expressed by displaced youth that, if unaddressed, could push them towards radicalization and violence.

The initiative does not only target youth at risk of radicalization, but also young people in a position to empower and inspire peers to choose constructive paths to build peaceful communities. Credible voices and authentic community leaders within the target group set the example as a living embodiment of existing alternatives to extremism.

Operating on multiple levels across society and promoting influential peers who transmit positive values has become more relevant, as 'youth recruitment is not confined to poorer, less educated socio-economic groups and traditional religious schools: rather educated, middle-class, urban youth are being targeted as well' (Idris, 2018). Recent attacks in Sri Lanka and Bangladesh have shown that students in the cities have also engaged in violent acts and universities have become productive locations for recruitment.

Contributing to the United Nations Sustainable Development Goals

The activities of Extremely Together and its young leaders promote the PVE agenda and contribute to the goals of Sustainable Development Goal (SDG) 16, the United Nations Resolution 2250 on Youth, Peace and Security and Resolution 1325 on Women, Peace and Security.

Meeting with the objectives of SDG 16, there are growing calls for inclusive governance and capacity-building at all levels to restrain violent extremism. In Uganda, Extremely Together Young Leader Hassan Ndugwa and his organization, the Uganda Muslim Youth Development Forum, have engaged all sectors of society and focused, for example, on strengthening imams' capacities in conflict resolution and the use of social media as a tool to disseminate Islamic values of peace and tolerance. These actions have been directed to young men who are lured into violent

extremist networks in the hopes of employment or through mosques by radicalized religious leaders (BRICS, 2019).

Violent extremism has long been treated as a security issue, both nationally and internationally. In the face of recurring violent attacks, violent extremism has provoked securitized responses founded on counter-terrorism measures. While governments have taken action to exhaust extremist ideologies and groups by using force, military solutions alone are not to defeat extremists' violence. A more comprehensive approach aimed at preventing violent extremism by addressing its root causes has increasingly gained traction. However, resistance from the counter-terrorism supporters prevails.

Preventing violent extremism (PVE) as a concept was 'spurred in large part by the changing nature of terrorism and the advent of decentralized actors and self-radicalized small groups and lone wolves' (Holmer, 2013), which called for new means to address extremism. 'It is not enough to counter violent extremism - we need to prevent it, and this calls for forms of soft power, to prevent a threat driven by distorted interpretations of culture, hatred, and ignorance' (UNESCO, 2019).

As violent extremism deeply fractures the process of building peaceful communities and sustainable development, it is equally vital to adapt approaches from development and peace to provide adequate solutions as a response.

The agendas of SDG 16 and preventing violent extremism are closely linked, notably to reduce all forms of violence. The broader 2030 Agenda, under which the SDG 16 lies, has identified violent extremism as a threat to development, calling to address the conditions of marginalized groups highly impacted by violence. The comprehensive PVE approach adopted by Extremely Together is well-fitted for the purpose.

Developing peaceful, lawful, and inclusive societies will consequently address the root causes of violent extremism as suggested by the UN Secretary-General António Guterres; '…the creation of open, equitable, inclusive and pluralist societies, based on the full respect of human rights and with economic opportunities for all, represents the most tangible and meaningful alternative to violent extremism' (UNDP, 2017).

The current challenges posed by the return of foreign fighters evidence once more that traditional counter-terrorism and national security mechanisms should be accompanied by initiatives to tackle the structural causes of violent extremism.

Challenges to youth-led PVE

Although young people need to be given a leadership role in PVE, risks related to such an engagement cannot be overlooked. Extremely Together's experience demonstrates that the concept and label of violent extremism can easily be manipulated for political purposes and to marginalize specific groups or political parties within the society. Young people might refrain from participating in PVE activities due to fear of stigmatization. Activities engaging or led by youth need to be care-

fully adapted to each context, which requires an in-depth understanding of local realities.

Recent findings of the United Nations Development Programme (UNDP) report Journey to Extremism in Africa call for a paradigm shift about youth's role in preventing violent extremism, reaffirming the prolonged struggle of youth-led action. Notably, it highlights the lack of funding for youth-led PVE initiatives and the absence of youth's meaningful consultation in the design of initiatives aiming to prevent violent extremism (UNDP, 2017).

The PVE agenda remains highly politicized. While the focus tends to be directed towards international efforts, the local-level initiatives remain widely overlooked. As a result of this disconnect, the debate on PVE and the measuring of its success are primarily led by international and governmental institutions without the full engagement of local PVE practitioners and field perspectives. Recently, new efforts aimed at augmenting the meaningful participation of youth in PVE policy and practices have increased. Instead of only tokenism, more efforts are needed to translate high-level policy statements into action both at national and international levels.

Conclusion

Kofi Annan, founding chair of the Kofi Annan Foundation, 7th UN Secretary-General and Nobel Peace Laureate, understood that healthy, democratic, and sustainable societies are based on peace and security, sustainable development, and respect for human rights and the rule of law. Rather than independent, these three pillars are interconnected as 'there can be no long-term security without development, no long-term development without security, and no society can long remain prosperous without respect for human rights and the rule of law.'

Sustainable Development Goal 16 enables us to approach the underlying drivers of extremism through an empowering agenda. Preventing violent extremism requires a values-based approach that provides real opportunities and positive alternatives in communities that are affected by violence and excluded from economic development' (Rosand & Naraghi-Anderlini, 2019).

The nexus between peace, security, development, and human rights support PVE work and is built on the premise that violent extremism needs to be approached comprehensively through the agency of young people. Engaging young people to prevent violent extremism is critical because they provide access to youth at risk and have the capacity to engage them in constructive discussions. However, for PVE to reach its full potential, it is fundamental to incorporate youth in decision- and policy-making systematically.

REFERENCES

Annan, K. (2016). Educating for Inclusive and Peaceful Societies. Kofi Annan Foundation. Available from:
https://www.kofiannanfoundation.org/speeches/educating-inclusive-societies/
(accessed 29 July 2019).

Atran, S. (2017). Alt-Right or jihad?. *Aeon Magazine*. Available from:
https://aeon.co/essays/radical-islam-and-the-alt-right-are-not-so-different
(accessed 12 August 2019).

Bill & Melinda Gates Foundation (2018). *Goalkeepers: The Stories Behind the Data* 2018. Bill & Melinda Gates Foundation.

Building Resilience in Civil Society (BRICS), 'Violent Extremism in Eastern Uganda', 2019.

Ensor, M. O. (2017). Preventing Violent Extremism: Bridging the Development and Security Divide. Impakter. Available from:
https://impakter.com/bridging-development-security-divide/
(accessed 29 July 2019).

Europol (2018). European Union Terrorism Situation and Trend Report 2018 (Tesat 2018). Europol.

Extremely Together (2019). Countering Violent Extremism - A Guide for Young People by Young People. *Kofi Annan Foundation*. Available from: http://www.extremelyto-gether-theguide.org/ (accessed 13 August 2019).

Holmer, G. (2013). Countering Violent Extremism: A Peacebuilding Perspective. United States Institute of Peace Special Report. Available from: https://www.usip.org/sites/default/files/SR336-Countering%20Violent%20Extremism-A%20Peacebuild-ing%20Perspective.pdf (accessed 17 September 2019).

Idris, I. (2018): Youth vulnerability to violent extremist groups in the Indo-Pacific. *GSDRC*. Available from:
https://gsdrc.org/publications/youth-vulnerability-to-violent-extrem-ist-groups-in-the-indo-pacific/ (Accessed 17 September 2019).

Institute for Economics & Peace (IEP) (2017) *Global Terrorism Index 2017*. IEP. Available from:
http://visionofhumanity.org/global-terrorism-index/global-terrorism-index-2017/
(accessed 17 September 2019).

Murad, M. (2017). Dhaka ranked second in number of active Facebook users. *bdnews24.com*. Available from:
https://bdnews24.com/bangladesh/2017/04/15/dhaka-ranked-second-in-number-of-active-facebook-users (accessed 27 July 2019).

Murphy, M. (2019). Mainstreaming preventing violent extremism into security and justice programming. *Risk Advisory*. Available from: https://www.riskadvisory.com/news/mainstreaming-preventing-violent-extremism-into-security-and-justice-programming/ (accessed 7 August 2019).

Rosand, E. and Sanam Naraghi-Anderlini (2019). The silo problem: Connecting the UN's efforts to promote sustainable development and prevent violent extremism. *Brookings*. Available from: https://www.brookings.edu/blog/order-from-chaos/2019/07/15/the-silo-problem-connecting-the-uns-efforts-to-promote-sustainable-development-and-prevent-violent-extremism/ (accessed 30 July 2019).

Sharief, H. (2016). Ten Young Leaders with Plans to End Extremism Worldwide. *One Young World*. Available from: https://www.youtube.com/watch?v=qjo6CU5RmVs, (accessed 15 July 2019).

UNDP (2017). *Journey to Extremism in Africa: Drivers, Incentives and the Tipping Point for Recruitment.* New York: UNDP.

UNDP (2016) Preventing *Violent Extremism through Promoting Inclusive Development, Tolerance and Respect for Diversity: A development response to addressing radicalization and violent extremism.* New York: UNDP.

UNESCO (2019). Preventing Violent Extremism. Available from: https://en.unesco.org/preventing-violent-extremism (accessed 12 August 2019).
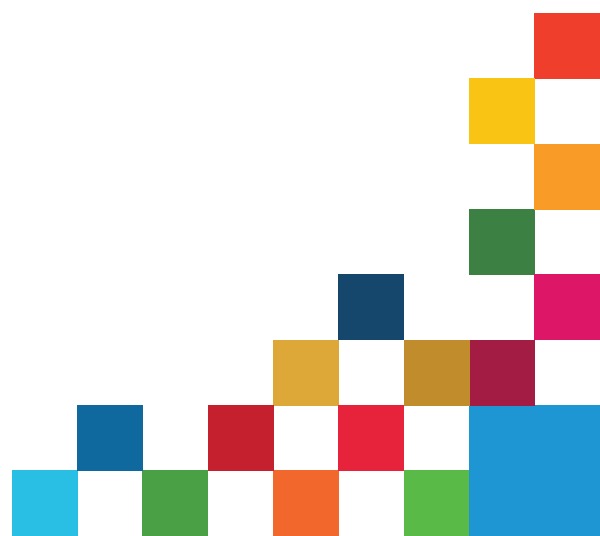
United Nations (2015). Plan of Action to Prevent Violent Extremism. Report of the Secretary General. UN Doc A/RES/70/674.

Zaman, F. (2019). Using social media to tackle extremism. *Positive.News*. Available from: https://www.positive.news/society/using-social-media-to-tackle-extremism/ (accessed 12 August 2019).

PART III
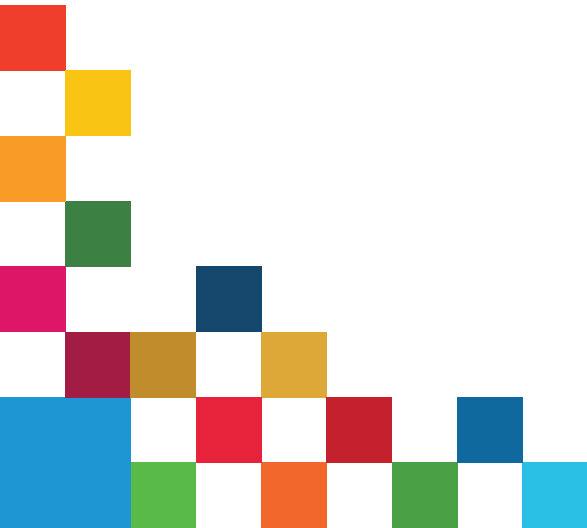
OPPORTUNITIES FOR YOUTH-LED INNOVATION TO THRIVE

Financing for Youth Entrepreneurship in Sustainable Development

CHAPTER

09

Alex Clark *(Senior Advisor, Solutions Initiatives, SDSN Youth)*, **Julian Payne***(Senior Advisor, Solutions Initiatives, SDSN Youth)* **and Kira Mullally** *(Project Officer, Solutions Initiatives, SDSN Youth)*

The Role of Young Entrepreneurs in Sustainable Development

The world is young: 42 percent of people are under the age of 25, and people aged 10 to 24 make up one quarter of the world's population (World Bank, 2017). These 1.8 billion individuals hold the power to shape the future. However, there are more than 64 million unemployed youth worldwide and 145 million young workers living in poverty (ILO, 2019). This means that one of the greatest challenges facing many countries today is inadequate human capital investment and high unemployment rates, especially concerning young people.

It is therefore evident that youth can be a positive force for development, should they be provided with the knowledge and opportunities they need to thrive, as well as access into a job market that can absorb them into its labour force (UN Population, 2015). The 2030 Sustainable Development Agenda depends on this as well, as it emphasizes the role of young people as "critical agents of change" (UNGA, 2015). It emphasizes the catalytic power of youth employment in poverty alleviation, economic growth, and peace and prosperity for all (UNGA, 2015). Young people's productivity, entrepreneurship and innovation will drive future economic growth, and could serve to build a brighter future for their countries and the planet. Therefore, providing them with education, employment and entrepreneurial opportunities is necessary in order to unlock the potential for the ever-increasing youth demographic to deliver on the SDGs.

The SDGs are more than a mere political declaration: sustainable development is becoming a mainstream element of the investment landscape. Sustainable products and policies are becoming more and more mainstream, and corporate and financial actors across sectoral and geographic boundaries are beginning to grasp that the SDGs represent an economic opportunity worth an estimated $25-35 trillion by 2030 (BSDC, 2017: 15-17). For this amount to be realized and for societies and businesses to reap the rewards of a shift towards a sustainable economy, it is necessary to understand the skill profiles of the future and provide support to the next generation of entrepreneurs and innovators.

This chapter first looks at the needs of young entrepreneurs working on the SDGs and the barriers faced in scaling their projects. It provides a comparison with last year's solutions. It then elaborates upon funding options for young entrepreneurs, a look at alternative financing mechanisms, and the need to develop robust investment pipelines to attract capital on more traditional terms. Finally, the chapter will feature a large overview of existing funding mechanisms and opportunities for young innovators all over the world.

The Needs of Young Entrepreneurs Working on the SDGs

Barriers to Innovation and Scale

Young people are three times as likely as adults to be unemployed (ILO, 2017). The explosion of youth unemployment and current demographic trends are forcing youth entrepreneurship to the centre of global policy discussions and of the post-2015 development agenda. Therefore, harnessing entrepreneurial talents among young people and easing constraints of the labour market is vital for employment generation and inclusive growth (UNCTAD, 2015). This requires a solid understanding of the barriers faced by young entrepreneurs, especially in the realm of sustainability, in scaling their solutions.

Last year, SDSN Youth identified five categories of barriers facing young entrepreneurs working on the SDGs, displayed in Table 1 below (SDSN Youth, 2018). The extent to which entrepreneurs encounter these barriers depends on several variables, including but not limited to: (i) the nature of their business, (ii) the stage/level of progress in developing the business, (iii) the geography of operation, and (iv) their social and economic status.

BARRIER TYPE	DESCRIPTION
(A) LEGAL & REGULATORY	• High business registration costs, complex regulatory procedures and distrust in regulatory environments • Limited knowledge of regulatory issues, in particular of copyright, patent or trademark regulations
(B) ACCESS TO FINANCE	• A shortage of appropriate youth and social venture-focused financial products and excessive restrictions on engagement in the financial sector • Low financial literacy levels and high credit, age and collateral requirements for obtaining loans
(C) EDUCATION & SKILLS	• A lack of entrepreneurship education and limited practical or experiential opportunities restricts young people from becoming successful entrepreneurs • Limited and poor-quality business development and incubation services
(D) AWARENESS & NETWORKING	• Negative social attitudes towards entrepreneurship in sustainability, especially among potential financiers (including domestic commercial banks and venture capital investors) • Underdeveloped young entrepreneurship networks • Insufficient promotion of role models and/or entrepreneurship networks, including linkages between youth-led start-ups and investors
(E) DATA & TECHNOLOGY	• Knowledge gaps regarding geographical contexts in which youth-led innovation occurs, including regulatory and financial contexts, as well as supporting mechanisms • Insufficient digital infrastructure, access to reliable/cheap electricity and workspace

Table 1 - Taxonomy of barriers facing young entrepreneurs working on the SDGs (adapted from(UNCTAD, 2015))

The 2019 Youth Solutions Report (YSR) surveyed 4,343 young entrepreneurs' perceptions of the main hurdles they faced in scaling sustainability-oriented ideas. Similar to the 2018 YSR, access to finance was identified as the main barrier impeding the scaling of solutions, this year far outweighing the other barriers. 88% of all applicants indicated that access to finance was a barrier to scaling, while awareness raising came in second at 45%.

"Which barriers do you face in scaling?"
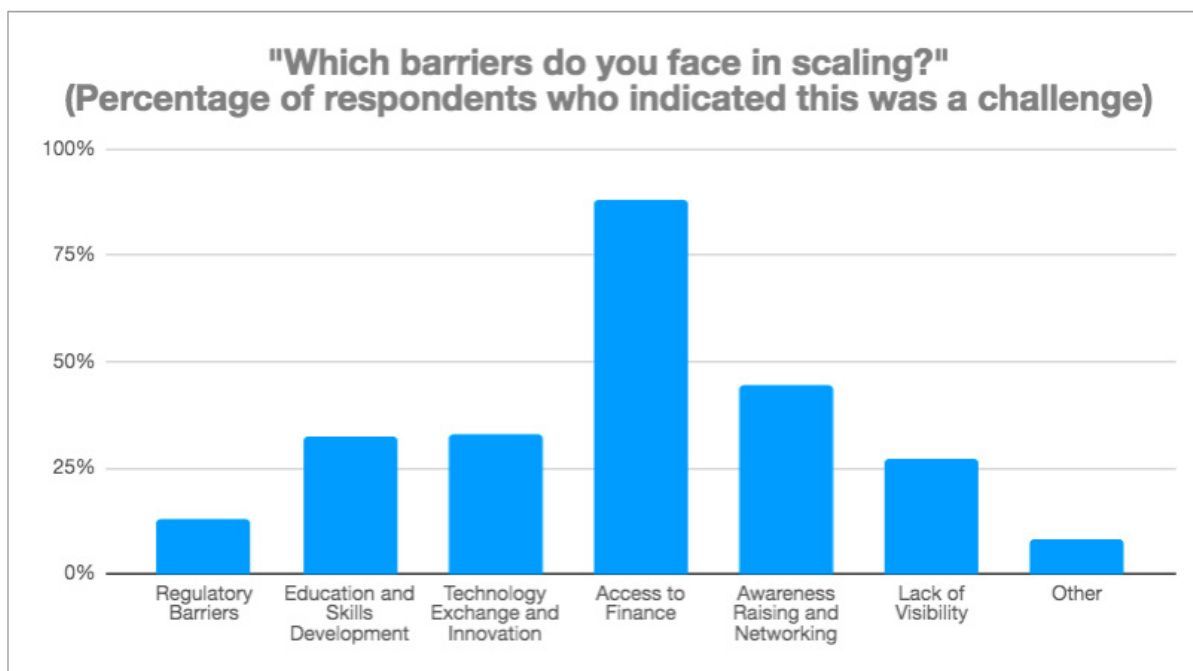(Percentage of respondents who indicated this was a challenge)

Figure 1 – Youth Solutions Report Survey: What are the main challenges
your organization faces in scaling? (n=4343)

Access to finance is a key constraint for any entrepreneur, and even more so for an aspiring young entrepreneur interested in starting a business. There are many impediments for young entrepreneurs when it comes to acquiring funding, which will be elaborated upon further on in the chapter.

Supporting Young Entrepreneurs Working on the SDGs

There are a variety of activities and interventions that can encourage the contribution of youth-led solutions to sustainable development. An indicative and non-exhaustive list of interventions mapped to the barriers in Table 1 is presented in Table 2 below.

BARRIER TYPE	DESCRIPTION
(A) LEGAL & REGULA-TORY	• Advise countries on using legal and regulatory frameworks to support youth entrepreneurship most effectively • Provide technical assistance to assist young entrepreneurs in complying with and navigating regulation
(B) ACCESS TO FI-NANCE	• Develop additional investment opportunities for youth solutions • Establish innovation grants, awards and prizes with links to follow-on financing and access to investor networks • Develop a pipeline of viable youth solutions for investors to fund

(C) EDUCATION & SKILLS	• Develop innovation incubators, acceleration programs and mentorship programs to provide a combination of training and hands-on experience to develop: Idea generation, market research, business planning, pitching, value proposition, financial sustainability, marketing and communications, monitoring • Promote education on SDG-oriented impact assessment to comply with the reporting requirements of many investors
(D) AWARENESS & NETWORKING	• Develop mapping tools to connect social ventures with large organizations and funders • Encourage cooperation with community groups, NGOs and other local stakeholders to develop meaningful partnerships at the local level • Develop media campaigns and public showcasing of youth entrepreneurship research
(E) DATA & TECHNOLOGY	• Provide technical assistance to ventures to develop digital infrastructure and plug knowledge gaps

Table 2 - Mapping Interventions to Barriers facing Young Entrepreneurs

The YSR survey also asked entrepreneurs what they needed to overcome the barriers they identified in Figure 1 (see Figure 2 below). While many entrepreneurs indicated that they required technical assistance (for example on legal, regulatory or technological issues), or support in marketing and communications, the majority identified access to finance as the key bottleneck to growth and the area requiring most support.

"What are your needs to overcome the barriers identified in the previous question?"

- Access to finance
- TA or incubation
- Communication and raising of profile
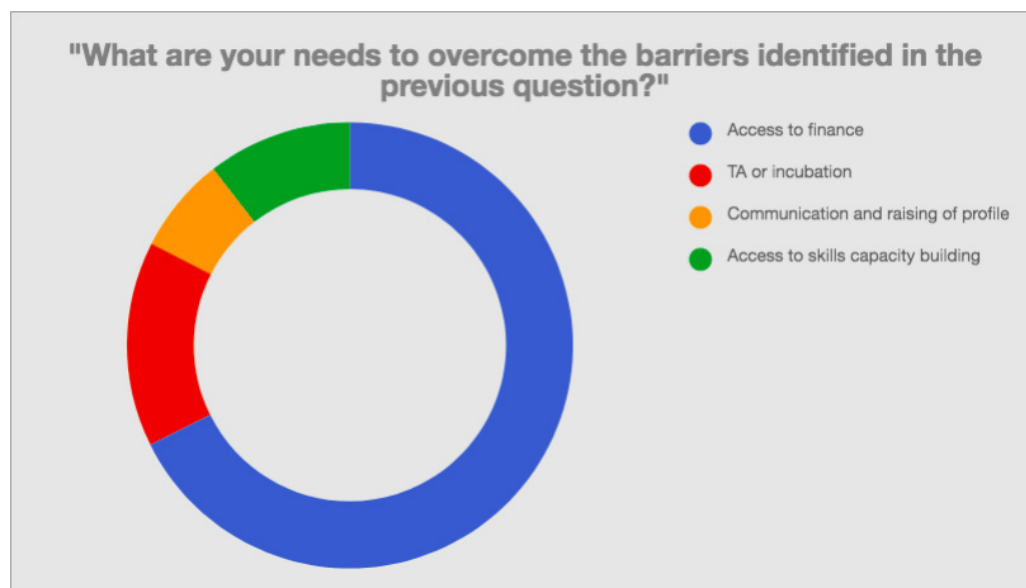- Access to skills capacity building

Figure 2 – Youth Solutions Report Survey: What are your needs to overcome the barriers identified above? (n=4343)

There is a clear need to develop additional investment opportunities for youth solutions as well as to identify existing ones. SDSN Youth is already actively engaged in the raising of company profiles via the YSR, as well as the provision of technical assistance and incubation activities through the Investment Readiness Program (IRP). There is immense catalytic potential in providing appropriate financial support to the strongest Youth Solutions emerging from this process.

The Financing Options Available to Young Entrepreneurs Working on The SDGs

Young people face many impediments when seeking financing for their innovative solutions. Collateral requirements, high banking fees, inadequate youth-friendly products, and lack of financial literacy are key bottlenecks for young people. Lenders often view young people as risky investments because they typically lack bank accounts, have no credit history or work history, low employment stability, and generally have insufficient collateral or guarantees to secure loans or lines of credit (UNCTAD, 2015). As can be seen in Figure 3 below, the solutions surveyed receive the least amount of funding through traditional and formal means such as concessional/commercial loans/equity.
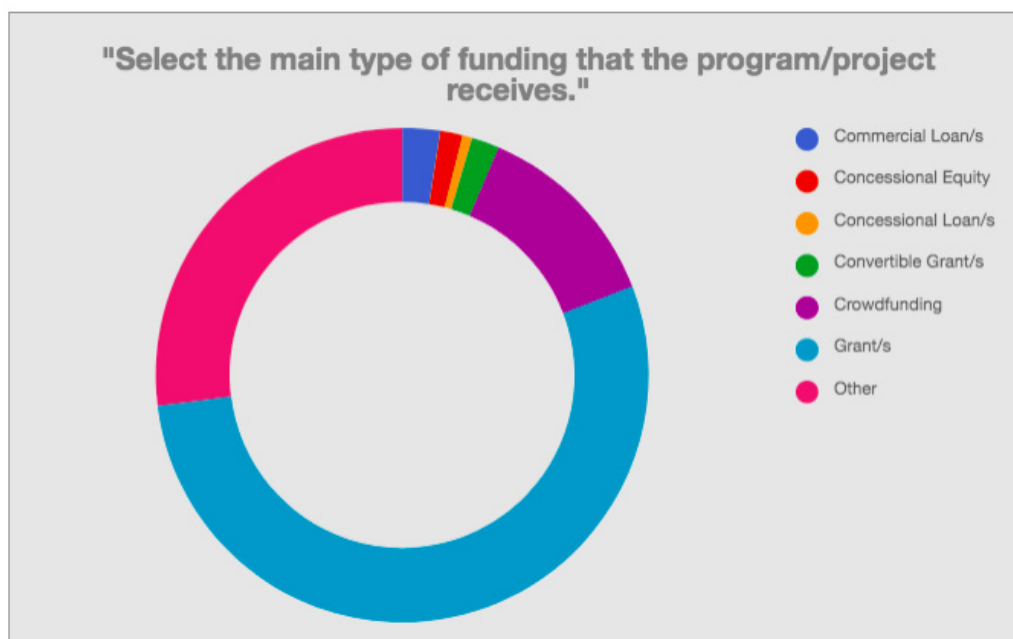

Figure 3 – Summary of youth finance-focused initiatives, by instrument type offered

Sources and Instruments of Finance for Young Entrepreneurs

There are three main sources of finance relevant to youth-focused social impact entrepreneurship, namely:

PUBLIC AND BLENDED FINANCE – Bilateral aid agencies, development finance institutions, foundations, etc. The use of blended finance (using public capital to de-risk an investment enough to attract private investors) is a trend of growing size and sophistication in the context of financing of the SDGs.

PRIVATE FINANCE – Commercial banks, impact investors, venture capital and private equity. Institutional and other mainstream investor's role is limited due to

insufficient scale and high risk of usually early-stage youth sustainability ventures.

ALTERNATIVE FINANCE – Crowdfunding and other technology-underpinned financing sources such as microfinance institutions and financial technology (FinTech) startups provide a promising venue for raising capital to young social impact entrepreneurs. However, entrepreneurs should also be wary of the potential drawbacks and increasingly cumbersome regulatory and compliance implications associated with using alternative finance options (SDSN Youth, 2018).

Policy Options and Youth-Specific Measures

As per UNCTAD's Policy Guide on Youth Entrepreneurship published in 2015, there are several areas that need to be improved in order for young entrepreneurs all over the world to be able to have better access to finance. They recommend for these policy objectives to be tackled on national and regional levels.

First, there needs to be improved access to relevant financial services on appropriate terms. This could be achieved through the development of public credit guarantee schemes; stimulating the creation of private mutual guarantees; promoting FDI in financial services, supply chain finance and leasing; facilitating collateral-free loan-screening mechanisms; and encouraging equity and 'risk capital' financing modalities. This could be applied to youth specifically by informing young people of youth-oriented financial services, including informal lending and other viable financing options; and also by shifting lenders' perception of collateral to include ideas, business support, mentoring, psychometric tests, etc.

Second, it is important to promote funding for innovation. This could entail providing incentives to attract venture capitalist investors and business angels; providing performance-based loans and incentives for innovation and green growth; and facilitating the use of intellectual property as collateral. It would be important to simultaneously facilitate linkages between youth-led startups and growth-oriented entrepreneurs and investors.

Third, the OECD recommends building the capacity of the financial sector to serve start-ups. This could include establishing a national financial charter, as well as promoting public-private grants and technical assistance to expand lending activities (for example: financial service provision through post offices and other 'proximity lenders; use of new banking technologies to reach rural areas). To serve youth specifically, efforts should be made to facilitate the development of youth-friendly financial products, and also to support the development of youth-friendly mobile banking technologies.

Finally, it is imperative to provide financial literacy to entrepreneurs and encourage responsible borrowing and lending. This could be achieved through expanding private credit bureau and public registry coverage, as well as by undertaking the appropriate supervision of financial products offered to social and micro-entrepreneurs. It is highly encouraged to promote youth-oriented financial literacy training in order for young entrepreneurs to make full use of these services.

Existing Funding Mechanisms and Opportunities

While there is evidently much to be done to improve young entrepreneurs' access to finance in order to scale their solutions, there are indeed many different existing funding mechanisms and opportunities all over the world. Researching and finding these opportunities, however, can be difficult and time-consuming. Therefore, the following list (organized by region) has been compiled of various funding mechanisms and opportunities from all over the world and includes grants and subsidies, loans and microfinance opportunities, business incubators and accelerators, entrepreneurial education and more.

Mechanism/Opportunity	Region	Type of Mechanism
Youth Entrepreneurship challenge Quebec	Canada	
Futurpreneur Canada	Canada	
Start-Up Chile	Chile	business incubator/ accelerator
International Park of Creativity (IPOC)	Colombia	business incubator/ accelerator
Dominica Youth Business Trust (DYBT)	Dominica	access to finance
Youth Social Innovation	Canada	access to finance
Social Innovation Fund (USA)		funding for innovation
Entrepreneurship Programme for Innovation in the Caribbean	Caribbean	funding for innovation
Ontario Emerging Technologies Fund	Canada	
Programa de Incubadoras de Negocios para Jovenes (PROJOVEM)	Mexico	funding for innovation
Emprendejoven	Chile	financial literacy
Programa Jovem Protagonista		entrepreneurial education
COPARMEX	Mexico	
Fundacion Impulsar	Argentina	accelerator program
Young Entrepreneurs Association	Jamaica	entrepreneurial education and empowerment
National Commission for Young Entrepreneurs (CNEJ)	Mexico	
Youth-Funding-Youth Initiative	USA	
Forbes 30 under 30	USA & Canada	

AMERICAS & CARIBBEAN

Mechanism/Opportunity	Region	Type of Mechanism
The Prince's Trust	UK	grant
Sistea de Apojo aos Jovens Empraserios (SAJE)	Portugal	grant
Imprenditorialita Giovanile (IG)	Italy	grant
JA-YE Start-Up Program	Europe	Business Incubator
Start-Up Bootcamp	Europe	Business Accelerator Program
StartUp Loans	UK	access to finance
Horizon 2020	EU	Research and Innovation Program
Social Impact Lab incubation program	Europe	business incubator/ accelerator
Young Arab Leaders	Middle East	entrepreneurial education and empowerment
Creating a Business that Suits You (DREAM)	Belgium	entrepreneurial education
Junior Achievement – Young Enterprise Europe	Europe	
Business and Youth in the Arab World	Middle East	
Junior Achievement – Young Enterprise	Norway	
Businessdynamics	UK	
Empowering Young People	Northern Ireland	

EUROPE & MIDDLE EAST

Mechanism/Opportunity	Region	Type of Mechanism
Kigali Institute of Science and Technology	Rwanda	Business Incubator Facility
DEMO Africa	Africa	Business Incubator
Information Technology Developers Entrepreneurship Accelerator (iDEA)	Nigeria	Business Incubator
Equity Group Foundation, Kenya's Equity Bank	Kenya	access to finance
Youth Enterprise Development Fund	Kenya	collateral loans
YouthStart Initiative – Girl's Choice, Teen Classic, Youth Progress	Uganda	access to finance
E-Ventures Africa	Africa	funding for innovation
COSTECH	Tanzania	incubator
VC4Africa	Africa	funding for innovation
Tony Elemelu Foundation Entrepreneurship Programme	Africa	entrepreneurial education
Africa Young Entrepreneurs Support (YES)	Africa	business accelerator
Kenya Youth Business Trust	Kenya	entrepreneurial support
Youth-to-Youth Fund / Youth Entrepreneurship Facility	Africa	

AFRICA

Mechanism/Opportunity	Region	Type of Mechanism
Commonwealth-Asia Alliance of Young Entrepreneurs (CAYE)		
Blue Chili	Australia	Business Incubator
IDEA Network, University of Queensland	Australia	Business Incubator
BRAC Microfinance Program	Bangladesh	access to finance
India's StVillageart-Up	India	business incubator/ accelerator
Kerala Finance Corporation	India	collateral-free loans
Bhatariya Yuva Shatki Trust	India	collateral-free loans
Prime Minister's Employment Generation Program	India	access to finance
Enterprise Network for Young Australians (ENYA) *Fund It!*	Australia	access to finance
Padakhep's Introduction of Financial Services	Bangladesh	access to finance
Bank of Papua New Guinea Centre for Excellence in Financial Inclusion	Papua New Guinea	access to finance
SME Venture Fund	Nepal	funding for innovation
Sri Lanka's Hatton National Bank	Sri Lanka	access to finance
New Zealand's Start-Up Fund	New Zealand	funding for innovation
Inclusive Innovation Fund	India	funding for innovation
More than Money Program	Brunei	financial literacy
Economics for Success	Brunei	financial literacy
OCBC Bank	Singapore	financial literacy
Project KYSS		business incubator/ accelerator
Young Entrepreneurs Start-Up Program	Indonesia	business accelerator
Nepalese Young Entrepreneurs' Forum	Nepal	

ASIA & THE PACIFIC

Mechanism/Opportunity	Type of Mechanism
Youth Employment Network	
Commonwealth Youth Credit Initiative	access to finance
Commonwealth Alliance of Young Entrepreneurs	
UNCTAD's Empretec Program	entrepreneurial education
ILO's Know Your Business Program	entrepreneurial education
Child and Youth Finance International	increase access to finance
Youth Business International	funding
KIVA	crowd-funding
Aflatoun International / Aflateen	financial education
Commonwealth Financial Literacy Program	financial education
Global Entrepreneurship Week	entrepreneurial education/competition
YouthTrade	entrepreneurial assistance
Consultative Group to Assist Poor (CGAP)	access to finance
UN Capital Development Fund (UNCDF) in partnership with the MasterCard Foundation	access to finance
Junior Achievement Worldwide's Banks in Action, Banks in Action Challenge	financial literacy

INTERNATIONAL

Mechanism/Opportunity	Type of Mechanism
Businesslab Incubation Program	business incubator/ accelerator
UNCTAD Youth Network, Youth Action Hubs	
The Growth Stage Impact Ventures for the Sustainable Development	
Cartier Women's Initiative	
Child & Youth Finance International (CYFI) initiative	financial awareness
Ye!	young entrepreneurship hub
SchoolBank	financial literacy
Schwab Foundation for Social Entrepreneurship	
Ashoka Young Changemakers Program	
Ashoka Youth Venture Initiative	
Antler	global startup generator and early stage venture-capital
YMCA Youth Entrepreneurship Program	
Youth Economic Opportunities Network	Making Cents International
Global Youth Economic Opportunities Summit	Making Cents International
Youth Business International – Youth Business Programs	
Junior Achievement Worldwide	
Global Youth Empowerment Fund	

REFERENCES

BSDC and Convergence (2017). The State of Blended Finance. London, UK: Business and Sustainable Development Commission. Available from:
http://s3.amazonaws.com/aws-bsdc/BSDC_and_Convergence__The_State_of_Blended_Finance__July_2017.pdf.

ILO (2017). International Labour Organization: Global Employment Trends for Youth 2017. Available from:
https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_598669.pdf.

ILO (2019). International Labour Organization: Youth employment. Available from:
https://www.ilo.org/global/topics/youth-employment/lang--en/index.htm.

SDSN Youth (2018). *Youth Solutions Report - 2nd edition*. New York and Paris: SDSN Youth.

UN Population (2015). United Nations Department of Economic and Social Affairs, Population Division: Population Facts. Available from:
https://www.un.org/esa/socdev/documents/youth/fact-sheets/YouthPOP.pdf.

UNCTAD (2015). United Nations Conference on Trade and Development: Policy Guide on Youth Entrepreneurship. Available from:
https://unctad.org/en/PublicationsLibrary/webdiaeed2015d1_en.pdf.

UNGA (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York: United Nations.

United Nations University (2014). World Population Day: Why Young People are Key. Available from:
https://ourworld.unu.edu/en/world-population-day-why-young-people-are-key.

World Bank (2017). World Bank Blogs: How Is the World's Youth Population Changing? Available from:
https://blogs.worldbank.org/opendata/chart-how-worlds-youth-population-changing.

Stages of Community Development:

How Young Leaders Can Identify and Execute Grassroots Projects Focused on the SDGs

Arrey Obenson (Former JCI Secretary General)

CHAPTER

10

Solving Problems Locally

As humans, we often are drawn towards fixing the problems of others. This is seen through developed countries seeking to assist developing countries, either through the form of aid or assistance. However, unsolicited aid or assistance can sometimes harm developing countries, despite one's best intentions. For example, a Western country might want to help solve the water issue in a particular African country because they have the financial resources to do so. Nevertheless, they might end up doing more harm than good if they do not understand the root cause of water scarcity in the region because they do not live there, and thus do not understand the full reason why this particular issue exists. This is why community issues are often best solved by active community members themselves at the local level.

Executing 'solutions' to problems in communities when one does not reside inside the community can result in backward and harmful outcomes. Notably, it can prevent progress and sustainable change in the developing world, and beyond. An African entrepreneur, Teddy Ruge, argues that solving big issues like poverty and world hunger involves empowering local communities, not keeping them dependent on outside organizations. He notes that giving things to countries, such as financial resources, does not solve the root cause. Examining what a community needs and wants, then providing tools and opportunities to access what a community needs, will create a better, sustainable future (Costello, 2015).

Past work from international non-governmental orgnizations (NGOs) with the best intentions have often temporarily solved a problem, only for the problem to persist or worsen once the NGO leaves. In early 2006, DrumNet, a project of the NGO Pride Africa, arrived in Kenya with the intent to replace crops grown by local farmers for personal or local consumption, and replace them with export crops. This replacement would encourage a profit for farmers, and in turn, increase community development. By acting as a 'liaison', DrumNet supported farmers and encouraged exporters to trade with one another. After one year of the program, DrumNet services led to an increase in the production of export crops and an increase in wages for farmers (Ashraf, Gine, & Karlan, 2008).

However, after this project was completed and DrumNet retreated from these communities, farmers were left without a liaison to help facilitate trading with one another, and guidance on crop management. This resulted in poor communication and crop cultivation, and eventually, the crops were not purchased by exporters because they did not satisfy European export requirements. According to one study, this forced the farmers to undersell their crops to the middleman, default on their loans, and sink further into poverty while not maintaining their normal crops to feed their families (Ashraf, Gine, & Karlan, 2008).

In 2010, the Global Alliance for Clean Cookstoves (now Clean Cooking Alliance) was formed, after more people began to understand that dangerous smoke for cooking fires was shortening millions of lives every year all over the world. Additionally, fumes from the stoves attributed to climate change, and wood harvesting for fires led to deforestation. The Alliance began distributing 100 million cookstoves designed to cut fuel use and toxic emissions in the developing world

(Morrison, 2018).

According to some reports, failure to understand the needs of women in rural areas had an impact on the sustainability of the project (Morrison, 2018). Over $75 million dollars were invested, and while the Alliance is projected to achieve its 2020 targets, its own CEO has acknowledged that 'progress on clean cooking remains painfully slow' (Clean Cooking Alliance, 2018). The same reports have for example suggested that stoves tend to break easily, do not heat food evenly or quick enough, and in some cases, burn more fuel than an open wood fire. As a consequence, it has been found that women in rural developing nations often neglected these stoves and returned to use an open wood fire (Morrison, 2018).

A project like DrumNet's or the Global Alliance for Clean Cookstoves were both started with the best intentions. A problem was addressed by a third party in both cases mentioned above and was executed with hopes to improve the lives of many around the world. Failure to address the root causes, analyze the communities, and applying a 'band-aid' like solution caused additional problems and arguably created non-sustainable projects.

Narratives like DrumNet's or the Alliance's are not uncommon. Issues like volunteer tourism have created a profitable industry that can often overlook the community they are meant to benefit. Additionally, volunteer tourism has forced communities to rely on outside resources and volunteers to solve local issues instead of implementing change themselves (Sin, 2010).

Local problems can be solved the easiest and quickest by one group in particular: the locals themselves. By empowering leaders in communities to take action and solve pressing issues in their own communities, sustainable change will start to blossom.

Young People are The Key to Sustainable Change

It is no secret that young people are at the forefront of lasting, sustainable change. According to the UN Youth Envoy, young people make up 1.8 billion of the world's population. 1.8 billion young people have the potential to ignite change and create a better future. However, when it comes to opportunities for growth and development to access skills to lead everyone towards a better future, young people are often left out of the equation.

There is a distinct lack of representation when it comes to youth development. Two out of three countries do not consult young people as part of the process of training for youth leadership and development skills (UN Youth Envoy, 2015) and evidence suggests that young people are severely underestimated when it comes to their ability to develop leadership skills (Karaginni & Montgomery, 2017). Recent trends suggest that young people play an integral role in the development of their communities and that civic engagement among youth leads them to become problem solvers, decision-makers and committed leaders in their community in the long term (Brennan, 2008).

Young people want to change the world but are often left out of the solution. The international community has recognized the importance and power of youth participation and leadership but fails to unite on where to begin. Often, leadership training and development is directed toward adults in the working world and current adult leadership training has been proven to be ineffective. Participants in corporate educational leadership programs note that leadership training they receive does not work. Changing leadership habits in a working adult is a hard task, and adult leadership participants suggest that what they learn is difficult to apply in their lives (Beer & Schrader, 2016). Further, growing evidence suggests that youth are severely underestimated when it comes to their ability to understand a growth mindset (Karaginni & Montgomery, 2017). Trying to change behaviors of adults has proven to be an ineffective means of change. In order to create change, leadership opportunities must be given to young people.

The lack of leadership training for youth puts young people at a disproportionate disadvantage in comparison to their older counterparts. Twenty percent of youth in the developing world are not in education, employment, or training (UN Youth Envoy, 2015). Without opportunities to grow, young people continue on in a cycle of poverty or indecent living. In order to break barriers and make a change, it is important to empower young people to become leaders in their own communities. Empowering youth to become long term contributors to their communities and society has been proven to create resilient and successful communities (Brennan, 2008).

This chapter further probes this debate by presenting the case of Junior Chamber International (hereinafter, JCI) and its Active Citizen Framework, a methodology to kickstart sustainable problem-solving and community development that young leaders can implement in their own communities.

Overview of the Active Citizen Framework

The Active Citizen Framework is a trademarked methodology developed by JCI for running sustainable, needs-based projects that create measurable results in communities. This framework empowers young people to become active citizens, take responsibility for global challenges in their community and identify targeted, sustainable solutions. Motivated by the passion to transform their community and the world, this framework gives leaders the courage to address the most critical challenges of our time.

As global citizens, we all have rights and responsibilities, as well as shared goals. The Sustainable Development Goals (SDGs) give the world a solid framework on what goals to advance, and the indicators on which to measure them. All sectors of society must band together to implement the SDGs in our communities to create

a better future. However, while the SDGs unite the world on common issues, it is important to give young people the tools and resources on how to achieve these goals in communities around the world.

The issues that each community face varies depending on multiple factors. In order to achieve the SDGs communities must use a framework in order to help them identify and solve their most pressing problems. Designed to address different types of community issues, the Active Citizen Framework aims to give young eaders the training and resources they need to help empower them to take responsibility, and encourage them to take action to recognize and solve issues in their own communities. These young leaders are then empowered with skills and training to create community impact.

The Active Citizen Framework ensures a community-based, needs-focused approach centers on grassroots action and results in sustainable positive change. Once the process has been completed and impacts achieved, active citizens must continue working toward transforming their community's challenges into opportunities for empowerment, development and impact.

The Active Citizen Framework Action Steps

Analyze: Examine Community Needs

Community challenges cannot be solved without first understanding them. The Framework works entirely on assessing a community and its core needs. A young leader within a community is the most familiar with the challenges in their community but often does not have the qualitative data to understand the prevalence of the problem. Using tools like surveys, demographic data and interviews with key stakeholders, active citizens and young leaders conduct a community needs analysis to deepen their understanding of the community's challenges and their root causes. This first phase of the framework ensures the project is relevant to the needs of the community while also connecting members of the community, supporters of the initiative and potential partners for the project.

Develop: Formulate Sustainable Solutions

After collecting and analyzing data on community needs, the next step is to formulate a project plan that addresses the core needs and their root causes, as well as provide long-term solutions. Collaborators outline goals, actions and desired outcomes that produce a maximum impact in the community. Just as the needs analysis helps ensure community ownership of the challenges, involving all sectors of society in collaborating on a solution will help ensure sustainable impact.

Execute: Take Action

Once the community need and root causes have been identified, young active citizens take action by mobilizing resources, rallying support and implementing the project plan. By combining resources across sectors from key stakeholders, the community is enabled to achieve even greater sustainable impact. During this stage, communication, action, and accountability is key to ensuring positive results and sustainable impact.

Review: Monitor and Evaluate Results

Throughout the project, progress and results are monitored to determine if the goal is on track to being achieved. To monitor progress and results, data is collected during the needs analysis phase during and after the project. This helps measure how much positive change was created in a qualitative manner. After completion, reflection on the actions taken and evaluation of the team's performance are necessary to create a long-lasting impact.

Each Step of the Way: Partnerships

To increase impact, partners are engaged during each step of the framework, which increases every stakeholder's ownership of the need and solution. Uniting resources and leveraging each other's strength can achieve better results. Resources can include people, expertise, physical or web-based tools and information or frameworks such as training and financial resources. With the Active Citizen Framework as a tool to achieve sustainable impact and create a better world, like-minded organizations can better understand how we can create sustainable impact in the community together.

Stages of Community Development

The Active Citizen Framework has identified three stages of community development in order to properly and sustainably execute the framework. These stages were put in place in order to help the community prioritize particular SDGs. TheSDGs developed by the UN do not place importance on any particular goal, but rather that these are the top 17 critical goals that the world must work toward achieving by 2030. The Active Citizen Framework allows communities to assess their most pressing needs, and focus on their immediate needs before moving on to a broader goal.

The Framework uses some inspiration from Maslow's Hierarchy of Needs to detail these stages of community development. The hierarchy is a well-known psychological theory that describes human motivation, and has been regarded as a decision-making framework for nation-state governing bodies to enable sustainable development (Yawson, Armah & Pappoe, 2009). This framework helps prioritize which SDGs should be implemented in a community first in order to achieve long term success. Sustainability can only be achieved once basic needs are met. After needs are met, goals are able to move forward. Therefore, the framework of Maslow's Hierarchy of Needs encompasses the stages of community development and helps a young leader recognize what goals to advance in their own communities.

Below are brief descriptions for each stage of development as outlined in the Active Citizen Framework.

Stage 1: Health and Wellness

Healthy people are fundamental to building a successful society. According to Maslow's hierarchy, the physiological needs of a human is the most fundamental. Physiological needs relate to the need for food, water, shelter, and clothing, and is related as the most fundamental need as it is related with survival instincts (Yawson, Armah & Pappoe, 2009). Without these things, humans are unable to survive. This fundamental need can be related back to SDGs 1, No Poverty; 2, Zero Hunger; 3, Good Health and Well Being; and 6, Clean Water and Sanitation.

Stage 2: Education and Economic Empowerment

Education and economic empowerment are the engines behind economies that lift citizens out of poverty, putting them on a path towards sustainable development. This step builds on the foundations of Health and Wellness, and can only be acted upon once physiological needs are met. This stage could relate to Maslow's stage of "Safety Needs" and "Esteem Needs", as economic security and education provide financial security and boost confidence (Yawson, Armah & Pappoe, 2009). This stage relates to SDGs 4, Quality Education; 5, Gender Equality; 8, Decent Work and Economic Growth; 9, Industry, Innovation, and Infrastructure; and 10, reduced inequalities. Together, furthering these goals provide communities with a sense of belonging, safety, and a boost of confidence if achieved.

Stage 3: Peace, Prosperity, and Sustainability

When addressing issues in the first two stages, taking a long-term view of development helps avoid environmental and economic crises that reverse progress. Projects in stage three prepare communities to maintain success and educate businesses and the public about their role in all types of sustainability, including environmental and corporate responsibility. The hierarchy can be related to this stage in the "Belongingness and Love Needs" as well as "Self Actualization."

When achieving goals related to stage three, like SDGs 7, 11, 12, 13, 14, 15, 16, and 17, community members feel a sense of belonging and connection, as well as a sense of fulfillment and commitment. The highest stages of motivation coincide with the last stage of development, demonstrating that basic needs must be fulfilled until a community has the motivation to move forward with broad concepts.

The Active Citizen Framework in Action

The Framework has been implemented successfully in several JCI projects and beyond. Below are examples of how young leaders have used the Framework as a guide to further develop their community and implement sustainable projects.

JCI Cluj (Romania) implemented their project "Food Waste Combat" and used the Framework to analyze a community need that leads to successful execution. Below is their story of success.

ANALYZE

In 2012, JCI Cluj conducted a study of 380 citizens and discovered a low awareness and education of waste management. By reviewing existing secondary data, they learned Romania throws away 6000 tons of food per day throughout the entire food chain.

DEVELOP

The next step was to formulate projects that address the core needs and their root causes, ultimately providing long-term solutions. JCI Cluj began their journey by increasing community awareness of proper waste management, but the project's long-term goal became to actively reduce food waste by all actors of the food consumption chain: producers, consumers, supermarkets and restaurants.

EXECUTE

The root causes were identified and JCI Cluj mobilized resources and implemented the project plan. Food Waste Combat ran workshops and community dinners to inform the public about sustainable food consumption and waste, and by working with vendors in the food chain, they created a food bank where supermarkets donated their food surplus.

REVIEW

Throughout the project, it is important to monitor progress to determine if the goals are on track to being achieved. Food Waste Combat increased the number of people affected each year— in 2018, 4000 people were affected directly, and they reached over 2 million people indirectly, including online. In total, 9 tons of food was saved through the food bank. The ongoing evaluation led JCI Cluj to begin working with experts to affect legislation while continuing to grow the number of stakeholders learning about and taking action to combat food waste in Romania.

COLLABORATE

By engaging stakeholders affected by the community challenge, as well as those in a position to address it throughout each step of the framework, communities can forge coalitions dedicated to creating a solution. JCI Cluj engaged with citizens and students, involved restaurants and supermarkets in solutions, partnered with media to increase awareness, and involved experts of national and international law to create sustainable impact.

JCI Romania implementing their Food Waste project and informing the public (photo courtesy of JCI Romania).

JCI Zagreb put their project into action by using the Framework. The Framework allowed JCI Zagreb to properly analyze the needs of their community and support their project accordingly. Below is their story of success.

ANALYZE   In 2015, the migrant crisis that hit Croatia changed the needs of the community of Zagreb. Refugees all over Croatia needed support and assistance to rebuild their lives. After interviewing young people and children to understand the needs of the refugee community, JCI Zagreb learned that young refugees needed activities to assist them in socialization to help them to integrate in their new home, and educational activities to further their learning.

DEVELOP   JCI Zagreb began their project by consulting psychologists and educational experts to ensure that their activities were benefiting young refugees to the highest potential. Additionally, JCI Zagreb began raising community awareness about the problems of refugees in Zagreb and began working towards joint community efforts to empower refugees.

EXECUTE   Now, JCI Zagreb had the tools to execute activities to impact young refugees. By organizing educational and fun activities for refugees once a month, JCI Zagreb empowered the young refugee community with confidence and knowledge to better tackle their new social climate.

REVIEW   In 2015, the migrant crisis that hit Croatia changed the needs of the community of Zagreb. Refugees all over Croatia needed support and assistance to rebuild their lives. After interviewing young people and children to understand the needs of the refugee community, JCI Zagreb learned that young refugees needed activities to assist them in socialization to help them to integrate in their new home, and educational activities to further their learning.

COLLABORATE   JCI Zagreb collaborated with NGO "Are You Syrious?" in order to engage the civil sector of society. "Are You Syrious?" served as a connection between refugees and the public, and helped the project develop successfully. In addition, JCI Zagreb worked with businesses all throughout Zagreb, spreading their message and mission.

JCI Romania implementing their Food Waste project and informing the public (photo courtesy of JCI Romania).

NGO Yuwalaya received a grant from the Global Youth Empowerment Fund in 2018 to advance their project to eliminate gender-based violence in Nepal. The Fund is a joint initiative between JCI and the UN SDG Action Campaign, and gives grants to youth-led projects all over the world that work to advance the SDGs. Since its inception, the Fund has funded 17 projects in 15 different countries.

ANALYZE

In 2017, Yuwalaya conducted a quantitative survey of 155 young people to understand the prevalence of violence in romantic relationships. The survey stated that over 30% of young people faced some form of violence from their romantic partners, but many were unaware that what they faced was considered violence. Due to Nepalese tradition, discussion of relationships is taboo. This prevents young people from receiving comprehensive education surrounding relationships or seeking help when they believe they are facing abuse. This can lead to a cycle of violence throughout their lifetime. Yuwalaya sought to fix this problem at the source by educating young people on healthy relationship habits and behaviors.

DEVELOP

Yuwalaya sought to promote gender equality and healthy relationship habits by educating young people at schools all over Nepal. By developing orientation structures that could be carried out and applied in schools all over the country, Yuwalaya wanted to make sure their information was easy to understand and to access.

EXECUTE

In addition to their orientations on gender equality, Yuwalaya carried out self-defense classes, awareness campaigns like mass marches and social media campaigns, and further extended research into the prevalence of gender violence among young people in Nepal.

REVIEW

In 2015, the migrant crisis that hit Croatia changed the needs of the community of Zagreb. Refugees all over Croatia needed support and assistance to rebuild their lives. After interviewing young people and children to understand the needs of the refugee community, JCI Zagreb learned that young refugees needed activities to assist them in socialization to help them to integrate in their new home, and educational activities to further their learning.

REVIEW

The gender orientation workshops were successfully implemented in 31 schools and universities all over Nepal. Yuwalaya tested their participants before and after participating in the Gender Orientation workshops to see the effect of their teachings. On average, participants improved their test scores from an average of 30% to an average of 90% after completing the training. Additionally, Yuwalaya is continuing their research on the prevalence of Gender Violence in Nepal.

COLLABORATE

Yuwalaya partnered with like-minded institutions to amplify their impact. By collaborating with local governments in Nepal, the National Planning Commission and Nepal Police. These partnerships strengthened relationships between government and civil society, letting their message spread to a wider audience. By forming partnerships, their message was spread to an even wider audience and echoed throughout communities in Nepal.

Yuwalaya after a Gender Based Violence Orientation session (photo courtesy of Yuwalaya).

Conclusion

Young people need to develop critical skills that can be applied to both personal employment and entrepreneurship, as well as develop skills that will enable them to stand up, make informed decisions, and lead their community to take concrete action for sustainable impact. Youth must become economically, socially and politically empowered to properly address the daunting challenges of poverty, inequality and climate change. To ensure inclusive, holistic and sustainable development, young people must be active citizens invested in the future of their community and country. Communities can develop at a faster rate by relying on the passion and energy of young leaders, provided that they can rely on solid frameworks and methodologies that emphasise local needs and long-term, sustainable change. With the right tools, this passion can then be transmitted into action, and grassroots-driven change by young people will remain a catalyst to solve important issues in communities worldwide.

REFERENCES

Ashraf, N., Xavier Gine, and Dean Karlan (2008). Finding Missing Markets (And A Disturbing Epilogue): Evidence From An Export Crop Adoption And Marketing Intervention In Kenya. Policy Research Working Papers. doi:10.1596/1813-9450-4477.

Beer, M., Magnus Finnstrom, and Derek Schrader (October 2016). Why Leadership Training Fails- and What to Do About It. Harvard Business Review, 50-57. Available from: https://hbr.org/2016/10/why-leadership-training-fails-and-what-to-do-about-it (accessed 17 September 2019).

Brennan, M. A. (2008). Conceptualizing Resiliency: An Interactional Perspective for Community and Youth Development. Child Care in Practice 14(1): 55-64. doi:10.1080/13575270701733732.

Cecchini, S., and Monica Raina (2004). Electronic Government and the Rural Poor: The Case of Gyandoot. Information Technologies and International Development 2(2): 65-75. doi:10.1162/1544752044193434

Costello, A. (13 Juner 2015). Building a Self-Reliant Africa from the Bottom-Up. Nonprofit Quarterly. Available from https://nonprofitquarterly.org/building-a-self-reliant-africa-from-the-bottom-up/ (accessed 17 September 2019).

Karagianni, D., and Anthony J. Montgomery (2017). Developing leadership skills among adolescents and young adults: A review of leadership programmes. International Journal of Adolescence and Youth,23(1), 86-98. doi:10.1080/02673843.2017.1292928

Morrison, S. (12 July 2018). Undercooked: An Expensive Push to Save Lives and Protect the Planet Falls Short. ProPublica. Available from: https://www.propublica.org/article/cookstoves-push-to-protect-the-planet-falls-short (accessed 17 September 2019).

UN Youth Envoy. (2015). THE GLOBAL YOUTH CALL "Prioritizing Youth in the Post-2015 ... Available from: http://www.un.org/youthenvoy/wp-content/uploads/2014/09/The_Global_Youth_Call.pdf (accessed 17 September 2019).

Sin, H. L. (2010). Who are we responsible to? Locals' tales of volunteer tourism. Geoforum 41(6): 983-992. doi:10.1016/j.geoforum.2010.08.007.

Yawson, D., Frederick A. Armah, and Alex N.M.. Pappoe (2009). Enabling Sustainability: Hierarchical Need-Based Framework for Promoting Sustainable Data Infrastructure in Developing Countries. Sustainability 1(4): 946-959. doi:10.3390/su1040946.

Acknowledgements

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The Youth Solutions Report is a flagship project of SDSN Youth. The Report is part of the Youth Solutions Program, which is managed by the Solutions Initiatives team of SDSN Youth.

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Dario currently works as a Research Officer for the Centre for International Environmental Studies of the Graduate Institute of Geneva, Switzerland, where he is also a PhD candidate in International Law. He previously worked as a Research Officer for the Global Health Centre of the Graduate Institute of Geneva. In 2017, he was a co-recipient of an Erasmus+ grant for Jean Monnet Modules (project title: European Union Law and Sustainable Development) and is now the Program Manager of the Module, which is hosted by the University of Siena.

With SDSN Youth, Dario coordinated the #KnowYourGoals global campaign and currently serves as its representative in the Global Partnership for Sustainable Development Data. His main areas of work are international environmental law, biodiversity conservation, ocean governance, climate change, and global health. He holds an MSc in Environment and Development from the London School of Economics and Political Science, and a JD from the University of Siena.

JULIAN PAYNE, Senior Project Advisor (Access to Finance)

Prior to joining the Solutions Initiatives team, Julian served as the Project Leader for SDSN Youth's work on Youth, Peace & Security and as a member of its Research & Policy team, acting as a source of feedback on SDSN and UN reports. Julian also works as an analyst at the Carbon Trust, most recently working on Mission Innovation, an initiative in which 20 countries pledged to double their clean energy R&D expenditure up to 2020. Prior to joining SDSN Youth, Julian worked as a research associate at the Constitution Unit, a think tank housed in UCL's Department of Political Science, and as a research assistant at the Konstanz Science Forum. Julian holds an MSc in Comparative Political Economy from the London School of Economics and Political Science. He also holds a BA in Philosophy and Linguistics from the University of Konstanz and the University of Durham.

ALEX CLARK, Senior Project Advisor (Access to Finance)

Alex has recently returned to SDSN Youth, after serving as Project Leader for Operations/Networks until 2017. Alex Clark is an assistant analyst on CPI's climate finance team, in its San Francisco office. Prior to joining CPI, Alex undertook a wide-ranging fellowship at Harvard University and conducted research on the geopolitics of renewable energy and electric vehicles. He also led a team advising the Ray and Tye Noorda Foundation on their climate change programming.

Alex currently coordinates Galvanizing the Groundswell of Climate Action. He has represented Young European Leadership at the COP21 and COP22 climate conferences. He has previously worked for the International Union for the Conservation of Nature, and the debt capital markets division of Bank of America Merrill Lynch in London. He holds an MSc in Global Governance and Diplomacy from Oxford University and a BA (Hons) in Politics, Philosophy and Economics from Warwick University.

INNA AMESHEVA, Senior Project Advisor

Inna recently completed her PhD in climate change and sustainability at Hong Kong University Law School. After receiving a First Class Honours Law Degree from the University of Birmingham, she worked for a top US law firm in London and gained experience at the European Court of Justice in Luxembourg. Next, Inna embarked on a start-up journey at Google Campus in London, where she developed a passion for innovation, technology and entrepreneurship. Inna then spent four years in Hong Kong, focusing on international climate change law and sustainability. She is passionate about social inclusion and development and her goal is to contribute towards shaping our ever-changing world, supercharging the GreenTech entrepreneurship ecosystem. She is fascinated by breakthrough innovations in the fields of technology, renewable energy and science.

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Kanika works as a Research Manager with IFMR LEAD and has a postgraduate degree in Sustainable Development Practices from TERI University of New Delhi. Her previous engagements include social research in several states of India on financial inclusion and women empowerment.

She has experience in participatory appraisals with tribal/rural/peri urban communities and in implementing interventions in the livelihoods sector. She has worked with The Energy Resource Institute, SELCO Foundation, UNLEASH Innovation Lab, Oxfam International and HCL Foundation. She holds a Bachelor's Degree in Commerce from University of Delhi and is a keen contemporary dancer.

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Fernanda is a sustainable development scientist passionate about generating data and easy-to-understand information to empower society to make responsible decisions about the environment. For the last five years, Fernanda has led science-based projects regarding poverty, deforestation, and urban challenges in Rio de Janeiro and the Amazon region - three of them years working for the global NGO Conservation International (CI). She holds a Master from the Global Master Development Program (MDP/UFRRJ) and a postgraduate certificate in Environmental Management from TU Dresden (Germany). She is currently a PhD candidate at Center for Development Research at University of Bonn, Germany.

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Zenna is a UCL graduate with a degree in Russian politics. She has interned at the Permanent Mission of Malaysia at the United Nations in Geneva on issues of human rights, intellectual property, WMDs, and the nuclear ban treaty. She is currently working to develop a campaign initiative into Malaysia realise the rights and self-agency of foreign domestic workers and migrants.

While in London, Zenna worked year-round as a UCL Global Ambassador as well as conference coordinator for the youth division of British Pugwash to bring forward nuclear disarmament efforts.

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Sushil is currently engaged as Research Assistant with the Graduate School of Sustainability of Arizona State University, where he is also pursuing his PhD in Sustainability. He holds a Masters in Sustainable Development Practice from TERI University.

Sushil has previously worked with TERI University, the Institute of Rural Management of Anand (IRMA) and the Indian Institute of Technology Bombay. For the past four years, he has been working on projects relating to climate resilient development in South-east Asia with a sectoral focus on energy and agriculture. Recently, he has also been involved in several projects relating to citizen-generated data.

YURI HUNG, Project Officer (Data Partnerships)

Yuri is a UCL graduate with a degree in International Public Policy. He has worked in the consulting industry previously for 2 years, while running a youth Think Tank, Youth IDEAS, for the Hong Kong Federation of Youth Groups, one of the largest youth-targeted NGOs in Hong Kong. Yuri is currently working as an initiator of community workshops, including Telling Story with Data, Presenting with Impact, and Mindfulness x Chinese Calligraphy. He is currently working on a social project focusing on positive education in Hong Kong. Yuri is a featured speaker at TED. He has spoken for TEDxSOAS and TEDxLingnan University. He is working as a Volunteer Consultant for Asian Charity Services, s erving NGOs through advising on the relevant skills and capabilities.

AMY AU, (Strategy and Communications)

Amy works as the Digital Communications Manager at the Right Livelihood Foundation in Stockholm, which presents the Right Livelihood Award (known as the "Alternative Nobel Prize" in Europe) annually. She strategizes digital storytelling campaigns and amplifies them via digital channels. Prior to joining the Foundation, she was the Digital Communications Manager at sustainability think tank Sustainia in Copenhagen, and a journalist in Hong Kong covering environmental, health and sustainability news.

Outside of her current role, she has also taken up a new role as the Communications Project Lead at SDSN Youth since August 2019. She also supports the communications efforts of UN SDG Action Campaign as one of their storytellers.

Amy holds an MSc in Social Anthropology from the University of Oxford, and furthered her studies in Sustainable Development at Uppsala University.

KIRA MULLALLY, Project Officer (Strategy and Communications)

Kira is a Master's Candidate at the Graduate Institute of International and Development Studies (IHEID) in Geneva, Switzerland. She is pursuing an MA in International Affairs, focusing her studies on Environment and Sustainability. At the Institute, she is an active member of the IHEID Environmental Committee, through which she assisted with Swiss Sustainability Week and also presented a workshop at Geneva's International Climate Show 2018. She is also currently working on an initiative with Impact Hub (Geneva and Lausanne) regarding the Circular Economy in the Arc Lémanique.
Kira holds a BA in International Relations from the University of British Columbia, during which she did an exchange at Lund University.

MADELEINE SETIONO, Project Officer (Operations)

Madeleine graduated from the University of Michigan, majoring in Economics and International Studies with a focus on political economy and development. She is leading a team working on an initiative to promote traditional East Nusa Tenggaran kain. She has interned at the Executive Office of the President of the Republic of Indonesia under the social and ecological issues deputy and the Indonesian Ministry of Foreign Affairs previously. Upon graduation, she will be working in one of Indonesia's tech unicorns.

About SDSN Youth

Launched in 2015, SDSN Youth is the global youth division of the Sustainable Development Solutions Network (SDSN), an initiative for the United Nations directed by Professor Jeffrey D. Sachs. SDSN Youth aims to educate a global movement of young people on sustainable development and support them in creating innovative and sustainable solutions to global development challenges. SDSN Youth works alongside policy-makers and receives assistance from field experts.

The global reach of the SDSN, with its strong links to universities from around the world, provides a unique opportunity to effectively involve youth in the post-2015 agenda. SDSN Youth has 5 overarching aims and objectives:

(I)   Monitor constituencies of young people with capacity to mobilise to achieve the SDGs
(II)   Educate young people about the SDGs and encourage them to prioritise their implementation
(III)   Integrate concerns and views of young people into the pathways for achieving the SDGs
(IV)   Provide a platform for young people from different communities to connect and share ideas and experiences that address the challenges of sustainable development
(V)   Support and celebrate projects that are aimed towards achieving the SDGs

For more, visit www.sdsnyouth.org