

UNDP INNOVATION FACILITY | 2016 YEAR IN REVIEW

SPARK, SCALE SUSTAIN



INNOVATION
For The Sustainable
Development Goals



MINISTRY OF FOREIGN
AFFAIRS OF DENMARK



The work of the UNDP Innovation Facility is made possible with funds from the Government of Denmark, the co-founding donor of the Facility.

UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in nearly 170 countries and territories, we offer global perspective and local insight to help empower lives and build resilient nations.

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FOREWORD

In 2014, a small team of enthusiastic change-makers at the Public Service Development Agency (PSDA) of Georgia started a new form of collaboration with UNDP. Our shared vision? A partnership to shift a traditional bureaucracy into an engine of innovation for more effective solutions to the pressing challenges faced by the public sector.

In cooperation with the UNDP innovation team, we set up ServiceLab, our first innovation lab in Georgia to re-think the way public services are designed and delivered. Ours is a learn-by-doing approach, through hands-on experiments designed to bridge gaps between the viewpoints of decision-makers and citizens on important issues. By bringing civil servants and citizens into the same room as equals, we enabled them to solve problems together, sparking a co-working process to emulate the essence of democracy – for the citizens, by the citizens. Our role is to nudge our partners, both in the public sector and beyond, to explore less travelled paths by incorporating citizen-centric practices. Instead of focusing on existing and easy-to-replicate cases, we seek to find the best-fit solutions through introducing experimentation, prototyping and ‘reverse-engineering’ tools to the public sector.

In our collaboration with UNDP, it has become evident that the design thinking approach minimizes risks, as it involves small, inexpensive experiments instead of large-scale projects that are difficult and costly to roll back. Once the right solution is found as the result of some “paper and glue” work and by “getting our hands dirty” it can be built, thereby transforming a prototype into a real product or service.

An example? Our first successful experiment was a new partnership between ServiceLab and Emergency Services in Georgia. We used design thinking to introduce an emergency call service for people with hearing impairments. For the first time, government, non-governmental actors, and the target users themselves collaborated to co-create public services in Georgia. At our prototype testing workshop, we witnessed citizens’ visions for ideal emergency services come to life, when the emergency services incorporated citizen preferences in their new service. Above all, this meant a significant expression of trust between citizens and government – they trusted us with their ideas and we delivered. Learning from this experience, we introduced over 30 additional online services for persons with disabilities within a month. We also recruited sign-language interpreters to serve the special needs of these users.

Working with UNDP on setting up the ServiceLab has provided a new impetus to public sector innovation in Georgia. Innovation is not just about solutions. It’s about how we approach governance. Over the last decade,

we are seeing fundamental changes in the practice of governance through ‘networked democracy’ - particularly in the shifting role of citizens, from passive consumers of government services to active co-designers.

Public sector innovation labs are a mechanism for driving change in the public sector and to engage citizens in public service reform and policy design. It is about formulating and testing hypotheses with a clear idea of what change we want to trigger, while not pre-defining the path which would lead us to these results. In an increasingly connected world where complex dynamics are at play and constant and rapid change is the ‘new normal’, understanding what the actual problem is, let alone what the possible solutions may be, is particularly challenging. We created a peer-to-peer support group to share experience and discuss new approaches to challenges through the inter-agency Public Service Designers Network.

To achieve the ambitious Sustainable Development Goals, committed to by the Member States and UN, we must invest in public sector innovation to find the best solutions for a given context, and to generate systems and processes that enable us to learn quicker and be more inclusive.



NANA TSIKLAURI

Director, Strategic Projects & Reforms Department
Public Service Development Agency
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ABOUT THE REPORT – UNDP INNOVATION FACILITY IN 2016

The UNDP Innovation Facility scans the horizon to assess emerging approaches and technologies that can add value to the achievement of the 2030 Agenda in partnership with the public and private sectors. We invest in innovation to find the best solutions based on evidence, to achieve better development results, and to design more inclusive processes for better governance.

2016 was a turbulent year. Geopolitical changes and further escalations of ongoing conflicts with severe human rights abuses were contrasted by tangible progress. This included the adoption of the Paris Agreement, which charted a new, though uncertain, course in the global effort to combat climate change and adapt to its effects. 2016 highlighted the accuracy of the VUCA assessment of the world: where volatility, uncertainty, complexity and ambiguity are the new normal. What can be practically done to adapt to this reality, and achieve progressive change towards the Sustainable Development Goals?

Our answer is to invest in experiments that test alternative ways of addressing development problems, monitor the results rigorously, and work on bringing innovation from the margins to the centre of UNDP, our partner

organizations, and client governments. In 2016, we continued to design practical interventions based on country-level experiments. With our partners, we focus on the change we want to achieve, instead of the approach, methodology, or solution.

This 2016 Annual Review provides an overview of UNDP's innovation journey. The chapter on **Our Work** provides a snapshot of innovation initiatives from early-stage to those on a pathway to scale. The chapter on **Creating A New Normal** highlights UNDP's investment in innovation champion programmes, our recent experiment to inject innovation techniques into our project design and management. It also addresses our joint work with the Talent Management Unit to embed innovation skills in UNDP's leadership programmes.

The 'Features' in this report reflect the service lines emerging at UNDP because of our investments in innovation: Alternative Finance, Data Innovation, Behavioural Insights, Public Sector Innovation Labs and dedicated services on scaling innovations.



INNOVATION AT UNDP

UNDP's deliberate investment in innovation started in 2012 in Europe and Central Asia. Within two years UNDP established the global Innovation Facility, based in the Bureau of Policy and Programme Support, and supported by the Government of Denmark. Since 2014, the Facility has provided seed funds to more than 110 experiments across 76 countries, testing 18 (and counting) innovation approaches. The Facility's team is based in Addis Ababa, Amman, Bangkok, Istanbul, New York and Panama. The team provides innovation advisory services, and nurtures a distributed network of innovation champions across the globe.

Here are three key results that independent evaluation and UNDP's own data point to:

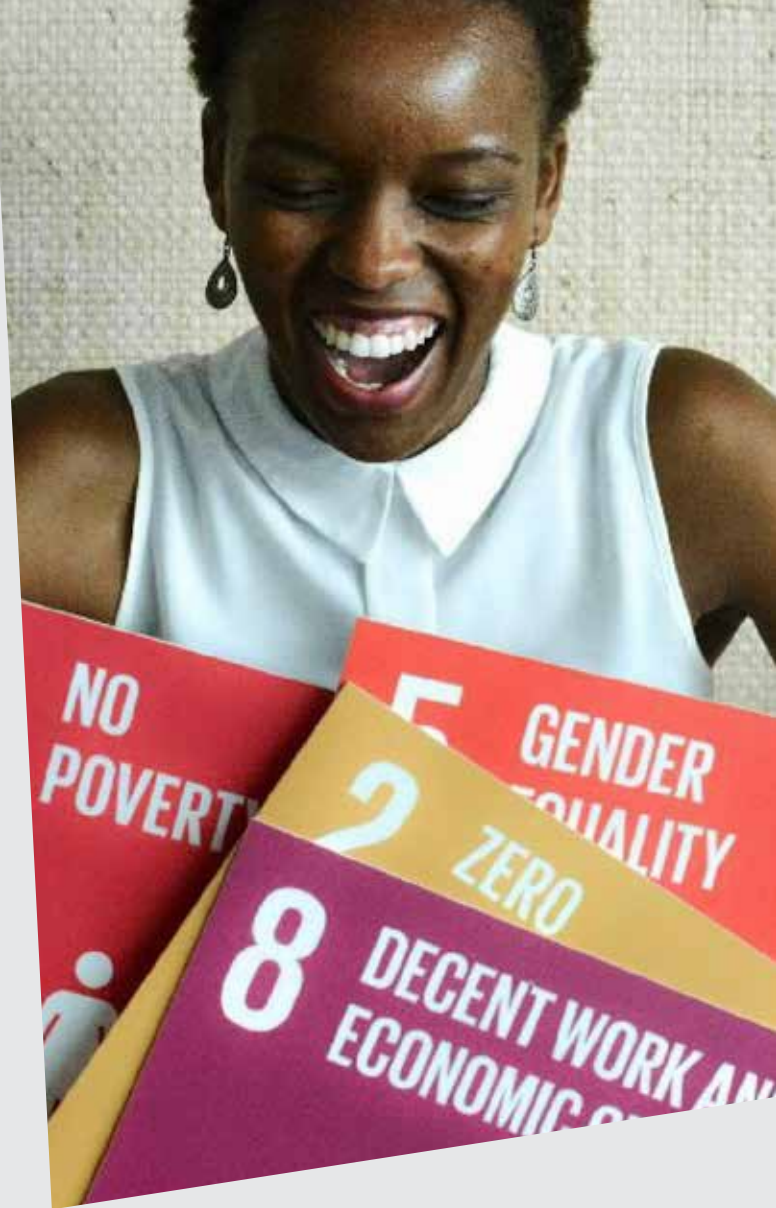
INNOVATION LEADS TO MORE DIVERSE PARTNERSHIPS

UNDP offices that tested new ways of working have reported double the number of partnerships with the private sector, foundations, and international financial institutions, and 40% more partnerships with academia and/or think tanks. Country offices that received funding or advisory services from the Innovation Facility are 65% more likely to engage young women and men in designing solutions. In Asia and the Pacific, our work on youth and innovation energized the youth portfolio, establishing partnerships with Citibank and Intel. These partnerships include financial partnerships, and build on innovation, youth entrepreneurship and employment opportunities as well as school-to-work skills development programmes. In 2016, our partner base further broadened to include the first internet philanthropy report with Tencent, experiments with Aid: Tech, Microsoft, UK's Behavioural Insights Team, BitNation, MIT Poverty Action Lab and Climate CoLab, Edgeryders, Nesta, Cognitive Edge, Danish Government's MindLab, UAViators Humanitarian Network, leading Gaming Labs, local startups, social entrepreneurs as well as key private sector partners such as MobiMedia, DJI, Glorious Labs, Baidu, Google and IBM.

Examples of new partnership models:

With DJI, WeRobotics and the Government of the Maldives, UNDP tested the use of UAVs (Unmanned Aerial Vehicles, aka drones) to capture hard-to-access data in real time for improved disaster management. As a result, the government purchased drones and will use UAV images in its disaster response and climate change mitigation work.

- In Serbia, we brokered a collaboration between the Finnish Innovation Fund Sitra and the government to design a Youth Employment Bond which will be financed with private sector investment as a pay-for-success model. In 2017, we're putting it to the test!



- Together with the Seoul Municipal Government, UNDP established City iLeaps, an innovation exchange initiative to facilitate city innovation through learning, exchanging, adapting, prototyping and scaling, to help cities use design thinking, and concepts such as reverse engineering to design, adapt, and prototype public sector services. As part of this initiative, UNDP partnered with Makassar city government on using design thinking to improve transport systems. Four prototypes are being tested. Further, Hulumale and Ho Chi Minh cities have also expressed interest in working with us on designing smart cities and tackling solid waste issues respectively.
- On the global level, UNDP and UN Global Pulse co-organized a UN Data Innovation Lab and incubated six data experiments across seven UN agencies with the support of private sector partners such as Google, Facebook, PricewaterhouseCoopers, Ernst & Young, IBM and Microsoft. UNDP is working with Microsoft to develop an Innovation Lab in Nepal, following two successful collaborations – the Idea Factory and a post-disaster payment app.

INNOVATION CREATES NEW PATHWAYS FOR SCALING

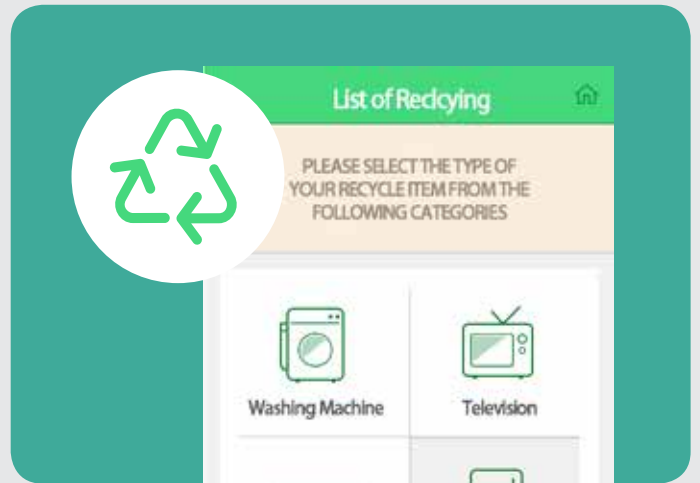
The uptake of a new approach by a partner is an important success indicator for our investments in innovation. Uptake is a pathway to scale, as it lets partners adapt and invest in new ways of working. 60% of Innovation Facility initiatives in 2014 and 2015 – or 3 in every 5 initiatives – has seen uptake in 2016 from UNDP Country Offices and partners: government, private sector, civil society organizations, UN entities as well as academia and think tanks.

Examples of scaling successful models:



Supporting governments' anti-corruption efforts

In Papua New Guinea, UNDP partnered with government partners and the Australian telecom provider MobiMedia to develop an SMS-based reporting system that allows citizens to anonymously monitor and report on corruption. The Phones Against Corruption initiative prototyped with 1,200 staff in the Department of Finance. Almost half of the staff participated, providing information that led to over 250 cases of alleged corruption now under investigation by the Internal Audit and Compliance Division; and the arrest of two public officials for fund mismanagement of over US\$2 million. The team tracked the user experience of this reporting system and found that 90% were willing to use the system again. The initiative is continuing to scale nationally. In 2017 it will be tested in the Solomon Islands and Vanuatu. In 2016, it was awarded the GovInsider Innovation Award for Best Citizen Engagement. In addition, following the initial success of the Phones Against Corruption initiative, the Australian Department for Foreign Affairs and Trade (DFAT) contributed an additional \$4 million for provincial capacity-building.



Creating a 'shared value' solution for e-waste and the formalization of precarious labour

In China, UNDP partnered with tech-giant Baidu to link end users to legally certified e-waste disposal companies for safe recycling. Citizens can download an app to have an e-waste recycler come to their doorstep and pick up the item for transportation to a recycling plant. The initiative includes a collaboration with the Ministry of Labour to formalize the work of e-waste recyclers. Over 11,000 e-waste items were disposed of within 14 months of launching the initiative. The initiative scaled from 2 to 22 cities. It involved Baidu and government partners. A green service alliance comprised of both dismantlers and electronic appliance manufactures is being formed to create a full-cycle e-waste recycle ecosystem. Today, Baidu Recycle Version 3.0 is an open platform, increasing its adaptability to future use and growth options. In 2016, a regional event brought together representatives from governments, private sector companies and UNDP offices from 12 countries to identify which elements of the solution can be adapted in their respective countries. In addition, Baidu in China has contributed RMB 3 million to test and scale this initiative.

INNOVATION CONTRIBUTES TO THE DEVELOPMENT OF NEW SERVICE LINES AND A NEW SET OF SKILLS

With the support of the Innovation Facility, UNDP staff members are developing new skills to support the provision of new development solutions for our clients. We are currently testing 17 innovative approaches to development challenges. Among these emerging new service lines are:



BIG/OPEN DATA

Exploring new sources of data to improve the capacities of national partners, especially National Statistics Offices, and UNDP's programming and monitoring portfolio. This includes developing cost-effective measurements of poverty through analysis of satellite images, electricity consumption and mobile phone use in Sudan; measuring multidimensional poverty with big data in China; and enhancing emergency response in Kosovo (under SCR 1244). Following six country-level big data experiments, we developed a Guide to Data Innovation in partnership with UN Global Pulse, designed to support development practitioners in the UN and other organizations in their work with new data sources.

In the Arab States, UNDP is developing a regional Data for Development node in partnership with the International Development Research Centre (IDRC), to support Country Offices and national partners in increasing their understanding and use of open data, big data and crowdsourced data in 2017 and beyond.



CHALLENGE PRIZES

Stimulating innovation to find new solutions to development challenges. Examples include Local Governance Challenges in Armenia; a 'Technology for Citizen Engagement' Challenge across four countries in Eastern Europe, Central Asia and Arab States including Sudan and Yemen, a Resilience Challenge in Malawi; and a regional Peace Challenge for Social Enterprises across six countries in Asia-Pacific including Afghanistan, Pakistan, Myanmar and Nepal; as well as an SDG Challenge in Bolivia. Following the launch of a Challenge Prize policy in 2016, UNDP has gone on to support governments in designing Challenge Prizes, and used the process to identify the best solutions in more than 10 cases worldwide.



PUBLIC SECTOR INNOVATION LABS

Designing and setting up innovation labs within governments as agile interfaces with the citizens for collaborative and open policymaking. We established Labs in Armenia, Bangladesh, Georgia, FYR Macedonia, and Moldova. In 2016, the Innovation Facility supported the UNDP Sri Lanka Country Office in setting up a Public Sector Innovation Lab within the Prime Minister's Office.



ALTERNATIVE FINANCE

Exploring emerging and alternative sources of financing, such as crowdfunding, pay-for-success financing, forecast-based finance and impact investment. UNDP provides advice on crowdfunding to governments and partners globally; tests impact bonds to unlock private sector financing in Serbia, and taps blockchain to develop a remittance transfer payment system there; unpacks social finance in Indonesia for the development sector; is creating an Islamic Finance Lab with the Islamic Development Bank; and works with social enterprises and impact investor networks in Latin America and Asia-Pacific.



BEHAVIOURAL INSIGHTS

Leveraging lessons from behavioural science to improve policy formulation and testing, for example addressing tax compliance in Moldova. In 2016, the Innovation Facility partnered with the UN Secretary-General's Advisor on Behavioural Science to provide pro bono support to 8 UNDP initiatives across 5 regions and the publication of the report 'Behavioural Insights at the UN', which received wide recognition across the UN system and other development organizations.

AT A GLANCE | THE UNDP INNOVATION FACILITY

WHAT IS THE UNDP INNOVATION FACILITY?

The UNDP Innovation Facility offers technical support to the organisation and its collaborators across 170 countries and territories to explore new approaches to increasingly complex development challenges. The Facility:

1 Scans the Horizon for new ways to address development challenges


2 Awards Seed Funding to initiatives that test or scale innovations

3 Fosters Networks of Innovation Champions for knowledge sharing

4 Creates New Norms within UNDP to shift away from business as usual

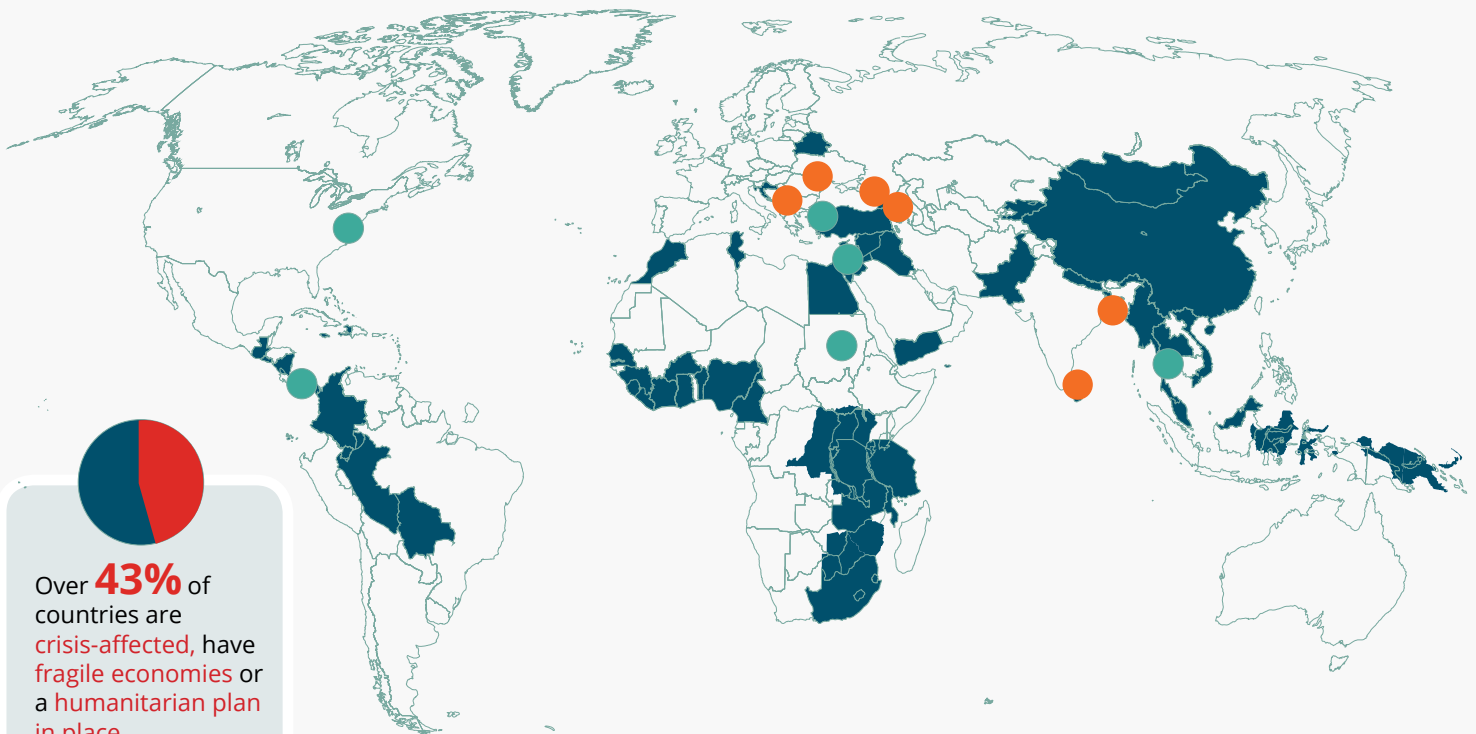


Uptake is a pathway to scale as it involves partners adapting, and scaling



60% of Innovation Facility initiatives funded in **2014** and **2015** were taken up in **2016** in partnership with the government, private sector and civil society.

WHERE HAS THE INNOVATION FACILITY INVESTED?



Over **43%** of countries are crisis-affected, have fragile economies or a humanitarian plan in place

KEY ● UNDP INNOVATION FACILITY HUBS ● PUBLIC SECTOR INNOVATION LABS SUPPORTED BY THE UNDP INNOVATION TEAM ■ 2014 - 2016 INNOVATION FACILITY INITIATIVES

WHAT HAS THE INNOVATION FACILITY INVESTED IN?

2014 to 2016

110
Initiatives

76
countries

Testing 17 approaches across 16 SDGs

Including New & Emerging Data | Behavioral Insights | Foresight |
Innovation Labs | Games for Social Good | Micronarratives |
Challenge Prizes | Real-Time Information Systems | Crowdfunding



UNDP Country Offices that received Innovation Facility support reported on:

Better development impact

Innovative initiatives are:



42% more likely to enhance programming through newly gained insights



24% more targeted in reaching the identified group



30% more time-effective in delivering the product/service

Enhanced partnerships

Country Offices with innovative initiatives have:



Double the partnerships with the (a) Private sector, (b) Foundations, and (c) IFIs;



40% more partnerships with academia and/or think tanks;



Are **65%** more likely to work with young women and men to co-design the next generation of public services.

Compared to Country Offices that have not received Innovation Facility support.

INNOVATION APPROACHES / FEATURE

GAMES FOR SOCIAL GOOD

Leveraging games to enhance civic learning and facilitate behaviour change

FORESIGHT

Exploring multiple future scenarios and designing more adaptable and resilient plans

CROWDSOURCING

Collecting community inputs to spot trends and solve problems

CROWDFUNDING

Engaging digital tools to raise financing by mobilizing individuals for a new or existing business venture, a creative project or a charitable project

CHALLENGE PRIZES

Encouraging ideas, often from unusual sources, and awarding prizes to the best solutions through an open process

BLOCKCHAIN

Often coined as the 'internet of value', blockchain technologies fill three roles - recording transactions, establishing identity and establishing contracts - traditionally carried out by the financial services sector

BEHAVIOURAL INSIGHTS

Tapping into insights from behavioural economics, psychology, and neuroscience to understand how humans behave and make decisions to design evidence-based interventions

ARTIFICIAL INTELLIGENCE

Leveraging technologies that can perform tasks as well as or better than humans for social good. This includes machine learning and deep learning to unlock the potential for improvements in areas such as preventative healthcare, smart cities, disaster preparedness and more

ALTERNATIVE FINANCE

Testing new ways to fund and deliver development outcomes such as social and development impact bonds, pay-for-success systems or equity-based investments of social good projects



At UNDP we are testing 18 innovation approaches and counting, to achieve the Sustainable Development Goals

HUMAN-CENTERED DESIGN

Starting solution design with the needs of the user; including prototyping and iteration cycles in project design

INNOVATION CAMPS

Bringing diverse actors together, usually for an event, to specify development challenges from a user-perspective and to generate testable solutions

INNOVATION LABS

Bringing diverse actors together, usually on an ongoing basis, to generate testable solutions to a series of development challenges. Labs can be hosted within Governments, with private sector partners and/or academia

MICRONARRATIVES

Transforming stories from users to quantitative data through a standardized system to inform decision-making

NEW AND EMERGING DATA

Harnessing a mix of new, digital and analog data sources to enhance decision-making. This includes drawing on big data to better analyze, visualize

POSITIVE DEVIANCE

Identifying local solutions from positive outliers in communities and scaling them up

REAL-TIME INFORMATION SYSTEMS

Utilizing mobile devices and other ICT to enhance information collection to spot trends and inform decision-making

REMOTE SENSING

Using quantitative and qualitative data to gain insight into real-time societal issues and changes. This can include data from unmanned aerial vehicles

ROBOTICS

Leveraging robotics such as unmanned aerial vehicles – drones – to develop maps, monitor areas, deliver goods or remove mines



2 OUR WORK

INNOVATION FOR THE SUSTAINABLE DEVELOPMENT GOALS

This chapter highlights case studies of innovations for development, supporting the achievement of 16 Sustainable Development Goals from across the globe. These innovation initiatives highlight how we test and scale emerging technologies and new ways of working. It is a snapshot of initiatives supported both by the UNDP Innovation Facility directly as well as by the growing body of innovation work within UNDP.

The Government of Denmark's generous support enables the UNDP Innovation Facility to invest in experiments that test a hypothesis and formulate scaling pathways. From the Innovation Facility's inception in 2014 through 2016, we have supported more than

WITHIN THE REPORT, WE USE TWO WAYS OF CATEGORIZING THE PROJECTS:



TESTING AND EVIDENCE COLLECTION

The initiative is tested with a subset of users, partners, and stakeholders. Evidence is collected to assess the impact and feasibility of the initiative before it progresses.



SCALING UP

Following testing, the initiative has solid data proving the innovation's effectiveness and is now working with partners to expand the scope.

110 experiments with seed funding across 76 countries and territories. UNDP Country Offices that received seed funding for innovation kickstarted on average two more innovation initiatives; and more than 60% of the supported experiments resulted in an uptake by partners across government, the private sector, and academia: an important pathway to scale.

We invite you to browse through the case studies and reach out if you are interested in driving innovation with UNDP in a specific country or through a specific approach.



ERADICATE POVERTY, LEAVE NO ONE BEHIND





TEST

CHINA | How can new and emerging data be used to assess living standards and support poverty alleviation efforts?

At the Global Poverty Reduction and Development Forum in 2015, Chinese President Xi Jinping stated that China will intensify its poverty reduction efforts and lift the remaining 70 million poor out of poverty by 2020. Poverty is not simply a lack of adequate income; it is a mix of human deprivation in knowledge, health, dignity and rights, obstacles to participation and lack of voice. Poverty should be measured with this complexity in mind, so that we can identify and address its root causes, and trigger real progress in China's "targeted poverty alleviation" strategy.

UNDP China has developed a measure called the Living Standard Dimension of the Human Development Index that addresses the multifaceted and complex nature of poverty by combining eight indicators to evaluate the provision of services of the 2,284 counties across China. We developed this index in partnership with Baidu to leverage

new and emerging data sources through the Baidu Big Data Lab. The results have been presented in a published report alongside an online interactive visualization map to engage the public with the multifaceted poverty issues in China. Pilot projects based on the findings of the study will target people living in poverty. Policy recommendations based on the lessons will be provided to government departments.

Next steps include adding more dimensions or proxies, such as health, education, environment protection and energy saving, to enhance the current big data base and to make it a real-time tool to track and review SDG progress in China through 2030. We will also pursue joint research with LGOP/IPRCC on new poverty criteria and urban-rural integration, scope big data from e-commerce research with Alibaba, and scale up and expand poverty alleviation projects based on this data experiment.





TEST

EGYPT | How can we co-design livelihood solutions with members of poor communities?

Fayoum is one of Egypt's poorest governorates. The fishing community lives hand-to-mouth and below the poverty line. The lake they once relied on for sustaining their lives has become contaminated with toxins from sewage waste. Young people between the ages of 15 and 30 years make up 60 % of the Egyptian population, with 57% living in rural areas. The unemployment rate has reached 12.5% in 2016, and 84% of the unemployed are young men and women.

Entrepreneurship is one approach to this problem. In Egypt, entrepreneurship has proven effective in combatting a vast array of challenges by improving an individual's economic standing, positively impacting communities' quality of life, and ultimately improving the national economy as a whole. Therefore, UNDP supported GESR (Misr El Kheir) in organizing a social innovation camp, where youth from all over the country came together for five days to co-design their own innovative solutions to improve the livelihoods of the fishing community in Fayoum.

The top solution, now an established social enterprise, completes the value chain in shrimp production and supports local women. It includes a redesigned shrimp-peeling table, "mini-lab" for fishermen's wives, to make the shrimp peeling process more hygienic and to improve shell quality. The team also recycles and processes the shells into Chitosan, a chemical that is heavily used in the agricultural industry. Based on the success of this model, UNDP Egypt, with other partners including civil society, public sector and private companies, is exploring the potential of implementing a series of social innovation camps focusing on different thematic challenges, in one governorate. This will fall under a comprehensive development intervention.

TEST

IRAQ | How can we stimulate an innovation ecosystem to address youth unemployment and unleash young people's creative potential?

In 2016, about 18 % of the Iraqi population was unemployed, with 27% of young women and 17% of young men lacking jobs. Unemployment is higher among youth with a higher education. The Iraqi entrepreneurship ecosystem is not well established, especially regarding youth-led startups.

To stimulate an innovation ecosystem and foster entrepreneurship with cutting-edge methods, UNDP Iraq started the 'Innovation for Development' initiative in 2015. Following a promising start, the experiment continued as a component under the Local Area Development Programme in mid-2016 and 2017, funded by the European Union. The programme entails a skills-building component: Youth volunteers set up boot camps and train peers in Design Thinking and Lean Start-up methodologies. This provides an attractive learning and incubation platform, promotes volunteerism and contributes to social cohesion.

More than 600 young women and men applied lean startup and design principles to develop their ideas into projects. The initiative attracted tens of major companies and banks, and resulted in new partnerships with young entrepreneurs. The initiative is now providing tailored support to over 35 promising startups. It engages partners from academia to further advance potential partnerships with companies and banks.

In 2017, a dedicated track focuses on working with universities to bridge the skills-to-market gap by providing technical support to projects and jobs fairs, capacity-building for academics, linking graduation projects to the SDGs and supporting the development of specialized entrepreneurship courses. The initiative will continue to invest in bridging the gaps between companies, banks, government institutions/programmes, universities and young entrepreneurs.



INDONESIA | Can data from drones help small-scale farmers save money?

TEST

The people of remote Napu village in Indonesia's East Nusa Tenggara Province lack reliable access to clean water for drinking, sanitation, and cooking. Men, women, and children typically collect water from springs, and walk several kilometres carrying heavy jerry cans of water back to their village. To finance long-term solutions for the water challenges, we initiated a social finance experiment. In 2016, partnership with KOPPELDA, an NGO partner based in East Sumba, and Kitabisa.com, a crowdfunding platform based in Jakarta, UNDP Indonesia launched its first ever crowdfunding campaign: 'Bring Water for Life'. It achieved its funding target of IDR 350,000,000 from the public, and the money was used to provide clean water access to Napu village's 500 inhabitants by building a solar-powered water pump system. UNDP Indonesia is now exploring the scale-up of this successful campaign into a bigger SDG platform.

This crowdfunding experiment has been vital to understanding the challenges in developing Indonesia's social finance ecosystem. UNDP Indonesia is working

with the private sector, as well as government and traditional development partners to support the growth of the country's emergent social finance ecosystem. UNDP Indonesia has also partnered with the Financial Services Authority (OJK), The National Development Planning Agency of Indonesia (BAPPENAS), Ministry of Finance, and AlliedCrowds, an aggregator and directory of alternative finance providers in the developing world, to produce a database of investors and identify a pipeline of social enterprises for social finance ventures.

Canada has committed funds for 2017 that will focus on engaging women entrepreneurs. UNDP is exploring a partnership with the Islamic Development Bank for its urban regeneration programme. Future plans include working with partners to deliver a national workshop on social finance, expanding the crowdfunding campaign to support multiple development interventions through the SDG platform, and preparing a blended finance proposal that provides investment to a structured portfolio of social enterprises in Indonesia.



SERBIA | How can we generate employment for young people and unlock new sources of financing?

TEST

The unemployment rate among young people aged 15-24 in Serbia is very high, reaching 47.5% in 2015, significantly above the general unemployment rate (18.2% for the working-age population of 15-64). To tackle the challenges and negative impacts of long-term youth unemployment, UNDP, the Finnish Innovation Fund Sitra and the Government of Serbia are designing a Youth Employment Bond pilot, based on a Social Impact Bond (SIB) mechanism.

Social Impact Bonds are results-based financial instruments for impact investing, where private investments are intended to create a positive social or environmental impact as well as a financial return. The first SIB was launched in 2010 in the UK. By now more than 60 SIBs have been commissioned across Europe, Australia, Canada, Israel and the United States. SIBs have raised over US\$200 million and touched more than 90,000 lives in connection with issues including employment, homelessness, health,

child welfare, education and criminal justice.

SIB modality reduces the public sector's funding risk as the outcome payers agree to pay and reward investors only if outcomes are achieved. Thus taxpayers' money will be invested only in programmes that have measurable impacts, and either create savings or improve social welfare. The Serbia experiment includes young people (15-30 years) who have been unemployed for more than a year with multiple risk factors for continued unemployment.

The business rationale is that only a third of the currently unemployed youth is covered by the active labour market measures in place, and there is scope for introducing more measures, innovatively packaged, through private-public partnership, to expand and accelerate the employment of young people. As a first step, we initiated an assessment of the costs of the current unemployment rate to design an investment case based on future public cost savings.

To stimulate the social entrepreneurship ecosystem in Jamaica and to find new solutions to SDG-related challenges, UNDP Jamaica initiated a Challenge Prize. The Technology Innovation Competition invited entrepreneurs in early stages to compete for early-stage funding and incubation support. By fostering and supporting young entrepreneurs and startups, this year's competition bridged the gap between private and public, revenue and impact, technology and development. The winner, Danielle Tait, created The Interview JM, a job preparation

and recruitment application focused on addressing Goal 8: decent work and economic growth. Tait's application boasts a suite of self-help psychometric tests and training tools for job seekers and companies recruiting staff, providing a platform for continuous development and learning. She will be supported by UNDP staff over the next 12 months as she utilizes her prize money to further develop her web application into a full-scale solution. Runners-up also received funding and access to incubation opportunities.





“During the training we learnt to extract yarn from Allo to weave into cloth. Today we produce Allo cloth worth a million rupees, half of which remains as profits for the group.”

Ghammaha Garbuja
Entrepreneur, Hampal Allo Clothes Weaving Ent
Saliya, Parbat, Nepal



TEST

NEPAL | How can technology provide livelihoods for rural women entrepreneurs?

The Himalayan giant nettle, locally known as Allo, has been harvested in Nepal for generations for its fibre, which can be used to produce cloth. Allo yarn can produce a range of products, including clothes, accessories, table mats and carpets. The majority of Allo yarn producers are rural women entrepreneurs, but the manual extraction process for Allo is extremely labour-intensive and time-consuming, and can cause health problems for women. To address this challenge, UNDP looked for innovative solutions to simplify and mechanize the yarn extraction process.

UNDP in Nepal stepped away from the traditional procurement process to attract the most innovative ideas. Instead of issuing a request for proposals to choose vendors, UNDP advertised an innovation challenge prize on YouTube. Backed by the Nepalese Department of Foreign Affairs and Trade, the winners of the innovation challenge

would be given US\$20,000 to develop technologies. Contestants were asked to ensure that the technology was easy for illiterate women rural entrepreneurs to use, could run on solar power or electricity, and would reduce processing time for Allo yarn to eight hours.

Four young graduates from the Institute of Engineering in Kathmandu University won the challenge prize. Together, they developed and tested the prototypes with UNDP. The team successfully piloted the solutions in two districts: Parbat and Rolpa. The machine simplifies different stages of the fibre refining process, increasing efficiency and reducing processing time from days to hours to increase production and profits. As a result of the pilot's success, the Government of Nepal will scale up the initiative with additional funding to produce and install the machines in another 22 districts within the next year.



TEST

INDIA | Can blockchain benefit citizens with access to finance and enable the Government to deliver better services?

In November 2016, the Government of India launched a national initiative to transfer from cash to digital payments, targeting citizens, financial institutions and government agencies alike. Ensuring access and utility of digital payment options by citizens is a major challenge, particularly in marginalized communities. The Government of India and banks are committed to find solutions to address this challenge by exploring the application of blockchain technology to improve efficiency, security and transparency of transactions.

UNDP will be supporting Indian state governments in testing blockchain technology by linking citizen IDs with their bank accounts and mobiles. The government will be able to use blockchain to store citizens' identity information and records of all funds sent to their account. A copy of the records on blockchain is then distributed to

all participants in the network, removing intermediaries. The technology can also be used by state governments to cut costs, speed up transactions, reduce data duplication and increase the effectiveness of existing governmental systems in a transparent and efficient manner.

UNDP has initiated preliminary discussions with state governments on using blockchain technology and is receiving interest in piloting digital payments. Our vision is the creation of a secure database of citizen IDs, financial/ credit history, and asset records which is shareable across financial institutions and government departments, with the citizens' consent. In addition, blockchain can allow integration of key data on Aadhar ID bank accounts, mobile numbers, postal addresses and election IDs, making it simpler, easier and more efficient for the government to provide services.



TEST

SERBIA | How can we reduce costs for remittances transfers using blockchain?

Currently the global average cost of remitting money is almost 8%. User research among Serbian diaspora communities also found that for many, there is insufficient transparency on where the money remitted is spent. Together with the FinTech NGO AID:Tech, UNDP Serbia is conducting an experiment on remittances in the city of Niš in southern Serbia. AID:Tech's Digital Identity will be issued to beneficiaries so they can receive remittances directly and cheaply. With this experiment, the diaspora will be able to send money via a UNDP portal to their families in Serbia. UNDP & AID:Tech will partner with a money transmitter to transfer the funds rather than sending just cash.

This in turn enables people in the diaspora to purchase items such as electricity, cash and supermarket vouchers. These vouchers will be sent directly to the beneficiaries' Digital Identity cards, which they can use for direct purchases on a mobile app to pay electricity and gas bills or buy groceries. Because blockchain is the underlying technology platform, permanent and real-time records of all transactions can be transparently stored. This also means that for the first time ever, it will be possible to trace where remitted funds are spent. In the future this can be extended to many other services such as social welfare, housing, health and other benefits.



15% of the world's population - a billion people - experience disability. UNDP is working together with people with disabilities, governments, human rights groups and other partners to improve legislation and service delivery, and support people with disabilities with livelihood opportunities. Innovation, especially in co-design and emerging technologies, plays an increasingly important role. For example, in Georgia we co-designed inclusive emergency services. In Egypt we co-developed social enterprises. In Armenia we collaborated to map accessible spots for the physically challenged.

In Georgia, 112, for emergency services, is one of the most dialled phone numbers. 112 was reachable only through a voice call. Those living with speech or hearing impairments simply didn't have the option to call. In 2014, UNDP Georgia, with Government of Sweden support, set up a design workshop that brought together people with disabilities, tech specialists and civil society organizations. Together, they redesigned the service. Today, sign language interpreters are on hand at the emergency hotline 112 to accept video calls and SMS messages from those who cannot hear and/or speak.

The service has helped to empower the disabled, providing them direct access to emergency services for themselves, and also to help those in need. It is noted that deaf callers were not always the ones in need of assistance. Once an elderly woman locked herself out of her house, and she went directly to her hearing-impaired neighbour who was able to call for help: "We used to be the ones who asked for help. Today we can also lend a helping hand," says Flora Bejashvili, who has also the new services.

In Armenia we have Matcheli, a map that plots accessible spots for the physically challenged. Launched in September

2016, we had a mapathon with the community to rethink the accessibility of a city. Together with the community we have been quickly able to map downtown Yerevan, thick with government buildings, banks and restaurants. With 50% of the Armenian population based in Yerevan, downtown was a good place to start. With Matcheli, we created a valuable resource for an underserved community.

We are building problem-solving skills of that community at the same time. We have seen positive spillover effects: Parents with prams, the elderly with restricted motion and tourists with luggage have also become active users of the app.

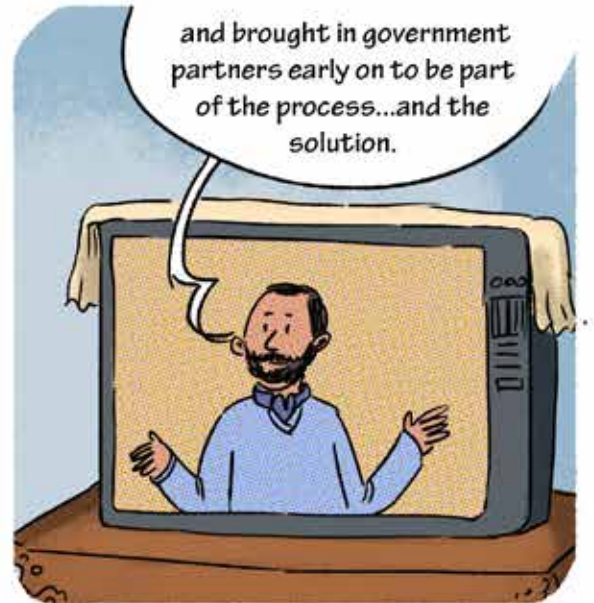
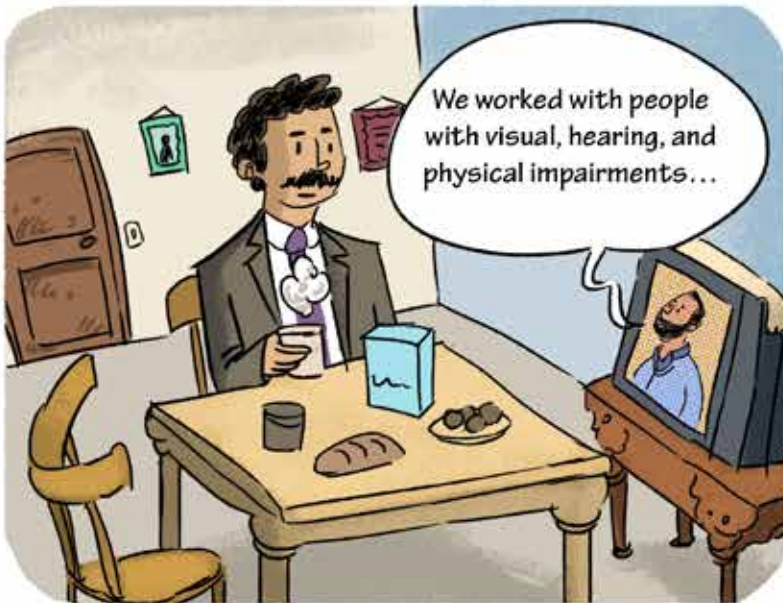
In Egypt, persons with disabilities encounter tremendous challenges in transportation, jobs, education and other integral aspects of life. To co-design solutions with people with disabilities, UNDP held a three-day workshop in Cairo titled 'Design for integrated living' in partnership with Fab Lab Egypt and Misr El Kheir Foundation. The participants, persons with disabilities, family members of persons with disabilities, student engineers, techies and designers, showed the utmost passion and commitment to co-design solutions with persons with disabilities that would support them in leading easier and more integrated lives. Prototypes included a well-structured media campaign on how to promote and mainstream sign language, and a mobile app that maps where ramps are available and where they are needed.

The Mobile Ramp app has been developed and, with the support of the local governor and private sector, 50 ramps have been built. Sign Heroes developed a prototype for a board game that teaches sign language in a fun and interactive way, which is ready to be published.





I'm Sherif! In Egypt, people with disabilities play a huge role in society... when they're given the opportunity. At UNDP Egypt we work with them to co-create solutions for their everyday problems.



Read the full story in our graphic novel - www.undp.org/innovation





TEST

SOUTH AFRICA, KENYA, NIGERIA, MOROCCO, EGYPT | Can cognitive computing be used to help young people develop the skills required to advance Africa's budding digital economy?

Finding solutions to Africa's challenges requires a workforce with a high level of digital literacy, that can leverage cybersecurity, data science, artificial intelligence, cloud computing, and other next generation skills. The proliferation of digital skills is critical for the youth of Africa to participate in the continent's growing digital economy.

UNDP and IBM are working together to deliver effective, high quality IT education to Africa's youth to foster the creation of a tech-savvy workforce. The US\$70 million IBM Academic Initiative will provide free digital skills training to prepare the next generation of tech workers. Educational services will be delivered through ready-to-use mobile apps and guides that teach new skills, online assessments to guide users through their educational journey, volunteer programmes to support and promote digital literacy at the community level, and an app marketplace where users can freely share or sell the applications they create.

IBM's platform will provide access to open standards, IBM tools, and course materials. Users will have access to thousands of resources, including web guides, lectures, interactive simulations, videos, online assessments, and volunteer mentors. Watson, IBM's AI system, will curate the programme, learning and adapting students' course offerings to help direct them towards the course they require to achieve competency, and in turn, help IBM to adapt the material being presented to the needs of all users.

Aiming to impact over 25 million Africans by teaching them digital skills over a five-year period, the initiative will be launched from IBM's regional offices in South Africa, Kenya, Nigeria, Morocco, and Egypt. UNDP and IBM hope to extend access to the programme across the continent, and work together on opportunities for promoting Science, Technology, Engineering and Mathematics (STEM) skills training, certification, and accreditation.



SCALE

INDONESIA | Can data from drones help small-scale farmers to save money?

Rural farmers in Indonesia rely on their crops to sustain their livelihood, but yield often depends on factors beyond their control – weather, soil fertility, and resistance to disease. To help farmers slash expenses and increase crop yields, a local team set out to test a bold assumption: Data generated by low-cost drones can provide insights on crop health so farmers can make more informed decisions. In 2014, UNDP and UN Global Pulse launched a Challenge Prize to stimulate social tech entrepreneurs to come forward with promising ideas. Fast forward a few years and one of the winners helped local farmers reduce their expenses by 60 percent through precision agriculture. It won the best drone project at the GovInsider Innovation Awards at Innovation Labs World.

The UAVs were used to assess crop health. This data helped identify where rice crops were scarce, so farmers

could target more pesticides to increase their produce. Drones were equipped with infrared cameras to analyse photosynthetic levels; the higher the photosynthetic levels, the healthier the crops. Farmers could make informed decisions on effective pesticide use.

“Several local governments were very enthusiastic about our idea”, Hermawansyah, one of the project managers said in an interview with GovInsider. They approached his team to train public officials on “how to use drones to help farmers”. The Agricultural Office of the North Kayong District, in West Kalimantan, has added drone mapping to its 2017 budget, and a local university is working on drones for agriculture and food.



SCALE

MALAWI | Can governments and the private sector use alternative investment models to deliver social dividends that help achieve the Sustainable Development Goals?

How can we stimulate private companies to advance pro-poor innovations? Enter the Malawi Innovation Challenge Fund. UNDP worked with the Government of Malawi’s Private Sector Development Project (PSDP), KfW, DFID UKAid, IFAD, and private sector partners to develop the Malawi Innovation Challenge Fund to improve the competitiveness of value chains in the agricultural and manufacturing sectors. The US\$11 million fund has adopted a social impact investment model: It provides grants as prizes for projects that have great potential to accelerate the achievement of the SDGs. For example,

the Innovation Challenge Fund invited entrepreneurs to propose new products and services that increase exports of manufactured goods produced in Malawi, or integrate processes to incorporate local products and reduce reliance on imported goods. Over the last two years, the Malawi Innovation Challenge Fund’s support of agricultural business ventures has resulted in increased income for an estimated 11,800 households, and created 290 new jobs. The investments in manufacturing projects increased the income of 21,500 households and created an estimated 900 jobs.



EGYPT | How can we support young people with launching their own cutting-edge start-ups?

UNDP Egypt launched the ‘Game Changer Fellowship’ in partnership with the Engagement Lab at Emerson College in Boston, USA. The fellowship is a one-year programme that provides aspiring Egyptian game designers with incubation support. Over the past decade, games for development have emerged as a unique approach to engaging people in development challenges and stimulating behaviour change. Games represent an opportunity to reach people where they are, with something they already know. Every year, a group of five young innovators from Egypt will be accepted into the fellowship programme, where they will be supported in designing games as solutions for development challenges

in the country. UNDP, along with the Engagement Lab, will provide the fellows with the necessary tools and resources to allow them to develop their skills in game design. From 2015 to 2016, five individuals prototyped their own games focused on issues such as sign language for the hearing impaired, entrepreneurship and environmental awareness. In 2017, UNDP and the Engagement Lab aim to work with the Information Technology Institute to launch a cross-cultural exchange programme between students at ITI and Emerson College. A total of five Egyptian fellows will be selected, and every fellow will be supported by two students from each academic entity to design a social innovation project.



RWANDA | How can young men and women across a continent access networks and resources to improve their employability?

With 200 million people aged between 15 and 24, Africa has the youngest population in the world; yet according to the World Bank 60% of these young people remain unemployed. Clearly there is a substantial need for youth employment initiatives, and for young people to participate in innovation and decision-making in their own countries. To address this challenge, in 2013 UNDP co-sponsored the launch of the YouthConnekt platform, a virtual space that facilitates partnerships among young Rwandans, the private sector and government for employment and entrepreneurship opportunities. In their first three years, YouthConnekt’s Boot Camps in Rwanda drove the creation of about 1,000 permanent and 2,700 temporary jobs.

YouthConnekt has reached more than 10,000 young women and men with skills-building services; and a million youth through 46 targeted TV and radio programmes on career opportunities and entrepreneurship support. The success of YouthConnekt in Rwanda stemmed from robust collaboration among actors across several sectors, including the Ministry of Youth and ICT, National Youth Council, University of Rwanda, College of Business and Economics, several non-profit organizations (DOT Rwanda, EDUCAT, and African Innovation Prize), and the private sector.

Seeking to adapt this model in other countries, the Innovation Facility supported a regional event in 2016 expand YouthConnekt. The event convened representatives from seven governments and UNDP offices to facilitate adaptation. Three countries—Liberia, Uganda, and Zimbabwe—have been awarded funding support from UNDP for their own iterations of the YouthConnekt platform, with Liberia leading the way with its own implementation.

Based on the outcomes of the 2016 regional event, Burkina Faso, Cameroon, DRC, Equatorial Guinea, Ghana, Lesotho, Sao Tome, Sierra Leone, Swaziland, and The Republic of Congo will pursue their own adaptations of the YouthConnekt platform in 2017 and beyond. YouthConnekt is also talking with United Nations Volunteers, the African Union, and the private sector (Microsoft and Vodafone) to initiate the design of a regional youth employment programme.



PROTECT THE PLANET





MONGOLIA | Can drone data be used to enhance environmental protection?

UNDP is supporting the Government of Mongolia in using UAVs for real-time monitoring and remote sensing for environmental protection. At the subnational and local level, officers from protected areas, environmental managers, ecologists, wildlife researchers, and rangers have all been engaged to explore the use of drones in their work. The use of drones in biodiversity protection has led to improved monitoring of snow cover and forest distribution, and generates a faster and more precise census of wildlife.

Drone data missions supported the census of highly valued and protected Argali sheep, contributing to natural capital assessments by allowing collars to be put on Argali and Ibex species for monitoring and patrolling. Drones

provided real time information for controlling the forest fire in the boundary zones with Russia during the summer of 2016 when large scale fires across the border were at risk of spreading to Mongolia.

The Dornod Aimag Environment office conducted numerous flights for mapping green facilities in Aimag centres, taking videos of abandoned mining area and forest cleaning processes, and monitoring marmot habitat in particular soums. Next steps include systematizing the use of drones, and further improving analysis and use of the information and insights gained from drones and sensing technology, to support timely policy planning and decision-making.



MONTENEGRO | Can the carbon footprint of tourists be reduced by leveraging behavioural insights?

Tourism is a very important revenue source for Montenegro, yet it contributes significantly to the country's carbon footprint. Can we leverage insights from behavioural science to motivate tourists to offset their carbon footprints? Friends of Low Carbon Montenegro and UNDP partnered to find out. The initiative solicits donations from tourists to help fund one of three projects that will reduce carbon emissions: solar-powered boats, solar-powered phone charging stations in city centres, and recreational trails for hiking and biking.

Research shows that giving people agency over how their tax dollars are invested increases tax compliance. Tourists are being offered the above three choices of how they

would like to see their donations invested. Moreover, based on research showing that removing small barriers to taking an action can significantly increase that action, we streamlined the donation process by allowing people to make a cash donation at the same time they pay for their hotel stay. In addition, UNDP is designing an online calculator to help eco-minded visitors calculate their expected carbon footprint and donate according to the amount of carbon they expect to produce during their trip.



TEST

ECUADOR | How can crowdfunding be leveraged to protect the environment, improve livelihoods, and strengthen local cultural identities?

The April 2016 earthquakes in Ecuador killed 668 people and destroyed 13,962 homes. GreenCrowds, Ecuador's first social crowdfunding platform, aims to harness the power of crowds to support innovative, rural grass-roots projects that protect the environment and strengthen local cultural identities. It is supported by the Global Environment Facility Small Grants Programme, and implemented by UNDP. Through this platform, environmentally-minded entrepreneurs in Ecuador are given the opportunity to post projects in need of funding to the GreenCrowds website. This includes projects designed to address the damage caused by the 2016 earthquakes.

During its first campaign, GreenCrowds did not generate sufficient funding for community projects to succeed. With the UN advisors for behavioural insights, we designed communications to prospective donors to increase their motivation to contribute, while reducing perceived barriers, such as the time and effort required to donate. Email messages convey that donating is a socially normative action and can be accomplished through a simple, immediate, and one-time action. In addition, stories connect prospective donors with vivid, detailed stories of the people and projects in need of funding. Research shows that this is an effective way of humanizing the issues and mobilizing charitable donations.

UNDP and the United Nations Academic Impact initiative (UNAI) are partnering to establish and disseminate a toolkit encouraging university instructors to develop class

projects that help raise funds through the GreenCrowds platform. For example, university courses teaching the psychology of persuasion, behavioural economics, or fundraising for non-profits will be given an opportunity to contribute ideas to UNDP on how to persuasively solicit donations on the website. University courses teaching behavioural research methods can complete projects that test the effects of different messaging on donation rates. The toolkit provides examples and materials that make it easy for course instructors to integrate this into their curriculum.



TEST

INDONESIA | Can sensors be used to design smart public transportation systems?

The city of Makassar is keen on introducing a smart public transportation system. However, it faces several challenges, including the integration of existing semi-formal modes of transport such as Pete-Petes (minivans). At city leaders' request, UNDP, through its regional City-I-LEAPS initiative, is supporting Makassar to use social innovation to collaboratively design solutions that will make the public transport system more user-friendly.

To design experiments with the highest probability of success, UNDP and the Pulse Lab Jakarta brought together an unusual group of doers: representatives from the city transportation agency (DISHUB), Pete-Pete association (ORGANDA), students, local designers and activists. The solutions developed during the three-day design workshop were further refined and improved during a six-week incubation process led by BaKTI, a local NGO.



Pasikola-eNassami emerged as the most promising solution. It focuses on repurposing existing minivans to provide reliable transportation for school children. It will also include a mobile phone application so drivers, parents and schools can communicate on estimated times of arrival and departure. The solution is now ready to be prototyped and tested. The first of the repurposed vehicles will be ready in the spring of 2017, and will be tested in one school. An iterative process of testing, learning, and readapting the solution will be adopted. Depending on the success of the initiative, by the end of the pilot stage 30 vehicles will be repurposed and 10 schools will be targeted.



CHINA | Can the growing problem of electronic waste be tackled by introducing easy to use recycling systems?

China is one of the largest producers and recipients of e-waste in the world. According to a 2016 recycling industry report released by the Ministry of Commerce, 152.74 million e-waste items were recycled in China in 2015.

In 2014, UNDP partnered with Baidu and the Ministry of Environmental Protection to launch Baidu Recycle, an app that facilitates e-waste recycling. Within a year, the app (Version 1.0) led to the safe recycling of over 11,429 items, including TVs, computers, and fridges. The service has since been scaled up beyond the original pilot cities of Beijing and Tianjin to 22 cities.

This initiative has gained global recognition. It has been selected as a semi-finalist in the MIT Climate Co-Lab Contests. The UAE Government selected it to for its 4th World Future of Government Summit. It was one of the winners from more than 800 entries at the 2015 Solutions Summit. In 2016, with the launch of Version 2.0

of the app, the team built an internet-based nationwide e-waste management ecosystem, and launched the Baidu Recycle Green Service Alliance, comprising Intel, ROBAM Appliances, Midea, Joyoung, Changhong, Haier, Lenovo, TCL-Aobo, and the China Resource Recycling Association. Currently, the team is working on a built-in online payment system, B2B e-waste services, and other improvements. Developers are working on Version 3.0 through iterative design and rapid prototyping. It is expected to enter the market in June 2017.

Baidu is now going global as UNDP shares knowledge and tests the app's replicability for other countries. UNDP developed the app in English to share knowledge and expertise with the rest of the world. To encourage the adaptation of the innovation in other countries, UNDP invited government representatives from 13 countries to learn on-site about China's e-waste management systems, practices, disposal and treatment technologies.



ZIMBABWE | Can the use of remote sensing by Governments enhance the design of National Action Plans for Biodiversity?

UNDP supports more than 140 countries in the development of national biodiversity plans, as part of our support to countries to implement the 2020 Strategic Plan for Biodiversity and the SDGs. We realized that a large number of partners do not have access to spatial data critical for biodiversity planning. The average number of maps across more than 100 National Action Plans was fewer than four. In fact, most maps did not contain information that can lead to better planning decisions. In many cases, critical datasets, such as the location of protected areas, areas critical for biodiversity, and areas important for essential ecosystem services, were missing altogether.

The Government of Zimbabwe requested UNDP's help in preparing maps and spatial data to better inform and develop their national biodiversity plan. Together with the Pulse Lab Kampala, we created a single spatial data portal for Zimbabwe that doesn't require GIS or specialized knowledge. With the government's support, we pulled together key datasets for the country using existing data, and reviewed the results at a national workshop with 40 policymakers. As a result of the mapping and the newly gained insights on the rapid losses of wetlands around

Harare, the government included strong actions for establishing an integrated water protection zone around the city as part of an overall water security plan.

Moving forward, we are working with more than a dozen partners, including the UN Global Pulse, NASA, National Geographic, Conservation International, The Nature Conservancy, University of Montana, Wildlife Conservation Society, University of Maryland, and the World Conservation Monitoring Centre, to scale and adapt the tool for all government partners.

We are working on enhancing key features, including high-resolution forest cover data and data on the human footprint. The goal: Ensure that decision-makers have a minimum set of data that allows countries to understand patterns of change in the landscape and seascape in a user-friendly format. As we look ahead, we plan to support the development of additional tools to help countries understand the implications of these patterns on their ability to achieve those SDGs such as food security, sustainable livelihoods and water security, that depend on healthy ecosystems.



ALTERNATIVE FINANCE / FEATURE

EXPERIMENTS, INVESTMENTS & NEXT STEPS

To reach the Sustainable Development Goals by 2030, national and local governments need new sources of capital that augment their traditional tax revenues and international funding sources. The UN Conference on Trade and Development estimates a gap of US\$2.5 trillion in funding to support the SDG agenda.

We need a new generation of financing mechanisms to achieve the SDGs. As the engine of growth in most developing and developed countries, the private sector contributes to reducing poverty, indirectly by creating income and wealth, and directly by generating employment and providing affordable goods and services. A recent report by the Business and Sustainable Development Commission estimates that achieving the SDGs opens up \$12 trillion of market opportunities in just four economic systems, and will create 380 million new jobs by 2030. The total economic benefit from implementing the SDGs could be twice or thrice as big, assuming that the benefits are captured across the whole economy and accompanied by much higher labour and resource productivity. At the same time, achieving the single goal of gender equity could add US\$12 trillion to US\$28 trillion to global GDP, based on recent estimates.

UNDP has helped countries across the globe identify and test efforts to use alternative financing methods for targeted development outcomes. These new funding mechanisms include social and development impact bonds, crowdfunding, pay-for-success systems, forecast-based financing and equity-based investments of social good projects, among other financial tools and approaches.



WHAT IS ALTERNATIVE FINANCE?

Alternative finance refers to any non-traditional tool used to raise capital from private or public sources. For example, pay-for-success financing was developed to address systemic issues that led to poor and ineffective services for the most vulnerable and marginalized communities. Many governments struggled to support or encourage innovation in the social arena, and contracts between government and delivery organizations often stifled agility and effectiveness. Pay-for-success financing bridges this divide by making payments conditional on the achievement of predetermined socio-economic outcomes rather than specific outputs. This frees government and social sector organizations to experiment with new innovative programmes, so long as they achieve the intended social outcomes.

There is an upward trend of these newer sources of funding for development. For example, the European alternative finance market grew by 144% in 2015, the global impact investment market is projected to grow more than US\$3 trillion in the coming years, and crowdfunding investments reached US\$37 billion in 2015. To put it into perspective, this amount was equal to a third of total ODA totalling US\$131 billion in the same year.



IMPACT BONDS AT UNDP

Social Impact Bonds (SIBs) are one financial tool that provides upfront funding for pay-for-success agreements. Private investors—commercial and philanthropic—provide the upfront capital needed to fund service delivery, and the government repays organizations if specific pre-agreed outcomes are achieved. Development Impact Bonds are a similar tool, where donors or stakeholders, rather than national governments, reimburse investors when specific socio-economic outcomes are achieved. More than 60 impact bonds have been launched around the world, tackling problems from health to education to employment.

At UNDP, we are carrying out feasibility studies for the world's first 'blue' social impact bond in Grenada to fund coral and mangrove restoration; social impact bonds in Zambia and Tanzania to reduce tobacco cultivation and provide incentives to diversify into other crops and livelihoods; and a rhino impact bond to bolster conservation of this endangered species. Under these initiatives, impact investors and philanthropists provide upfront capital for targeted interventions in each of these areas, and are reimbursed by donors once those results are achieved.

In 2017, together with the Finnish Innovation Fund (SITRA), UNDP is designing a Youth Employment Bond in Serbia. The unemployment rate among young people aged 15 to 24 in Serbia is 47.5%, significantly above the general unemployment rate of 18.2% for the working population aged 15 to 64. The business rationale is that only a third of the currently unemployed youth are covered by active labour market measures and there is scope for introducing more measures, packaged in an innovative way, through private-public partnership, to expand and accelerate youth employment.

Moving forward, UNDP is working with partners on further advancing the impact bond experiments, looking into equity-based crowdfunding and expanding the engagement on impact investment.



ALTERNATIVE FINANCE / FEATURE

CROWDFUNDING AT UNDP

Crowdfunding taps into a large pool of individuals—primarily online via social media and crowdfunding platforms—and leverages their networks for greater financial support and advocacy initiatives with a social impact. For example, in response to the 2016 earthquake in Ecuador, UNDP partnered with Small Grants Programme, CRISFE and Designers with Heart to launch the 'Reactive Sustainable Communities' campaign to raise funds for communities impacted by the earthquake: 830 families and 49 affected communities, through the recovery of sustainable enterprises in the tourist, agricultural and food sectors. The campaign was launched through GreenCrowds, a crowdfunding platform in which donations are received on behalf of communities, to revive their livelihoods.

Led by UNDP's Alternative Finance Lab, we established a Global Crowdfunding Academy to provide support to UNDP offices and partners to design and launch campaigns. Over US\$600,000 has been raised by more than 13 initiatives across a range of sectors: health, energy and entrepreneurship. For example, UNDP Kyrgyzstan raised funds for a more inclusive and energy efficient rural retirement home; Indonesia attracted resources for renewable energy in rural areas; Moldova mobilized funds for healthy food in public schools; Yemen raised funds for community projects unique to the conflict context of the country; Bangladesh ran a youth employment campaign; and Lebanon raised US\$116,000 for traffic management around public schools.

These donation-based campaigns owe their success to the partners engaged by UNDP Country Offices. For example, the Tajik campaign attracted the country's diaspora in Australia not only to donate funds but also explore investing in a similar project in the eastern region. Celebrity chef Jamie Oliver supported the fresh fruit campaign for public schools in Moldova. Bangladesh's cricket team captain Mashrafe endorsed the campaign for building employment skills for youth. The Balkan rock star Rambo Amadeus got behind a campaign to build solar power sail boats on the Adriatic, and Yahoo! promoted our efforts to invest in refugee-driven pop-up restaurants. The Croatian Ministry of Construction prepared a pilot project for refurbishment of over 30 schools (and an energy agency designed a dedicated platform) to replicate our success with building the first energy-independent school in the country.

Through the newly established Alternative Finance Lab at UNDP, set up with start-up capital from the Ministry of Finance of Slovakia, we are asking: What do our clients need to access new sources of funding? What is the cost-benefit of these new instruments given their experimental nature and the fact that they are often ahead of existing legislation in most countries where we work? Many of the mechanisms are preventative in nature and require a shift to costing future liabilities.



NEXT STEPS

In tackling these questions, in 2017 we look forward to learning from a series of experiments from new financial mechanisms

- Designing a proof of concept for remittance transfers over blockchain in Serbia, together with Aid.Tech, that would be cheaper and target the use of remittances towards specific needs like paying energy or phone bills and purchasing food.
- Designing an Outcome Buying facility in Belarus, with support of the European Commission, where impact bonds will be one of many instruments to include a mix of grants, impact investment, and others. The results of SIBs globally have been mixed at best, but the team believes there is much to be gained from calculating future liabilities, attracting new sources of funding and structuring payouts to be contingent on the achievement of the results (as opposed to fulfilling activities).
- Designing forecast-based financing mechanisms for the Vrbas basin in Bosnia and Herzegovina, together with the Red Cross-Red Crescent Climate Centre. The aim is to minimize risk and secure funds before a disaster has received sufficient media support and to test the feasibility of attracting new sources of funding (including insurance companies) for community resilience.
- Reshaping crowdfunding, by putting more emphasis on equity crowdfunding (such as investment in a renewable energy community project) and peer-to-peer lending (such as investment in SME furniture design in Tajikistan). This can perhaps redirect vast diaspora funds to local entrepreneurial projects in communities across developing countries. UNDP will have a chance to experiment with this approach together with the UNFCC, as we jointly design a system by which crowdfunding can be utilized for renewable energy programmes.

Alternative finance is a new and growing portfolio for UNDP. We are scanning the playing field to identify:

- gaps and engagement opportunities to support social finance and social enterprise in our role as conveners and connectors in the impact investment market;
- catalysts of improved impact investment ecosystems as policy advisors and quality assurors to investors;
- curators of a pipeline of initiatives to become investment ready; and
- mobilizers of impact capital for the SDGs.



BUILD PEACEFUL SOCIETIES, PREVENT VIOLENT CONFLICT





TEST

LESOTHO, GHANA, CAPE VERDE, RWANDA, SOUTH AFRICA | How can governments better navigate complexity and anticipate future challenges to implement the SDGs?

Governments need practical tools and ‘space’ to experiment, learn and adapt to deal with the challenges of SDGs implementation in the volatile reality of the 21st century. Complexity, uncertainty and a demand for meaningful citizen engagement are profound challenges. Foresight, with its proven track record and fit in bureaucratic structures, is emerging as an essential addition to conventional planning and policy tools.

In September–October 2016, GCPSE and UNDP RSC for Africa, in partnership with local UNDP Country Offices, organized a series of ‘Foresight for SDGs - Introduction Workshops’ with Ghana, Lesotho, Rwanda and South Africa (Cape Verde was forced to move their workshop to early 2017). The lead government counterparts were national development planning authorities (with the exception of Rwanda, where the key government counterpart was the Rwanda Governance Board), the Ministry of Development Planning in Lesotho, the National Development Planning Commission in Ghana, and the Department of Planning, Monitoring and Evaluation in South Africa. In all countries, line ministry planning officials also attended, albeit to different degrees. The workshop in Rwanda also included participants from other UN Agencies and civil society organizations.

Acknowledging the complexity of the subject and time constraints, the workshops did not pretend to go beyond introducing foresight for SDGs and produce foresight-informed national development plans. Key collaborators included the South African Centre for Public Service Innovation, and CPSI. The overall objectives of the ‘Foresight for SDGs - Introduction Workshops’ were roughly similar in every country: Introduce the context and concept of foresight for SDG - implementation, apply some of the key foresight techniques on a key national development issue, and appreciate the added value of foresight in key planning stages such as visioning, prioritizing, planning and innovation.

Regional leaders have adopted foresight for the identification of strategic opportunities for inclusive development. Senior officials in Ghana, Lesotho, Rwanda and South Africa have also engaged in adaptive and resilient development planning, national, sectoral and organizational visioning, and ideation for public innovation. Pathways for future scaling include delivering further support to Cape Verde, following through with planned initiatives in Lesotho and South Africa, integrating foresight in MAPS (Mainstreaming, Accelerating, Policy Support for the SDGs) missions, and exploring opportunities to use foresight in conflict/post-conflict situations.



SRI LANKA | How can governments create more enabling environments for public servants to collaborate across sectors and create more agile and future proof public policies?

Failed national policies lead to significant financial losses and erode the public's trust in government. Sri Lanka currently lacks the capacity to prototype and test policies prior to implementation on the national and provincial levels. To address this challenge, the Government of Sri Lanka and UNDP started a public sector innovation partnership. Following the 'Summit on Foresight and Innovation' in 2015, UNDP Sri Lanka began to build and strengthen the national foresight and innovation ecosystem in Sri Lanka by conducting regional training workshops for government planning officials in November 2016. In collaboration with the Ministry of National Policies and Economic Affairs, Department of National Planning, Fields of View – India, MDF Training & Consultancy, and Japan International Cooperation Agency, we engaged in three regional trainings to meet the need for more collective, inclusive, and innovative development

planning in Sri Lanka. As a result, the government decided to establish a dedicated Innovation Lab within the Prime Minister's Office.

Once approved by Cabinet, the proposed Policy Innovation Lab will become a rapid prototyping facility for development policies. UNDP Sri Lanka will work with thought leaders from the Social Innovation Experts Roster and other successful innovation labs around the world to establish a state of the art facility with a team of 8 "Innovestors". The lab will use foresight tools to consider multiple alternative future scenarios to make the proposed policies future-proof. Further partnerships have been proposed with the Sri Lanka Institute of Development Administration and NESTA to enhance the induction programme for the Sri Lankan public sector.



What if the solutions to many entrenched and complex development problems did not require major resources from outside but could be found, funded and implemented by local communities themselves? Could the untypical but successful behaviour of certain individuals or groups be the key to finding solutions to some of these problems?

UNDP Macedonia used these questions as a starting point to help build the capacities of civil society organizations and local municipalities directly involved in managing the increasing number of refugees and the aftermath of the crisis. The interventions aimed to support an alternative approach, called Positive Deviance, to initiate bottom-up changes through simple and sustainable solutions to problems associated with the massive influx of migrants and refugees over the past two years.

'Positive Deviance' is an approach to behavioural and social change based on the premise that certain individuals and groups in every community employ 'deviant' but successful strategies to solve certain problems more effectively than their peers in the same circumstances. In FYR Macedonia UNDP worked to apply this process to the problem of mutual hostility between migrants and the local population.

Many migrants were mistrustful due to the scams and mistreatment they had suffered along their route. Many local people believed the migrants were draining the country's resources, and they were also disturbed by the amount of waste created because of the enormous number of migrants crossing the country.

The participants who carried out interviews to look for "positive deviant behaviour" discovered that one local NGO had developed an efficient way to improve communications and overcome mistrust between the volunteers and the migrants by persuading the transit centres to employ local people, thereby improving the livelihood of the local population and reducing their intolerance of the migrants. At the same time, initiatives were also taken to create regular contacts and ease communications between the two groups by organizing shared meals. The number of hostile incidents has since significantly decreased.

UNDP now aims to incorporate the approach in other projects to stimulate a grass-roots change in public attitudes, enabling the people most affected to come up with solutions, thereby ensuring their applicability and sustainability.





TEST

MALI | How can countries use real-time monitoring and big data to improve situational awareness that provides better information for decision making?

Mali has geographically distinct regions. The arid, sparse Sahara dominates the north, and fertile, densely populated savannah dominates the south. Its northeast is also mountainous, remote, and difficult to traverse. The country's vast and challenging terrain presents considerable challenges to humanitarian and development actors. Operators typically travel long distances by road to reach remote settlements in the north, where many projects seek to deliver much-needed services. Political instability also presents significant challenges, as do threats to resilience posed by the arid Sahel region's changing climate.

Unable to bring all donors and collaborators to the field, UNDP explored leveraging new and emerging data sources to bring the field to their donors in their offices. By partnering with NASA, UNOSAT, and OIST, Mali's UNDP office has been able to use drones and satellite imagery

to enable real-time monitoring to support the activities of humanitarian and development actors in the field, particularly those working on community development for emergency services. The project uses a combination of satellite and drone data to provide real-time, up-to-date information for decision making via an online platform.

The prototype of the satellite project mapping UNDP's presence in Timbuktu is now up and running online, and several other country offices have expressed an interest in the system, including Programme d'Urgence de Développement Communautaire in Togo, Chad, and Nigeria. The project has added tremendous value by providing valuable information about geography, adverse natural and anthropogenic hazards, and project activities, in places where access is typically very difficult.



“Raik Shino” (‘What do you think?’ in Sudanese Arabic) is an online dialogue platform that provides a forum for people to creatively interact and discuss the Sudan’s future through a gamified dialogue process. The idea was developed by the Joint Conflict Reduction Programme (JCRP) of UNDP Sudan in collaboration with the game development company, Serious Games Interactive. Raik Shino was chosen as one among four winning proposals for the UNDP Technology for Citizen Engagement Challenge in April 2015.

In 2016, Raik Shino expanded its partnerships and hosted challenges in collaboration with UNICEF, Ahfad University and the game company Lamsat Najeh. Three challenges were launched on Raik Shino around Handwashing Day (with UNICEF); International Day of Peace (with Ahfad University); and Abandonment of FGM/C in Sudan (with UNICEF).

The successful partnerships showed the potential of using Raik Shino as an interagency tool that can be used to crowdsource ideas across Sudan. Furthermore, in 2016, one of the challenges hosted was within a totally new area of work, Water, Sanitation and Hygiene (WASH), further proof that Raik Shino can host challenges that go beyond the mandate and scope of UNDP. At the end of 2016, the online game platform subscribers increased to more than 2,000 from 800 in 2015.

Its offline scaling activity has expanded to include innovative soft skills training such as design thinking to crowdsource ideas from and engage citizen youths in Darfur. The young citizens designed 100 solutions to address peacebuilding, women’s empowerment, and vocation-based livelihoods training opportunities in Darfur.





INDIA | How can we ensure the availability of vaccines across India, based on real-time information?

India has the world's largest immunization programme that aims to immunize 156 million people, predominantly children, every year. The government procures and distributes 600 million vaccine doses across 27,000 health centres on an annual basis. Vaccine logistics management in India is complicated by the fact that programme managers do not have real-time insights about stock supplies and storage temperatures across the health centres. Despite adequate vaccine supply in the pipeline from national to state levels, vaccine stockouts and overstocking are common in downstream centres.

To support the Government of India with a real-time information system, UNDP India started the Electronic Vaccine Intelligence Network. The eVIN system digitizes the entire vaccine stock inventory through a smartphone application that remotely tracks vaccine stocks along with storage temperatures via SIM-enabled digital loggers at all the health centres. Data is stored in a state of the art cloud server supported by high-end analytics enabling real-time insights through online dashboards. The technology is customized to work efficiently in low-resource network settings in India. The platform is supported by a well-trained network in every district that ensures timely data entry, data quality and last-mile decision-making.

Less than two years after its rollout, eVIN has created a big data architecture with more than 2 million transactions and 80 million temperature samples logging in every month. UNDP has empowered more than 17,000 vaccine cold chain handlers by training them on eVIN. An activity rate of more than 98% reflects high adoption of the technology across all 10,500 health centres where eVIN is currently operational. eVIN generates actionable analytics across 20 major indicators, encouraging evidence-based decision-making and enhanced accountability. Vaccine availability has increased significantly in most health centres since the introduction of eVIN. Stockouts and vaccine wastage have diminished significantly. This ensures that every child who reaches an immunization site is immunized and not turned back.

After the successful trial in 371 districts in 12 states, eVIN will be up scaled across the rest of India by UNDP in the next two years. The system will get regular software upgrades and move towards further automation, as well as improve forecasting abilities through optimized algorithms. Building on big data and predictive analytics, eVIN can be extended to track other health commodities like essential medicines and equipment.



To design interventions that take the views and behaviours of marginalized communities into account, UNDP has been working with micronarratives for a number of years. Micronarratives are the needed qualitative insights, the ‘thick data’, to complement quantitative data sets. Micronarratives capture patterns and trends in perceptions and offer a methodological breakthrough for identifying perceptions, behaviours and relationships. The approach can also assist with early recognition of weak signals of changing social dynamics, and with the identification of emerging or outlier factors that deviate from normal trends and patterns. In the Western Balkans, for example, UNDP collected micronarratives of Roma communities and identified insights into community needs that were not captured by other data collection methods. These insights inform policy for Roma communities, including returnees, across the Western Balkans.

In Jordan and Lebanon UNDP leveraged this approach to inform interventions targeting social cohesion and the prevention of violent extremism.

UNDP Jordan invested in testing micronarratives as a tool for identifying and tracking changes in a community and generating insights for policy and project implementation. The baseline and endline assessments collect 4,000 micronarratives over two rounds of baselines and endlines from direct livelihoods programme beneficiaries, their families and indirect beneficiaries in wider communities in three governorates in Jordan. The second round of collection and analysis will be completed by September 2017. The endline collection and analysis will provide key recommendations on what kind of interventions may prevent people from focusing on issues related to violent radicalisation/extremism for future programmes and actions.

In Lebanon, UNDP initiated the Lebanon Host Communities Support Programme (LHSP) in 2013 in partnership with the Ministry of Social Affairs to promote economic recovery and strengthen social stability in the most vulnerable areas. Assessing the programme’s contribution to social stability and to reducing tensions necessitated non-traditional tools that could realistically reflect the impact of our work. In order to measure the programme’s contribution to the overall objective of reducing tensions between Syrian refugees and host communities and promoting social stability, UNDP collaborated with Aktis Strategy for the implementation of an impact analysis perception survey using SenseMaker®. SenseMaker® is a methodology that elicits micronarratives from respondents about their own direct experience before and after LHSP interventions.

Respondents identify a change that is memorable and hence significant to them, and are then asked to answer questions that examine how they feel about the change they have described and about wider related experiences. This approach focuses the responses on what happened

rather than on general opinions. Over time, shifts in patterns indicated changes in perception and attitude towards provision of services, municipal legitimacy and social stability. By mapping changing perceptions vis-à-vis municipalities and other subcategories, based on type of services, age, gender, confession or socio-economic background, and filtering these perceptions through a contextual analysis, we can display how they have changed, and theorize about the impact of basic and social services projects on the communities.

Results from several rounds of research since 2014 show that service provision remains a central issue in people’s daily lives, and that interventions in this area do in fact touch on people’s most pertinent needs. In addition, the local communities view their municipality more and more as a legitimate and trusted institution. Finally, as access to services causes less tension between refugee and host communities, the study recommendations stressed the need to increase well-designed and targeted programmes in the livelihood sector. This may have greater potential to reduce tensions and further contribute to social stability. This and other recommendations analysed in the survey will help UNDP and the government design the new programme strategic framework.





PAPUA NEW GUINEA | Can an award winning real-time reporting tool be scaled to help governments in multiple countries fight corruption?

Papua New Guinea (PNG) ranks 145 out of 175 countries in Transparency International’s Corruption Perception Index, and is in the bottom 15% of the World Bank’s Global Governance Corruption Index. An estimated 40% of the country’s annual budget, about US\$6.5 billion, is lost to corruption and mismanagement. However, exposing and combating corruption is very difficult in a society where client-patron relationships are woven into the social fabric.

In 2014, UNDP partnered with the Papua New Guinea Government and Australian telecoms MobiMedia and Digicel to develop a minimum viable product, an SMS-based reporting system, that allows civil servants to anonymously report corruption. Additional support for this Phones against Corruption initiative was provided by PNG’s Department of the Prime Minister and National Executive Council (DPMNEC) and Australia’s Economic and Public Sector Programme (EPSP). The initiative was tested with 1,200 staff in the Department of Finance. All reported cases are anonymous and referred to the Department of Finance’s Internal Audit and Compliance Division for further investigation in collaboration with relevant state bodies responsible for criminal investigation and prosecution.

It proved to be an effective and safe space for reporting corrupt practices. Almost half of the staff participated. They provided information that led to investigations into more than 250 cases of alleged corruption and the arrest of two public officials for fund mismanagement of more than US\$2 million.

Based on the prototype’s success, the service was rolled out to six new departments and 25,000 government officials countrywide in 2015. By the end of December 2015, almost 22,000 SMSes were received from 6,157 people. Independent research on user experience established that the service is working well. In 2016 the system was further expanded and designed to reach a total of 83,749 public servants across government departments. UNDP also worked with partners to scale up the system and adapt it in Fiji and Bangladesh. Of the 741 cases under investigation by the end of 2016, 93.6% have been reported from the provinces and districts, not the capital city.

The a2i Public Service Innovation Lab, one of UNDP's seven such labs, was established by the Prime Minister's Office in 2007. a2i has established 5,000 digital centres providing internet access across the country. Citizens can now access hundreds of free public services such as land records, birth registration and overseas job applications and private services such as mobile financial services and vocational training.

a2i is also developing a culture of innovation in Bangladesh, aiming to change civil servants' mindsets and put the citizen at the centre of reform. a2i launched a training to help civil servants adopt empathy as the guiding principle towards policy design. The empathy methodology arranges for government officers to participate in the user journeys and visit citizens' access points for services outside their ministry or area of expertise. This exercise puts them in the citizens' shoes as they navigate through the public systems without official or intellectual privileges. For example, the methodology empowered a junior land officer to build a covered waiting area for his poor, aged clients and automate arguably one of the most corrupt land registry services. He became a local hero overnight. In Fulbaria, Mymensingh district, more than 80,000 farmers needed up-to-date and timely ways to identify and treat plant diseases. The area had just 46 government agricultural

field officers based at the subdistrict office who could assist with this, and as a result the farmers had to spend a lot of time, money and effort travelling 20-30 kilometres to consult them. Md. Abdul Malek, an Agriculture Extension Officer and graduate of a2i's empathy training course, developed a standardized pictorial database of more than a thousand problems for 150 plant types using 3,500+ pictures, freely available online. Farmers, often with help of their educated children, are now using this database to easily identify plant problems and learn about solutions.

An assistant teacher at Rangpur District School created an online platform to connect teachers in need of support, guidance and training with talented, high-performing peers. This initiative was scaled up by developing a Teachers Portal with a membership of nearly 150,000 primary and secondary school teachers. Through this platform, every member-teacher is now connected with teachers and mentors accessible seven days a week. The a2i lab has more than 600 pilots now running across health care and education, crops and fisheries, land and human rights. In addition, a2i has now started championing south-south cooperation, sharing its learning with other developing countries in the region: a2i Maldives was launched in September 2015 and Bhutan signed an MoU with a2i.



PUBLIC SECTOR INNOVATION LABS / FEATURE



CREATING THE NEXT GENERATION OF PUBLIC SERVICES

Over three years UNDP has set up Innovation Labs in six countries (and counting!) to support governments in designing the next generation of public services and policies by providing space for public sector R&D. Government innovation labs, sometimes referred to as Change Labs, Social Labs, Policy Labs or Design Labs, have been opening in more and more countries since the early 2000s. From Brazil, Canada, Colombia and Israel, to Malaysia, Singapore and South Africa, the world map of labs is constantly growing. At UNDP, we have set up labs with governments in Armenia, Bangladesh, Georgia, FYR Macedonia, Moldova and soon in Sri Lanka.



WHAT ARE GOVERNMENT INNOVATION LABS? AND HOW DO THEY WORK?

Government Innovation Labs combine expertise in innovation methods and public sector reform to improve policies and delivery of services to the public. They help governments tackle challenges by expanding the policy makers' toolbox with innovative approaches. Labs also help governments create better solutions based on citizen feedback and inputs. But ideally they are deeper than just quick solution delivery machines.

Labs can help governments rethink solutions to challenges as a set of hypotheses that need to be tested before they are rolled out to the masses. This is a radical shift and implies moving away from thinking of a policy as a solution to a problem, and instead to view social challenges as tiered problems in a state of flux. Accordingly, the solutions need to do the same: Adapt quickly to the changing demands of the social challenge, especially to reach the most marginalized.

Denmark's MindLab is considered a pioneer in this space. In the early days, most labs focused on redesigning public services and bringing user-centred design to the public sector. Another example of this approach comes from Georgia, focusing on better understanding the perspectives of users, i.e. affected communities, to prototype solutions. UNDP worked with government partners on the challenge: How can we redesign emergency services to make them accessible for people with hearing and seeing disabilities? To solve this problem, we brought together policymakers, people with disabilities and activists for three days to jointly develop solutions. User-centred design tools such as User Journeys helped to deeply explore the problem and design first prototypes. Fast-forward one year and the exercise resulted in a redesigned emergency service that has won awards for its inclusiveness. This work also paved the way for Georgia's Innovative Service Lab within the Ministry of Justice.

Other Labs focus on engaging citizens in designing solutions through Open Innovation Challenges, for example Armenia's Kolba Lab or FYR Macedonia's Social Innovation Hub.

In recent years, many Labs have incorporated additional approaches, especially data science and behavioural insights. An experimental approach to policy design is also gaining prominence. It is often based on randomized control trials. In Moldova, MiLab, a Social Innovation Lab jointly supported by UNDP and UN Women within the Prime Minister's Office, is currently running a randomized control trial to discover what drives innovation among small and medium-sized enterprises. The results will inform future public policy.

This example is a testament to how Labs help UNDP and partners to transform from an 'answer delivery system' to a 'solution-generating system'. As there are no universally applicable best practices to drive innovation for economic growth, an experimental approach to policy design to find out what works in different contexts is the logical answer.

This continuous horizon scanning and integration of new innovative methods extends the scope for improvements beyond public service to policy design and institutional reforms. Ultimately, Labs try to be the change they want to see in governments. UNDP's forthcoming "Insider's Guide to Innovation Labs" sheds light on how Labs develop -- often in organic and people-driven ways, operating under the radar until safe to emerge.



THE CHALLENGE OF INNOVATION IN THE PUBLIC SECTOR: HANDLE WITH CARE!

Creating an innovation unit in a country is not an easy feat, especially when the country has very limited resources, no overall government framework for innovation, high turnover, low pay and limited capacities of public servants. After all, the Labs in emerging contexts strive not to simply create new services but to do so with and for citizens and make those services work. To do so, the Labs first face the challenge of preserving a mandate to do things differently in a volatile environment while ensuring continuity. Due to their open nature, many Labs have a strong convening role bringing in horizontal government cooperation. With successful hand-holding, they are often able to become islands of stability in otherwise unstable environments. The Labs have often faced the challenge of remaining a neutral space for co-creation, staying attuned to people's needs and yet at the same time embedded into the government ecosystem. Thus, Labs aim at becoming policy-focused and indispensable for all partners alike.

Ultimately, the Labs' biggest challenge is enacting a change in the system and facilitating change across sectors. How can Labs accelerate culture shifts across the civil service and public sector? And how can they legitimately claim a role in defining the future governance agenda? We seek to respond to these questions in our journey.



WHAT DOES THE FUTURE HOLD FOR GOVERNMENT INNOVATION LABS?

Successful Labs have to walk a thin line: they need to deliver solid results in service and policy redesign and at the same time avoid becoming a top-down solution-delivery outfit without sufficient influence to create larger changes in the public sector. We know that senior leadership is important and that the host of a Lab matters. However, there is no single answer to the question: Where should we establish Labs? While some countries have set up central units, others have opted for a decentralized approach dotting ministries or departments with Labs. Others have created Labs outside government, hosted by non-profit organizations. In Canada, for example, the Privy Council Office runs a Central Innovation Hub that acts as a resource for all federal government departments and agencies, by connecting innovators across the system and working with departments to support the design of solutions to sector-specific challenges. Meanwhile, a number of departments have their own innovation labs, such as the Change Lab at Employment and Social Development Canada, INspire at Natural Resources Canada.

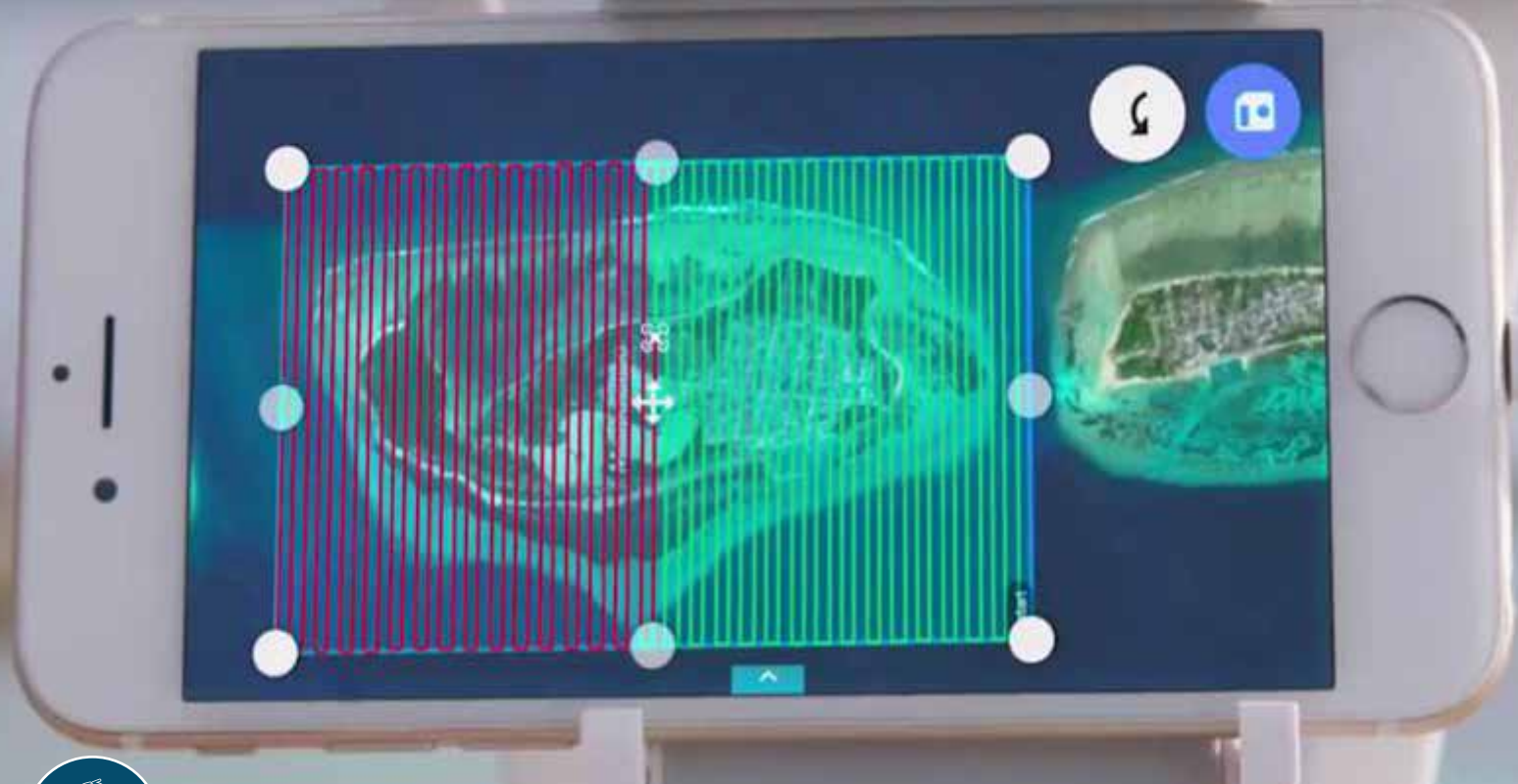
Successful Labs of the future will be able to design interventions for systems change with actors from different sectors and overcome silos within governments as well as between the public and the private sector. They will also need to find ways to embed innovation in the way things are done. This includes business processes, competencies and institutional reform. At UNDP, we are tackling these challenges as well.

**QUESTION?
EVERYTHING**



MANAGE RISK, IMPROVE DISASTER RESPONSE





MALDIVES | Can drones empower communities to better prepare for and respond to disasters?

The Maldives is one of the countries most vulnerable to risks from climate change – 80% of its 160+ inhabited islands are just one metre above sea level. Flooding due to rising sea levels threatens the livelihoods of almost all 409,000 Maldivians. Creating risk maps of these islands is a big challenge, as it usually takes about a year to map 11 islands. Risk maps are an important source of data, as they can help identify changes to physical vulnerability and provide vital evidence for planning, mitigation, response and recovery initiatives. In late May 2016, UNDP Maldives collaborated with leading drone company DJ, and robotics solutions provider WeRobotics, as well as nearly two dozen Maldivian government, private sector and non-governmental organizations, to carry out a scoping mission exploring how aerial robotics technology can improve environmental management and enhance resilience to natural disasters.

A few months later, the team used a drone to map an entire island in one day. The Government of Maldives and the island communities have been engaged to integrate drones into their disaster preparedness and response operations. At least 20 islands in the Maldives will be equipped with drones, and local emergency officials will receive training from professional first responders on how to use them. Information captured by drones will help the Maldives prepare for extreme weather intensified by ongoing shifts in climate. It will enable locals to create their own maps and compare images over time to better understand how their local environment is changing. Pending further exploratory missions on risk mapping and search and rescue, along with further pilot trainings at the community level, this work is expected to be scaled up in the Maldives and replicated to other countries.





UGANDA | Can refugee livelihoods and settlements be improved with new sources of actionable data?

The Oruchinga Refugee Settlement in southwestern Uganda's Isingiro District is home to more than 5,000 refugees and a haven for thousands of refugees over the past four decades. Uganda's progressive refugee policies allocate land to families as a way of enabling self-reliance. As with the rest of Uganda, changing climate and disasters threatens this self-reliance. To support families living in the refugee camp to plan their crops and to inform decisions of the settlement management regarding community infrastructure and land management, UNDP and UNHCR are working on bridging the humanitarian-development divide. We tested whether drones can generate actionable data.

The drone was operated by remote sensing specialists from the Office of the Prime Minister. It produced high-resolution aerial photomosaic data. The mapping took place as a participatory exercise, with residents identifying community infrastructure, homestead plots and crops.

The newly generated maps will be overlaid with information on hazards, risks and vulnerabilities along with historical data on rainfall so the community, and its leaders, can make evidence-based decisions on what crops to grow, community infrastructure and land management.

Representatives of the Office of the Prime Minister's Settlement Commandant highlighted that current maps are outdated and not conducive to participatory decision-making. This led to the UNHCR-UNDP experiment to assist government partners in resettlement planning as they have a complete picture of the settlement's land use.

The mapping exercise is supported by UNDP's Integrated Climate Risk Management Programme funded by the Government of Sweden. It promotes approaches aimed at integrating climate risk management approaches into development planning, with a focus on innovation.





TANZANIA | Can drones empower communities to better prepare for and respond to disasters?

Tanzania's economy is highly vulnerable to the adverse impacts of climate change and extreme weather events. Meteorological stations across the country have reported steady increases in temperatures over the past 30 years. Recent severe and recurrent droughts have interrupted the reliability of the country's hydroelectric power supply, and water levels of Lake Victoria, Lake Tanganyika, and Lake Jipe, three of Tanzania's vital natural reservoirs, are facing dramatic declines. Sea water intrusion into water wells along the coast of Bagamoyo town and the inundation of Maziwe Island in Pangani District are of further concern. These threats exacerbate the urgent need for more comprehensive, accurate, and readily available information about natural hazards and climate change threats, to address adaptation challenges and enhance support for planning and mitigation activities.

Improving Tanzania's Early Warning System (EWS) is a critical component of adapting to a changing climate. This project is focused on strengthening the capacity of national and subnational entities to monitor climate change, generate reliable hydro-meteorological information (including forecasts) and combine this information with other environmental and socio-economic data to improve evidence-based decision-making for early warning, adaptation responses and planning. UNDP is

working with the Tanzanian Government to establish a Climate Information and Early Warning System as part of its National Adaptation Programme of Action (NAPA). This system will increase the local community's resilience to the impacts associated with weather and climatic disasters by engaging local government and youth to crowdsource hazard information from local jurisdictions. Establishing a crowdsourced hazard feedback system in Tanzania is another way to enhance the local communities' adaptive capabilities to cope with the challenges brought by climate variability. Women's involvement throughout the rollout will be key to the success and impact of the new system.

Recently, free mobile phones have been provided to local farmers so they can directly channel information on climate, weather and related disasters. Provincial and district officers, municipalities, civil society (women and youth associations, NGOs, media, farmers' associations) and the private sector are also being engaged as end users to provide inputs to the project's design. Other agencies working to strengthen climate information and early warning through this initiative include the Government of Tanzania's Ministry of Water, Tanzania Meteorological Agency, Disaster Management Department, and the Global Environment Facility (GEF).

UNDP Kosovo*, together with UN Global Pulse, tested a hypothesis to improve emergency service providers' response times. We analysed anonymized emergency call records to 112. These calls were emergency calls made in the municipality of Pristina between 1 January 2014 and 31 October 2015, and cover a wide range of incidents. The analysis aims to provide the emergency responders with an understanding of what emergencies occur, where and when, in order to pre-position scarce resources, make responses more effective, and reduce response time. As a first step, we mapped temporal trends of demand for various emergency services, such as the ambulance, police, or firefighters. In the second stage, planned for early 2017, we will map the spatial distribution of the calls through an interactive platform developed in cooperation with a local NGO, Open Data Kosovo.

Driven by a hypothesis that 112 calls can be an indicator of security and safety trends and can be used for optimizing emergency response, the first phase of the analysis suggests that this is a valid proof of concept. Moreover, it is clear that big data analysis requires a fraction of the cost of traditional surveys or mapping methods. The emergency services in the city now have a big data analysis of 22 months' worth of emergency calls, providing insight and trends across a variety of incidents over time.

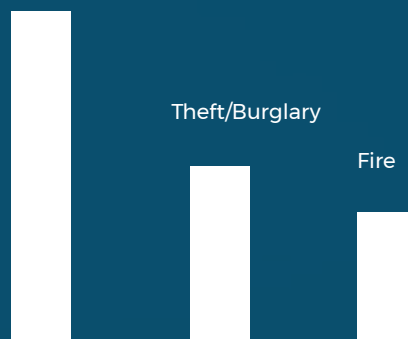
*under UNSCR 1244

TOP 3 EMERGENCIES REPORTED

Traffic Accident

Theft/Burglary

Fire





KOSOVO (UNDER SCR 1244)

Can 112 calls be an indicator of growing security and safety trends? The emergency services now have a big data analysis of 22 months' worth of emergency calls, showing trends in a variety of incidents over time. For instance, calls reporting thefts and burglaries in and around Pristina seem to be on a decline. But complaints about water supply have increased, particularly during the very dry and hot summer of 2015. What's next? In 2017, calls will also be mapped geographically through a UNDP crowdsourcing platform.



TUNISIA

How can we measure public opinion about corruption in real time? Tunisia is one of the first countries to begin to nationalize the SDGs. As part of its work on SDG 16 (peace, justice and strong institutions), the team used Twitter keywords to measure public perceptions of corruption. By analysing tweets in the same time frame as existing household survey data, they established a clear correlation between the two data sources. Social media analysis has thus proven to be a useful and complementary tool to help Tunisia measure and monitor progress towards the achievement of the SDGs.



SUDAN

Can changes in poverty levels be measured more frequently to improve service delivery? The team explored whether electricity consumption and night-time lights from satellite imagery could serve as proxies for measuring poverty levels. Using the same methods as those of the World Bank in Kenya and Rwanda, the team found that the night-time satellite imagery correlation has potential to be a reasonable proxy for poverty, and justifies further investigation and investments.



ARMENIA

Can mobile phone data improve the provision of services in the tourism industry? The UNDP team worked with a local telecom operator to analyse the travel patterns of tourists within Armenia, based on their roaming telephone usage. The proof-of-concept was successful, and the team is now preparing to analyse a dataset based on a full tourist season, to be shared with both government decision-makers and local businesses to understand and adapt to shifting trends.



FYR MACEDONIA

Does the way people use their phones say anything about mobility? A Memorandum of Understanding will be signed between UNDP and all the major mobile operators in the country. The system will explore the possibility of tracking mobile phone signals and large movements of people to identify their exposure to disasters, air pollution and other occurrences. It will support more informed decision-making to help meet SDG targets in the years to come.



EGYPT

Can agricultural and weather data inform irrigation planning and water management? The team established two sources: data collected on an hourly basis from a nationwide sensor network developed by the Egypt-based Central Laboratory for Agricultural Climate, and data from local and international weather stations. This combination of data, plus the analysis and the visualization of the data, allows for more effective decision-making by policymakers.

DATA INNOVATION | FEATURE

UN DATA INNOVATION LAB SERIES

In 2016, UNDP also engaged in the UN Data Innovation Lab series. In 2015, the UN Chief Executive Board identified four initiatives to enable the UN to harness the power of the Data Revolution for Sustainable Development. They jointly tasked UNICEF and WFP to lead one: the UN Data Innovation Lab. In consultation with UN agencies, it was agreed to run a series of six thematic Data Innovation Labs to understand existing data innovation capabilities, needs and bottlenecks within the UN system to articulate how to best serve the UN in the long term.

By bringing together representatives from all UN agencies, Data Innovation Labs provide participants with an opportunity to identify and discuss crosscutting challenges, share experiences and learn from each other. These Labs aim to develop, test and pilot joint data projects and support them from project design to analysis and visualization. They also explore issues around data privacy and how to build effective partnerships. Each Data Innovation Lab is led by different UN agencies, which further strengthens inter-agency cooperation in the field of data innovation and contributes to advancing the data revolution system-wide.

UNDP led the second Data Lab in September 2016 with UN Global Pulse. The event 'Building a Data Strategy' brought together more than 20 UN agencies and private sector partners including Google, Microsoft, Facebook, PWC, and E&Y and resulted in the incubation of six data experiments across agencies.



ADVANCE GENDER EQUALITY & WOMEN'S EMPOWERMENT





TEST

ARAB STATES | How can young Arab men and women be supported to realize their potential and promote the Sustainable Development Goals (SDGs)?

More than 60% of the Arab States' population is under the age of 30. This is the largest youth bulge the region has witnessed in the last 50 years. Young women and men in the Arab region face high levels of unemployment and difficult economic conditions. UNDP in the Arab States sees an opportunity to support and strengthen the social innovation capabilities and mindset of Arab youth, especially young women, so that they can realize their potential to contribute to the economic growth and social stability of the region.

In 2015, UNDP launched the Youth Leadership Programme (YLP) to promote achievement of the SDGs, with gender equality and economic empowerment embedded as crosscutting themes. In its first (2015) and second (2016) phases, the programme brought together more than 500 Arab youth to nurture their creativity, strengthen their leadership skills, and help them design and implement innovative projects to improve their communities, whether local, national, or global. In its second year, YLP 2 used various social innovation methodologies, most notably

design thinking, to help these young people address sustainable development challenges, providing them with ongoing support through a series of interactive hands on learning workshops as well as targeted mentoring. The theme of YLP 2 was 'Innovation for Sustainable Development,' with the goal of supporting young people to become engaged citizens, innovative problem-solvers, effective leaders and successful agents of change. Over 3,000 youth from 11 countries across the region applied for the programme, 500 participated in national activities, and 50 attended the final regional workshop for changemakers.

Building on the first two phases, the third phase of the programme (YLP 3) will accelerate innovative solutions for sustainable development and explore the possibility of a YLP impact investment fund to finance the most promising ideas. YLP 3 aims to support and empower young women and men changemakers to design and implement innovative, impactful and sustainable development solutions, be they social enterprises, non-profits, NGOs, initiatives, or campaigns.



TEST

TUNISIA | How can talented young women and men be engaged in the design of breakthrough solutions to development challenges?

Many young Tunisian women and men report a sense of social, economic and political marginalization. To provide youth, especially young women, with opportunities to design and implement breakthrough community-based solutions that contribute to the achievement of the SDGs, UNDP and partners embarked on a series of SDG camps. These one-day workshops combined human-centred design and human rights-based approaches to help participants identify problems and design solutions they could implement within their own means.

The initiative was implemented with seven UN agencies: UNFPA, IOM, UNICEF, OHCHR, ILO, FAO and UNV. The partners organized five SDG Camps in different regions of the country and mobilized over 100 Tunisian youth aged 15 to 24 years. The innovators designed 26 solution prototypes and the 10

most promising solutions received coaching for further refining. A guidance note on design thinking, youth and the SDGs was developed to facilitate the replication of the SDG camps by other actors. The 5 best solutions were selected in a national workshop, and the winners took part in the regional workshop organized within the framework of the second phase of UNDP's Youth Leadership Programme in the Arab region (YLP 2). Two of the Tunisian representatives made it to the final 12 of YLP 2. A new round of SDG camps will be launched in 2017 within the framework of the third phase of the regional YLP programme.





TEST

EGYPT | Can we design evidence-based interventions to test what works in preventing and responding to gender-based violence?

Gender-based violence (GBV) affects nearly every aspect of the socio-economic life of Egyptian women. According to the 2016 Human Development Report, Egypt ranks 111 out of 188 countries on the Gender Development Index (GDI). The Economic Cost of Gender-based Violence Survey (ECGBVS) estimates that the overall cost resulting from the emerging violence against women and girls in Egypt is at least US\$120 million, but could easily be as much as US\$340 million, given the overall lack of reporting.

Inspired by emerging work to combat GBV by leveraging behavioural insights, we partnered with the National Council for Women (NCW) and the Behavioural Insights Team (BIT). Over the course of three days, 30 participants from UNDP Egypt and the National Council for Women received theoretical and practical training on applying behavioural insights and designing low-cost evaluations to combat violence against women. The purpose of the training was two-fold: first, UNDP aimed to upskill the local

team, including civil servants, in the use of behavioural science to improve public policy outcomes in prevention and response to domestic violence and sexual harassment in public spaces; second, workshop participants developed five experiments for behaviourally-informed interventions to be prototyped and tested in 2017. For example, one planned experiment aims at designing messages to encourage women to access NCW support services.

Together with NCW colleagues we developed a behavioural map of the different actors involved, identified the main behavioural barriers that prevent survivors of GBV from seeking support. We then designed messages to be added to the envelopes of electricity bills, reaching hundreds of thousands of households. Moving forward, we plan on prototyping these messages with end users, iterate based on what we learn, and then test which messages encourage women to seek support, and which have less impact.



In Viet Nam, men and women often find themselves confined to specific careers and positions. Women face numerous challenges, including discriminatory hiring and promotion practices; lack of support from senior leaders; and ignorance of the demanding roles they have within the home and community. For example, women hold fewer than 10% of senior government positions: ministers, vice ministers, or general directors in the civil service.

Building on the initiative by UNDP Nepal, the #HowAbnormal campaign in Viet Nam created short videos that flipped gender roles. The campaign was done in collaboration with UN Women, UNFPA and local social media and communication organizations to inspire young women and men to rethink dominant gender norms. The campaign was further amplified through a filmmaking competition, online pledges to shape positive norms, and drama and photo competitions. The films went viral nationwide, with more than 91,000 views through 2016. The campaign momentum continues as it has inspired a photo exhibition entitled “Women can do”. The exhibition

showcased the photos taken by journalist Nguyen Thi Quynh Hoa, the campaign’s general manager. The photos depicted four Vietnamese women representing four fields: the first female airline captain, a Golden Ball award-winning female footballer, an outstanding female student at the University of Fire Fighting and Prevention, and the CEO of Honeywell Indochina, a multinational corporation. The exhibition will be hosted at a number of universities in 2017 as well as the Women’s Museum, and continue to advocate for the deconstruction of gender stereotypes.

Studies confirm the importance of role models to challenge and eventually change dominant gender norms. As the campaign has created significant buzz, UNDP Viet Nam plans on scaling it to other countries in the region and to invest more in challenging the dominant norms in the country itself.





EGYPT | How can we support women in driving innovation and social entrepreneurship?

The unemployment rate of women in Egypt is more than double that of men (78% versus 25%). This gender gap is also present among entrepreneurs, according to an OECD study: 12% of women in the MENA region seek entrepreneurial jobs compared to 31% of men. Men also play a dominant role in Egypt’s entrepreneurial ecosystem, where 82 percent of startup founders are male, as noted in a Wamda report. Despite the difficult circumstances facing Egypt, entrepreneurship has proven effective in tackling a vast array of challenges, through improving individual quality of life and ultimately improving the national economy as a whole.

UNDP Egypt partnered with Microsoft and the National Council for Women to launch the Aspire Social Innovation Hub. The Hub aims to address the gender gap by fostering innovation and entrepreneurship among young women, with a focus on computer science. The hub targets young Egyptian women aged 20 to 27 who show passion for learning new technologies and creating social impact in their own communities. Two hubs have been launched in Cairo and Ismailia. Forty young women developers came together to co-design tech-based solutions for development challenges. From this initiative, the young women conceptualized 10 projects, targeting four thematic areas: refugee aid, health care, road safety, and child rights. At least three more hubs will be launched by the end of 2017.



“I was struck by the ingenuity of these young developers and their creative solutions – from an app helping people locate pharmacies for urgent medical care to a service providing Syrian refugees with local information and resources. Seeing their work was a powerful reminder of the role each of us can play in having impact in our local communities.”

Satya Nadella
Microsoft CEO



An excerpt from: The People Who Inspired Me in 2016. A LinkedIn blog by Satya Nadella, December 2016, describing the UNDP Social Innovation Hub in Egypt



MYANMAR | How can virtual peer-support be scaled among rural women?

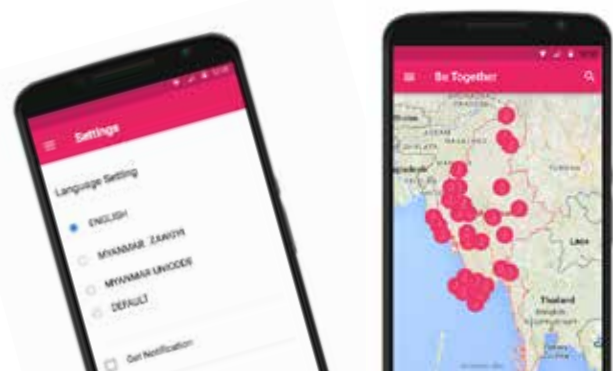
Women are under-represented at all levels of public and political life in Myanmar. Emerging women leaders in rural areas in particular face significant barriers, including lack of personal confidence and female role models, to overcoming restrictive social norms.

To address this, UNDP supported the creation of iWomen—Inspiring Women—a free mobile application co-developed by women’s community groups. The app is a joint initiative with the May Doe Kabar National Network of Rural Women. It inspires and mentors rural Myanmar women in their daily lives. The app started with inquiring what network members want: UNDP invested first in understanding the needs of women and then co-designed the tool with women.

The iWomen App inspires rural women by sharing personal stories written by women within Myanmar and across the world. Women share their stories with each other and have access to mentors. The app has grown to include educational content to inform women on topics such as renewable energy, entrepreneurship, market, laws, rights and technology. It rewards users through ‘lucky draws’ for playing games to test and build their knowledge. It also has a newly integrated survey function for gathering ground-level information from rural users around the country and supporting their virtual participation in country-level law and policy consultations.

The app started as a communication forum for rural women, but it didn’t stop there. It is embraced by the public as a tool for women’s empowerment and gender equality in Myanmar. Men make up 20% of its users. Since 2015, largely through individual phone-to-phone sharing, the iWomen app increased from 1,050 to over 8,000 active users (of which 86% return to the app). Women have shared more than 7,000 posts and 500 inspiring stories.

A youth tech volunteer network around the app started with 30 recruited university students and expanded to more than 200 youth who are travelling across the country to introduce rural women to the basics of mobile IT, training them on sharing the app phone-to-phone with others and become iWomen App Champions. The trainings have reached 3,500 rural women, covering over half of Myanmar’s rural townships.





India adds 27 million children and 30 million pregnant women to its immunization targets every year. To support the Government of India with a real-time information system, UNDP India started the Electronic Vaccine Intelligence Network (eVIN). With the help of a simple mobile app, eVIN ensures vaccine availability and encourages equitable vaccine distribution.

BEHAVIOURAL INSIGHTS / FEATURE

Behavioural insights draw on diverse disciplines such as psychology, behavioural economics, and neuroscience to explain human behaviour and decision-making. This approach is a departure from the traditional economic perspective that assumes humans are rational actors who behave so as to optimize outcomes for themselves.

The application of insights from behavioural science into policy-making and international development is evolving quickly. The days of the homo economicus are numbered – public and development policymakers increasingly understand that we are designing services and policies for humans who are not purely rational and self-interested or who make decisions based on perfect information and mental calculus. Human decision-making across the globe is influenced by cognitive biases and heuristics that have a direct impact on the effectiveness of policies and efforts to achieve the SDGs

The World Bank, as well as governments in Australia, Denmark, Germany, the Netherlands, Singapore, the United Kingdom, and the United States have all launched initiatives to use behavioural insights to address policy challenges. The United Nations has an opportunity to deliver on its promise of a 'people-centred' development agenda by ramping up its use of behavioural insights in policy and programming around the world. In 2016, we took another step to further embed behavioural insights in UNDP's portfolio.

We started using behavioural insights back in 2013 in cooperation with the UK Behavioural Insights Team and the Government of Moldova. In that country, many adults treated for tuberculosis stop taking their medication and relapse, hurting the health and productivity of the individual and the national economy. Together, we discovered that one of the main barriers is the mandatory visit to a clinic to take the essential medication in the presence of a doctor: a friction cost. Early results from a randomized control trial indicate that twice as many patients follow through with treatment if allowed to take medication at home while connected to a doctor or nurse through their phone camera: 40% in the control group compared to 80% in the treatment group.

In 2016, we partnered with Maya Shankar and Lori Foster, Behavioural Science Advisors to the UN Secretary-General, for six months. The results of this collaboration are captured in the report 'Behavioural Insights at the United Nations – Achieving the 2030 Agenda'. The publication makes the case for the inclusion of behavioural science in every policymaker's toolbox, based on 10 case studies.

One of the case studies highlights our work in China. Research shows that people are highly motivated to take actions their peers have also taken. UNDP and its private sector partner Baidu applied this principle to help people recycle their old refrigerators, computers, and other electronic devices. We worked with the mobile app team and incorporated outreach messages such as: 'Join the 250,000 people who are already helping to preserve our planet by e-recycling.' A 'social proof' feature enables app users to easily invite friends in their social networks to download the app through a simple SMS message.

The everyday actions of regular people have broad implications for the environment. Behavioural science can also be applied to help consumers evaluate the costs and benefits of their actions. How can policymakers design smarter programmes? The UN Environment Programme released a behavioural insights report in 2016 proposing five concrete actions for guiding sustainable consumption.

In Egypt, we are working with the National Council for Women (NCW) on the prevention and response to gender-based violence. This entails designing messages to encourage women to access NCW support services. Together with NCW we developed a behavioural map of the different actors involved and identified the main behavioural barriers that prevent survivors of gender-based violence from seeking support. Then we designed messages that will be added to the envelopes of electricity bills, reaching hundreds of thousands of households. We will prototype these messages with end-users, iterate based on what we learn, and then conduct experiments to determine which messages encourage women to seek support - and which have less impact.



BEHAVIOURAL INSIGHTS HELP TO BETTER DIAGNOSE DEVELOPMENT CHALLENGES AND GENERATE TESTABLE SOLUTIONS, TAKING INTO CONSIDERATION THE COMPLEXITY OF DEVELOPMENT CHALLENGES. THE ITERATIVE APPROACH BROADLY FOLLOWS THESE STEPS:



DEFINE THE PROBLEM

We start by developing a clear problem statement, based on available data in tandem with desired, measurable behavioural outcomes.



MAP THE SYSTEM AND BEHAVIOURS

We locate specific actors and the decision points they face to understand their motivations and hesitations, and which behaviours might make them better off. We conduct interviews, observe processes, and explore user journeys that enable us to observe how people actually behave to create more accurate behavioural maps.



DIAGNOSE THE SPECIFIC BEHAVIOURAL BARRIERS

We apply insights from behavioural economics, psychology, and neuroscience to these behavioural maps to help us understand what behaviours (or lack thereof) are blocking progress, and how and when we should interact with people to prompt them to act.



DESIGN TAILORED SOLUTIONS

We then deploy our observations, findings and design tools to generate and prototype tailored, appropriate solutions with potential future users to change key behaviours. For example, printing behaviourally-informed messages on envelopes of gas and electricity bills that encourage women to seek help if they experience domestic violence.



TEST, EVALUATE, ITERATE

We evaluate our solutions rigorously through low-cost randomized controlled trials (RCTs), leveraging robust evaluation methodologies to test the effectiveness of small changes quickly and cost-effectively. We scale the most effective solution.

Interventions based on behavioural insights usually cost little, do not impinge on freedom of choice, and are built on rigorous empirical tests. Many development problems are characterized by implementation challenges that are particularly important to solve, as the main underlying principle of the SDG agenda is to leave no one behind. Behavioural insights can help to identify what prevents marginalized people from taking up services and help to identify what works to remove these barriers.

If we are to accomplish the SDGs, we must take into account real-world biases, and decision making processes under conditions of risk and uncertainty.

A person in a kitchen is holding a sign that reads "SORRY FOR THE INCONVENIENCE, BUT WE ARE TRYING TO CHANGE THE WORLD". The sign is attached to a metal ring hanging from a ceiling. The background is a blurred kitchen scene with a person's hands visible, suggesting a busy, everyday environment.

**SORRY FOR THE
INCONVENIENCE,
BUT
WE ARE
TRYING
TO
CHANGE
THE
WORLD'**

3 CREATING A NEW NORMAL

The development sector's traditional palette of tools are being increasingly put to the test. Dynamic and often challenging contexts require foresight, innovative thinking and agile solutions.

Our work on innovation pursues objectives under two main pillars: first, to achieve better development results through experimentation and testing new models; second, to enable the organization to become more agile. This second component, the change management pillar, is what we

call 'creating a new normal'. Creating a new organizational norm of seeking the best and most appropriate solutions is the practical response to the new normal in development: volatility, uncertainty, complexity and ambiguity.

To support this transformation, in 2016 we invested in providing customized guidance to UNDP staff by retooling staff with new capacities and innovation skills, and innovation champion programmes. We also continued to support our organizational practice of working out loud.

HACKING THE RULES

PRACTICAL GUIDANCE FOR INNOVATORS

Large organizations like UNDP have strict rules about how business must be done. This is a core strength for any organization that strives for transparency and accountability. The downsides, however, include inflexible multi-year planning instruments, risk aversion, and concepts of scale that prioritize standardization over adaptation. Our team in the UNDP Regional Istanbul Hub led the design of tools to help colleagues deviate from the current linear implementation paradigm, offering new ways to work on any stage of a programme or project cycle, and design for adaptive scale from the get-go.

The key hypothesis is that if methods that enable experimentation become part of the organization's DNA, we will see an uptake in their use and eventually produce better programmes and projects. To this end, we worked closely with four UNDP Country Offices over several months to 'hack' the corporate programme guidance and develop the 'Project Hackers' Kit'.

The Hackers' Kit does not offer quick solutions to problems, but rather helps managers and practitioners ask tough and useful questions about the challenges they face, so they can design more targeted solutions and scalable solutions with sustainable impact. Are there positive changes already happening in the system? Can we identify positive deviants? What are probable future scenarios and challenges for the system? How can we reformulate activities to a set of assumptions and hypotheses and test them? How can we design solutions with end users? Have we tested different models to make a strong business case before going into piloting? The Hackers' Kit strives to find a balance between making systems-thinking practical and designing evidence-based experiments that inform a programme's evolution.

In 2016 we introduced the Kit to more than 15 Country Office teams at the Istanbul Innovation Days. We also supported these teams in Country Offices in applying the Kit to their work. In 2017, we will continue to roll out the Kit and offer capacity-building support.

How can we reformulate activities to a set of assumptions and hypotheses and test them? How can we design solutions with end users?



SCALING TOOL

Scaling up a pathway
 A scaling up pathway helps you to consider how you might move from your solution to your long term goal. This tool helps to identify factors that could support and move forward your solution, and barriers that you may need to overcome.*

1. Vision of scale

What is the outcome you are hoping to achieve with the solution? At what scale do you see it being impactful? (Global, regional, national, sub-national or local).

How far will this vision take you towards your long term scale goal?

2. Drivers and Spaces

Drivers are certain factors that may help to push the project forward.
 Identify potential drivers and discuss how they might assist moving your project forward, and how would you support them: consider: People/organisations, markets/demand, incentives, external catalysts etc.

Driver	How it might push forward solution...

Spaces are the circumstances that need to be created, or the barriers that need to be overcome, in order for the solution to scale up successfully.
 Consider the financial, organisational, political, cultural, learning, environmental, etc. spaces your solution will be operating in, what barriers do you foresee, and how would you address them?

Space	Circumstance to be created/barrier to be removed...

3. Monitoring and Evaluation

How will you know whether your intervention is successful in achieving the desired impact:
 What will you measure to progress towards the scale goal and at what stages?

Through what methods could you collect this data? (RCT, qualitative data, comparative data)

What will you do to monitor progress in addressing drivers and spaces/barriers?

Do you need to adapt the solution, vision, and your assumptions about enablers/drivers and barriers/spaces in light of the evidence gathered and in order to be responsive the larger situational changes?

* This tool is a part of the 'implementation' stage of the kit, but colleagues are encouraged to refer to it from the design through the closing stages

HOW TO USE IT

01/ STEP: Consider when to apply the tool. It is better to start thinking about scaling your solution during the project implementation phase. It may also be useful to ask these questions at other times as you iterate experiments.

02/ STEP: Answer the questions provided in Box 1 about your Vision of scale to best understand the scope and size of your goal. How do you develop widespread solutions that take into account local needs?

03/ STEP: Answer the questions provided in Box 2 about Drivers and Spaces to determine how you might scale your solution for system-wide impact. How might you scale your solution? What are the factors that drive your project forward? What are the obstacles that could block progress?

04/ STEP: Close the loop by answering the questions provided in Box 3 about Monitoring and Evaluation to decide how you will know your intervention is achieving its desired impact, particularly towards the scale goal. How do you make sure that your project has system-wide impact?



INNOVATION CHAMPION PROGRAMME

ASIA AND THE PACIFIC

In 2015 we launched the Innovation Ambassadors programme in the Asia-Pacific region and appointed UNDP colleagues from 14 countries as ambassadors. We have made incremental improvements in the way we seeded ideas, and encouraged incubation of ideas as well as scaling. Engagement of staff with the Innovation Fund has tripled. Colleagues have each further pushed innovation in their Country Offices over the last two years by testing new ideas and technologies, creating new partnerships and inspiring other colleagues to take up innovative approaches. We also discovered that these innovation ambassadors thrive in converting staff outside their own host offices. They have created a distributed resource capacity for innovation in the region. For example, our innovation ambassador from Sri Lanka supported the Maldives Country Office in their innovation journey.

Among the many innovation champions across the Asia-Pacific region, we chose these 14 colleagues based on their past successes, their support systems – the composition of their teams and the level of buy-in from management – and their keen interest in engaging and learning.

These ambassadors spent one week with our partners from Nesta to learn the fundamentals of social innovation, and how to conduct portfolio scans of programmes and advise colleagues on innovation. The last two days were hands-on, enabling the ambassadors to work with programme teams on embedding innovation in new and ongoing programmes across all thematic areas.

EUROPE AND CENTRAL ASIA

In Europe and Central Asia, we invested in colleagues to develop deep expertise in several innovative approaches by deploying them to work alongside the Innovation Lead in the Regional Hub for several months. They shadowed external experts to learn by doing. Our innovation experts now provide advice on behavioural insights, data innovation, crowdsourcing, public sector innovation labs and other areas to Country Offices in the region and beyond.

External evaluations have shown that Country Offices that embraced innovation developed a new set of skills, created new service lines and mobilized additional funding for human development. These innovation experts play an important role in providing peer support. They run annual R&D events that present emerging trends to UNDP and inspire colleagues to test new ways of working.

Senior management support has helped create the space for these innovation champions and teams to pursue a new innovation agenda, and the support has sent a powerful message to other teams that this is a standard to be upheld. This invaluable support helps UNDP's position with governments, brings enthusiasm to the team, refreshes the portfolio of services to clients, creates momentum and enthusiasm among local partners, and creates opportunities for resource mobilization.



AFRICA

We launched the Innovation peer-to-peer programme in Africa in 2016. Innovation champions are already dotted across the continent, with expertise in approaches such as innovation labs, real-time information systems, challenge prizes and strategic foresight, and the ins and outs of developing an innovation culture in one's office. The programme was created to facilitate peer support within Africa based on clear demand from Country Offices to learn from colleagues' past experiences when experimenting with new methods. The initiative pairs Country Officers who have applied innovative methods to their work with peers in other Country Offices who are facing similar challenges or using similar approaches. The initial results are inspiring: More countries have succeeded in accelerating their innovation journeys, fellows have further developed their own skills and understanding of diverse contexts, and peers have better navigated their ambiguous and uncertain paths thanks to coaching and mentoring.

LATIN AMERICA AND THE CARIBBEAN

The Regional Innovation Lead for Latin America and the Caribbean provided innovation champions in 10 Country Offices with on-demand advisory services on innovation methods on design thinking, open innovation challenges, citizen engagement and innovation labs. They addressed topics as diverse as citizen security and local economic development. Their skills and talent continues to be curated and grown through peer learning and targeted support.

ARAB STATES

In the Arab States, we have an informal network of innovation champions representing many of the region's 18 Country Offices. The Innovation Facility has been supporting these champions in identifying emerging methodologies and then hosting hands-on learning events in partnership with international experts and with UNDP offices from other regions. This approach was inspired by the Innovation Facility's SHIFT: Week of Action in September 2014, when the Egypt Country Office hosted a 'Games for Social Change' event with colleagues from Arab States, ECIS and Asia-Pacific. Since then, we have invested in events on topics including design thinking, foresight, behavioural insights and crowdfunding. The practical nature of the learning events helps colleagues to better understand these methodologies and deepen their skills in applying them in their own programmes. At the same time, this series of face-to-face events among innovation champions has strengthened the network, creating a group of people able to support each other as they experiment and push the boundaries.

INNOVATION SKILLS DEVELOPMENT

The newly launched Leadership Development Programme by the UNDP Office for Human Resources also incorporates innovation as one of four pillars. UNDP partnered with Acumen and IDEO for a unique course in human-centered design, and with Harvard Business School for additional courses and webinars on innovation. More than 400 mid-level managers in UNDP underwent hands-on skills-building in these methods.

International organizations will also have to transform themselves and their staff. Bringing in new talent with innovation skills will not suffice. Fostering innovation skills in the public sector is a fundamental need for UN entities and Member States alike. But what are the most important skills to nurture? What are the most cost-effective ways to ensure that staff members have the required skills and capabilities?

To answer the first question, we partnered with Nesta and investigated how successful innovation champions within UNDP trigger and manage change. Based on the observations of the positive outliers and ongoing work of Nesta and the OECD Observatory for Public Sector Innovation, we identified four core functions: opportunity, challenge, inspiration, and diagnosis.

OPPORTUNITY

How do we identify new and promising ways of working?

CHALLENGE

How do we productively challenge the status quo?

INSPIRATION

How do we inspire colleagues and management to make a shift?

DIAGNOSIS

How do we work with teams to identify the most suitable entry points for innovation?

Successfully executing these functions requires data literacy, the ability to manage iterative processes, and user centricity. For example, the opportunity function aims to develop skills required to scan the horizon for promising new ways of solving problems.

How can we best build and nurture these skills? We have an optimistic hypothesis, rather than a 'master plan': If the organization invests heavily in hands-on learning opportunities for staff and managers over the next four years, then a dedicated innovation team might no longer be required. To work ourselves out of our jobs, we have once again partnered with the UNDP Talent Management Unit to embed our innovation pillars in the newly designed leadership programmes.



WORKING OUT LOUD

The element of 'working out loud' plays an important role in fostering an environment for innovation. All recipients of grants are requested to publish regularly and share both their progress and challenges with colleagues and external partners. The Innovation Facility encourages teams to use social media to identify potential new partners and start conversations on work in progress. In 2016, UNDP innovators published more than 80 blog posts to highlight ongoing innovation initiatives to encourage transparency and learning.

PRINCIPLES OF INNOVATION / FEATURE



DESIGN WITH THE USER

- Develop context appropriate solutions informed by user needs.
- Include all user groups in planning, development, implementation and assessment.
- Develop projects in an incremental and iterative manner.
- Design solutions that learn from and enhance existing workflows and plan for organizational adaptation.
- Ensure solutions are sensitive to, and useful for, the most marginalized populations: women, children, those with disabilities, and those affected by conflict and disaster.



UNDERSTAND THE EXISTING ECOSYSTEM

- Participate in networks and communities of like-minded practitioners.
- Align to existing technological, legal, and regulatory policies



DESIGN FOR SCALE

- Design for scale from the start, and assess and mitigate dependencies that might limit ability to scale.
- Employ a "systems" approach to design, considering implications of design beyond an immediate project.
- Be replicable and customizable in other countries and contexts.
- Demonstrate impact before scaling a solution.
- Analyze all technology choices through the lens of national and regional scale.
- Factor in partnerships from the beginning and start early negotiations.



BUILD FOR SUSTAINABILITY

- Plan for sustainability from the start, including planning for long-term financial health i.e., assessing total cost of ownership.
- Utilize and invest in local communities and developers by default and help catalyze their growth.
- Engage with local governments to ensure integration into national strategy and identify high-level government advocates.



BE DATA DRIVEN

- Design projects so that impact can be measured at discrete milestones with a focus on outcomes rather than outputs.
- Evaluate innovative solutions and areas where there are gaps in data and evidence.
- Use real-time information to monitor and inform management decisions at all levels.
- When possible, leverage data as a by-product of user actions and transactions for assessments.



USE OPEN STANDARDS, OPEN DATA, OPEN SOURCE, AND OPEN INNOVATION

- Adopt and expand existing open standards.
- Open data and functionalities and expose them in documented APIs (Application Programming Interfaces) where use by a larger community is possible.
- Invest in software as a public good.
- Develop software to be open source by default with the code made available in public repositories and supported through developer communities.



DO NO HARM

- Assess and mitigate risks to the security of users and their data.
- Consider the context and needs for privacy of personally identifiable information when designing solutions and mitigate accordingly.
- Ensure equity and fairness in co-creation, and protect the best interests of the end-users.



BE COLLABORATIVE

- Engage diverse expertise across disciplines and industries at all stages.
- Work across sector silos to create coordinated and more holistic approaches.
- Document work, results, processes and best practices and share them widely.
- Publish materials under a Creative Commons license by default, with strong rationale if another licensing approach is taken.



REUSE AND IMPROVE

- Use, modify and extend existing tools, platforms, and frameworks when possible.
- Develop in modular ways favoring approaches that are interoperable over those that are monolithic by design.

TALENT & INNOVATION / FEATURE

THE CHALLENGE

The success of the Sustainable Development Goals depends on UN leaders at all levels who can develop and deliver optimal results by applying an innovation mindset in dynamic development contexts across a broad spectrum of disciplines.

THE LEADERSHIP DEVELOPMENT PATHWAY

UNDP's Talent Development Unit, part of the Office of Human Resources, addresses this challenge through the Leadership Development Pathway (LDP): a 12-month programme that strengthens UNDP personnel's leadership capacity by improving the way they lead, innovate, manage, communicate and deliver on a daily basis. Two cohorts of the 2016 LDP concluded in December, with nearly 500 participants from 55 different Offices.

Innovation is a key feature of the LDP, in both the course content and programme design, and the UNDP Innovation Facility is one of Talent Development Unit's most valuable partners in designing and improving the programme. In 2016 the LDP featured guided webinars on Innovation and Design at UNDP, course materials from Harvard Business Publishing on Creativity and Innovation Implementation, and a month-long learning module on Innovation as one of UNDP's five core competencies.

The LDP also focused on Human-Centred Design, in which LDP participants completed an eight-week online course to learn and apply the design-thinking methodology in the context of UNDP's work. This provided UNDP with an infusion of new perspectives and over 120 prototypes to 'do development differently', while also supporting our future leaders in developing an 'innovation mindset' to enhance their teams.

In 2016, UNDP received the gold for the Trailblazer category of the Learning in Practice Awards, which recognized the LDP for innovation in learning and development. These awards recognize excellence in the design and delivery of employee development programmes across both public and private sectors. 2016 awardees include Ericsson, Intel, Hitachi, Johnson & Johnson and the US State Department.

WHAT NEXT?

Based on recommendations from participant evaluations, the Talent Development Unit has redesigned the 2017 LDP by launching three new learning pathways, each offering an integrated learning experience tailored to the needs of the different levels in UNDP's talent pipeline. The partnership with the Innovation Facility remains key to the programme, and the innovation dimension will remain an essential part of the learning experience. This year it will focus on inspiration, iteration, and data literacy.

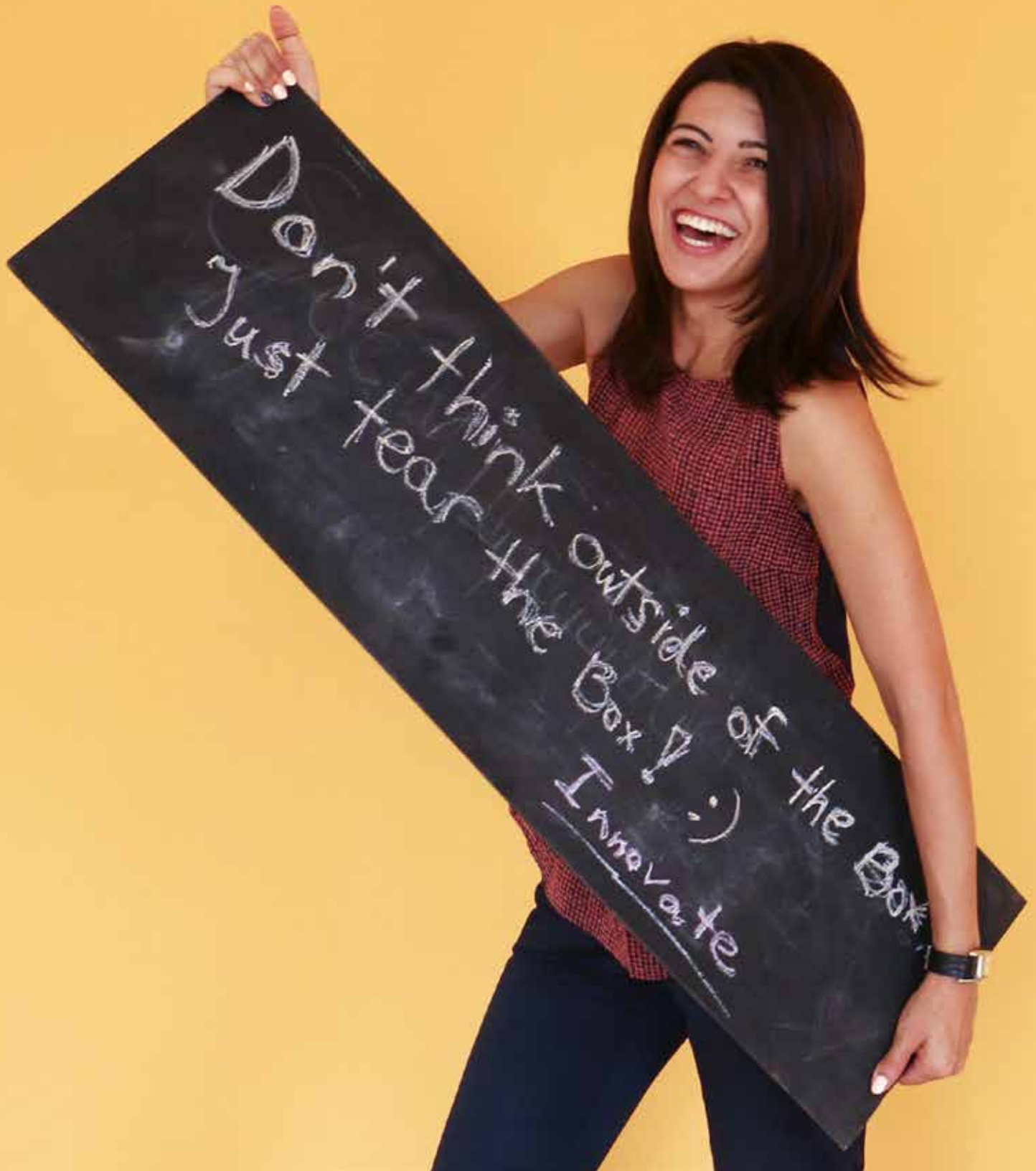


THANK YOU!

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