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Changing the world with data

# COVID-19 Global South Response and Recovery - Strategic Vision and Action Plan

April 3, 2020

# About Data-Pop Alliance

We are a collaborative laboratory of researchers, experts, practitioners, policymakers, and activists created in 2013 out of MIT, Harvard and ODI, joined by Flowminder in 2016.



We ambition to “*change the world with data*” through our **three pillars of work**:



**Diagnose** local realities and human problems with data and AI,



**Mobilize** capacities, communities, and ideas;



**Transform** the systems and processes that underpin our societies

# Our recent and current work



## Projects and Workshops 2019

- 1. DataMex: Data and Inequality with OXFAM Mexico
- 2. Data Literacy for International Development Practitioners Video (for GIZ)
- 3. Impact of Crime and Inequalities
- 4. EmpoderaData
  - São Paulo and Manchester workshops

- 5. Scoping Study about Urban Crime Risk Factors with UNODC
- 6. Big Data Strategy for Colombia
  - Bogotá workshop
- 7. Ciudadata Segura
- 8. Open Algorithms (OPAL) Pilots
- 9. AI for Mapping Poverty Hotspots in Brazil
- 10. Data for Development Strategy for UNDP Togo

- 11. Measuring the Unmeasured: SDG Tier III Indicators
  - Cairo event
- 12. Refugees and Communities in Lebanon with UN ESCWA
- 13. D4R: Data for Refugees Turkey Challenge
  - Istanbul event
- 14. Evaluation of the European Commission's Digitalisation Projects in Sub-Saharan Africa

\*The rest of the workshops marked in the map were independent from the projects.





# The problem: COVID-19 is posing and exposing Global South major challenges

- While the COVID-19 pandemic has so far primarily affected East Asia, Europe and the US, the Global South is already hit, especially countries and communities in **Latin America, Sub-Saharan Africa and the Middle East and North Africa, which host 30% of the world's population.** Those in South-East and South Asian countries are also at great risk.
- Despite having younger populations and warmer climates that *might* lessen the impact of the COVID-19, and progress on several fronts in recent decades, they **already face severe long-standing challenges**, including inequalities and poverty, political instability, gender imbalance, often weak and distrusted States, refugee situations, environmental and resource stress, etc.
- For most, large scale testing, social distancing, lockdowns and economic shutdowns won't be realistic options—or not for long. Basic data, medical supplies, and social safety nets are often lacking. COVID-19 **may bring down entire economies, societies, and families, revering years of efforts and creating conditions for sustained increases in poverty, mortality inequality, and insecurity**, with major local, regional and global implications.



The next calamity

# The coronavirus could devastate poor countries

The  
Economist

Leaders

Mar 26th 2020 edition >

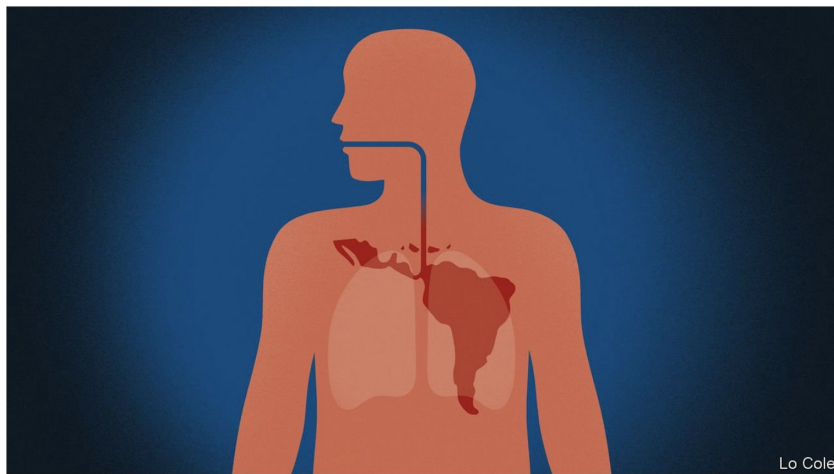


Middle East and  
Africa

Mar 26th 2020 edition >

Continental contagion

## Africa is woefully ill-equipped to cope with covid-19



Lo Cole

The Americas

Mar 26th 2020 edition >

Bello

## Covid-19 will sicken Latin America's weak economies

Governments scramble to mitigate the shock

## *Unprepared for the Worst: World's Most Vulnerable Brace for Virus*

Crowded camps, depleted clinics and scarce soap and water make social distancing and even hand-washing impossible for millions of refugees.

# Our proposal: help Global South authorities and societies respond and recover through a comprehensive and contextualized action plan

## WHAT?

Our proposed actions fall under **DPA's 3 areas of work**, each with specific objectives and sub-objectives:

1. **Diagnose**, by producing **evidence to support timely contextualized decision-making** to avoid or mitigate COVID-19 community spread
2. **Mobilize**, by strengthening **local awareness, information, capacities and connections** to help countries and communities deal with COVID-19.
3. **Transform**, by developing **transformative data-enabled policies, strategies and intervention to recover** from Covid-19.

## HOW

We propose **a menu of options (brick, or ingredients) leveraging DPA's expertise, network and vision that can be assembled and adjusted** according to local conditions and needs, with the following features:

1. **Demand-driven**: projects are demand-driven, co-developed and deployed with local partners.
2. **Locally anchored**: in each country of intervention we have dedicated teams and focal points on the ground.
3. **Human-centered**, reflecting core ethical principles and aiming to minimize harm on the most vulnerable.
4. **State-of-the art**, bringing to bear the very best international knowledge and practices.
5. **'Big picture, big vision'**, taking into societal and political factors, and long-term considerations.

# 1. Diagnose | COVID-19

**Objective:** Produce evidence to support timely contextualized decision-making to avoid or mitigate COVID-19 community spread





# 1. Diagnose | COVID-19

## **Proposed actions and sub-objectives:**

- (1) Assessing countries and communities' risks and readiness to Covid-19.
- (2) Modeling and optimizing Covid-19 local response effectiveness and impact.
- (3) Measuring the corollary effects of COVID-19 on societies.
- (4) Providing a synthesis of global policy interventions and historical learnings.



# (1) Assessing countries and communities' risks and readiness to Covid-19

## Workstreams and/or products

### 1. Country rapid risk assessment; key questions:

- What is the status of Covid-19 in the country?
- Where are people, including those most at risk?
- How are people moving, based on international mobility models and experience from Spain and Italy?
- How is the epidemic likely to spread?
- What is people perception of the virus and crisis? Are they aware, worried? Do they trust authorities? What means to they have to cope?
- What are other major compounding factors presenting risks of crowding out / exacerbation of other challenges.
- What can be done realistically? What data sources?

### 2. Country rapid readiness assessment

- Analysis of the strength of public and health services (stocks of relevant equipment, presence and allocation of medical force across country, means for testing, existing communication channels to reach the population etc.)
- Economic assessment, i.e. evaluation of macroeconomic capacity to mobilize trade agreements, external support, and financial / fiscal resources to respond.

## Data and/or methods

- Sub-national age pyramids from WorldPop and national statistics.
- Official and financial statistics
- Governance indicators
- Satellite imagery (e.g. night-time lights from NASA 'black marble' data), vessel traffic data, air cargo tracking data.
- Online survey based on Harvard Humanitarian Initiative (HHI) survey and Valencia response team's (see <https://coronavirussurvey.org/> and <https://is.gd/covidvalencia>)
- Key informant Interviews (qualitative)
- Quantitative (survey) data collection with public health personnel in collaboration with the Ministry of Health.
- Macroeconomic data

## (2) Modeling and optimizing Covid-19 local response effectiveness and impact

### Workstreams and/or products

#### 1. Analysis of prevention and mobility restrictions measures: What can be done to 'flatten the curve'?

- Feasibility and expected impact of early-on intervention measures (i.e. hygiene campaigns and subsidies) and large-scale testing approach (how it works, cost, smart sampling procedures if needed/applicable)
- To what extent are containment and social distancing measures are respected and effective? Modelization of in-country/city interactions, towards identifying mobility/movement patterns more at risk of fostering contagion.

#### 2. Modelization / optimization of resource allocation, i.e.:

- Optimal location of deployment of dedicated COVID-19 medical centers.
- Optimal allocation of medical equipment across health sites (via expected cases per catchment area)

### Data and/or methods

- Desk research.
- Mobility and interaction data: Cell phone data analysis through code pipeline, Cuebiq data.
- Based on key algorithms and metrics developed in Spain, Italy, Korea, US, Belgium.
- Social physics and network analysis.
- Health site locations
- Sub-national population density data



### (3) Measuring the corollary effects of COVID-19 on societies

Workstreams and/or products	Data and/or methods
<p><b>1. Well-being and safety effects:</b> Research paper(s) on:</p> <ul style="list-style-type: none"><li>• Domestic violence and abuse especially against women and children</li><li>• Violence waves as consequence of livelihood disruptions.</li><li>• Mental health (PTSD, confinement, etc., including for children and teens).</li><li>• Substance deprivation.</li><li>• Crowding out vs. other health conditions.</li></ul>	<ul style="list-style-type: none"><li>• Desk and literature review</li><li>• Key Informant Interviews (KII)</li><li>• Perception survey (HHI/Uiula).</li></ul>
<p><b>2. How long can economies be shut off?</b> Research paper(s) country-specific tradeoffs between containment measures, epidemiological interval/phase and short and long-term economic / livelihood impacts to inform decisions to 're-open' economies according to specific contexts, from refugee camps in Lebanon to major cities in Colombia.</p>	<ul style="list-style-type: none"><li>• Desk research</li><li>• Key Informant Interviews (KII)</li><li>• Economic analysis</li></ul>
<p><b>3. Post-COVID-19 'exit' strategies and societies:</b> projecting and proposing long-term implications of the pandemic on the future of economies, societal values, environmental models.</p>	<ul style="list-style-type: none"><li>• Desk and literature review</li><li>• Interviews with key experts and thinkers</li></ul>

## (4) Providing a synthesis of global policy interventions and historical learnings

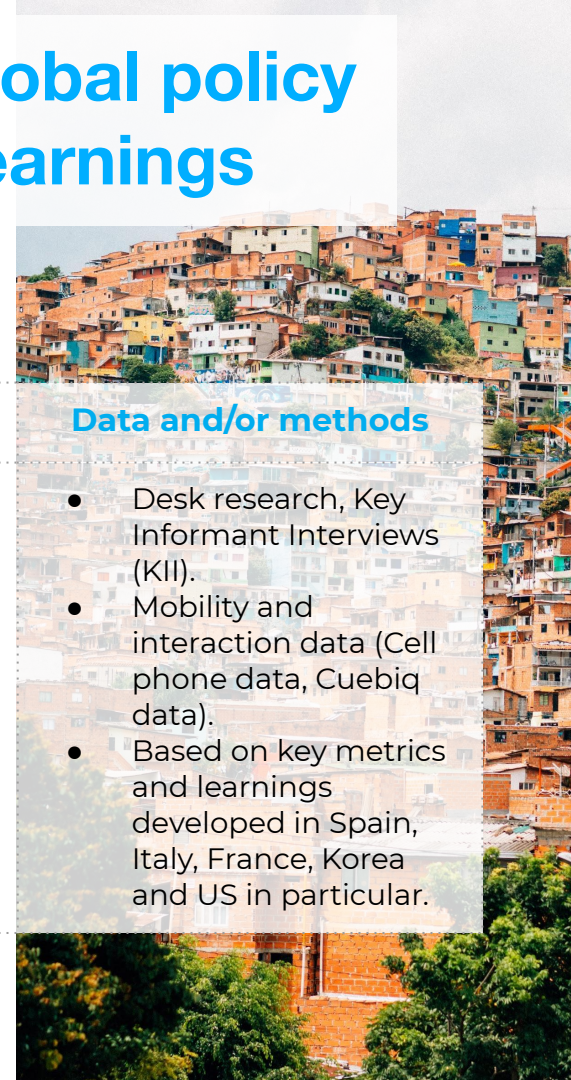
### Workstreams and/or products

#### 1. White Paper on current interventions and state of knowledge on using data for pandemics, i.e.:

- Synthesizing different policy approaches worldwide and draw key learnings based on available evidence and historical experiences (H1N1, SARS, Ebola...)
- Identify and present key models for mobility monitoring, i.e. to understand mobility that are the most dangerous and draw lessons learnt for other countries, especially Spain, Italy, Korea and the US.
- Present key features and requirements of technological systems and governance / regulatory standards for private data sharing and use.

### Data and/or methods

- Desk research, Key Informant Interviews (KII).
- Mobility and interaction data (Cell phone data, Cuebiq data).
- Based on key metrics and learnings developed in Spain, Italy, France, Korea and US in particular.



## 2. Mobilize | COVID-19

**Objective:** Strengthening local awareness, information, capacities and connections to help countries and communities deal with COVID-19.





## 2. Mobilize | COVID-19

### **Proposed actions and sub-objectives:**

- (1) Promoting local awareness, information and advice on Covid-19
- (2) Fostering local-to-global connections for advocacy and coordination
- (3) Strengthening local decision-makers capacities and incentives



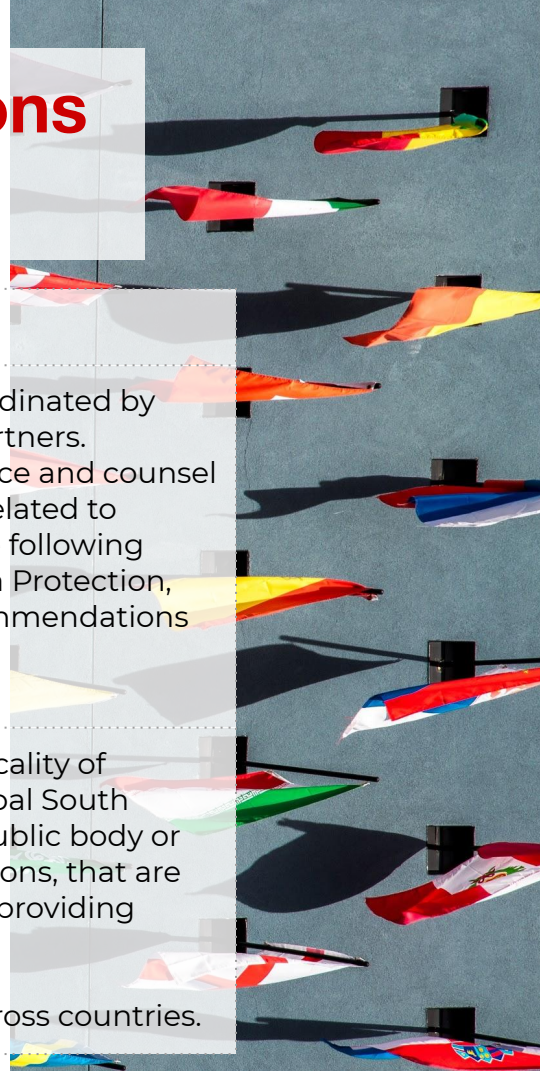


# (1) Promoting local awareness, information and advice on Covid-19

Workstreams and/or products	Data and/or methods
<b>1. Daily Data Observatory</b> (DPA + Prosperia) and <b>Weekly Country Brief</b> on COVID-19 available in local language.	<ul style="list-style-type: none"><li>• Desk review.</li><li>• John Hopkins data.</li></ul>
<b>2. Public awareness campaigns and sensitization</b> (e.g. “social distance game”), i.e. making available in local language. (A major impediment seems to be lack of awareness and understanding of risks).	<ul style="list-style-type: none"><li>• Multiple, e.g.: <a href="#">Data4SDGs Covid-19 Resources</a></li><li>• Results of perception survey</li></ul>
<b>3. Chatbot</b> to help answer critical questions in local language	Scaling of of <a href="https://1millionbot.com/chatbot-coronavirus/">https://1millionbot.com/chatbot-coronavirus/</a>

## (2) Fostering local-to-global connections for advocacy and coordination

Workstreams and/or products	Output(s)
<b>1. Coordination and governance</b> <ul style="list-style-type: none"><li>Dedicated COVID-19 DPA-led cells in all countries of focus, with local partners.</li><li>COVID-19 local <i>Council for the Orientation of Development and Ethics</i> (CODE), mirrored on those of the OPAL (Open Algorithms) project.</li></ul>	<ul style="list-style-type: none"><li>Local and regional networks coordinated by DPA local cells including local partners.</li><li>CODE members will provide advice and counsel on research and policy projects related to COVID-19, within the scope of the following functions: Relevance, Ethics, Data Protection, Community Engagement, Recommendations and Visibility.</li></ul>
<b>2. Global and local advocacy, activism, and exchange of information</b> on: <ul style="list-style-type: none"><li>Threats posed by the pandemic for the Global South and vulnerable populations (health, social, economic, violence).</li><li>Best practices and opportunities between countries.</li></ul>	<ul style="list-style-type: none"><li>Op-ed and Call for Action on criticality of focusing and working across Global South</li><li>Support to selected in-country public body or civil society, or political organizations, that are pushing this agenda forward, by providing information, data etc.</li><li>Public campaigns.</li><li>Coordination and information across countries.</li></ul>







### (3) Strengthening local decision makers capacities and incentives

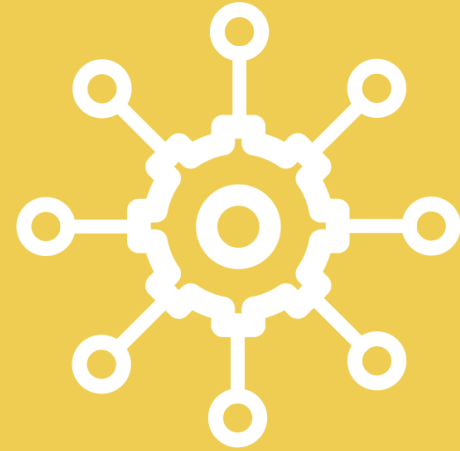
#### Workstreams and/or products

1. **Data against COVID-19 Toolkit**, adapted from DPA's existing Data Literacy toolkit.
2. **'COVIDEO' series**, with global DPA experts and practitioners (Nuria Oliver, Patrick Vinck...), in local language.
3. **Interactive webinars for decision-makers, respondents and other professionals**, with global experts and practitioners in DPA's network.
4. **Post-crisis**: capacity and community building workshops and resources for long term empowerment.



### 3. Transform | COVID-19

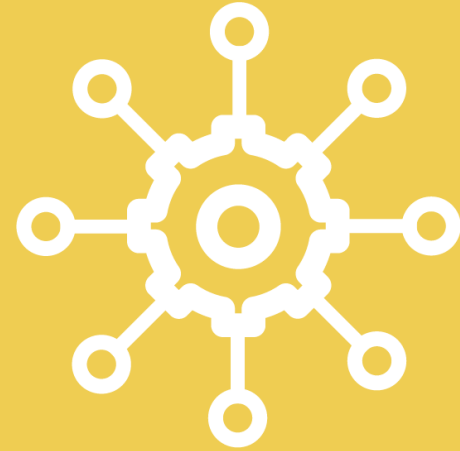
**Objective:** Develop transformative data-enabled policies and strategies to recover from Covid-19.



### 3. Transform | COVID-19

#### **Proposed actions and sub-objectives:**

- (1) Supporting immediate social protection policy responses to COVID-19.
- (2) Addressing structural development challenges through data and technology



# (1) Supporting immediate social protection policy responses to COVID-19

## Workstreams and/or products

### 1. Support the design of social protection policy responses:

- Provide ProsperIA's interactive decision support platform for assisting policy-makers in designing
- Provide data science expertise to support data identification and processing to make the best use of the platform.

### 2. Support targeting of social programs through satellite imagery.

## Goals and/or outputs

- **ProsperIA's interactive decision-support platform**
- Based on ongoing support in Costa Rica, Colombia and Panama.
- Map the most marginalized areas for immediate inclusion in social and financial programs to mitigate COVID-19 economic effects.



## (2) Addressing structural development challenges through data and technology

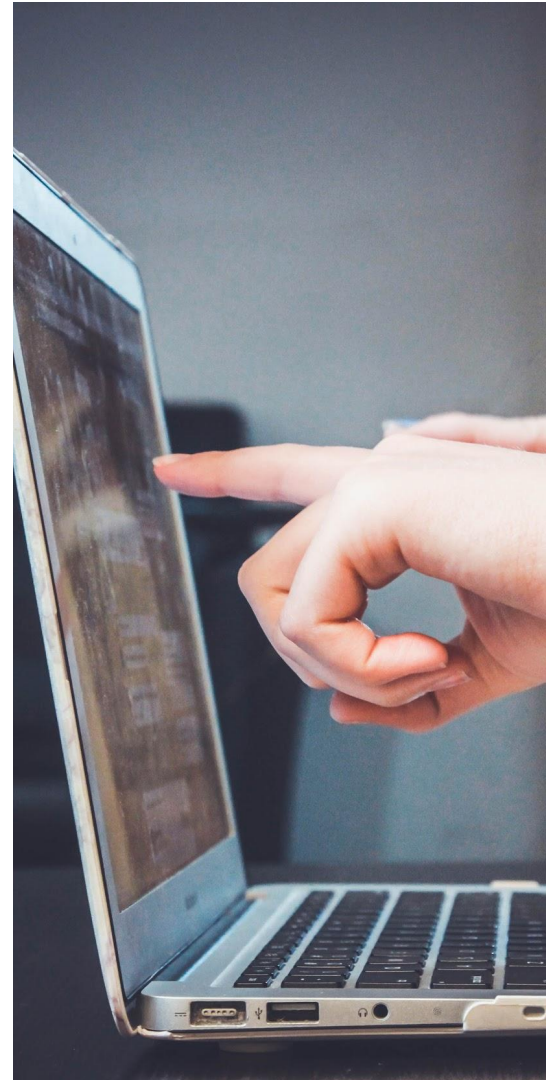
### Workstreams and/or products

**1. When and how to restart and “rewire” economies and societies?** What will be the deciding factors, implementation modalities (“frontline workers), new trades, jobs, in the post-Covid-19 world?

**2. The future of tech-enabled social safety nets and social protection,** i.e. politics and mechanisms of social protection nets.

**3. Building data-driven public health systems,** i.e. systems that can provide real-time reliable and safe information about the state of public health systems and the health of people.

**4. Enabling systematic private-data sharing and use for policy, research, and social transformation,** by building ethical and scalable technological systems and governance standards for private-to-public data sharing for better societies.



# Team and Network



# Team members (selected and preliminary)



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US, France and Spain



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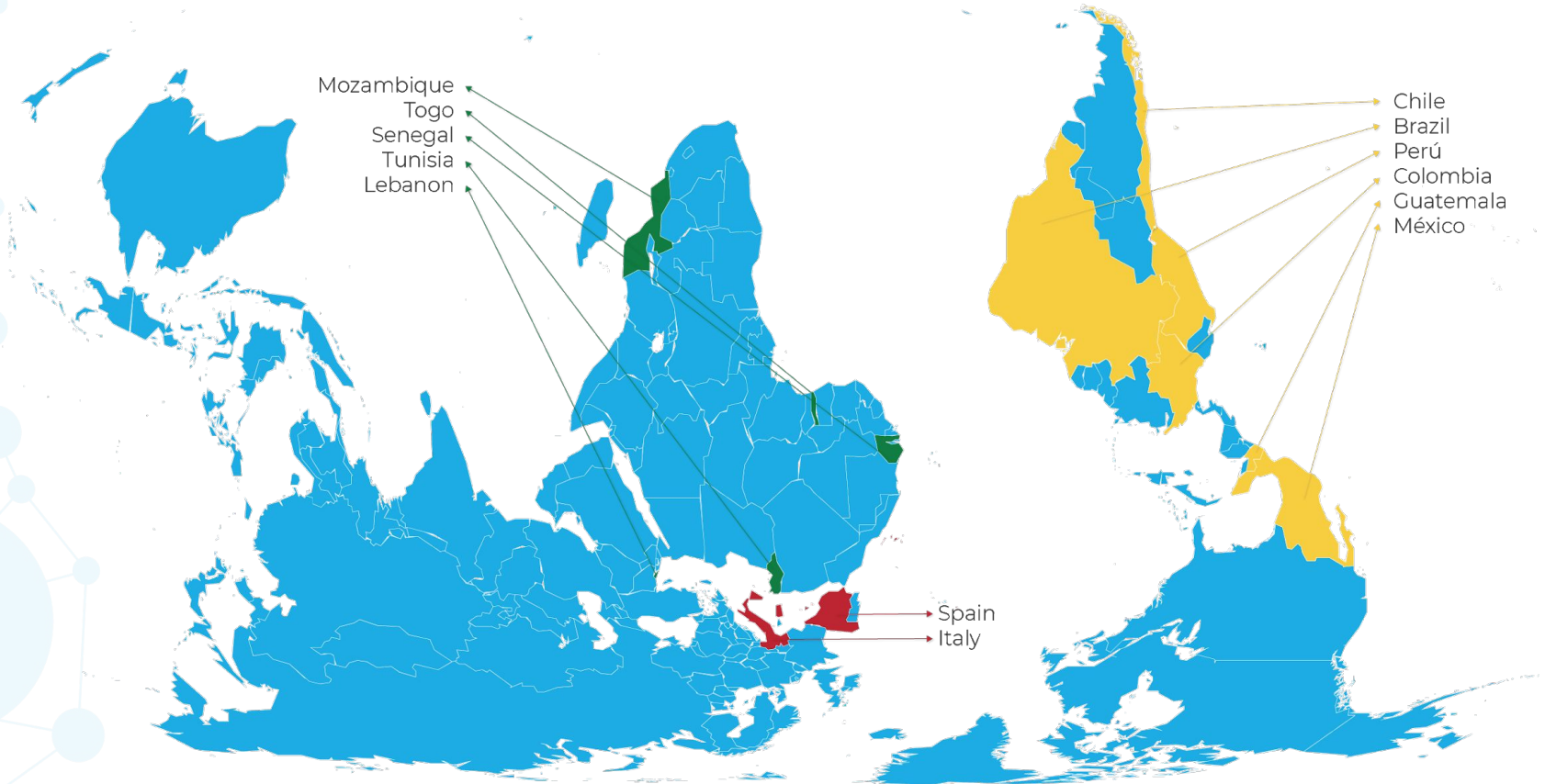


**Tatiana Goetghebuer,**

Development  
Economist, SSA

# DPA Network for COVID-19 Response Package\*

\* Initial list of countries of deployment considered based on current discussions and resources. Others may be added according to needs, including: Turkey, Mauritania, Sierra Leone, Ivory Coast, Ghana, Sri Lanka, Maldives, Indonesia,...







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ALLIANCE**

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# Thank you.



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