GGGI Technical Report No. 18

Post-COVID-19 Green Recovery Report Summary: Recommendations to Green Mexico's Recovery at the Subnational Level

March 2021

Part of GGGI Technical Report Series

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17. Green Growth Simulation Tool Phase 1 – Concept, Methods and Applications, Lilibeth Acosta, et al., 2020.
18. Post-COVID-19 Green Recovery Report Summary: Recommendations to Green Mexico's Recovery at the Subnational Level, José L. Amaya, Pablo Martínez, Diana A. Quezada and Laura Valdez, GGGI Mexico, 2021.

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https://gggi.org/report/reporte-soluciones-subnacionales-post-covid-19-recomendaciones-para-enverdecer-la-recuperacion-en-mexico/

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EXECUTIVE SUMMARY

The COVID-19 pandemic and the accompanying economic recession join a third emergency: climate. In the words of economist Mariana Mazzucato, these emergencies have as common denominator the (wrong) notion that they should be resolved[1] *only after the effects are visible*, or rather reactively. As many countries launch public policy measures to address the economic crisis resulting from the pandemic, which of those will lead to future imbalances (derived from their short-term vision) and which will have lasting economic multiplier and cobenefits? A **green growth vision** can help finding an answer, changing the paradigm without losing sight of the urgency of our immediate context.

Our report first assesses emerging literature to define key concepts for recovery and introduces criteria (special mention of the Oxford University report by Hepburn[2] *et al.*) to distinguish public policy actions aimed at promoting a **green** and long-term vision recovery. Then, we provide an analysis framework: The Green Growth Index (GGI)[3] to help governments find sustainable development gaps, using green growth dimensions, to formulate *ex ante* actions aligned with them that foster greater climate resilience from the local.

This framework is then applied at depth in 3 selected subnational states (Sonora, Querétaro, Yucatan). Using open databases (IMCO, INECC, UNDP, INEGI, among others), the green growth performance of the analyzed entity was contrasted with two standardized values: the subnational median and maximum values, thus identifying development gaps and **green growth challenges.** These challenges provide specific entry points to (re)direct state stimulus and achieve a recovery that addresses the urgent while maximizing environmental, social and economic co-benefits.

Our last section provides the core of this report through two outputs:

- ***Recommendations for greening current state recovery packages (****how to green existing interventions?)* from the analysis of 533 measures documented in the COVID-19 site of CIDE's National Public Policy Laboratory (LNPP)[4]. Then several entry points are put forward for subnational measures to promote climate resilience, a fairer transition and meet Mexico's global commitments in decarbonization and sustainable development.

  Examples of the recommendations provided include:
  - *Tax deferral*: Extend tax breaks to companies that green their operations, mandates and/or spend in R&D.
  - *Direct cash transfers and temporary employment*: Link temporary employment programs to high labor-intensive activities that provide ecosystem service. For example, urban afforestation, storm infrastructure, waste management.
  - *Job retraining*: Link training support to meet the skills needed for green services and industries and/or progressive decarbonization and greening; encourage traditional and green R&D.
  - *Rural support policies*: Progressively link rural development stimuli to the decarbonization and progressive wintering of the sector (e.g., carbon and water footprints, energy efficiency)
  - *Liquidity for households and SMEs*: Label a percentage of SME support to research and incubation of companies within green sectors and services (e.g., energy efficiency)
  - *Etc.*

- ***17 opportunities for a shift to a green paradigm with their respective practical examples (****what measures are not being made and which could effectively foster green growth opportunities?)*, based on good practices and successful global green recovery experiences over *5 thematic solutions:*
  - *Finance and green investments.* For example, issuing thematic bonds (debt instruments) to finance recovery projects.
  - *Planning and policies.* For example, incentivize SMEs and green suppliers from government procurement programs ("government as purchaser").

[1] Mariana Mazzucato, "*New Economic approaches*" Video, 33:31, https://www.youtube.com/watch?v=C3MaskBZ4PA
[2] More information: https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf
[3] More information: http://greengrowthindex.gggi.org/
[4] More information: https://lnppmicrositio.shinyapps.io/PoliticasEconomicasCovid19/

- *Bioeconomy*. For example, stimulate investment in coastal infrastructure that coexists with natural areas and helps increase its value.
- *Resilient communities*. For example, incentivize "Libraries of Things" to foster a sharing economy.
- *Gender equality and social inclusion (cross-cutting)*. For example, design *ex ante* interventions to maximize co-benefits in existing and potential support programs.

Incorporating an integrated and sustainable vision into the country's recovery efforts allows immediate recovery actions (such as designing stimulus packages for vulnerable populations, businesses, and depressed urban areas) to coexist with more ambitious climate action (expressed, for example, in terms of carbon neutrality and greener, more sustainable cities

01 COVID-19: PUTTING IMPACTS IN CONTEXT

1.1 Current situation

The strong global impacts of the COVID-19 pandemic are somewhat comparable in economic terms with the effects of the Great Depression and the economic and financial crisis of 2008-9, which are manifested in parallel with the climate crisis. While the pandemic has fostered some positive changes --such as reduced energy demand caused by the economic slowdown and a global reduction in emissions of 8% compared to 2010 (AIE, 2020) --, they are expected to be temporary and there will be a rebound when mobility restrictions come to an end.

1.2 Complications

Throughout 2020, various countries have promoted rescue measures to reactivate their economies. However, there is a risk that these packages favor the permanence of the BAU scenario and miss the opportunity to align the recovery with a low carbon development. Maintaining the prevailing paradigm prior to the pandemic implies not only sunk costs, but also a detriment of the multilateral climate (Paris Agreement) and development (SDGs) agenda.

The difference in impact among regions presented by the World Bank reveals that there are more resilient and better prepared countries to face crises. One possible explanation for the above is that the nations that have managed to mitigate the effects of the pandemic have done so from a higher level of institutional preparation.

1.3. Towards more resilient societies: The SDGs as a framework

The COVID-19 pandemic is eroding several years of progress in meeting 12 of the 17 Sustainable Development Goals (SDGs) that comprise the 2030 Agenda[5] (Pacto Mundial, 2020). In this context, a green growth model at the subnational level can serve as a vehicle to minimize the impacts of the pandemic on the SDGs and advance the transition towards a low-carbon, inclusive and efficient economy in the use of its resources.

According to the United Nations Department of Economic and Social Affairs (UNDESA), the most affected SDGs as a result of COVID-19 are: SDG 1 - No Poverty; SDG 2 - Zero Hunger; SDG 3 - Good Health and Well-being; SDG 4 - Quality Education; SDG 5 - Gender Equality; SGD 6 - Clean Water and Sanitation; SDG 7 - Affordable and Clean Energy; SDG 8 - Decent Work and Economic Growth; SDG 10 - Reduced Inequality; SDG 11 - Sustainable Cities and Communities; SDG 13 - Climate Action and SDG 16 – Peace, Justice and Strong Institutions.

[5] In 2015, the UN approved the 2030 Agenda for Sustainable Development, an opportunity for countries and their societies to improve the lives of all, leaving no one behind. The Agenda has 17 Sustainable Development Goals, ranging from the elimination of poverty to the fight against climate change, education, equality for women, the defense of the environment or the design of cities (UNFCC, 2020).

02 GREEN RECOVERY: KEY CONCEPTS

2.1 Traditional (BAU) recovery

Throughout 2020, several governments have addressed the pandemic by implementing **stimulus** packages, which involve public resources (more than $12 trillion USD) to reinvigorate their economies following the impacts of COVID-19 (see Figure 1).

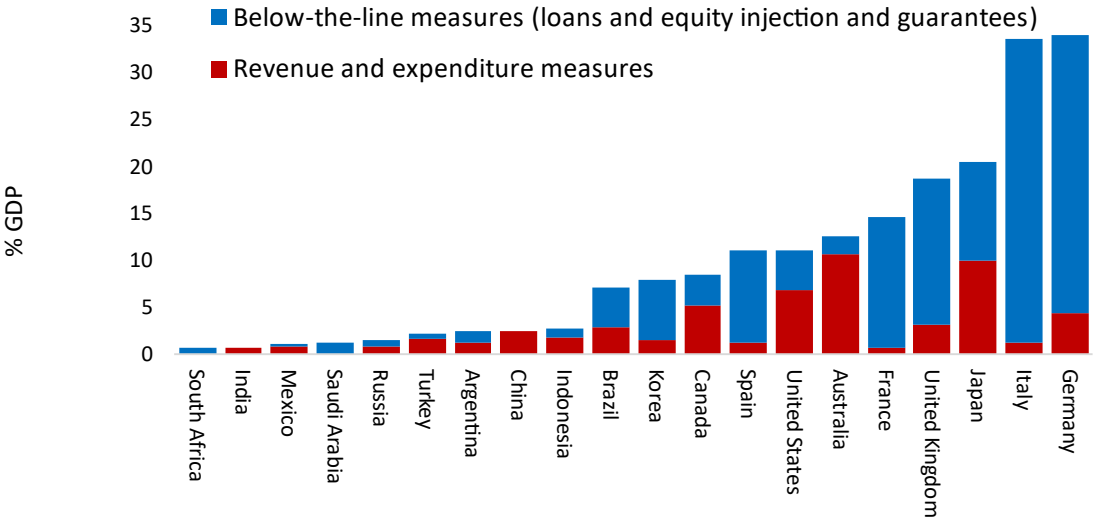


Figure 1. Value of COVID-19 stimulus packages in G20 countries as % of GDP. Source:(IMF, 2020)

Conceptually, measures comprised by these packages aim to support vulnerable populations by strengthening social safety nets (unemployment insurance, food, health and basic services), stimulating demand in affected sectors, improving infrastructure, mitigating investment risks in emerging technologies, among others.

But how have stimulus packages worked in practice? Although the international community has expressed its intention to "build back better," recovery packages have maintained the **BAU** scenario (or even regressed it): more than half of public funds targeting the energy sector (estimated at $439 billion) have benefited fossil fuels (Energy Policy Tracker , 2020). This represents an important missed opportunity to implement transformational measures and define the direction of the global economy in the years to come.

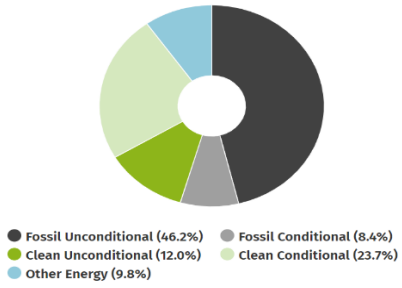


Figure 2 . Public support to the energy sector by category. Source: (Energy Policy Tracker , 2020)

2.2 Green recovery

There is extensive evidence of national and local governments which managed to ***decarbonize*** their economies; that is, to decouple economic growth from GHG emissions. First drafted in the United States and the United Kingdom between 2007-08 by academics, experts and environmentalists, the ***Green New Deals*** (GND) seek to reverse the climate trend, dependence on fossil fuels and revitalize a low-carbon economy, bringing together a wide range of sectoral productive programs and projects. Examples of GNDs in the European Union and South Korea usually identify opportunities in the energy sector (energy efficiency, renewable energy, network development), mobility (clean and/or electric public transport, infrastructure to promote non-motorized mobility, railway electrification), cities (pedestrian walks and cycleways, improvement of buildings and green spaces), investment in natural capital (land restoration, forests and landscapes), among others. The most relevant advantages in the implementation of GNDs (Pettifor, 2019) are:

- ***Quality jobs***
- ***Sustained long-term economic spillovers***
- ***Increased access to sustainable services and accelerated social impact***
- ***Greater climate resilience and protection of natural capital***

If recovery packages are not linked to ambitious specific targets, there is a risk that their effects will be minor or counterproductive. Therein lies the strength of GNDs: they recognize the urgency of challenges and provide directionality in the form of "missions" (Mazzucato, 2020) towards a ***green paradigm***, defined by what should and should not be incentivized (e.g., divest in energies generating stranded assets).

From the emerging literature consulted on the effectiveness of recovery packages, five criteria are identified: **timeframe for obtaining tangible results, potential for climate impact, speed of implementation, acceptance of stimulus and long-term economic multiplier (henceforth LTEM).**

2.3 Characterization of recovery measures

For simplification purposes, the report considers the categorization of 25 archetypal recovery measures, as well as their discrimination around potential effects (as suggested by Hepburn et. al). The figure below shows the archetypal recovery measures applicable to Mexico and their classification, according to the criteria explained above.

- *Quadrant I* comprises measures with **positive climate impacts** and **medium** to **high LTEM.**
- *Quadrant II* comprises measures with null to **positive** climate **impacts and low to medium LTEM.**
- *Quadrant III* comprises measures with **negative to null climate impacts and low to medium LTEM.**
- *Quadrant IV* comprises measures with **medium to high LTEM and null to negative potential climate impacts.**

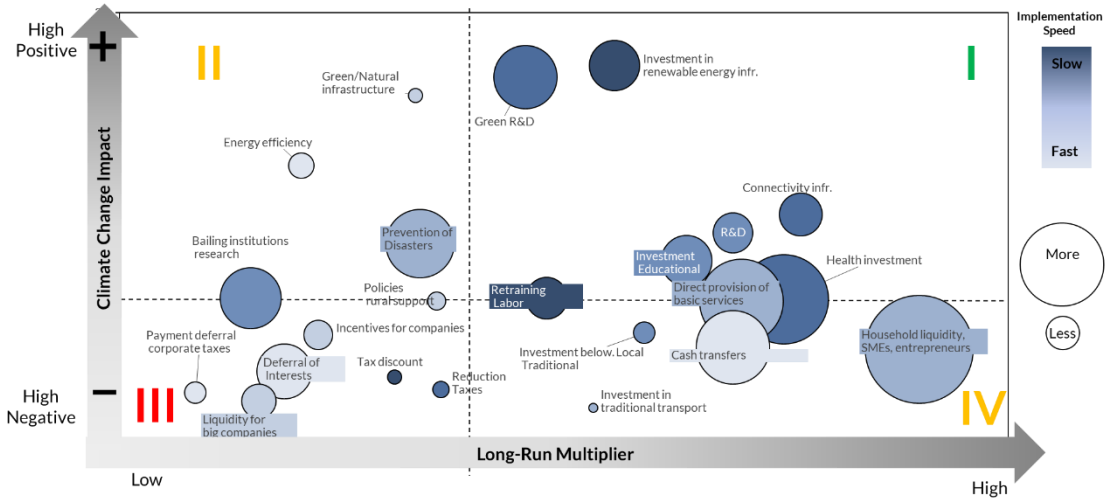


Figure 3. Mapping of archetypal recovery measures by Hepburn et al.

03 MEXICO: SUBNATIONAL FINDINGS

How green are the recovery measures implemented by the states? This report tried to answer this question by combining the methodology of mapping archetypal measures of the University of Oxford (Hepburn et al, 2020) with the database of state measures contained in the *Map of economic measures in the wake of COVID-19 pandemic*, built by the National Public Policy Laboratory (LNPP, 2020). Said exercise (which considers only the measures announced up to September 2020) yields the following findings:

CRITERION	MAIN FINDINGS
1. Timeframe for tangible results	• **Measures with short-term impacts are prioritized**, i.e., measures aimed at preventing job losses or generating short-term jobs in existing traditional economic sectors and (SMEs). • **Measures that generate sustained long-term impacts** (such as investment in research and development or educational investment) **are non-existent or minimal**. For example, only 19 of the 31 states have implemented retraining measures, but the measures implemented have a short-term approach.
2. Climate impact potential	• **Economic recovery measures with zero or negative environmental co-environments (78%) (**i.e., measures within quadrants II, III and IV) **are most prominent.** 31 of the 32 states in Mexico imposed measures to provide liquidity to SMEs and entrepreneurs (Quadrant IV); however, these measures do not prioritize the development of green SMEs over others. Similarly, rural support policies implemented in 18 out of 32 states focus on increasing or maintaining productivity; yet they are not aligned with the use of sustainable agricultural practices or facilitate the adaptation of technologies that increase crop resilience. Therefore, ambas measures are considered with zero environmental cobenefits
3. Implementation speed	• **The measures implemented have a weak linkage with Nationally** Determined **Contributions (NDCs) and other climate targets.** Compliance with NDCs is linked to the boost to clean energy, the development of a sustainable mobility system and the efficient use of natural capital, among others. All these measures have 0% subnational adoption. • **Recovery could be greener.** Less than one-third (29%) implemented measures (sum of quadrants I and II) have climate impacts from neutral to positive. • **Measures that have an immediate impact on the economy are prioritized, even if they are unsustainable in the long run.** For example, 27 of the 32 states have implemented measures to help the population meet basic needs and avoid food insecurity.
4. Acceptance of stimulus	• **Recovery packets are not robust or multisectoral.** Four measures account for almost 70% of allocated resources, thus limiting the multisectoral potential of a recovery package. This contrasts with many measures in Quadrant I without adoption.
5. Economic multiplier	• **65% of the measures implemented (sum** of **quadrants I and IV**) **have high multiplier effects**, i.e. generate high impacts on the number of jobs they can generate or on economic relief they can offer; however, they may not be sustainable in the long run such as direct cash transfers or temporary wage increases

3.1 How to foster green measures locally?

To give directionality to a development model with positive climate impacts and long-term multiplier effects, recovery plans must link such interventions to specific challenges; therefore, the following section provides a useful analytical framework for identifying specific green growth gaps or challenges (obtained from crossovers between various social, environmental and economic databases and indicators), which will be used as entry points to (re)guide the directionality of green recovery packages in states

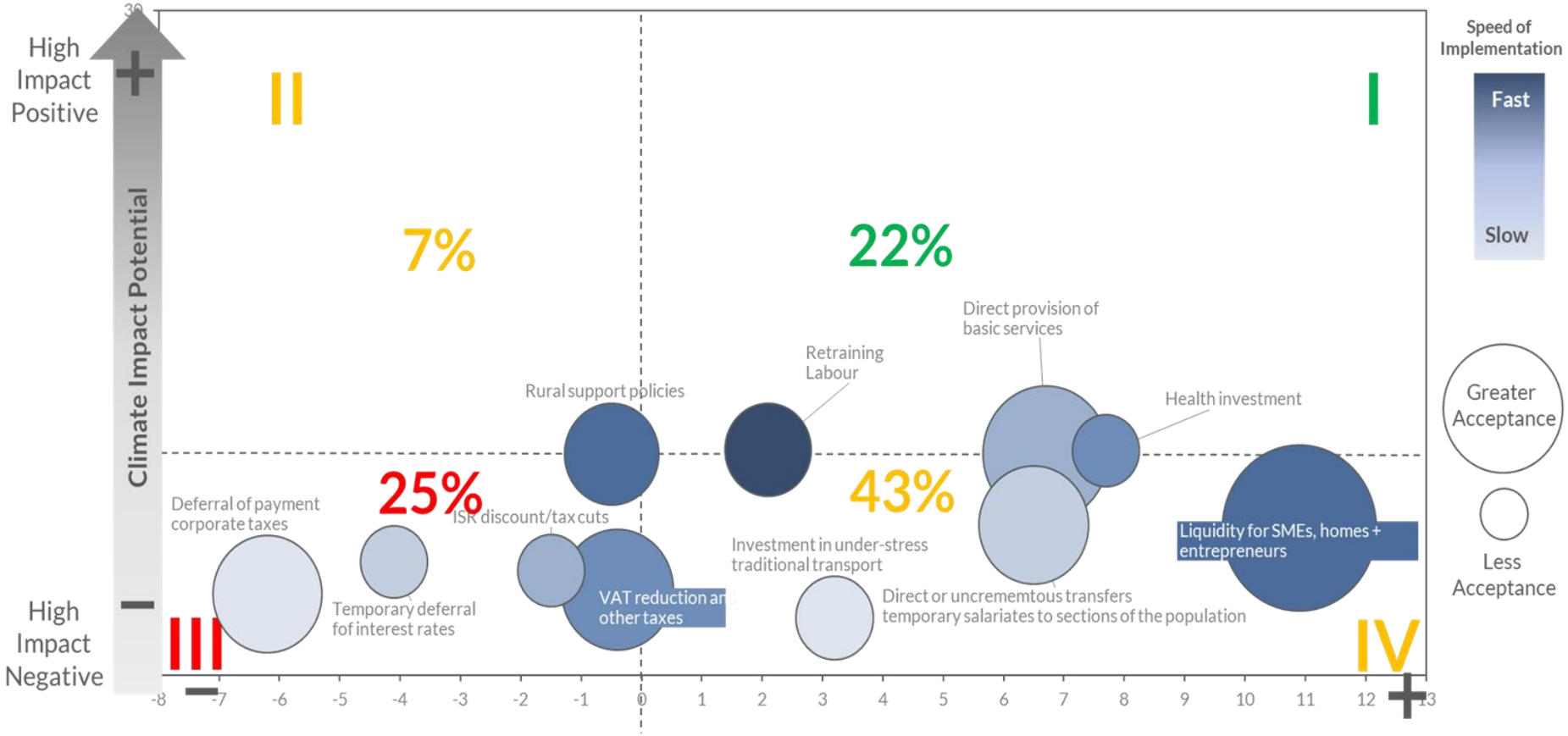
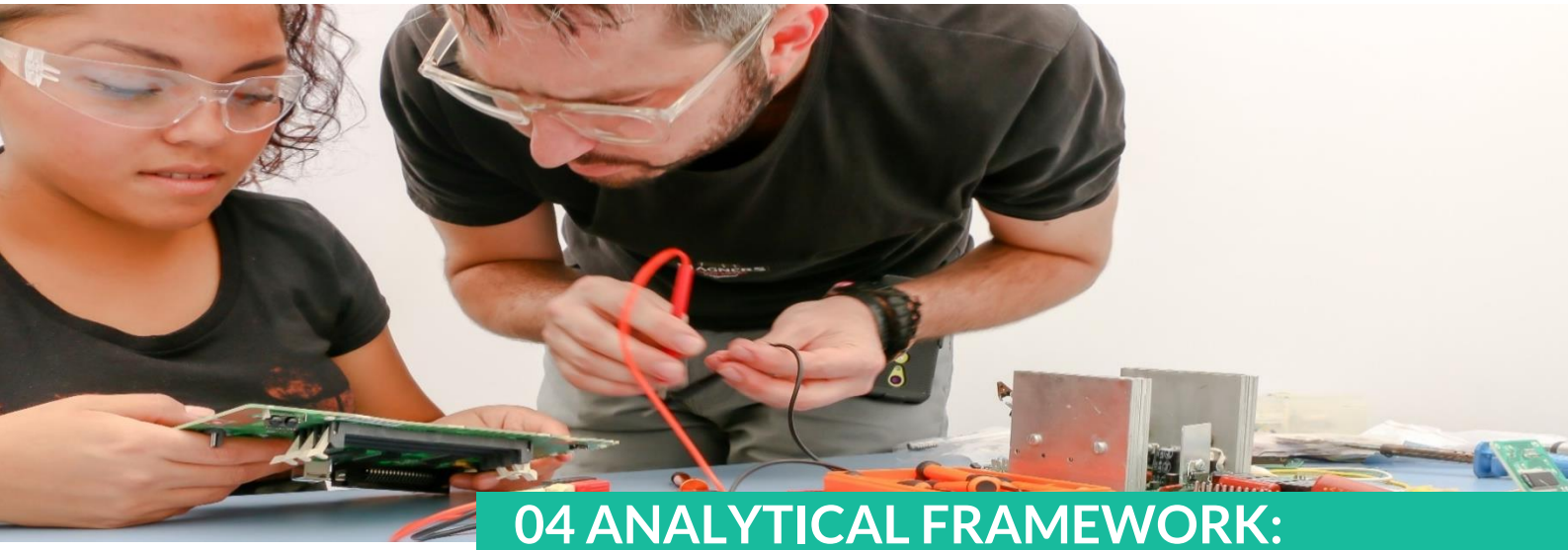


Figure 4. Mapping of archetypal recovery measures (based on Hepburn et al) found in Mexico



04 ANALYTICAL FRAMEWORK: GREEN GROWTH INDEX (GGI)

Mexico's challenge is to mitigate the scenario of three protracted simultaneous crises (economic, climate and social), while accelerating the transition to a green (low-carbon, higher-inclusion) paradigm. This challenge can be addressed through response measures promoting a more resilient economy, impacting health and social welfare, promoting a more just transition while respecting planetary boundaries (Bhattacharya & Stern, 2020).

How to do this in practice? Even before the COVID-19 breakthrough, some governments (such as the city of Amsterdam) began incorporating into their development plans the model of the *"dough*nut *economics"*, (Raworth, 2017) which seeks to meet the basic needs of the population through economic regeneration and distribution within 9 planetary limits (climate change, ocean acidification, chemical contamination, nitrogen and phosphorus loading, aquifers, land use change, biodiversity loss, air pollution and ozone layer despondency) and applying four lenses (local, global, social and ecological) to assist key stakeholders in exploring interdependencies. Some initiatives derived from the model are to limit the consumption of new materials by 50% over the next 10 years, promote economic repair activities, use sustainable materials and the circular economy.

Similar to the doughnut model, this section links the achievement of social and climate goals (Paris Accord, 2030 Agenda) into a single analysis methodology: The **Green Growth Index** (GGI). This index was developed by GGGI to measure the performance of autonomous political demarcations (countries, states, municipalities) to achieve its social and climate objectives, while identifying opportunities for green growth. To achieve this, the GGI specifically uses the following dimensions: ***Sustainable and efficient use of resources, Green economic opportunities, social inclusion and protection of natural capital*** ((GGGI, 2019); see

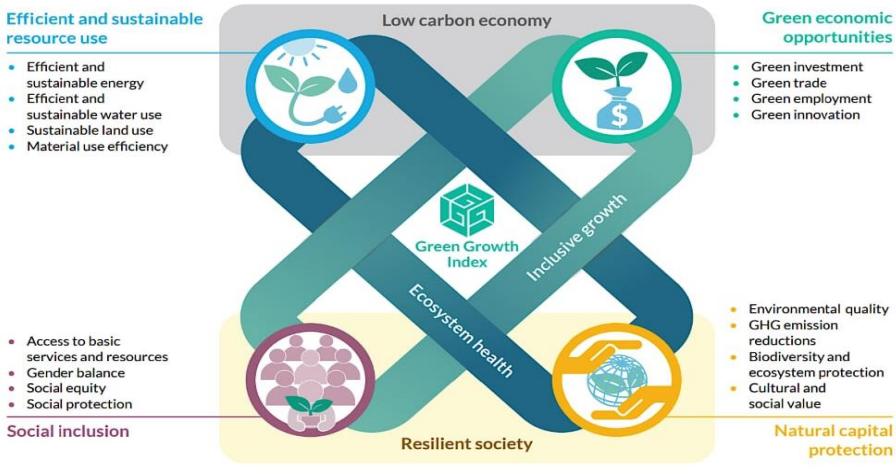


Figure 5. Green Growth Index (GGI) Conceptual Framework. Source: (Acosta, and others, 2019)

05 SUBNATIONAL ANALYSIS IN DEPTH

5.1. Methodology

This section presents a depth analysis at the subnational level in the states of ***Sonora, Querétaro and Yucatan*** (randomly selected and giving representativeness to 3 of the country's 5 mesoregions)[6]. The analysis comprises 3 stages: identifying the green growth gaps and challenges of each state in the 4 dimensions of green growth (i.e., ***Efficient and sustainable use of resources, Green Growth Opportunities, Social Inclusion, Natural Capital***). It then uses these gaps as entry points to identify and propose specific green recovery incentives. Subsequently, the analysis lists existing recovery measures at the state level and analyses their contribution to green growth in accordance with the GGGI Green Growth Framework and the Oxford Sustainable Recovery Measures Framework, both explained above. The listed measures were compiled at the National Public Policy Laboratory 'LNPP' CoVID-19 State Economic Measures Microsite and include social assistance programs, tax programs, economic stimulus programs and digitization programs. If recovery measures are not considered green (i.e., do not promote the generation of environmental co-benefits and green jobs), recommendations for greening them are offered. Finally, the state analysis considers the consequences of implementing sustainable recovery measures to accelerate green growth in accordance with the interrelationship between economic sectors (e.g., trade, tourism and services in general, exports, and/or global value chains).[7]

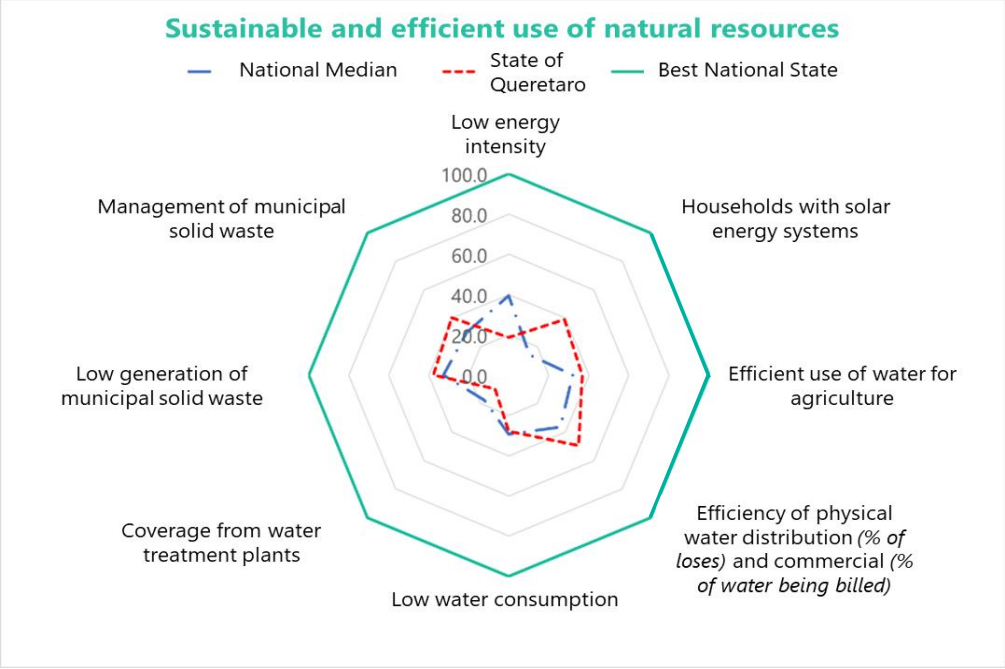
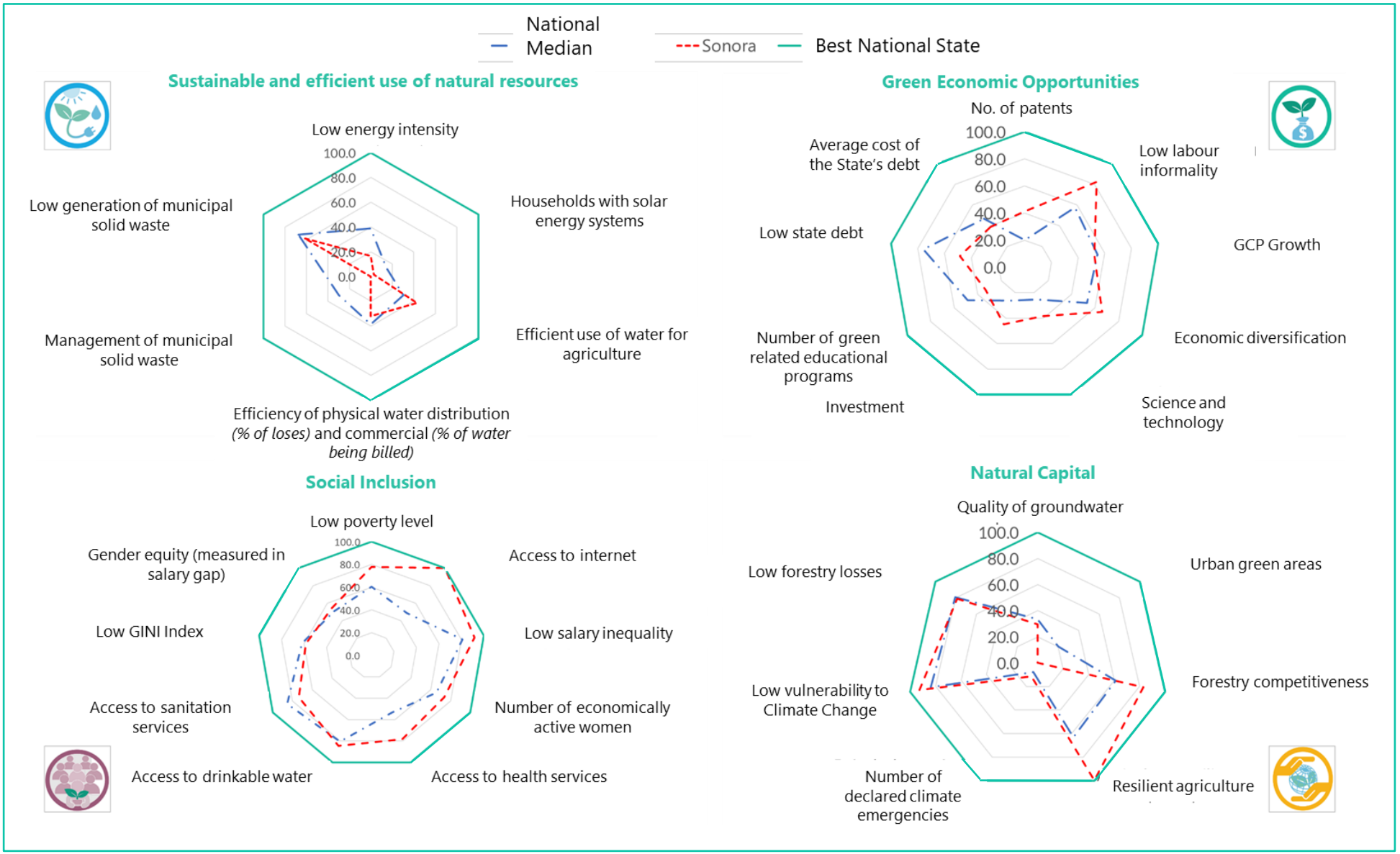


Figure 6. Green growth assessment by spider diagrams (example)

[6] https://www.gob.mx/cms/uploads/attachment/file/67641/CAP-08.pdf
[7] Learn more at: https://lnppmicrositio.shinyapps.io/PoliticasEconomicasCovid19/

ANALYSIS: SONORA

Green Growth Challenges (abridged)

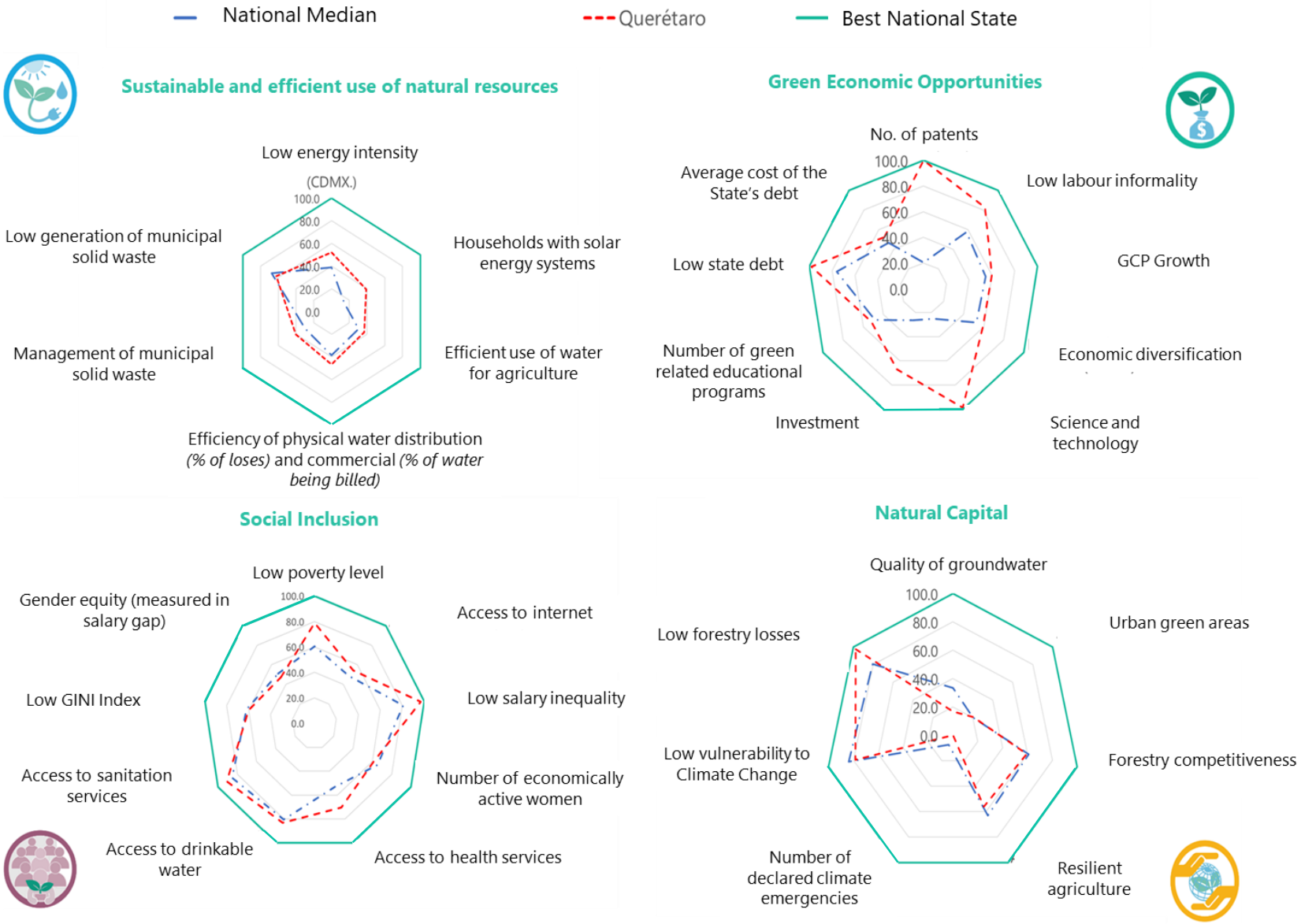


Recommendations for the greening of recovery measures (abridged)

Green growth challenge	Responses and stimuli to COVID-19 related to the green growth challenge			Recommendations to green recovery measures
	Stimulus	Category	Quadrant	
1. *New low-carbon economy:* launch deep decarbonization missions that trigger economic opportunities, investment, talent and green jobs, positioning Sonora as a leader in key sectors.	* 50% discount on payroll tax (ISN in Mexico) payment for companies with 50 employees or less; 100% discount on the payment of the accommodation tax and extension for the payment of alcohol licenses.	I - Tax deferral G - Reduction of VAT and taxes goods and services	III	• Incorporate gender and social criteria into current discount criteria • Replace measure with tax breaks on green companies* Link resources to R&D boost (clean or traditional). • Consider supporting civil society organizations / CSOs and educational institutions in addition to companies.
	* Video-training from Mercado Libre Mexico to local businesses to boost their businesses	N - Job retraining	I	• Push for cross-cutting initiatives (e.g., energy efficiency in companies) • Boosting the wintering of sectors/industries; diversification of products and markets
***2. Including Resilience:* Increase climate resilience through specific sustainable conservation and harvesting initiatives with social inclusion and gender equality.**	* Food programs for people in extreme vulnerability	K - Direct provision of basic needs	I	• Replace the provision of processed foods (pantries) with foods of higher nutritional value and produced locally. • Signing agreements to boost food SMEs and achieve productive chaining
3. Launch intensive green infrastructure and afforestation projects (rural and urban).	* Creation of a SME fund * Fund of 500 MDP to finance program "Before the coronavirus, we all pull"	D - Liquidity for households and SMEs	IV	• Regulate thresholds for a minimum % to go to the provision of green or environmental goods/services linked to the solution of green growth challenges
***4. Circular economies.* Transform comprehensive water (by basin) and waste management into a circular economy that values resource and triggers economic and co-energy opportunities.**	* Creation of an SME fund * Fund of 500 MDP to finance program "Before the coronavirus, we all pull"	D - Liquidity for households and SMEs	IV	• Regulate thresholds for a minimum % to go to the provision of green or environmental goods/services linked to the solution of green growth challenges
***5. Thematic bonds to underpin the above* initiatives, linking debt issuance specifically to programs that impact on NDCs and SDGs.**	No related measures were found.			• Consolidate budget funds and items through more competitive and transparent innovative financial instruments (e.g., sustainable bonds)

ANALYSIS: QUERÉTARO

Green Growth Challenges (abridged)

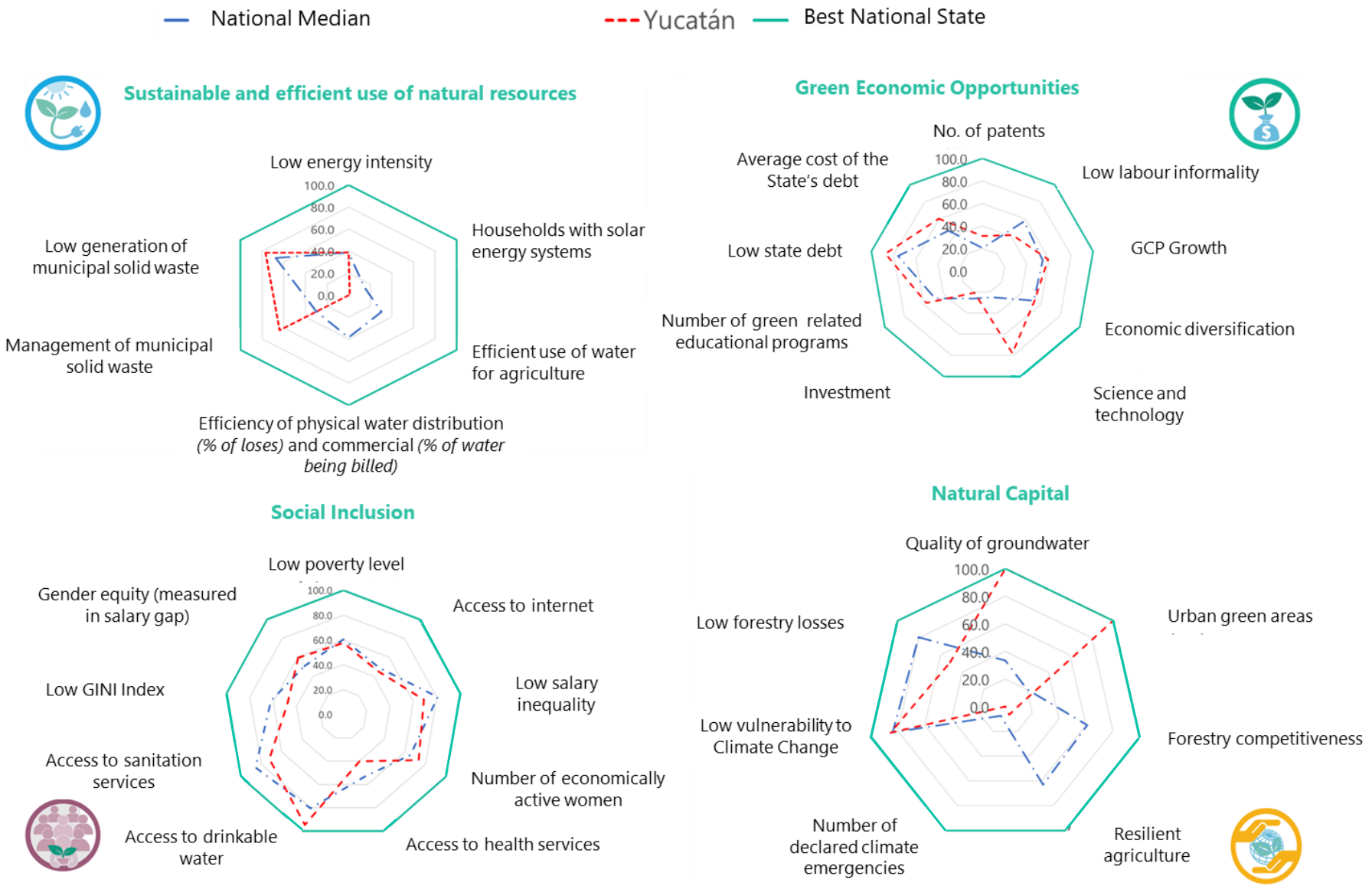


Recommendations for the greening of recovery measures (abridged)

Green growth challenge	Responses and stimuli to COVID-19 related to the green growth challenge			Recommendations to green existing state recovery measures
	Stimulus	Category	Quadrant	
Resilient agriculture;	1. Food supports per household. 2. Direct economic and/or in-kind support for individuals or families whose monetary income decreased.	K - Direct provision of basic needs	I	• Facilitate transport and economic access to intermediate inputs such as seeds, fertilizers, pesticides, fuel and other materials used for planting, harvesting or fishing, with the aim of strengthening sustainable food security. • Through the provision of food supports, boost local businesses and productive chaining.
Sustainable use of urban and rural land	3. Monetary support to agricultural, aquaculture, fisheries and forestry producers demonstrating that they have a financing contract, with a period of at least 6 months, with financial intermediaries from FIRA and National Financial for Agricultural, Rural, Forestry and Fisheries Development.	Q - Rural support policies	II	• To provide monetary support to agricultural, aquaculture, fisheries and forestry producers conditional on technical training on sustainability issues, to increase productivity.
Financing and access to sustainable services	4. Fiscal stimulus to natural and moral persons, and economic units, requires the payment of payroll tax. 5. Tax stimulus to taxable persons for the provision of lodging services.	I - Tax deferral G - Reduction of VAT and taxes goods and services	III	• Expand measure by tax breaks to natural and moral persons who green their operations. • Create ecological tourist destinations that connect tourism with regenerative agriculture and organic agriculture. • Position the tourism sector to lead the transition to green, job-creating economies.
Talent and green industries	6. Monetary support to market premises and tianguis with current operating license 7. Temporary monetary support to natural and moral persons engaged in mining, artisanal, commercial and service activities, as well as other activities considered to be traditional by the state economy. 8. Single monetary support to persons who lost their source of employment in the period from 15 March to 30 April.	D - Liquidity for households and SMEs	IV	• Establish direct market links between small producers and urban consumers. • Label a % support for SMEs focusing on green services.

ANALYSIS: YUCATAN

Green Growth Challenges (abridged)



Recommendations for greening recovery measures (abridged)

Green growth challenge	Responses and stimuli to COVID-19 related to the green growth challenge			Recommendations to green existing state recovery measures
	Existing Stimulus	Category	Quadrant	
Generate economic opportunities arising from conservation and restoration activities of natural resources-	• Credits for the production, processing, transport and marketing of products of agricultural, forestry or fisheries • Tourism-specific tax credits and stimulus	P- Rural support policies V-Green Spaces and Natural Infrastructure	II	• Provide credits for the processing, transport and marketing of products of agricultural, forestry or fisheries origin. subject to the adoption of sustainable and inclusive production practices. • Provide credits to the tourism sector that facilitate the development or environmental recovery programs or increase ecological and/or sustainable tourism. For example, credits or supports for tourist emission mitigation programs.
Manage accelerated city growth by increasing investment in infrastructure projects and development programs with a sustainability approach that improve both quality and access to basic services and the state's economic sustainability.	• Subsidies or extension of payments to drinking water and garbage collection service • Forgiveness of taxes on professional exercise and social regularization (housing) during. • Financial support to complete the purchase of a new social housing.	O- Direct transfers to sectors of the population	IV	• Provide subsidies to households that use and check good practices in water consumption, separation or waste collection or energy efficiency
Increase access to education and job training focused on meeting future demand for green jobs, in sectors with high growth potential such as renewable energy, circular economy, etc.	• Unemployment insurance for both people who have lost their jobs and those who do not have fixed jobs and work on their own.	O- Direct transfers to sectors of the population	IV	• To condition the delivery of unemployment insurance to training assistance where people are sensitized to climate change, green jobs and new capacities are developed for them.
Trigger more energy efficiency solutions and programs that can generate savings (i.e., economic benefits that can be reinvested in other productive projects) and contribute to the mitigation of greenhouse gas effects.	• Microyuc Social Program: Granting credits that must be earmarked for the acquisition of machinery, equipment, tools or inputs for the development of a business project	D- Liquidity for SMEs and entrepreneurs C - Liquidity for large companies (Quadrant III)	IV	• Condition the delivery of credits for energy-efficient equipment or for projects that promote energy efficiency (if applicable). • Provide discounts on electricity consumption to households and/or businesses that implement energy efficiency solutions.

06 RECOMMENDATIONS FOR A GREENER RECOVERY

6.1. Recommendations for Greening Existing Recovery Measures

MEASURE[8]	EXAMPLES	% OF TOTAL MEASURES IMPLEMENTED	QUADRANT	PROPOSAL FOR GREENING
D - Liquidity for households and SMEs	Employment portals; subsidized appropriations; payment to suppliers	29%	IV	* Label % SME support to research, incubate or retrain in green sectors and services (e.g., energy efficiency).
K - Direct provision of basic needs	Vouchers and pantries, forgiveness of payment of electricity and water	15%	I	* Treat the provision of pantries as an opportunity to boost local businesses and productive chaining. * Replace canned products with fresh, nutritious and locally produced food.
I - Tax deferral (SMEs and professionals)	Forgiveness and/or extension of the payment of various taxes (on lodging, payroll tax/ISN, on the exercise of professions, on the sale of alcohol, on personal work and remuneration)	14%	III	* Incorporate environmental, gender and social criteria into current discount criteria. * Extend tax breaks to companies that green their operations, mandates and/or R&D (clean or traditional) * Expand support to civil society organizations / CSOs and educational institutions, as well as companies.
O - Direct cash transfers/temporary employment	Unemployment insurance; Supports for self-employment and temporary employment	12%	IV	* Link temporary employment programs to the provision of ecosystem services (e.g. urban afforestation, storm infrastructure, waste management)
G – Reduction of VAT and other taxes on goods and services (general population)	Forgiveness and/or extension of the payment of taxes as a property and vehicle (tenure, revalidation of plates)	8%	III	* Incorporate environmental criteria into taxes (e.g., withdraw any support for vehicle taxes as private car consumption is promoted; incentivize in any case the modal change to non-motorized mobility and prepare the infrastructure for such modal change).
Q - Rural support policies	Support for the agricultural sector (direct transfers, subsidized credits)	7%	II	Progressively link stimuli to the decarbonization and progressive wintering of the sector (e.g., carbon and water footprints, energy efficiency). Prioritize inventory

[8] Budget re-adjustments, process digitization account for 4% of the total state measures implemented but are not included in the table as they cannot be greened.

MEASURE[8]	EXAMPLES	% OF TOTAL MEASURES IMPLEMENTED	QUADRANT	PROPOSAL FOR GREENING
				development and data management locally.
N - Job retraining	Supports for digitization and use of online platforms; Excel courses, promotion of local products, training to make sanitizing gel	6%	I	* Differentiate support for sectors/industries and link future supports to training related to the provision of green services and/or progressive decarbonization and greening; encourage traditional and green R&D.
Q - Traditional transport infrastructure	Resources labelled for public works, infrastructure projects and support for the construction sector	2%	IV	Ensure that a minimum % goes to companies/projects that provide green or environmental goods/services; ensure sustainability of the measure through more competitive and transparent innovative financial instruments (e.g., recovery bonds)
A - Temporary interest exemption	Extension of grace periods in credits to students, older adults, women and MSMEs	2%	III	* Incorporate environmental, gender and social criteria into current discount criteria. * Extend tax breaks to companies that green their operations, mandates and/or R&D (clean or traditional) * Expand support to civil society organizations / CSOs and educational institutions, as well as companies.
M - Capital investment in health	Delivery of PPE and *medical kits*, visits and medical services	1%	I	Expand investment to durable goods in infrastructure (clinics, hospitals), education and capital (equipment)
H – Tax cutting (income tax)	Payroll tax cut to general population	1%	III	* Incorporate environmental, gender and social criteria into current discount criteria

6.2. Opportunities for a shift to a green growth paradigm (long-term recovery)

THEME	RECOMMENDATION	EXAMPLES
FINANCING AND GREEN INVESTMENTS	**1. Apply green labels to stimuli.** Maximize the part of the green and low carbon measurements in the recovery packages (a package is not green if less than 50% of its components are not).	SOUTHKOREA: The government announced a Green New *Deal* that will be invested over the course of the next few years to help the economy recover from the COVID-19 recession. Expected public spending aims to create 1.9 million new jobs by 2025 and emphasizes the advancement of digital technologies and the drive for the green transition of key sectors such as energy, housing, mobility and industry.(IISD, 2020)
	2. Consider issuing thematic recovery bonds (debt instruments), which may be green (environmental), social **or sustainable (combination).** By labeling debt issuance to investment projects and specifics that pay to meet social and environmental objectives (NDCs, ODS), these instruments attract investors and patient *capital*, translating into	Mexico CITY has built a strong track record in issuing green and sustainable bonds. The Portal of the Ministry of the Environment (SEDEMA) has a portal dedicated to projects anchored for their past emissions(SEDEMA, 2020)

THEME	RECOMMENDATION	EXAMPLES
	better conditions (lower interest) than traditional financing.	
	3. If public resources are used to financially rescue **"brown" industries,** incorporate specific clauses on the **verifiability and generation of co-benefits**	FRANCE AND NETHERLANDS implemented rescue measures of more than US$10 billion for Air France – KLM. The agreements will force Air France and KLM to halve their CO2 emissions per passenger per kilometer by 2030.(Fortune, 2020)
PLANNING AND POLICIES	**4. Plan transition to circular city/ state models**	NETHERLANDS: Amsterdam is the first city in the world to publish its circular city model using the Doughnut *Economics methodology*. (Raworth, 2017) His vision is a smart approach to managing raw materials, production, consumption and creating more jobs for everyone. (City of Amsterdam, 2020)
	5. Incentivize SMEs **and green** suppliers **from** government **procurement *programs ("government as purchaser")***	HONG KONG and COSTA RICA are two examples of countries with robust government procurement policies. This, in addition to demonstrating the public sector's commitment to the efficiency and responsible use of resources, also sends a clear signal (from demand) and uses public resources as a lever to promote the creation and consolidation of local SMEs that will provide such products or services. (EPD, 2020) (MARN, 2020) (Mazzucato, 2020)
	6. Governors to launch green governance **schemes: multidisciplinary working groups around a** common goal **(green recovery, decarbonization, etc.) resonates** with **the** Office **of the State Executive.**	EUROPEAN UNION: The *EU Green Recovery Alliance* convened academics, entrepreneurs, economists and NGEs to define courses of action around state debt relief until the restructuring of public-private economic relations. (WBCSD, 2020)
BIOECONOMY AND SUSTAINABLE NATURAL SYSTEMS	**7. Stimulate investment in coastal infrastructure** that **coexists with natural areas and helps increase its value.** Invest in degraded ecosystem recovery programs (outside NPAs) and link it to other productive activities (tourism). Consider synergies between states and/or with the Federal and Local Government (municipalities).	CAPE VERDE: The Government of Cape Verde issued a Blue Bond, which diversifies loan sources, based on one of the country's main assets, its ocean. The sectors that best fit bond financing could be ecotourism and sustainable fishing, combining the impact of development, income generation, the preservation of the coastal and marine environment and attractiveness (World Bank, 2020B).
	8. Drive intensive and ambitious forestry projects	PAQUISTN has given jobs to unemployed day laborers to plant young trees as part of the Tsunami program of *10 billion trees* (WEF, 2020). More than 63, 600jobsareexpected to be created, many of which will be in rural areas, with a focus on hiring women(UN, 2020C)
	9. Achieve resilient agriculture by promoting sustainable, low-environmental production and low-carbon technologies.	EGYPT: The International Finance Corporation (IFC)has partnered with the Agricultural Bank of Egypt (EBA)to help Egyptian farmers access financing to purchase solar irrigation systems and reduce their reliance on diesel generators. (ESI Africa, 2020)
	10. Promote healthier lifestyles by creating safe alternatives and better public transport,	INDIA: The New Delhi government is working on a plan that calls for the closure of streets to automobiles,

THEME	RECOMMENDATION	EXAMPLES
RESILIENT COMMUNITIES	motorized traffic-free zones and building cycling infrastructure.	as well as the adequacy of pedestrian access and cycleways to markets. (Hindustan Times, 2020)
	11. Give a second use of existing buildings (libraries, schools, stadiums) to provide solutions	CANADA: Toronto Public Library branches have become food banks through the Daily Bread Food *Bank* initiative. (CBC, 2020)
	12. *Incentivize Libraries of Things*	UK: London established a "Library of Things" to incentivize a sharing economy (rather than buying). (Library of Things, 2020)
	13. Significantly increase **energy efficiency in specific buildings,** homes **and industries** to generate green **jobs**	CAMBODIA: Support to garment factories to improve energy efficiency and harness clean energy to increase their competitive advantage while reducing their environmental impact.(GGGI, 2020)
	14. Avoid in **the** long term **the uptick in the use of fossil fuels, migrating to** renewable energy solutions **(solar PV,** distributed **generation** and **biogas).** This can make a difference in remote locations with poor access to energy infrastructure and health services.	INDIA implemented the installation of urban and rural solar kiosks for the detection of COVID-19, in addition to the use of data tools. (OpenGovAsia, 2020)
	15. Encouraging green **and local circular supply networks**	COLOMBIA: Medellin generated greater connectivity between food production and consumption through the municipal program of urban and peri-urban gardens "*Huertas de Abastecimiento*". The program has helped mobilize tons of food, generating revenue for producers, reducing supply costs and ensuring a safe channel for food supply. (ACI Medellin, 2020)
	16. Strengthen support networks to implement *bottom-up* waste management solutions	BRAZIL: Solid waste collector cooperatives have gradually integrated their members into their management and work chains, helping them to transition from informal to formal employment. These cooperatives have been mobilized since the beginning of the pandemic to protect their members and created new working conditions to limit infections. Most cooperatives adopted essential security measures recommended by the Global Alliance of Waste *Pickers.* (ILO, 2020B)
GENDER EQUALITY AND POVERTY ERRADICATION (CROSS-CUTTING)	**17. *Design ex ante* interventions to maximize co-benefits in existing and potential support programs.**	

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