



COVID-19 Online Discussion Session

13 May 2020, 13 h (Paris time)

Agenda and Structure

- **Brief introduction to PIARC**
- **Issues faced by Road Operators and Administrations**
- **Presentations on the Current Situation:**
 - “Together, From Darkness To Dawn”
 - “While Everyone Locks In, Roads Are Open For Service”
 - The Malaysian Experience
 - Mexico's actions to address the COVID-19 pandemic - A resilience perspective
- **Q&A**
- **Conclusion and Next Steps**

Our Speakers today

- Patrick Malléjacq – Secretary General, PIARC
- Xie Hongbing – MBEC, China, PIARC TF 3.1 on Road Infrastructure and Transport Security
- Héctor S Ovalle Mendivil – COCONAL, Mexico
- Dennis Ganendra (Dato' Dr.) – Minconsult Sdn. Bhd., Malaysia
- Roberto Aguerrebere – Mexican Institute of Transport (IMT), Mexico

Participants' microphones and cameras must be turned off.

How to ask a question, raise an issue, or share a practice?

- This is strongly encouraged!
- Use the “Chat” feature of Zoom (bottom right of the main window)
⇒ Send a message to “All participants” (this is one of the “chat” options)
- **Note: only questions that are specific to roads or road transport**
- That channel is monitored by Christos Xenophontos (Chair of PIARC TC 1.1)
- Christos will raise the questions to relevant panelists

About your name in Zoom

- **We recommend that participants accurately name themselves in the Zoom application:**
 - First Name Last Name Country
- This fosters interaction between participants

This session is being recorded

- The resulting video will be shared on www.piarc.org

Disclaimer

Since time is of the essence, it is likely that knowledge and practice that is shared will not have been officially approved by each country's official authorities.

“The ideas and examples shared here are for illustration only. They do not necessarily represent official policy. Ideas presented will be subject to further evaluation and use in deriving recommendations on policy and practice in due course. While care has been taken in the preparation of this material, no responsibility is accepted for any damage that may be caused.”

Key Concept: Focus on the short-term.

The world is going through a crisis and every day counts.

- **Share knowledge and current practice between PIARC members urgently in order to support responses to the pandemic in near real-time.**
- Such knowledge and current practice are not yet confirmed as valid or effective, and what works in some parts of the world may not be relevant elsewhere.
- However, inspiration can be found anywhere, and a good idea now could save lives, improve business resilience and could minimize disruption of services.
- Note: In parallel, PIARC is planning medium- and long-term actions for when the pandemic is in a manageable state and substantially under control.

PIARC COVID-19 Response Team



Summary Terms of Reference

- To explore rapid sharing of knowledge and practice between PIARC members in respect of COVID-19 & associated socio-economic crisis
- To propose and implement short-term actions to support PIARC members and transport professionals in mitigation and response
- To track the course of COVID-19 over time and advise on further actions to be taken by PIARC and others during the crisis and into the recovery
- To advise on medium- and long-term implications of COVID-19 on the roads and transport sector and how these should be tackled and studied

Currently established to 1st December 2020, extendable as required

Current Membership

- Patrick Mallejacq, Secretary General, PIARC (Chair) (FR)
- Christos Xenophontos, Rhode Island DOT, TC 1.1 Chair (USA)
- José Manuel Blanco Segarra, Ministerio de Transportes, Movilidad Y Agenda Urbana, TC 1.1 Spanish Secretary (ES)
- Jonathan Spear, Atkins Acuity, TC 1.1 WG 2 Leader (UAE/UK)
- Valentina Galasso, Deloitte Consulting, TC 2.4 Chair (IT)
- Yukio Adachi, Hanshin Expressway Engineering Co, TC 1.5 Chair (JP)
- Saverio Palchetti, ANAS S.p.A., TF 3.1 Chair (IT)
- Caroline Evans, Arcadis Australia Pacific, TC 1.4 Chair (AU)
- Martin Ruesch, Rapp Trans Ltd., TC 2.3 Chair (CH)
- Andrea Peris, Paraguay National Committee (PY), Comm. Commission

For more information, contact info@piarc.org

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Introduction

What is PIARC?



What is PIARC?

- **PIARC** is the new name of the **World Road Association**
- We were founded in 1909 as a **non-profit, non-political** Association
- Our goal is to organise exchange of knowledge on all matters related to roads and road transport

PIARC's Four key missions

- Be a **leading international forum for analysis and discussion** of the full spectrum of transport issues related to roads and related transport;
- Identify, develop, and disseminate **best practice** and **give better access to international information**;
- Consider within its activities the needs of **developing countries and countries in transition** fully; and
- Design, produce, and promote **efficient tools for decision making** on matters related to roads and related transport.
- The Association mobilizes the expertise of its members
- Through operations guided by a **4-year Strategic Plan**

COVID-19

Issues faced by Road Operators and Administrations



PIARC has tentatively structured the situation around Six Key Issues

- Issue 1: Ensuring employees' health and safety In general
 - Issue 2: Maintaining activity and business continuity
 - Issue 3: Impact on transportation
 - Issue 4: Business Relations
 - Issue 5: Customer and stakeholder relations and joint working
 - Issue 6: Security
-
- They were presented in more detail during our previous webinars.

A first synthesis Note is available

- This Note presents the emerging findings from the first four Webinars.
- They are relevant for the road community and may be useful to inform planning and operational decisions that have to be made on the ground urgently.
- Available from www.piarc.org
 - Free
 - In English, Spanish and French



Together, from Darkness to Dawn

- Myself and MBEC' s experiences amid
the COVID-19 Pandemic fight



Xie Hongbing
Wuhan, China

DCE of MBEC

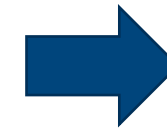


5, Ref.: PIARC REPORT “SECURITY OF ROAD INFRASTRUCTURE”, 2019



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general principles of a **security-minded approach** and the technical and operational **recommendations** to protect against a range of **physical and cyber threats**



PANDEMIC is considered a threat: **unintentional, non-directed, unpredictable**

1, MBEC, CREC

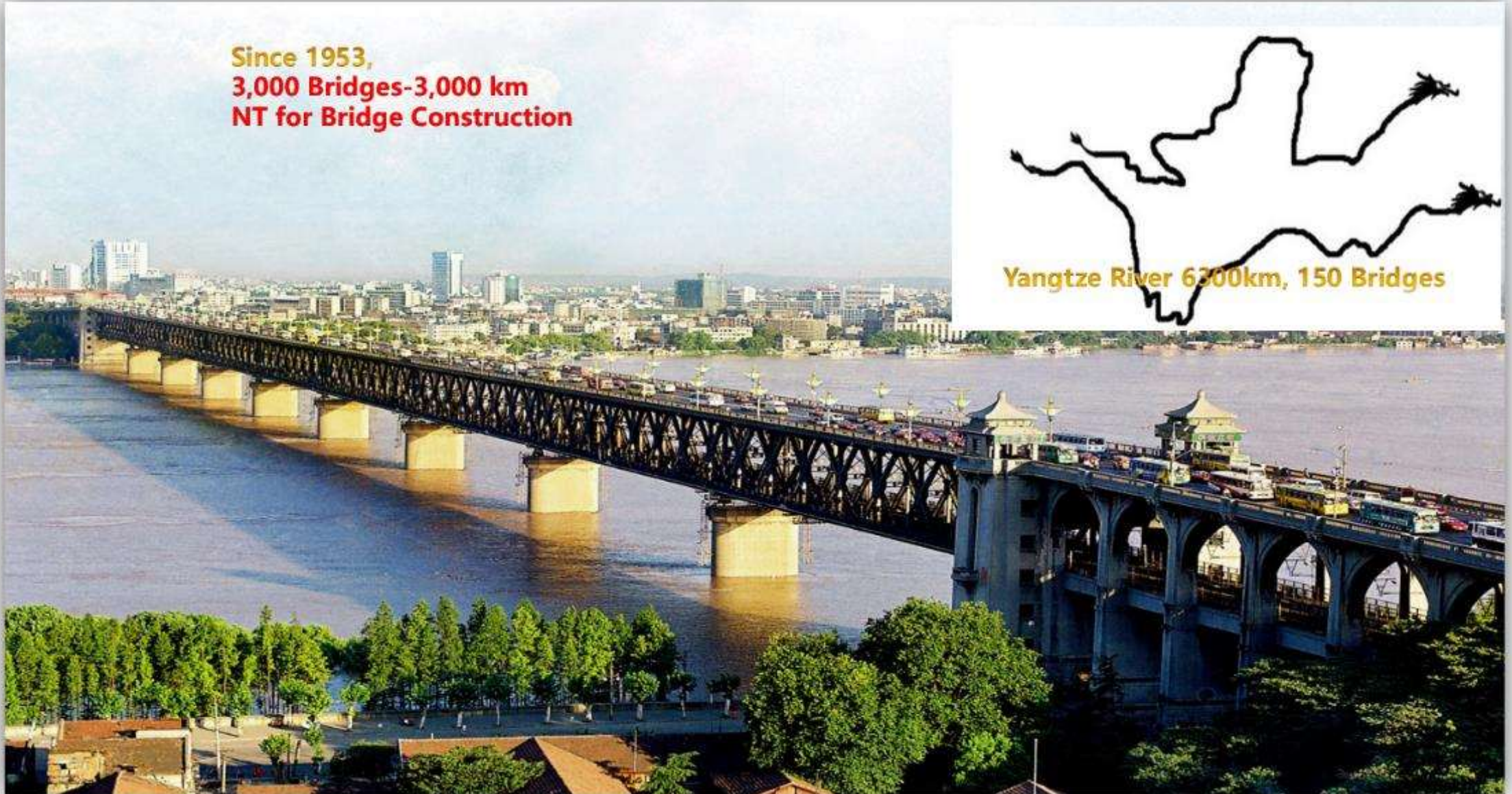
China Railway Major Bridge Engineering Group Co. Ltd. (www.ztmbec.com)

CREC (China Railway Engineering Group, 55th place of Fortune 500, 2019)

Since 1953,
3,000 Bridges-3,000 km
NT for Bridge Construction



Yangtze River 6300km, 150 Bridges



1, MBEC, CREC

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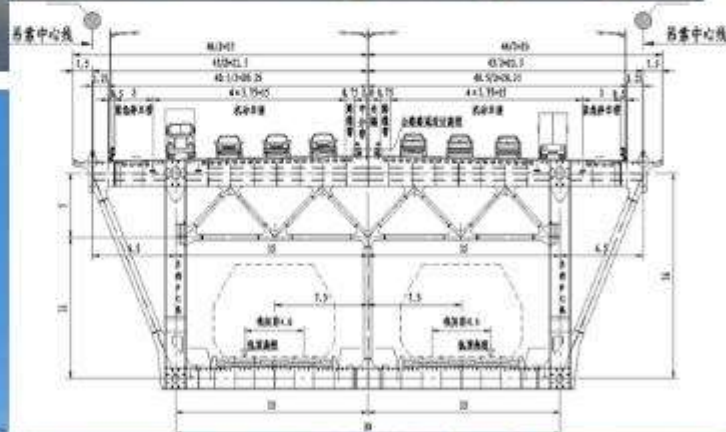
CREC (China Railway Engineering Group, 55th place of Fortune 500, 2019)



Hutong, Main Span 1092m



Wufengshan, Main Span 1092m



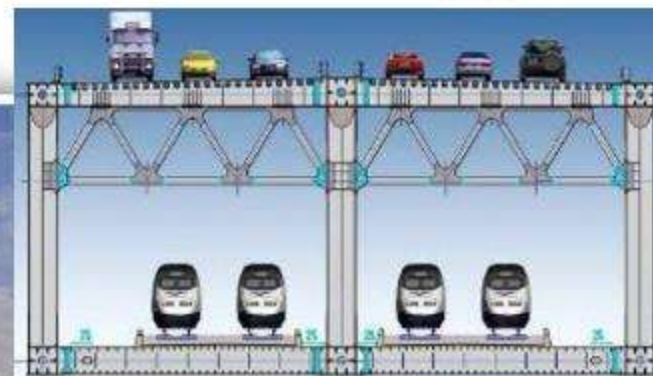
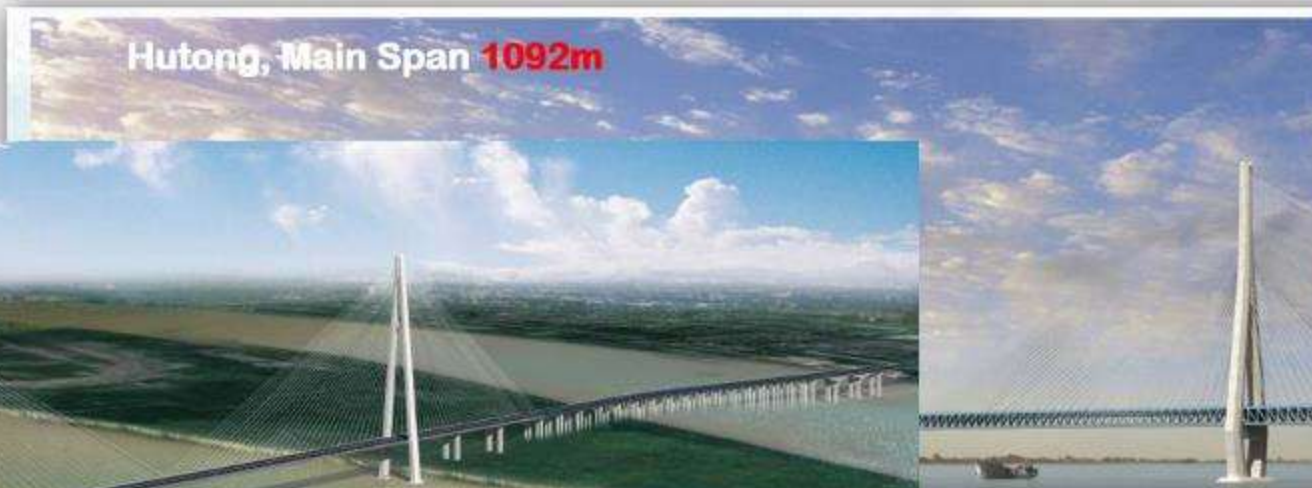
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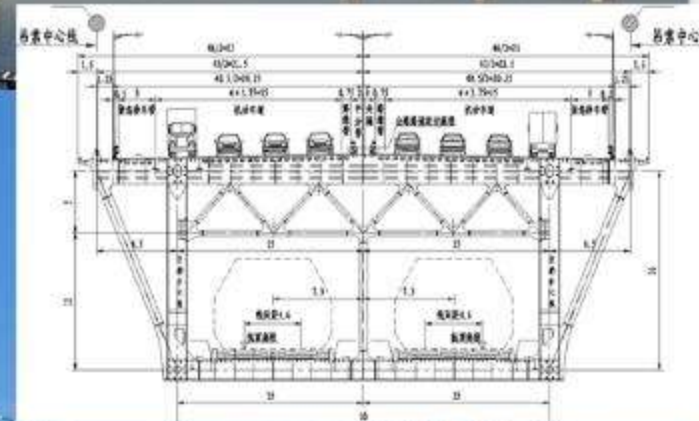
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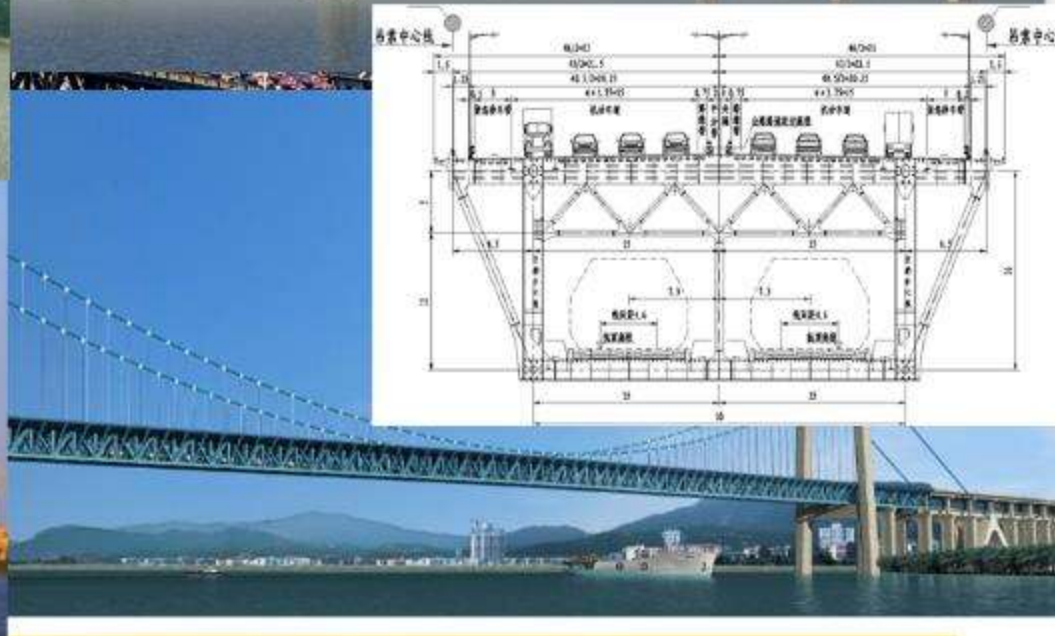
Hutong, Main Span 1092m



Qinshan, Main Span 938 m



Yangsiqiang, Main Span 1700m



2. Myself-quarantine period at home in Wuhan (23 Jan. 2020- 25 Mar. 2020)

For me, it all started from **the Chinese Rat year Spring Festival (22nd -23rd Jan.)**



On **23rd Jan**, Wuhan city was announced to **lock down**.

“ **【CNT】 Air France**: Your flight AF139 on **28JAN** from **WUHAN** to **PARIS** is cancelled. Please accept our sincere apologies.” My trip to **Piarc Kick-off meeting** was then cancelled.

Then it started with about **2 months' self-quarantine** with my family. My **impressions** on this special period?



Worked from at home

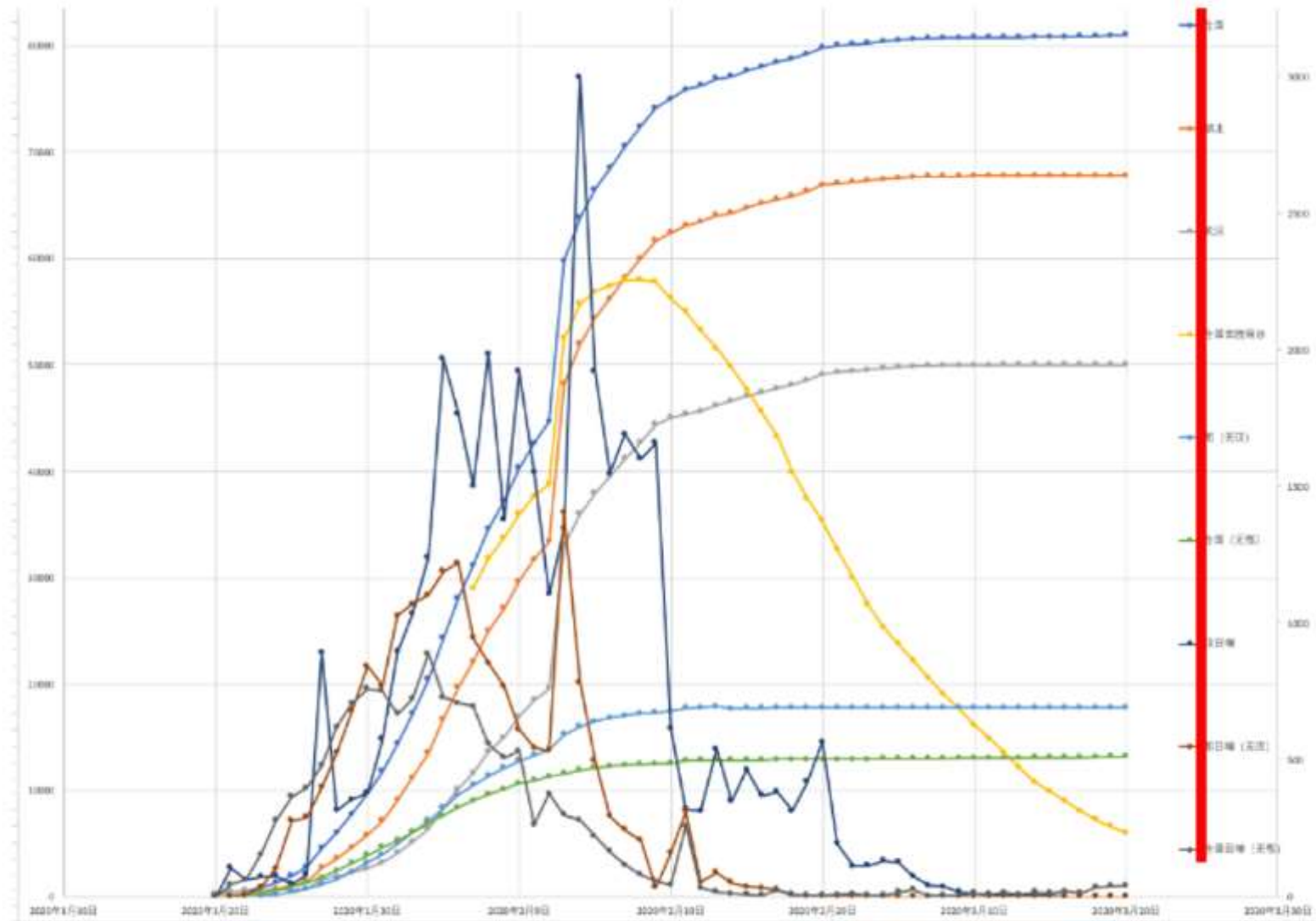
- “In early February, I began to change my work pace and lifestyle. I made a detailed plan on my daily life and work at home with alarm clock and tomato schedule. First, get up earlier at 6:00am; Second, wearing business suit to keep the state of work; Third, divide the whole day into work, study and daily-life activities. With the assistance of alarm clock and tomato schedule my days gradually went into a good circle.
- Today is the 17th day of the Shutdown of Wuhan city, I appreciate so much for the caring and cheering-up greetings from my friends and workmates, even though they are staying in this city, out of the city or abroad. During this tough period, we are the staff of company, family doctors, teachers & students, friends, and also the guardian god of ourselves and our families, we do what we could do, and do what we exert our best efforts to do. We are warming and being warmed with each other, being together to go through the difficulties. And we truly believe “No Winter is Insurmountable”.
- - from my colleague Annie

Self-quarantine in Wuhan



- MBEC participated in Construction of **Huoshenshan Hospital** which was built in just 10 days.
- Rebuild **Hankou compartment hospital**, 1082 beds
- 3 existing to **designated hospital**, adding 1200 more beds.
- More than 100 MBEC volunteer participated in the pandemic battle. Photo shows Fu in construction of **Leishenshan Hospital** (Thunder God Mountain)
- **10million MBEC+ 4.45m MBEC personnel donation**

3. About two more months later, MBEC re-opened HQ on 25th March 2020



- from my colleague wang



3. About two more months later, MBEC re-opened HQ on 25th March 2020



4. Prevention measure taken on projects are essentially the same as previously (with strict camp access control)



- With work resumed on **Wuhan Qinshan Yangtze River Bridge** on 8th April , all 142 projects resumed construction.
- **Overseas projects** (currently 7 countries) presents **more difficulties** in terms of both **Covid-19 prevention /control** and **project running**.(cases mostly increasing, local control rules varied, restricted country entry, diverse medical status etc.) In Bangladesh 3 projects -910 Chinese/5700locals (**PADMA BRIDGE**). In Tanzania 2 projects -100 Chinese/ 500 locals.
- Our Project Office in **Malaysia**, together with the Chinese Consulate General in Kuching and other units, donated **50,000 masks** and **2,000 protective suits** to the Sarawak state government. Our Padma Bridge Project Office in **Bangladesh** donated **2500 masks** to the Padma Bridge Garrison (**very early**).

5, Ref.: PIARC REPORT “SECURITY OF ROAD INFRASTRUCTURE”, 2019



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general principles of a security-minded approach and the technical and operational recommendations to protect against a range of physical and cyber threats



PANDEMIC is considered a threat: unintentional, non-directed, unpredicted

From presentation of Saverio PALCHETTI, Chairman of TF3.1

6. In summary

- Though work is resumed, we realize that pandemic remains a big security risk at the moment. For us, **virus prevention** remains **an utmost important task**.
- “No one is safe until everyone is safe (WHO)”. Situation with **imported cases** and **international cooperation** is connected to **many countries**, and eventually **the whole world**. **Solidarity is the key to win!**
- Let’s work together to fight the Pandemic !



Wuhan lifted its **outbound travel restriction** on **8th April, 2020**

Photo taken on April 13, 2020 shows night view in Wuhan, [Photo/Xinhua]



I'd like to take the chance to express our sincere thanks to the medical workers ,volunteers and our friends from around the world who helped Wuhan, especially in that difficult time!



- from Annie, copy rights remain by relevant authors



Thank you !



中国中铁



● Xie Hongbing ●

TF 3.1 Member, Piarc

China Railway Major Bridge Engineering Group Co. Ltd., CREC

xhb@zmtbec.com



While everyone locks in, roads are open for service

Hector S Ovalle M

CEO – Coconal

May 2020

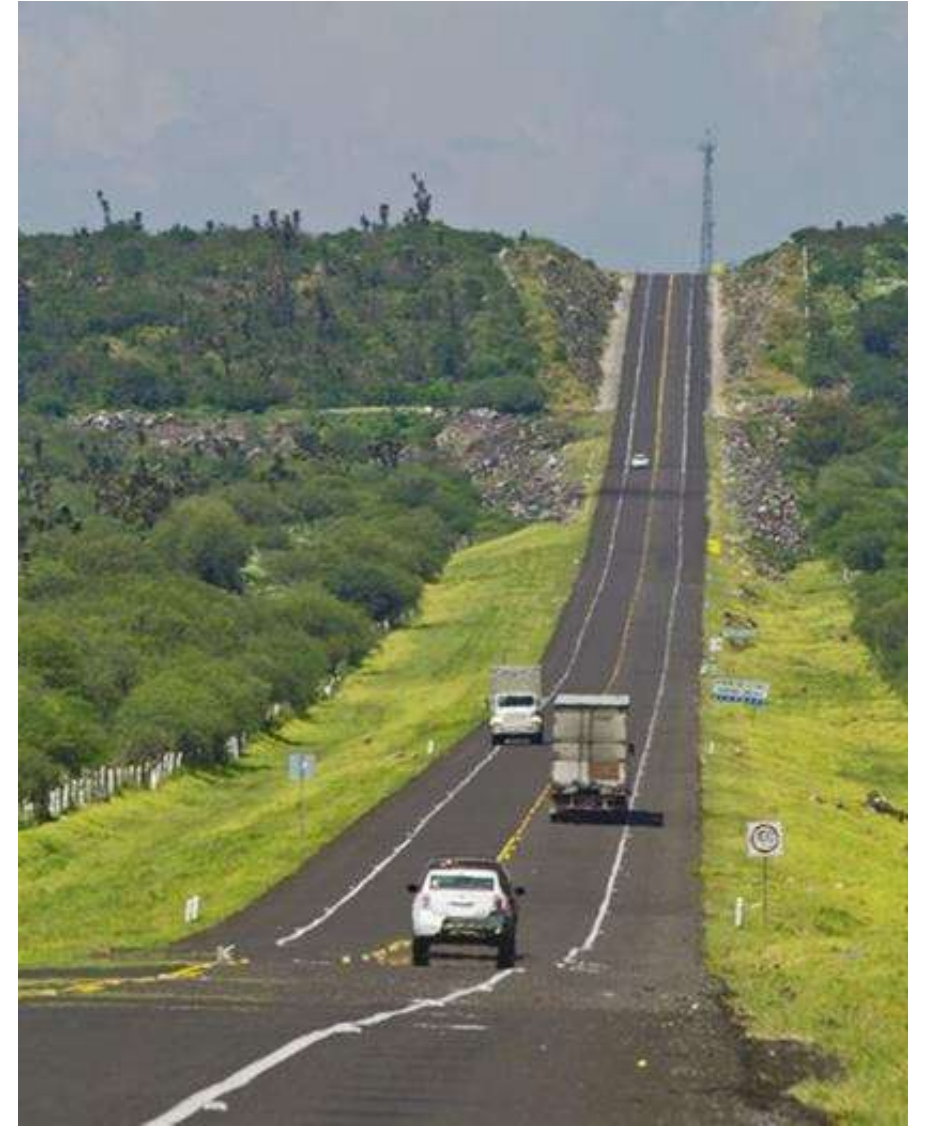
Héctor S. Ovalle

- Mexico
- CEO Coconal
- Civil Engineer
- Member of PIARC's TC 1.3 and TF of Infrastructure and Transport Security
- Former president of the Mexican Roadways Engineering Association



Key discussion points

- Roads operation during COVID-19
 - How to conduct road works
- Impact on traffic revenues
- Maintaining relations with authorities and with suppliers



Roads operation during COVID-19

We must keep the roads open for service...

- **Our ABC of road operation...**
 - People over 65 and with certain diseases were sent home since early March.
 - When starting and ending shifts
 - Temperature measurement
 - health status interview (basically seeking to identify known symptoms of the virus)
 - Review of safety equipment (gloves, masks or face shields)
 - Disinfection of personnel with pathogen removal solutions
 - Disinfection of surfaces and objects to be used by operators
 - Continuous vehicle, rest areas, and offices disinfection
 - Specific areas for disinfection
 - Constant communication and training in disinfection
 - Proper distancing



Roads operation during COVID-19



Roads operation during COVID-19



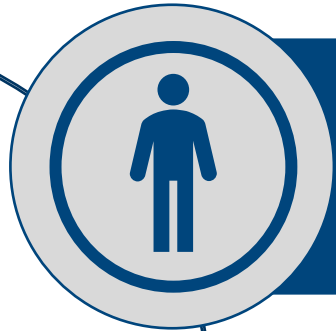
Roads operation during COVID-19



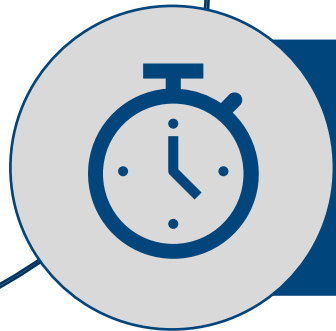
Roads operation during COVID-19

We must keep the roads open for service...

- In case someone shows any symptoms...



Immediate isolation



As soon as possible

- Covid-19 testing
- Traceability assessment
- Isolation of those in the traceability assessment
- Disinfection of areas
- Further testing depending the results

Roads operation during COVID-19

We must keep the roads open for service...

■ How to conduct road works...

- Being in an open field reduces risks of contagion
- Reduced crews
- When starting and ending shifts
 - Temperature measurement
 - health status interview (basically seeking to identify known symptoms of the virus)
 - Review of safety equipment (gloves, masks or face shields)
 - Disinfection of personnel with pathogen removal solutions
 - Disinfection of surfaces and objects to be used by operators
- Continuous vehicle and equipment disinfection
- Constant communication and training in disinfection

Roads operation during COVID-19



Impact on traffic revenues...

We must keep the roads open for service...



A big risky issue for
Public-Private
Partnerships (PPP)



Since the first week
of March, we have
experienced a
decrease of 40% in
revenues



Banks have been
open regarding
minor restructures
or postponements



**In every project,
we have a Debt
Service Fund that
covers 6 months
of interests and
capital**

Maintaining relations with authorities and with suppliers

We must keep the roads open for service...

Stay closer than before...

Thank you for your attention!



Héctor S Ovalle

CEO Coconal

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@PIARC_Roads



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WORLD ROAD ASSOCIATION

PIARC COVID-19 WEBINAR THE MALAYSIAN EXPERIENCE

13 MAY 2020



Minconsult

MINCONSULT SDN BHD
Establishing Engineering Excellence

*Consulting Engineers, Project Managers,
Transport & Town Planners and Environmentalists*

1. INTRODUCTION & OUTLINE



Dr. Dennis Ganendra

He is the Chief Executive Officer of Minconsult Sdn. Bhd.

He was the Hon. Sec. Gen. for 9 years and is currently a Council member of The Road Engineering Association of Asia and Australasia.

He is a Fellow of the Institution of Civil Engineers, UK, Fellow of the Institution of Engineers, Malaysia and Fellow of Institution of Highways and Transportation.

Minconsult Sdn Bhd

Established in 1962, we are one of the largest Engineering consultancies in South East Asia.

We have undertaken projects in 25 countries over 5 continents

We offer a wide range of engineering consultancy services in the civil & structural, mechanical, electrical, town planning and environmental fields.

Over the years, we have won numerous awards locally and internationally

OUTLINE

- 1. Introduction**
- 2. Impacts of COVID-19 in Malaysia and the Region**
- 3. Malaysian Response to COVID-19**
- 4. Impact on Construction**
- 5. Impact on Road Transport**
- 6. Impact on Other Forms of Transport**
- 7. Way Forward**

2. IMPACTS OF COVID-19 IN MALAYSIA AND THE REGION

IMPACTS OF COVID-19 – MALAYSIA & REGION



- Although most countries will not be spared from the aftermath shock and impacts of Covid-19 Pandemic, some countries in the region of South East Asia (“SEA”) are relatively less affected by it.
- Apart from Indonesia and Philippines. The rest of the countries in SEA have much lower fatalities despite proximity to China geographically, economically and socially.

Number of Reported Cases and Deaths by Country

Country	Total Cases	Total Deaths
Singapore	23,822	20
Indonesia	14,032	973
Philippines	11,086	726
Malaysia	6,656	108
Thailand	3,015	56
Vietnam	288	
Myanmar	180	6
Brunei	141	1
Cambodia	122	
Laos	19	
Total:	59,361	1,890

Number of Reported Cases and Deaths per 1 Million Population by Country

Country	Total Cases	Total Deaths	Cases / 1M Pop	Deaths / 1M Pop
USA	1,367,638	80,787	4,132	244
Spain	264,663	26,621	5,661	569
UK	219,183	31,855	3,229	469
Italy	219,070	30,560	3,623	505
France	176,970	26,380	2,711	404
Germany	171,879	7,569	2,051	90
China	82,918	4,633	58	3
Singapore	23,822	20	4,072	3
Japan	15,777	624	125	5
S. Korea	10,909	256	213	5
Malaysia	6,656	108	206	3

<https://www.worldometers.info/coronavirus/>, as at 11 May 2020

ECONOMIC IMPACT OF COVID-19 IN MALAYSIA



Severe Impact / Unprecedented

Supply and demand disruptions

- Supply chain are affected across industries both **globally** and **domestically**

Decline in GDP growth

- Central Bank foresees decline of up to **-2%** in GDP for 2020

Businesses losses during Lockdown*

- **RM32 billion export value losses** every 2 weeks estimated in manufacturing sector alone

Government losses during Lockdown*

- **RM2.4 billion losses** per day estimated from production of goods and services

Unemployment rate

- Estimated **one million** people will lose their job

Sources:

Speech and Public Statement made by Ministry of Finance, Malaysia
Statement made by Bank Negara Malaysia

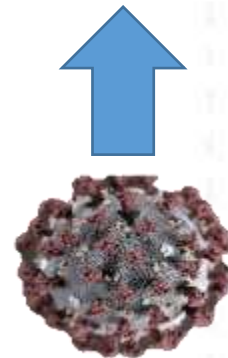
* Our country has imposed a **Nationwide Lockdown** or known as **Movement Control Order ("MCO")** which started on 18 March 2020 and extended until 12 May 2020

OTHER IMPACTS IN MALAYSIA



Political Landscape

- We are also facing **political uncertainty** from the recent change in government
- New government was formed in March 2020, coinciding with the Covid-19 Pandemic



Impact from COVID-19 Pandemic



Falling oil prices

- Started in March 2020 where **Oil Price has crashed** more than 30% on 9 March 2020 and continue to fall since.
- The crash was partly started due to **lowered oil consumption** arising from the Covid-19 Pandemic which triggered the subsequent Oil Price War.
- This has affected our government budget severely as we are a **net oil exporter** country.

IMPACTS OF COVID-19 & MOVEMENT CONTROL ORDER (“MCO”) TO ENVIRONMENT

Solid Waste



50% Reduction

580 tonnes of waste was collected between 15 March and 15 April 2020 compared to 900 to 1,200 tonnes of waste per month for the past 6 months under ‘Selangor Maritime Gateway’ Project.



Air Quality

14% Improvement

Department of Environment (DOE) Air Pollutant Index recorded a 14% increase in the number of days with “good” air quality during the MCO as a result of fewer vehicles on the road and less industrial activity.

43% Reduction

Local Authority undertook cleaning of river found that the river pollution has also decreased as the number of waste extracted from the river declined to as much as 43% (Klang River)



28% Improvement

DOE recorded significant improvement in Water Quality Index (WQI) in the upstream region where 29 water monitoring stations were established. Eight (28%) of the 29 water monitoring stations showed an improved river water quality index.

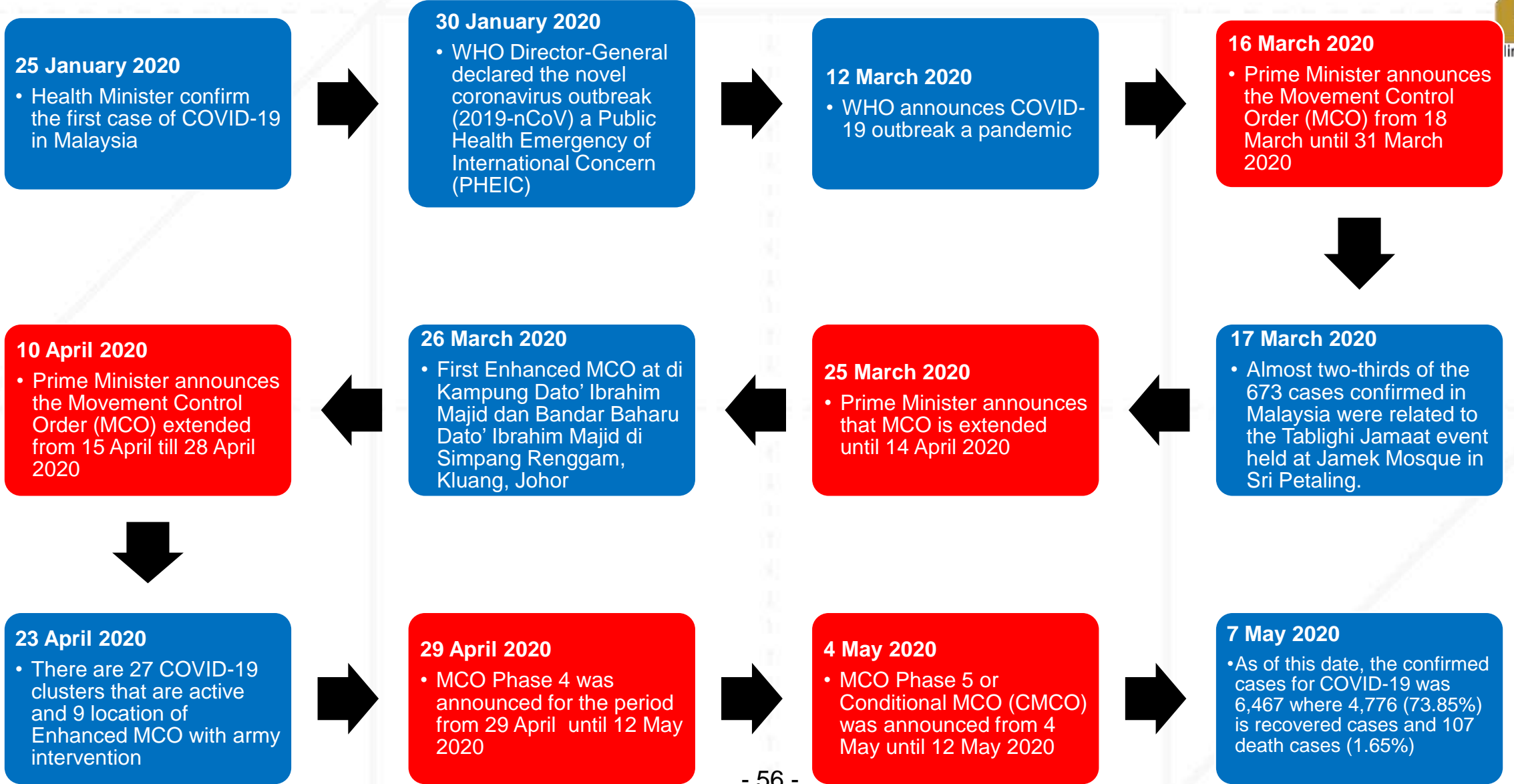


River

Water Quality

3. MALAYSIAN RESPONSE TO COVID-19

TIMELINE OF KEY EVENTS



HOLISTIC PLANNING IS ESSENTIAL



Malaysia Government Response to COVID-19

GoM 6 'Rs' Resolve, Resilience, Restart, Recovery, Revitalise, and Reform in order to balance the livelihood of Malaysian Citizens and the complete control of the pandemic

Resolve. A Movement Control Order or *cordon sanitaire* was imposed to flatten the curve to curb more events leading to the spread or the Circuit Breaker. Only *Essential Services workers as well as food and daily necessities also with the launch of Stimulus Package

MCO 1

Resilience by expanding capacities to treat and isolate COVID-19 patients with the creation of semi-permanent facilities as well as procurement of equipment and supplies as well as creation and dissemination of information to general public on the Guidelines for future operations to general public on the Guidelines for future operations

MCO 2

Upon reaching first sign of control over the spread, a small fraction of economy is Restarted / opened by way of giving Permit to Operate to give impact to bottom tier of the society that was directly hit by the pandemic due to unable to earn daily wages and require to follow strict SOPs

MCO 3

Upon reaching all milestones / criteria to disengage lockdown as set by WHO, Recovery (Current Phase) plan to open bigger segment of economy is allowed with Strict and Specific SOPs

MCO 4 / CMCO

Movement Control Order and Conditional Movement Control Order

MCO 1	MCO 2	MCO 3	MCO 4	CMCO
16 th March to 31 st March 2020	1 st April to 14 th April 2020	15 th April to 28 th April 2020	29 th April to 12 May 2020	4 th May 2020 – 9 June 2020 (enforced)

***Essential Services** are industries defined under the **Prevention and Control of Infectious Disease (Measures Within the Infected Local Areas) Regulation 2020** includes food, water, energy, communications, security and defence, solid waste and public cleansing, healthcare and medical, banking and finance, logistics confined to provision of essential services.

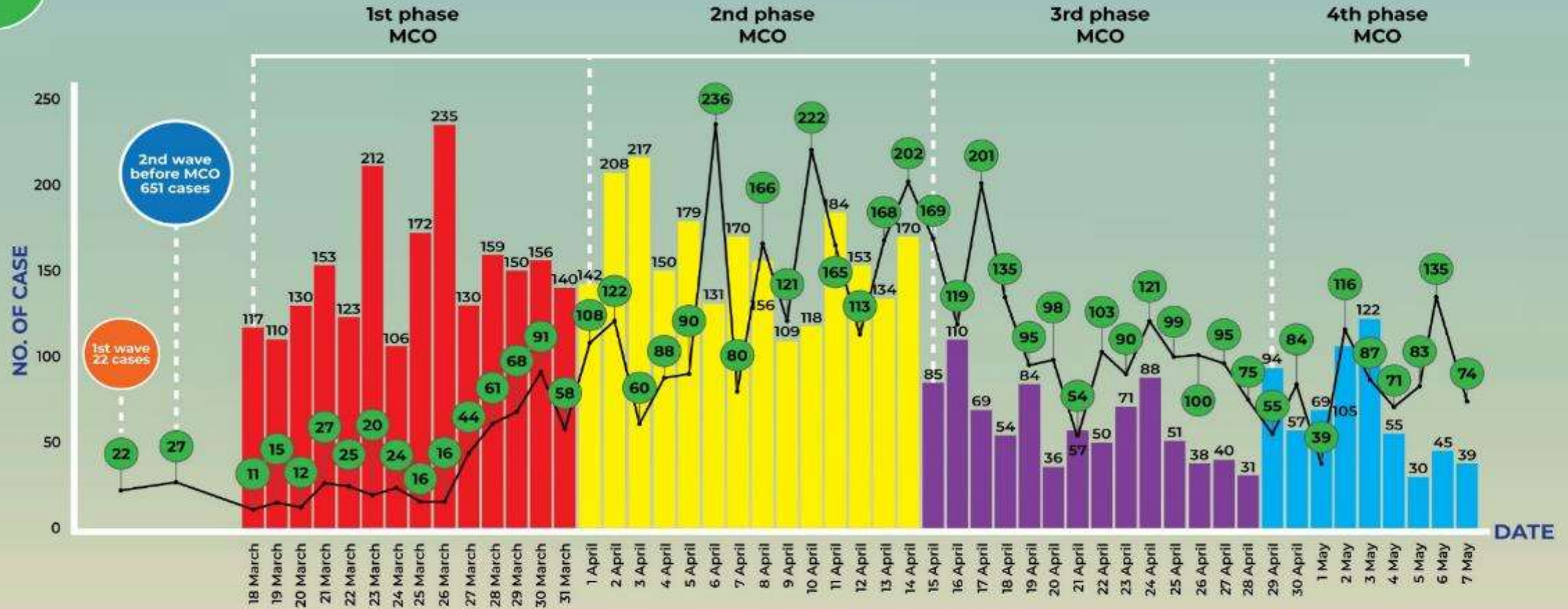
DISTRIBUTION OF COVID-19 CASES ACCORDING TO DATE OF CONFIRMATION

Source: CPRC, MOH

*Movement Control Order (MCO)

DISCHARGED

2nd wave during MCO
5794 cases



Ministry of Health Malaysia



4. IMPACT ON CONSTRUCTION

CONSTRUCTION INDUSTRY IN MALAYSIA



- Annual value of over USD 30 Billion representing 4.5 % of the economy (Edge prop statistics 2019)
- Over 95,000 Contractors in the country (CIDB report 2018)
- Workforce of over 850,000 Registered construction workers and estimated hundreds of thousands of unregistered workers
- Significant contributor to the Malaysian economy - the whole value chain employs about 1.4 million workers, paying a salary of approx. USD9 billion per annum (NST news 14042020)

A KEY DRIVER FOR THE ECONOMY WITH FAST IMPACT

KEY DATES FOR THE CONSTRUCTION INDUSTRY



- 18th March : MCO implemented – Only Essential services e.g. Electricity & Energy, Water works, sewerage maintenance Solid waste were allowed to operate.
- 19th March : Construction were allowed to operate to safe guard the site from causing hazard to the public authorized.
- 23rd March : Ministry of Works (MOW) increased the number of activities in the exception list and authorized activities at selected site.
- 10th April : Ministry of International Trade and Industry (MITI) allowed engineering professional services to operate with conditions
- 16th April: MITI Allowed more Construction projects and services to commence with similar condition
- 4th May: Prime Minister announced that approved sectors including Construction shall operate at its full capacity

MANY APPROVED SITES COULD NOT OPERATE BECAUSE SUPPLY CHAIN NOT OPERATIONAL

- 61 -

RULES ENFORCED ON CONSTRUCTION INDUSTRY



Ministry of International Trade and Industry (MITI) & Construction Industry Development Board (CIDB) sets the Governance for the construction industry to comply while operating during this pandemic situation, which are;

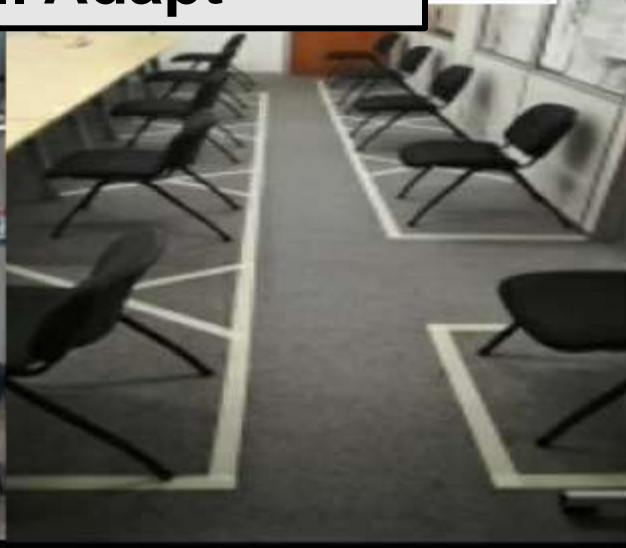
- **STANDARD OPERATING PROCEDURE – GENERAL**
- **COVID-19 PREVENTION PRACTISE GUIDELINES AT CONSTRUCTION SITE**
- **OPERATIONS GUIDELINE FOR CENTRALIZED LABOUR QUARTERS (CLQ) AND CONSTRUCTION WORKERS ACCOMMODATION DURING MOVEMENT CONTROL ORDER (MCO)**

- **General Requirements:**
 - All sites must have body temperature scanning both in and out, daily.
 - Site employees to provide health declaration, inclusive of COVID 19 screening.
 - Social distancing of 1 meter to be maintained at all locations, inclusive of prayer room.
 - 3 hourly disinfection of frequently used place and object i.e. tools and vehicles.
 - Restricted working hours in a day (8am to 5.30 pm – Recently lifted).
 - Centralized Labor Quarters to be managed similar to work site with restriction to socialize.

SOME CONTRACTORS ROSE TO THE CHALLENGE



The Good will Adapt



CHALLENGES FOR CONSTRUCTION

Some contractors already in financial distress pushed over the edge and many bankruptcies anticipated.

Many workers registered/unregistered unpaid.

- GOV Salary Subsidies are only for Nationals. Some Workers have become homeless / dispersed.

COVID 19 Screening test - Cost of private sector testing at approx. USD100 per test is prohibitive for some.

- GOV paid testing is only for Nationals and takes Time.

Government Rules developed and adopted at differing degrees by Contractors.

COVID-19 Clusters have been found at construction sites

**The fall out must
be handled**

5. IMPACT ON ROAD TRANSPORT

RULES APPLIED ON TRAFFIC

Movement Control Order and Conditional Movement Control Order

- **MCO (1) – 16th March to 31st March 2020**
 - Allow only Essential Services workers and amenities shopping (10km)
 - Only allow travel within district with one-person per car ruling
 - No Inter-state and overseas travel
- **MCO (2) – 1st April to 14th April 2020**
 - Allow only Essential Services workers and amenities shopping (10km)
 - Only allow travel within district with one-person per car ruling
 - No Inter-state travel
- **MCO (3) – 15th April to 28th April 2020**
 - Allow Essential Services workers and amenities shopping (10km)
 - Allow travel within district and Limited Inter-state travel with National Security Council (NSC) approval for business and with one-person per car ruling

RULES APPLIED ON TRAFFIC



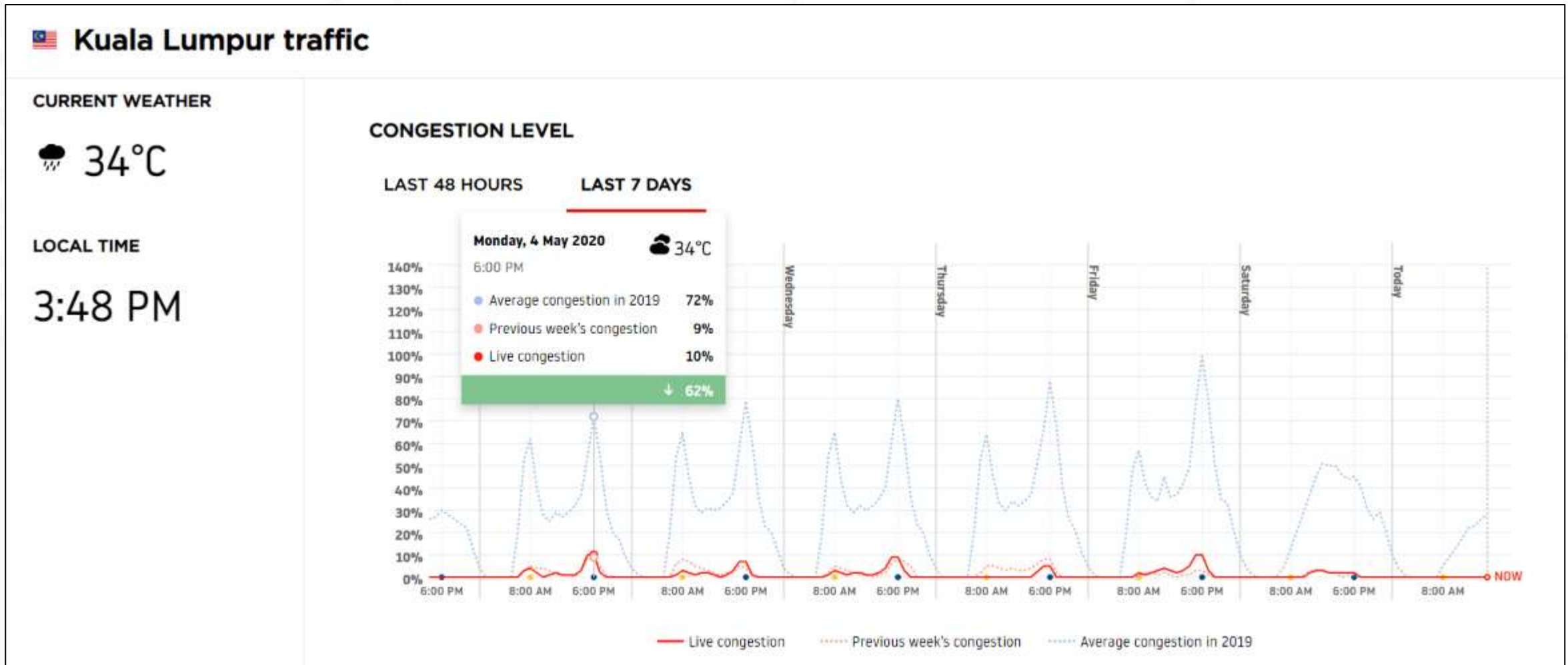
- **MCO (4) – 29th April to 12 May 2020**
 - Allow Essential Services workers and amenities shopping (10km)
 - Allow travel within district and Limited Inter-state travel with National Security Council (NSC) approval for more businesses and with Two-person per car ruling
- **CMCO – 4th May 2020 – 12 May 2020 (enforced) –further extended to 9 June 2020**
 - Allow Essential Services workers and amenities shopping (10km)
 - Allow travel within district for businesses and personal and Limited Inter-state travel with National Security Council (NSC) approval and with Four-person per car ruling
- No restriction for transport of Consumables and Food products during MCO and CMCO

**Resolve and Regulation
are a must**

IMPACT ON ROADS

- **Traffic on public road has dropped sharply in response to the COVID-19 pandemic, due to restricted movement order.**
- **There has been a shift from Public Transport to Private cars but this has not been enough to offset the overall drop in travel demand.**
- **Key Impacts have been:**
 - **Less congestion**
 - Average daily congestion in KL last year ranged between 60% and 90% compared to 10% daily congestion in KL during movement control order this year.

Comparison of average traffic congestion (KL) in 2019 and 2020 for the last 7 days



Source: Copyright © 2020 TomTom International BV.

- **Key Impacts have been:**

- **Less carbon emission**

- From March 18 to May 5, Kuala Lumpur experienced about 60% reduction of Nitrogen dioxide (NO₂) levels compared with the same period last year. (*Source: Centre for Research on Energy and Clean Air (Crea)*)
- The percentage of stations which recorded “good” air quality readings in Malaysia increased two-fold from 28% to 57% after MCO was enforced. (*Source: UNDP*)
- In China, carbon emissions fell by 25 per cent in February compared to the same period in 2019. (*Source: UNDP*)

- **Reduced number of accidents**

- Traffic accidents have dropped by 70% compared to pre-MCO average accident rate. The pre-MCO accident rate was around 1,500 cases a day, with 14 to 17 deaths. During MCO, accident rate is at an average of 371 cases, with 5 deaths.

IMPACT ON TOLL ROADS

- **Traffic on Toll Roads have fallen sharply amid the COVID-19 crisis.**
 - Concessionaires which were already in financial distress will be pushed into default. Some concessionaires with healthy cash flows can weather this storm.
- **Significant impact on traffic volume on Toll Roads during MCO will result in lower revenue. Maybank Investment Bank Research predicted:**
 - Revenue could be decreased around -15% in 2020, assuming a -90% fall in traffic during MCO from 18 March to 14 April, followed by a gradual recovery after MCO is uplifted and assuming traffic is -50% in the second month, -30% in the third month and -10% in the fourth month.
- **For toll roads that are under construction, delays in construction may lead to a breach of concession terms.**
 - Project concessionaires with negative outlooks due to completion delay risks could result in downgrade pressure, may request for an extension of time and waivers.

TRAFFIC BEFORE MCO



TRAFFIC DURING MCO



6. IMPACT ON OTHER FORMS OF TRANSPORT

PUBLIC TRANSPORT

Malaysia has varying types of road based public transport:



PUBLIC TRANSPORT

Malaysia has varying types of rail based public transport:



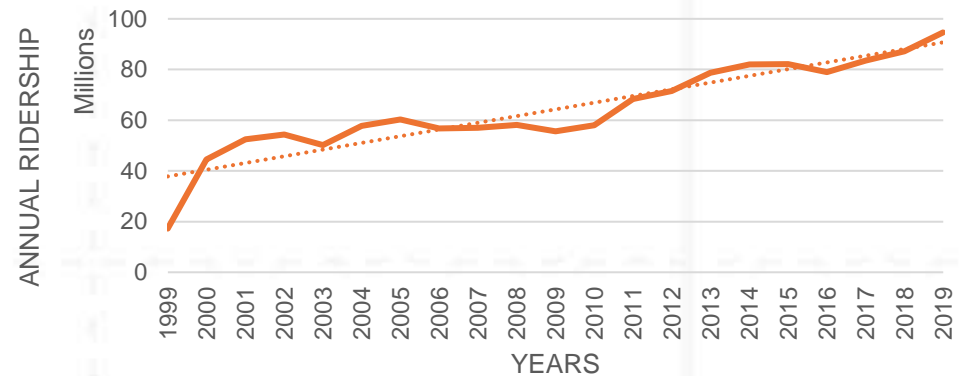
PUBLIC TRANSPORT

Malaysia invested in public transport infrastructure over the last 20 years resulting in its increased use, until the MCO:



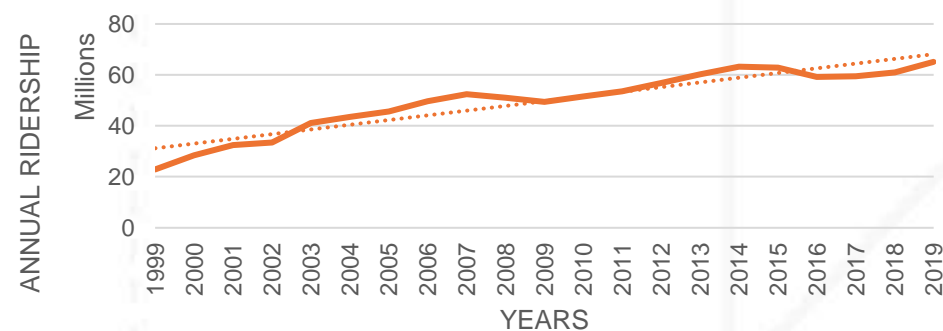
- 2 LRTs
- 1 MRT
- 1 Monorail
- 2 Commuter Lines
- 1 Airport Express
- 1 BRT

KELANA JAYA LINE LRT



Daily Ridership 2020 330,000

AMPANG LINE LRT



Daily Ridership 2020 213,000



PUBLIC TRANSPORT



Covid 19 has resulted:

- Less people needing to commute:
- People are concerned about risk of infection in public spaces

Daily commuters in Kuala Lumpur was 1.4m prior to Covid 19

- Current census indicate ridership dropped by 65% during MCO

Public Transport Operators actions are:

- Enforce social distancing
- Disinfect vehicles and stations
- Carry out commuter temperature screening
- Have longer periods of peak hour services to spread the crowd



PUBLIC TRANSPORT

- COVID 19 has upended public transport :

18 March 2020
MCO Imposed

4 May 2020
Some sectors of Economy
opened up

9 June 2020
MCO Scheduled to End

Before MCO Daily Ridership

Kelana Jaya LRT 330k
Ampang LRT 213k
Monorail 40k
Sg Buloh - Kajang MRT
216k
Sunway BRT 5k
City Buses 317k
MRT Shuttle Buses 57k

During MCO Daily Ridership Drops by

Kelana Jaya and Ampang
LRTs 65%
Monorail 65%
Sg Buloh - Kajang MRT
65%
Sunway BRT 80%
City Buses 66%

Transport Operators have increased frequencies since 4 May 2020 to cater to increasing ridership

To maintain social distancing peak
hour services are increased from 3
hours to 4 hours to spread the
commuter crowd
Rail services to operate at 50% of full
commuter capacity
Bus services to operate at 30% of full
commuter capacity

PORTS AND LOGISTICS SECTOR



- Malaysia has closed its borders to travelers, restricted internal movement and shut down non-essential businesses during MCO to contain the spread of the virus.
- Ports and logistics companies were allowed to operate, but non-essential businesses faced problems moving goods out of ports.
- Backlog of non-essential goods, which make up 80 per cent of cargo volumes, would affect port operations and capacity. Within few days have reached nearly 100 per cent of their capacities to hold goods.
- The ministry gave freight forwarders and haulage companies a special exemption to remove their goods, including non-essential items, out of ports over the weekend.

PORTS AND LOGISTICS SECTOR (Cont'd)



- Port Klang Authority (PKA) has signed a joint declaration with 19 international port authorities to keep their ports open to seaborne trade amidst restrictions and challenges caused by the Covid-19 pandemic.
- The declaration was a pledge by 20 members of the Port Authorities Roundtable (PAR), comprising leading ports such as Abu Dhabi, Antwerp, Tokyo, Busan, Guangzhou, Hamburg, Singapore, Montreal, Yokohama and Shanghai.

7. WAY FORWARD

SHORT TERM MEASURES

- Take steps to increase Public Transport Capacity to Meet Near Normal Travel Demands while maintaining social distancing
- Improve Travel Information in particular Que Times for Public Transport
- Consider Contractual Implications Of COVID-19 and potentially a COVID-19 Act.
- Increase number and frequency of environmental monitoring and map out location and quantum of damage with reopening of sectors

LONG TERM MEASURES

- Undertake a study to assess impact of COVID-19 on long term travel demand for each mode of transport
- Reinforce use of less labour intensive construction methods IBS and MBS
- Promote E-Economy including
 - Mandate use of MLFF
 - All Authority Submissions to be electronic
 - Formalise Digital Interfaces in Industry e.g. Video Conferencing Tools and Electronic Submissions

PUBLIC TRANSPORT

- Future mobility patterns as a result of the Covid 19 are unclear:



Work from home culture will grow



People keep away from crowds and public spaces



Spurs innovative personal commuting devices



Bicycles become more popular for commuting



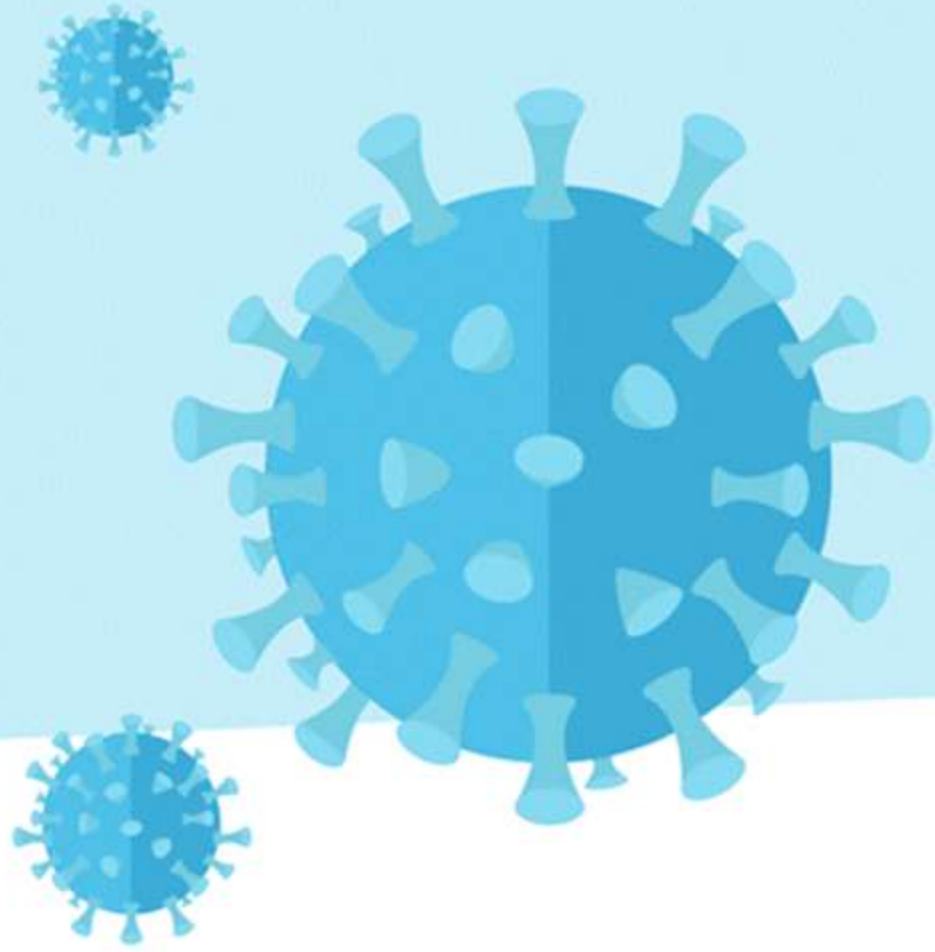
People use cars for safer commuting resulting in more congestion on roads



People use motor bikes for commuting

Innovation will happen in communities to come up with effective solutions

Policy makers must have political will to make the right decisions for the future



THANK YOU

BE HEALTHY AND STAY SAFE



Mexico's actions to address the COVID-19 pandemic - A resilience perspective

Roberto Aguerrebere Salido

General Director of the Mexican Institute of Transport, First Delegate of Mexico

Juan Fernando Mendoza Sánchez

Spanish Speaker Secretary of TC 1.4 "Climate Change and Resilience of Road Networks"

Querétaro, México

May, 2020

Evolution of the COVID-19 Pandemic in Mexico (1)

Feb 28th
Detection of the first case of coronavirus



Mar 24th
Beginning of phase 2



Apr 21st
Beginning of phase 3



Mar 23th

- Beginning of social distancing
- Early suspension of school



Mar 30th

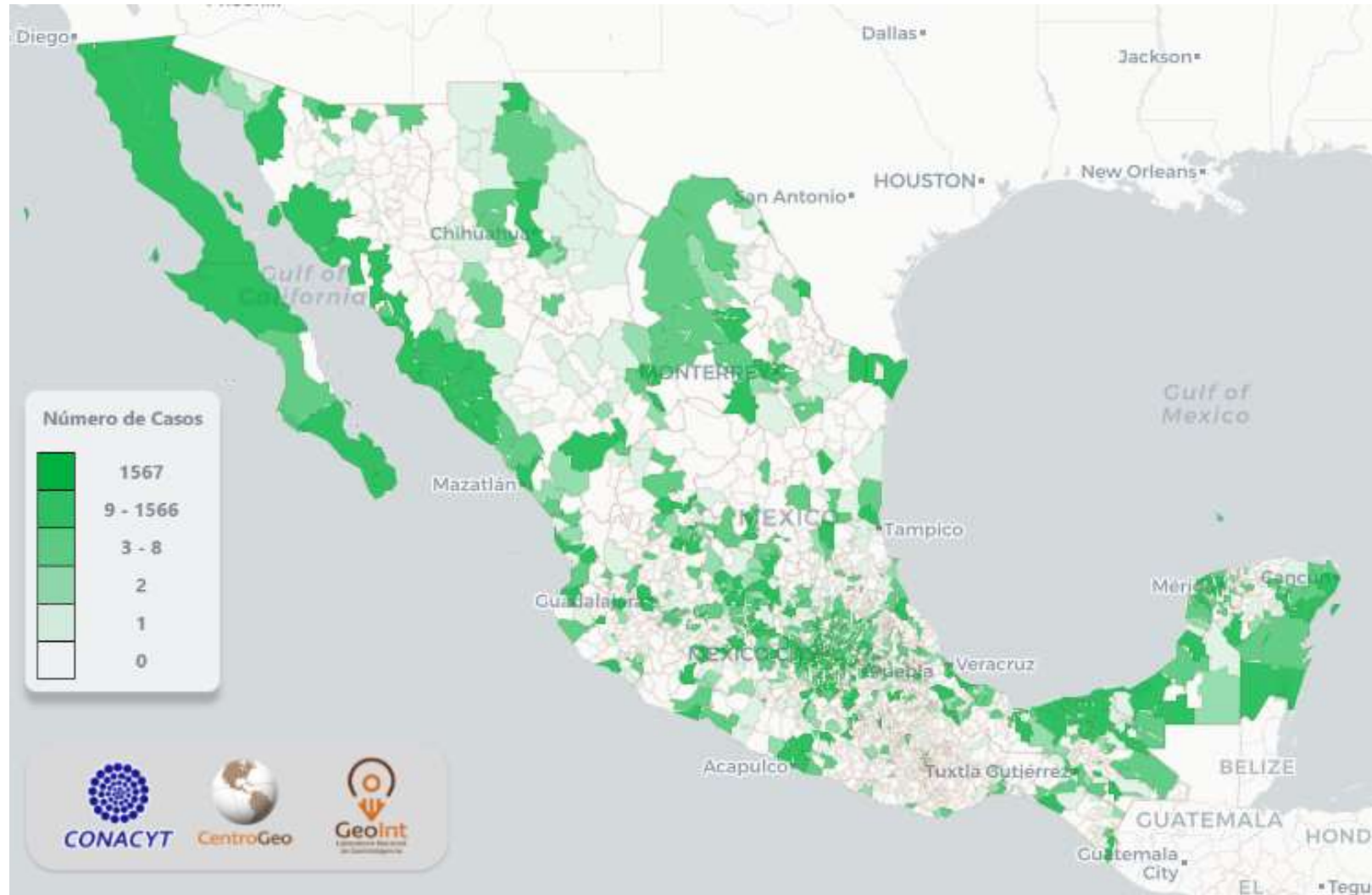
- Declaration of health emergency due to *force majeure*
- Suspension of non-essential activities

Evolution of confirmed cases



Source: <https://coronavirus.gob.mx/datos/>

Evolution of the COVID-19 Pandemic in Mexico (2)



Source: <https://coronavirus.gob.mx/fHDMMap/mun.php>

A resilience perspective

Integrating lessons learned

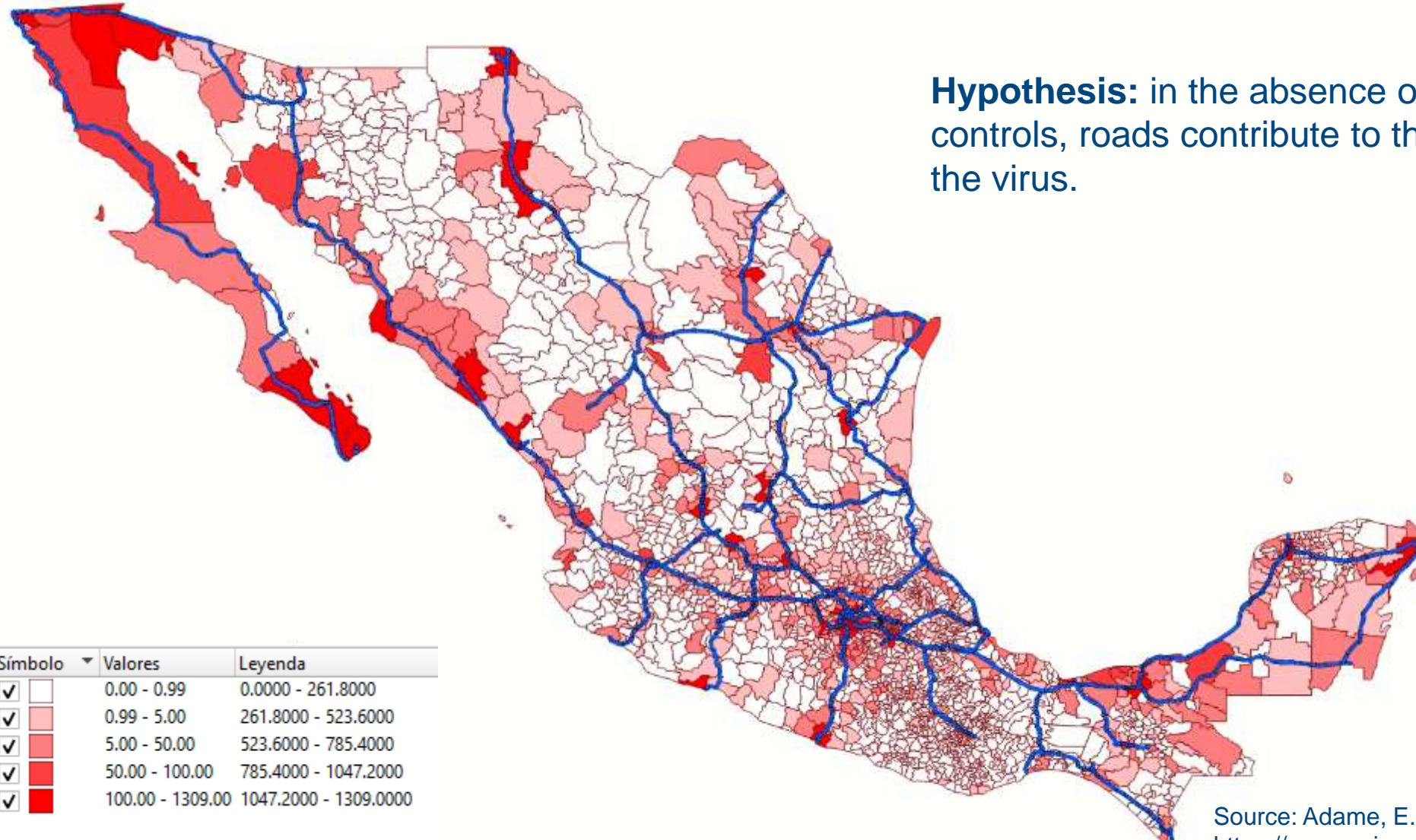


- Prepare bids to recover construction works ASAP.
- Ensure the budget for road construction and maintenance.
- Ensure the operation of transport corridors (some areas will stay closed due to the high transmission risk).
- Zoning of areas to reactivate construction works.
- Inspections points in transport terminals to identify potential COVID-19 cases.
- Road inspection activities to ensure the transportation operations.
- Reduce lines on toll roads. Use electronic toll collection.
- Highway police surveillance

- Sectoral policies to address the pandemic.
- Definition of essential activities for transport sector.
- Develop guides and recommendations to face the pandemic.
- Inform stakeholders.

- Implement actions to protect road workers health.
- Implement home office and teleworking.
- Establish working groups to ensure road maintenance and operations in all regional centers.
- Ensure materials and supplies.

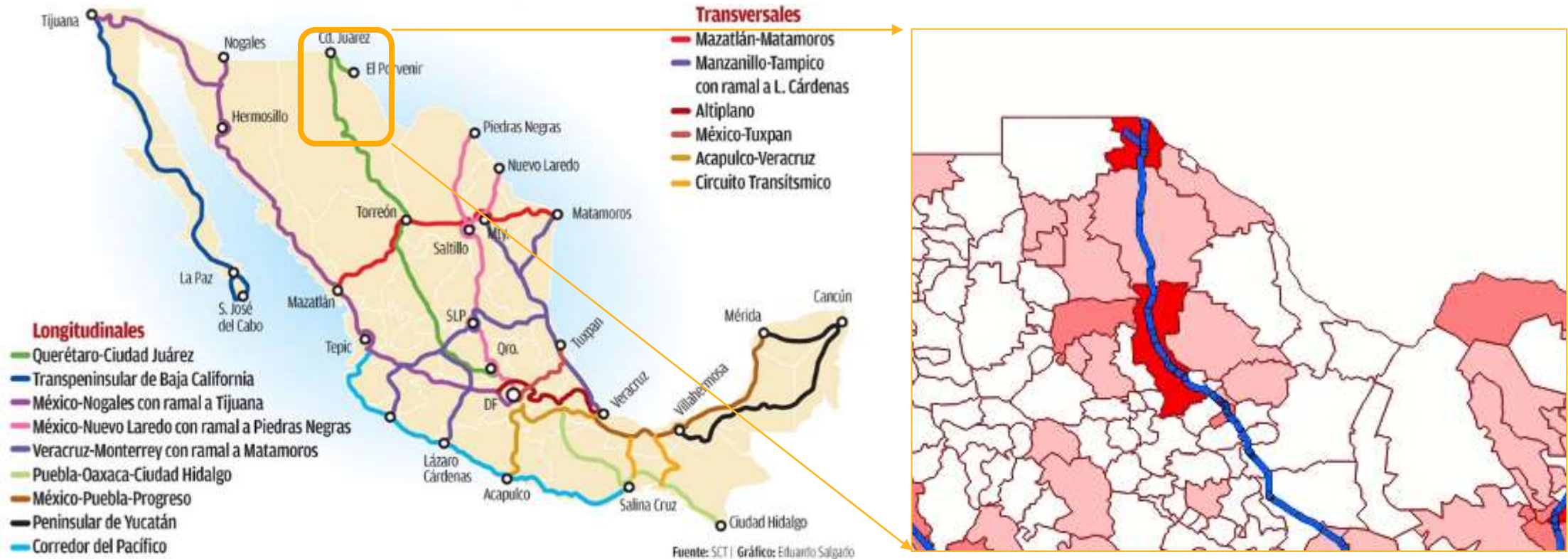
Transport corridors and COVID-19 Pandemic in Mexico (1)



Hypothesis: in the absence of regional controls, roads contribute to the spread of the virus.

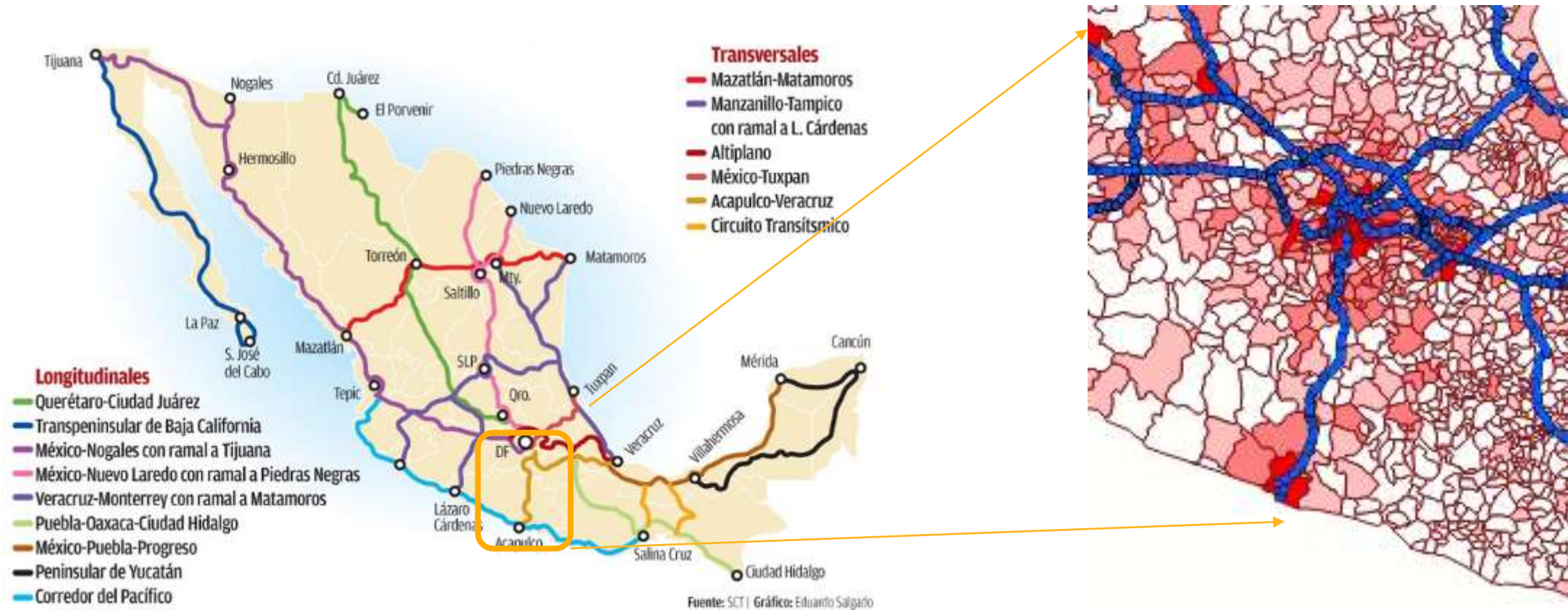
Source: Adame, E.; Mendoza, J.F., based in <https://coronavirus.gob.mx/fHDMMap/mun.php>

Transport corridors and COVID-19 Pandemic in Mexico (2)



Case 1. Spread of COVID-19 between Chihuahua-Juarez City (Querétaro- Juarez City Corridor)

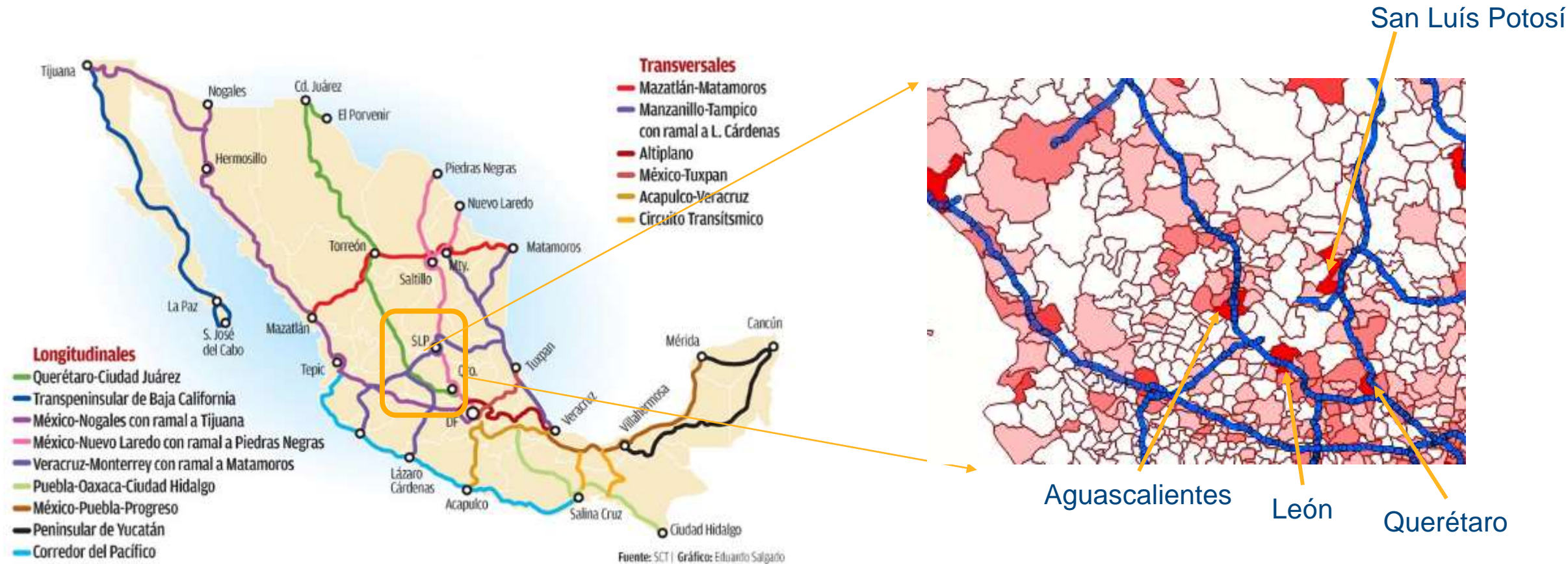
Transport corridors and COVID-19 Pandemic in Mexico (3)



Case 2. Spread of COVID-19 between Mexico City-Acapulco (Acapulco-Veracruz Corridor)

Source: Adame, E.; Mendoza, J.F., based in <https://coronavirus.gob.mx/fHDMMap/mun.php>

Transport corridors and COVID-19 Pandemic in Mexico (4)

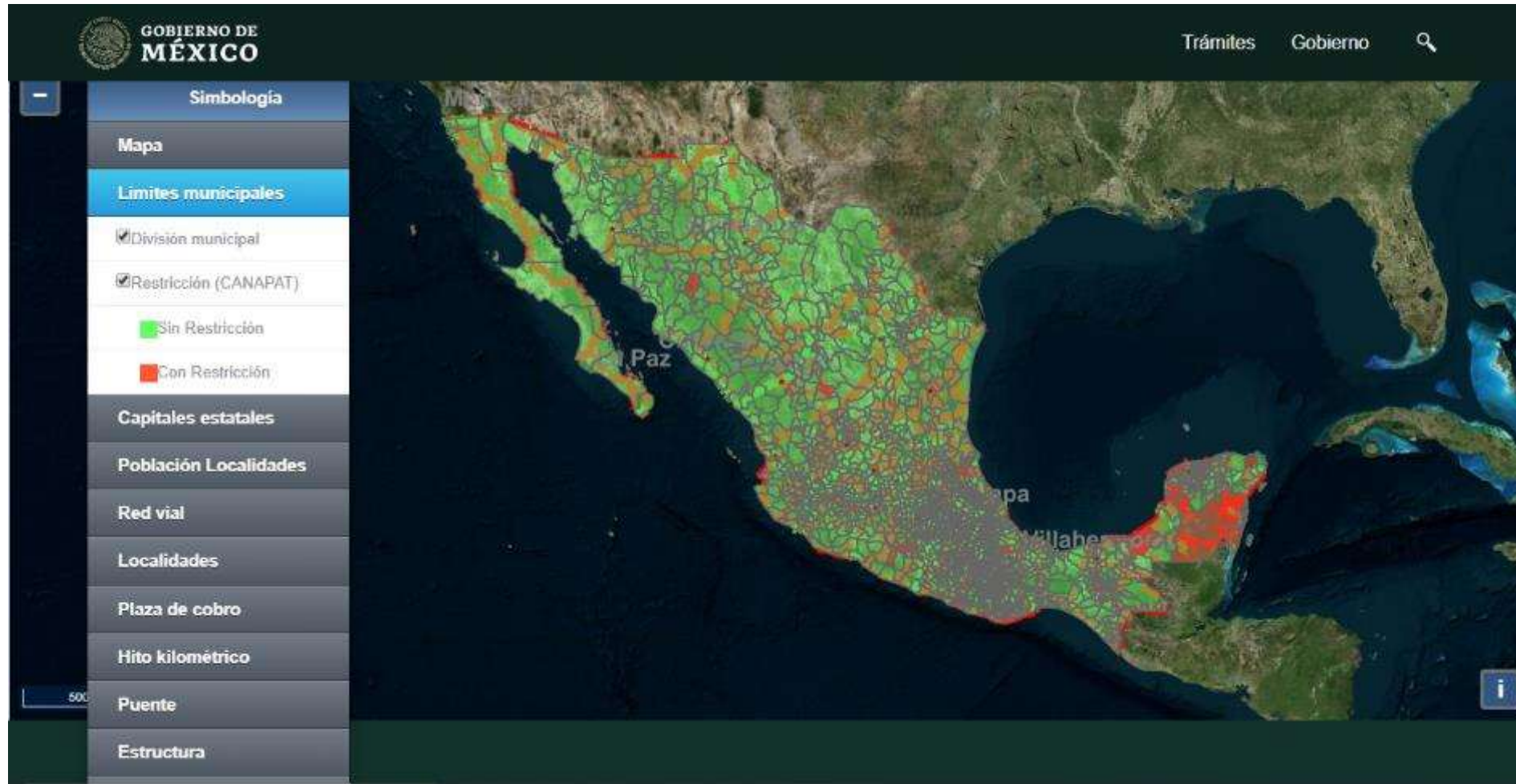


Case 3. Spread of COVID-19 Bajío Region (Queretaro- Juarez City Corridor and México-Nuevo Laredo Corridor)

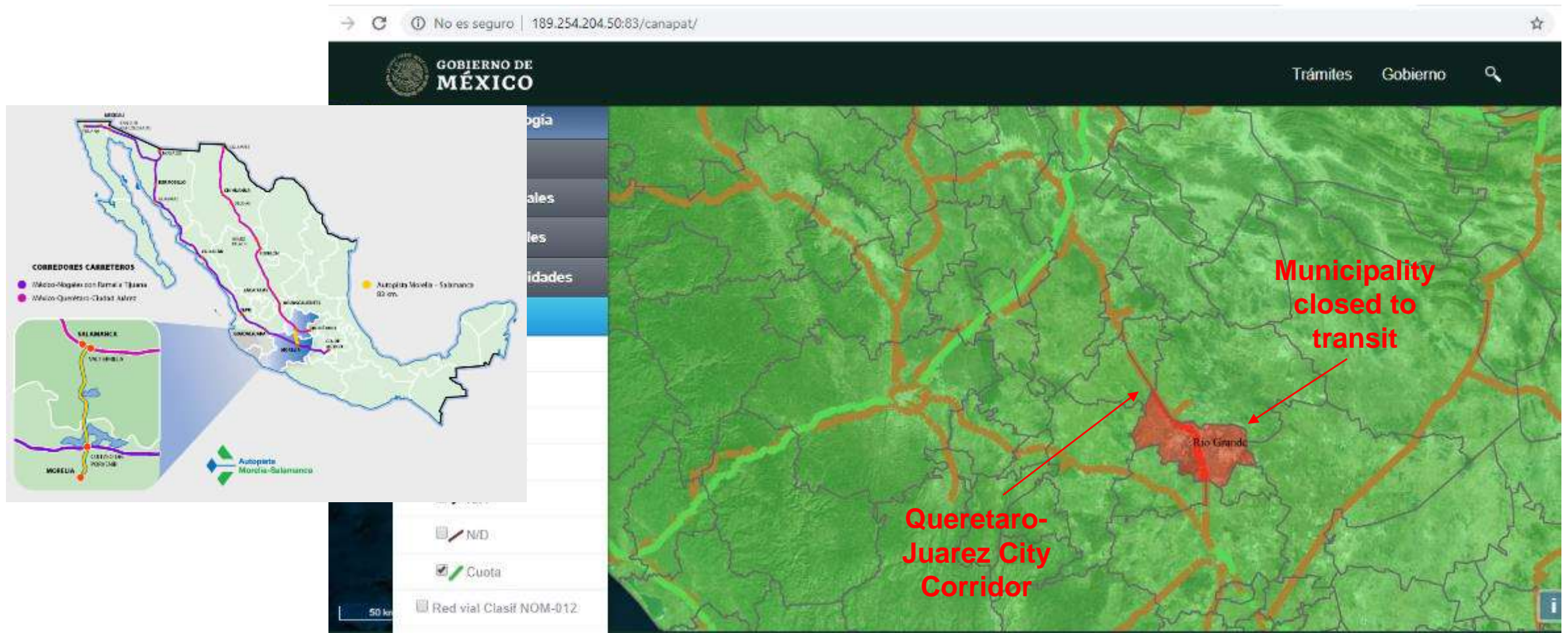
Transport corridors and COVID-19 Pandemic in Mexico (5)

- Based on these results, the Ministry of Transportation and Communications can easily determine which areas of the country were more resilient to the pandemic and thereby rapidly reactivate all construction and maintenance projects in those regions.
- Other roads and regions have to wait for a minor reduction of positive cases and transmission rates to reactivate construction and maintenance activities.

Transport restrictions & closed municipalities due to COVID-19 Pandemic in Mexico (1)



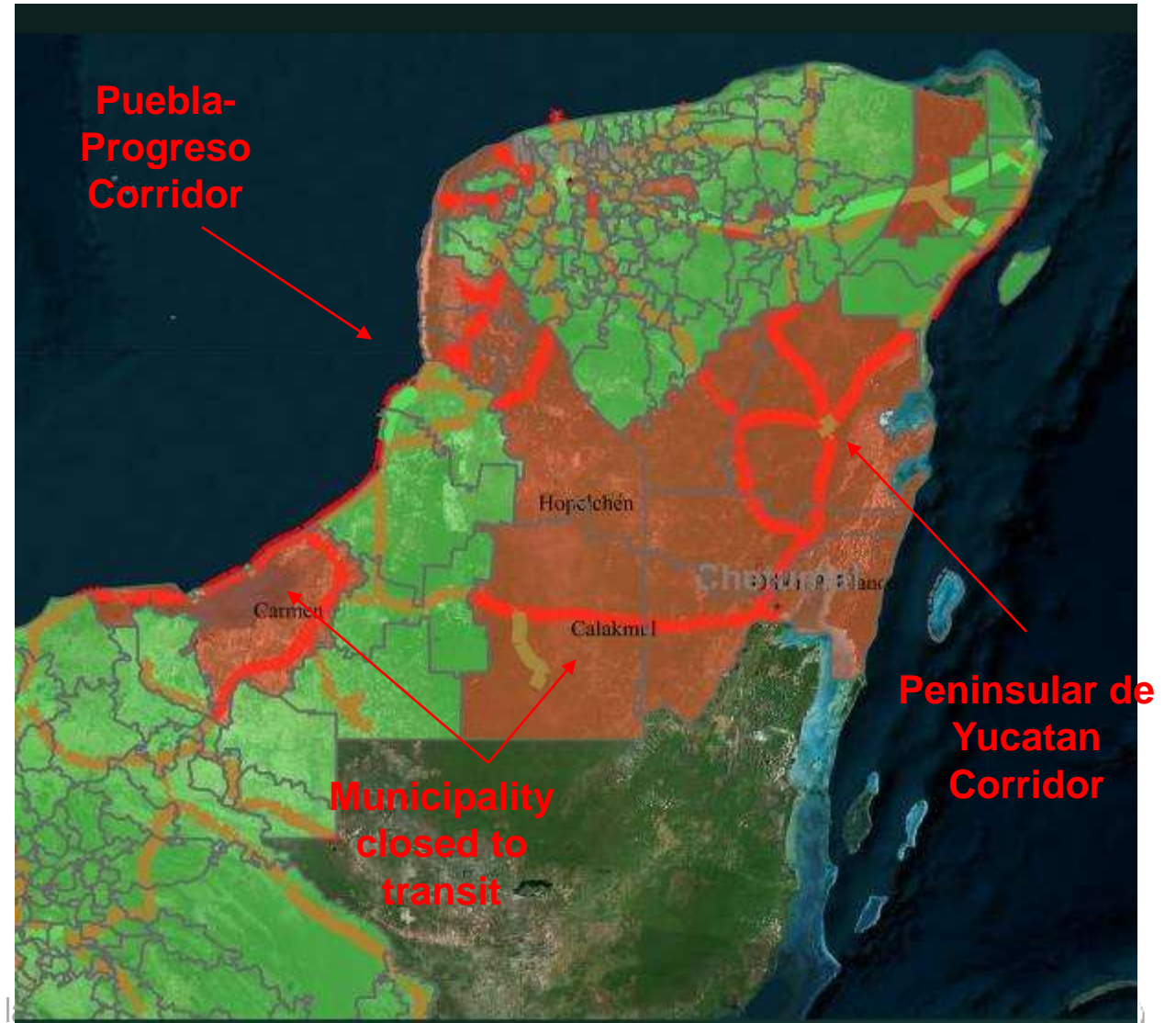
Transport restrictions & closed municipalities due to COVID-19 Pandemic in Mexico (2)



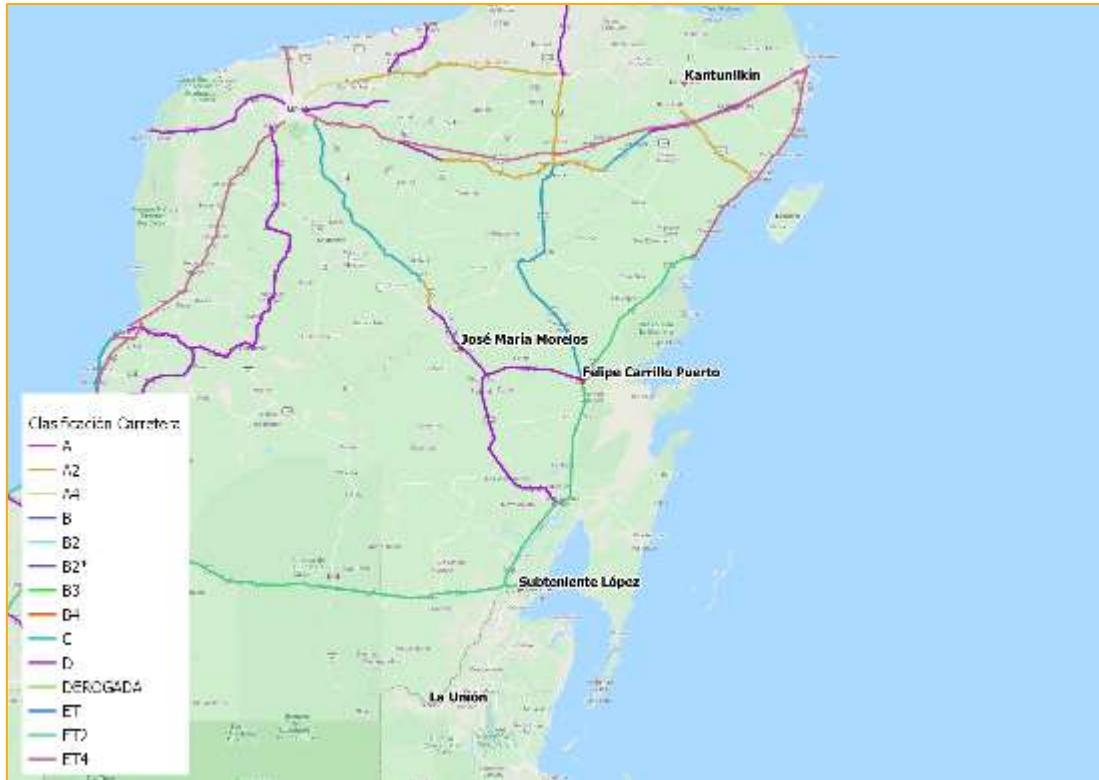
Transport restrictions & closed municipalities due to COVID-19 Pandemic in Mexico (3)



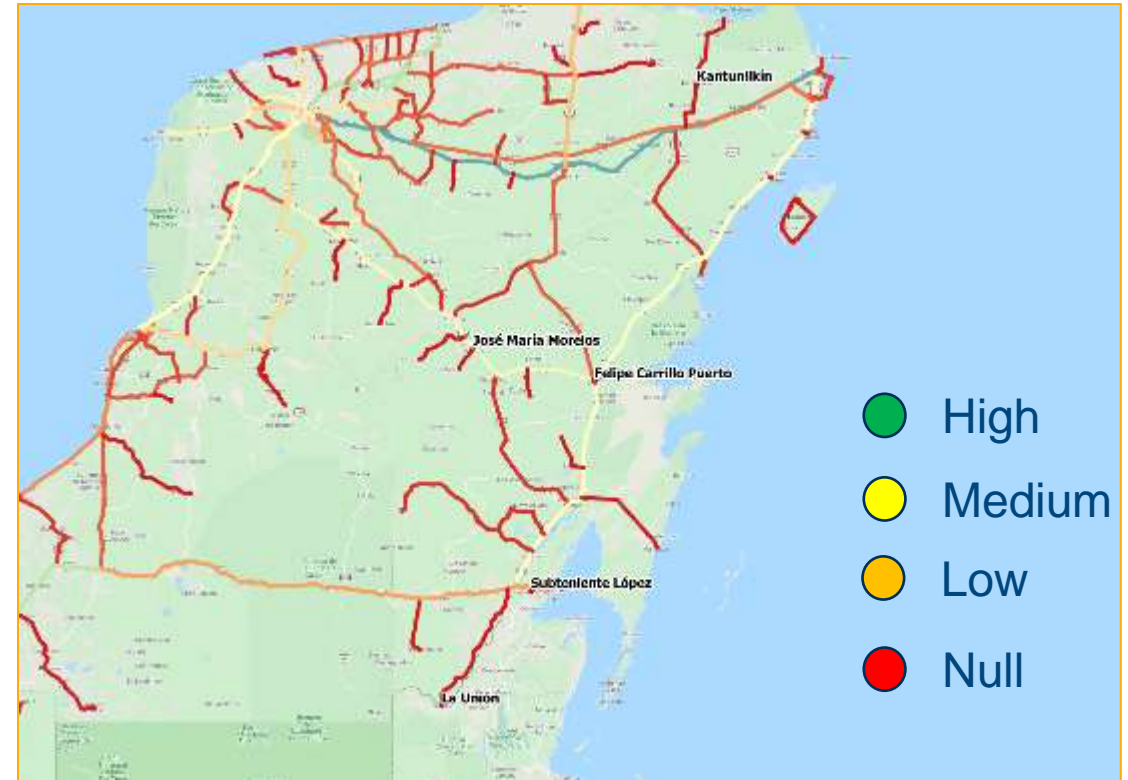
Transport restrictions & closed municipalities due to COVID-19 Pandemic in Mexico (4)



Transport restrictions & closed municipalities due to COVID-19 Pandemic in Mexico (6) – Case Study: Yucatan peninsula

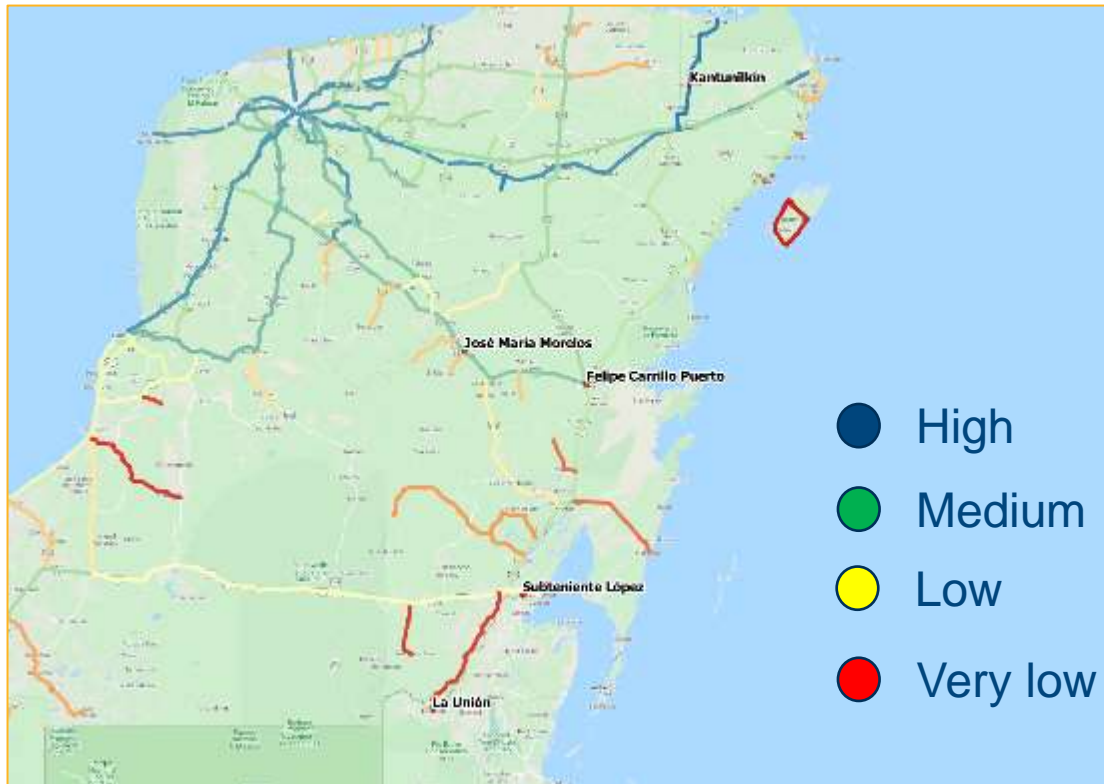


Road classification

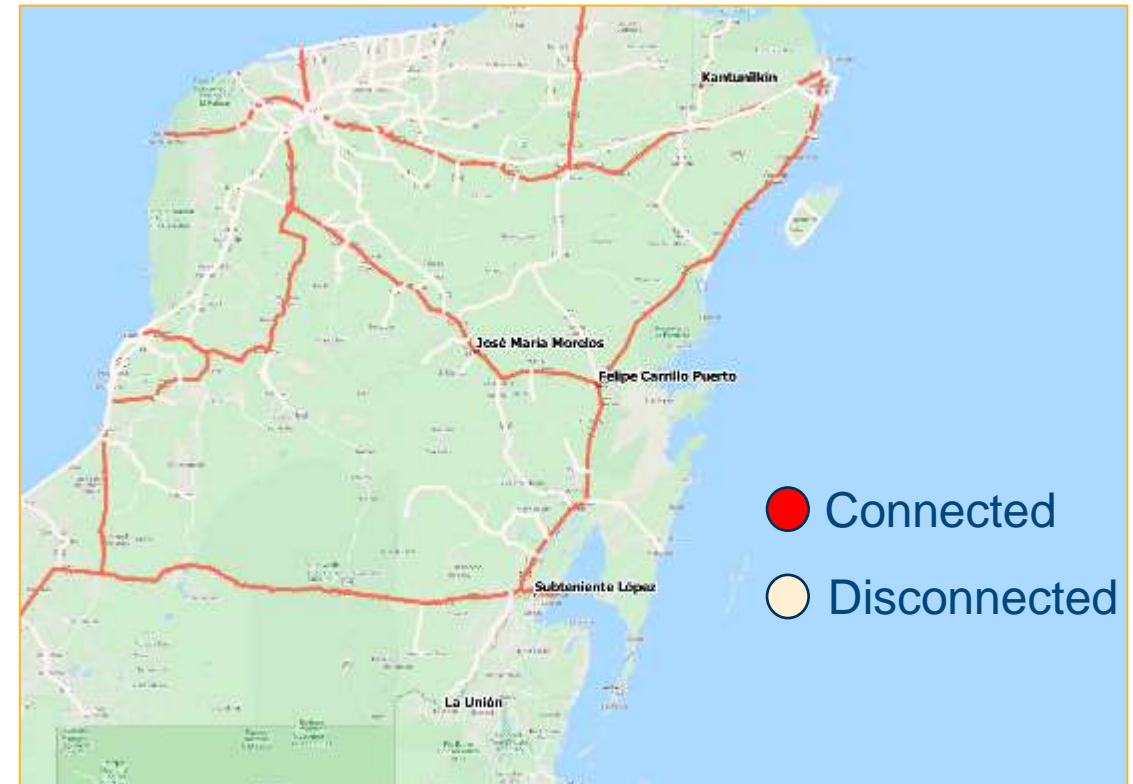


Road network redundancy

Transport restrictions & closed municipalities due to COVID-19 Pandemic in Mexico (7) – Case Study: Yucatan peninsula



Road connectivity



Road network & connectivity & municipalities closed

Freight Transport Actions

- The Mexican Institute of Transport developed general recommendations for the continuity of the motor transport service in Mexico. Specific measures:
 - Communication with collaborators
 - Communication with costumers
 - Caring measures for operators
 - Home office and Teleworking
 - Self-care and mental well-being
- Recommendations for carriers as resting areas, warehouses and terminals. Issued by the Federal Directorate for Transport for the carriers and associations of carriers in Mexico.
- Program to organize the supply chain, face the health emergency and maintain employment. Issued by National Cargo Trucking (CANACAR). *#HeroesCOVID19*

Available document: https://www.gob.mx/cms/uploads/attachment/file/544385/RECOMENDACIONES_AL_AUTOTRANSPORTE_IMT_COVID-19.pdf

Public Transportation Actions

- The Mexican Institute of Transport developed a "Rapid Response Guide to the COVID-19 pandemic in public transport", revised by Mexican Association of Mobility Authorities (AMAM). The actions are included in:
 - PREVENTING THE SPREAD OF DISEASE IN PUBLIC TRANSPORT
 - Measures to prevent the spread of infectious diseases
 - Cleaning and disinfection of public transport facilities and equipment (actives)
 - SERVICE DELIVERY DURING A PANDEMIC
 - Identification of essential functions
 - Changes in service utilization and unit capacity for public transport
 - Security protocols
 - LABOR FORCE
 - Personnel and Human resources
 - CRISIS AND EMERGENCY RISK COMMUNICATION
 - Emergency public information
 - The message, the messenger, the media

Documento disponible en: <https://www.gob.mx/cms/uploads/attachment/file/545072/guia-rapida-transporte-publico.pdf>

Toll Highways Actions

- Ensure the minimum working staff to carry out routine conservation, operation and maintenance activities of the roads under concession, in order to maintain the road in safe conditions for trips of people and goods.
- Apply the health and safety measures issued by the Ministry of Health, particularly to the personnel at the toll collecting offices.
- Construction works can be carried out when there is an imminent risk to the integrity of the infrastructure under concession.
- Due to the decrease in traffic, it is recommended that only the necessary toll collection lanes are open and that they do not exceed 200m in length.
- The Coordination of Institutional Projects and Programs of the Undersecretary of Infrastructure issued the “Safety and health care measures to be observed during the health emergency.

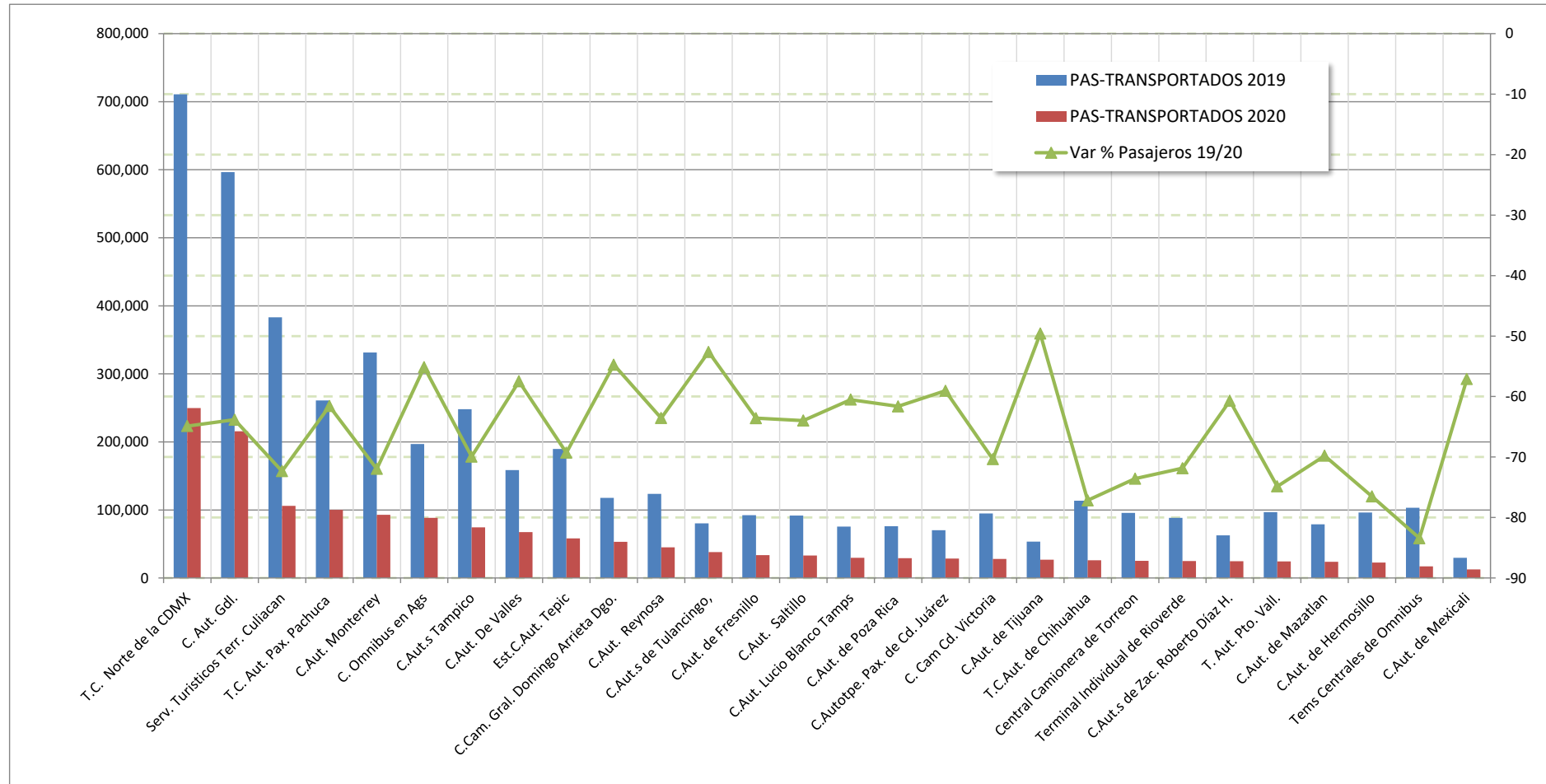
Federal Road Network Actions

- Activities on construction and modernization of federal and rural and feeders roads, and rehabilitation and reconstruction of rural and feeders roads are suspended.
- Only routine conservation/maintenance activities are continued, in order to keep the road in conditions that allow the safe transit of people and goods.
- Construction works may only be carried out when there is an imminent risk to the integrity of the road infrastructure.
- Tenders and bids for public works are suspended, and the terms of execution of existing ones are modified in order to consider the days decreed by the health emergency as non-working.

Intercity Passengers Transport Actions (1)

- The Federal Directorate for Transport and the General Direction of Protection and Preventive Medicine in Transport, issued a circular that establishes the contingency plan of the Federal Intercity Passengers Transport.
 - Recommendations for travelers and procedures according to the level of alert
 - Human and material resource requirements by level of implementation.
 - Procedure for detection and handling of passengers suspected of communicable diseases in land transport.
 - Procedure of the federal passenger transport permit holders for the detection and notification of passengers suspected of the disease causing the health emergency.
 - Procedure for federal passenger transport buses for the detection and notification of passengers suspected of the disease causing the health emergency.
 - Procedure for the verification of buses with report of symptomatic passengers.
 - Training on preparation and response processes for public health emergencies.

Intercity Passengers Transport Actions (2)



Example: Comparison between the number of passengers transported and their percentage variation between March 20 to April 20, 2019 and 2020 (Grupo Flecha Amarilla)



Measures for the continuity of telecommunications and broadcasting services

- Authorize the use of primary and secondary public roads during the execution of maintenance works necessary to ensure the continuity of services in the existing infrastructure for replacement, preventive, corrective or emerging works in the telecommunications and broadcasting networks.
- In the event that the authorities suspend activities and/or temporarily close establishments on national territory, it will be necessary to provide for exceptions, both for establishments and for workers whose tasks are directly related to the provision of public telecommunications and broadcasting services, such as Internet and telephone networks.

Thank you for your attention



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Questions and Answers

Moderated by Christos Xenophontos



Our Speakers today

- Patrick Malléjacq – Secretary General, PIARC
- Xie Hongbing – MBEC, China, PIARC TF 3.1 on Road Infrastructure and Transport Security
- Héctor S Ovalle Mendivil – COCONAL, Mexico
- Dennis Ganendra (Dato' Dr.) – Minconsult Sdn. Bhd., Malaysia
- Roberto Aguerrebere – Mexican Institute of Transport (IMT), Mexico

Conclusion and Next Steps



Disclaimer

Since time is of the essence, it is likely that knowledge and practice that is shared will not have been officially approved by each country's official authorities.

“The ideas and examples shared here are for illustration only. They do not necessarily represent official policy. Ideas presented will be subject to further evaluation and use in deriving recommendations on policy and practice in due course. While care has been taken in the preparation of this material, no responsibility is accepted for any damage that may be caused.”

Next steps

- We publish video recordings and presentations from our webinars
- Further PIARC webinars are planned, in English, Spanish and French
- We publish “Notes” with the findings from those webinars
- <https://www.piarc.org/en/News-Agenda-PIARC/Coronavirus-PIARC-and-Covid-19>

Two PIARC polls are open

In order to allow everyone to contribute, two polls are now open:

- **To identify issues of concern:**

<https://forms.gle/cgi8WCeQYykCeNFQA>

- **To identify stakeholders who wish to share their practices :**

<https://forms.gle/8sPYw3qhZoySQueJ9>

Those two links are also available from PIARC's website.

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Thank you for your attention!



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