ADB Support for Infrastructure:
Building Back Better from COVID-19

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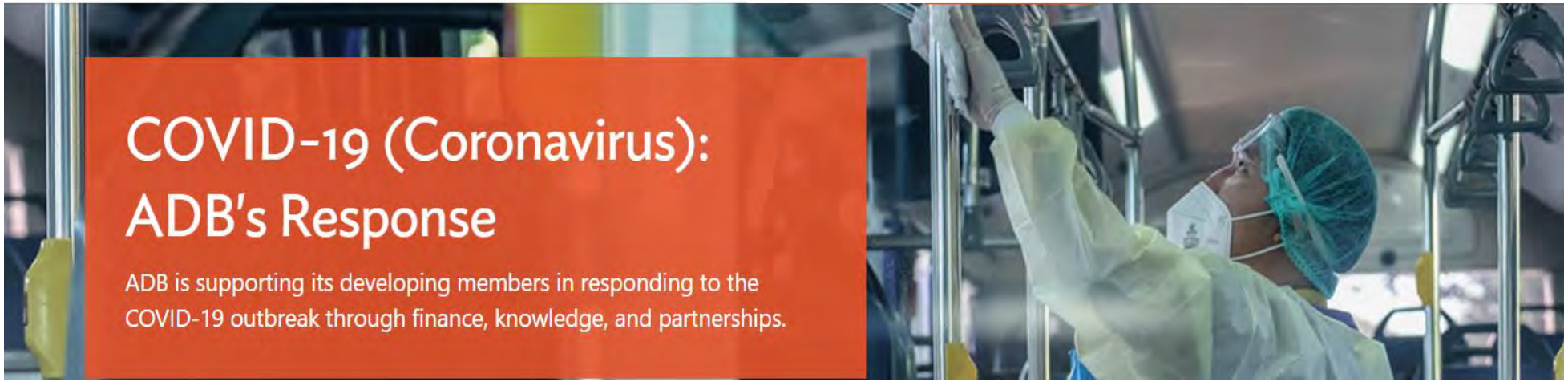
ADB ASIAN DEVELOPMENT BANK



COVID-19 (Coronavirus): ADB's Response

ADB is supporting its developing members in responding to the COVID-19 outbreak through finance, knowledge, and partnerships.

$6.5 B
(18 March 2020)

$20.0 B
(13 April 2020)

Short-term emergency needs

- Protective equipment
- Health supplies
- Testing
- Communication
- Entry screening

Medium- to long-term needs

Help DMCs counter the socioeconomic impacts of the COVID-19 pandemic

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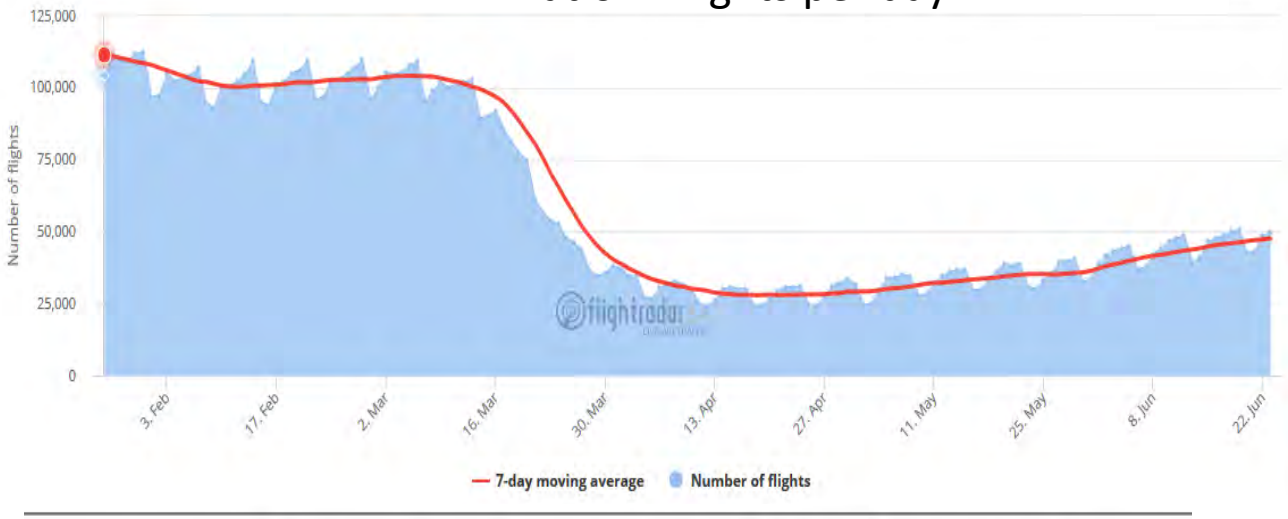
ADB Approved COVID-19 Response

($ million) as of 9 October 2020

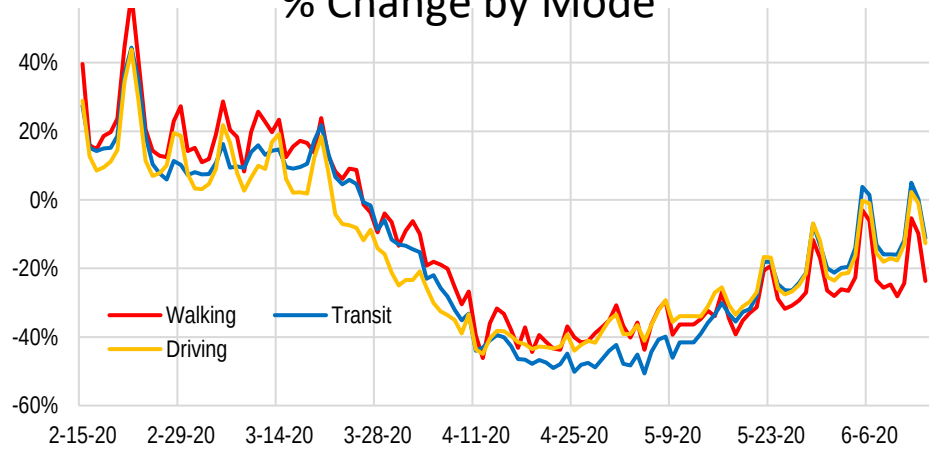
	Approvals		
Item	ADB	Cofinancing	Total
A. Sovereign operations	11,990	6,870	18,860
COVID-19 pandemic response option (CPRO)	9,680	6,481	16,161
Other projects	2,310	389	2,699
B. Nonsovereign operations	1,945	1,200	3,145
Projects	204	25	229
Revolving programs	1,742	1,175	2,917
C. Asia Pacific Disaster Response Fund & Technical Assistance	154	8	162
Asia Pacific Disaster Response Fund	56		56
Technical Assistance	98	8	106
Total	14,090	8,078	22,168

COVID-19 Impacts on Transport Patterns and Energy Use

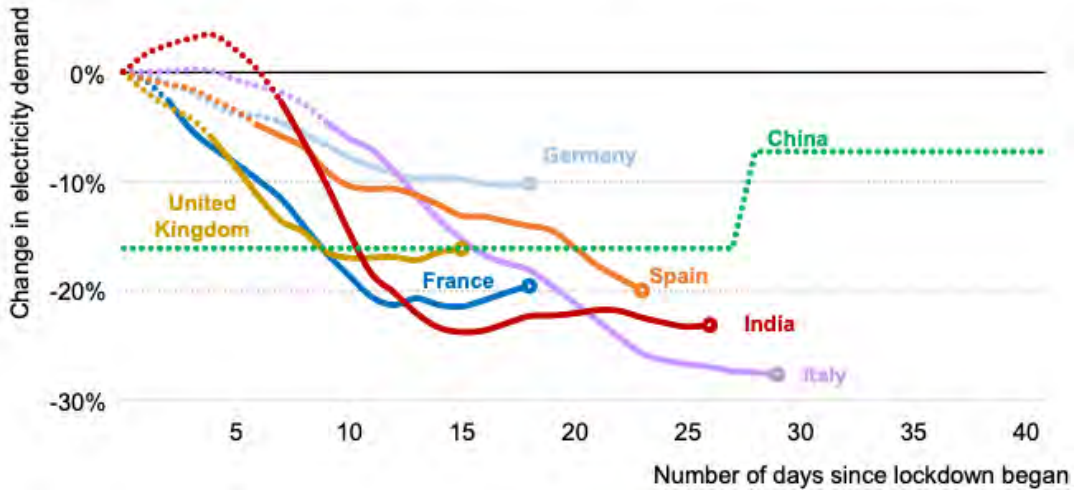
Aviation: Flights per day



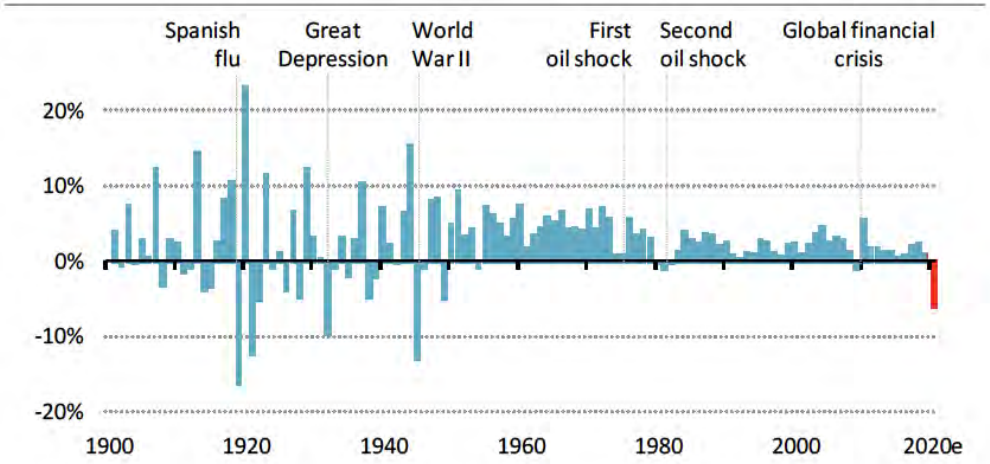
APAC Urban Transport % Change by Mode



Electricity: % demand change



Global Energy Demand: % change



Sources: Flightradar, Apple, and IEA.

Impacts on ADB Developing Member Countries

Challenges

- Shift to less sustainable transport modes
- Financial viability of public transport operators
- Liquidity issues of power utilities
- Energy producer countries taking revenue hit

Observed Benefits

- Good air quality
- Opportunity to modernize public transport systems
- Power mix shifted towards renewables
- Power system demonstrated flexibility

Bounce-back strategy

Feedback loop, monitoring of health and quarantine instructions

PHASE 1: RESPONSE

Immediate → 3 months

1. Restrict non-essential travel
2. Ensure uninterrupted electricity supply
3. Protect transport and utility staff, passengers, and consumers
4. Ensure health monitoring systems in place
5. Provide necessary financial support to consumers and utilities

PHASE 2: RECOVERY

3 months → 12 months

1. Monitor, evaluate and review
2. Implement preventive and precautionary operating measures as restrictions ease
3. Introduce advanced technology for contactless systems and agile response
4. Identify fiscal sustainability measures

PHASE 3: ADAPTATION

1 year onwards →

1. Mainstream measures as part of overall pandemic resilient response
2. Sustainable transport and energy systems revived, modernized, and better prepared to respond to future pandemic/disaster

Note:
- Durations of each phase is indicative.
- Preparation of each activity should commence ahead of implemented.
- In case of repeated wave of transmissions, countries may fall back to earlier phases and the process repeats.

Forward-looking ADB Support

- Preparing infrastructure investments
  - Shovel-ready jobs support return to full employment
  - Ensuring alignment with revised projections
- Health-impact and safety studies
  - Appropriate measures for safe public transport
  - Maintaining safe indoor air quality for returns to office
- Knowledge support and policy dialogue
  - Measures to jointly achieve clean air and climate benefits
  - Utility sustainability with consideration of tariff structure and subsidies
  - Assessing the impact of a “new normal” on transport needs and choices
  - Supporting robust supply chains for energy
  - Security of energy supply through modernization, digitization, and regional cooperation

Northeast Asia Power System Interconnection (NAPSI)

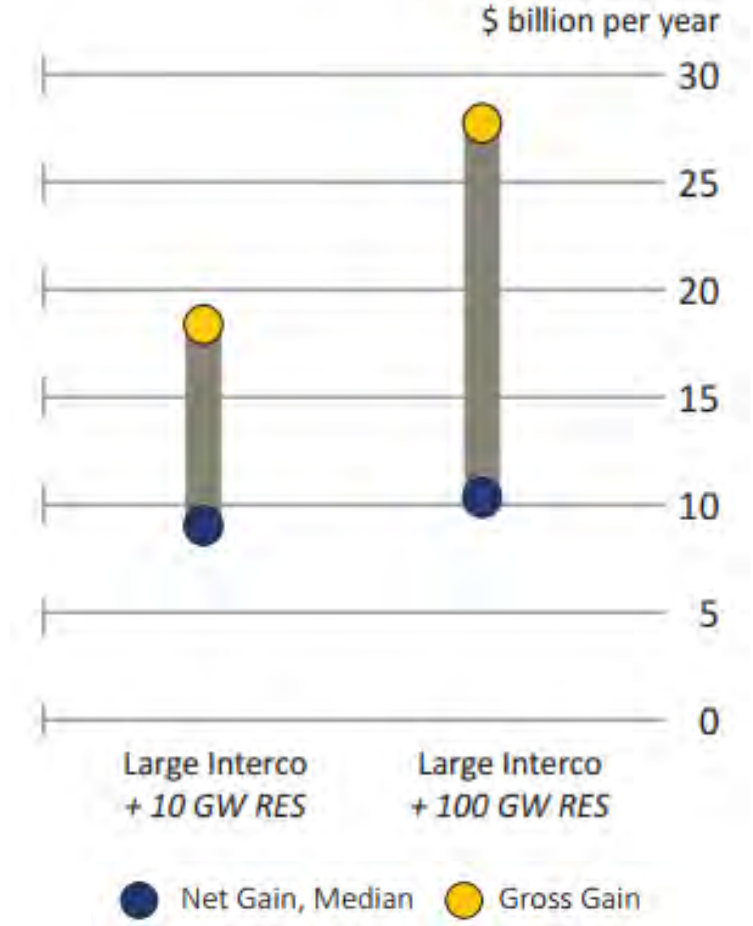
NAPSI is a concept to interconnect all Northeast Asian Power Systems with a focus on renewable energy to maximize:

- Economic opportunity
  - Renewable targets in all countries
  - Varying land availability and renewable resource quality
  - Optimize generation fleet across region
- System resilience
  - Larger balancing areas and mix of generation sources
  - Provides flexibility to manage variability
- Shared goals and shared solutions: reduced CO_2 and other pollutants

NAPSI TA

- ADB Technical Assistance to develop power system scenarios from 2016-2036 considering:
  - Electricity market analysis for Northeast Asia countries
  - Wind and solar potential assessment of Mongolia
  - Transmission and grid development for Northeast Asia interconnection

- Study evaluated least-cost system expansion
  - Isolated
  - Integrated



Net gain: savings from reduced generation costs compared to isolated grid case – transmission interconnection costs

Gross gain: net gain + value of CO_2 savings at $30/ton

The technical assistance was co-financed by the Climate Change Fund, the Republic of Korea e-Asa and Knowledge Partnership Fund, and the People's Republic of China Poverty reduction and Regional Cooperation Fund.

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NAPSI Next Steps

- Remaining barriers
  - Unharmonized regulatory regimes
  - Energy independence aspirations
- Next steps
  - Continued regional dialogue
  - More granular assessment of economic benefits and impacts (national and subnational)
  - Pursue step-wise development
    - Gobi renewable development
    - Gobi – PRC interconnection
    - PRC – Korea interconnection

Thank you

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