The views expressed in this presentation are the views of the author/s and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy of the data included in this presentation and accepts no responsibility for any consequence of their use. The countries listed in this presentation do not imply any view on ADB's part as to sovereignty or independent status or necessarily conform to ADB's terminology.

Investing in Governance Infrastructure in Asia : Vision for a Post-Pandemic Future

Dilip Mookherjee

Boston University

Keynote Lecture: ADB Governance Forum October 25, 2021

< ロ > < 同 > < 回 > < 回 > < 回 >

Introduction

- As the Covid-19 pandemic (hopefully) comes under control, developing countries face new challenges as well as many pre-existing problems
- It is a fruitful time to re-assess development policy priorities

- 4 回 ト 4 ヨ ト 4 ヨ ト

Introduction

- As the Covid-19 pandemic (hopefully) comes under control, developing countries face new challenges as well as many pre-existing problems
- It is a fruitful time to re-assess development policy priorities
- For an organization such as the ADB, the question is which areas to focus on in the next decade

▲ □ ▶ ▲ □ ▶ ▲ □ ▶

Introduction

- As the Covid-19 pandemic (hopefully) comes under control, developing countries face new challenges as well as many pre-existing problems
- It is a fruitful time to re-assess development policy priorities
- For an organization such as the ADB, the question is which areas to focus on in the next decade
- In this lecture, I shall suggest areas where external assistance is likely to be most beneficial, based on recent research findings

Introduction, contd.

• Investing in infrastructure requires a suitable **notion** of infrastructure, and an understanding of the **process** by which effective infrastructure investments take place

< □ > < □ > < □ > < □ > < □ > < □ >

Introduction, contd.

• Investing in infrastructure requires a suitable **notion** of infrastructure, and an understanding of the **process** by which effective infrastructure investments take place

Notion of Infrastructure:

• Wider than physical infrastructure? Include human capital investments? Social protection mechanisms? (Witness debates in the US between rival political parties)

< ロ > < 同 > < 回 > < 回 > < 回 > <

Introduction, contd.

• Investing in infrastructure requires a suitable **notion** of infrastructure, and an understanding of the **process** by which effective infrastructure investments take place

Notion of Infrastructure:

• Wider than physical infrastructure? Include human capital investments? Social protection mechanisms? (Witness debates in the US between rival political parties)

• Process of Investing in Infrastructure:

- Investments are ultimately implemented by host country governments
- Information and accountability mechanisms of governance determine actual investments and their effectiveness

イロト 不得 トイヨト イヨト 二日

Investing in Governance Infrastructure

- For external assistance agencies such as the ADB, it therefore makes sense to invest in underlying **governance infrastructure** that enhance information support systems and accountability of local decision makers
- Which in turn determines actual investments in physical and social infrastructure and how effective they are

Investing in Governance Infrastructure

- For external assistance agencies such as the ADB, it therefore makes sense to invest in underlying **governance infrastructure** that enhance information support systems and accountability of local decision makers
- Which in turn determines actual investments in physical and social infrastructure and how effective they are
- I suggest specific programs in four different areas
 - agriculture
 - social protection
 - urban governance
 - sustainable development

Qualifications

- What follows is a 'wish-list' based mainly on recent academic research
- Almost everyone else here has more practical, on-the-ground experience than me

(日) (四) (日) (日) (日)

Qualifications

- What follows is a 'wish-list' based mainly on recent academic research
- Almost everyone else here has more practical, on-the-ground experience than me
- My research and observations are largely based on India, China and other countries in the South Asia region

A (10) A (10)

• Land records are in poor state in many countries such as Bangladesh (Raihan et al 2020) and India (Deininger 2008, Bardhan-Mookherjee 2010)

< □ > < □ > < □ > < □ > < □ > < □ >

- Land records are in poor state in many countries such as Bangladesh (Raihan et al 2020) and India (Deininger 2008, Bardhan-Mookherjee 2010)
- Paper records by plot stored in land records offices based on outdated cadastral surveys,

- 4 回 ト 4 三 ト 4 三 ト

- Land records are in poor state in many countries such as Bangladesh (Raihan et al 2020) and India (Deininger 2008, Bardhan-Mookherjee 2010)
- Paper records by plot stored in land records offices based on outdated cadastral surveys, rather than computerized data organized by plot and household and updated land quality details

< ロ > < 同 > < 回 > < 回 > < 回 > <

- Land records are in poor state in many countries such as Bangladesh (Raihan et al 2020) and India (Deininger 2008, Bardhan-Mookherjee 2010)
- Paper records by plot stored in land records offices based on outdated cadastral surveys, rather than computerized data organized by plot and household and updated land quality details
- Computerized records should be accurate, tamper-proof, instantly accessible by multiple users

イロト 不得 トイヨト イヨト 二日

1A. Agricultural Land Records, contd.

• Ease of access and credibility of information promotes *market efficiency:* by reducing corruption, conflict, enhancing property rights, activating land markets, and credit access based on land collateral

- 4 回 ト 4 ヨ ト 4 ヨ ト

1A. Agricultural Land Records, contd.

- Ease of access and credibility of information promotes *market efficiency:* by reducing corruption, conflict, enhancing property rights, activating land markets, and credit access based on land collateral
- Equally important in enhancing *state capacity:* tax administration, targeting of social protection and anti-poverty programs, all of which require assessments and valuation of assets owned at the household/individual level

1A. Agricultural Land Records, contd.

- Ease of access and credibility of information promotes *market efficiency:* by reducing corruption, conflict, enhancing property rights, activating land markets, and credit access based on land collateral
- Equally important in enhancing *state capacity:* tax administration, targeting of social protection and anti-poverty programs, all of which require assessments and valuation of assets owned at the household/individual level
- **Need for:** *diffusion of best practices and assistance in modernizing land records*

イロト イボト イヨト イヨト

1B. Agricultural R&D and Extension Services:

- Rice yields in PRC are at least twice as high as India, mainly owing to its successful R&D program in hybrid rice going back to mid-1960s (Khush 2013, Singh et al 2015)
- Single most important source of differences in agricultural productivity in rice-growing areas within PRC (Yu 2012)

< □ > < □ > < □ > < □ > < □ > < □ >

1B. Agricultural R&D and Extension Services:

- Rice yields in PRC are at least twice as high as India, mainly owing to its successful R&D program in hybrid rice going back to mid-1960s (Khush 2013, Singh et al 2015)
- Single most important source of differences in agricultural productivity in rice-growing areas within PRC (Yu 2012)
- Apart from research, diffusion of hybrid rice varieties varies between India (4% rice area) and PRC (50% area), owing to relative cost and accessibility of related seeds and fertilizers (Singh et al 2015)

1B. Agricultural R&D and Extension Services:

- Rice yields in PRC are at least twice as high as India, mainly owing to its successful R&D program in hybrid rice going back to mid-1960s (Khush 2013, Singh et al 2015)
- Single most important source of differences in agricultural productivity in rice-growing areas within PRC (Yu 2012)
- Apart from research, diffusion of hybrid rice varieties varies between India (4% rice area) and PRC (50% area), owing to relative cost and accessibility of related seeds and fertilizers (Singh et al 2015)
- **Need for:** Asia-wide initiative for coordinating agricultural research and diffusion efforts

イロト 不得 トイラト イラト 一日

• Clear economic argument for including mechanisms for human capital development as part of broader notion of infrastructure: just as important as physical infrastructure

- 4 回 ト 4 ヨ ト 4 ヨ ト

- Clear economic argument for including mechanisms for human capital development as part of broader notion of infrastructure: just as important as physical infrastructure
- Growth and equity requires suitable investments in human capital by households vulnerable to poverty and risk (growing evidence of importance of early childhood investments in maternal care, child nutrition, learning)

医静脉 医原体 医原体

- Clear economic argument for including mechanisms for human capital development as part of broader notion of infrastructure: just as important as physical infrastructure
- Growth and equity requires suitable investments in human capital by households vulnerable to poverty and risk (growing evidence of importance of early childhood investments in maternal care, child nutrition, learning)
- Covid-19 pandemic and key problem of *contagion* highlights the need for equalizing access to public health information and services to all sections of society

イロト 不得 トイヨト イヨト 二日

- Clear economic argument for including mechanisms for human capital development as part of broader notion of infrastructure: just as important as physical infrastructure
- Growth and equity requires suitable investments in human capital by households vulnerable to poverty and risk (growing evidence of importance of early childhood investments in maternal care, child nutrition, learning)
- Covid-19 pandemic and key problem of *contagion* highlights the need for equalizing access to public health information and services to all sections of society
- However, key problem of targeting of anti-poverty and social protection mechanisms

DM (BU)

2021

- Existing mechanisms in many Asian countries are beset with 3C problems:
 - corruption (Indonesia (Olken 2007))
 - capture (Thailand (Vera Cossio 2020))
 - **clientelism** (India (Bardhan et al 2020)) and vote-buying (Philippines (Khemani 2015))

< □ > < □ > < □ > < □ > < □ > < □ >

- Existing mechanisms in many Asian countries are beset with 3C problems:
 - corruption (Indonesia (Olken 2007))
 - capture (Thailand (Vera Cossio 2020))
 - **clientelism** (India (Bardhan et al 2020)) and vote-buying (Philippines (Khemani 2015))
- Key difficulty arises from:
 - lack of reliable information system regarding distribution of actual need across local areas and households, implying formula based transfers would not target effectively (Mookherjee-Nath 2020)
 - **financial exclusion** of vulnerable groups that bypass intermediaries (making direct transfers infeasible)

イロト 不得 トイラト イラト 一日

2A. 'Need' Information Systems and Financial Development

• This in turn implies that central governments have no option but to delegate distribution to bureaucrats and local government officials with limited oversight, thus generating the 3Cs

- 4 回 ト 4 ヨ ト 4 ヨ ト

2A. 'Need' Information Systems and Financial Development

- This in turn implies that central governments have no option but to delegate distribution to bureaucrats and local government officials with limited oversight, thus generating the 3Cs
- Recent moves towards formula bound assistance programs in Indonesia (Olken et al 2020) and Pakistan (Haseeb and Vyborny 2021) based on enhanced state information systems show marked improvements in targeting

(4) (日本)

2A. 'Need' Information Systems and Financial Development

- This in turn implies that central governments have no option but to delegate distribution to bureaucrats and local government officials with limited oversight, thus generating the 3Cs
- Recent moves towards formula bound assistance programs in Indonesia (Olken et al 2020) and Pakistan (Haseeb and Vyborny 2021) based on enhanced state information systems show marked improvements in targeting
- Need for: (a) Reliable information system regarding assets and needs of households and local areas; (b) spread of financial literacy and access to mobile or bank-based direct transfers

2B. Migrant Workers: Nation-wide Identification and Entitlement Mechanisms

- Covid-19 crisis vividly illustrated the plight of large number of migrant workers trapped in urban areas, desperate to return to their village homes
- Owing to lack of access to health and social protection for migrants in cities

- 4 回 ト - 4 三 ト

2B. Migrant Workers: Nation-wide Identification and Entitlement Mechanisms

- Covid-19 crisis vividly illustrated the plight of large number of migrant workers trapped in urban areas, desperate to return to their village homes
- Owing to lack of access to health and social protection for migrants in cities
- Reflects big gap in identification and entitlement mechanisms which are based on principal residence of households
- Provision of temporary shelter and transport back was a major logistical problem for governments
- Also contributed to spread of the disease to rural areas

2B. Migrant Worker Programs: Structural Transformation

• Faster growth via structural transformation requires large reallocation of labor from rural to urban areas where it is more productive (Gollin et al 2014)

- 4 回 ト - 4 三 ト

2B. Migrant Worker Programs: Structural Transformation

- Faster growth via structural transformation requires large reallocation of labor from rural to urban areas where it is more productive (Gollin et al 2014)
- Recent research indicates importance of non-pecuniary disincentives (Bangladesh experiment: Lagakos et al 2020) and informational barriers (Kenya: Baseler 2021) for migration

・ 何 ト ・ ヨ ト ・ ヨ ト

2B. Migrant Worker Programs: Structural Transformation

- Faster growth via structural transformation requires large reallocation of labor from rural to urban areas where it is more productive (Gollin et al 2014)
- Recent research indicates importance of non-pecuniary disincentives (Bangladesh experiment: Lagakos et al 2020) and informational barriers (Kenya: Baseler 2021) for migration
- Need for: (a) nationwide identification and social protection programs (b) job market information and matching with potential employers (c) subsidized Decentralized Urban Employment and Training (DUET) programs (Dreze 2020)

イロト 不得 トイラト イラト 一日

3. Urban Governance

- Faster rates of urbanization and industrialization in PRC compared to India associated with large differences in spending on urban infrastructure (over 4% of GDP versus less than 1%) and corresponding nature of city government, specifically:
 - Fiscal Capacity and Autonomy: high and increasing reliance on local taxes and extra budgetary financing mechanisms (rather than grants from upper tiers of government) (Song 2013)

・ ロ ト ・ 同 ト ・ 三 ト ・ 三 ト

3. Urban Governance

- Faster rates of urbanization and industrialization in PRC compared to India associated with large differences in spending on urban infrastructure (over 4% of GDP versus less than 1%) and corresponding nature of city government, specifically:
 - Fiscal Capacity and Autonomy: high and increasing reliance on local taxes and extra budgetary financing mechanisms (rather than grants from upper tiers of government) (Song 2013)
 - Organizational effectiveness: appears to be lower in India, owing to multiplicity of (local-state-national-parastatal) government agencies involved with overlapping jurisdictions (Banerji et al 2013)

イロト イヨト イヨト ・

3. Urban Governance

- Faster rates of urbanization and industrialization in PRC compared to India associated with large differences in spending on urban infrastructure (over 4% of GDP versus less than 1%) and corresponding nature of city government, specifically:
 - Fiscal Capacity and Autonomy: high and increasing reliance on local taxes and extra budgetary financing mechanisms (rather than grants from upper tiers of government) (Song 2013)
 - Organizational effectiveness: appears to be lower in India, owing to multiplicity of (local-state-national-parastatal) government agencies involved with overlapping jurisdictions (Banerji et al 2013)
 - Leader Selection and Accountability: performance-driven selection and promotion mechanisms for city mayors in PRC (Yao and Zhang 2015, Chen, Li and Yu 2018)
- However, more systematic research and policy experimentation is needed

- 3. Urban Governance, contd.
 - **Need for:** research, advice, diffusion of best practices for urban governance:
 - Enhancing Fiscal Capacity: enhancing property tax assessment and collection mechanisms, designing and implementing infrastructure benefit-based charges (e.g., land auctions for developers)

▲ □ ▶ ▲ □ ▶ ▲ □ ▶

3. Urban Governance, contd.

- **Need for:** research, advice, diffusion of best practices for urban governance:
- Enhancing Fiscal Capacity: enhancing property tax assessment and collection mechanisms, designing and implementing infrastructure benefit-based charges (e.g., land auctions for developers)
- Land Acquisition and Compensation: designing mechanisms for adequate compensation from owners of acquired land (which will benefit from improving land records (Ghatak et al 2014))

3. Urban Governance, contd.

- **Need for:** research, advice, diffusion of best practices for urban governance:
- Enhancing Fiscal Capacity: enhancing property tax assessment and collection mechanisms, designing and implementing infrastructure benefit-based charges (e.g., land auctions for developers)
- Land Acquisition and Compensation: designing mechanisms for adequate compensation from owners of acquired land (which will benefit from improving land records (Ghatak et al 2014))
- Enhancing Organizational Effectiveness: limiting multiplicity of principals, redesigning allocation of responsibilities

イロト 不良 トイヨト イヨト

3. Urban Governance, contd.

- **Need for:** research, advice, diffusion of best practices for urban governance:
- Enhancing Fiscal Capacity: enhancing property tax assessment and collection mechanisms, designing and implementing infrastructure benefit-based charges (e.g., land auctions for developers)
- Land Acquisition and Compensation: designing mechanisms for adequate compensation from owners of acquired land (which will benefit from improving land records (Ghatak et al 2014))
- Enhancing Organizational Effectiveness: limiting multiplicity of principals, redesigning allocation of responsibilities
- Enhancing Accountability of Leaders: oversight and information mechanisms (e.g., utility regulators, citizen councils, citizen report cards)

- Growing problems of pollution, environmental degradation and climate change
- Need for:
 - Enhanced control mechanisms: for air and water pollution, requiring pollution measurement and enforcement mechanisms (e.g., third party audits (India; Greenstone et al 2013)), citizen complaints via social media (PRC; Buntaine et al 2021)

- 4 回 ト 4 ヨ ト 4 ヨ ト

• Growing problems of pollution, environmental degradation and climate change

Need for:

- Enhanced control mechanisms: for air and water pollution, requiring pollution measurement and enforcement mechanisms (e.g., third party audits (India; Greenstone et al 2013)), citizen complaints via social media (PRC; Buntaine et al 2021)
- Clean energy substitutes: R&D, diffusion of new technologies in solar and wind energy, low carbon fuels

イロト イヨト イヨト ・

• Growing problems of pollution, environmental degradation and climate change

Need for:

- Enhanced control mechanisms: for air and water pollution, requiring pollution measurement and enforcement mechanisms (e.g., third party audits (India; Greenstone et al 2013)), citizen complaints via social media (PRC; Buntaine et al 2021)
- Clean energy substitutes: R&D, diffusion of new technologies in solar and wind energy, low carbon fuels
- *Reforestation and Watershed Development:* in areas subject to deforestation and increased water scarcity, based on active involvement of local communities

• Growing problems of pollution, environmental degradation and climate change

Need for:

- Enhanced control mechanisms: for air and water pollution, requiring pollution measurement and enforcement mechanisms (e.g., third party audits (India; Greenstone et al 2013)), citizen complaints via social media (PRC; Buntaine et al 2021)
- *Clean energy substitutes:* R&D, diffusion of new technologies in solar and wind energy, low carbon fuels
- *Reforestation and Watershed Development:* in areas subject to deforestation and increased water scarcity, based on active involvement of local communities
- Restricting Coastal Damage and Enhanced Adaptation mechanisms: restoration of coasts, reefs and mangroves; crop and livelihood adaptation to rising sea water levels; resettlement of vulnerable coastal communities

DM (BU)

Conclusion

- This is a long wish-list, based on academic research and personal observations
- ADB may already have many ongoing programs in these areas, which ought to be renewed

< □ > < □ > < □ > < □ > < □ > < □ >

Conclusion

- This is a long wish-list, based on academic research and personal observations
- ADB may already have many ongoing programs in these areas, which ought to be renewed
- And in areas that are not currently covered, I hope you will consider including these
- Thank you very much for your attention!

▲ □ ▶ ▲ □ ▶ ▲ □ ▶