



Affordable infrastructure is inclusive infrastructure



Steven Hong, November 2019

WHAT I WILL COVER TODAY

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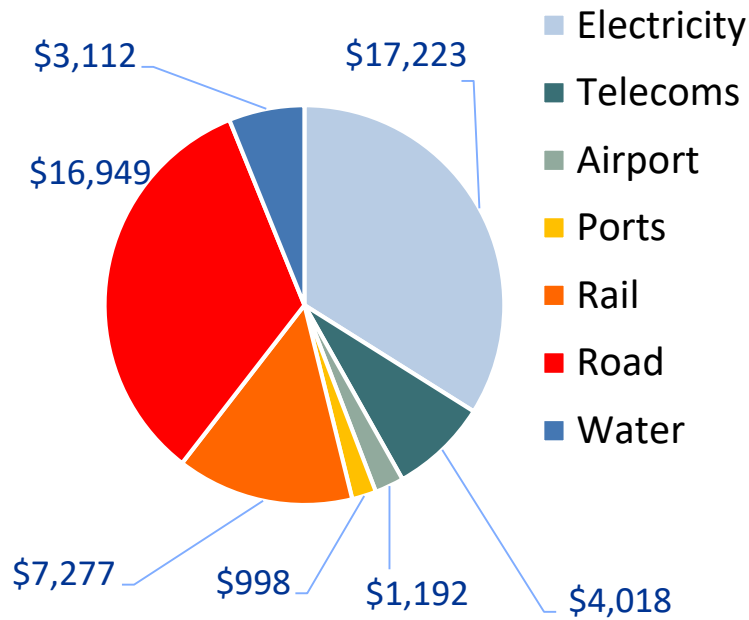
Castalia – a global infrastructure advisory boutique

- **Independent, international economic and financial** advisory firm with broad experience in energy, transport, water, and telecoms
- Global team of >70 professionals is based in **Washington D.C., New York, Sydney, Wellington, Paris, and Bogotá**
- Global firm with local presence and knowledge, **offering unbiased, objective advice**
- We apply our **real world, practical, market-tested** knowledge of infrastructure to help our clients identify deals, make sound financial decisions and manage project risks



Need for more inclusive infrastructure

\$US 51 trn infrastructure investment needed by 2040 in Asia



Source: Global Infrastructure Hub

Needs to be met inclusively



21% growth in signatories 2018



40% growth in asset coverage 2019



96 signatories in 6 months

Source: UN PRI, GRESB, IFC

Private investors recognize they have a role

“IFM Investors has continued to focus on environmental, social and governance issues. We recognise the need to deliver strong long-term returns to members in a manner that **builds our social license and meets the expectations of communities globally**”

- Brett Himbury, CEO of IFM Investors

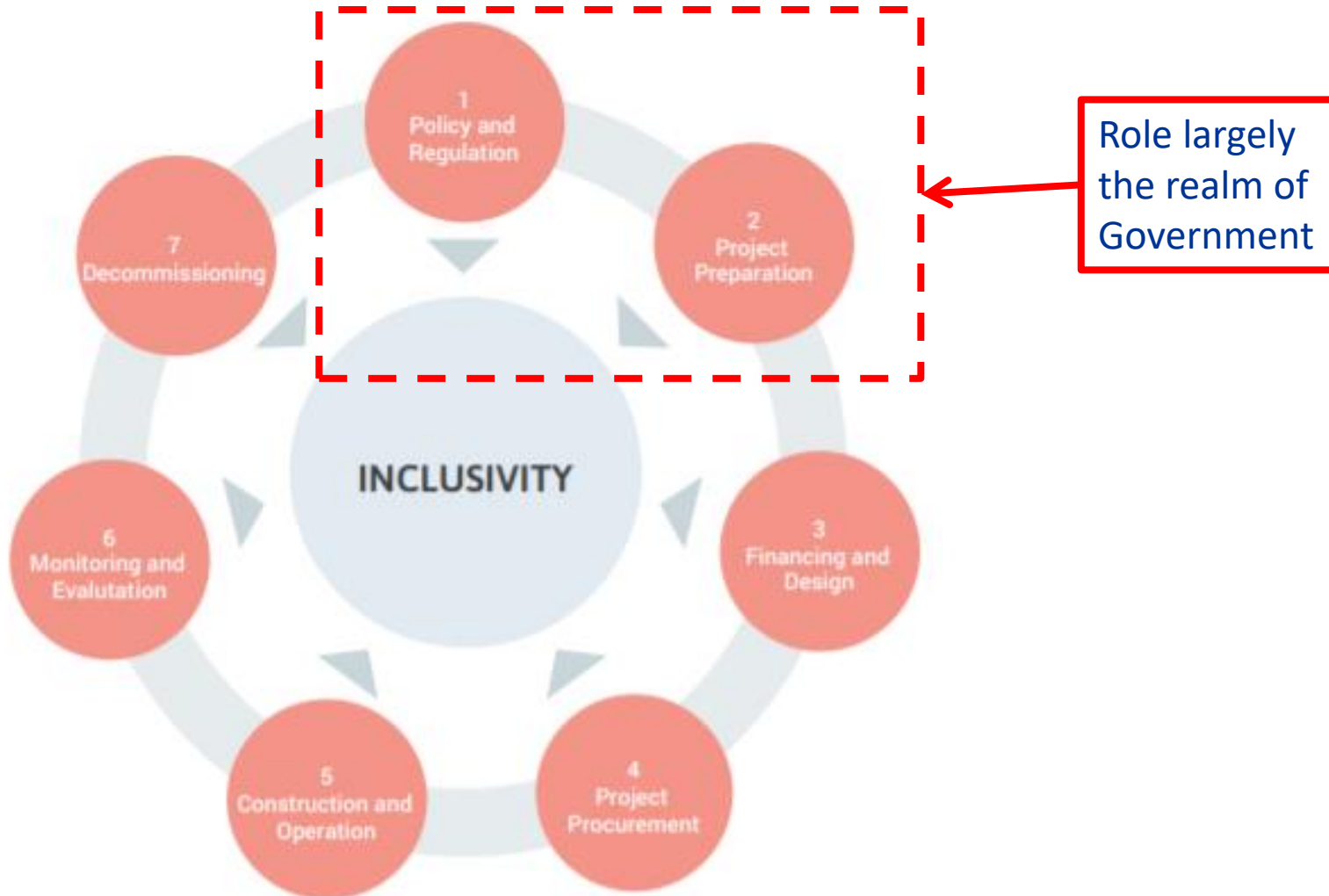
...and are responding to that challenge...

Example of social inclusion at Sydney Airport



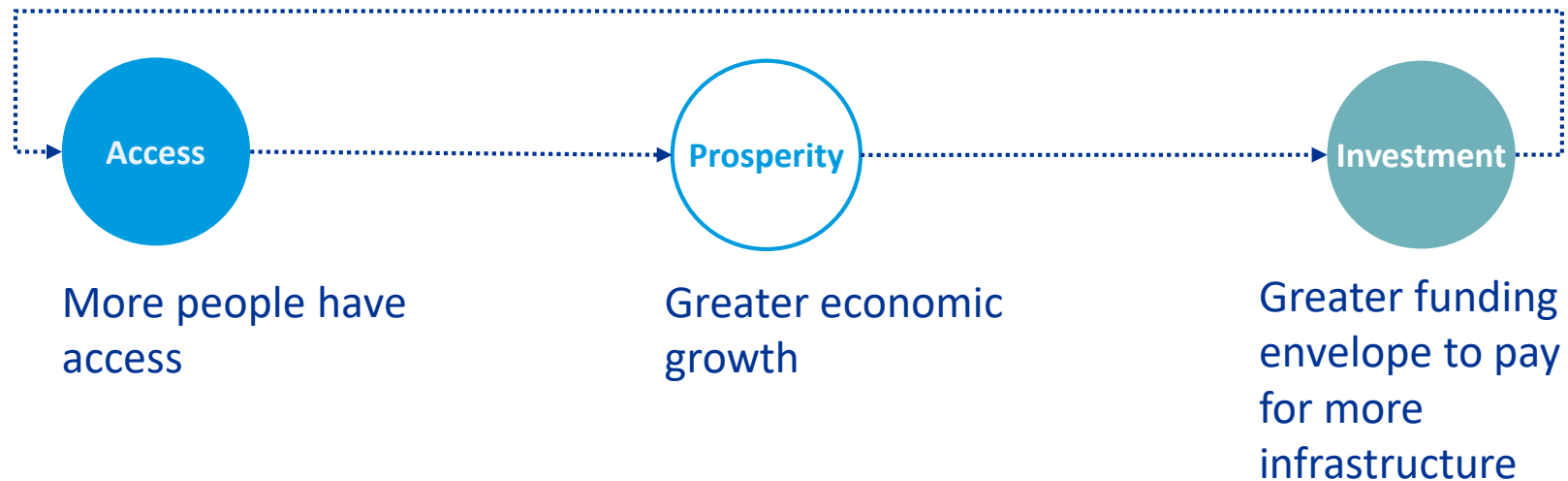
...but inclusiveness largely led by Government

Project development cycle to incorporate inclusive infrastructure



Affordability as a way to address inclusiveness

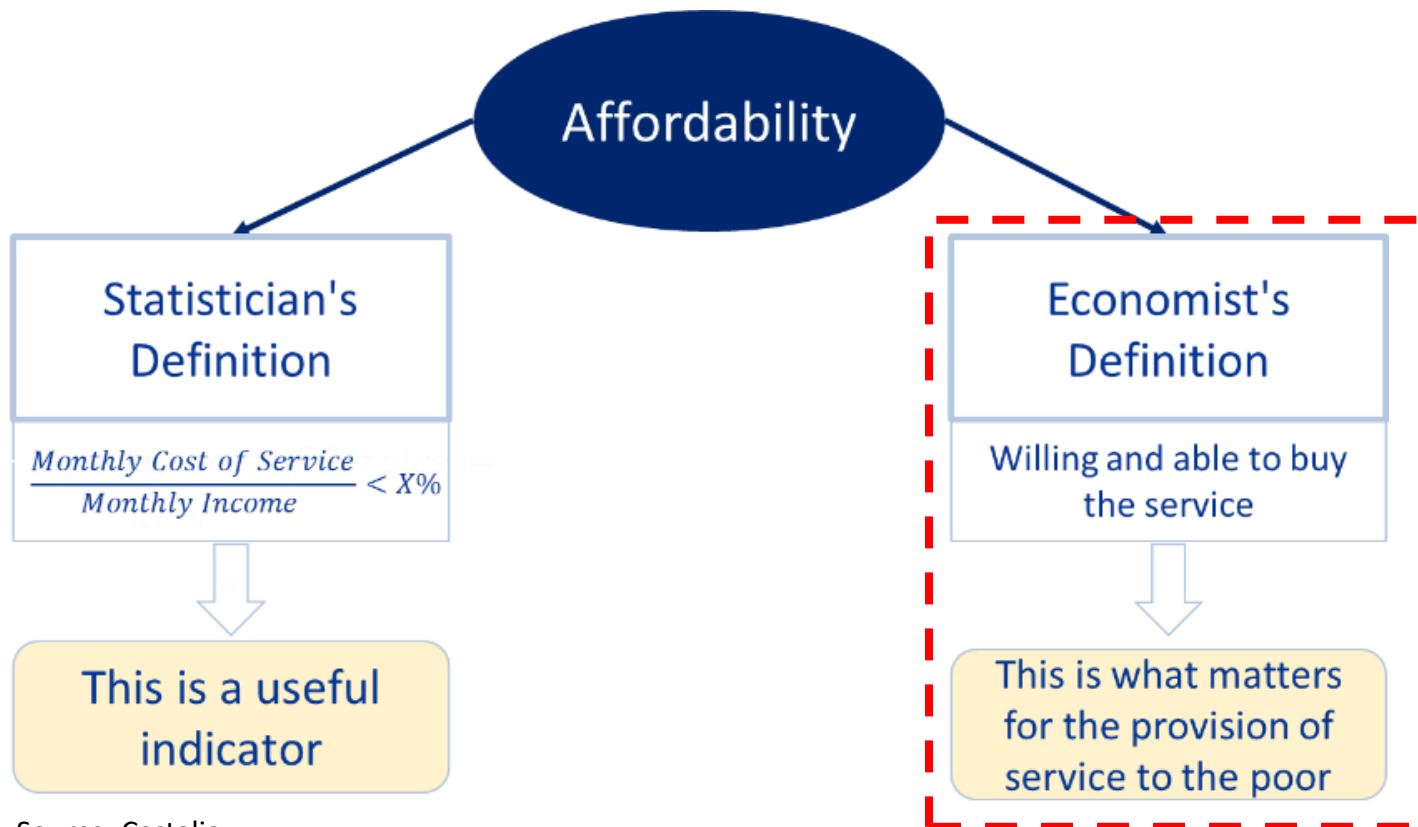
- Unfortunately usual forms of infrastructure development does not serve everyone (eg: toll roads)
- Affordable infrastructure promotes virtuous cycle



- Key question – how?

A different way to think of affordability

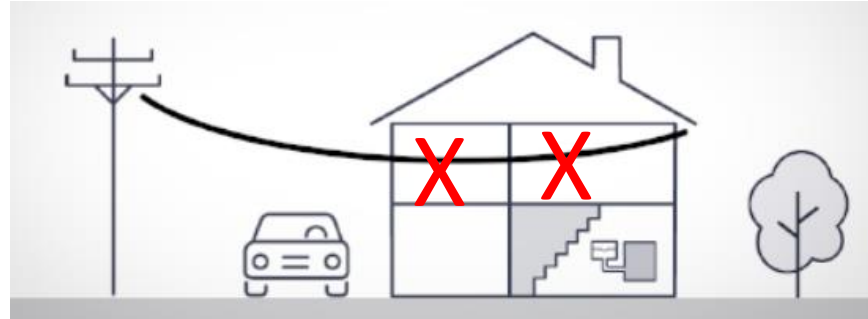
Willing and able to purchase, without financial difficulties



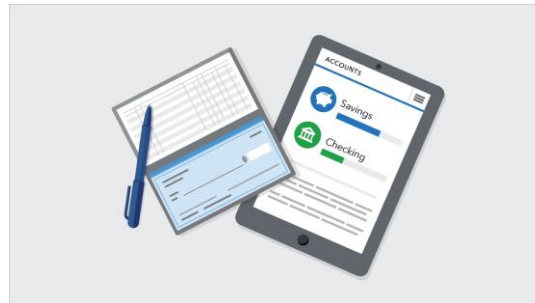
Source: Castalia

Why is the distinction important?

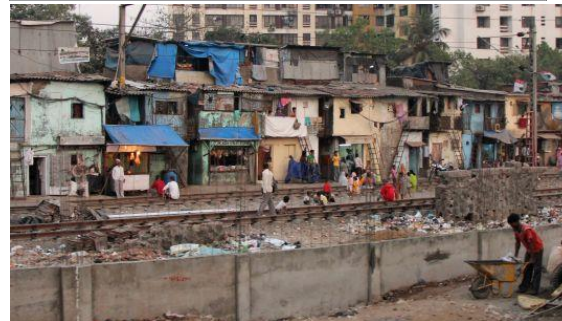
1 Lack of internal cabling



2 No bank account



3 No physical address



Source: Castalia

Strategies to support affordability

1. Matching service to needs and ability to pay

2. Minimising cost of service

3. Finance / lower up-front costs of connection paid by poor users

4. Use Gov't or donor resource to reduce charges

Source: Castalia

Strategies to support affordability

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Source: Castalia

Example:

Clean and safe water provision

There are 2 service options

Water pipe



\$\$\$

Clean well



\$

Which one to choose?

A clean well might be enough

Strategies to support affordability

1. Matching service to needs and ability to pay

2. Minimising cost of service

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Competitive bidding

Ensure least-cost option



Competent and experienced developers

Reduce development delays and cost overruns



Put incentives to reduce O&M expenses



Limit transferring O&M expenses to higher prices for end-users



Ensure lowest possible cost of capital by using credit enhancement

Source: Castalia

Strategies to support affordability

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Source: Castalia

Example:

Electricity grid connection



Some options:



Pay as you go



Spread cost over time



Lower technical specifications



Subsidy / Targeted grants

Strategies to support affordability

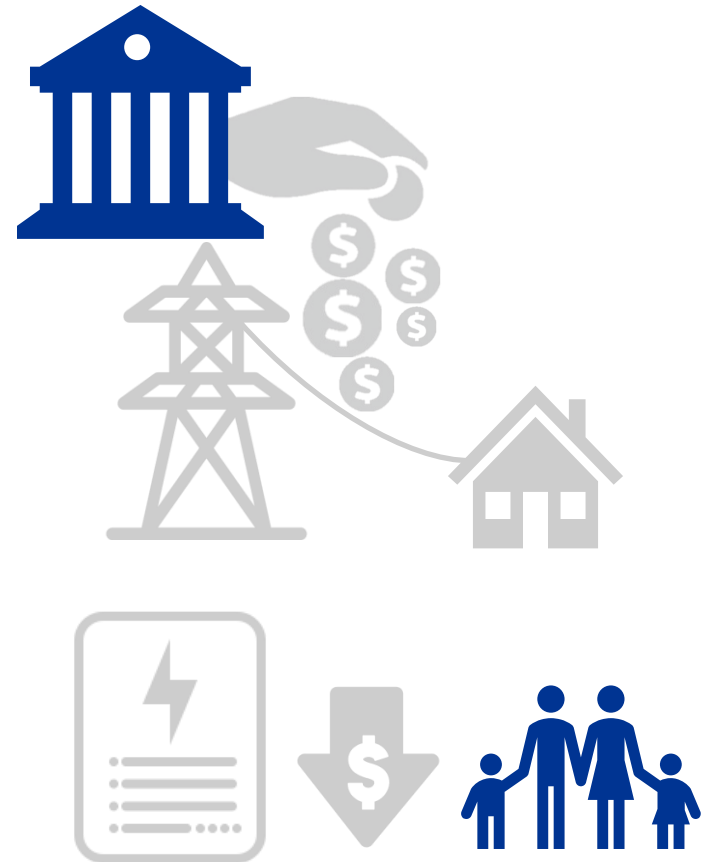
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Example: Targeted grants



Source: Castalia

Relevance to PPPs?

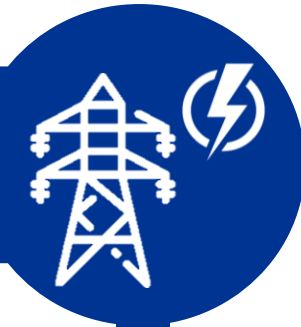
- Sustainability and inclusivity heavily relies on project design
- Early market sounding, hence participation of private sector, can help develop innovation in design
- Rely on private sector for execution excellence

Unintended consequences in affordability

Context

Utility A

Vertically integrated monopoly and a state-owned enterprise



Government

Gives direction to increase electricity access



Utility A

Charge below cost-recovery tariffs and receive subsidy to make electricity affordable

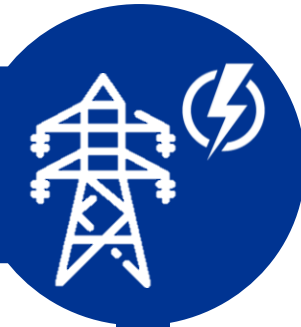


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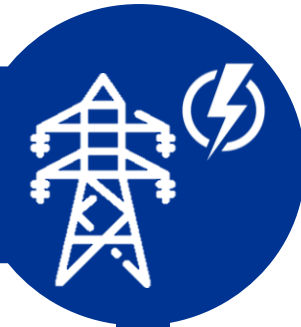
Question

Unintended consequences in affordability

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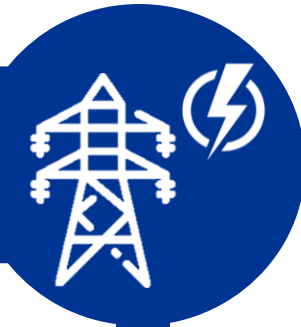
What is the likely outcome?

Unintended consequences in affordability

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Question



What is the likely outcome?



What is the likely response from:



Government



Utility



Household



Financiers

Thank you

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