

Sustainable Public Procurement: seeking “value for money” across the asset life cycle

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November 2019

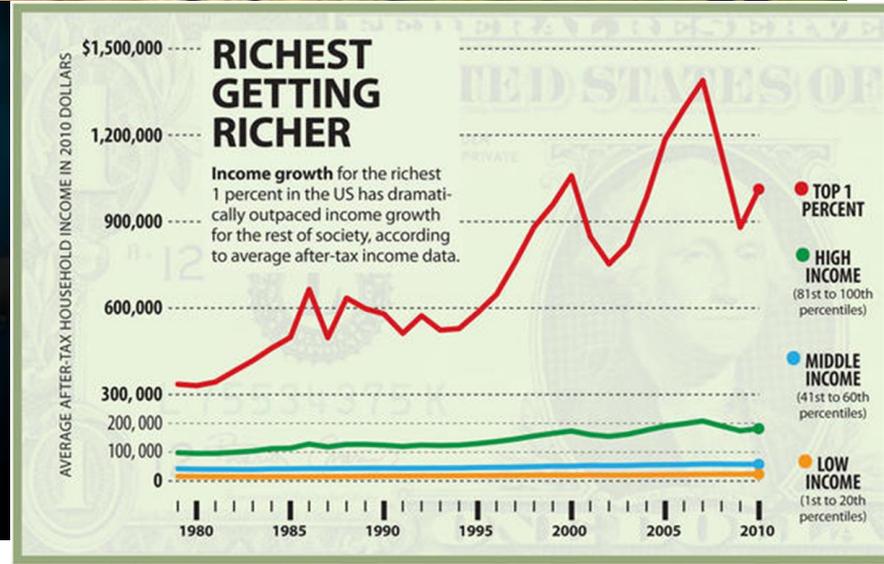
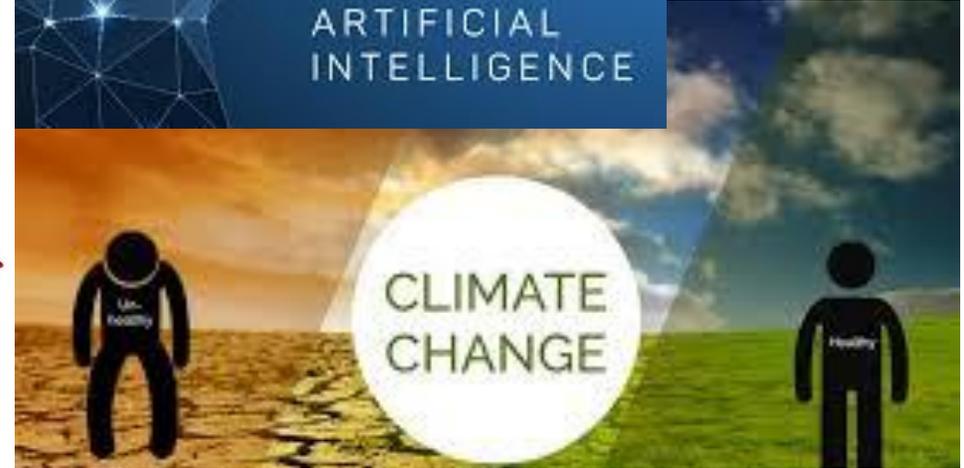


The Economist

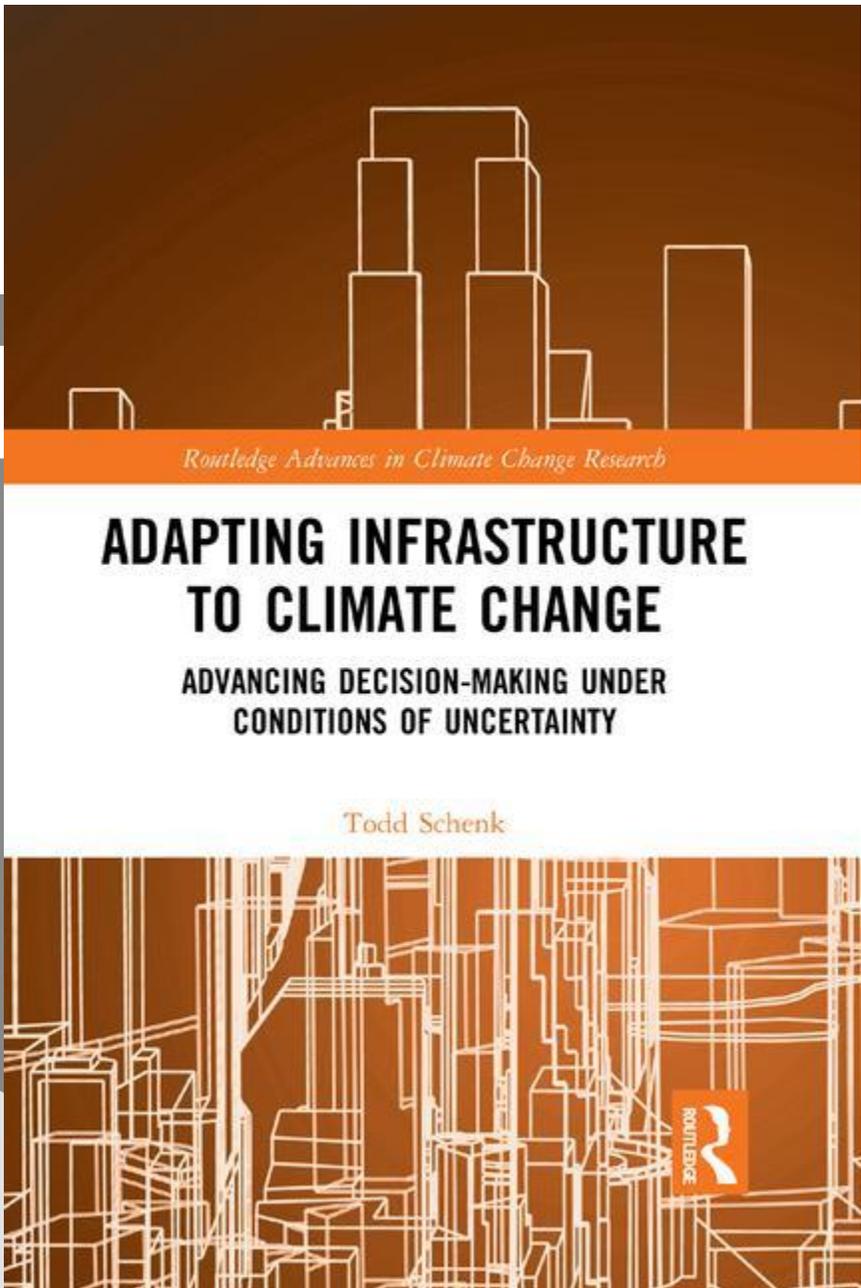
Venezuela erupts
 How to defend Taiwan
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Slowbalisation

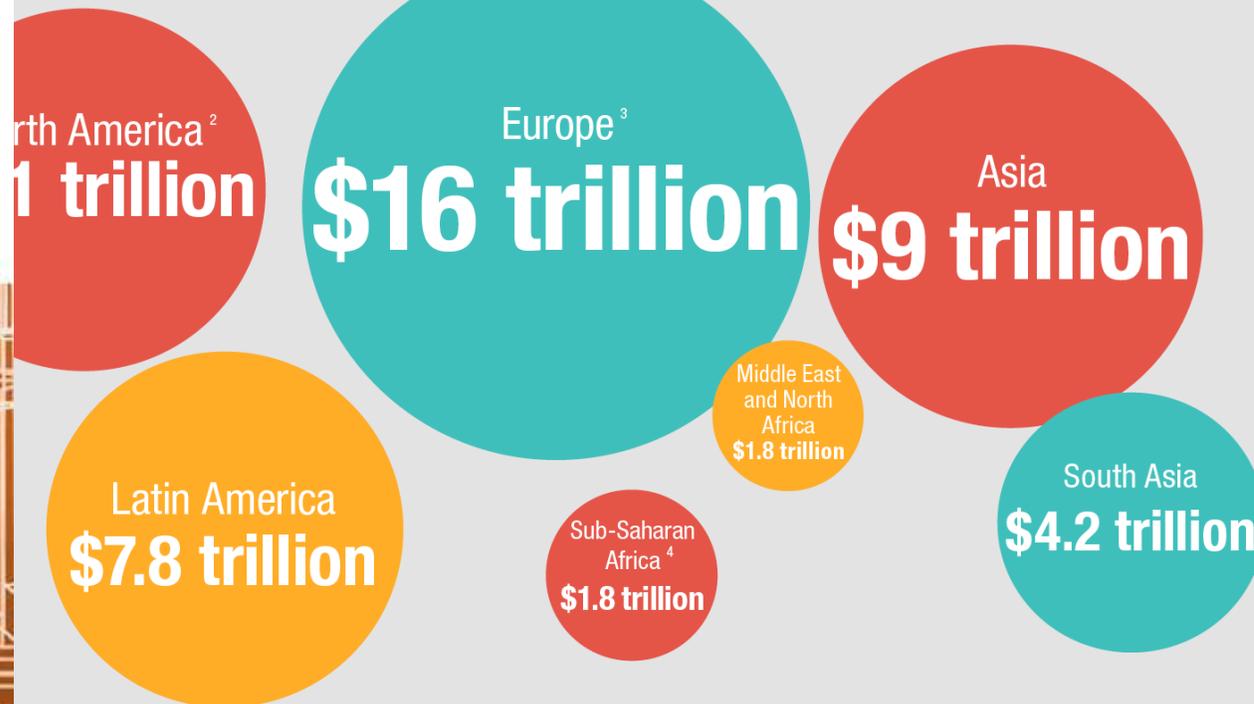
The future of global commerce



Dredging for **SUSTAINABLE INFRASTRUCTURE**



between 2013-2030



² American Society of Civil Engineering: 2013

³ Chatham House: 2014

⁴ Ruiz-Núñez, Wei: 2015



The story of the October 2019 California blackouts

Approximately 350,000 Californians could no longer get property and casualty insurance that also covered fire.

Premiums for Californian property and businesses have risen by 300% to 500%.

In high-risk areas, insurers are increasingly opting not to renew coverage. Since 2015, insurers have dropped more than 340,000 policyholders in fire-prone areas.

Birth of the California's FAIR plan, a state-backed pool of insurers who provide basic coverage for a high price as a last resort.

Story of the October 2019 California blackouts ...

- Rolling blackouts : Pacific Gas & Electric + Southern California Edison, introduced rolling backouts prevent wild-fires as their insurance cover was 'unaffordable'.
- Utility equipment is blamed – powerline can overheat and spark wildfires.
- Investing in microgrids, PV and underground cables are 'too expensive' in financially ailing utilities.

“ Utilities, owned by shareholders that is shifting risk from its own corporate entity to the public. They are shifting risk to individual homes and businesses that lose power and then can't operate”

“Are we now living in a society where fundamental basic services are cut off regularly to protect corporate interests?.”

Reinsurers Retreat?

The Bank of Montreal, which underwrites reinsurance including catastrophe risk exposure through BMO Reinsurance Limited (BMO Re) is to pull-back, citing climate change and inadequate returns.



Opportunities in Sustainable Public Procurement

Total cost of ownership

The quest for blended capital

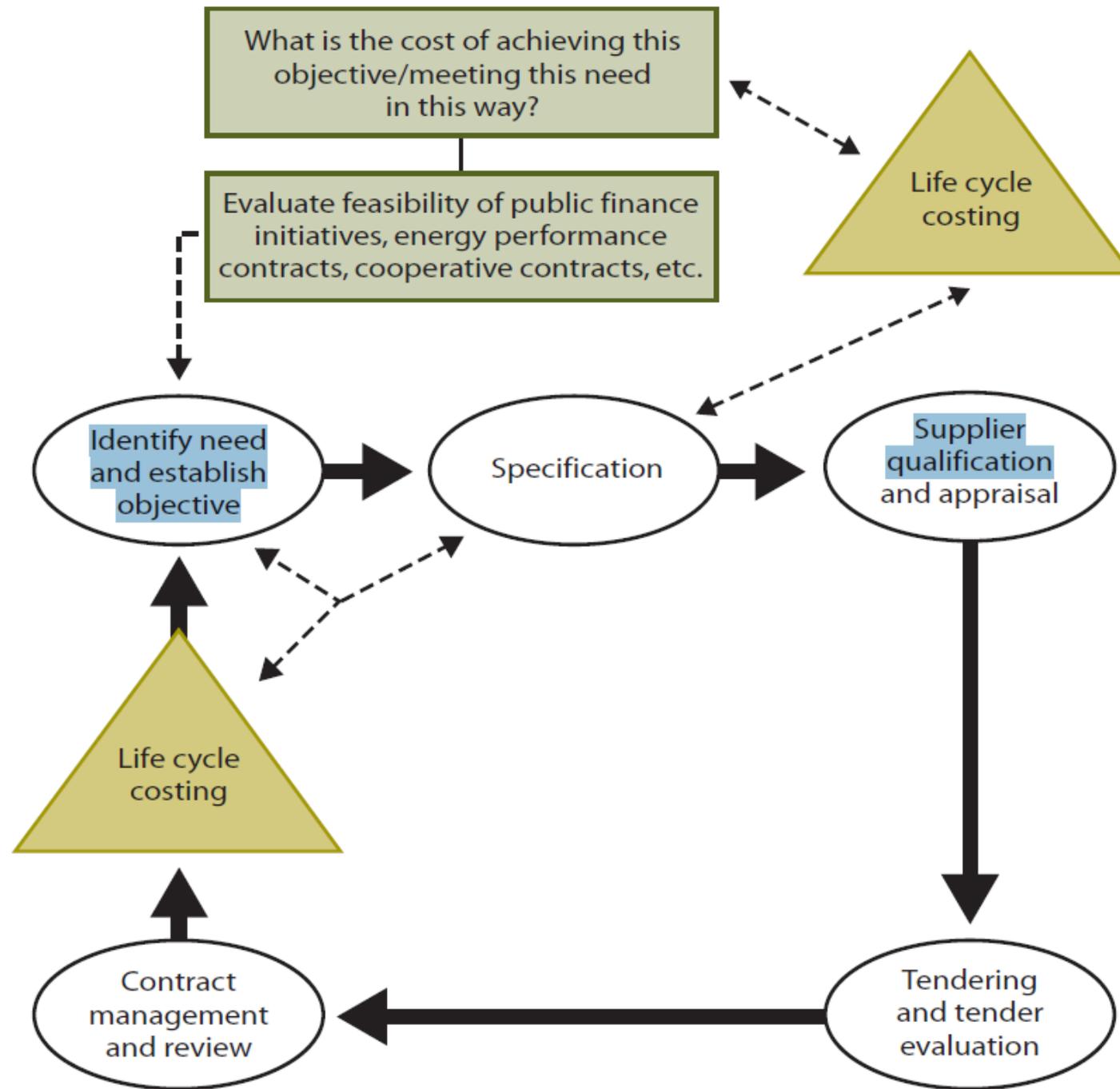
The coming of age in nature-based
solutions

Make investment and procurement decisions that seek value for money across the asset life cycle

The cheapest solution at the point of purchase/procurement means a more expensive asset to hold and manage.

Making investment decisions on the total cost of ownership will help the Dredging industry diversity into nature-based solutions, an important strategy for the world of tomorrow.





Article X (6) on Tender Specifications and Tender Documentation: “For greater certainty, a Party, including its procuring entities, may, in accordance with this Article, prepare, adopt or apply technical specifications to promote the conservation of natural resources or protect the environment.”



Article X (9) on Tender Specifications and Tender Documentation: “The evaluation criteria set out in the notice of intended procurement or tender documentation may include, among others, price and other cost factors, quality, technical merit, environmental characteristics and terms of delivery.”

European Union Public Procurement Directive revised 2016, transposed in national laws in 2016

- Article 67.2 on Contract award criteria states:
 - “The most economically advantageous tender from the point of view of the contracting authority shall be identified on the basis of the price or cost, using a cost effectiveness approach, such as life-cycle costing in accordance with Article 68, and may include the best price quality ratio, which shall be assessed on the basis of criteria, including qualitative, environmental and/or social aspects, linked to the subject-matter of the public contract in question.
 - Such criteria may comprise, for instance:
 - (a) quality, including technical merit, aesthetic and functional characteristics, accessibility, design for all users, social, environmental and innovative characteristics and trading and its conditions;
 - (b) organisation, qualification and experience of staff assigned to performing the contract, where the quality of the staff assigned can have a significant impact on the level of performance of the contract; or
 - (c) after-sales service and technical assistance, delivery conditions such as delivery date, delivery process and delivery period or period of completion.
 - The cost element may also take the form of a fixed price or cost on the basis of which economic operators will compete on quality criteria only.

The quest for Blended Capital

High levels of public debt are driving governments to seek private capital participation in the delivery of public infrastructure.

Rising numbers of private investors are seeking to invest in sustainable projects, with better performance on climate, environment, social and governance aspects.



Innovative Financing Instruments

Debt-based Instruments

- Green Bonds
- Climate bonds
- Blue Bonds
- Social Bonds
- Sustainability bonds
- Sustainability-Linked Loans
- Green Loans

Financial Risk Management Instruments

- Catastrophe Bonds
- Resilience Bonds
- Public private partnerships
- Credit guarantees
- Currency risk hedging

Performance-based Financing Instruments

- Environmental impact bonds
- Social Impact Bonds
- Humanitarian Impact Bonds
- Energy performance contracting
- Carbon crediting and offsetting
- Stormwater markets
- Payment for Ecosystem Services

Adding, Pooling, Enabling Instruments

- Debt for Nature Swaps
- Blended fund: Fund for Land Degradation Neutrality
- Blended investment funds: Ginko 2
- Tax Increment Financing
- Crowdfunding and investment platforms
- Liquidity facility
- Local currency lending
- Securitisation

It will soon be mandatory for financial institutions to report on the climate risks of projects and portfolios.

The Task Force on Climate-Related Disclosures provides the guidance.



Implementing the TCFD recommendations: a roadmap for the Brazilian banking sector

February/2019

**Will the dredging industry
lead the coming of age of
nature-based infrastructure?**



USING NATURE TO ADDRESS FLOODING

We've created this guide of nature-based solutions and included case studies of successful projects from across the country to help communities learn more and identify which nature-based solutions might work for them.



Valuation of Nature-based Infrastructure

Case: Stevenfield Reservoir, Manitoba, Canada

Client: Provincial Gov of Manitoba

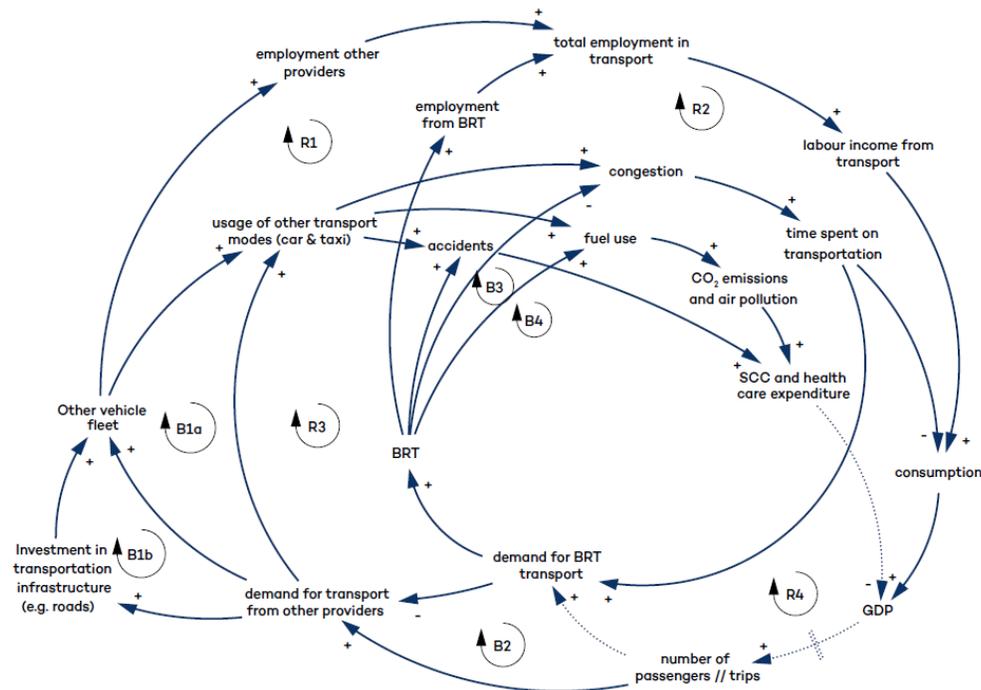


Figure 4. Causal Loop Diagram for the SAVi BRT assessment







Province of Manitoba, Canada is overrunning budgets in managing the repercussions of over irregular rainfall, floods, droughts, arctic forest fires etc..

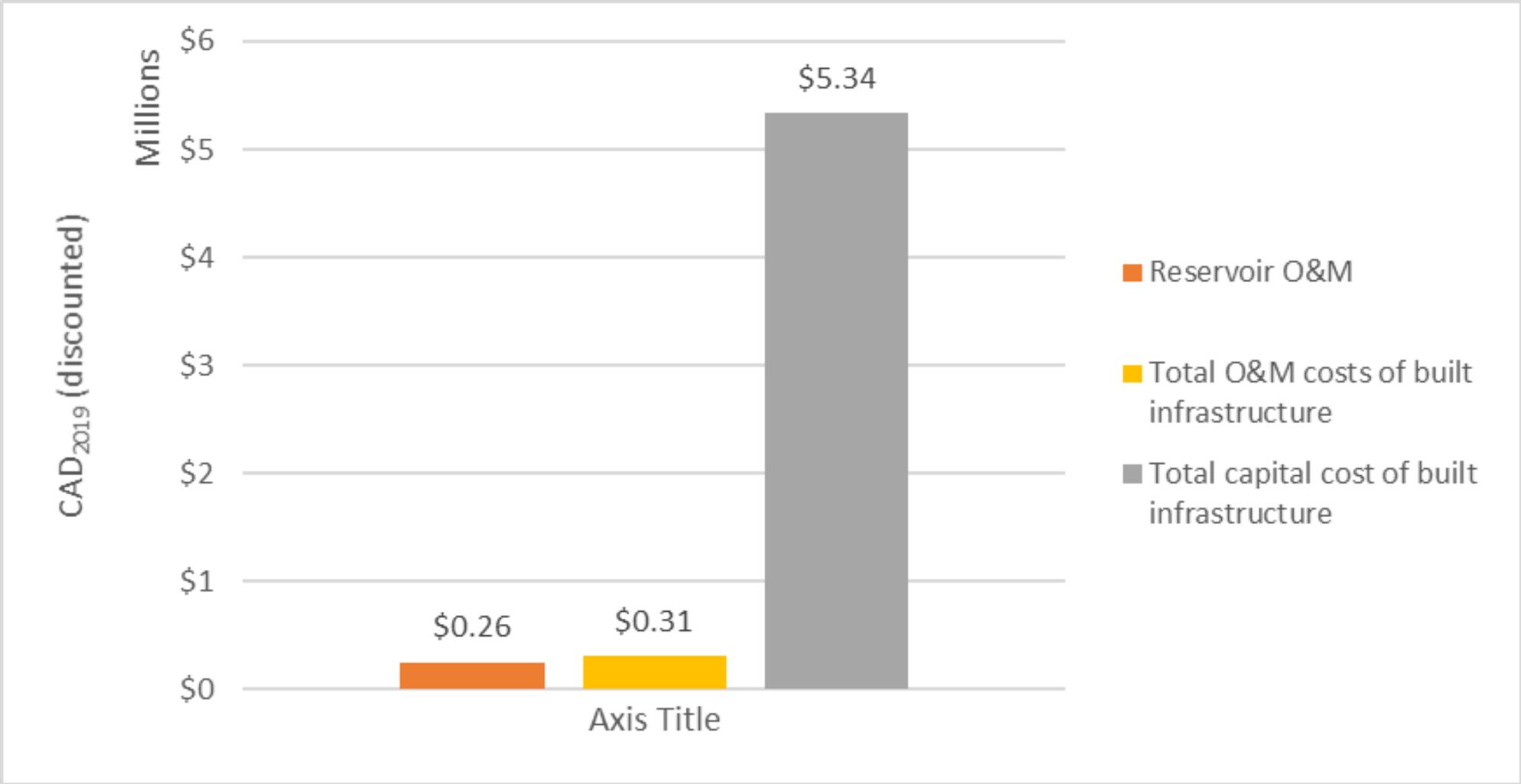
Province is seeking to *reduce spending on infrastructure services* to reduce budget deficits.

Province viewed spending on operating and maintaining Stephenfield Reservoir as an *unnecessary luxury with no real benefits*.

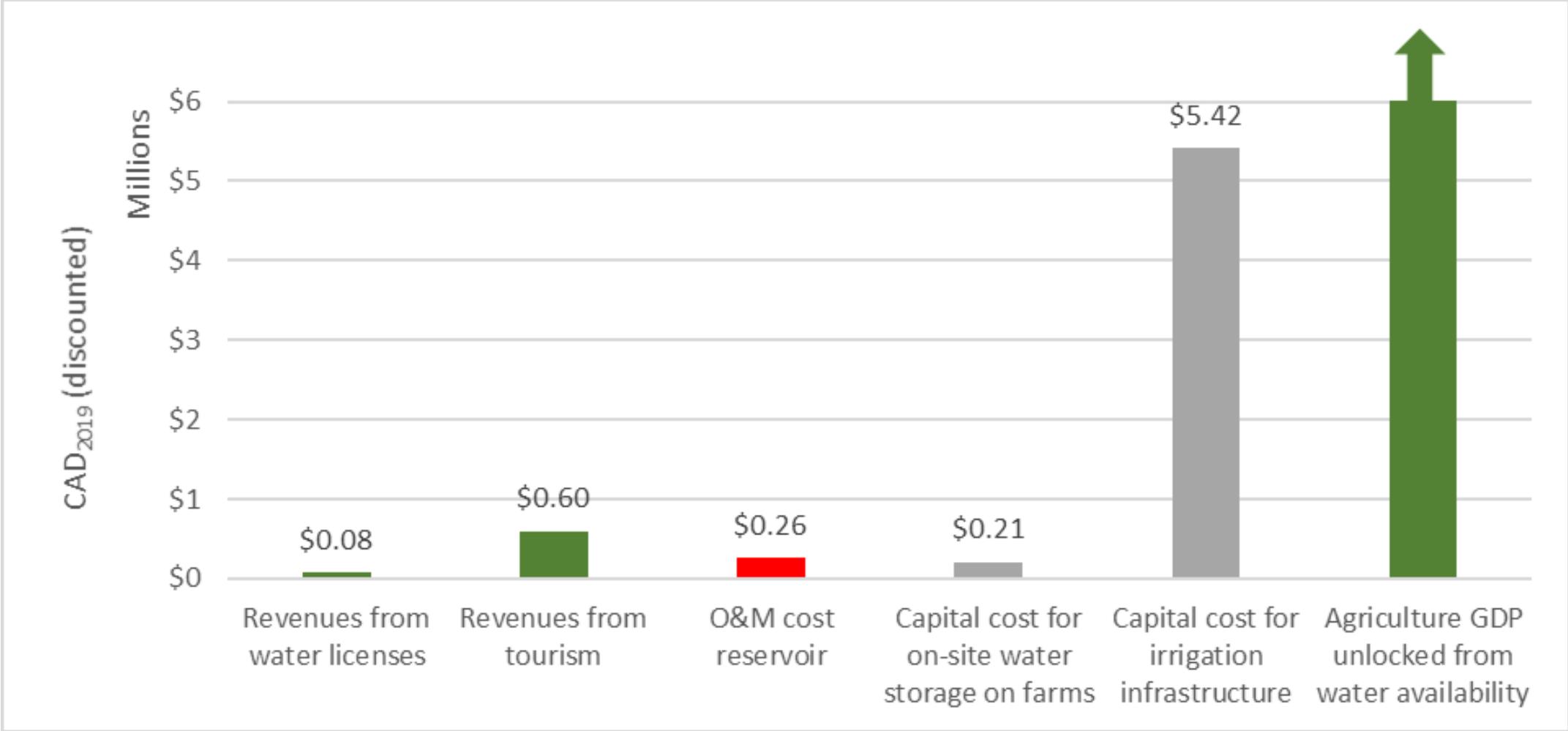
Requested a Sustainable Asset Valuation or SAVI analysis to make decisions on spending cuts.

We showed that operating and maintaining Stevenfield Reservoir was bringing the Province substantial savings in the delivery of water storage, irrigation, flood protection and drought management services ...

Comparing the costs of Stephenfield Reservoir with new grey infrastructure that would provide the same volumes of services, 2019 and 2050. All costs are cumulative



The SAVi valuation on the costs, revenues and avoided costs of Stephenfield Reservoir, 2019 to 2050



What
does
blended
capital
require?

Predictability:

Are we certain that NBS will deliver the the promised benefits/co-benefits ?

Are there monitoring + verification protocols under which performance has been audited?

Comparability:

Does a given solution produce the same output in Delhi, Paris + Mexico City?

Certainty:

Where is the track record that proves performance on capital and O&M costs.



**Public Sector Accounting Boards are allowing
for natural capital to be included as 'Tangible
Capital Assets' on public sector financial
statement**

Develop a catalogue on nature-based solutions

Target audience: public procurers; policy makers, politicians, asset managers, investors

Objective: increase predictability on nature based solutions

Outcome: more performance-based tenders providing you the space for innovation

Thank you

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Check out the Sustainable Asset Valuation at
<https://savi.iisd.org/>