FORESIGHT, BEHAVIORAL ECONOMICS, AND WICKED PROBLEMS REVISITED

Presented By: Derek Ireland
To the Foresight Synergy Network (FSN)
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Purpose of Presentation

Review, Revisit and Expand on Earlier FSN Presentation of April 2017 On

- Applying a Behavioral Lens to
- Wicked Problems and Their Characteristics
- And Their Implications for
- Policy, Regulation, Foresight, Transformative and Disruptive Technologies Including
  - Links between Digital Markets, Technology and Democracy, and Crisis of Democratic Capitalism
  - And Nepal as a Wicked Problem
Standard Definition of a Wicked Problem

Not Necessarily Wicked in the Evil Sense
- Instead, problems difficult or impossible to resolve especially when super wicked (SWP)
- Because of incomplete, contradictory, changing and “mutating” requirements
  - That can often be difficult to recognize
  - And even more difficult to understand
- And because of complex interdependencies
  - Attempts to solve one aspect of wicked problems can reveal or create other problems

And Can Beget/Generate Evil Conduct and Outcomes
<table>
<thead>
<tr>
<th>Wicked Problems and Super Wicked Problems (SWP) from the Literature (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate change mitigation and adaptation (SWP)</td>
</tr>
<tr>
<td>Management of common pool resources</td>
</tr>
<tr>
<td>Health care reform, access, efficiency and cost management</td>
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<td>Institutional abuse in retirement homes, other care facilities</td>
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<td>Policies and strategies to improve the well-being of aboriginal and indigenous populations (SWP)</td>
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<td>Global and national financial market reform (SWP)</td>
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<td>Mass incarceration in the US and elsewhere</td>
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**Wicked and Super Wicked Problems (SWP) from the Literature (2)**

<table>
<thead>
<tr>
<th>Peer-to-peer- platforms in the sharing economy including peer-to-peer lending</th>
<th>Planning and governance of large cities and metro regions – including homelessness and related inner-city challenges</th>
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<tbody>
<tr>
<td>Brexit -- the referendum was the easy part (SWP)</td>
<td>Globalization of illegal and regulatory non-compliance and harm – including war on drugs and the opioid crisis (SWP no-stopping rule)</td>
</tr>
<tr>
<td>Major energy projects, pipelines, distribution systems – national and especially cross-border</td>
<td>Cultures of corruption and severe rent seeking – where unearned rents start to approach earned income from working, investment, entrepreneurship etc.</td>
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<tr>
<td>Governance of complex global and multinational value chains and related corporate entities</td>
<td>Individual cross-border, transnational, and global enforcement cases</td>
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<tr>
<td>Public-private partnerships</td>
<td>Crisis of democratic capitalism (SWP)</td>
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<td>Underdeveloped economies at the national and sub-national scales</td>
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# Major Characteristics of Wicked Problems (1)

<table>
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<tr>
<th>Difficult to describe, define and formulate</th>
<th>Moral, ethical and normative dimensions/dilemmas – often ignored</th>
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<tbody>
<tr>
<td>Complexity, ambiguity, diversity, contingency, context-dependence, cognitive noise; unknowable catastrophic risks, three forms of uncertainty: substantive/cognitive; strategic/different preferences &amp; interests; institutional/different perspectives &amp; scales</td>
<td>Complex interdependencies within and between wicked problems, multiple causes and complex and constantly changing/“mutating” cause and effect relationships</td>
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<tr>
<td>Novelty, uniqueness, unfamiliarity, and “one-of-a-kind” attributes</td>
<td>Social complexity and fragmentation – often more consequential than technical complexity</td>
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<tr>
<td>Finite, uncertain, contested, and constantly changing information and knowledge</td>
<td>Remedies and solutions that are not obvious, not optimal and neither objectively right nor wrong</td>
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<tr>
<td>Major disagreements and conflicts and little common-ground between and within stakeholder, proponent, opponent groups</td>
<td>Solutions that address symptoms rather than underlying causes</td>
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## Major Characteristics of Wicked Problems (2)

<table>
<thead>
<tr>
<th>Solutions difficult to pilot test and measure for effectiveness – unintended, unforeseeable, and lock-in effects, delayed feedback</th>
<th>Irreversible consequentiality – ripple effects through entire system that are hard to identify and cannot be reversed or stopped</th>
</tr>
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<tbody>
<tr>
<td>Limited public, media, &amp; political tolerance for failed tests, experiments, small policy changes</td>
<td>Frames, strategic framing and resulting narratives that generate conflict and impede consensus</td>
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<td>“One-shot solutions/panaceas” that cannot be easily undone if unsuccessful</td>
<td>Chronic policy failures linked in part to overly ambitious objectives and targets</td>
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<td>Deceptive solutions to pseudo ill-defined problems which address only a fragment of overall problem</td>
<td>Hidden, delayed and contested consequences, outcomes, feedback and learning</td>
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<tr>
<td>Public and political pressures to “do-something” – leading to frequent simple-minded solutions/panaceas</td>
<td>Numerous affected, interested and diverse parties at many sectoral, functional and spatial scales – local neighbourhood to global</td>
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## Major Characteristics of Wicked Problems (3)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Large and diverse affected population – with major differences in power,</td>
<td>Complex often unsuccessful negotiations</td>
</tr>
<tr>
<td>interests, beliefs, other attributes</td>
<td>and difficult to implement agreements</td>
</tr>
<tr>
<td>Major differences in attitudes, perspectives, beliefs, and ideologies</td>
<td>Require regulatory systems and capabilities that are reflexive, resilient,</td>
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<tr>
<td>between proponents and opponents – bias blind spot on both sides</td>
<td>responsive, inclusive, and capable of renewal and reform</td>
</tr>
<tr>
<td>Complex, difficult to define and identify, and emotionally charged policy,</td>
<td>Growing importance of tacit knowledge, practical experience, ordinary people,</td>
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<tr>
<td>legal, regulatory problems, challenges, and harms</td>
<td>wisdom of the crowd – compared with experts and expertise</td>
</tr>
<tr>
<td>Context specific and dependent nature – wicked in one country, complicated</td>
<td>Relentless nature often with no resolution/finish line – the “no-stopping</td>
</tr>
<tr>
<td>but tame in another, super wicked in third</td>
<td>rule”</td>
</tr>
<tr>
<td>Complex inter-relationships with other wicked problems, as either symptoms or</td>
<td>Small wins that accumulate through time &amp; have positive lock-in, feedback,</td>
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<tr>
<td>causes</td>
<td>self-reinforcing, other external effects</td>
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Differentiating Super Wicked (SWPs) from Wicked Problems

Super Wicked Problems (Levin et al 2009, 2012)

- Time is of the essence and is running out
  - Tensions between small wins versus “big-bang/shock therapy” solutions/panaceas
- People and groups causing -- and in some cases benefitting from -- the wicked problem
  - Must find and implement remedies
- Central authority is non-existent
- Irrational discounting of the future

Virtually All Other Characteristics Are Magnified
Wicked Problems Very Different From Tame Problems With:

- Problem and goal statements that are
  - Simpler, more straight-forward, better defined, easier to understand, less contested
- Moral, ethical, normative, and political attributes that are
  - More limited, less contentious, less likely to impede resolution
- Simpler, more predictable, linear and understandable cause & effect relationships
Very Different From Tame Problems That Have:

- Fewer solution options and each option can be objectively evaluated and compared as “good or bad” and “optimal or sub-optimal” based on evidence
- Simpler and more linear, implementable and remediable solutions
- Characteristics that are similar to other already remedied tame problems
  - Providing important learning and imitation opportunities
- More broad-based support and consensus from various stakeholders
  - More agreement and less conflict between and within stakeholder groups
Key Differences Between Wicked and Tame Problems

- All wicked problems are complex
  - But complexity is exacerbated by many of the characteristics discussed earlier
  - Making the problem even more complicated, unique, intractable, & wicked

- Many tame problems also have complexities and complications but
  - But only limited number of other characteristics therefore easier to “tame”
Key Differences Concluded

- Tame problems remedied through more conventional and technical linear interventions with
  - Straight-forward cause and effect relationships
  - Push this button and get this result that worked elsewhere

- Progress on remedying wicked problems requires incremental change and small “in-depth” wins that
  - Accumulate, are path dependent/amplified through time
  - Encourage, motivate and lock-in appropriate behaviour, conduct and continual learning
  - Consistent with future preferences and needs of individuals, their relatives, friends, colleagues, and neighbours
  - And of their communities, societies and economies
Two Major Lessons and Mistakes from Comparing Tame and Wicked Problems

1. Defining wicked problems as tame and applying tame solutions to wicked problems can lead to disaster

2. Presuming that all problems which are controversial and complex are wicked

Governments, their bureaucrats, strong change advocates are often guilty of first mistake

- Many academics may be guilty of the second (see Peters 2017)
- Yours truly may be in the second camp
Concluding Comment on Tame Versus Wicked

- Best to consider wicked problems as a continuum
  - From thoroughly straightforward and tame through wicked to super wicked
- Regardless, many of the policy problems I have addressed over the past five plus decades
  - Probably had wicked characteristics
  - Likely true for other FSN Members
Wicked Problems, Behavioral Economics, Neuroscience (1)

- Expected to place significant load and burden on system 2 “thinking slow and hard ” functions
  - Which require substantial human energy
- Result as well in significant interactions, competition, conflicts between different regions of human brain leading to more frequent and consequential
  - Biased preferences and judgments, flawed intuitions, instincts, heuristics, questionable decisions and other errors that
  - Demand system 2 attention & correction adding to
- Cognitive burden, strain, and bad mood in system 2
Wicked Problems, Behavioral Economics, Neuroscience (2)

- Likely would activate virtually all of the fears, anxieties, other emotional responses, behavioral biases, aversions, fast, frugal and flawed heuristics, and cognitive deficiencies
  - In behavioral, neuroscience & psychological literatures
  - With both significant commonality and variability between wicked problems

- Especially active would be “emotionally charged” aversions to anticipated and actual
  - Losses (prospect theory), risk and the risk as feelings concept, uncertainty, ambiguity
  - Complexity, unpredictability, loss of control, regret, betrayal by others, probabilities, and
  - Making decisions in complex and aversive contexts
Wicked Problems and Behavioral Economics (3)

Related Behavioral Biases and Heuristics Such As

- Present oriented biases, immediate gratification, the endowment, status quo effects, inertia
- Reference dependent preferences, myopia, lack of foresight and
  - Related problems with intertemporal choices/decisions
- Hindsight, confirmation, conformity, availability, salience and recency heuristics and biases
  - Selecting, assessing, and interpreting information in a manner that
    - Confirms our interests, beliefs, ideologies (von Hayek)
- Self-attribution, self-serving, self-interested biases leading to motivated reasoning
Wicked Problems and Behavioral Economics (4)

Related Behavioral Biases and Heuristics

- Denial, procrastination, delaying required decisions
- Finite pool of worry, single action bias, action bias, ethical and bias blind spot
  - Leading to strong preferences for the familiar, status quo, attribute substitution heuristic, and simple/simple-minded solutions
- Limited self-awareness of people regarding their own
  - Emotional responses, behavioral biases, flawed intuitions, instincts and heuristics, and cognitive limitations
- Frames, framing and various forms of strategic and opportunistic priming and framing
Wicked Problems and Behavioral Economics (5)

And Related Cognitive Deficiencies Resulting From Finite cognition, cognitive scarcity and overload, and the challenges faced by cognitive misers such as:

- Foresight and understanding and using probabilities, discount rates, and expected values
- Understanding and dealing with complex, ambiguous, non-linear cause and effect relationships
- Addressing more than one problem/worry at a time
- Future gains, losses, and abstract threats
- Potentially catastrophic, other highly negative events

“Imagining the attitudes, beliefs, preferences and decisions of our future selves” -- Levin et al 2009 and 2012 and Weitzman 2009
Wicked Problems and Behavioral Economics (6)

Complex, Little Understood, Under-Analysed Interactions

- Between these aversions, biases, heuristics and emotional responses -- often in a negative/downward direction -- which results for some people in
- Many accumulated frustrations from operating in wicked environments trying to solve wicked problems
  - Anxiety, stress, fear, anger from unrealized expectations regarding our own conduct, decisions and outcomes
  - Disappointment from conduct, decisions and perceived and actual mistakes and opportunism of others
  - Undue pessimism, “learned helplessness and hopelessness”, fatalism, rational apathy and ignorance, conditioned defeat
- When people simply give up and stop trying
Wicked Problems and Behavioral Economics (7)

While for Other Actors and Wicked Contexts Result is

- Overconfidence, too much optimism including the exaggerated optimism of the planning fallacy
- “Epistemic arrogance” and the illusions of control, competence, explanatory depth and “superior foresight and other capabilities”
- Overestimating our knowledge and experience, and underestimating what we do not know
- The action (“we must do something”) bias leading to
  - Decisions based on little thought and even less analysis
- Opportunistic, unethical and “wicked” conduct to profit from the wicked situation at the expense of
  - The economy, society, other people, and our future selves
Wicked Problems and Cognitive Strain and Burden (1)

**Wicked Problems and Contexts**
Place major burdens on scarce cognitive resources

- Cognitive and moral reasoning, strategic thinking, and executive control functions needed to correct errors
  - From emotional responses, biases, aversions, flawed intuitions and instincts, fast, frugal and flawed heuristics

- Collecting and processing complex and ambiguous information, cues and stimuli generated by wicked and often negative and emotionally charged contexts

- Continually updating beliefs, information, knowledge, learning from our own and other people’s decision errors
  - From often negative and discouraging events and outcomes
Unfortunately, Scarce Cognitive Resources are Not Always Available When People Are Operating In Complex, ambiguous, threatening, wicked contexts where

- Commercial, social, other transactions/interactions with other individuals and organizations are often contentious, unsatisfactory and unsuccessful
- Information and transactions costs are high, cooperation, trust, and reciprocity of trust are limited & declining
- Opportunism, shirking, other unethical, anti-social and corrupt conduct are becoming more frequent, consequential, entrenched and profitable
Wicked Problems and Cognitive Strain and Burden (3)

- And where complexity, ambiguity, fear, anxiety, decision errors of yourself and others
- Are accumulating and having negative interactive, feedback, lock-in, other external effects that
  - Make wicked contexts and problems even more discouraging, threatening and negative
- Continual learning becomes both absolutely essential and very burdensome and cognition intensive
- Social psychology research indicates that “cognitive miser” powerholders in both public and private spheres are especially influenced by these forces
The Implications of Systems 1 and 2 of the Human Brain For

- Preference formation, conduct, decision making and learning
- Arrows indicate complex cause-and-effect relationships and interactions in wicked contexts between:
  - Systems 1 and 2, external contexts, behavioral biases and heuristics, System 1 and 2 learning
  - And behaviour, events and outcomes in wicked contexts
- Broken arrows indicate potential contingencies in relationships and two-way arrows indicate
  - Interactive, cumulative, feedback, lock-in, context-dependent, and path dependent effects important to wicked problems

While Second Slide Illustrates Wicked Behavioral Interactions That Make Wicked Problems Even More Wicked and Intractable
System 2 control and correction of system 1 emotions, intuitions, instincts, heuristics – at times not available because of cognitive scarcity & burden

System 2 cognitive resources, cognitive and moral reasoning, rational benefit/cost type calculation: which are more conscious and effortful, emerge later and take longer than system 1. And at times can be strained, over-used, distracted, lazy, and not accessible, reliable and functioning -- related to cognitive strain and bad mood

System 1 memory, emotions, expert and other intuitions, moral and other instincts. Which are more unconscious, automatic, and effortless, and easier, earlier and faster -- leading to cognitive ease and good mood

System 2 social, goal-directed and other more conventional learning. Based on more conscious, rational, calculative and strategic thinking about experience, conduct, outcomes, errors, lessons and interactions with others. Learning from a more functional not truth-seeking perspective

The many emotions, feelings, behavioral biases and useful and flawed intuition, instincts, and heuristics of behavioral economics. Positive and negative interactions between them and their implications for path dependence, context dependence, a more negative wicked trajectory, and system 1 and system 2 responses, thinking and processing. Which require greater research.

Complex, ambiguous, and path-dependent market, social, cultural, organizational, institutional, policy, regulatory, negotiating, learning, and other wicked contexts. Which often generate negative/pessimistic information, cues and stimuli. Numerous, complex and conflicting decision options. Complicated, highly technical, and contested information to digest, and major differences between actors.

Role and importance of system 1 and 2 functions, behavioral biases, “fast, frugal and flawed heuristics”, intuitions, instincts, emotions/affect and regulatory contexts in influencing and determining the incentives, motivations, preferences, conduct, choices, decisions and actions of all regulatory actors: regulators, regulatees, potential and actual beneficiaries and victims, professional bodies, civil society groups, other stakeholders. And the differences between actors, and the implications of these differences for the quality of their decisions, the quality of their interactions, debiasing, shared learning, and for their contributions to mitigating the wicked problem.
Complex, uncertain, ambiguous, contentious, controversial, “strategically framed”, and often discouraging, depressing, and negative information, cues and stimuli generated by wicked problems, issues, contexts and spaces.

Strong, expanding and increasingly “emotionally charged” aversions to losses, risk, uncertainty, ambiguity, complexity, betrayal of trust, making decisions in ambiguous and aversive contexts, and anticipated and actual regret from making the wrong decision and trusting the wrong people and organizations.

Bias blind spot, finite pool of worry, single action bias, attribute substitution and related heuristics, cognitive deficiencies regarding foresight, probabilities and dealing with more than one problem at a time, and resulting information and cognitive burden, strain and “bad mood”.

Many, accumulating and compounding frustrations from operating in wicked environments and trying to solve wicked problems – leading to anxiety, stress, fear and anger from unrealized expectations regarding our own conduct, decisions and outcomes and disappointments regarding the conduct and decisions of others.

Expanding and increasingly entrenched feelings of rational apathy and ignorance, undue pessimism, fatalism, learned helplessness and hopelessness and other negative feelings and “affect” as single, related and collective wicked problems become increasingly contentious, controversial, intractable, and apparently impossible to resolve.

Growing and increasingly self-serving, consequential and profitable efforts of opportunistic and unethical political parties, governments, businesses, other elites, “knowledge sellers/experts” and “wickedly evil people and organizations” to capitalize on the expanding concerns, worries, fears, negativity, pessimism and related biases among the general public.

Which individually and collectively through their interactive, cumulative, feedback, lock-in, context-dependent, path-dependent, and negative externality effects, will add greatly to the negative emotional and other system 1 responses and cognitive burden, strain and “bad mood” associated with and generated by preference formation, judgement, decision-making and personal, reinforcement, error-driven, social and other forms of learning within wicked environments. And will make wicked problems, issues, contexts and spaces even more complex, uncertain, ambiguous, contentious, controversial, “strategically framed”, discouraging, depressing, negative and “wicked” in the future.
Possible Approaches for Making Progress on Addressing and Remedying Wicked Problems That

Ameliorate Negative Contexts, the Downward Trajectory

- Build more positive and proactive narratives
- Publicize and reward contributions and contributors that address and reduce “wickedness”
- Wicked (good) leaders, new forms of leadership that
  - Are more open, entrepreneurial, inquiry-based, collaborative
  - Have appropriate humility and modesty and know what they don’t know
  - Promote wickedly good collaborative solutions that enhance system resilience, adaptability and flexibility
  - Have strong abilities to tolerate, manage and when appropriate capitalize on ambiguity
  - And build ambiguity tolerance within their organizations
Possible Approaches (2)

Policy, Legal and Regulatory Regimes That
- Are reflexive, resilient, responsive, inclusive
- And polycentric/shared responsibility, knowledge and learning based, capable of renewal and reform
  - Emphasize small, incremental and remediable improvements and wins that have
  - Positive interactive, cumulative, externality, lock-in, feedback, network, path dependent effects
  - That constrain our future selves
- Emphasize capitalizing on wisdom of the crowd rather than depending solely on “technical expertise and experts”
Possible Approaches (3)

“Clumsy Solutions, “Messy Institutions, Methods, Approaches” (see Ney and Verweij 2014) that encompass “nimble, flexible, and creative mixtures” of

- Individualism, competitive processes, self interest
- Egalitarianism -- open and honest deliberation
- Hierarchy whereby stakeholder interactions are “steered” by relevant experts and authorities
- Certain degree of fatalism, randomness, unpredictability, good fortune, and
  - Small incremental steps and “muddling through”
- And cultural theory concept of the “hermit” whereby
  - Stakeholders can temporarily distance themselves
  - From their usual social contexts, pressures and related biases and interests
Possible Approaches (4)

Holistic, Multi-Disciplinary, and Mixed Methods Research Approaches that encompass the full range of

- Research, analytical, policy, legal, regulatory, institutional, social, and behavioral tools/solutions
- With greater emphasis on resilience, adaptability, flexibility, appropriate redundancy, trial-and-error based policy experimentation
  - And incremental improvements, small wins, “muddling through”, and “fighting complexity with complexity”
- Rather than technical efficiency, optimality, cost-effectiveness, and conventional cost-benefit analysis
Possible Approaches (5)

As well as Greater Emphasis On

- Linkages, synergies, feedback, lock-in, network effects,
- Other interdependencies within and especially between
  - Different super wicked and wicked problems
- Insights from behavioral economics on nudges which could be useful for some aspects but may be less appropriate when fundamental change is needed in
  - Attitudes, perceptions, frames/framing, behaviour, preferences, decision making,
  - Formal and informal institutions, social norms and values, and motivation, incentives, and interests
  - And in how markets, industries, economies and societies are structured
Previous Presentation Provided Brief Case Study of Emerging Wicked Problem of the Digital Marketplace (1)

Based on Various “Wicked” Applications of Advanced Technology, Algorithmic Intelligence on the Internet and in the Crowded Digital Marketplace such as

1) Algorithmic consumer
2) Robo-sellers: algorithms used by sellers/suppliers
3) Government and non-government digital intermediaries/regulators
4) Other digital intermediaries, firms and platforms and more conventional companies
5) “Algorithmic educators”
6) Platform cooperatives similar to conventional cooperatives
The Crowded Digital Marketplace (2)

- Full range of participants and actors found in conventional markets
- Are now functioning, interacting and in some cases competing in digital marketplaces
  - Often with active government financial and other forms of support and participation
- Leading to interesting, under-analysed and mostly ignored questions on what
  - Interacting and competing algorithms and algorithmic intelligence “entities” mean for
  - Consumers, other market participants, market efficiency and fairness, and economic performance, equality and inequality
- Are we entering the world of Kubrick and 2001: Space Odyssey
The Crowded Digital Marketplace (3)

- Digital economy and marketplace is becoming increasingly complex, dynamic and cluttered
- As well as attractive to an expanding number of consumers and other customers and users who
  - Wish to “exit” from the conventional regulated marketplace for wide range of goods, services, vendors
  - And a wide range of reasons
- Which involve an interesting and complex mix between the:
  - Outsource economy, on-demand, sharing and gig economies, advanced technology, robotics,
  - Algorithmic intelligence, machine learning and so on
The Crowded Digital Marketplace (4)

- Posing challenging, complex, new, and totally unfamiliar and unprecedented wicked problems for
  - Competition, consumer protection, product safety, privacy
  - Financial sector, securities markets e.g. weird algorithm generated events on stock markets, corporate governance e.g. new forms of hidden insider trading
  - Other policies, laws, regulations, regulatory authorities
- Regarding how the competitive and regulatory game will be played by all of these algorithmic entities and their designers and owners which to date has
- Still receiving very little attention from governments, academics, civil society, other stakeholder groups
Possible Problems and Threats with Crowded Digital Marketplace (1)

- Market concentration and increased market power for current, emerging and future “digital corporate giants”
- New forms of price, fee, & product attribute complexity, confusion, deception and shrouding in order to
  - Hide true costs and value from boundedly rational consumers, other purchasers and
  - “Phishing for phools” of Akerlof and Shiller
  - And virtual competition and “data-opolies” of Stucke and Ezrachi
Possible Problems Threats Digital Marketplace (2)

- Undisclosed biases and self-interest of operators that can favour
  - Large suppliers/advertisers, higher priced products, their own platforms
- Information barriers faced by digital intermediaries, algorithmic consumers, platform cooperatives etc.
- Poorly designed and implemented digital nudges and their computer software algorithms
Possible Problems Threats Digital Marketplace (3)

- Protected and proprietary nature of many of these innovations through IP, other laws, national security

- Intentional or unintentional unethical, non-compliant and illegal conduct and harms from
  - Poorly designed and operated algorithms, digital platforms and related software programs that are
  - Designed and operated by self-interested and boundedly rational human being “technologists” who
  - Apparently often do not understand them and their outcomes

- Allows digital companies to pass on/outsource the blame for problems to designers and their innovations
Possible Problems Threats
Digital Marketplace (4)

- Danger that too much faith, confidence and trust extended to robo-sellers, algorithmic consumers, digital intermediaries, other algorithms/platforms
  - And “trust in the code”, algorithms, blockchain technology, and the Internet
- Would replace and undermine trust and reciprocity of trust between individuals and organizations
- And further undermine confidence and trust in the market system and in “democratic capitalism”
Possible Problems Threats Digital Marketplace (5)

- Subtle implications and influence of “algorithmic power and educators” in public education
  - On teachers, administrators, students, and future consumers, firms and other market participants
  - “Cradle to grave” exposure to the digital marketplace
  - And its benefits, opportunities, risks and threats
  - Including its addictive properties

- Major questions on whether conventional policies, laws, regulations, and state and non-state regulators will be effective
Possible Problems Threats Digital Marketplace (6)

- Danger that boundedly rational and “self-interested” governments and their officials and regulators
  - Will design and administer new laws, regulations, rules, regulatory functions, and “digital regulators”
  - In different jurisdictions at various spatial scales
  - That will do more harm than good through
  - Through minimizing innovation benefits, limiting access, increasing consumer costs and potential risks and harms or
  - And/or through expanding government control/power

- Alternative threat of governments using private and government run digital intermediaries as excuse for further deregulation and reducing regulatory budgets
Challenge To Find the Right Balance Between (1)

Potential Benefits, Costs and Risks for Consumers and Other Purchasers and Users

- Potential Benefits: easier, faster, better, more convenient and immediate, fewer emotional and biased consumer decisions
- Reduced information, switching and other transactions costs
- Enhanced availability of and access to many goods, services and suppliers
- And perhaps lower product prices from business entry and more efficient and hopefully fairer markets
Challenge To Find the Right Balance Between (2)

Which Can Be Offset by Potential Costs

- Reduced consumer sovereignty, autonomy and choice
- Control, manipulation and exploitation of consumer, voter, citizen choices by designers and owners and their algorithms
- Credence good “you gotta believe” aspects of these algorithms
- Reduced learning opportunities from purchases
- Consumer harms from abuse of dominance, price discrimination, other anticompetitive and anti-consumer business practices
- Consumer failures to recognize greater risk of harm
  - When transferring their purchases to under-regulated and unregulated digital marketplaces which represents
  - A Form of deregulation through consumer choice and exit
Links Between Crowded Digital Marketplace

And Recent FSN Presentations and Work on Technology and Democracy: Self-Correcting or Collision Course

- Which Represents a Highly Related Wicked Problem

Key Linkages and Parallel Themes

- Democracy and democratic capitalism as
- Comparatively recent, fragile, and hackable “works in progress”
- Hackability of humans through emotions, biases, heuristics, other system 1 attributes/deficiencies, and
- Cognitive failings in system 2 (see earlier slides)
Key Linkages and Parallel Themes Continued (2)

- Competition, consumer protection, privacy, personal and national security
  - Related risks and threats of digital markets
- Failures of digital markets, service providers, and especially the “digital corporate giants” to self-correct
  - Because of the self-interest, beliefs, ideology and ignorance of major private actors
- And government failures to address and remedy digital market failures and to find the right balance – for similar reasons
Key Linkages and Parallel Themes Continued (3)

- Efforts of governments, political parties, other powerful elites to use and abuse
  - Digital markets and platforms, artificial intelligence, machine learning, “Big Data”,
  - Digital “propaganda”, and related enhanced surveillance capabilities

- To increase their power through manipulating, exploiting, deceiving
  - Consumers, voters, citizens, civil society groups, other actors
And related failures of political, business, other elites to defend

- Freedom of speech, press/media freedom, and consumer, citizen, and voter autonomy and sovereignty
- Which can further reduce public confidence and trust in democratic processes and outcomes and the market system

And add greatly to fragility/“hackability” of democracy and democratic capitalism
Leading to How the Wicked Problems of Digital Markets and Fragile and “Hackable” Democracy

Contribute to the Broader “Mega” Wicked Problem of the Crisis of Democratic Capitalism of Wolfgang Streeck

- Linked to the “Fundamental Contradictions of Capitalism” of Karl Marx and to the
- End of History of Fukuyama which thankfully is coming to an end (Menand 2018)
- Growing concerns of antitrust populist movement and more progressive Democrats (Elizabeth Warren etc.) in U.S and competition law critics elsewhere
Digital Markets, Fragile Democracy and Crisis of Democratic Capitalism (1)

That governments, international bodies, and their competition and other policy and regulatory authorities

- Have totally failed to address and mitigate
- Increasing concentration, market power in product, geographic, financial, labour, political and other markets and
- Resulting corporate anticompetitive, non-compliant, unethical and other misconduct in national and global markets

- Especially in many digital markets and platforms that benefit from and exploit network effects
Increasing inequality and asymmetries in wages, incomes, wealth, opportunity, health outcomes, and power within and between nation states

- Which accelerated during and after the 2007-2009 recession
- In part through powerful public and private sector actors
- Transferring the negative consequences and harms of economic crises to weaker nation states, groups and actors – the “too big to fail, regulate and jail” paradigm
Digital Markets, Fragile Democracy and Crisis of Democratic Capitalism (3)

- How market power in product, labour, financial etc. markets is being used, abused and exploited to
  - Increase the political power of giant corporations
  - Which further increases and entrenches their power in other markets

- How and why the short-term monetary, fiscal and other instruments and panaceas of governments to
  - Mitigate the effects of previous depressions and recessions and other national and global economic crises

- Will be less effective & perhaps useless in the future
  - In part because market concentration and power distorts the market signals and incentives important to macro policy
Digital Markets, Fragile Democracy and Crisis of Democratic Capitalism (4)

- Limited progress addressing climate change and many other wicked problems
- Moral decline of capitalism as illustrated over the past three plus decades by
  - Expanding corruption, unethical conduct, and non-compliance with laws, regulations and social norms in both the public and private sectors
  - Hints of SNC Lavalin in Canada, previous Canadian scandals
- How globalization allows anticompetitive conduct, regulatory non-compliance and resulting harms to go global and inflict global “collateral damage” on
  - Many unsuspecting victims in developing world
No attention to distinctive behavioral and cognitive attributes and deficiencies of powerholders who are
- Cognitive misers and are often also narcissists
(Do “Trump and Narcissism” Google)
Which can augment their market and political power
- And associated power and other inequalities
But can also be exploited by state and non-state regulators to reduce
Market concentration and power and inequality

Perhaps For Further Discussion At Another Time
Virtually no behavioral research on whether narcissistic leaders can

- Contribute to or impede resolution of wicked problems – or in fact cause them
- Some positive attributes could be helpful
  - Self-esteem, self-confidence, optimism, extroversion
  - Grand vision, can-do attitude, focus on goals
  - Promoting disruptive technology/transformational change
- But inferences from literature and current evidence point in more negative direction -- Think Trump, Johnson, Erdoğan, Putin etc.
Now for Something Totally Different: A More “Pedestrian and Prosaic” But Related Wicked Problem

Nepal and Underdevelopment More Generally as a “Mega” Wicked Problem

- With underdevelopment seen in both absolute and relative terms
- Whereby relentless nature and the “no-stopping” rule are especially important

Think about Atlantic Canada and Mississippi in the United States
Work on Nepal and Its Urban Corridors as a Wicked Problem

Based on Two Nepal Consulting Assignments from 2017-2019

- Development Strategies and Investment Plans for Two Urban Corridors on Indian Border – for Asian Development Bank
- National Economic Policy Framework and Implications for Urban, Regional and Corridor Development
  - Mid-Term Review for DIFID (UK Aid Agency) which started a year later
Some “Factoids” [Key Brief Facts] from Environmental Scan on Nepal

- Geographically small and landlocked country
  - With a population of nearly 30 million – not too different from Canada

- Never a colony -- A few early victories against the British Empire/British East Company in 19th Century
  - Which wisely decided to recruit the Nepalese mainly the Gurkhas to help with Imperial and other future wars in other countries
  - “If you can’t beat ‘em, co-opt ‘em and outsource”
Major “change drivers” of Nepal’s economy and its relationships with other countries include:

- Small size, geographic location, least developed economy status, limited geopolitical influence
- Unhealthy dependence on Indian economy and politics
- Industrial decline and premature de-industrialization
- Too much dependence on remittances from overseas mainly male workers

Many drivers are largely beyond Nepal’s direct control:

- Remittances, weather/monsoons, natural disasters, trade with India, electricity supply, official development assistance
Some “Factoids and Impressions” on Nepal (3)

- Strategic but uncomfortable location in a tough neighborhood between the Two Asian Giants
  - China (1.4 billion people) and India (1.3 billion people): both are aggressive, highly nationalistic, and quarrelsome
  - And arguably care little about Nepal’s interests
  - Imagine Canada with a second United States to the North run by another Trump

- And not too far from two other not so great neighbours Pakistan and Bangladesh
  - Which at times have been considered to be “disfunctional and failed states”
Some “Factoids and Impressions” on Nepal (4)

- Nepal and three other South Asian states are members of SAFTA: the South Asia Free Trade Area -- signed 2004 into force 2006
- Also includes Afghanistan, Bhutan, the Maldives and Sri Lanka
  - Likely not most successful FTA in world economy especially from Nepal’s perspective. For example
  - Nepal’s southern provinces/districts on Indian border benefitted little from “strategic location”, SAFTA, many bilateral agreements with India
Some “Factoids and Impressions” on Nepal (5)

- Currently ranks 195th in world on GDP/capita (based on PPP) compared with for example
  - Bangladesh -- the “basket case of Asia” as stated by Kissinger and others -- now ranking 176th
  - With India at 156th and China at 105th
  - Variance in figures and rankings were much less 40-50 years ago – see next slide on country comparators

- Compared with output/GDP, faster growth in household incomes and consumption and significant reduction in poverty largely because of
  - Substantial emigration and financial remittances from overseas mainly male workers
# Some Comparative Data

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI Per Capita Atlas Method Current US $</th>
<th>GDP/Capita PPP Current International $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepal</td>
<td>70</td>
<td>210</td>
</tr>
<tr>
<td>India</td>
<td>110</td>
<td>380</td>
</tr>
<tr>
<td>Pakistan</td>
<td>180</td>
<td>420</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>120 (1973)</td>
<td>330</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>170</td>
<td>470</td>
</tr>
<tr>
<td>China</td>
<td>120</td>
<td>330</td>
</tr>
<tr>
<td>United States</td>
<td>5,360</td>
<td>24,150</td>
</tr>
<tr>
<td>Canada</td>
<td>3,970</td>
<td>20,480</td>
</tr>
</tbody>
</table>
Impact of worker emigration and remittances at about 30% of GDP similar to the trade deficit
- Generally seen as positive but major loss of scarce human capital
- And allowed Nepal governments to delay needed economic reforms

Maoist insurgency from 1996-2006 also impeded economic growth and policy reforms

Nepal joined SAFTA and WTO in 2004 in middle of insurgency period
- Not great time to open market to US, India, China products
Peace Agreement to End Insurgency Led To

- New constitution, establishment of a federated state with seven provinces (similar to Canada and India)
- Free elections at national, provincial and local levels
- In past, Kathmandu Valley dominated economy and political and cultural life of Nepal
  - Key issue is whether new federation with potentially strong provincial and local governments
  - That are elected rather than appointed by the national government can make a fundamental difference
  - Initial evidence appears positive
Some “Factoids and Impressions” on Nepal (8)

- Significant, pervasive and entrenched differences, diversity, inequalities, resulting conflicts based on:
  - Gender, ethnicity/race, religion, language
  - Region/location, rural/urban, socioeconomic status etc.
  - Major change driver of new constitution and federal system

- Society and elites where unearned rents, rent seeking and lobbying government are:
  - Better and easier paths to individual and family prosperity
  - Compared with working hard and investing well

- Small contributor to and potential major victim of climate change and vulnerable to many other natural hazards e.g. devastating earthquake in 2015
Implications of These and Other Nepal “Hard Realities” (1)

Fundamental Transformative Change Taking Place

- Which could make Nepal wicked problem even more wicked and less intractable
  - Such as the difficult transition from a unitary state to a new federal system
- But can also provide incremental change and accumulated locked-in small wins/remedies (maybe)
- At outset, these and other factoids left me bemused, perturbed, confused, disgruntled and discouraged
- And then a “Eureka Moment” took place -- without the bathtub
“Nepal is a mega-wicked problem with many interconnected wicked problems”

- Found a fairly large and sophisticated development literature on “Underdevelopment as a Wicked Problem”
- To support this hypothesis/eureka moment
- With unfortunately or fortunately limited Nepal references

**Key Insight:** Treating underdevelopment as a wicked not tame problem can be a key first step in assessing and finding “small win” solutions
Implications of These and Other Nepal Realities (3)

Key Themes and Insights from the Literature

- Important links between wickedness and fragile and failed states -- Nepal is fragile but not failed.

- Danger of development planners and politicians establishing overly ambitious goals, objectives, targets, and never achieving them adds to chronic policy failures and feelings of
  - Pervasive negativism, pessimism, fatalism, & lack of control, agency, competence, empowerment, and self-determination

- Often associated with wicked problems and fragile states and were evident in Nepal
Implications of These and Other Nepal Realities (4)

Key Themes and Insights from the Literature Cont.

- Require coordinated and phased multiple policy interventions that generate small wins with
  - Positive interactive, feedback, lock-in and cumulative effects and related positive externalities
  - Implemented over an extended period.
- Single intervention/panacea focused on applying a single and often simple-minded policy or administrative “blueprint and cure-all” is
  - Typically not effective and can even be counterproductive.
  - Particularly when single panacea has “negative irreversible consequentiality” effects that cannot be stopped or reversed
Implications of These and Other Nepal Realities (5)

Key Themes and Insights from the Literature

- Fragile states, sub-national regions, and other entities generate
  - More frequent, consequential and intractable wicked problems

- In part because wicked problems attract, encourage and generate
  - Corrupt, rent-seeking, and other forms of opportunistic antisocial conduct and people
  - Again very evident in Nepal as noted before
Implications of These and Other Nepal Realities (6)

Key Themes and Insights from the Literature

- For nation states, urban regions/corridors, other sub-national, industrial, occupational etc. entities
- That are addressing and making some progress in mitigating their fragile and wicked characteristics
- Questionable relevance of previous demographic, economic, social, other developments, trends, data
- In these situations, past is not a good guide to the future and in fact can be very misleading

Foresight about the Future has to Replace Projections and Predictions Based on Undesirable Past
Implications of These and Other Nepal Realities (7)

Key Themes and Insights from Literature: Final Lesson

Development Planners and Analysts should

- Bring appropriate care, caution, circumspection, modesty and humility to the
- Design and implementation of possible remedies to wicked problems in underdeveloped nation states and sub-national regions/corridors with fragile traits
  - Which go beyond simple, simple-minded and “big-bang” linear solutions/panaceas
Need a Starting Point: Subsequent Analysis on Nepal Underdevelopment as a Wicked Problem

- Focused on the wicked problem of Nepal’s weak manufacturing sector
  - Industrial decline and very early de-industrialization
  - Over extended period from 1996 to today
- And the complex interactions with other wicked problems that contribute to the
- Mega-wicked problem of Nepal underdevelopment
Snapshot of Nepal’s Industrial Decline as Wicked Underdevelopment Problem

Manufacturing Value Added Contribution to GDP
- Expanded steadily from 3.3% in 1965 to about six percent from 1985 to 1990 to peak of 9.6% in 1996
  - Consistent with expectations for less developed economy in Asia and elsewhere
- But then fell steadily to 5.4% today during period
  - When China, Viet Nam, Cambodia, Bangladesh etc. experienced substantial industrial/export growth

Paradox of Industrial Decline in a Less Developed Economy -- See Nepal’s Industrial Decline as a Wicked “Behavioral” Developmental Problem on Next Slide
Inability to Fully Exploit Obvious RCAs in Agriculture, Agro-Processing, Tourism, Electricity Production and Export, and from Nepal’s Strong International Brand, Younger Population/Demographic Dividend and Emigration and Remittances – Leading to Pervasive Negativism and Related Negative Behavioral Responses

Mixed Blessing of Emigration and Remittances: Reduced Poverty, Increased Consumption and Education Spending, Larger Local Markets – But Over-Valued Exchange Rate, Higher Wages and Land Prices, Reduced Exports, Adverse Effects on Family/Community Life and Farm Production, Perverse Policy Rents, Related Market Distortions

Actual, Prospective, and Risk of Emigration of Mainly Younger and Better Educated Adults: Reduces Labour Supply, Increases Industrial Wages, Makes Industrial Investment Even Riskier -- Better to Invest in Land, Housing, Related "Immovable" Assets, and Rent Seeking

Nepal’s Industrial Decline: Very Limited Investment, Firm Entry, Growth, Employment, Value Added, Exports, Productivity, Innovation, Clustering, Global Value Chain Participation

Opportunities, Challenges, Costs, Risks, Uncertainties, Unknowns and Unknowables Regarding the Federalization Process and its Impacts and Duration

Unreliable Electricity, Poor Road and Other Transport, Other Deficiencies in Productivity Enhancing Infrastructure; High Costs, Cost Over-Runs, and Frequent Delays for Infrastructure Construction Projects

Limited Land Availability and Very High Land Prices for Industrial/Other Business Development – Could Become the Binding Constraint when Infrastructure Deficiencies are Mitigated

Limited Competition/Entrepreneurial Culture Leading to Syndicates, Cartels, Other Anticompetitive Practices – Often Protected and Promoted by Political, Government, Other Elites

Recent Improvements to Business and Investment Climate e.g. SEZ Law – But Major Gaps, Deficiencies, and Uncertainties Remain in Current Policy, Legal and Regulatory Framework

Limited Access to Bank, Venture Capital, Other Commercial Financing – and “Missing” Financial and Other Markets

Political Instability, Policy Uncertainty, Coordination Failures and Limited Information on and Attention to Industrial and Export Competitiveness and Subnational Growth Outside KV Over Extended Period – Building Investor & Business Trust in Nepal Governments and Policies Will Take Time and Effort

Because of History, Geography, and Past and Current Trade and Transit Agreements, Too Much Dependence on India for Imports, Exports, and Access to Third Country Markets

Vulnerability to NTBs (Often Ad Hoc, Regulatory, Trade Facilitation Based) in Indian and Other Export Markets – Despite Nepal’s LDC Status and Resulting "Preferential "Trade Benefits

"Paradox" of Limited Productive Capacity to Respond to New Demands and Excess Industrial Capacity in More Traditional Industries and Firms

Limited Competition/Entrepreneurial Culture Leading to Syndicates, Cartels, Other Anticompetitive Practices – Often Protected and Promoted by Political, Government, Other Elites

Large, Expanding and Undocumented Informal (Shadow) Economy within Nepal, and Informal Flows of Goods, Services, Workers etc. Between India and Nepal (the Open Border)
Nepal’s Industrial Decline as a Wicked Underdevelopment Problem

Two-Way Arrows to Capture Complexities, Inter-Dependencies and Circularities Such As

- Industrial decline likely accelerated and sustained by
  - Overvalued exchange rate, higher industrial and other wages, higher industrial, business, infrastructure land prices
  - Limited supply of skilled labour, other negative economic, social, demographic, and leadership effects
  - Perverse policy rents, market distortions, policy failures
- Directly or indirectly associated with emigration and remittances. While on other hand
- Industrial decline, little job creation in manufacturing forced young people to seek work outside Nepal
Nepal’s Industrial Decline as a Wicked Underdevelopment Problem

Second Example of Complexities, Inter-Dependencies and Circularities

- Political instability, policy uncertainty contributed to Nepal’s industrial decline
- But industrial decline also reduced political voice, influence and clout of industrialists and their associations and supporters leading to
  - Even less political and government attention to industrial and related policies
  - At both national and subnational scales
Nepal’s Industrial Decline as a Wicked Underdevelopment Problem

Third Example of Complexities, Inter-Dependencies and Circularities

- Infrastructure deficiencies represent “binding constraints” to manufacturing growth and investment.
- But weak manufacturing sector raises costs of constructing and operating infrastructure because of:
  - Limited domestic supply and competition and too much dependence on imports from India not a fully reliable source.
  - Pervasive anticompetitive business practices in relevant markets, industries, supply chains: construction materials and services, transport etc.
Nepal’s Industrial Decline as a Wicked Underdevelopment Problem

Another Important Insight

- Factors, forces, change drivers with more positive dimensions such as
  - Federalization, remittances, recent improvements in business and investment climate
  - Nepal’s complex trade, transit, investment and commercial arrangements with India
- Also embody important qualifications, risks, uncertainties, contingencies and other dimensions
  - That are or can be perceived as negative
Nepal and Its Urban Corridors as a Wicked Foresight Problem (1)

Another Example of How Wicked Begets Wicked Approach and Basic Methodology

- Prepared early in ADB assignment then refined and updated later and (more or less) continuously
- Prepared visions, scenarios, other foresight outputs
  - Not projections/predictions using e.g. econometric or simulation model – make this clear from outset
- Conducted by three-person team: infrastructure engineer, cluster and foresight tourism economist &
- Yours truly the urban and regional economist/scribe
Nepal and Its Urban Corridors as a Wicked Foresight Problem (2)

**Approach and Basic Methodology Cont.**

- **Top-down approach:** start at national scale for “boundary constraints” and more “reliable” data
- Then do the best you can at corridor scale where data are meager, questionable, more qualitative, and need to be “constructed”
- **Apply KISS principle and use same official national population projection for all three scenarios**
- **Identify major change drivers for national growth performance and their implications for sub-national/urban corridor development**
Nepal and Its Urban Corridors as a Wicked Foresight Problem (3)

Three “Plausible” Scenarios/Visions at National Scale
First to 2030 for investment planning then 2050 for vision/scenario development -- Yogi Berra insight

1. High National Growth: More Desirable Scenario
   - Build momentum through time because of lumpy hard and soft investments
     - And time needed to generate federal system benefits
   - Annual GDP growth rates of 3-5% to 2023, 5-7% to 2030, 7-9% to 2040 similar to India growth, and 6-8% at more sustainable rate to 2050
     - Substantial urbanization and productivity gains
     - And Nepal approaches middle-income status by 2050
Nepal and Its Urban Corridors as a Wicked Foresight Problem (4)

Three “Plausible” Scenarios/Visions

2. **Medium National Growth**: Less Desirable but More Plausible

- Major hard and soft investments take more time to be constructed/implemented and generate benefits
- Annual GDP growth rates in 3-5% range to 2027, 5-7% to 2035, and 6-7% thereafter
- More modest benefits from federal system and never reaches recent Indian growth performance
- Less urbanization and Nepal achieves developing country/economy status during scenario period
Nepal and Its Urban Corridors as a Wicked Foresight Problem (5)

Three “Plausible” Scenarios/Visions

3. Low Growth/Little Change/Status Quo/Worst Case Scenario: least desirable & unfortunately quite plausible

- Proposed hard and soft investments and related reforms not made, delayed, take longer to complete and generate fewer benefits than predicted
- Steady/disappointing growth of 3-5% through 2050
  - Varying with monsoons, other external factors and shocks
  - Based more on remittances than output/productivity gains with limited urbanization
- Benefits from new constitution/federal system are meagre and Nepal remains a least developed country
Nepal and Its Urban Corridors as a Wicked Foresight Problem (6)

Next Step -- explore how each urban corridor and its many municipalities would grow, develop, urbanize under three scenarios with

- ADB and other proposed investments
  - Low scenario: only marginally above national
  - Medium scenario: above national through removing some growth constraints
  - High scenario more above national: removal of many constraints, greater exploitation of resources, investments, strategic comparative advantages
Nepal and Its Urban Corridors as a Wicked Foresight Problem (7)

**Major Lessons**

- Preparing and presenting scenarios very early
  - Disciplines Project Team and builds familiarity/support with foresight process among large/diverse client group
- Place all data and conduct all calculations in single Excel spreadsheet to
  - Facilitate correction, updating, new ideas, replication
  - Extension to sub-national urban regions/corridors
  - Address new client demands and opportunities
- Document, assess and report on all underlying assumptions and their implications and “plausibility”
Major Lessons Cont.

- Identify and carefully assess both positive and negative “wildcards” such as
  - “Contingent/aspirational” major transportation investments: E/W Railway in southern Nepal, and PRC proposed N/S railway from Tibet through Nepal to India
  - Closer “Belt & Road” relations with China & possible negative responses from India (see Sharma and Schultz article)
- Remember throughout process we are dealing with a promising but underdeveloped economy with
- Fragile and wicked characteristics and challenges
  - “We’re not in Shanghai any more Toto”
Wicked Problem Implications for Foresight (1)

- By their very nature, most foresight issues are also wicked problems
  - Especially in today’s unpredictable, high risk, emotionally charged, and
  - Wicked political, economic, social, regulatory, and other contexts and environments
- As captured in climate change, mass migrations, global terrorism, Brexit,
  - The “Trump Effect”, Nepal underdevelopment and so on
- Foresight practitioners therefore need to more often apply a behaviorally informed “wicked problem lens”
Wicked Problem Implications for Foresight (2)

- Develop a better recognition of the wicked characteristics of foresight issues and problems and
  - Of the insights from behavioral, neuroscience, social psychology, other psychological, sociology, institutional, political economy and science

- Other less conventional literatures (e.g. chaos theory) and multi-disciplinary approaches

- That will increase our understanding of how to address wicked foresight problems in the future

- Interesting and disturbing perhaps that a quick Google search identified only a few studies that directly link foresight with wicked problems
  - The silo problem: see 3 references in bibliography
Selected Sources


Selected Sources Cont.


Ramalingam Ben, Miguel Laric and John Primrose “From best practice to best fit: Understanding and navigating wicked problems in international development” ODI Working Paper July 2014


Termeer Catrien J.A.M. and Art Dewulf (2019) “A small wins framework to overcome the evaluation paradox of governing wicked problems” Policy and Society, 38:2, 298-314, DOI: 10.1080/14494035.2018.1497933 To link to this article: https://doi.org/10.1080/14494035.2018.1497933


Final Comment

Now I Would Like to Hear Your Additional Comments

- On these very preliminary ideas and “work in progress” on
- Wicked Problems, Behavioral Economics and Wicked Foresight Problems in Nepal and Elsewhere
- And I will be happy to send further material to you on request djirel@sympatico.ca