Scenario Planning

An Explanation

Professor Darryl Low Choy
Scenario Planning Steps

- Define Focal Question
- Identify certain & uncertain drivers of change
- Develop Scenarios based on drivers
- Test Policies for SDV Cluster Sectorial Objectives against scenarios
- Assemble Policies for SDV Cluster Sectorial Objectives
- Develop storylines to communicate Roadmap
- Review SDV Cluster Sectorial Objectives & Policies
- Develop Adaptation Pathway
- Identify Indicators for MREIL
- Implement

Facilitation team task
Stakeholder task
What plausible current and future drivers of change will influence the effective achievement of Mongolia’s Sustainable Development Goals by 2030 and beyond?
Introduction to “Drivers of Change”
Drivers of Change

Environmental, social, economic, political and technological factors (natural or human-induced) that directly or indirectly cause a change in a system and affect several temporal and spatial levels, e.g. global, regional, national and local drivers - internal or external to the system.
Examples of Drivers of Change for Scenario Construction

Global (Exogenous) Drivers of Change

- Occurrence of an international economic recession
- Increasing divide between developed and developing counties
- Declining reliance/trust on science
- Emerging new world order
- Increasing famines
- Increasing global migration
- Increasing biosecurity threats
- Emerging economies (carbon trading & bio-banking)
- Increasing globalisation
- Declining trust in authority & institutions
- Expanded & changing risk of climate change

Uncertain

Examples Only!
Examples of Drivers of Change for Scenario Construction

- National (Exogenous & Endogenous) Drivers of Change

- Failing Infrastructure
  - Loss of ecological & social resilience
  - Declining water availability & quality

- Centralisation of governance & management
  - Arising problems
  - Continued economic growth & affluence

- Technological developments in affordable housing

- Dwinding (skilled) labour force

- Focus on developing rural and regional Mongolia

- Uncertain
  - Declining population
  - Increasing impacts of climate change
  - Increasing Desertification

- Uncertain (continued)

*Examples Only!*
**Composite List of Key Drivers of Change confronting Mongolia**

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Scale</th>
<th>Global</th>
<th>Regional</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
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<tr>
<td>Social</td>
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<td>Economic</td>
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<tr>
<td>Political</td>
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</tr>
<tr>
<td>Technological</td>
<td></td>
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</tbody>
</table>

*Plausible current and future drivers of change that will influence the effective achievement of Mongolia’s Sustainable Development Goals by 2030 and beyond*
Brief Sample Application of Worksheet

Group Deliberations
Classification of Drivers of Change
Classification of Drivers of Change (drivers could influence the effective achievement of Mongolia’s Sustainable Development Goals by 2030 and beyond)
Uncertainty

An expression of the likelihood of a specific driver influencing change now and in the future. Uncertainty can result from lack of information or from disagreement about what is known or even knowable.

Likelihood language
In terms of the Focal Question, the likelihood of a driver occurring:

High (degree of) uncertainty:  ie about 2 out of a score of 10 likelihood of occurrence (Very unlikely)
Medium (degree of) uncertainty:  ie about 5 out of a score of 10 likelihood of occurrence (More likely than not)
Low (degree of) uncertainty:  ie about 8 out of a score of 10 likelihood of occurrence (Very likely)
Importance

The degree or relative significance to which a particular driver influences or will influence the subject area or a community.

**Significance language**
In terms of the Focal Question, the significance of a driver has a:

- **High** (degree of) importance: ie. About 8 out of a score of 10 (*High level*)
- **Medium** (degree of) importance: ie. About 5 out of a score of 10 (*Medium level*)
- **Low** (degree of) importance: ie. About 2 out of a score of 10 (*Low level*)
Questions?
Brief Sample Application of Worksheet

Group Deliberations
Drivers could influence the effective achievement of Mongolia’s Sustainable Development Goals by 2030 and beyond.
Listing Important & Uncertain Drivers of Change that will influence the effective achievement of Mongolia’s Sustainable Development Goals by 2030 and beyond

**Step1: Compile Composite List**

Capacity of governments to manage

Loss of ecological & social resilience

Shift to non government NRM/community services responsibility

Declining water quality

*etc*
Unpacking of key drivers of change
Shocks & Surprises

Events or situations that are possible yet improbable and that can have a profound impact. Shocks and surprises have the capacity to alter key trajectories affecting the way we do things now, and can generate challenges and opportunities never before encountered.
## Unpacking of Key Drivers

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Likely trends</th>
<th>Possible Shocks &amp; Surprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of ecological &amp; social resilience</td>
<td>Increasing extinction of native species</td>
<td>Scientific breakthrough saves species on edge of extinction</td>
</tr>
<tr>
<td></td>
<td>Loss of “sense of community”</td>
<td></td>
</tr>
<tr>
<td>Shift to non-government NRM responsibility</td>
<td>Increasing recognition of ecosystem services</td>
<td>Mongolia experiences four years of consecutive major floods</td>
</tr>
<tr>
<td></td>
<td>Imposition of a national tax</td>
<td></td>
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</tbody>
</table>
Questions?
Brief Sample Application of Worksheet
Synthesis: Identify critical drivers (highly uncertain and highly important drivers)
Ranking Important & Uncertain Drivers of Change that will influence the effective achievement of Mongolia’s Sustainable Development Goals by 2030 and beyond

**Step 1: Compile Composite List**
- Capacity of governments to manage
- Loss of ecological & social resilience
- Shift to non government NRM /community services responsibility
- Declining water quality
- etc

**Step 2: Ranking (vote)**

etc
Synthesis: regroup & reword drivers

Rank 1: Important & Uncertain Drivers
- Institutional Arrangements

Rank 2: Important & Uncertain Drivers
- Socio-Environmental Assets

Capacity of governments to manage

Loss of ecological & social resilience
Creation of Scenario Framework
Defining the axes from the regrouped Drivers

Rank 1: Important & Uncertain Drivers
- Institutional Arrangements
  - Formal & Well Resourced (High Quality)
  - Informal & Poorly Resourced (Low Quality)

Rank 2: Important & Uncertain Drivers
- Socio-Environmental Assets
  - High Quality
  - Low Quality
Creating the Framework

- **Rank 1**: Important & Uncertain Drivers
- **Rank 2**: Important & Uncertain Drivers

- **Formal & Well Resourced**
- **Informal & Poorly Resourced**

- **High Quality**
- **Low Quality**

- **Value for our Taxes**
- **Community Led Action**

- **Socio-Environmental Assets**
- **Institutional Arrangements**

- **Shirking Responsibility**
- **Anything Goes**
Selecting Scenarios & Developing Storylines
Signposts

Indicators that signal the emergence or divergence of characteristics of possible futures (eg events, occurrences or observations that can be scanned from the real world)

These indicators should prompt the establishment or cessation of particular actions

Changing direction (opportunities?)

Dangerous direction (threats?)
### Narrative & Roadmap: Anything Goes
(Going from the PRESENT to this possible FUTURE)

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#### Key Signposts (ie indicating changing direction - opportunities)
(ie indicators of possible futures being realised such as events, occurrences or observations that can be scanned from the real world):

1. 
2. 

#### Key Signposts (ie indicating a dangerous direction - threats)
(ie indicators of possible futures being realised such as events, occurrences or observations that can be scanned from the real world):

1. 
2. 

**Worksheet 4**
# Narrative & Roadmap: Value for our Taxes
(Going from the PRESENT to this possible FUTURE)

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1.  
2.  

**Key Signposts** (ie indicating a dangerous direction - threats)
(ie indicators of possible futures being realised such as events, occurrences or observations that can be scanned from the real world):

1.  
2.
Questions?
Brief Sample Application of Worksheet

Group Deliberations
‘Wind tunnel’ test of Future Options
(undertake for each scenario)
Full Development of Scenarios

- Fact Sheets
  - EPR
  - SOM

Synthesis & development of full Scenarios (by Facilitation team)

- Outputs from Workshop 1
- Research on Mega trends

Scenario 1
- Cyclones & Floods
- EPR
- SOM

Scenario 2
- Cyclones & Floods
- Research on Mega trends
The ‘Wind Tunnel’ Test
(Each Scenario)

Fact Sheets
EPR
SOM

SDV Cluster Sectorial Objective Policies

Scenario 1

“What If” Questions

Scenario 2

Robust & appropriate SDV Cluster Sectorial Objectives & Policies
Testing the Policies for SDV Cluster Sectorial Objectives

Overall assessment of each SDV Cluster Sectorial Objective Policy (within the scenario)
[Assess on a threefold scale (ie 1= low; 2=medium; and 3=high)]

Answer five “What If” Questions:
1. What is its likelihood of achieving its aims?
2. What is its likelihood of having negative impact on society?
3. To what extent will it assist to fulfil the Mongolian Sustainable Development Vision?
4. To what extent does it represent “value for money” - the best use of public money (i.e. cost effectiveness)?
5. To what extent will it enable communities to deal with future shocks and surprises?
Mongolian Sustainable Development Vision 2030

MONGOLIA SUSTAINABLE DEVELOPMENT VISION 2030

Ulaanbaatar
2016
**SDV Cluster Sectorial Objective Policy Vs “What If” Questions**

Scenario: ………………

<table>
<thead>
<tr>
<th>SDV Cluster Sectorial Objective Policy</th>
<th>Overall assessment of future options – “What If” Questions</th>
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<tr>
<td></td>
<td>(1= Low, 2 = Medium, 3 = High)</td>
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Worksheet 5
Questions?
Brief Sample Application of Worksheet

Group Deliberations
Backcasting

(Complete for each Scenario)
Scenario Planning  Backcasting
(http://www.naturalstep.ca/backcasting)

1. Begin with the end in mind
2. Move backwards from the vision to the present
3. Move step by step towards the vision
## Backcasting

<table>
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<tr>
<th>Pathways of change</th>
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<tr>
<td>Opportunities to realise vision</td>
</tr>
<tr>
<td>Obstacles to realise vision</td>
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<td>Key milestones – interim objectives to realise vision</td>
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<td>Key actions and strategies needed that help develop or take advantage of opportunities and help to overcome or neutralize obstacles</td>
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### Timeline – from now to 2040

<table>
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<th>Short term - by 2020</th>
<th>Mid term – 2020-30</th>
<th>Long term – 2030-40 and beyond</th>
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Based on tested policies, specify aspects related to:
- actors/ agencies/ partnerships/ communities
- data/ information/ knowledge
- resources
- rules and regulations
- others
Brief Sample Application of Worksheet
Assembling the Adaptation Pathways

1. Develop the overall potential Adaptation Pathways roadmap

2. Identify potential strong / weak “Leverage Points” (including policy intervention/s)

3. Select the pathway(s)

4. Identify turning, tipping & trigger points

5. Determine contingency actions

6. Identify milestones (and “achieve-by dates)

7. Establish a preferred Adaptation Pathways Plan and Map
   (addressing: actions and decisions that need to be made now and those that can be postponed; summarised targets, problems and potential and preferred pathways)

8. Confirm MERIL arrangements
Thank You!

Questions & Comments?