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The Energy and Resources Institute

Creating Adaptive Policies

A Guide for Policymaking in an Uncertain World



Presented by

IISD & TERI

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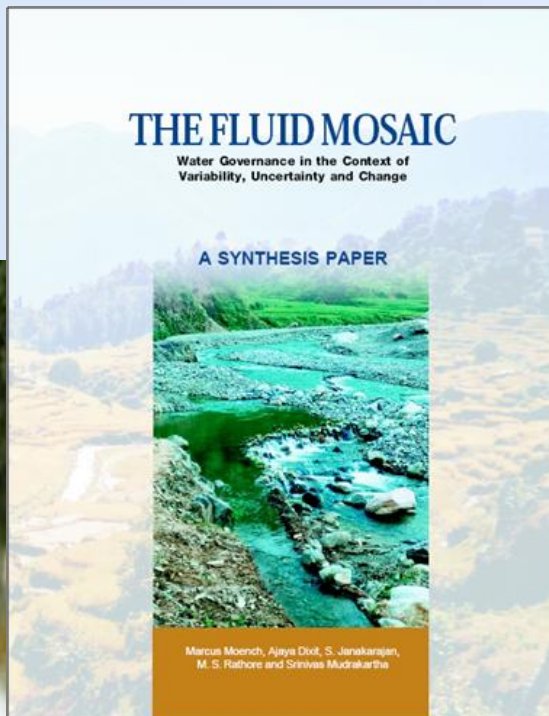
IDRC

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“When situations are characterized by variability, uncertainty and change, conventional planning scenarios provide little guidance regarding future needs and conditions.”

Marcus Moench

Water Resources Management in India



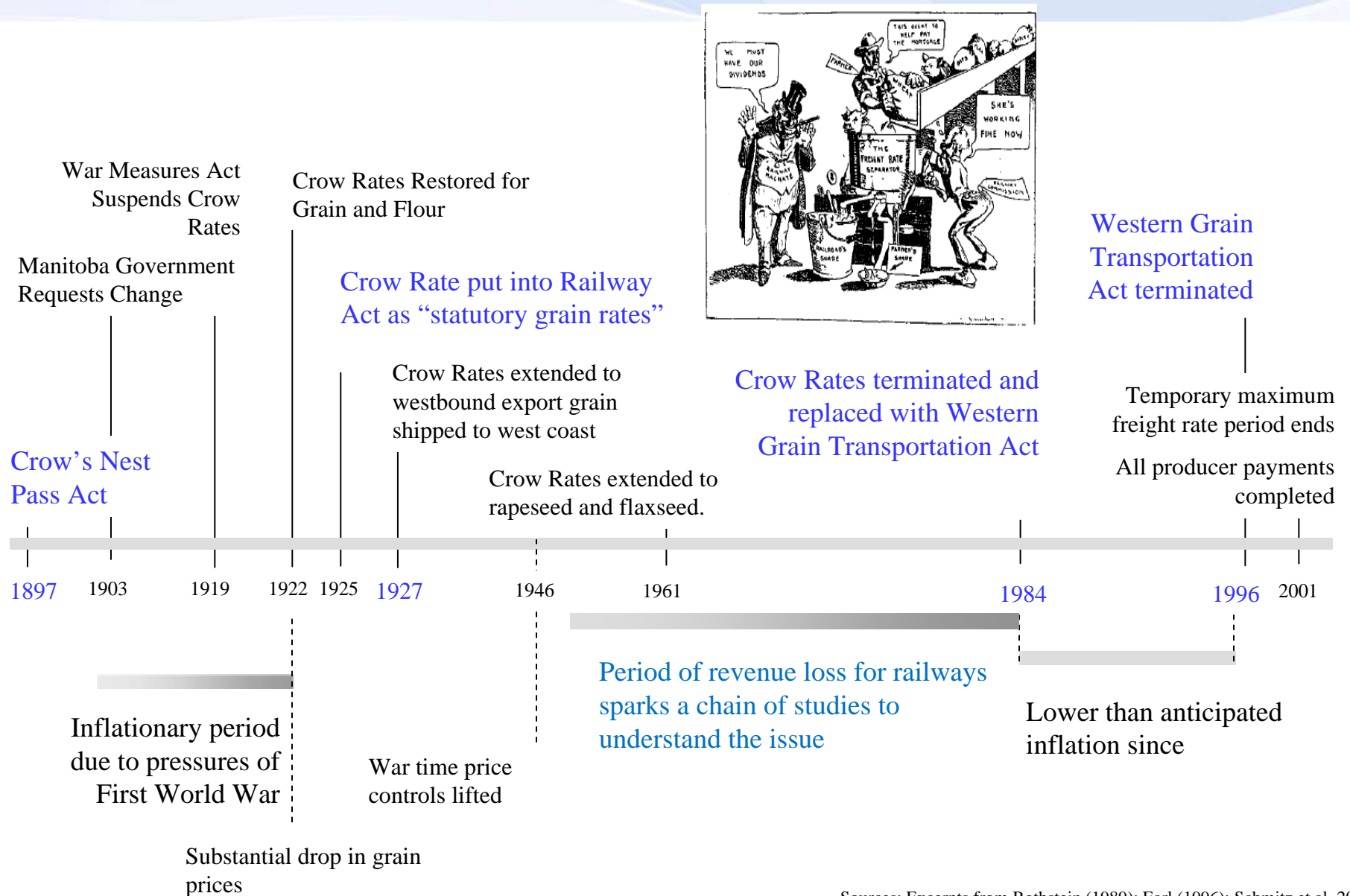
Business	<i>Leadership and the New Science.</i> Margaret Wheatly <i>The 5th Discipline</i> Peter Senge
IT Sector	Harnessing Complexity Axelrod and Cohen
Forest Management	The Invisible Wand James Ruitenbeek
Healthcare	Complexity Science in Practice Mayo Clinic Toolbox for Improving Health in Cities Glouberman et al.
International Development	Complex Systems Theory and Development Practice S. Rihani
Ecosystem Management	Panarchy Buzz Holling

The Policy Challenge...

- Experience demonstrates that policies crafted to operate within a certain range of conditions are often faced with unexpected challenges outside of that range.
- The result is that many policies have unintended impacts, don't accomplish their goals, or just get in the way.



Case: Evolution of the Crow Rate



...Studied high profile policies and talked to policymakers in Canada and India



**...talked to those impacted by policy
...identified effective policies
...compiled adaptive features**

Weather Stresses	Some Observed Coping Behaviors	Some Observed Adaptive Behaviors	Helpful Policies
Drought and shifting rainfall patterns	India: <ul style="list-style-type: none"> • Migration • Loans from informal lenders • Selling of assets • Diversifying livelihood options (on and off-farm) 	India: <ul style="list-style-type: none"> • Income stabilization and risk reduction • Income stabilization through social networks • Improved soil- moisture for double cropping • Modifying cropping pattern • Scheduling irrigation 	India: <ul style="list-style-type: none"> • Weather-indexed insurance pilots • Participatory watershed management • Participatory Irrigation Management
	Prairie Canada: <ul style="list-style-type: none"> • Modify farm practice • Get outside help • Crop insurance • Access loans • Off farm employment • Work longer • Reduce seeding, inputs • Sell at reduced prices • Wait out 	Prairie Canada: <ul style="list-style-type: none"> • Irrigation • Reduced, zero tillage • Crop diversification • Use local associations • Off-farm employment • Altering a farm practice • Water management plans 	Prairie Canada: <ul style="list-style-type: none"> • Alberta Irrigation District Programs • Saskatchewan Soil Conservation Association • Canadian Agriculture Income Stabilization program

Adaptive Policy

Ability of policy to
adapt to **anticipated**
conditions

(based on a good understanding of
cause and effect)

Ability of policy to
adapt to **unanticipated**
conditions

(based on a good understanding of
system dynamics and complexity)

#1

Integrated and Forward-looking Analysis

By *identifying key factors* that affect policy performance and *identifying scenarios* for how these factors might evolve in the future, policies can be made *robust to a range of anticipated conditions*, and indicators developed to help *trigger important policy adjustments* when needed.



Laying the foundation for an adaptive policy (policy setup)

Defining the Policy

1. Understand the issue
2. Set policy goal (s)
3. Identify performance indicators and targets
4. Develop policy options

Identify key factors that will affect policy performance

Define scenarios for the plausible evolution of key factors and test policy options

Integrated and forward-looking analysis

Scenario Planning



Example: Minimum Support Price (MSP) of the Agriculture Price Policy, Punjab, India

The MSP takes into account all important factors:

- Cost of production
- Changes in input prices
- Input/output price parity
- Trends in market prices, international market price situation, inter-crop price parity, effect on general price level
- Parity between prices paid and prices received by farmers (terms of trade)

#2

Multi-stakeholder Deliberation

Expands ability of policy to incorporate a range of anticipated conditions.

By providing access to different perspectives, different sources of knowledge, and different ways of knowing in order to consider new information and new views of the problem.

Rapid adjustment and response to unanticipated conditions.

By building the social cohesion, shared vision and capacity for collective action

Examples



Participatory Irrigation
Management – Maharashtra

National Watershed
Development Project for
Rainfed Areas (NWDPRAs)
in India

#3

Automatic Policy Adjustment

Some of the inherent variability in socio-economic and ecological conditions can be anticipated, and *monitoring of key indicators* can help *trigger important policy adjustments* to keep the policy functioning well.

Types of Automatic Adjustment

- **Fully-automatic adjustment:**
 - Where a thorough understanding of the policy issue can articulate anticipated changes in underlying conditions, and allows for a specific policy adjustment to be pre-defined.
 - Example: *Weather Indexed Insurance*
 - linked to the underlying weather risk measured by an index based on historical climate data, rather than the extent of crop yield loss
- **Semi-automatic adjustment**

#4

Enabling Self-organization and Social Networking

Ensuring that policies do ***not undermine existing social capital***; creating forums that ***enable social networking***; facilitating the ***sharing of good practices***; and ***removing barriers to self-organization***, all strengthen the ability of stakeholders to respond to unanticipated events in a variety of innovative ways.



Example

- National Watershed Development Project for Rainfed Areas (NWDPRRA)
- Four types of groups are to be organized at the village level namely
 1. Formation of Self Help Groups
 2. User Groups
 3. Watershed Association
 4. Watershed Committee

#5

Decentralization of Decision-making

Decentralizing the authority and responsibility for decision-making to the lowest effective and accountable unit of governance, whether existing or newly created, can increase the capacity of a policy to perform successfully when confronted with unforeseen events.



Example

Crop Insurance

Example

Manitoba Conservation Districts



#6

Promoting Variation

Given the complexity of most policy settings, implementing a *variety of policies to address the same issue increases the likelihood of achieving desired outcomes*. Diversity of responses also forms a common risk-management approach, facilitating the ability to perform efficiently in the face of unanticipated conditions.



the Architect, the facilitator, the learner

- The policy-maker as an *architect*:
 - Providing a range of policy options
 - Designing and using a mix of policy instruments to achieve a single policy objective
 - Seeing and making linkages with other policies that have similar intent
- The policy-maker as a *facilitator*:
 - Creating an enabling environment for variation to occur
- The policy-maker as a *learner*:
 - Observing which policies work well and strengthening those policies

#7

Formal Review and Continuous Learning

Regular review, even when the policy is performing well, and the *use of well-designed pilots throughout* the life of the policy to test assumptions related to performance, can help *address emerging issues and trigger important policy adjustments*.



“Apply GHG emission reduction policies that incorporate adaptive management practices and have built-in monitoring and assessment mechanisms to allow for regular reviews to ensure efficiency and effectiveness.”

Canada’s National Round Table on the
Environment and the Economy, 2007

Tasks for the Adaptive Policy-maker

1. Understand

- a. intended goals
- b. key factors affecting performance and their interactions
- c. plausible futures of key factors
- d. policy options and indicators of success
- e. what adjustments can be triggered to ensure performance

2. Strengthen capacity

- a. of policy to respond to opportunity
- b. for policy innovation

3. Monitor

- a. indicators of performance compared to objectives
- b. indicators of key factors and thresholds for triggering policy adjustments
- c. stakeholder feedback
- d. new information on emerging issues

4. Improve

- a. make necessary policy adjustments to ensure performance

Tools for the Adaptive Policy-maker

Integrated and forward-looking analysis

Multi-stakeholder deliberation

Self-organization and social networking

Decentralization of decision-making

Variation

Automatic adjustment

Formal policy review and continuous learning

Outcomes of Adaptive Policy

Policy that is robust to a range of anticipated conditions

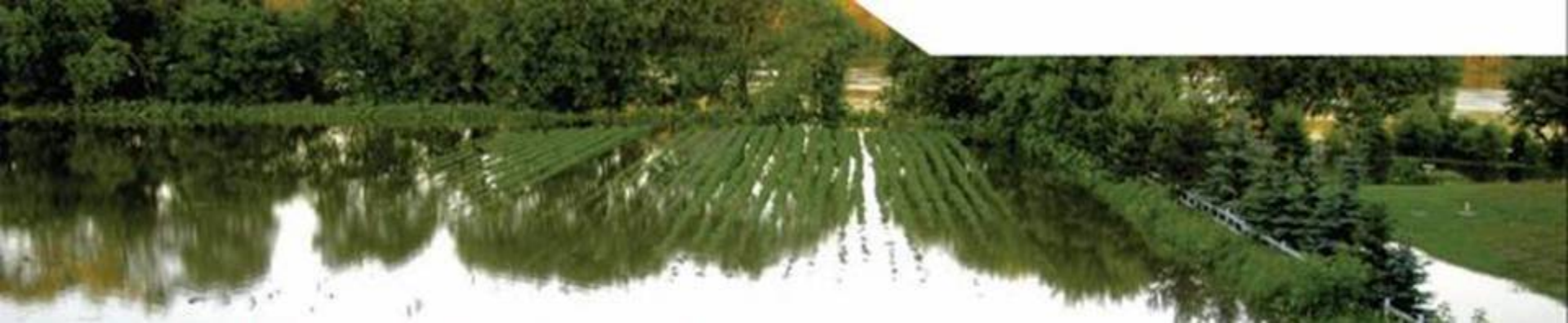
Policy that adapts to anticipated conditions

Broader participation and commitment to “making it work”

Enhanced local resilience to unforeseen events

Experience gained in a variety of policy approaches

Policy that is ready for what lies around the corner



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<http://www.iisd.org/climate/vulnerability/policy.asp>

