Monitoring & Evaluation

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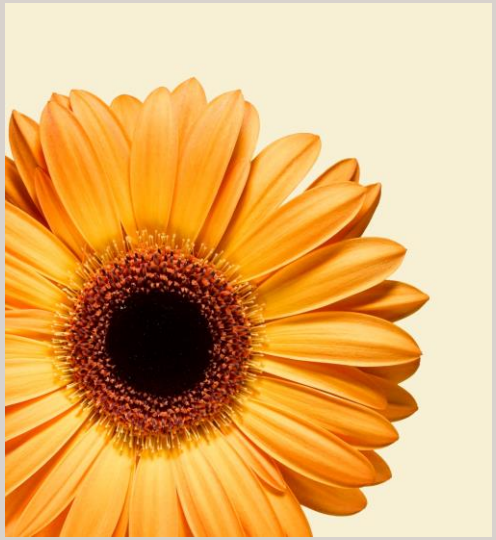
01 Monitoring

The Effects of Migration to Borneo on Household Income

Abstract: This paper provides monitoring evidence on the recent policy of encouraging migration to Borneo from Java. The paper makes use of a natural experiment in which several Java towns used a lottery approach to select households for migration. We compare statistical data on the migration to the non-migration households and find that the former experienced a 35% increase in annual income.



Textbook: Dunn, Chapter 6

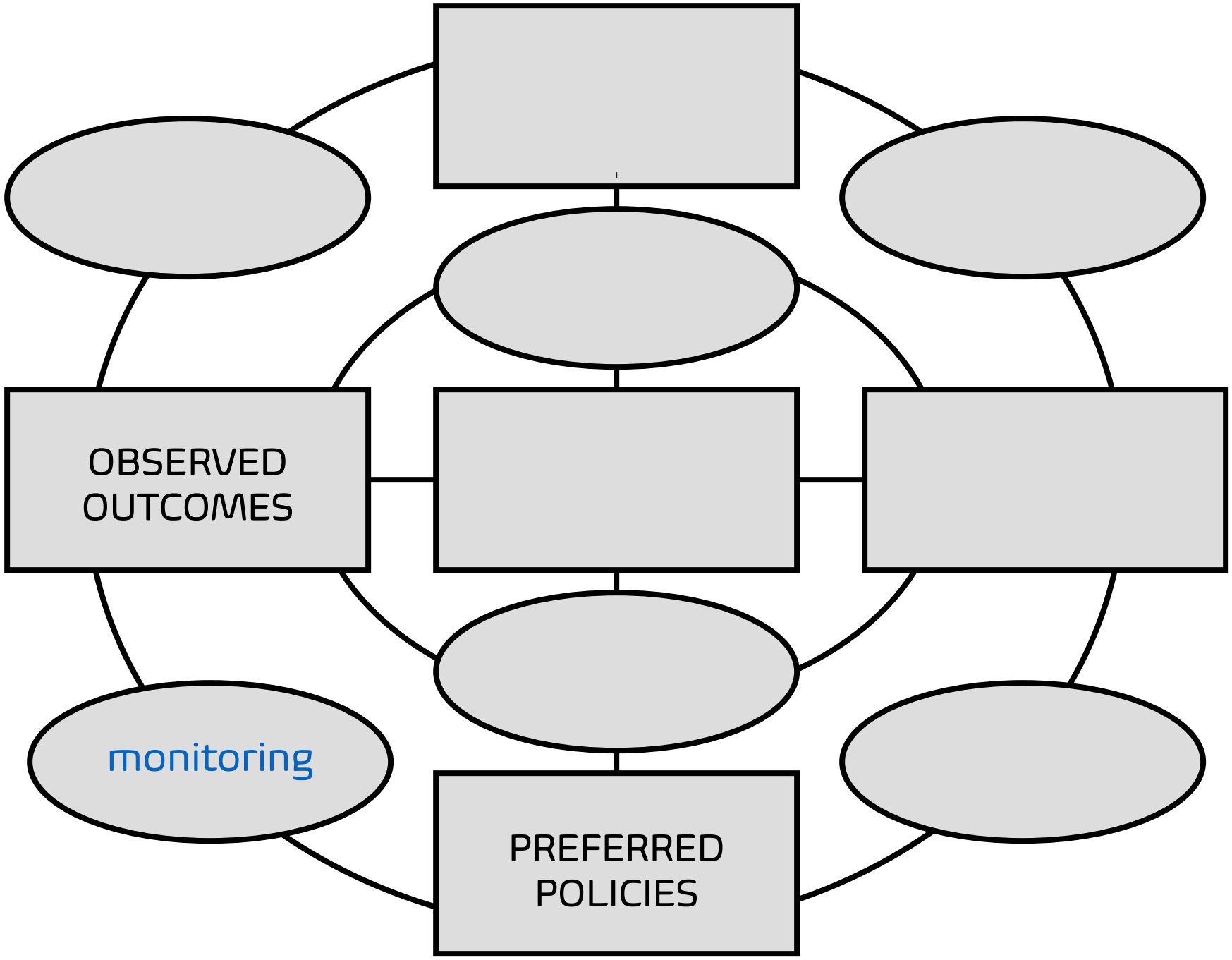
Reading: Wibulpolprasert & Chandoevwit, "How Strong is the Social Health Insurance Effect on Out-of-Pocket Expenditure?: Evidence from Thailand", TDRI Quarterly Review (2016)

Discussion: Wibulpolprasert & Chandoevwit use a social systems accounting approach to monitor the effects on out-of-pocket expenses of Thailand's Universal Health Coverage policy that began in 2001. Discuss the pros and cons of their approach

Paper: Discuss how research practice & synthesis, policy experimentation, or social auditing could be used to supplement the Wibulpolprasert & Chandoevwit study.

Policy Analysis in the Policy Process

Policy Process Stage	Type of Policy Analysis	
Agenda Setting	Problem Structuring (Week 2)	Communication and Advocacy (8 & 10)
Formulation	Forecasting (3)	
Selection	Prescription (4&5)	
Implementation	Monitoring (6)	
Assessment	Evaluation (7)	
Revision, Succession, or Termination	Prescription (4&5)	


OBSERVED
OUTCOMES
monitoring
PREFERRED
POLICIES

What to Monitor?

Inputs	• Time, Money, Attention, etc. (Efficiency, Adequacy)
Process	• Actions Taken, Work Performed (Fairness, Openness, Efficiency, Timeliness)
Outputs	• Products, Services, Changes that result (Relevance to Objectives)
Outcomes	• Short or Medium-Term Effects (Congruence with Objectives)
Impacts	• Long-term effects both positive/negative, intended/ unintended (Congruence with goals)

Four Functions of Monitoring

- *Legal Compliance*—e.g. Are the local enforcement actions consistent with the EPA regulations?
- *Financial Auditing*—e.g. Is the program budget being spent on the enforcement as intended?
- *Output/Outcome Accounting*—e.g. Do air pollution indices show a decline in the enforcement cities?
- *Explanation from Policy* —e.g. Are the declines a result of the enforcement policy or other factors?

Information and data

- Information:
  - policy analysis research: data inventory and management
  - macro-negative (air pollution is highly likely)
  - micro-positive (enforcement may help)
- Definitions:
  - conceptual (fine particle air pollution)
  - operational (concentration of tiny particles or droplets in the air that are two and one half microns or less in width)
- Measures of operational:
  - constitutive (direct measure of 2.5 pm concentrations)
  - effect-substitutive (visibility of air)
  - cause-substitutive (emissions from factories with high levels of 2.5pm)

4 methods

1. Research and Practice Synthesis: Theory-based inference using monitored data

2. Social Systems Accounting: Data-based inference using available theory

3. Policy Experiments: controlled comparison of treatment case with non-treatment case

4. Policy Auditing: direct observation of policy effect

Method 1: Research and Practice Synthesis

- "The policy is working because the literature says it will work if a, b, and c are true, which they are."
- Deductive inference (it works if the conditions under which it is supposed to work are met)
- Based on synthesis of research (journals, books, memos, reports, statistics, case survey analysis)
- data = causal logics/ theories/ mechanisms research
- A policy intervention makes sense if the relevant conditions hold in the given circumstances or in order to test the theory/logic
- e.g. under what conditions do enforcement actions by cities reduce air pollution?

Method 2: Social Systems Accounting

- “The policy is working because we randomly sampled cases and controlled for all variables and modelled the result and it shows a positive effect.”
- Inductive inference (it works if we observe at the population level a correlation between the policy and the outcome, we control for other causes, and we have a logical theory linking cause and effect)
- Statistical measures of all relevant variables and use of of multiple regression (econometrics)
- data = sample/survey/census statistical data
- E.g. the OECD finds that city-level enforcement actions are a strong and reliable predictor of city-level air quality indices using data from 23 countries and 345 cities

Method 2 (cont'd)

- Need to check that policy objectives (to reduce air pollution) are being met in ways (via mechanisms) that actually achieve policy goals (to make production cleaner not to force polluting firms to relocate elsewhere) – i.e. need to check that causal modelling forecast is accurate
- Lalonde: the use of econometric modelling with census statistics to measure the proportion of an observed effect attributable to a policy intervention is subject to high levels of uncertainty due to unobserved characteristics of the policy intervention

Method 3: Policy Experimentation

- "The policy is working because in an experiment we found the treatment group showed positive effects compared to the control group."
- data = experimental statistical data or qualitative data
- Randomized Policy Experiments — Like randomized clinical trials in medicine, randomized policy experiments involve the direct manipulation of an intervention and random selection of participants and random assignment of participants to an intervention and control group.
- Natural Policy Experiments (also called "quasi-experiments" —Random selection and assignment are not possible or ethical, but there are intervention and control groups – e.g. pilot projects with stratified control groups

Method 3 (cont'd)

Problems with experiments

- History: both treatment and sample may be subject to exogenous shocks
- Maturation: nothing stays the same (learning, norm change, etc.)
- Acting for the test: so is the test a problem or a solution?
- Instability: random noise in all data
- Instrumentation: changes in data measurement
- Mortality: sample groups deteriorate over time
- Selection: non-random or biased
- Regression toward the mean
- Violated assumptions of statistical tests

Method 4: Social and technological Auditing

- "The policy is working because we directly observed the policy in action in case H and the transformation of resources from inputs to outputs and outcomes."
- direct observation of a policy to ascertain compliance, mechanisms, and model of change
- data = audit statistical or qualitative data
- observation in-person and by technology
- opening up the "black box" between inputs and outputs
- e.g. resource transformation in which input resources are used in unintended ways
- e.g. following enforcement officers on their rounds might show that air pollution fell not because of threats of fines (coercion) but because they helped polluters become more informed (information) and connected to best-practice peers (organization) and able to access tax breaks (fiscal)

02 Evaluation

Textbook: Dunn, Chapter 7

Reading: "Evaluating Impacts of Cross-Border Transport Infrastructure in the Greater Mekong Subregion: Three Approaches" (Asian Development Bank, 2017)

Discussion: Fukimura offers pseudo and formal-evaluation approaches to the cross-border transport infrastructure: regression analysis and a gravity model (pseudo evaluation) and a narrow cost-benefit analysis (formal evaluation). What would be included in a decision-theoretic or comprehensive evaluation?

Paper: Write up a plan to evaluate the impacts on Khon Kaen of the cross-border transport infrastructure of the Greater Mekong sub-region. Be sure to discuss policy goals, formal values and latent values, monitoring data, and evaluation approaches.

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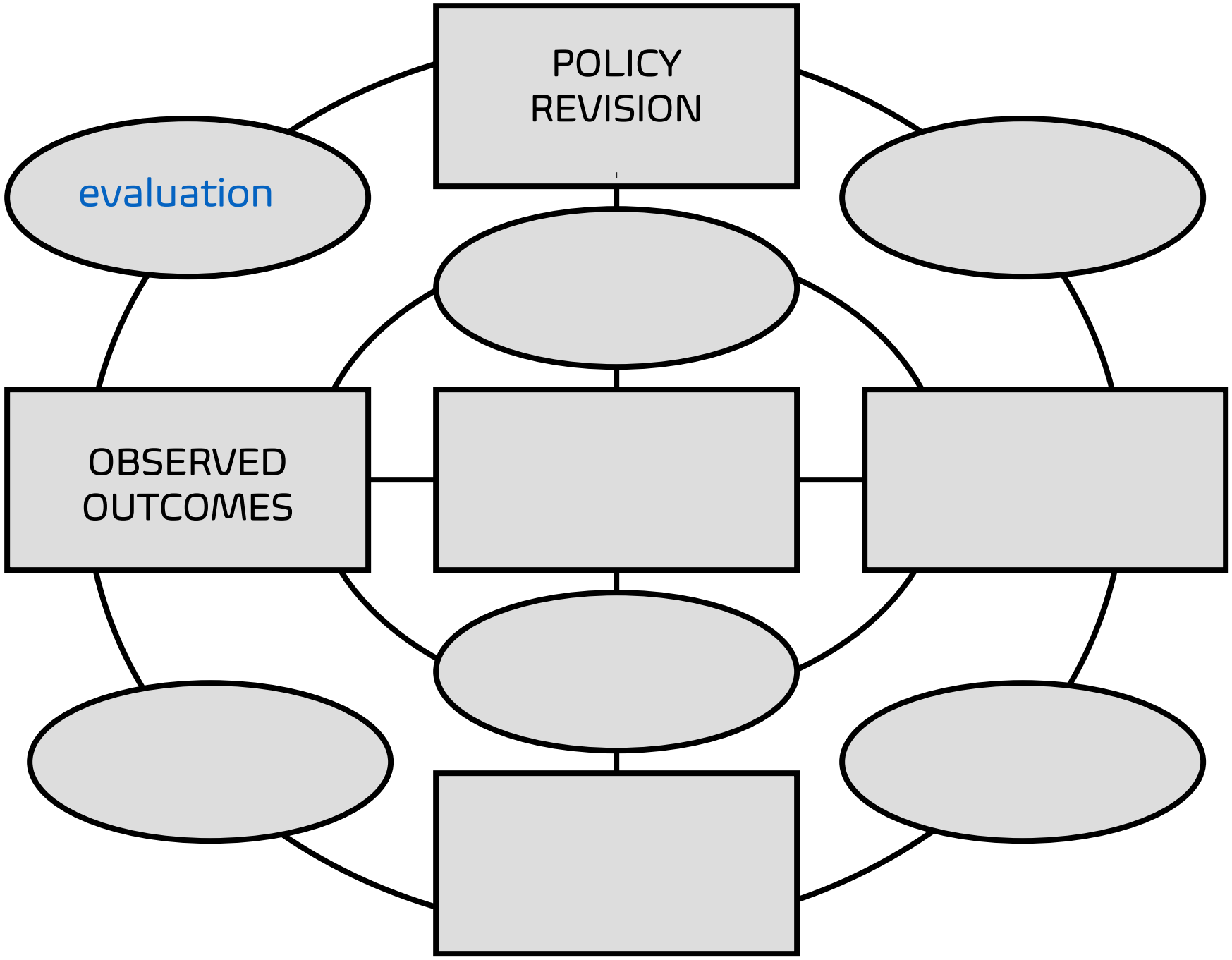
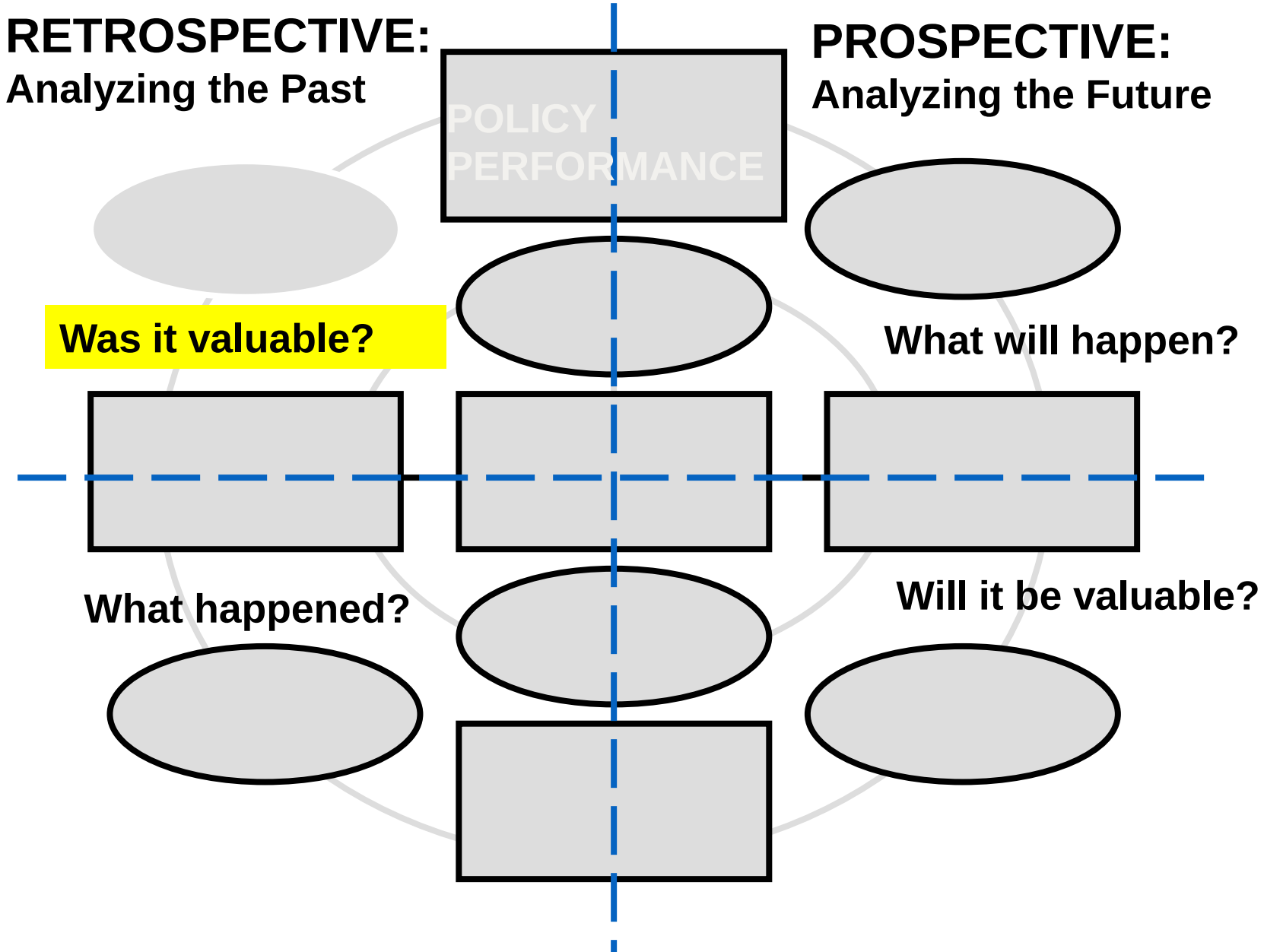
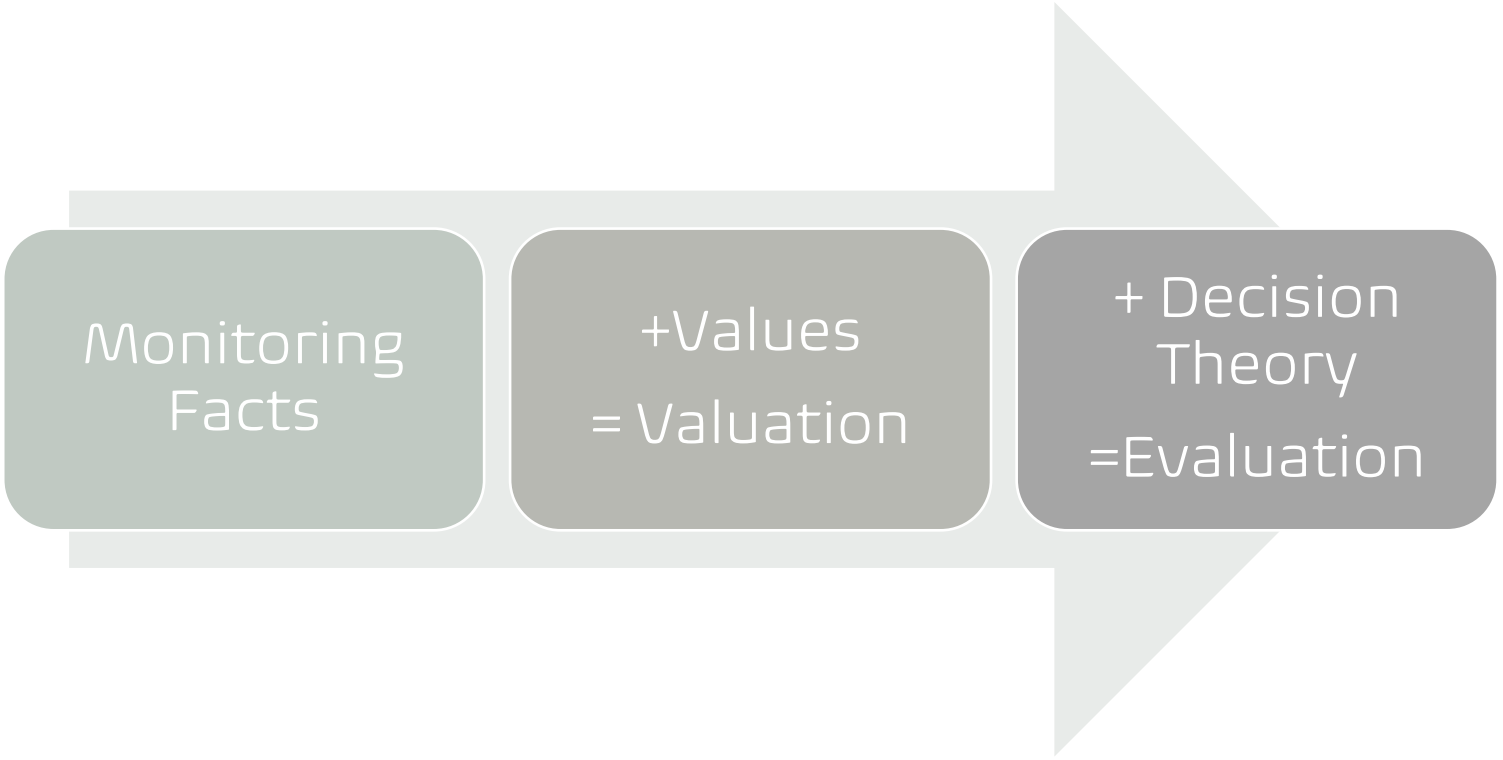
Revision, Succession, or Termination	Prescription (4&5)	


POLICY
REVISION
evaluation
OBSERVED
OUTCOMES


RETROSPECTIVE:
Analyzing the Past
PROSPECTIVE:
Analyzing the Future
POLICY
PERFORMANCE
Was it valuable?
What will happen?
What happened?
Will it be valuable?

Monitoring to Evaluation



Methods

When?

- Mid-Stream, Ex Ante
- Retrospective, Ex Post

How?

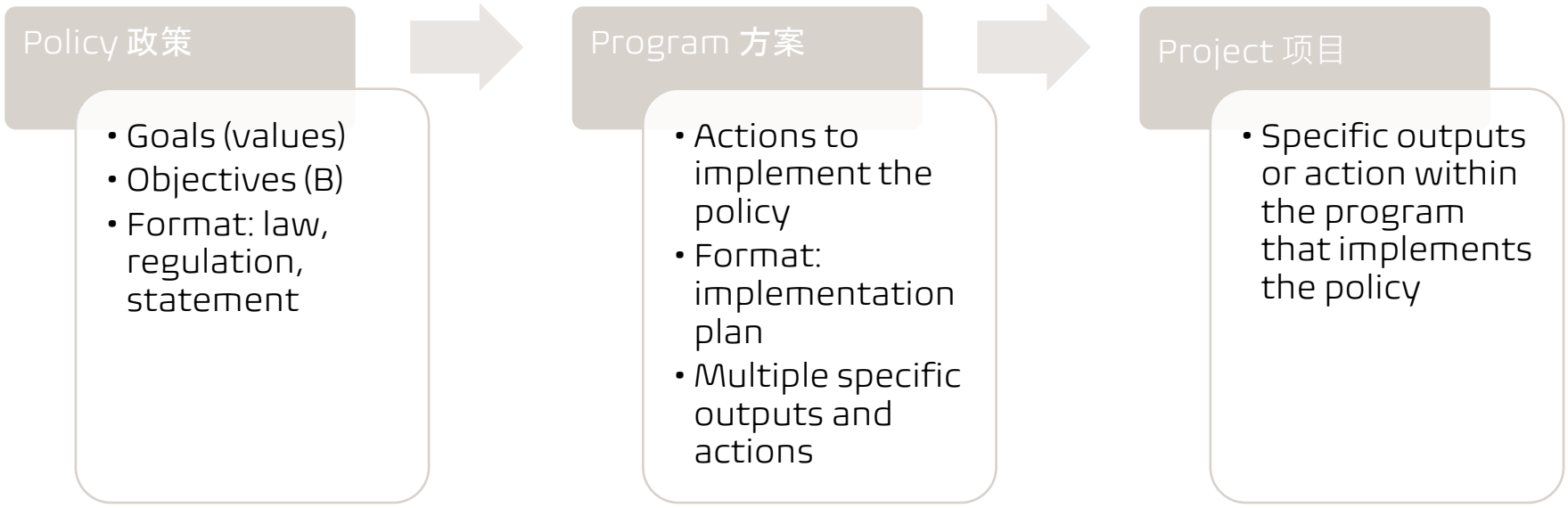
- Comprehensive/ Observational (research synthesis; social systems accounting)
- Experimental/ Pilot (Developmental) (experiments; audits)

Who?

- Participatory
- Professional/ Official

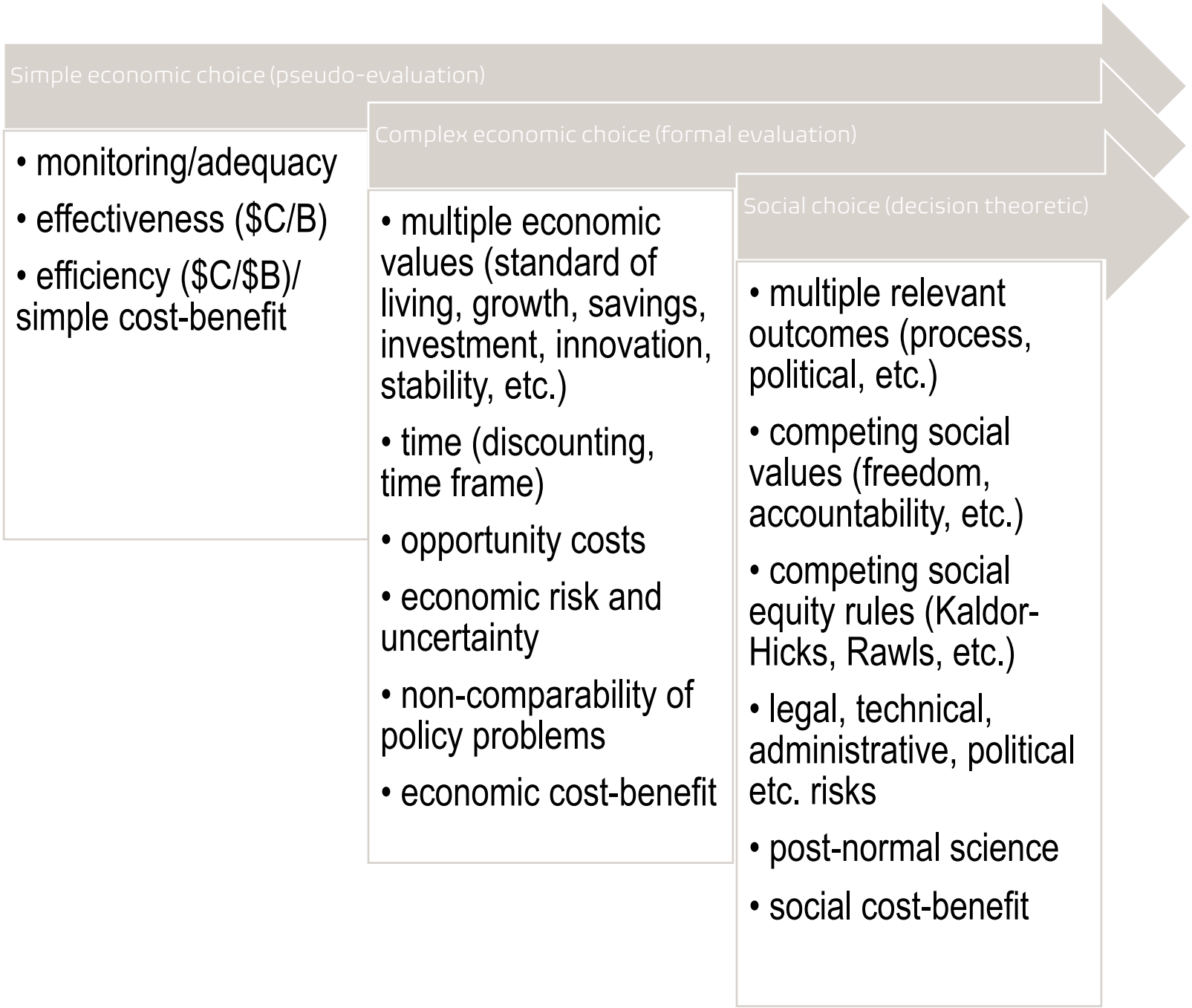
What?

- Pseudo (monitoring of outcomes)
- Formal (cost-effectiveness of outcomes)
- Decision-Theoretic (broad CBA of multiple goals)



Homelessness

1) Policy: e.g. national policy statement announced by Ministry of Housing that will create new micro-housing for 100,000 people over 5 years
2) Program: e.g. Network of local officials and NGOs in City X who are recipients of the housing policy funding and create a plan to house 1,000 people with this funding in City X
3) Project: one of the three micro-housing sites built by the network in City X


Simple economic choice (pseudo-evaluation)
• monitoring/adequacy
• effectiveness ($C/B)
• efficiency ($C/$B)/ simple cost-benefit
Complex economic choice (formal evaluation)
• multiple economic values (standard of living, growth, savings, investment, innovation, stability, etc.)
• time (discounting, time frame)
• opportunity costs
• economic risk and uncertainty
• non-comparability of policy problems
• economic cost-benefit
Social choice (decision theoretic)
• multiple relevant outcomes (process, political, etc.)
• competing social values (freedom, accountability, etc.)
• competing social equity rules (Kaldor-Hicks, Rawls, etc.)
• legal, technical, administrative, political etc. risks
• post-normal science
• social cost-benefit

Types of Policy Success (McConnell)

	Success	Failure
PROCESS	Preservation of policy tools, high policy legitimacy, strong coalition, image of innovation and competence	Destruction of policy tools, no legitimacy, collapse of coalitions, image of incompetence and insularity, universal opposition
PROGRAM	Effective and easy implementation, intended outcomes, clear beneficiaries, meets values	Ineffective and impossible implementation, no intended outcomes, damages groups, fails values.
POLITICS	Agenda setting and governing power, electoral prospects or political support, universal acceptance of political benefits	Capacity to govern damaged, electoral prospects collapse, value leadership and agenda-setting lost, universal acceptance of political losses

Asian development bank evaluation process

(i) desk review of project documents

(ii) literature review

(iii) identify and access existing data sources

(iv) design an evaluation framework and develop an action plan for implementation

(v) prepare an inception report that includes a description of the intervention to be evaluated, evaluation questions, evaluation design, implementation plan, and other information requested by the project team

(vi) design survey instruments and guide the national specialists and survey team in the conduct of surveys

(vii) conduct empirical analysis of the impacts of the project

(viii) prepare a final report with details of the impact evaluation study, highlighting

lessons learned and recommendations for future operations

(ix) assist in disseminating the evaluation findings

COSTS

1. Negative impact on some industries along corridor (e.g. domestic cargo sector)
2. Time, risk, opportunity cost
3. Environmental impact
4. Long-term economic impacts (costs)
5. Administrative and regulatory costs

> Monitoring data and approach?

BENEFITS

1. Equity/distribution/fairness of GDP growth or income growth
2. Time, risk
3. Long-term economic impacts (benefits)
4. Political benefits (multiple goals and objectives)

> Monitoring data and approach?

Thank You