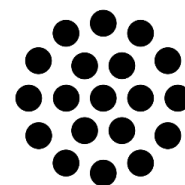




**GLOBAL
YOUNG
ACADEMY**



**International
Science Council**



International Network
for Government
Science Advice

Masterclass: Transdisciplinary Global Science Advice

GYA Science Advice Working Group

May 6, 2024



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Welcome!

Global Young Academy: “Science for All, Science for the Future“

- Support, engage, and empower young scientists
- Interdisciplinary projects and initiatives
- Collaboration with international institutions
- Supporting (National) Young Academies



SCIENCE ADVICE

WORKING GROUP

GLOBAL YOUNG ACADEMY

Trust in (Young) Scientists

Climate Change and Disaster Risk Reduction

Science & Society



Research Environment



Science Education & Outreach



GYA & the SDGs



International Cooperation



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Leopoldina
Nationale Akademie
der Wissenschaften

allea |

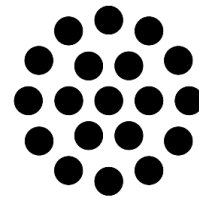
All European
Academies



International Network
for Government
Science Advice

iap SCIENCE
HEALTH
POLICY
the interacademy partnership

twas



**International
Science Council**



JOINT RESEARCH CENTRE
The European Commission's in-house science service



Sustainable Impact



Motivation



Global challenges require action
across borders, disciplines,
and generations for a
sustainable future

What is your experience with science for policy advice?



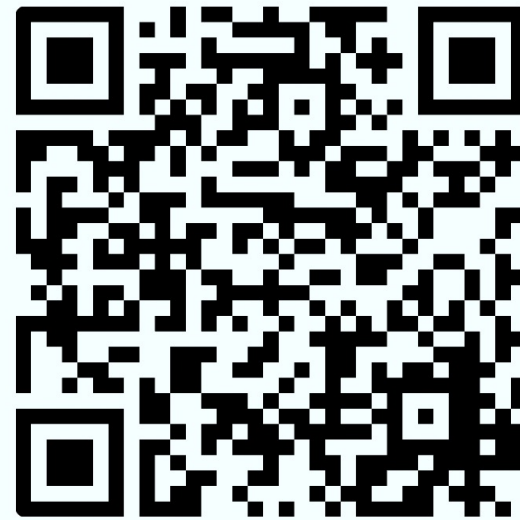
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Motivation

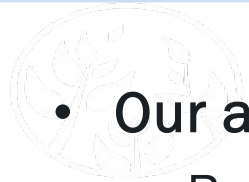


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- **Today's policy challenges are highly complex**
 - Global – crossing national borders
 - Interrelated – crossing traditional disciplinary boundaries
 - Science and technology relevant
- **Early- to mid-career researchers uniquely well positioned to contribute**
 - Trained in up-to-date methods and expertise
 - Often incentivized to stay within their disciplinary silos (reputation, publish, promotion).
 - Less practical experience with science advice than more senior advisors

How can we be drivers of change and better contribute to science advice?

Introduction



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- **Our approach**
 - Build capacity of early- to mid-career scientists
 - Science advice and diplomacy
 - Transdisciplinarity and with a global focus
- **Today's masterclass** a first introduction to this approach
- **GYA AGM Conference Theme on Sustainable Development**
 - Real-life examples today relate to this topic, but approaches are broader

Outline



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- Introduction to key concepts
- The challenge of sustainable development
- A general approach to problem-solving
 - Identifying stakeholders
 - Mapping outcomes to a system
 - Identifying levers for change
- Case study: How local context / stakeholders change policy solutions
- Expert voices: key challenges and pressing issues with strategies

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Key Concepts



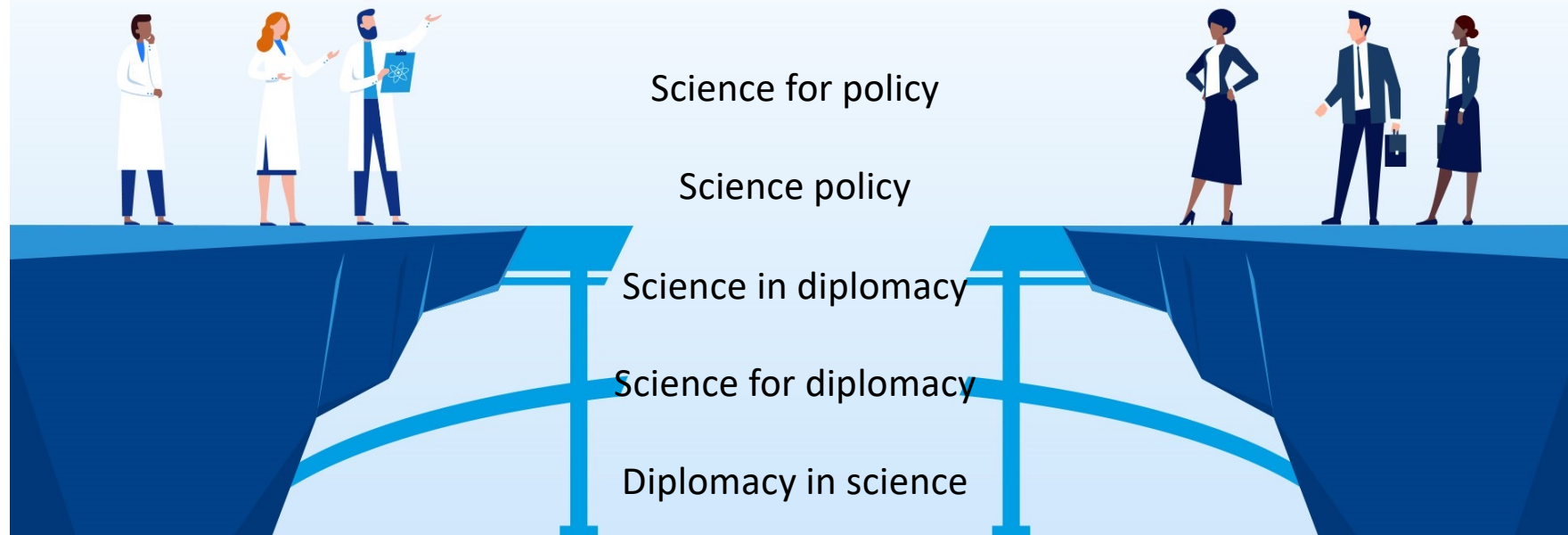
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1. What are science advice and science diplomacy?
2. What is a mechanism?
3. Who is a stakeholder?

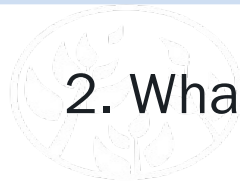


Key Concepts

1. What are science advice and science diplomacy?

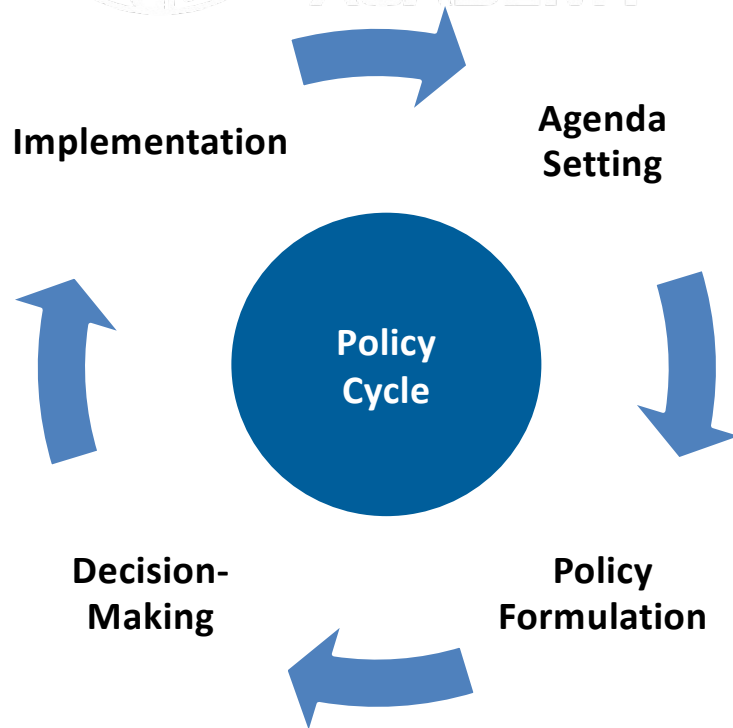


Key Concepts

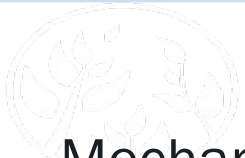


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2. What is a mechanism?



Key Concepts

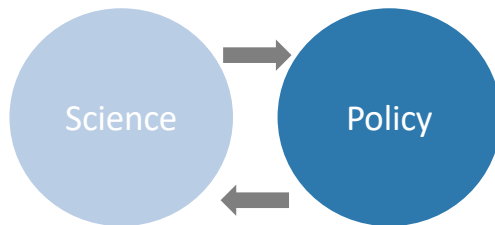


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Mechanisms of operation

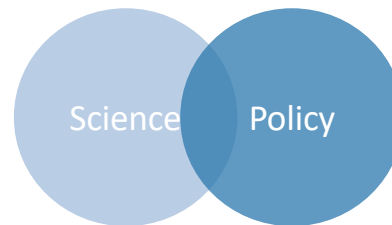
LINEAR

1. PUSH - PULL



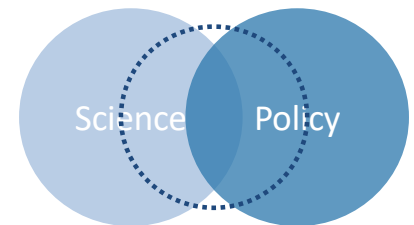
RELATIONAL

2. EXCHANGE

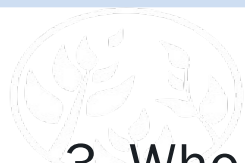


SYSTEMS

3. INTEGRATED

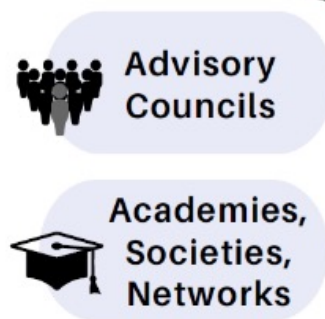
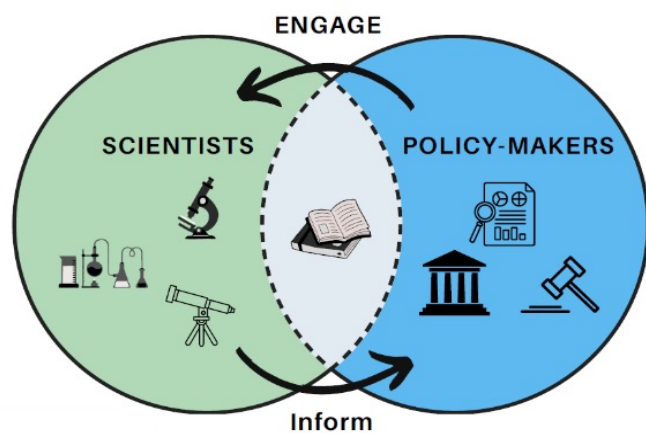
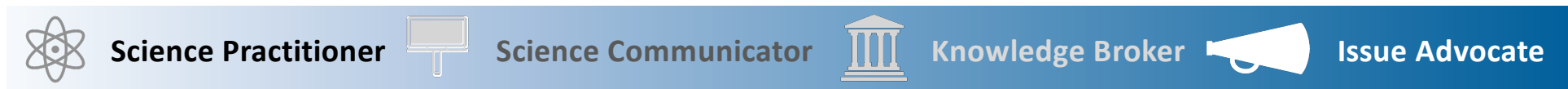


Key Concepts



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3. Who is a stakeholder?



STAKEHOLDERS
Industry
Academia
Government



Example



Science Practitioner Science Communicator Knowledge Broker Issue Advocate

NREGA
Mahatma Gandhi National Rural Employment Guarantee Act



What is the role at the science-policy interface you identify with?

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The Sustainable Development Challenge

Consider your experiences
and discuss mechanisms,
stakeholders, and roles
toward sustainable development?



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A Problem-Solving Approach



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1. Identifying stakeholders
2. Mapping outcomes to a system
3. Identifying levers for change

**How do local context / stakeholders
change “best” policy solutions?**



A Problem-Solving Approach: Case Study



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1. Identifying stakeholders
2. Mapping outcomes to a system
3. Identifying levers for change

How do local context / stakeholders
change “best” policy solutions?



**SUSTAINABLE
DEVELOPMENT
GOALS**

1. Identifying Stakeholders

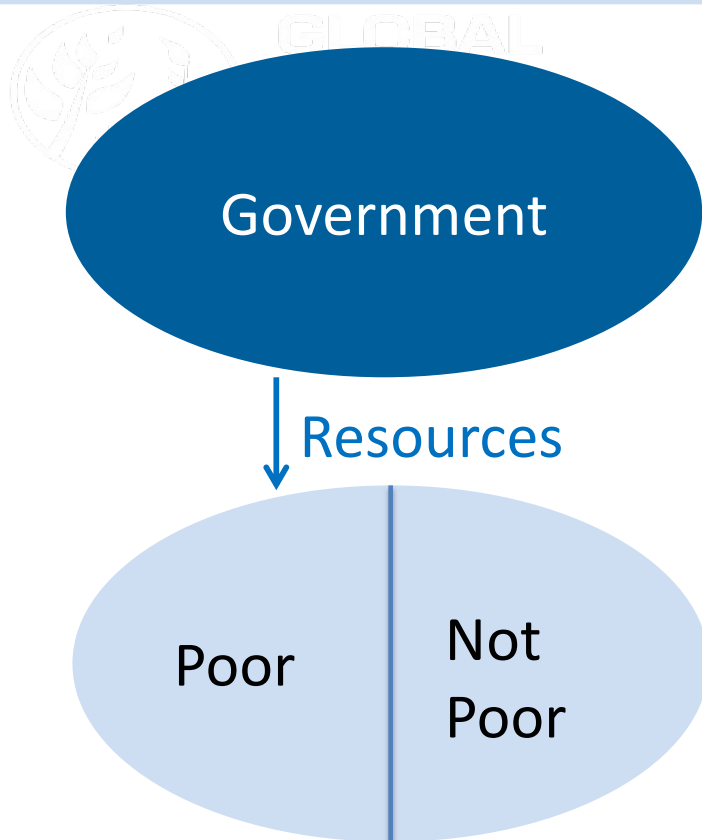


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For a given case, outcome, or policy issue

- Describe the current situation
- Who are the key actors driving that outcome?
- How are the stakeholders interacting with each other?
- What are likely motivations of stakeholders? What obstacles?
- What alternative solutions to the issue are conceivable?

2. Mapping the Outcome: Ideal Case



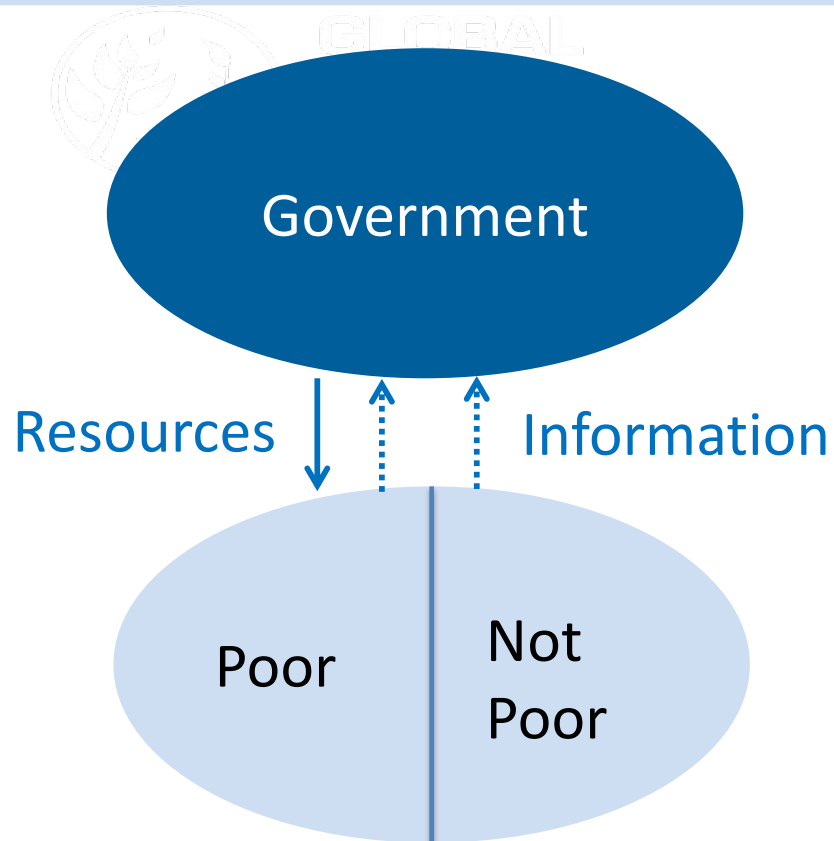
Analysis

Goal: lower poverty

Obstacle: limited budget, logistics, state capacity to implement and enforce policies

Potential strategies: in-kind transfers, cash transfers, subsidies (e.g. through lower taxes)

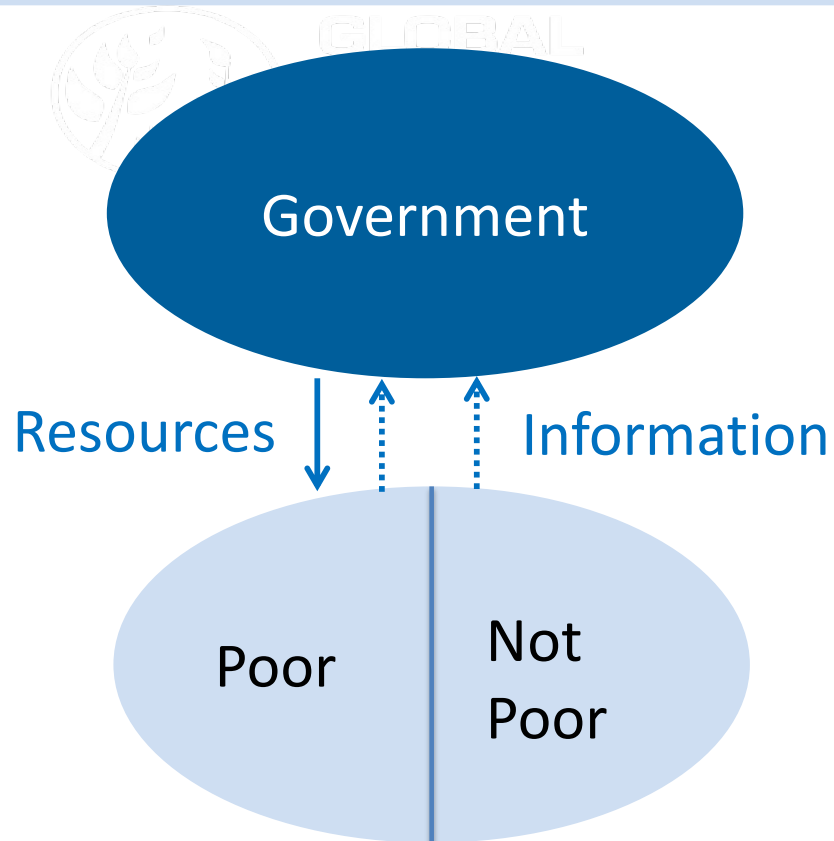
2. Mapping the Outcome: Real-World Problem



Implementation
requires knowledge:

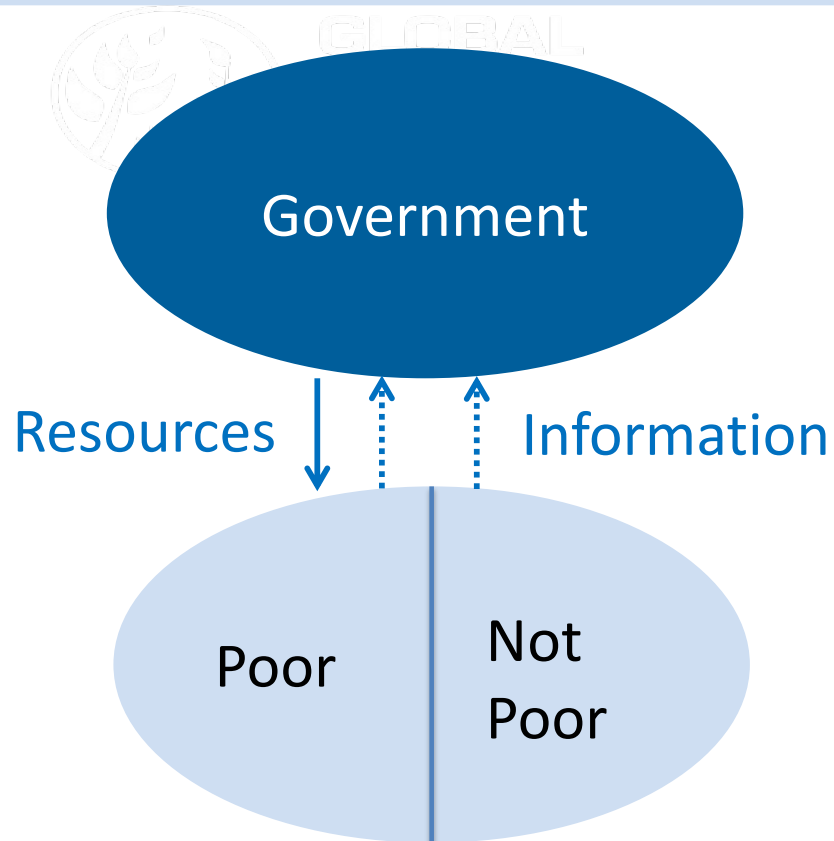
*which households are
poor and should receive
the transfers?*

2. Mapping the Outcome: Impact



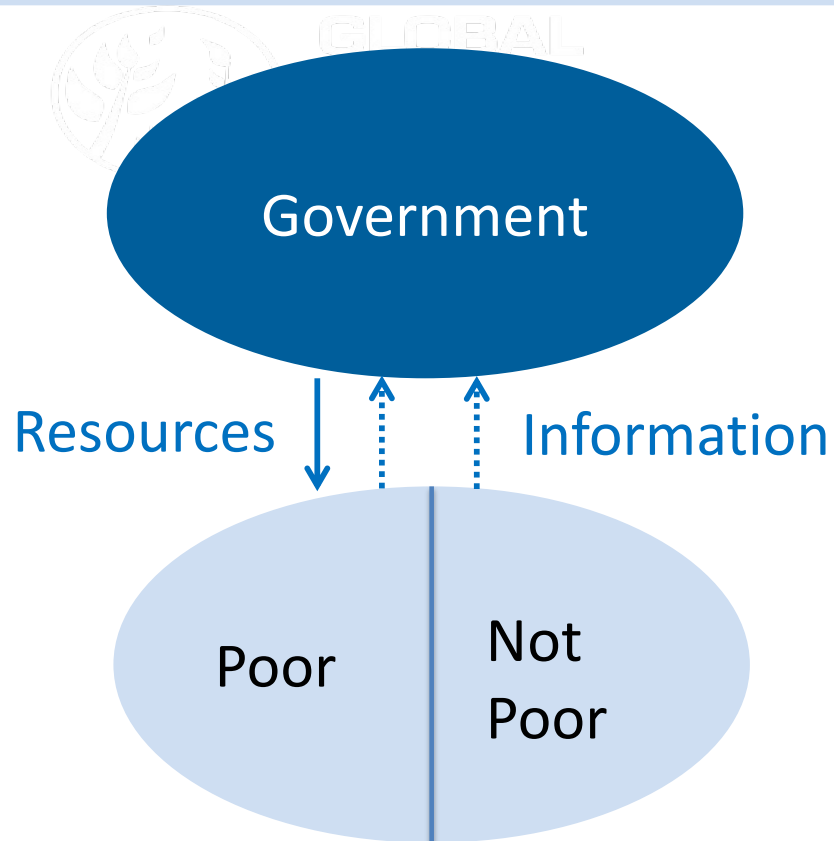
- Program impact
 - diluted (rich households receive transfers)
 - higher costs (rich and poor receive transfers)
- Worse cost-benefit ratio
 - lower poverty reduction (benefit)
 - higher costs

3. Identify Levers of Change: Solution and Impact



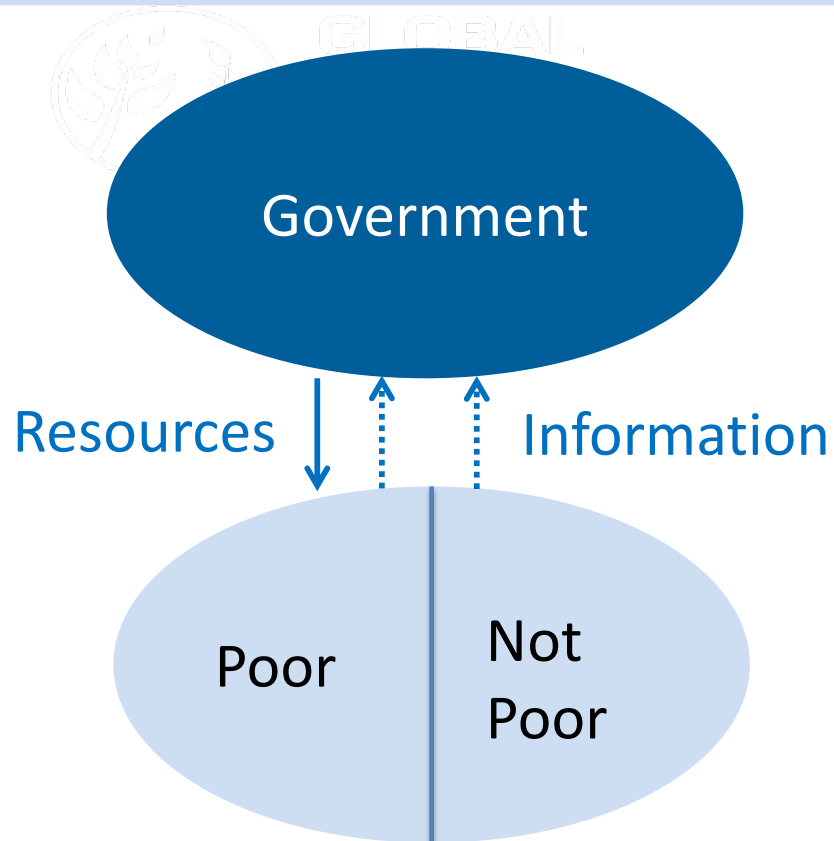
- Allow government to identify who is eligible
 - Collect / double-check information
 - Digitized real-time information

3. Identify Levers of Change: Solution and Impact



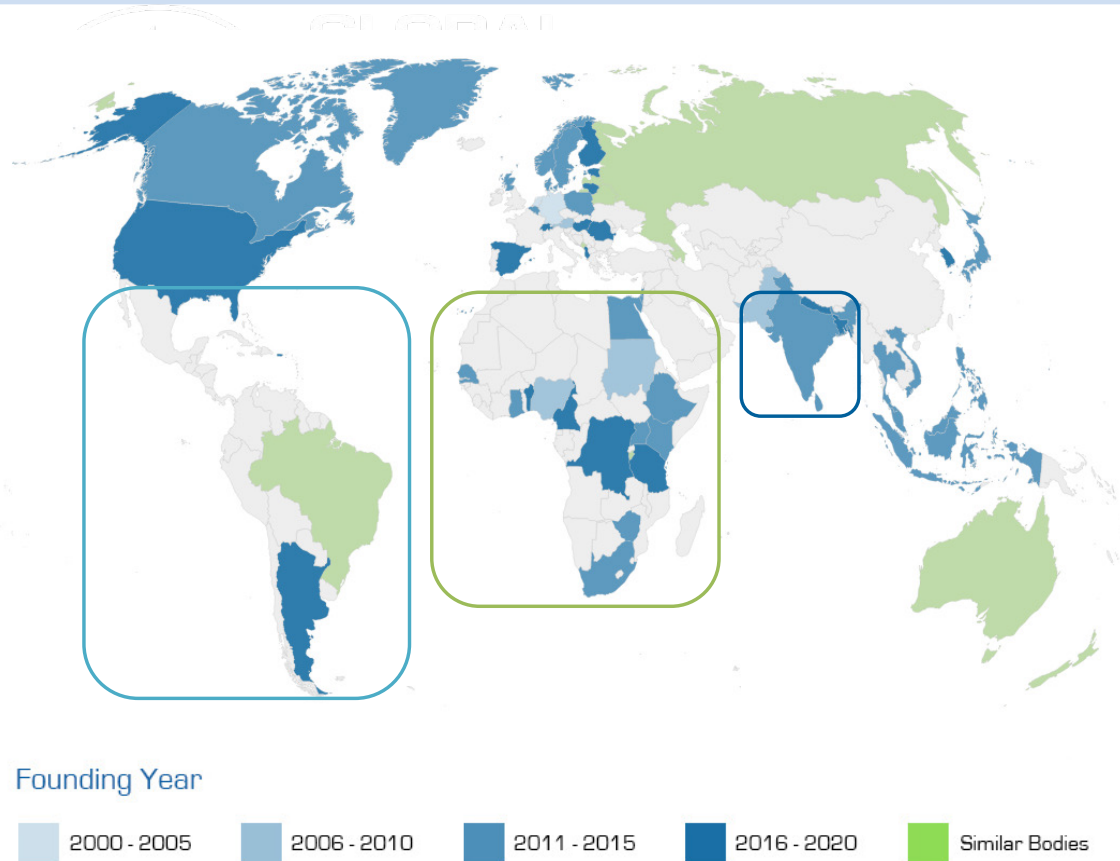
- Allow government to identify who is eligible
 - Collect / double-check information
 - Digitized real-time information
- Make inaccurate information unattractive
 - Example: NREGA
 - Beneficiaries request work at local government office
 - Minimum wage

3. Identify Levers of Change: Solution and Impact



- Allow government to identify who is eligible
 - Collect / double-check information
 - Digitized real-time information
- Make inaccurate information unattractive
- Add conditions to the resource transfer
 - Example: Progresa
 - Conditional cash transfers: school attendance, health check-ups

Examples Worldwide: Public Work Programs



India: NREGA

Bangladesh: Female Secondary School Assistance Project

Ethiopia: Productive Safety Net Program (PSNP)

Rwanda: Vision 2020 Umurenge Program

Mexico: Progres a / Oportunidades / Prospera (discontinued)

Brazil: Bolsa Familia / Auxilio Brasil / Bolsa Familia

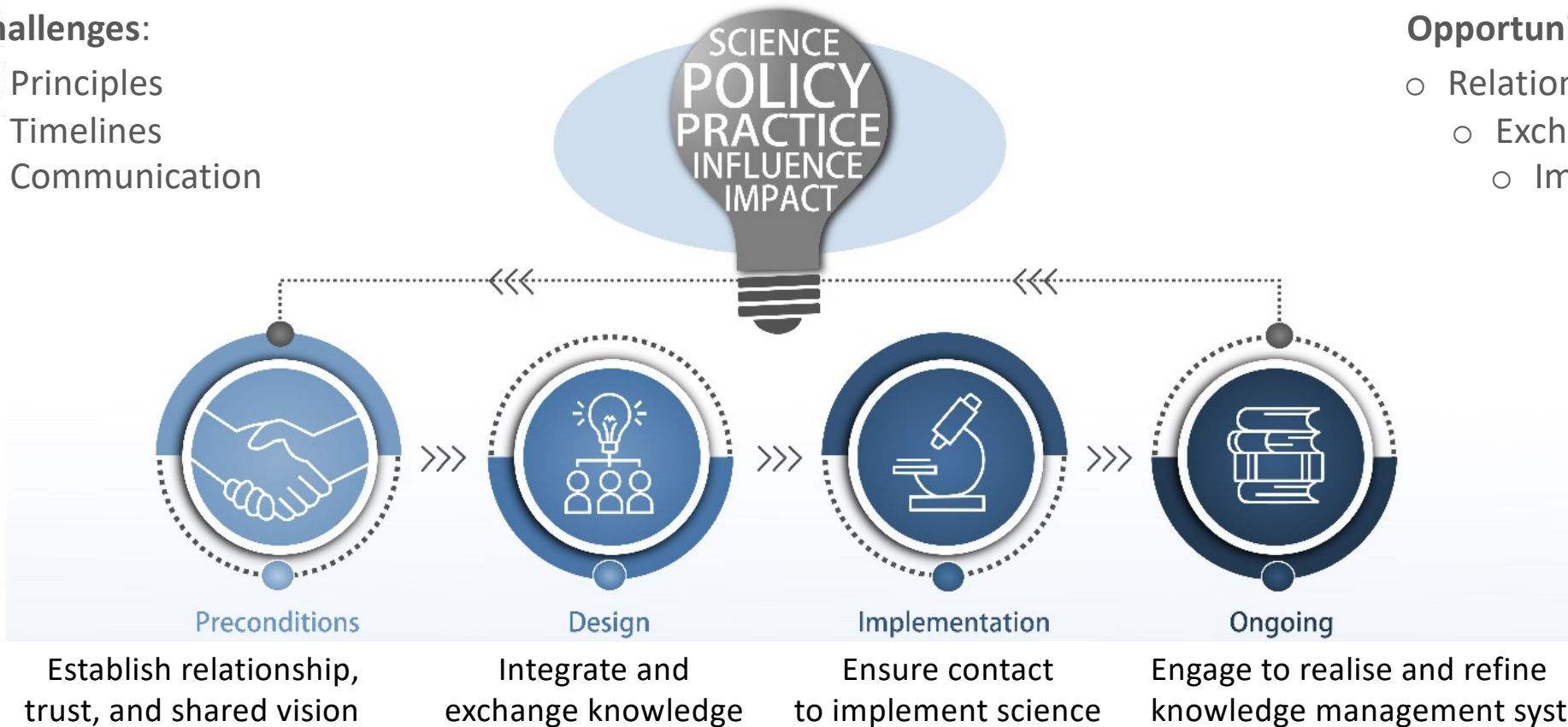
Lessons Learned

Challenges:

- Principles
- Timelines
- Communication

Opportunities:

- Relationship
 - Exchange
 - Impact



Experts



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Morgan Seag



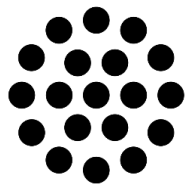
Gabreila Ivan



Justine Geramo



Marga Gual Soler



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Outlook



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Thank You

