

A Case for Incorporating Institutions in Climate Change Studies and Models

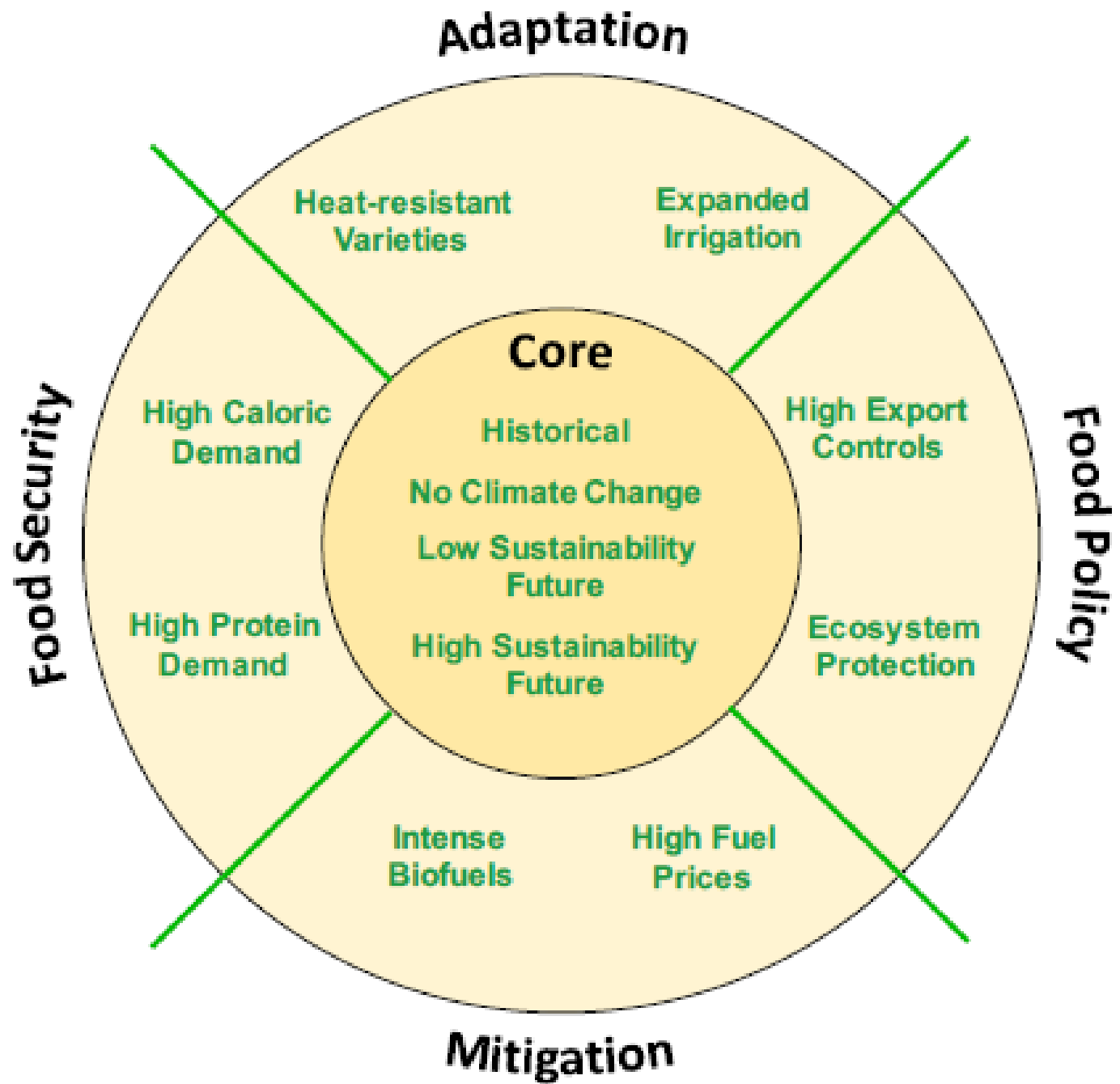
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Definitions

- Broad definition :“humanly created formal and informal mechanisms that shape social and individual expectations, interactions, and behavior”
- “Institutions are the formal and informal organizations through which society structures shared decision-making and takes collective action”

Types of Institutions

- **Property Rights Institutions** : institutions that protect individuals and firms from risk of expropriation by the government or powerful elites
- Contracting Institutions : institutions that enforce contracts made by private citizens
- **Institution for social insurance**
- Institutions for conflict management



Di... ..

(1) Institutions as fundamental determinants of mitigation and adaptive capacities of societies

- Overall governance, particularly land and water governance determine mitigation and adaptive capacity
 - Governance: “the manner in which power is exercised in the management of a country's economic and social resources for development“
- Strength of institutions as determinant of the effectiveness of adaptation and mitigation policies
- Thus, institutions also determine the magnitude of the impact that climate change has on societies

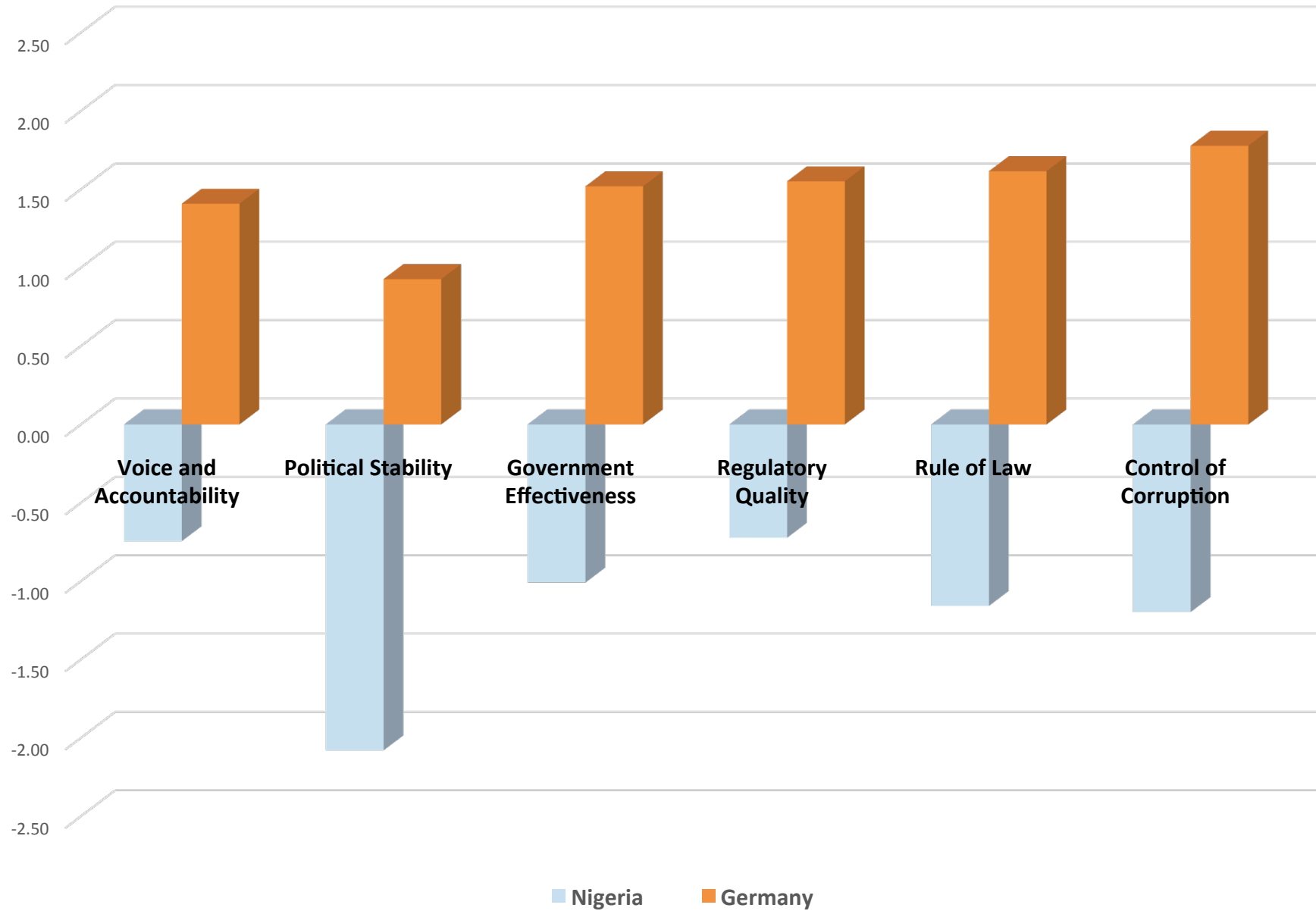
World Bank (Kauffman) Governance Indicators

(a) the process by which governments are selected, monitored and replaced;

(b) the capacity of the government to effectively formulate and implement sound policies; and

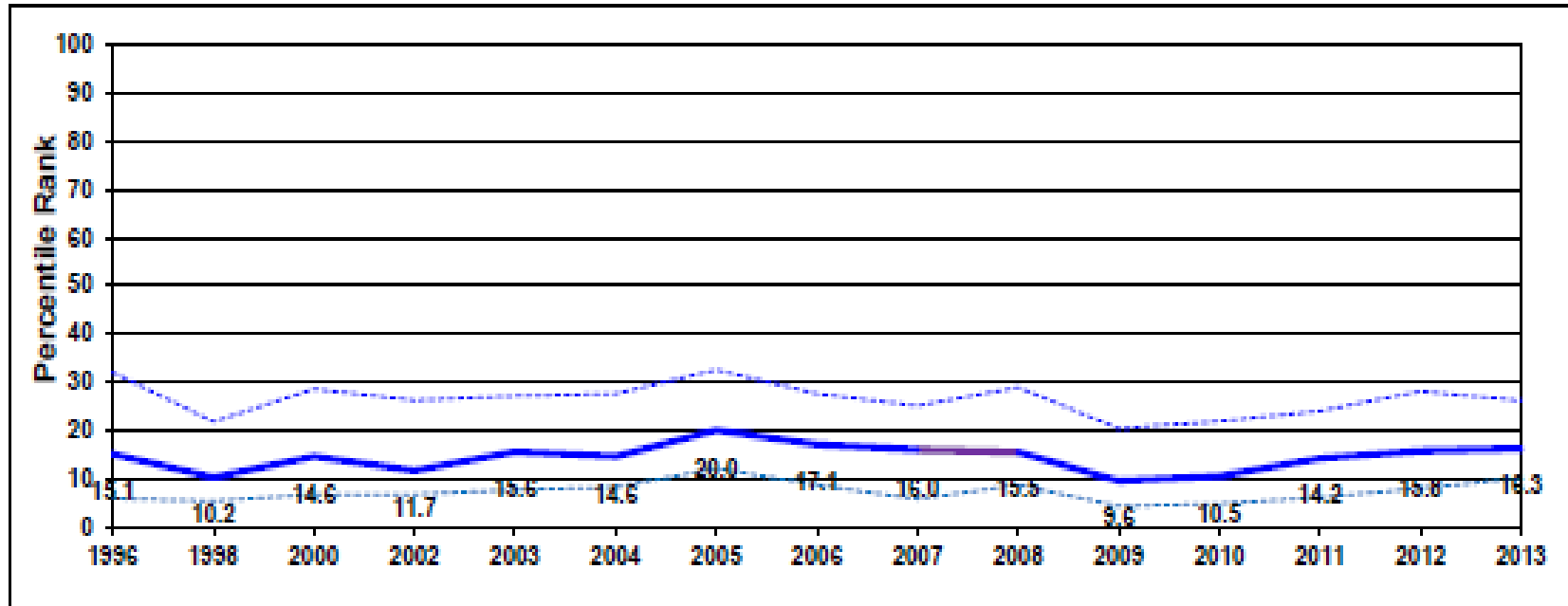
(c) the respect of citizens and the state for the institutions that govern economic and social interactions among them

Governance Indicators : 2013



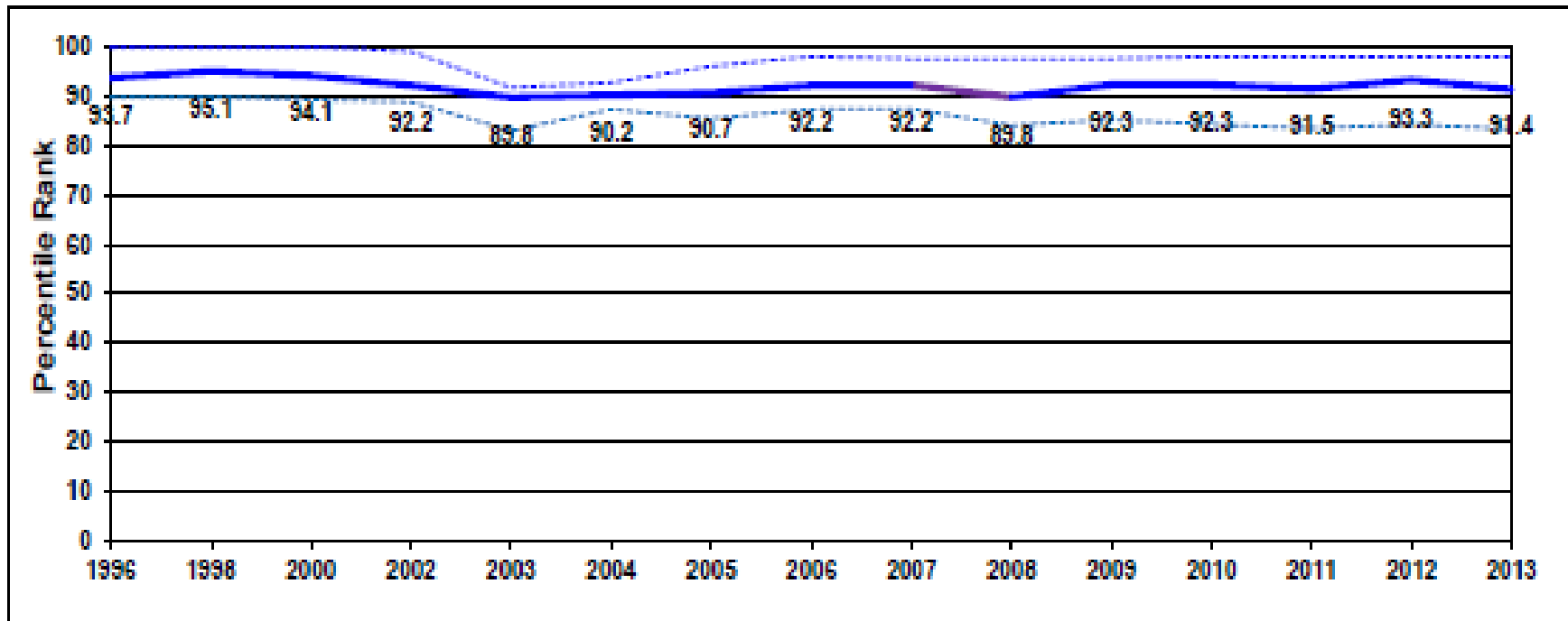
Nigeria, 1996-2013

Aggregate Indicator: Government Effectiveness



Germany, 1996-2013

Aggregate Indicator: Government Effectiveness



(2) Institutions shaping incentive structure in the economy

- Institutions shaping incentive structure in the economy
 - Property right institutions give the individual control of the returns of her investment
 - Tenure security → investment in conservation, natural resource management
 - Communal ownership of natural resources
 - Lack of well-defined property rights ---deforestation

(3) Institutions as endogenous responses to climate change

- Formal Institutions
 - US Federal Crop Insurance : Great Depression and the Dust Bowl
 - The [Federal Crop Insurance Corporation](#) (FCIC) was created in 1938 to carry out the program
 - Ethiopia :
 - Disaster Prevention and Preparedness Commission (to manage frequent drought)
 - Safety net (food for work programs)
 - Extension Service : Conservation Practices
 - Weather Insurance : idiosyncratic vs aggregate shocks
- Informal Institutions
 - Communal pooling of resources
 - Sharecropping arrangements

Policy

- “The philosophers have only *interpreted* the world, in various ways. The point, however, is to *change* it.”
- Underlying economic rationale for collective action (public policy)
 - Private costs of emission are less than social costs
 - Private benefits of mitigation and adaptation exceed social benefits
- **Policies differ both in effectiveness and efficiency (cost)**
 - Usually there are different winners and losers from different policies
- **Policy Neutral Scenario Outcomes**
 - Scenarios are endogenous
 - Fundamental Assumption :“ The outcome predicted under different scenarios do not depend on the specific policy instruments used achieve the scenarios”
- **Implications for internal consistency of the regional and global models ?**