

Revitalizing Philippine Irrigation: A Systems and Governance Assessment for the 21st Century

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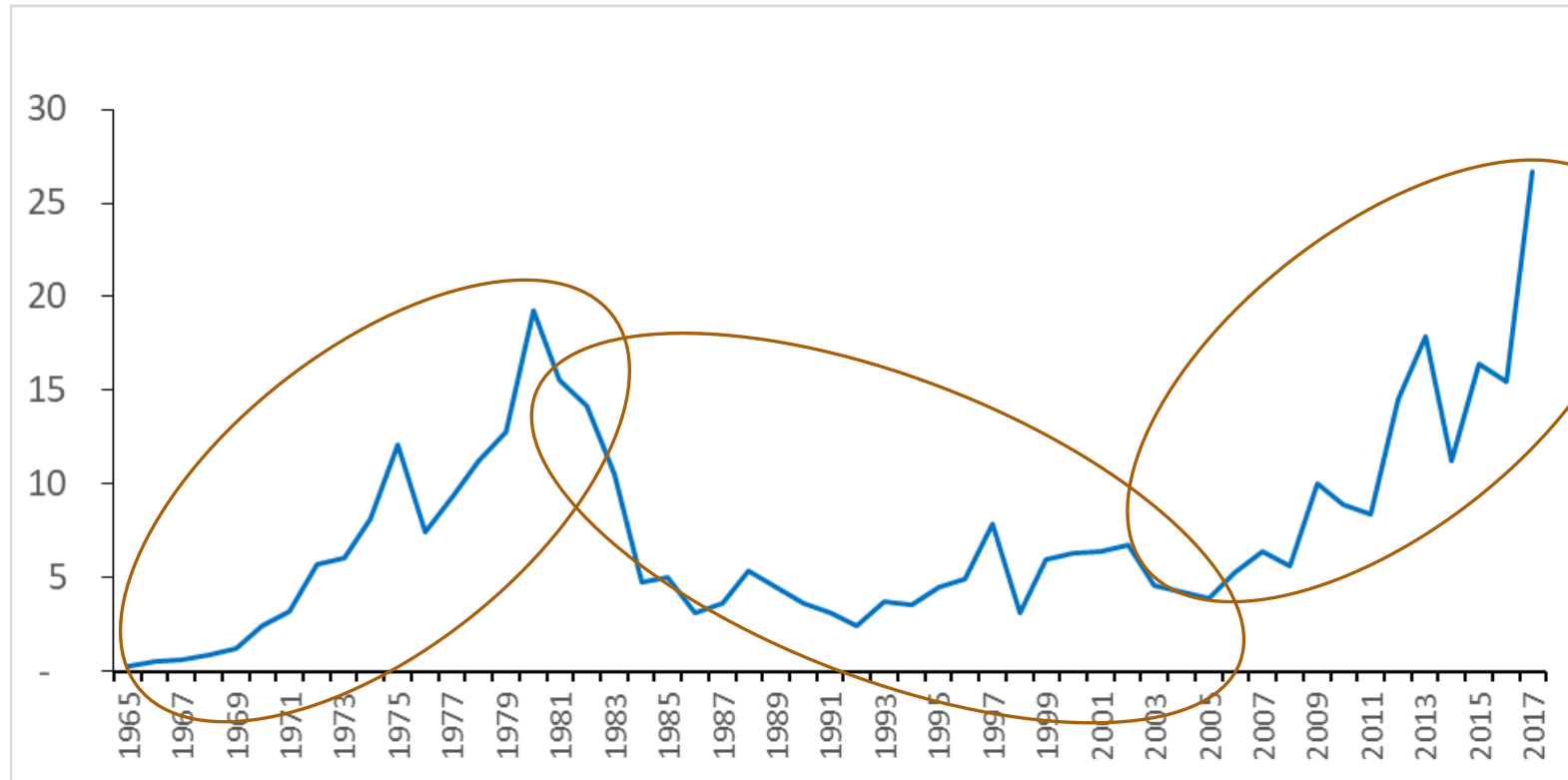
Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas



Why
this
book?

Public investment in irrigation – revitalized from about 2005 onward

Public Investments in Irrigation, in Php millions (2000 prices), 1965-2017



Sources: NIA (various years).



In nominal terms: Php 8 billion appropriation in 2008, up to Php 24.4 billion in 2012
2013 – 2018: Php 32.3 billion per year

Reasons for the resurgence

- World food price crisis (2008)
- Rapid economic growth and fiscal space
- Renewed government commitment
 - Finish the task of irrigation: irrigation area ratio of 65.07% by 2022, from a baseline (2015) ratio of 57.33%
 - Irrigation service free made free by RA 10969: Free Irrigation Service Act (FISA) of 2018

Aims and scope

- Need for stocktaking: Expenditures vs benefits (to farmers and the economy)
- Coverage:
 - National and communal irrigation systems (NIS, CIS)
 - Culmination of a series of studies of PIDS since 2012
 - Takes perspective of project cycle: planning, implementation, operations, monitoring, evaluation
 - Examines performance, design, management, governance
 - State-of-the art assessment

Structure of the book

1. Irrigation and agricultural development (Introduction)
2. National Irrigation Systems
3. Communal Irrigation Systems
4. Water resources component
5. Irrigation Water Governance
6. An Assessment of the FISA
7. Benefit-Cost Analysis
8. Assessing the Irrigation Development Program (Synthesis)



Key findings and recommendations

Project identification

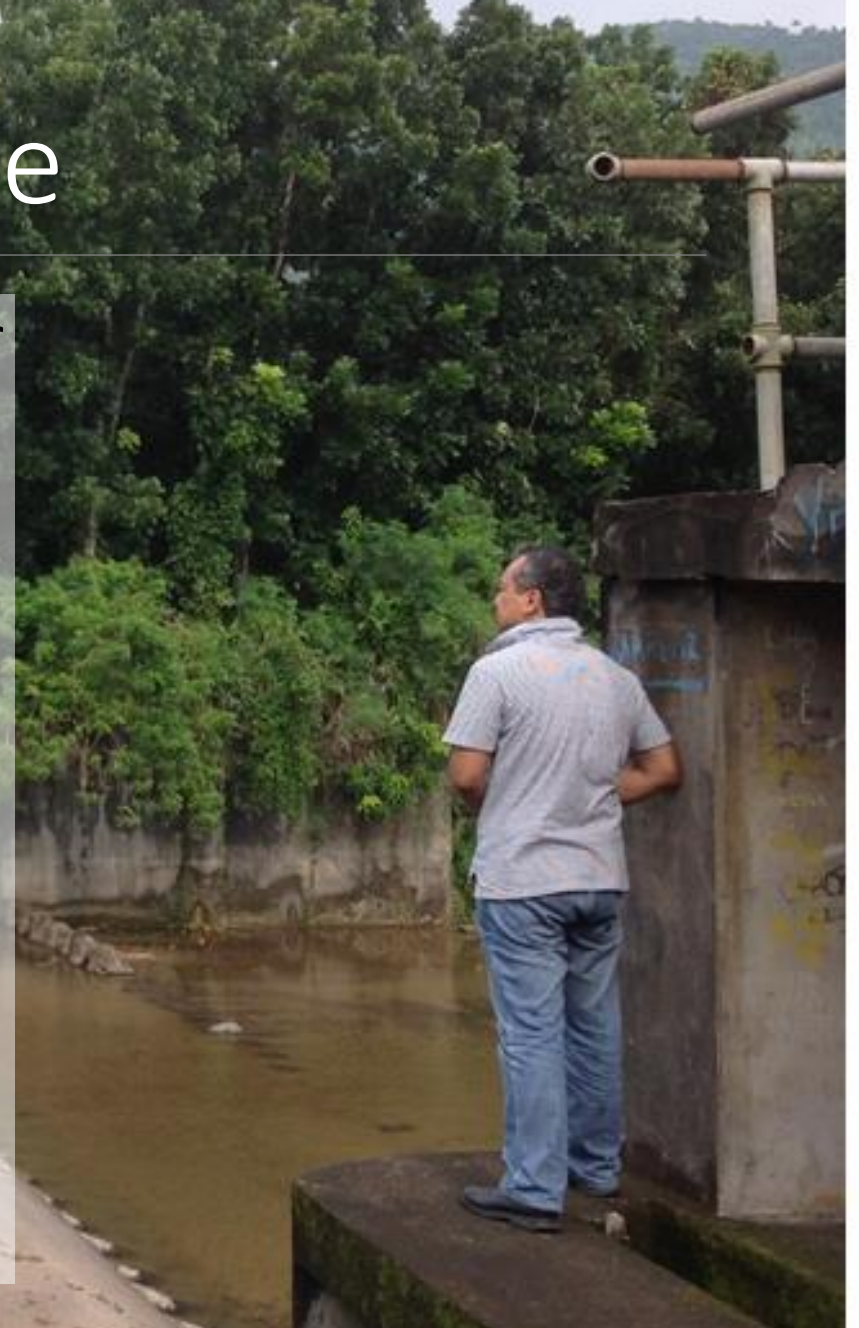
- Resources and time for project preparation often lacking
- Lack of consultative process in project design → little operational flexibility for anticipating the needs of O&M
- In-house capability for science-based project design and appraisal is weak → absence of geo-referenced data, etc. as input to project design
- Coordination of roles with other agencies and LGUs inadequate;
 - DA priorities and targets are not reflected in plans (NIA under OP)
 - At least 13 agencies are involved in irrigation project planning, design, and appraisal; interagency committees, other partnership mechanisms have not addressed coordination failure

Project implementation and procurement

- Failure of bidding often a cause of implementation delays;
- Delays in budget releases and the legal requirements for procurement also tend to delay construction
- Nonetheless: farmers interviewed for the study reported timely implementation (from the formation of their respective IAs to construction)

Operations and maintenance

- The study has found Increasing degradation and poor system performance across various scales, from communal systems to large national systems.
- control structures in need of rehabilitation/improvement, canals needing de-silting, or reshaping or heightening of embankments.
- A key concern is the lack of funds to do proper O&M and rehabilitation to arrest, if not slow down, the deterioration.
- These concerns have been exacerbated by the Free Irrigation Service Act (FISA), which has placed the irrigation management transfer scheme in jeopardy.



Operations and maintenance

The annual growth of newly irrigated areas seems to go at a slow pace despite the huge investments.

In fact, for 2010–2016, only 33% of irrigation expenditures were directed to new or mostly new projects.

The emphasis on rehabilitation/restoration or mostly rehabilitation/restoration projects in recent years has been a remedial action given years of underspending on irrigation management and repair.



Monitoring and evaluation

Systems management currently generates insufficient data for proper monitoring of irrigation systems.

Key parameters such as water flow were not being monitored

Water quality also not monitored → usually arises from illegal dumping of solid wastes and saltwater intrusion, can adversely affect health of farming systems and the surrounding community



Recommendations

- Build human resource capacity for project implementers and irrigation users across the project cycle.
- Increase coordination with the DA and LGUs, and among various institutions engaged in governing water resources.
- Consider land conversion trends, watershed integrity, water availability, and other geo-referenced data, in the estimation of irrigation potential.
- Strictly adhere to rigorous benefit-cost analysis in project appraisal, adjusting physical targets as necessary.
- Improve irrigation system designs by incorporating terrain features, water availability, operational flexibility, user participation, and crop diversification away from rice.

Recommendations

- Integrate irrigation facilities into multipurpose projects
- Improve procurement and understand better implementation bottlenecks
- Adopt the asset management method (AMM) → financial, economic, social, and engineering consideration for functionality in cost-effective manner
- Determine appropriate level of O&M funding, appropriate sufficient funds
- Integrate watershed management into irrigation system management
- Improve data collection, deploy the latest information technologies, and adopt more analytical approaches, such as reliance on GIS mapping, resource assessment of water potential, and mathematical modeling and simulations.



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Thank you !

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