Practical Steps for Achieving Equity in Water Resources System Planning: Lesotho Irrigation Investment under Climate Change

Tolulope O. Odunola¹, Patrick Ray¹, Casey Brown¹, Brent Boehrler¹, Kenneth Strzepek¹, Jeremy Richardson¹, Petrina Rowcroft¹, Diego Castillo¹, Samson Zhilyaev¹, Benjamin Bryant¹, and Stefan Osborne¹

¹Affiliation not available

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Phamong, in the Lesotho Lowlands, is one of the areas shortlisted for MDIH (Market Driven Irrigation Horticulture). The key infrastructure is an irrigation dam designed to supply water to demarcated cultivated areas. Integrated catchment management (ICM) interventions like check dams have been proposed for implementation upstream of the dam to reduce sedimentation, thereby preserving live dam storage volume for irrigation purposes. Targeted benefit stream for this investment is revenue from the hectares cultivated each month.

**STUDY AREA**

Proposed Planning MDIH Scheme

**REFERENCES**

1. University of Cincinnati, Cincinnati, Ohio
2. University of Massachusetts, Amherst, Massachusetts
3. Industrial Economics, Inc., Cambridge, Massachusetts
4. Pegasys, London, England, United Kingdom
5. Millennium Challenge Corporation (MCC), Washington DC

**AFFILIATIONS**

Pegasys, London, England, United Kingdom
University of Massachusetts, Amherst, Massachusetts
University of Cincinnati, Cincinnati, Ohio

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**FUTURE WORK**

Exploring the potential of ICM as an adaptation measure to improve the investment’s robustness under climate change, following the framework presented in Figure 2. Aspects of distributional equity would also be considered using a decentralized configuration of the MDIH scheme shown in Figure 4. Furthermore, the effect of equitable distribution on financial evaluation metrics, robustness of investments and improved decision-making would be examined.