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Introduction

A Win-Win Proposition: Nutrition and YieldIR68144: 'A Serendipitous Discovery'; Iron Rice: The Silver Bullet?; Proof of Concept: The Sisters of Nutrition; From IR68144 to MS13: 'A Special Variety'; National Release: In the Shadow of Hybrid Rice; Conclusion; 3. An Institutional Model? The Case of Golden Rice; Introduction; Rice Biotechnology: Laying the Foundations; Vitamin A Deficiency: Construction of a Public Health Problem; Golden Rice: A Scientific Breakthrough; A Science Policy Controversy; Granting Access, Keeping Control; Framing 'Acceptance':

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4. An Alliance Around an Idea: The Shifting Boundaries of HarvestPlusIntroduction; Back to Basics? A Challenge Program; A Turning Point: Enrolling the Gates Foundation; Establishing HarvestPlus; HarvestPlus Comes to IRRI; Interdisciplinary Encounters; Brokers or Gatekeepers? Organizational Tensions and 'Global Science'; Constructing Demand, Predicting Impact; Impact and 'Spin-Offs'; Business as Usual? The ProVitaMinRice Consortium; Conclusion; 5. Global Science, Public Goods? A Synthesis; International Research Partnerships: Rhetoric and Reality; Towards Interdisciplinary Integration?

De-linking Impact and ContextGM or Not GM - Is that the question?; Boundary Terms and 'Escape Hatches'; Conclusion; Locating and Engaging 'Users'; Rethinking Upstream-Downstream Relations; Towards a More Reflexive 'Public Goods' Science?; Notes; References; Index

Sommario/riassunto

Biofortification - the enrichment of staple food crops with essential micronutrients - has been heralded as a uniquely sustainable solution to the problem of micronutrient deficiency or 'hidden hunger'. Considerable attention and resources are being directed towards the biofortification of rice - the world's most important food crop. 1. 'Old Lessons and New Paradigms': Locating Biofortification2. Building the Argument: The Case of Iron Rice3. An Institutional Model? The Case of Golden Rice4. An Alliance around an Idea: The Shifting Boundaries of Harvestplus5. Global Science, Public Goods? A SynthesisConclusionNotesPublished in association with the Economic and Social Research Council (ESRC)ReferencesThese issues are particularly important now as increasing concerns over food security are leading donors and policy makers to commit to ambitious visions of 'impact at scale' - visions which may never become a reality and may preclude more effective pathways from being pursued. Through an indepth analysis of international rice biofortification efforts across the US, Philippines and China, this book provides an important critique of such goal-oriented, top-down approaches. These approaches, the author argues, exemplify a model of global, 'public goods' science that is emerging within complex, international research networks. It provides vital lessons for those researching and making decisions about science and research policy, showing that if this model becomes entrenched, it is likely to channel resources towards the search for 'silver bullet' solutions at the expense of more incremental approaches that respond to locality, diversity and the complex and uncertain interactions between people and their environments. The author proposes a series of key changes to institutions and practices that might allow more context-responsive alternatives to emerge.