

The Feed the Future **Research Output Dissemination Study (RODS)** improved the understanding of the dissemination, use, and adoption of innovations from Feed the Future Innovation Labs (ILs).

The Research Impact Assessment

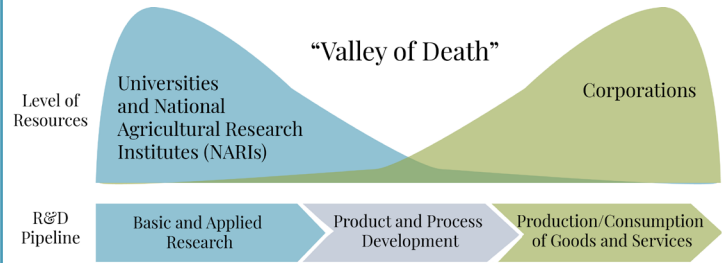
Part 1: Research Uptake Study (RUS)

Part 2: Research Output Dissemination Study (RODS)

Part 3: Impact Studies

RODS was designed to explore the dynamics between partners and other organizations at the critical juncture where innovations are deemed available for uptake and are transferred to a dissemination entity.

Challenges for Innovations



- Transitioning academic-based innovations to productive and/or profitable use is notoriously difficult, even in markets with robust investment infrastructure and well-informed consumers.
- The failure of technologies to transition from lab to marketplace is called the “valley of death” in Technology Transfer literature.
- Technology Transfer is more difficult in Feed the Future focus countries, where institutions and infrastructure are weak and the generation of consumer demand requires substantially more effort than countries with less fragmented markets.

Case Studies



Conservation Agricultural Practices
- Kenya & Nepal
- Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program



High-Efficiency Solar Dryer
- Senegal
- Food Processing and Post-Harvest Handling Innovation Lab



Drying Beads
- Bangladesh
- Horticulture Innovation Lab



Index-Based Livestock Insurance
- Kenya
- Assets and Market Access Innovation Lab



Hermetic Storage Bags
- Bangladesh
- Reduction of Post-Harvest Loss Innovation Lab



Insect Resistant Cowpea
- Senegal
- Grain Legumes Innovation Lab



Tomato Grafting
- Bangladesh
- Integrated Pest Management Innovation Lab



Trichoderma
- Nepal
- Integrated Pest Management Innovation Lab

Key Results

- Active dissemination had occurred in all cases, with substantial adoption in three cases.
- Scaling at the national level was observed in two cases (**Drying Beads**, **Trichoderma**) where foundations for market-driven diffusion already existed.
- Scaling at both the national and regional levels was observed in at least one case (**Index-based Livestock Insurance**) with a mixture of public and private support.

Innovation Labs generate innovations that confer public benefits and private sector opportunities as well as build the capacity critical to the successful adoption of current and future innovations in agricultural systems

Opportunities

Enabling Environment

RODS recommends **enabling environment factors be considered and examined more seriously when selecting locations for projects that have scaling as a central goal**. RODS found that a concerted effort between technology development, policy engagement, capacity building and marketing is necessary to build informed, effective demand for a technology. In many cases, successful adoption efforts relied upon substantial prior investments that built the capacity of the local system.

- Example: **Conservation Agriculture, Cowpea, and Tomato Grafting** were all dependent upon system investments for initial and/or continued dissemination.

Product Development and Market Analyses

RODS recommends that **researchers undertake earlier, rigorous economic or financial analyses** as part of product development efforts. Researchers should consider enlisting assistance from other units within partner universities that may be engaged in translational research support, intellectual property management, and business incubation.

- Example: Economic factors were significant barriers to widespread adoption of **Solar Dryer and Drying Beads**.

In-Country Engagement

RODS recommends **Innovation Labs strategically engage stakeholders along the impact pathway, identify strong local scientific and non-scientific partners, and explore various models to increase in-country presence**. RODS found that strong in-country organizational presence and innovation champions were significant contributing factors to successful dissemination of innovations.

- Example: The Integrated Pest Management IL maintains offices in Nepal and Bangladesh, which allows for increased in-country presence and a deeper understanding of the local context.

Technology Packages

RODS confirmed that **technologies are more likely to be disseminated and adopted as part of a package containing both technical elements and organizational knowledge**.

- Example: Proper grain storage using **Hermetic Storage Bags** is highly dependent upon drying grains sufficiently, which can be accomplished using a dryer, and ensuring a proper level of dryness is reached, which can be measured using a moisture meter.

Formal Implementation Research

Implementation research is the scientific study of the methods of promoting the application of research findings. It helps to inform on-going strategy development and adaptations to product design and delivery mechanisms.

RODS recommends that **researchers strive to engage in opportunities to contribute scientific expertise and skills to development programming** as their engagement can be extremely useful to scaling innovations.

-Example: Researchers of the **Index-based Livestock Insurance** published impact assessments, success stories, and lessons learned to guide scaling. They also utilized the data to promote the promise of the innovation and attract funds from multiple donors.

Leveraging Funds

RODS recommends **universities pay earlier attention to the challenges of product development and marketing** and begin to identify the investment needs that will be required at later stages of product development and scaling.

- Example: The Integrated Pest Management IL leveraged funds to develop and disseminate **Trichoderma** via an Associate Award funded by the USAID Nepal Mission.



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