



HAL
open science

From grain to gain: A comparative analysis of incentive mechanisms toward sustainable rice in Cambodia

Alexia Dayet, Jean-Christophe Castella, Jean-Christophe Diepart

► **To cite this version:**

Alexia Dayet, Jean-Christophe Castella, Jean-Christophe Diepart. From grain to gain: A comparative analysis of incentive mechanisms toward sustainable rice in Cambodia. International Workshop Transitioning Towards Agroecology and Regenerative Agriculture: A Contribution to Food Systems Transformation (TARASA25), Nov 2025, Vientiane, Laos. s.n., 1 p., 2025. <hal-05535730>

HAL Id: hal-05535730

<https://hal.science/hal-05535730v1>

Submitted on 4 Mar 2026

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



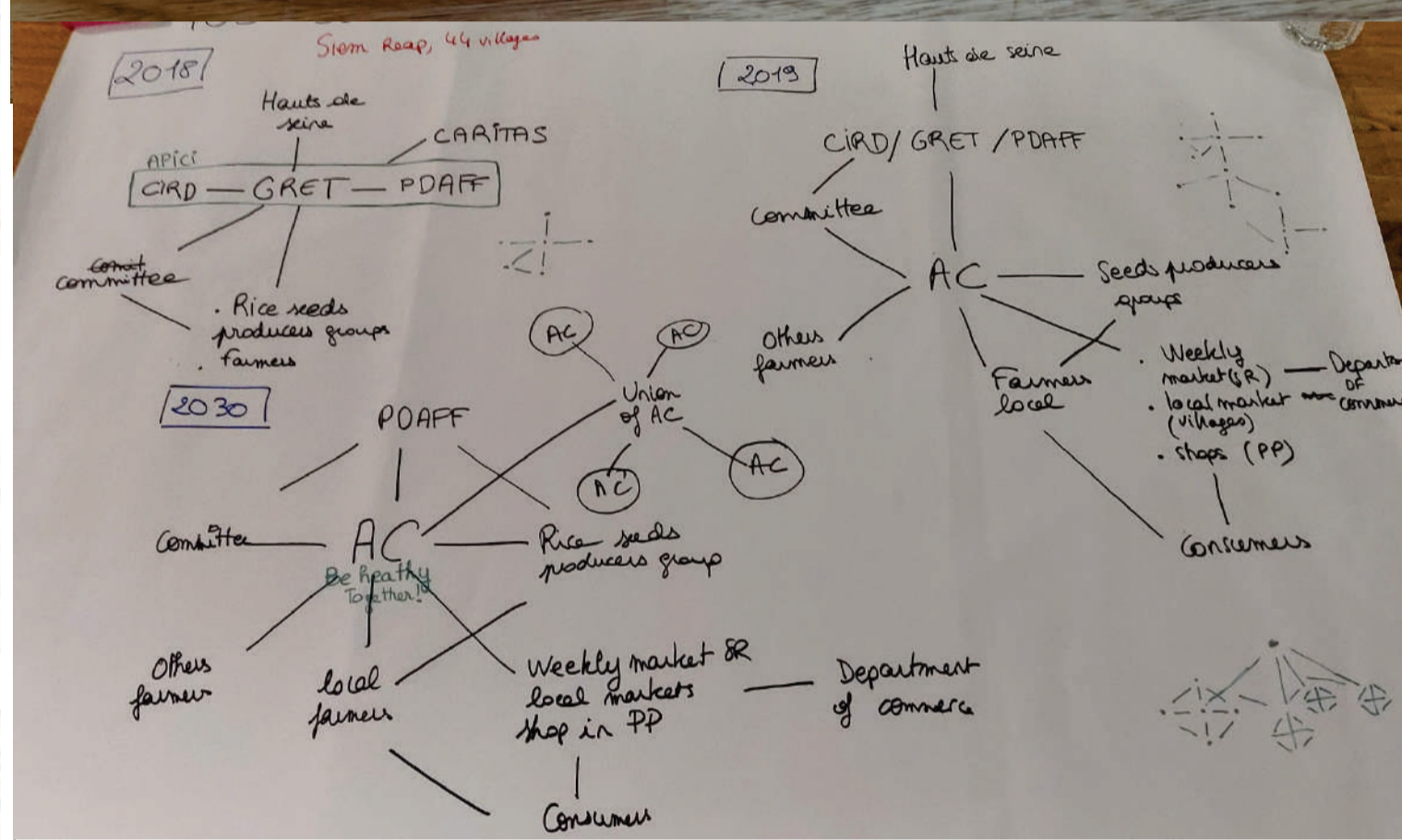
Copyright - All rights reserved

Introduction

Incentive mechanisms have become central to promoting sustainable rice production in Cambodia, yet their **effectiveness and transformative potential** remain poorly understood. Incentive mechanisms refer to the structures or systems designed to motivate individuals or entities to take specific actions or exhibit desired behaviors. In our case, we represent these behaviors as either maintaining existing sustainable practices or modifying farming practices to become more sustainable. Our study examines how these mechanisms function and their contributions to sustainable rice production for Cambodia's

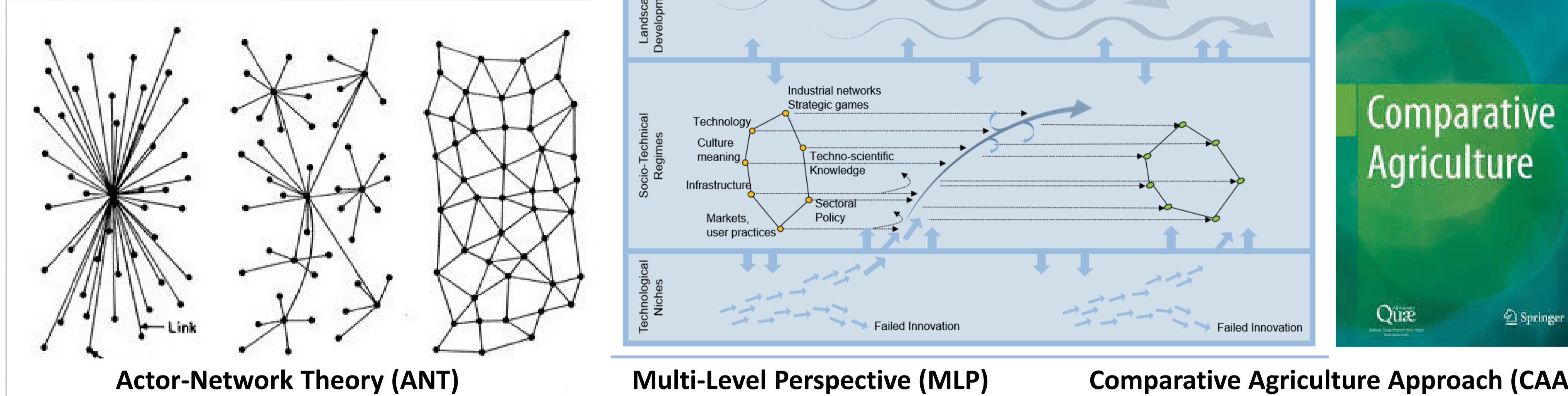
Methods

- 22 interviews were conducted to characterize 9 incentives
- Respondents involved in research and development projects, national and international organizations, rice-millers, union of agricultural cooperatives, farmers organizations



We developed an empirical comparative framework to characterize the trajectories of 9 incentives across multiple dimensions: underlying values, design intentions, implementation processes, actor relationships, payment structures, and intervention modalities.

Theoretical framework



Results

Results demonstrate that mechanisms differ substantially in their capacity to address identified blocking points and create genuine transformation pathways. Success appears linked to specific characteristics including project agility, actor agency, dynamic processes, and effective translation into local contexts. However, most intervention mechanisms struggle with developing effective exit strategies and integrating them into existing agricultural cooperative structures.

Discussion

The narrative of all mechanisms is inclusive ("we need everyone", "we want win-win", "together we can"), but in practice those who are at the initiative and who have control in implementing these mechanisms are market actors (well-known control logics in political economy).

Farmers are invited to the table, and they are given a voice; this is also important for image and reputation. But the playing field in which this opening occurs is limited and defined by parameters that are outside the control of the peasantry. Inclusivity legitimizes the whole process, but the contribution of farmers and their associations, cooperatives, or federations remains marginal.

How to co-design incentive mechanisms capable of transforming the "socio-agro-ecological rice system" toward sustainability? To be transformative, these mechanisms must respond to a certain number of characteristics: agility, agency, and adaptation to local contexts. We also question the 'exit strategies' of the development operators that rely on the capacity of agricultural cooperatives to absorb mechanisms at the end of the projects.

Conclusions

Finally, based on these learnings and using forum theater as a reflexive and participatory tool, we explored scenarios for transformative change in Cambodia's rice sociotechnical system. Our findings suggest that truly transformative mechanisms require fundamental shifts in power relations and enhanced grassroots agency. The study contributes to understanding sociotechnical regime transitions in agricultural systems and provides insights for designing more effective incentive mechanisms that can genuinely support sustainable rice transformation in smallholder contexts.

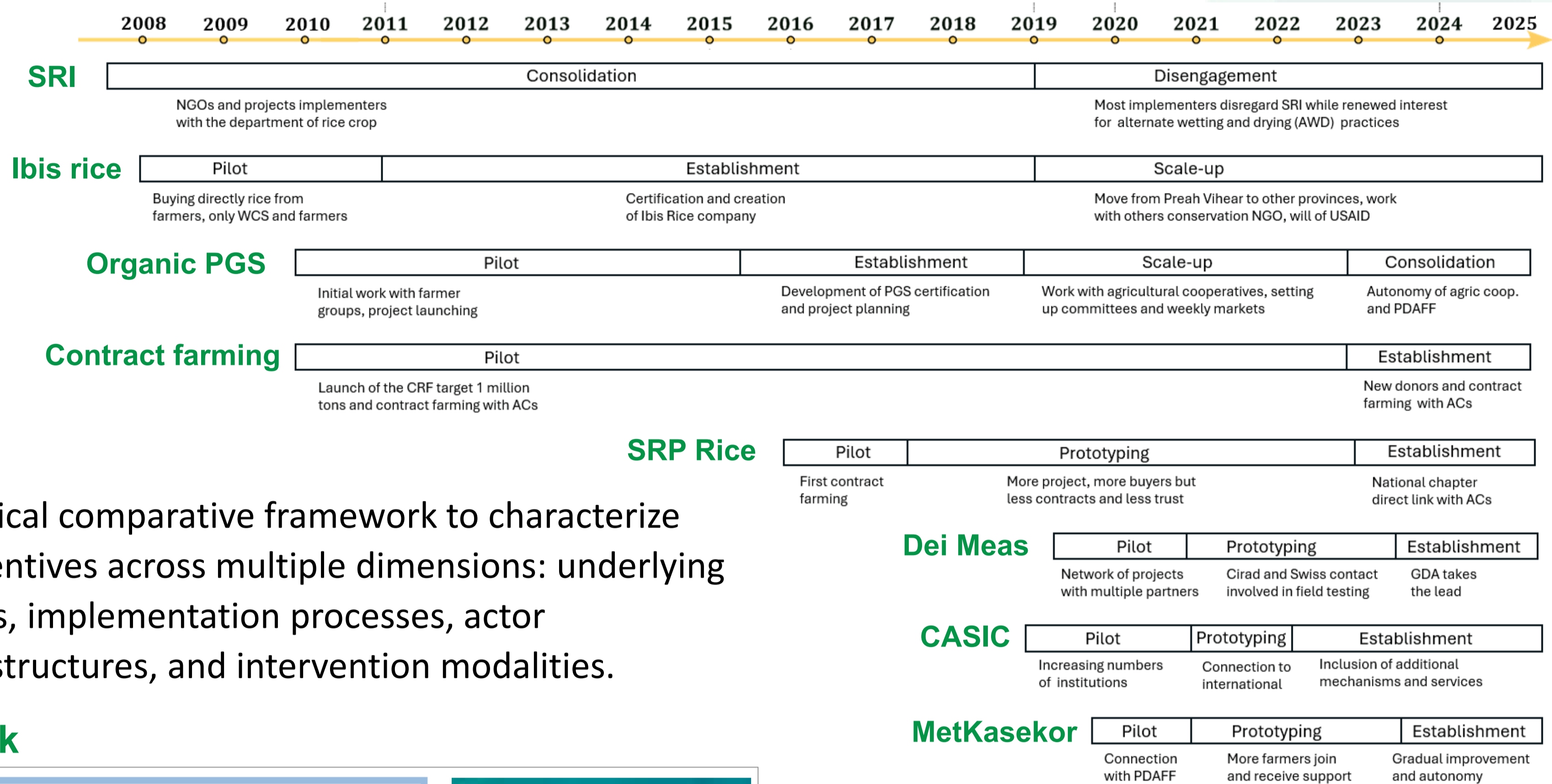
Poster Session

From Grain to Gain: A comparative analysis of incentive mechanisms toward sustainable rice in Cambodia



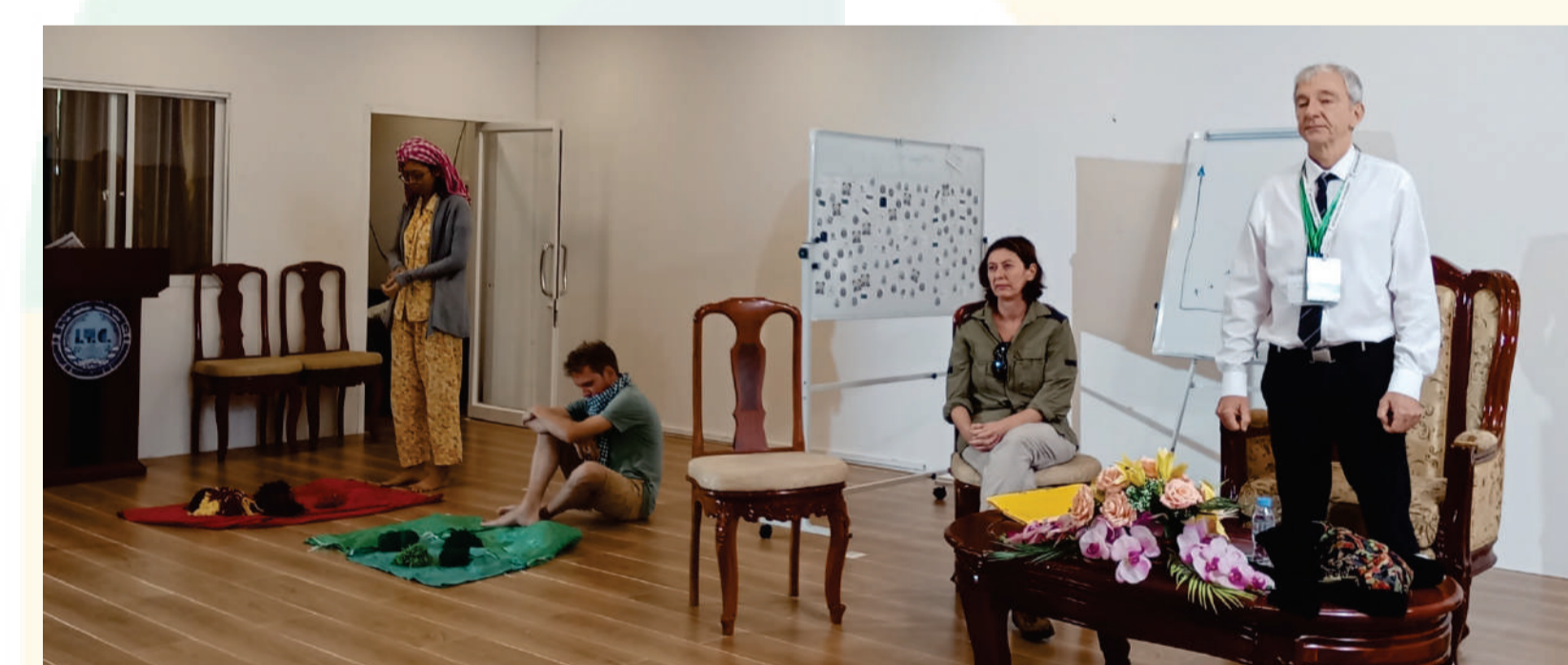
Alexia Dayet (CIRAD-SENS), Jean-Christophe Castella (IRD-SENS), Jean-Christophe Diepart (The School for Field Studies)

A comparative analysis of 9 incentive mechanisms



A forum-theater play – "THE RICE RACE"

We designed a model in the form of a forum theater scene to present research results to different national and international actors. The play allows testing different hypotheses and exploring 'sustainable rice' scenarios reflexively and interactively.



International Workshop

Vientiane, Lao PDR | 25–27 November 2025

www.tarasa25.org