PERSPECTIVE BRIEF

4

DeSIRA LIFT

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The future of R&I as driver of agrifood systems transformation and sustainability transitions

Perspectives from Asia-Pacific

This brief presents the outcomes from the regional DeSIRA workshop in the Asia-Pacific region

The DeSIRA Perspectives Brief Series: a roadmap for research & innovation from stakeholder perspectives in Latin America and Caribbean, Africa and Asia-Pacific regions

The DeSIRA Perspective Briefs present lessons learned by the community of implementers of the EC-funded DeSIRA initiative and their views on the future of research & innovation (R&I) as drivers of agrifood system transformation and sustainability transitions in their respective regions.

By distilling key lessons from DeSIRA's successes and challenges, these perspectives offer actionable insights in agricultural innovation systems for innovation stakeholders, decision-makers, policy actors, and investors.

Each perspective brief focuses on a specific region where the DeSIRA Initiative was deployed (Latin America and the Caribbean, Africa, Asia-Pacific),

In order to capture the joint learning and pending challenges among the DeSIRA community, DeSIRA-LIFT organized a series of four regional workshops entitled the "DeSIRA Connect Days". These gatherings were designed to assess the progress of innovations within DeSIRA projects, foster collaboration among stakeholders, amplify the cross-project impacts within countries and cultivate peer learning on open and responsible R&I for Agricultural Innovation Systems (AIS) transformation. Moreover, they serve to strategize the subsequent steps post-DeSIRA.

In a nutshell, they were designed to strengthen the **Community of Action and Reflection** among DeSIRA projects and their stakeholders. These events aimed to facilitate collaboration through regional field and in-person meetings with the following objectives:

- Facilitating discussions among projects aligned with the joint learning agenda, focusing on progress, challenges, and developing recommendations to sustain momentum.
- Carry out meetings and roundtables with policymakers, stakeholders, private sector representatives, and regional organizations to promote innovation adoption and strengthen (AIS).
- Promote discussions to develop exit strategies, handover processes, and pathways for ensuring continuity.

These workshops served as a platform for sharing innovations, research contributions, experiences, good practices and lessons learned from implementing DeSIRA projects,. while fostering stronger engagement with policymakers, regional organizations, and private sector actors. Key themes included scaling agricultural innovation, farmer-led research, and fostering enabling environments for innovation scaling. Regional agricultural innovation stakeholders were invited to attend and to identify priority actions and key messages for the region, to connect the DeSIRA community to broader initiatives or opportunities for putting at scale the outcomes of the DeSIRA projects.

The workshops facilitated discussions among research, extension and education actors;, farmers organizations, advisory service providers, , civil society, international organizations, funders and policy actors to evaluate efforts and identify challenges.

The regional workshops took place in Bogota (25th to 27th June 2024), Kigali (29th to 31st July 2024), Accra (24, 25, 26 September 2024) and Hanoi (14th to 16th January, 2025). The three-day event included keynote presentations, two workshops, and six thematic panel discussions focusing on three main themes:

- New Paradigms in Research for Innovation – Enhancing the impact of research through participatory and system-based approaches.
- Farmer-Led Innovations and Research – Strengthening farmer organizations (FOs) as key actors in scaling agroecology and sustainable agriculture.
- Creating a Conducive Environment for Scaling – Addressing food system governance, policies, education, and financing to foster sustainability.

These themes structured the workshop discussions and informed the synthesis of insights and recommendations in the Perspective Briefs series.

By engaging in these workshops, DeSIRA-LIFT contributed to building a collective understanding of what it takes to codevelop innovations for sustainability transitions through international research and innovation partnerships and public investments.

Table of contents

Key messages 3

DeSIRA in Asia-Pacific 4

1. Challenges of agrifood systems transformation in Asia-Pacific 4
2. A brief look at the Asia-Pacific cluster of DeSIRA projects 5
3. Objectives and challenges of the DeSIRA projects 6
4. DeSIRA stakeholders at the regional workshop 7

Main lessons learned in the DeSIRA community 8

1. New paradigms in research and innovation 8
   - 1.1. The role of research in generating new solutions 8
   - 1.2. Enhanced role for agricultural research in driving innovation and transforming food systems 9
2. The transformative role of farmer-led and community-led innovations in driving sustainable agricultural change 9
3. Building conditions for impact 9
   - 3.1. Documenting change and informing policies 9
   - 3.2. Using Food Systems as Catalysts for Responsible Innovation 10
   - 3.3. The critical roles of regional research education and extension organizations in updating and upgrading the national knowledge systems 10
   - 3.4. Informing and influencing policies, and opening pathways to policy innovations 10

Recommendations on the way forward 12

1. Making international research work for responsible innovation and agroecology transitions 12
2. Better integration of farmer-led and community-led research & innovation 13
3. Better mobilization of regional organizations and alliances 13
4. Better support to agricultural innovation policies and policy innovations using food systems as catalysts 14

Conclusion 15

Key messages

The workshop emphasized the key contributions of DeSIRA projects to inclusive, sustainable, and climate-resilient agrifood systems transformations through participatory action-research, farmer-led innovation, strategic international and national partnerships, policy alignment and improved scaling strategies. Several key insights emerged as lessons for future action and broader impacts.

New Paradigms in Research for Innovation

To be transformative, agricultural research must shift towards systemic, participatory, and locally relevant approaches, while bundling different types of innovations (technical, social, organizational). This includes embedding agroecological principles into national and regional frameworks, ensuring innovations are adaptable and scalable. For example, research and innovation in DeSIRA projects in Vietnam demonstrated how integrating agroecology in mixed crop systems with traditional knowledge can enhance ecosystem services and food security. Research is also able to leverage emerging tools such as AI and digital platforms to generate data-driven insights for improving productivity and resilience. Participatory research models, where researchers collaborate directly with farmers and stakeholders, ensure innovations address real-world challenges. By bridging the gap between research outputs and practical application, these paradigms enhanced research relevance and impact.

Farmer-Led and Farmer Organization-led Innovation and Research

Empowering farmer organizations (FOs) is central to scaling sustainable agricultural practices. FOs provide essential services, including training, advocacy, and market linkages, ensuring that innovations reach smallholder farmers effectively. For instance, initiatives in the Philippines have successfully blended traditional farming practices with policy advocacy, improving resilience and securing livelihoods. Capacity-building efforts tailored to local contexts help FOs address challenges such as access to resources, climate adaptation, and knowledge sharing. Farmer-led and FO-led research and innovation, supported by participatory approaches, ensures that innovations are co-designed with end-users, context-specific, and more likely to be adopted at scale.

Creating Context-Specific Conducive Environments for Scaling

Scaling agricultural innovation requires clear directions, strong governance for actor alignment, targeted investments and long-term trust-based multi-stakeholder collaboration. Putting in place policy mixes for more performant agricultural innovation systems at national and regional levels is a pre-requisite to broaden impacts from R&I projects and accelerate the pace of agroecology transitions. Innovation policy mixes include agenda-setting outcomes of R&I programs and comprise a range of inter-sectoral policy instruments in research, education, extension, entrepreneurship, agriculture and environment. For instance, policies should support sustainable farming, with clear incentives for biodiversity-friendly practices, secure land tenure, and farmer-market integration. Lao PDR's phased food system strategy showcases how long-term policy alignment supports sustainable transitions. Strengthening agroecology networks in Southeast Asia enhances regional knowledge exchange and capacity-building for systemic changes. Policies that incentivize sustainable farming practices, coupled with investments in education and extension services, ensure innovation scalability and impact. Donors and policymakers must prioritize integrated frameworks that tackle barriers to scaling, to knowledge access, to market access, and increase investments in infrastructure and institutional support.

DeSIRA in Asia-Pacific

1. Challenges of agrifood systems transformation in Asia-Pacific

The Asian Development Bank's report, *Financing Sustainable and Resilient Food Systems in Asia and the Pacific* (ADB, 2021)[1], highlights the complex challenges faced by the Asia-Pacific region in transforming its food systems.
These challenges span nutritional, environmental, and socio-economic dimensions and are further exacerbated by systemic vulnerabilities and the growing impacts of climate change.

Nutritional and Health Challenges

Despite progress in agricultural production, the region accounts for 58% of the global undernourished population, with stunting and wasting rates remaining high. Simultaneously, overweight and obesity rates are rising rapidly due to urbanization, sedentary lifestyles, and consumption of unhealthy diets. This dual burden of malnutrition demands cross-sectoral approaches to address undernutrition, micronutrient deficiencies, and obesity simultaneously.

Systemic Vulnerabilities

The COVID-19 pandemic exacerbated food insecurity by disrupting supply chains, increasing unemployment, and reducing remittances. Weak logistics and storage systems magnified these disruptions, highlighting the fragility of food systems. Additionally, zoonotic disease risks in densely populated wet markets underscore the need for integrated "One Health" approaches to human, animal, and environmental health.

Environmental and Climate Pressures

Agriculture in the region has led to significant environmental degradation, including soil erosion, water overuse, pollution, and biodiversity loss. Food systems contribute 29% of global greenhouse gas emissions, further exacerbating climate risks. The intensification of agriculture through chemical inputs and deforestation has worsened resource depletion and environmental footprints.

Financing Gaps

Transforming food systems requires substantial investment, yet there is a significant financing gap. Constraints in scaling public and private investments, coupled with a lack of integrated financial mechanisms, hinder progress. Building resilient systems demands reforms in public finance and policies, leveraging private investments, and adopting digital technologies.

Addressing these challenges holistically can accelerate food systems transformation, supporting sustainable development and climate resilience across the region.

1] Asian Development Bank (ADB). (2021). Financing Sustainable and Resilient Food Systems in Asia and the Pacific. Asian Development Bank, October. Available at: https://www.adb.org (Accessed: 27th January 2025).

2. A brief look at the Asia-Pacific cluster of DeSIRA projects

The cluster of DeSIRA projects in Asia-Pacific includes 16 DeSIRA projects that are single- (GRAPE, STREAM, Artemia4Bangladesh, UAKIS, STAR FARM) and multi-country operating within (ASSET) and beyond the region (Santés & Territoires, EcoFoodSystems), and some projects are components of larger programs (such is the case of FO-RI, Transitions, and TAP-AIS projects). The FO-RI project is the only project operating in the Pacific Islands.

Vietnam (4), Lao PDR (3), and Cambodia (3) are the three countries where several projects operate.

FAO is leading a number of projects in Cluster 2 (three TAP-AIS projects and STAR-FARM), while CGIAR, GIZ, and Agricord are also behind more than one project.

Project acronym	Country/ies of implementation	Leader organization	Themes
ASSET	Vietnam, Lao PDR, Cambodia	**GRET**	Agroecology transition
Santés & Territoires	Lao PDR, Cambodia	**CIRAD**	Agroecology and sustainable food systems
STAR FARM	Vietnam	**FAO**	Agroecology and sustainable food systems
GRAPE	Nepal	**GIZ**	Climate change resilience
STREAM	Mongolia	**GIZ**	Sustainable landscape management
Artemia 4 Bangladesh	Bangladesh	**WorldFish**	Climate-smart aquaculture
UAKIS	Uzbekistan	**UNDP**	Strenghtening AKIS
FO-RI 10	Philipinnes	**AgriCord**	Agroecology and sustainable food systems
FO-RI 11	Pacific islands	**AgriCord/PIFON**	Agroecology and sustainable food systems
Transitions P1	India	**CIFOR-ICRAF**	Metrics for agriculture and food systems
Transitions P2	Vietnam	**Bioversity International/WLE**	Inclusive digital tools
Transitions P3	Vietnam	**Alliance Bioversity/ CIAT**	Traceable private-public sector incentives, investments
Ecofoodsystems	Vietnam	**University of Galway**	Agroecology transition
TAPS AIS Pakistan	Pakistan	**FAO**	Functional capacities for innovation
TAP AIS Cambodia	Cambodia	**FAO**	Functional capacities for innovation
TAP AIS Lao PDR	Lao PDR	**FAO**	Functional capacities for innovation

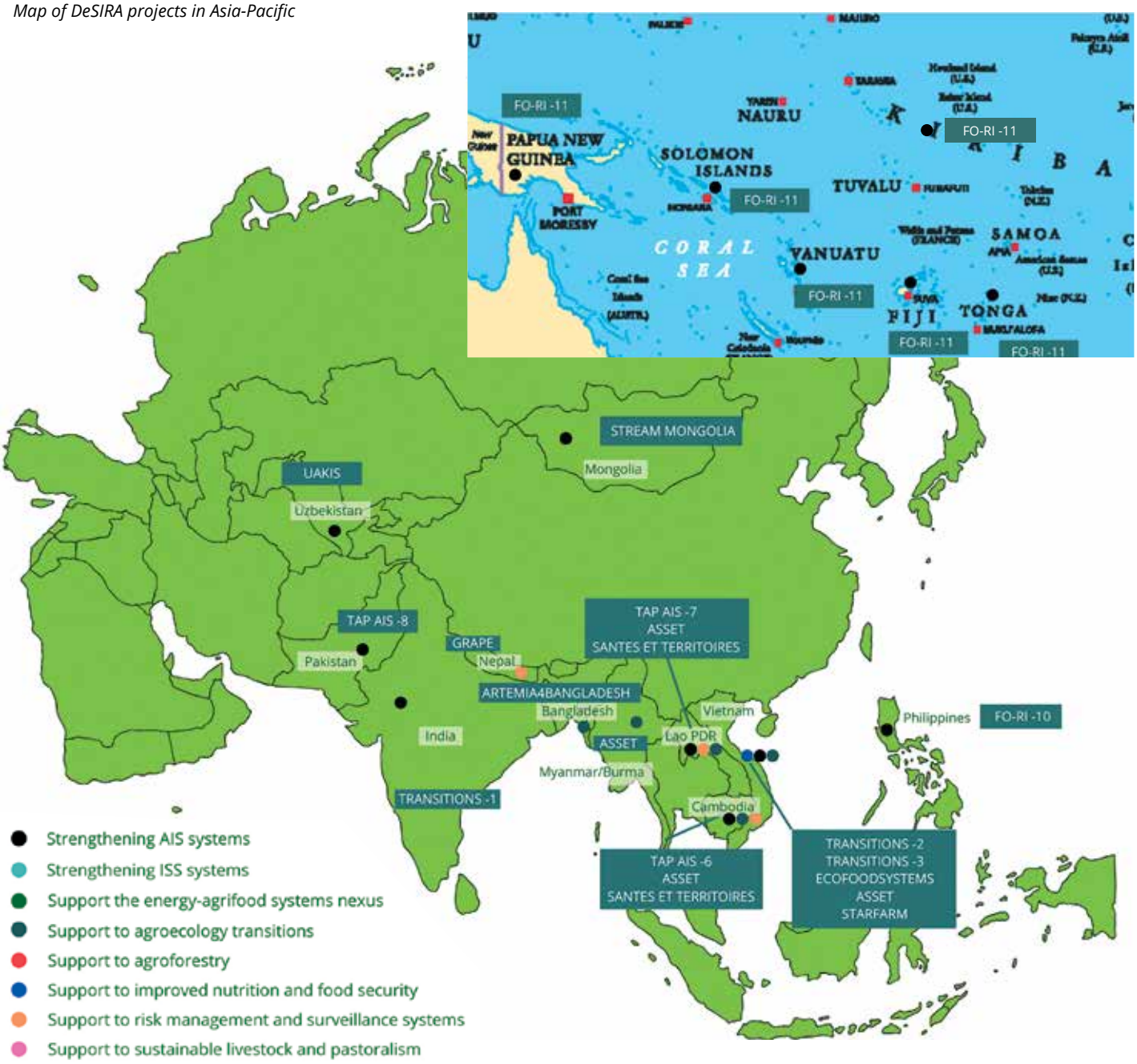
3. Objectives and challenges of the DeSIRA projects

Many of the projects in Asia-Pacific cover two main thematic areas of the DeSIRA Initiative, namely the strengthening agricultural innovation systems and the support to agroecology. Several projects aim to increase the sustainability of food and agriculture production and of agrifood value chains.

Most of these projects intervene at the level of innovation support services by building capacity of local actors, while some also deployed activities to engage in policy dialogues, co-designing technical, organizational and institutional innovations supported by multi-stakeholder partnerships. Several are developing prototyping activities. Few projects work with multistakeholder innovation platforms, and only a small number engage in farmer-led research. Farmer organizations are key partners in these projects.

When projects started, project managers identified several challenges around the operationalization of research-action with local innovators in specific country contexts and the needs to develop synergies with all the other on-going initiatives to support agroecology transitions in Southeast Asia.

Map of DeSIRA projects in Asia-Pacific



4. DeSIRA stakeholders at the regional workshop

The DeSIRA Asia-Pacific workshop brought together a diverse range of fifteen projects addressing sustainable, agroecological transformations in rural and agricultural systems. The ASSET project (GRET and CIRAD) operates in three countries with 24 partners, focusing on agroecology, policy integration, and scaling innovations such as agroforestry and crop-livestock integration. TRANSITIONS (CGIAR) support private sector engagement in scaling agroecological practices in rice systems across Ethiopia, Peru, and Vietnam. ARTEMIA4BANGLADESH (WorldFish) promotes integrated aquaculture as both food and livelihood solutions in Bangladesh.

ECOFOODSYSTEMS (U Galway/RIKOLTO) emphasizes urban food systems, while STARFARM (FAO/CIRAD/IRD) supports sustainable farming transitions in Vietnam's Mekong Delta, focusing on value chains and climate-friendly practices. GRAPE (GIZ) works in Nepal, fostering climate-resilient agriculture and policy innovations through community learning centres. SANTES & TERRITOIRES (CIRAD) applies living labs to co-design agroecological and health-focused solutions in Asia and Africa.

Projects like FO-RI (FARMCOOP/PIFON) emphasize farmer-led research, tackling issues like fusarium in bananas in the Philippines and breadfruit value chains in the Pacific. STREAM Mongolia (FAO/GIZ) advances agroforestry to combat desertification, and TAP-AIS (FAO) strengthens innovation systems and institutional capacities across Southeast Asia, while UAKIS (UNDP) provides support to knowledge and innovation system in Uzbekistan. These initiatives highlight multi-stakeholder, scalable approaches to agroecological transitions.

A diverse group of 74 participants from over 20 countries, representing a wide range of institutions, including government bodies, NGOs, universities, international organizations, and research institutes participated in the workshop. Participants who were researchers, project managers, policy analysts, and directors, showcased their expertise in agroecology, agricultural innovation, and sustainable development.

The workshop brought together representatives from key organizations such as CIRAD, FAO, IFAD, CGIAR and regional networks like APAARI and AFA. Projects spanned across various countries in Asia, the Pacific, and beyond, focusing on themes like agroecological transitions, scaling innovations, policy integration, and community-led approaches. Countries prominently represented included Vietnam, Laos, Cambodia, Nepal, Mongolia, the Philippines, and Bangladesh.

The attendees included both field practitioners and decision-makers, reflecting a multidisciplinary and multistakeholder approach to agricultural innovation systems. Their roles emphasized collaboration in research, policy advocacy, capacity building, and community engagement to address pressing challenges such as climate resilience, sustainable farming practices, and inclusive value chains. This diversity underscores the workshop's role in fostering global partnerships and knowledge exchange to advance the goals of the DeSIRA initiative.

Main lessons learned in the DeSIRA community

The main lessons that were shared and created convergence among the DeSIRA community cover seven areas:

1. New roles for researchers in the light of innovation needs for activating agroecology transitions.

2. Emphasis on community-led, farmer-led and FO-led R&I processes for ensuring the identification of relevant innovation agendas addressing most pressing problems, the use of local knowledge, and the deployment of co-innovation mechanisms with end-users for time saving.

3. The use of multi-stakeholder innovation platforms nested into existing governance mechanisms to bridge the gaps between local level initiatives and national programs, investments and policies.

4. Importance of documenting innovations and changes and capacity building for policy influencing and policy innovations.

5. Food systems as catalysts for responsible innovation.

6. Critical roles played by regional research education and extension organizations in rapidly updating and upgrading the national knowledge systems for agroecology transitions and systemic changes in agrifood systems.

7. Insufficient enabling national and regional policy environments to really take advantage of all the outputs of DeSIRA projects.

These are detailed below and repackaged with reference to three areas of joint learning within the DeSIRA community: the new paradigms in research and innovation for sustainability transitions; the role for framer-led and community-led R&I; the projects' contributions to creating conditions for scaling innovations and impacts.

1. New paradigms in research and innovation

1.1. The role of research in generating new solutions

Moving beyond the traditional linear innovation model, researchers had adopted multi-actor, multi-level, and iterative strategies to integrate local contexts, address challenges, and maximize impact. These approaches were critical in enabling successful piloting, facilitating, and supporting innovations across diverse contexts. Some key learnings and insights from workshop participants include:

1. **Adaptability and Flexibility:** Researchers adjusted methodologies to align with local needs, integrating context-specific solutions and leveraging local knowledge. This adaptability ensured innovations, resonated with stakeholders and created sustainable impacts.

2. **Stakeholder Engagement:** Multi-stakeholder collaborations, including farmer organizations, governments, academia, and private sectors, were vital for co-designing solutions and scaling innovations. Regular feedback and participatory approaches built trust and ownership among stakeholders.

3. **Monitoring and Documentation:** Projects employed Monitoring, Evaluation, and Learning (MEL) frameworks to document changes effectively. While baseline and endline surveys captured tangible impacts, qualitative methods revealed "invisible" changes valued by communities.

4. **Capacity Building:** Capacity-building efforts for researchers, farmers, and policymakers enhanced skills in innovation management, MEL processes, and multi-disciplinary collaboration.

5. **Systemic Integration:** Embedding project results into national policies and community action plans was critical for long-term sustainability and scaling.

The workshop underscored the transformative role of research in addressing agricultural and ecological challenges through adaptive, inclusive, and collaborative approaches.

1.2. Enhanced role for agricultural research in driving innovation and transforming food systems

Workshop participants emphasized the importance of participatory research, systemic approaches, and collaborative partnerships in scaling agroecological practices and fostering sustainable agricultural transformations.

Pascal Lienhard of CIRAD highlighted agroecological research as a critical pathway for climate adaptation, integrating agrobiodiversity, and creating incentives for farmers to transition to sustainable practices. Oliver Oliveiros from the Agroecology Coalition stressed the importance of embedding agroecology into policy, education, and financing systems, with a focus on equitable inclusion of farmers. Dr. Murat Sartas of APAARI advocated for leveraging AI and digital tools to scale innovations while addressing capacity and funding gaps. Dr. Dao The Anh from VAAS underscored the value of combining bottom-up and top-down approaches in Vietnam, supported by international collaboration. Sylvain Ouillon of IRD showcased integrated solutions, including crop diversification and decision-support tools, to advance sustainable rice systems.

Discussions highlighted the transformative potential of AI, the need for policy incentives like "polluters pay" to support agroecology, and the significant role of SMEs in innovation. The session concluded that systemic, participatory, and inclusive approaches, supported by sustained funding and regional collaboration, are essential for scaling agroecological practices and reshaping global food systems.

2. The transformative role of farmer-led and community-led innovations in driving sustainable agricultural change

Katja Vuori from AGRICORD emphasized the transformative role of farmer-led innovations in driving sustainable agricultural changes, highlighting the importance of grounding innovation processes in the diverse realities of farming families. She stressed that farmers are not a homogeneous group, and that effective scaling requires context-specific solutions that address their unique needs and priorities. Agricord's Farmer-Led Innovation (FO-RI) framework incorporates advocacy, action research, coordination, and capacity building, tailored to local dynamics and power relations.

Vuori underscored the importance of equitable collaboration and addressing historical power imbalances that hinder partnerships. Agricord's programs, which have reached 300,000 farmers, demonstrate the potential of cost-effective, farmer-centered approaches to reshape extension systems. However, she noted challenges, such as limited private sector engagement due to a lack of incentives and the need for sustained public funding.

The discussion reinforced the value of practical demonstrations, community-led research, and inclusive policymaking. Vuori concluded by advocating for transparent communication, capacity building, and empowering FOs as central to fostering trust and scaling innovations effectively.

3. Building conditions for impact

3.1. Documenting change and informing policies

Workshop participants explored how DeSIRA projects have built conditions for impact at three levels: changes in grassroot (rural) communities (ie. empowering farmers organizations through FO-RI Philipinnes and FO-RI Pacific projects) , changes in value chains (ie. projects like STREAM Mongolia or ARTEMIA4Bangladesh), changes in policies, (ie. the adaptation of The Policy Guidelines on Agroecology Transitions in ASEAN supported by the ASSET project and its partners). They explored how research projects generate and document change, the effectiveness of partnerships, and recommendations for achieving long-term impact and scalability. The discussions revealed the evolving roles of researchers, emphasizing multi-stakeholder collaboration, systemic integration, and robust monitoring frameworks to achieve sustainable innovations.

A key learning was the importance of robust Monitoring, Evaluation, and Learning (MEL) systems, which effectively track progress through baseline, midline, and endline evaluations (ie. the GRAPE project in Nepal). These systems highlighted not only financial improvements but also intangible outcomes, such as enhanced leadership skills and shifts in knowledge and behaviour. Santés & Territoires project experimented with a participatory MEL for their Living Lab in Cambodia, which contributed to the increased ownership of the Living Lab by the local community.

Participants emphasized the value of engaging farmer organizations and stakeholders in co-designing solutions, which fosters local ownership and facilitates scalability within existing frameworks. Projects like STREAM Mongolia showcased how participatory approaches can lead to significant policy shifts, such as the transition from land management to landscape management.

Unexpected but meaningful changes were frequently observed, such as improved community cohesion and resource sharing, which MEL systems sometimes fail to capture. Success stories, like integrating agroecological practices in Vietnam's value chains or enhancing farmer capacity in Laos, demonstrated the transformative potential of community-led innovation when supported by strong partnerships and alignment with policy frameworks. These findings underscore the need for systemic approaches to innovation that bridge local actions and broader policy goals.

3.2. Using Food Systems as Catalysts for Responsible Innovation

The third panel of the DeSIRA Connect workshop demonstrated how food systems can drive agricultural innovation and sustainability by integrating market dynamics, consumer trust, and gender-sensitive approaches. Dr. Estelle Biénabe highlighted the MALICA platform, which stabilizes market systems through participatory approaches, fostering trust via traceability and collaboration in Vietnam and Laos. Alounxay Onta detailed Laos' phased strategy for food system transformation, focusing on governance, capacity building, and science-policy integration, with measurable progress aligned to national goals.

Tran Manh Chien emphasized branding and certification's role in boosting Vietnam's safe and organic food markets, citing successes like organic milk and oranges but highlighting supply constraints. Duong Thu Hang showcased initiatives improving food safety in wet markets and promoting healthier food choices in schools, supported by Women's Unions and local collaborations. Anamika Dey underscored the need to empower women in food systems, addressing barriers through tailored tools and training.

A spirited discussion between Ms Dey and Mr Chien highlighted different experiences to verifying safe and organic vegetable systems in India and Vietnam. While participatory, socially based systems foster trust, the need for independent verification to ensure compliance and reliability was emphasized.

The panel underscored the transformative potential of food systems in scaling agricultural innovations. Success lies in fostering consumer trust, empowering women, and leveraging participatory and inclusive approaches. By aligning donor funding, policy frameworks, and implementation strategies with local needs and market dynamics, stakeholders can catalyze a shift toward sustainable and resilient food systems.

3.3. The critical roles of regional research education and extension organizations in updating and upgrading the national knowledge systems

Workshop participants acknowledged the need of enhancing capacities for agricultural innovation through education, training, and research. They emphasized the importance of integrating agroecology into educational systems and fostering collaboration between academia, extension services, and farming communities. Pierre Ferrand of FAO highlighted Southeast Asia's challenges, including an aging farming population and the underrepresentation of agroecology in higher education. He advocated for curriculum development, rural extension services, and the FAO Agroecology Knowledge Hub as critical resources. Rasheed Sulaiman of APIRAS highlighted the growing diversity in extension services, the importance of capacity building for extension workers, and the critical role of knowledge intermediation in delivering innovation at scale. Marion Tan from MASIPAG discussed farmer-scientist collaboration in the Philippines, emphasizing community engagement and co-development of agroecological solutions. Supawan Visetnoi showcased Chulalongkorn University's program, which trains students from farming families to become leaders in sustainable agriculture through immersive, community-based learning.

Panelists stressed the need to address gaps in agroecology curricula, provide tailored training for extensionists, and engage youth and women in capacity-building initiatives. During earlier group work, an example of successful engagement of women in strengthening national knowledge and innovation system was shared by the UAKIS project. The discussion highlighted the transformative potential of education in shaping a new generation of professionals to lead sustainable agricultural transitions, emphasizing collaboration, inclusivity, and long-term investment as essential for success.

Regional FOs play also a critical role in empowering grassroot farmer organizations (FOs) as service agencies, advocating for women and youth, leveraging multi-stakeholder collaborations to drive innovation and linking agroecology-based farming systems to the markets. Mohinesh Reddy of PIFON highlighted breadfruit's role as a climate-resilient crop and demonstrated how combining traditional practices with market development enhances food security and agroforestry systems, using example of the FO-RI project on Pacific Islands. Phouttasinh Phimmachanh of the Lao Farmer Network emphasized collective action, market integration, and advocacy as key to strengthening farmer representation and addressing challenges like piloting new techniques. Suman Shekhar Manandhar of PROLINNOVA discussed promoting local innovation in Nepal, emphasizing the value of farmer-led research and the need for financial mechanisms to scale innovations.

3.4. Informing and influencing policies, and opening pathways to policy innovations

Multistakeholder iterative policy dialogues were effective in influencing policy making

Ms. Delgermaa Chuluunbaatar, from the FAO Office of Innovation highlighted the pivotal role of multistakeholder policy dialogues (MPDs) in scaling agricultural innovations and fostering systemic change through collaborative and inclusive approaches. She emphasized the importance of embedding innovations within institutional frameworks and aligning them with government and private sector strategies for long-term impact. Innovations—spanning technological, financial, and policy domains—must address systemic challenges, including power dynamics, mindsets, and structural barriers.

FAO's mission-oriented Agricultural Innovation Systems (AIS) approach and TAP-AIS tools were presented as frameworks to integrate innovation capacities across stakeholders. Examples from Cambodia and Malawi showcased how MPDs can influence policy cycles by identifying barriers, generating actionable recommendations, and enhancing stakeholder ownership. Key insights included the necessity of skilled facilitation, clear roadmaps, and sustained follow-up to translate dialogue outcomes into tangible policy changes. Dr. Chuluunbaatar concluded that MPDs in TAP-AIS project succeeded thanks to a quite long-time of preparation, and iterative learning to build trust, ensuring equitable participation.

Regional Organisations and Alliances are key actors to solve "the last mile" problem of putting impact at scale

Participants emphasized the pivotal role of education, training, and research in driving agricultural innovation, with a focus on agroecology. They highlighted the importance of integrating agroecology into higher education curricula and extension services, using examples like Chulalongkorn University's program, which combines community-based learning and practical training for rural youth. The MASIPAG initiative showcased the impact of farmer-scientist collaboration, empowering farmers through active involvement in research and curriculum development.

Also highlighted, the vital role of regional organizations in driving agricultural innovation and fostering agroecological transitions and scaling solutions. Pat Sovann from ALISEA, supported by the ASSET project, showcased its decade-long success in connecting stakeholders across five Mekong countries, emphasizing knowledge sharing, policy dialogue, and market integration. Challenges like limited farmer organization participation and reliance on voluntary contributions were acknowledged.

Aggrey Agumya from FARA highlighted the need for private sector engagement and sustainable platforms to address Africa's fragmented agricultural research landscape. He stressed cross-regional collaboration with Asia-Pacific to tackle food system challenges.

In Latin America, Lloyd Day of IICA underlined the importance of multistakeholder collaboration and substantial investment in research to address global issues like climate change. Katja Vuori from Agricord reinforced the need to strengthen FOs, address power imbalances, and promote short value chains.

The discussions emphasized the value of leveraging private sector resources, integrating social science into innovation, and fostering regional and cross-regional partnerships for long-term impact and sustainability.

Metrics emerged as a critical tool for guiding policy decision

Participants converged in acknowledging that innovation policies and policy innovation are driving agroecological transitions and sustainable agricultural practices. Presentations emphasized the importance of participatory, bottom-up approaches in shaping policies, as seen in Cambodia's CASIC initiative, which builds trust among stakeholders and directly engages farming communities in decision-making. Similarly, Laos's LICA initiative demonstrated how slow, inclusive processes can create enabling environments for agroecology, culminating in ASEAN's 2024 Policy Guidelines for Agroecological Transition.

Metrics emerged as a critical tool for guiding policy, with the Transformative Partnership Platform showcasing frameworks that measure agroecology's impact on productivity, income, and environmental sustainability. Regional actors like AFA and UN ESCAP highlighted the value of multistakeholder collaboration, advocating for agroecology at national and regional levels and embedding it in strategic frameworks.

Participants discussed the importance of balancing top-down and bottom-up approaches in policy formulation. Questions focused on prioritizing funding, addressing misconceptions about agroecology, and embedding AE into existing national plans. Several speakers emphasized the need for political will, resource allocation, and cultural sensitivity to ensure long-term impact.

Some participants underscored the need for strong partnerships, robust metrics (which was stressed in particular by the TRANSITIONS project), and cultural sensitivity to align grassroots innovations with broader policy agendas, fostering sustainable development across regions.

Recommendations on the way forward

The DeSIRA Connect workshop provided a rich set of actionable ideas and suggestions for key stakeholders that will contribute to enhancing the impact of research and innovation. These suggestions are organized under four objectives that emerged as the main areas of improvements for project-based approaches to generate programmatic impacts through international research and innovation partnerships. Under each objectives recommendation were formulated for three categories of stakeholders: project implementers, funders and policy makers.

1. Making international research work for responsible innovation and agroecology transitions

DeSIRA R&I projects played a vital role in bridging the gap between high-level policies and on-the-ground realities while ensuring transparent, equitable and responsible innovation processes, thanks to a wide range of knowledge, methods, services, competences, and solutions orchestrated by researchers and their partners in international consortia. However, a number of conditions need to be met for this to effectively happen.

Suggestions for key stakeholders

PROJECT IMPLEMENTERS

Implementers of transformative international R&I projects have to foster co-creation, diversify partnerships with local communities, farmers, and policymaker, and prioritize local ownership and embeddedness into government-led processes as core success factors of their action. The engagement of policymakers and community stakeholders throughout project cycles ensure relevance and alignment with national strategies. Embedding participatory action-research methods ensures local ownership and long-term impact, while fostering youth and gender inclusion is vital for transformative change.

Project implementers are encouraged to design explicit scaling strategies early, ensuring innovations can extend beyond project lifecycles. Facilitating organizational learning and building capacity among stakeholders are critical to empowering local actors and fostering sustainable networks. They are also encouraged to consider grant subventions from the European Community as one financing instruments among others, and design blended financing strategies to develop and scale their innovations.

DONORS

Above all, donors should invest much more in strategic learning processes at the level of organizations (and not project-level learning) and support robust coordination mechanisms that can ensure that program-level insights inform future programs and maximize overall impact.

Donors should provide long-term, flexible funding mechanisms beyond short-term project-based approaches. They should also include nested programs in R&I projects dedicated to capacity development of some key research partners (national research partners, farmer organizations, policy makers). Targeted support for regional partnerships and capacity-building initiatives can further enhance scalability and inclusivity of the innovations co-developed by researchers and their partners.

In order to consistently support R&I programs and engage in continuous effective investments in systems change, donors should focus on long-term impact pathways, projects' contributions, and allow for iterative project adaptations in close relationship with project leaders.

Donors can also play a key role in boosting the contributions of R&I projects to agroecology transitions thus saving time; for instance: prioritize sustained investments in agroecological research and innovations, focusing on high-impact areas and developing funding mechanisms that incentivize ecosystem services;

POLICYMAKERS

Policy makers should follow and support more closely international R&I programs with high-potential impacts for sustainable development. They should integrate project results into national strategies, allocate sufficient resources for implementation, establish standards and certifications for innovations and monitor innovation trajectories over the long-term. Collaborative engagement with stakeholders across ministries, local governments, and parliamentarians is essential for prioritizing and institutionalizing innovations. Advocacy based on case studies and success stories from successful R&I projects can support systemic transitions, with public-private partnerships playing a key role in sustaining and scaling agricultural innovations.

Policy makers can also play a key role in boosting the contributions of R&I projects to agroecology transitions thus saving time; for instance: putting in place effective governance models and supportive policy frameworks, such as "polluters pay" incentives, are needed to drive agroecology adoption. Promoting private sector engagement, particularly with SMEs, to put into the markets the innovations developed by research; as well as championing innovation by dedicating resources and embedding evidence-based solutions into national frameworks, are important actions.

2. Better integration of farmer-led and community-led research & innovation

DeSIRA R&I projects demonstrated the central roles of local farmers communities in shaping innovation agendas and co-developing solutions that meet their most pressing needs while addressing sustainability issues. However, it is not possible to support every single community through international R&I projects. These must be used sparingly with strategic innovation goals, replicable approaches, and backed by scaling strategies.

Suggestions for key stakeholders

PROJECT IMPLEMENTERS

Demonstrating practical, observable innovations is crucial for building trust with farmers, who are often persuaded by visible results. Initiatives should address barriers faced by small-scale farmers, such as the costs of collective organization and reliance on daily earnings, by providing tailored incentives and support. Employing community-led research aligned with local needs and using participatory monitoring approaches ensures initiatives remain relevant and impactful over time.

Emphasizing local innovation and integrating farmer organizations into broader networks were highlighted as critical steps for impactful scaling.

DONORS

Donors are encouraged to invest in capacity-building initiatives that empower farmer organizations (FO) to take ownership of innovations. Transparent reporting mechanisms and support for grassroots technological innovation can enhance the scalability and sustainability of FO-led processes. Funding should also prioritize reducing participation barriers for marginalized farmers and digital tools that enhance knowledge dissemination while ensuring contextual relevance and validation. Support for innovative financial mechanisms, such as market integration strategies, can empower farmers and strengthen their bargaining power.

POLICYMAKERS

Policymakers should foster inclusive, evidence-based dialogue with FOs and integrate research, government, and farmer organizations to develop cohesive policies. Clear success indicators and policies that empower FOs to advocate for their interests are critical for long-term impact. Creating an enabling environment with accessible incentives and addressing structural barriers ensures the effective scaling of farmer-led innovations.

Policymakers should also address power imbalances by creating inclusive policies that elevate farmer organizations as key actors in advocacy and policy formulation. Policies should incentivize sustainable practices, support climate-resilient crops, and promote pluralistic extension systems that leverage private sector and digital platforms. These coordinated efforts can enable sustainable, equitable, and community-driven agricultural transformations.

3. Better mobilization of regional organizations and alliances

Regional organizations and alliances were not systematically and intentionally included in DeSIRA projects whereas they act as the key actors to solve “the last mile” problem of putting impact at scale. They play multiple transformative and systemic roles: regional extension and education organizations use DeSIRA outputs to update and upgrade knowledge systems in countries through generic guidance, frameworks, revised curricula and trainings of universities and public extension workers; regional research organizations use DeSIRA outputs to feed regional R&I agendas and policy dialogues; multi-actor regional alliances use DeSIRA outputs to develop join visions and support alignment of actions among innovation actors (civil society, farmers organizations, researchers, private sectors, policy actors, etc.); regional farmer organizations backstop and channel funding toward innovative initiatives promoted by their members in DeSIRA projects. These synergies remained poorly organized and intentionally supported in DeSIRA, and when existing they were often subject to the vagaries of “stop-and-go” type collaborations, with high transaction costs due to organizational weaknesses.

Suggestions for Key Stakeholders

PROJECT IMPLEMENTERS

Project implementers are encouraged to take on board regional organizations in the co-learning platforms that they promote like ALISEA, which connect diverse actors and promote knowledge sharing, capacity building, and policy engagement. Another option is to embed their R&I projects into existing and well-functioning regional platforms in order to save time in the phase of results sharing and scaling.

DONORS

Donors are encouraged to support long-term investments in developing targeted capacities of some critical regional organizations and alliances that support agroecology transitions and agrifood system transformation. The capacities to target are capacities for supporting coherent programing of R&I investments and co-designing project proposals with donors and beneficiaries, absorbing outputs and lessons from R&I projects, playing a key role in dissemination in their membership networks and policy advocacy.

Donors are also urged to prioritize investments in sustainable platforms and long-term strategies that address food systems, climate change, and scalability challenges, as emphasized by FARA and IICA. Supporting cross-regional collaborations, such as between Africa and Asia-Pacific, was identified as key to addressing global challenges

POLICYMAKERS

Policymakers are urged to align national policies with education reforms to mainstream agroecology. Strengthening rural extension systems and fostering cross-sector partnerships were identified as critical for sustainability. Collaboration, inclusivity, and robust curricula are essential to equipping a new generation of professionals for sustainable food systems. In that sense, regional organizations should be better mobilized to support country-level policy process. Additionally, national policy actors should further consider regional policy processes with the support of regional organizations, in order to facilitate cross-country cooperation and alignment.

4. Better support to agricultural innovation policies and policy innovations using food systems as catalysts

DeSIRA projects engaged in policy changes and policy innovations with more or less success due to several constraints, mostly related to the nature of short-term R&I project-based approaches, the lack of proper science-policy interfaces, missing policy partners in the consortia, and gaps in the institutional environment for agroecology transition.

Core contributions of short-term international R&I projects rely on documenting changes and informing policy-making, facilitating MPDs, triggering policy innovations and detecting policy windows for reforms. In order to make these contributions fast and efficient, a number of conditions are necessary.

Suggestions for Key Stakeholders

PROJECT IMPLEMENTERS

Project implementers should prioritize bottom-up approaches, as demonstrated by CASIC in Cambodia and LICA in Lao PDR, which successfully linked community needs to national policy frameworks through trust-building and participatory mechanisms. Metrics were highlighted as essential for measuring agroecological impacts, with tools like TPP's multi-dimensional library providing actionable insights for scaling efforts.

Capturing and disseminating lessons learned, success stories, and best practices is vital for advocacy and replication. To sustain impact, projects should embed results into community action plans and national policies while building capacity in project management and participatory monitoring and evaluation processes.

Project implementers should also engage policy stakeholders throughout the policy cycle, from problem identification to policy evaluation, ensuring that processes are participatory and inclusive. Anchoring MPDs in legitimized platforms, such as the Cambodia Conservation Agriculture and Sustainable Intensification Consortium, enhances ownership and effectiveness. The importance of sustained support and resources for preparation, skilled facilitation, and follow-up was highlighted as critical for translating dialogue outcomes into actionable policies.

Strong partnerships with farmer organizations, regional networks, and private sector actors were deemed vital for sustaining policy impacts and driving systemic change.

Lastly, food systems approaches should be more systematically included in R&I strategies. Building consumer trust is critical. This can be achieved through robust traceability mechanisms and certifications like Participatory Guarantee Systems (PGS), supported by improved branding and a clear emphasis on safety and quality. Addressing market dynamics requires participatory approaches, institutional platforms, and localized branding strategies to stabilize market fluctuations. Training farmers and vendors in food safety and quality can enhance the competitiveness of traditional markets. Women's empowerment should be prioritized through gender-sensitive tools, training, and capacity-building opportunities, while addressing cultural and systemic barriers that limit their participation in food value chains. Effective collaboration with stakeholders, including Women's Unions, schools, and local organizations, can further promote inclusivity and healthier food systems.

DONORS

Donors should provide long-term, flexible funding that accommodates scaling, capacity building, and follow-up initiatives for successful projects. Funding mechanisms should encourage partnerships, link existing projects, and emphasize pathways to impact rather than narrowly focusing on outcomes. Providing clear guidance and support on scaling processes can strengthen donor contributions.

Donors are also urged to support long-term initiatives that allow for incremental policy changes and capacity development, seizing critical "policy windows" for reform. Funding should also prioritize projects that integrate economic and environmental outcomes to ensure sustainability. In particular, donors are encouraged to fund multi-phase strategies aligned with country pathways, national development plans, and similar international support efforts. On the one hand countries need to implement gradual transitions and on the other hand they face the difficulties to coordinate many different support efforts from different donors and international initiatives.

Lastly donors are solicited to allocate more resources and programs dedicated to link agroecology to markets through the strengthening of branding and certification systems, enabling market connectivity and the scaling of local products. Gender-inclusive funding mechanisms are also considered as critical for ensuring tailored tools and environments that address barriers to women-led innovations.

POLICYMAKERS

Policy makers are encouraged to integrate MPDs into formal policy cycles, leveraging stakeholder-driven roadmaps to address systemic barriers and power imbalances. A strong focus on clear objectives, robust monitoring mechanisms, and inclusive facilitation can drive transformative change, aligning policies with sustainable and equitable agricultural innovation.

For significant impacts of R&I on sustainable agrifood system transformation, policymakers are called to foster cross-sectoral collaboration and embed agroecology into national strategies.

Policy makers are the ones to pull efforts to mobilize resources and align policies with the needs of smallholder farmers and value chain actors building on the stepping stones created by international R&I partnerhsips.

Conclusion

By integrating localized research, empowering farmers, and fostering systemic innovation, DeSIRA projects drove inclusive, sustainable, and climate-resilient transformations in the Asia-Pacific region.

Collaboration across research, policy, and farmer-led systems ensures long-term impact and resilience in agri-food systems.

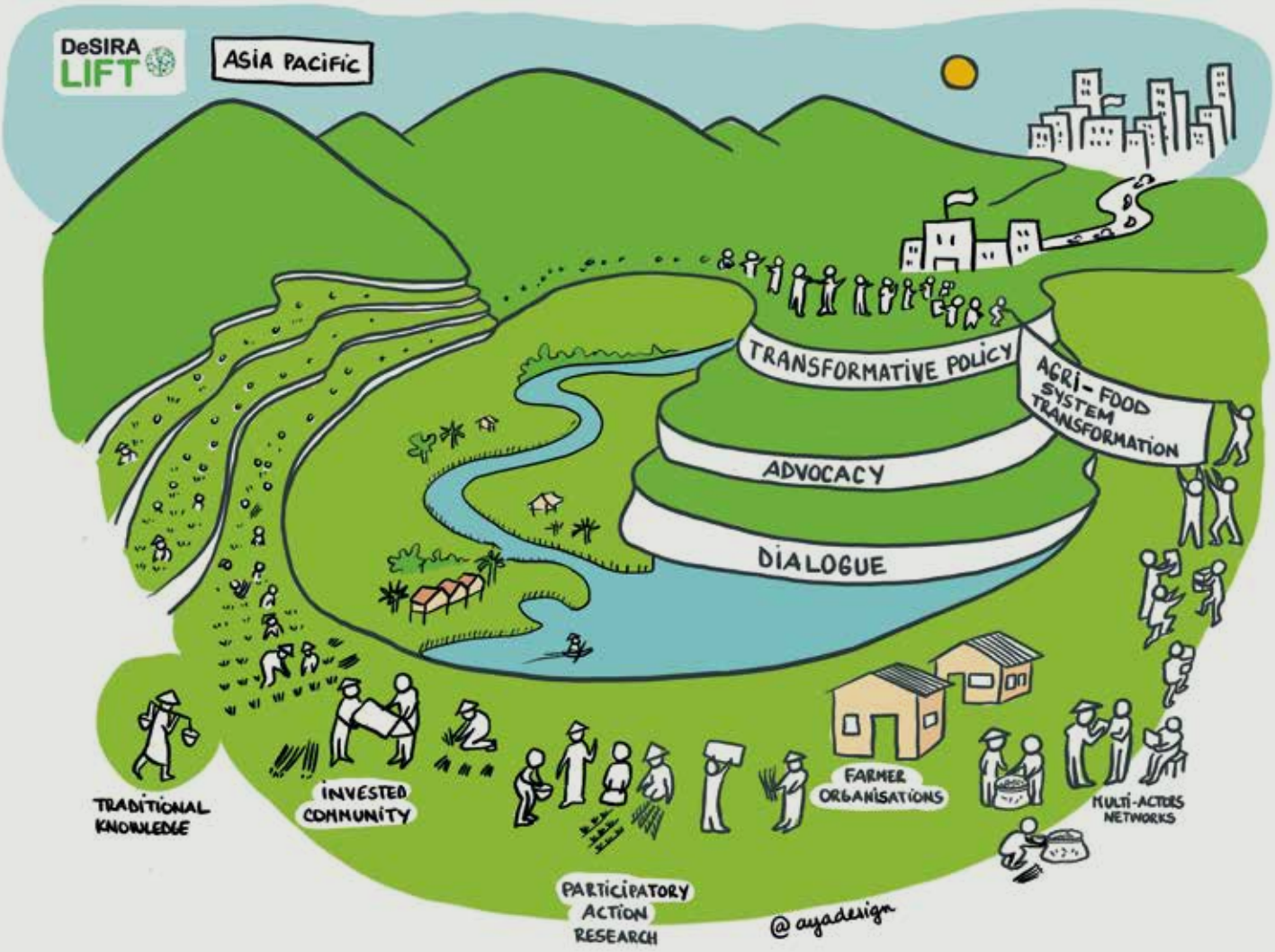
The DeSIRA Connect Asia-Pacific Workshop underscored the urgent need to scale sustainable agricultural practices, integrate research with real-world applications, and strengthen multi-stakeholder collaboration.

By embedding localized research, empowering farmers, and fostering systemic innovation, DeSIRA projects can drive inclusive, resilient, and sustainable agricultural transformations in low- and middle-income countries (LMICs).

Sustainable food system transformation requires coordinated action from researchers, policymakers, donors, and local communities to ensure long-term food security and climate adaptation in the Asia-Pacific region.

The recommendations emphasize integrating local realities into systemic frameworks, scaling farmer-led innovations, and creating conducive environments through collaboration and capacity building. These strategies ensure sustained impact, enabling resilient, equitable, and sustainable agricultural systems globally

Key takeways in a picture



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