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Final project report

ITD-Project "Sustainable use and management of agrobiodiversity as a contribution to the transformation towards climate-resilient food systems and more innovative promotion of rural regions – Building a bilateral network"

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DCZ Report

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List of abbreviations

BLE	Federal Office for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung)
BMEL	Federal Ministry of Food and Agriculture (Bundesministeriums für Ernährung und Landwirtschaft)
CAAS	Chinese Academy of Agricultural Sciences
CAS	Chinese Academy of Sciences
CAU	China Agricultural University
DCZ	Sino-German Agricultural Centre
FAO	United Nation Food and Agriculture Organisation
FSN	Farmers' Seed Network (China)
GIAHS	Globally Important Agriculture Heritage System
HNEE	University for Sustainable Development Eberswalde (Hochschule für Nachhaltige Entwicklung Eberswalde)
IBV	Information and Coordination Center for Biodiversity of the Federal Office for Agriculture and Food, Germany (Informations- und Koordinationszentrum Biologische Vielfalt)
ITD	Innovations- und Transformationsdialog
MARA	Ministry of Agriculture and Rural Affairs
VERN e.V.	Association for the Preservation and Recultivation of Crops (Verein für die Erhaltung und Rekultivierung von Nutzpflanzen)

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**Not all experts and team members were present at each event throughout the project.*

1. Project background¹

As part of the Innovation and Transformation Dialogue (ITD) of the Federal Ministry of Food and Agriculture (BMEL), the Sino-German Agricultural Centre (DCZ) launched a German-Chinese expert network focused on the sustainable use and management of agrobiodiversity. This network included experts from science, agricultural practice, and civil society organizations in both countries. Its goal was to provide a platform for interactive exchange among members and to share the benefits of this collaboration with other key stakeholders.

The network emphasized innovative approaches and practical insights from projects that enhanced agrobiodiversity and improved the climate resilience of food systems. A central focus was the conservation, recultivation, and sustainable use of cultivated plant varieties. These varieties, particularly old and rare crops, are critical for sustainability at the intersection of food systems, climate change, and biodiversity conservation. Despite the vast diversity of edible plants, only about 150 species currently play a significant role in global human nutrition. This crop variety is rapidly declining and faces the threat of permanent loss, even as it holds immense potential for creating agrobiodiverse, climate-resilient food systems and fostering rural economic development.

The transformation of food systems amid multiple crises is a key policy issue in both Germany and China. Agrobiodiversity conservation, restoration, and sustainable use are central to ongoing political and policy discussions at national and international levels. Although the two countries differ in their policy frameworks and institutional structures, both grapple with integrating on-farm agrobiodiversity effectively. Sharing practical experiences and the latest recommendations offers valuable opportunities for mutual learning and progress in this vital area.

2. Project objective and process

The development of the network and exchange platform was funded by the ITD from 1 October 2023 to 31 December 2024. A key goal was to bring together experts with experience in conserving, recultivating, and sustainably using crop diversity, particularly historical, rare, and farmer crop varieties at the farm level. The project aimed to establish lasting connections among these experts and integrate insights from practice-oriented projects and local initiatives.

Building on the network's exchange, the project's second goal was to compile practical tools, lessons from case studies, and policy recommendations for dissemination within and beyond the network. The aim was to produce concrete outputs that could inform policymakers, researchers, practitioners, and the wider public, ensuring these resources are accessible and impactful.

The project's **objectives** during the funding period included:

- a) Facilitating moderated bilateral multi-stakeholder workshops and excursions in both countries, enabling dialogue with additional stakeholders and the joint development of a sustainability concept for the network.

¹ For a detailed and referenced project background see project proposal.

- b) Formulating policy recommendations and communicating them to national and international policymakers.
- c) Creating a toolbox featuring project mappings from both countries, documentation of best practices and lessons learned, and scientific publications. This toolbox is accessible on the website of DCZ and can be shared through the networks and channels of participating institutions, ensuring long-term visibility. The primary audience includes NGOs, farmers, transdisciplinary researchers, and institutions involved in agrobiodiversity projects, regional value chains, and rural development.
- d) Generating ideas for further initiatives beyond the funding period.

Fostering in-depth exchange and discussion among network members with diverse expertise was a key priority from the outset. Participants included scientists from various fields, members of civil society organizations with local projects, and experts from relevant public institutions. To ensure a strong foundation for meaningful exchange, individual **intake interviews** were conducted with all participants prior to the **Kick-Off Workshop** in late November 2024. The moderated workshop introduced members to each other's work, expertise, and ideas for the network's development. Following the workshop, a core group of experts was selected to drive the network-building process. The project team facilitated **contributions to the toolbox and case collection** and organized initial **working group meetings** to develop policy recommendations.

Following the initial connection of network members and the launch of joint work, **in-person trips to China (May 2024) and Germany (June 2024)** strengthened the network through **intensive moderated workshops, stakeholder meetings, and curated site visits**. The workshops in China and Germany built on one another, deepening discussions on key topics and advancing project objectives. Site visits and meetings in both countries emphasized knowledge-sharing on local in-situ conservation initiatives and on-farm research projects, particularly practical approaches linking in-situ conservation of crop diversity with sustainable use, benefiting farmers and others in food value chains and rural development. Beyond the network, participants engaged with policymakers, researchers, farmers, rural entrepreneurs, NGO practitioners, and others involved in protecting and utilizing agrobiodiversity.

During and after the trips, the DCZ and other network members (e.g., FoodThink, FSN, Vern e.V., HNEE) **documented activities and shared updates** through their respective channels to reach a broader audience. Network members and the project team **stayed in touch** via email, WeChat, and WhatsApp, sharing updates on their activities. A **website was developed to host the toolbox, case collection, and additional resources**, incorporating materials contributed by experts and insights from workshop discussions. The **German National Strategy for Plant Genetic Resources**, originally available only in German language, was translated into English and Chinese to ensure accessibility for the target audience in both countries. At the time of this writing, the translated versions are under review at BMEL.

The project also produced a **policy brief** outlining Germany and China's respective situations and providing recommendations for both. Building on lessons from the bilateral exchange and the experts' extensive experience, the policy working group developed a broader policy agenda applicable to international and cross-country policymakers.

Plans for **post-project activities** were developed, including a basic sustainability strategy for the network and additional recommendations outlined in this report. Network experts also expressed a strong interest in continuing their collaboration and have taken the initiative to design new projects aimed at securing suitable funding (see "Outcomes" below).

On 23 October 2024, during a session on agrobiodiversity at the **10th Sino-German Agricultural Week** (SGAW), network members from both countries presented the project's outcomes, including the policy brief and case studies illustrating how rural communities in Germany and China conserve, manage, and valorize local and heirloom crop varieties. A print version of the policy brief was distributed, and the 5th edition of the DCZ magazine *Harvest* featured selected case studies from both countries. Prior to the session, a closed-door meeting allowed network members to share updates on recent activities and plan future initiatives. A total of 18 members attended, including three new additions to the network.

3. Key events

There were three key events throughout the funding period: an online two-day Kick-Off Workshop, and two 5-day trips to China and Germany respectively with intensive workshops and site visits. All events were documented in detail, including expert presentations and workshop notes. Articles on key events throughout the funding period were published on the DCZ website and LinkedIn. Further coverage by network members in German and Chinese were made available to wider audiences in each country via their social media channels and newsletters.² Below is a short overview.

3.1 Kick-Off Workshop (30 November - 1 December 2023, online)

After the project launch, the team led 15 interviews with experts who planned to participate in the network. Each interview lasted for approx. one hour and collected important information on each expert's expertise, interests, and potential contributions to the network. The two-day Kick-Off Workshop brought these experts and the project team together online. The workshop was designed and moderated to allow each expert to showcase their work and expertise, introduce the project and each country's national agricultural context. Based on the intake interviews, dedicated workshop sessions started the co-creation process by defining the most relevant aspects for exchange and work objectives for the network going forward.

Over 20 participants joined the two-day event. Represented institutions included Farmers' Seed Network (China) (FSN), Association for the Preservation and Recultivation of Crops (VERN e.V.), Alliance of Bioersity International and CIAT, Foodthink, the Information and Coordination Center for Biodiversity of Germany's Federal Office for Agriculture and Food, Nova Institute, Foundation Future Agriculture/Weltacker, as well as universities and research institutions such as the Chinese Academy of Agricultural Sciences (CAAS), China Agriculture University (CAS), University for Sustainable Development Eberswalde (HNEE) and Wuhan University. The director of DCZ, Jürgen Ritter, gave a welcome address and further members of IAK and GFA also joined parts of the event.

² See for example press releases and articles by [HNEE](#), [VERN e.V.](#), [Foodthink](#), and [FSN](#).

3.2 China: site visits and workshops (12-17 May 2024, in person)

The five-day trip to China brought experts together for in-person workshops, meetings with other local stakeholders, and site visits of projects by network members. German and Chinese experts travelled together from Beijing to the village Wangjinzhuang (Hebei Province) and to May Farm, an organic farm in Suzhou (Jiangsu Province). The trip itinerary and its activities were designed and implemented in close cooperation with FSN.

Throughout the week, intensive **workshop sessions** were dedicated to deepening experts' understanding of each country's achievements and challenges in agrobiodiversity policy and practice, reviewing the contributions to the toolbox and thinking about its curation, discussing first suggestions for policy recommendations prepared by the working group, and starting to specify target audiences and future beneficiaries of the networks' outputs. Selected experts gave bespoke presentations to enhance the debate in individual workshop sessions.

During the trip, experts met with **local stakeholders** beyond the network including local farmers, agricultural entrepreneurs, researchers, and NGOs. In Hebei Province, a meeting brought the experts together with representatives of the FSN network from across North-Eastern China. Both German experts and Chinese representatives shared their expertise in presentations. Exchange was then deepened in moderated group discussions. In Jiangsu Province, a highlight was a meeting with a new generation of innovative farmers and researchers interested in crop diversity. In small-group discussions, differences and shared challenges in agrobiodiversity and rural development were deliberated.

The **site visits** provided first-hand insights into on-farm conservation of old and rare crop varieties, farmer seed banks, and value chain connections extending to urban consumers. In Beijing, experts from Foodthink facilitated a visit to the Beijing Organic Farmers Market and a high-tech supermarket. In Hebei Province, the group visited the village Wangjinzhuang with its impressive farmer seed bank, the FAO Globally Important Agriculture Heritage Site (GIAHS) site "Shexian Dryland Stone Terraced System", and a local exhibition on village history. The steward of Wangjinzhuang's farmer seed collection and conservation and long-term partner of FSN, Mr. He, generously organized and led the visit. Members of the Shexian Dryland Stone Terrace Association also participated in exchange with the experts. Experts were highly impressed by the extensive collection of local farmer seed varieties, their caring curation in the farmer seed bank, and use on the dryland stone terrace fields. In Suzhou, the network visited May Farm, an organic farm business that was also in the process of building a farmer seed bank for the area in collaboration with FSN.

3.3 Germany: site visits and workshops (10-14 June 2024, in person)

During the five-day trip to Germany, experts could deepen their exchange in further workshops, meetings with local stakeholders, and site visits to projects by German network members. German and Chinese experts travelled together from Berlin to several places in Brandenburg.

Building on previous **workshop sessions** in China and ongoing online exchanges, individual sessions focused on refining the toolbox's content and purpose, discussing policy recommendations relevant to both countries, and developing a dissemination plan for the network's outputs. Ideas for the network's long-term sustainability were also explored.

Selected experts gave tailored presentations to enrich the discussions, which deepened as mutual understanding grew between network members about the situations in both countries. The final session allowed each expert to share key takeaways from the exchange and outline plans for applying these insights in their own work or through future joint initiatives.

The group met with **local stakeholders** beyond the network including members of the Federal Ministry for Food and Agriculture (BMEL), local farmers, entrepreneurs along the regional food value chain, researchers, and members of community initiatives. In Berlin, at BMEL division 624 International projects, Dieter Goertz and Svenja Fuhrmann welcomed the group to present the network, offered an expert presentation on agroecology, and shared recent developments in bilateral collaboration with relevance to agrobiodiversity. The Foundation Future Agriculture (Zukunftsstiftung Landwirtschaft) hosted a public event featuring Chinese experts from the network to share their work with the interested public. In Brandenburg, the group joined researchers and farmers for the annual field day organized by the University for Sustainable Development Eberswalde (HNEE) and Gut Wilmersdorf. In Eberswalde, hosted by Prof. Ralf Bloch from HNEE, the group enjoyed a presentation on seed microbiomes by an invited researcher from ATB and visited the local organic shop and bakery “Bäckerei Wiese” for exchange with the owners.

To mirror the **site visits** in China, the group visited places that offered first-hand impression from recultivation, on-farm conservation and use of old and rare crop varieties, and their linkages down the value chain. In Berlin, experts visited the Dahlem Seed Bank, the historical farm Domäne Dahlem, the community garden project “Prinzessinnengärten”, and the educational site “Weltacker”. In Brandenburg, the group toured the experimental fields at Gut Wilmersdorf, the historical mill still processing old grain varieties, and VERN’s seed bank and garden with recultivated crop varieties. In Eberswalde, the group got to visit the small towns’ oldest organic shop and participated in a tasting of bread from recultivated grain varieties in the local bakery. The site visits were generously designed and led in close collaboration with experts from the network, who offered first-hand insights into their own projects at Weltacker, VERN, and HNEE.

3.4 Visual documentation

Extensive visual documentation of both studies trips, including links to video footage and interviews, is provided on the DCZ website:

- Study trip to China: <https://www.dcz-china.org/2024/05/29/german-experts-visit-chinese-initiatives-on-agro-biodiversity/>
- Study trip to Germany: <https://www.dcz-china.org/2024/07/09/dcz-organizes-study-tour-on-agro-biodiversity-2/>

4. Outcomes

4.1 Outputs

The project launched a potent **expert network** for substantive exchange and debate, bridging research and practice across both countries. The moderated workshops, meetings, and site visits in both countries facilitated in-depth exchange about best practices and lessons learned

in recultivation, conservation, and use of crop diversity with a focus on old and farmer varieties. All anticipated topics for exchange listed in the project proposal were addressed and further specified by the network experts. Topics of exchange and debate covered:

- sustainable agricultural practices that protect and enhance agrobiodiversity at field level,
- the linkage between agrobiodiversity in crops and cultural landscapes,
- practices around seeds of recultivated and protected old crop varieties, including farmer seed treatment, seed exchange, marketing,
- integration of conservation and use of “old crop varieties” into new regional value chains involving processors and consumers,
- political and legal framework conditions; informational and public awareness landscape around crop diversity and agrobiodiversity more broadly, and
- and latest research on linkages and potential in crop diversity for sustainable and climate resilient cropping systems.

Key resources collected across the network were made available online. The DCZ website hosts the platform to access an extensive **toolbox, case collection, profiles of network participants, and further useful resources**.³ The toolbox curates over 50 resources useful to facilitators and multipliers working on practice-oriented projects, such as transdisciplinary methodological guides, technical manuals for on-farm practices around recultivation and conservation of old varieties, training handbooks for seed conservation and participatory breeding with farmers, and much more. Case studies share information about projects and experiences made in both countries. Furthermore, the platform profiles the networks' experts and organizations, and also points towards further useful resources and contact information for interested parties to interact with the network. The platform brings together tools and cases in English, Chinese and German, some already available in several of these languages. As part of the project, experts prioritized material only available in German or Chinese for translation to showcase added benefit of the bilateral exchange of knowledge resources. With the available budget, the **German National Strategy for Plant Genetic Resources** was translated into English and Chinese and will be made available on the platform, following review by BMEL (ongoing at the time of writing).

Experts of the network finalized the **policy brief “The conservation and sustainable use of agrobiodiversity in China and Germany: advancing the policy agenda”** (Sensen, Song and Vernooij 2024).⁴ The brief introduces the relevant policy landscape in each country and highlights the core policy elements that govern conservation and use of agrobiodiversity. Based on the experiences of both countries, the brief advances an overarching policy agenda for agrobiodiversity along five core elements. For each of the five core elements, the brief details specific recommendations for policy development and other measures. The agenda thus offers entry points with concrete expert suggestions for collaboration between the two

³ The toolbox is available at <https://www.dcz-china.org/toolbox-home/>. A link to the toolbox will also be included on the DCZ homepage in early 2025 as part of a concerted dissemination campaign.

⁴ The brief is available for download on the DCZ website at <https://www.dcz-china.org/2024/09/24/policy-brief-conservation-and-sustainable-use-of-agrobiodiversity/>.

countries and beyond to advance capacity building, exchange of knowledge and experiences, policy development, and research.

Dissemination of the network's outputs has already begun. Interested members of the public could follow the activities of the network during its trips via articles published by DCZ, VERN, FSN, HNEE, and Foodthink in German, English and Chinese. Furthermore, information about the network activities and outputs were shared in various other fora since the last joint expert trip in June 2024. In September 2024, Eva Sternfeld and Michaela Böhme from DCZ presented the project during a workshop hosted by the EU-China trans4num project in Beijing. Additionally, Eva Sternfeld introduced the network to students at Sichuan Agricultural University in early October as well as to experts at the symposium "China and Social Anthropology" at the University of Zurich in December 2024. Network members Song Yiching and Li Guanqi also participated in COP16 in Cali in late October/ early November, further expanding the reach and impact of the network. Additional dissemination efforts include the translation of The German National Strategy for Plant Genetic Resources into English and Chinese, which will be distributed to Chinese and international policymakers at upcoming events. The network, along with three in-depth case studies from each country, was featured in a special edition of the DCZ's bilingual journal *Harvest* (Vol. 5)⁵. During the Sino-German Agricultural Week (SGAW) in October 2024, DCZ representatives and network experts from both countries showcased the project outcomes and policy brief to key policymakers and agricultural specialists. Additional experts were invited to participate in SGAW, expanding the expert network to 30 members. A WeChat group has also been established to facilitate communication and collaboration within the network.

The ongoing exchange among network members has inspired several **new initiatives**. Ralf Bloch (HNEE) successfully secured seed funding to develop a Horizon Europe proposal on integrating legumes into crop rotations. This project will involve network member and intercropping specialist Li Long (CAU) and may include collaboration with the University of Hohenheim. In mid-October, a delegation from FSN visited VERN, further strengthening mutual ties. FSN is now eager to develop technical guidelines for safe seed storage and conservation, modeled on those created by VERN. Additionally, the network has applied to host a side event at the International Agrobiodiversity Congress (IAC) in Kunming in April 2025. During this event, German and Chinese members will present key outcomes of their collaborative work. Several follow-up projects are also in the pipeline, including a Sino-German Tofu Network, for which a pre-study is currently being prepared by FSN with input from nova-Institut, as well as a Global Field (Weltacker) project in Beijing, led by network member Qiao Yuhui (CAU) and with support from Benny Haerlin (Foundation Future Farming).

4.2 Evaluation of the project

Surveys were conducted following each of the two study trips to gather expert feedback on the trip design and the effectiveness of knowledge transfer. Overall satisfaction with both trips exceeded 97%, and 94% of participants strongly agreed that they had gained insights into new approaches to sustainable conservation and use in the partner country.

⁵ The special issue of *Harvest* can be downloaded in English and Chinese from the DCZ website: <https://www.dcz-china.org/2024/10/18/harvest-%c2%b7-%e4%b8%b0%e6%94%b6-issue-5-oct-2024/>.

5. Sustainability of the network

To sustain the network and exchange platform developed during the project beyond the funding period and to build upon its results, the DCZ has outlined the following four key actions:

Action 1: Establish a shared email/ WeChat distribution list

The DCZ has created a shared email/ WeChat distribution list to facilitate the dissemination of information on relevant events, funding programs, and other opportunities to the network's experts.

Action 2: Integrate the exchange platform into the DCZ website

The exchange platform (also referred to as the “toolbox”) will be technically integrated into the DCZ website to ensure its long-term functionality and regular maintenance after the funding period ends. The DCZ will be responsible for updating its content (e.g., announcements of events, calls for abstracts) and responding to inquiries from interested third parties as part of its public relations and website management efforts.

Action 3: Establish a quarterly *Jour Fixe*

To sustain the network of German and Chinese agrobiodiversity experts, a quarterly *Jour Fixe* will be organized and coordinated by the DCZ. These meetings will provide a platform for participants to stay informed about ongoing activities, exchange ideas for follow-up projects, and discuss funding opportunities. Meeting minutes will be shared with BMEL to support further project development, particularly within the framework of BMEL's Bilateral Cooperation Program (BKP) or the newly planned specialist dialogue on agroecology with China.

Action 4: Integrate the network into DCZ events

Experts from the Sino-German agrobiodiversity network will be regularly involved in DCZ events, such as the Sino-German Agricultural Week and specialized workshops on topics like agrobiodiversity, agroecology, and sustainable agriculture. Network members will be invited to contribute through lectures, panel discussions, and other activities.

These actions are intended to ensure the continuity and growth of the network, fostering long-term collaboration between German and Chinese experts. They are subject to the availability of resources within DCZ.

6. Suggestions for further measures

There are compelling reasons to further **develop the network with concrete measures in Phase II**. The first phase demonstrated that agrobiodiversity in China is a vast and vital aspect of the country's national biocultural heritage. Germany's experience in the recultivation, conservation, and use of traditional crop varieties emphasized the importance of dedicated institutions in promoting agrobiodiversity for sustainable agriculture. It also highlighted the potential of dynamic networks that connect research, civil society organizations, and stakeholders across regional value chains. By focusing on diverse and accessible seeds in both

Germany and China, the conservation and use of crop diversity can enhance on-farm agrobiodiversity, offering significant opportunities for agroecological, climate-resilient agriculture and the sustainable development of rural areas.

6.1 Measure 1: Scaling knowledge for science and practice

We propose further developing the toolbox and case collection into actionable training materials for multipliers. Experts highlighted a gap in educational offerings in both countries regarding the work with old and rare crop varieties, starting from the seed. Discussions of project experiences in both countries revealed that expertise in quality on-farm conservation and the development of sustainable use cases for specific crop varieties is limited to a small number of specialists. However, experts recognized the potential for the toolbox to be expanded for "training the trainers" and other practice-oriented curricula.

The key target audiences for this enhanced toolbox would include multipliers such as university professors, professional trainers, extension officers in sustainable agriculture, and representatives from NGOs or networks who train members of local farmer seed bank initiatives. The goal is to make the collective knowledge resources of the network accessible for training the next generation of experts focused on on-farm conservation and the use of old, rare, and farmer-bred seeds.

The toolbox and case collection are already close to being ready for use in training and teaching scenarios. Many of the collected handbooks and technical guidelines provide a wealth of information on various aspects of fostering crop diversity starting from the seed. Further development is needed to connect these tools to practical contexts and transform them into didactically effective training materials. Experts emphasized that well-developed curricula and short training courses would be invaluable for the field, helping to address the bottleneck of scaling expertise. These efforts could train more trainers to support local initiatives and expand the knowledge base around on-farm seed stewardship and the use of old, rare, and farmer-developed crops along food value chains.

This measure would enhance the toolbox materials into full-fledged training resources and develop sample curricula tailored to specific target audiences in both countries. Experts identified high-impact "train-the-trainer" and educational opportunities that should be targeted through this initiative:

Opportunity 1: University students, research teams and transdisciplinary facilitators

Scientists face the challenge of supporting locally adapted, sustainable, and climate-resilient agricultural practices while meeting the requirements of academic publications. There is a gap in educational offerings for these methodologies at many universities, leaving agricultural professionals aware of the gap but unsure how to bridge it. Experts' projects have shown that the systematic, participatory assessment of locally adapted crops is becoming increasingly relevant, as farmers seek to adapt their practices and crops to changing climatic conditions.

The toolbox and case collection provide methodological guidelines and case examples of successful participatory and transdisciplinary research projects that balance scientific rigor with the needs of farmers. Network experts recommend developing these materials into training courses for **researchers and agricultural professionals interested in participatory on-farm**

trials. These trials would integrate old and rare crop varieties into sustainable agricultural practices such as intercropping, agroforestry, crop rotations, and organic farming. The proposed measure would yield the following outcomes:

- **Curriculum development:** Experts will create curricula for university students and researchers, incorporating selected tools and case studies as teaching materials. These curricula will be adaptable to both countries and align with standard agricultural and environmental degree programs. Additionally, they can be tailored for on-demand training to help researchers upskill, develop, and implement projects.
- **Curriculum evaluation and Improvement:** Experts will trial, evaluate, and refine the curricula at their respective institutions and projects.
- **Advocacy for inclusion:** Experts will advocate for the integration of these curricula into university programs and the offering of certified qualification courses for researchers aiming to strengthen their methodological expertise.

Opportunity 2: “Training the trainers” to strengthen practice

The network's experts possess extensive experience in building, guiding, and supporting local initiatives focused on the recultivation, conservation, and use of old and farmer-bred seeds. Transmitting this expertise is a key challenge to scaling local initiatives and training the next generation of knowledgeable practitioners in the field.

While the toolbox and case collection showcase a wealth of experiences and tools ready for use in new projects, effectively utilizing these resources requires training. Experts' projects have highlighted the often-unique development of these initiatives, shaped by local contexts, people, and crops. "Training the trainers" is essential for enhancing the implementation and scaling of the lessons learned and best practices contained in the toolbox and case collection. This will also serve as a crucial step in **connecting today's experts with the next generation of practitioners.**

The measures would address this opportunity with the following outcomes:

- **Development of “training the trainers” materials:** Experts will create and trial materials to train multipliers who work with farmers and local initiatives. Potential multipliers identified in both countries include leaders of farmer seed networks, NGO staff, researchers, experienced farmers, environmental educators, and extension officers.
- **Enhancement of tools and case examples:** Experts and trainers will refine selected tools and case examples to ensure they are easily usable by trainers as educational materials for training other farmers, farmer seed network members, extension officers, and NGO staff working in sustainable agriculture and biodiversity.
- **Advocacy for certification:** Experts will advocate for a formal certification program, allowing professional trainers to gain recognition for their expertise in both the subject matter and the didactic approach to teaching.

6.2 Measure 2: Anchoring conservation and use of crop diversity within agroecology

The recultivation, conservation, and use of old and farmer-bred seeds are essential components of agrobiodiversity and closely linked to agroecology. Experts emphasized the importance of crop diversity starting from the seed but noted that resilient seed systems for the conservation and sustainable use of agrobiodiversity require greater recognition and support within broader agricultural and environmental policymaking. Our policy brief *The Conservation and Sustainable Use of Agrobiodiversity in China and Germany: Advancing the Policy Agenda* drafted by network members Sarah Sensen (BLE), Song Yiching (FSN), and Ronnie Vernooy (Bioversity International) outlines entry points for further collaboration between Germany and China to advance key regulatory and institutional developments in this field.

The network authors identified five core policy elements for an overarching agrobiodiversity agenda. This measure would mobilize the network to further develop and implement selected recommendations based on Phase I:

- **Designing synergistic formats:** Experts design formats that foster synergies between ex situ, in situ, and on-farm conservation, as well as various types of plant breeding, to support the long-term conservation, promotion, and sustainable use of agrobiodiversity. These formats involve institutional collaborations with farmer associations, community seed banks, and seed saver groups.
- **Proposing pilot schemes for payments for agrobiodiversity conservation services:** Experts propose pilot schemes for Payments for Agrobiodiversity Conservation Services (PACS) and advocate for their trial by relevant decision-makers. These schemes allow farmer communities, community seed banks, and seed saver organizations to apply for funding to implement local agrobiodiversity initiatives.
- **Improving legal recognition and technical support for seed banks:** Experts identify potential improvements in the legal recognition of and technical support for community seed banks and seed saver groups or associations. This support helps strengthen in situ and on-farm conservation activities.
- **Supporting agroecological integration:** Experts support the development of regulations that facilitate the integration of old plant varieties into agroecological practices, such as agroforestry, crop rotation, and intercropping.

6.3 Measure 3: Strengthening conservation - valuation - recommendation linkages

Phase I of the project demonstrated the significant potential to strengthen the linkages between conservation, valuation, and recommendations along the value chain of old and rare crop varieties. This approach benefits field-level agrobiodiversity, rural livelihoods, and resilient food systems. The wide variety of crop types offers diverse cultivation properties and resistance traits developed over time under natural conditions, influenced by different locations and climates. These traits can provide key advantages in adapting to climate change and have commercial potential for farmers, food processors, and retailers. Sustainable

conservation of old and rare crops can be supported by effective valuation and use recommendations for select varieties with commercial promise. Regional food value chains stand to benefit directly from the successful commercialization of these crops, from farmers to consumers. This measure will strengthen and scale the linkages between conservation, valuation, and recommendations for rural development, biocultural heritage protection, regional specialty products, and rural tourism.

To capitalize on the win-win potential for agrobiodiversity conservation and sustainable use, we propose the model project "Sino-German Tofu Network." Building on the positive outcomes of Phase I, this project would focus on the on-farm conservation and use of old, rare, and farmer-bred crop varieties, with an emphasis on legumes and soybeans. By leveraging China's rich food culture around soybeans and locally adapted varieties, alongside growing interest in legume cultivation and dietary shifts in Germany, the Sino-German Tofu Network could strengthen, connect, and raise the profile of local seed initiatives and their conservation efforts. The project would also highlight the potential of these varieties for various aspects of sustainable agriculture and rural development.

A detailed project proposal was submitted to GFA in July 2024 as part of their mission to China to design a new agroecology project for BMEL and China's Ministry of Agriculture and Rural Affairs (MARA).



Sino-German Agricultural Centre (DCZ)