



ECPGR Activity Grant Scheme – Third Call, 2016

Activity Report

**Assessing linkages
between genebanks and direct users
(LINKAGES)**

1 January 2017 – 30 June 2018

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INTRODUCTION

Background and aims

It has already been observed that providing greater opportunities for direct use of *ex situ* materials, and facilitating information-sharing mechanisms for characterization and evaluation data accumulated by users, can set the stage for greater synergies between *ex situ* and *in situ*/on-farm, making conservation of genetic resources more effective, decentralized and dynamic. However, it is not clear to which extent direct users already engage in formal requests for germplasm from genebanks and through which channels or modalities; nor are their needs, interests, expectations and problems well documented, hampering the chance for genebanks to make their materials more attractive and accessible. On the other hand, the extent to which genebanks' distribution modalities and processes are well fit to the needs of direct users' communities is also not clear and possible simplified alternatives have not been widely explored.

Expected outcomes related to ECPGR objectives

The [LINKAGES Activity](#) addresses ECPGR Objective 5: "Relations with users of germplasm are strengthened" and focuses particularly on the relation between genebanks and farmers, seed savers and their organizations possibly interested in using *ex situ* materials directly. It takes into account the proposals developed by the Task Force on enhancing user engagement, mostly proposals 2 (Establishing a EU network for direct use) and 3 (Making genebanks more attractive for the user) which were also clearly mentioned in the '[ECPGR Concept for on-farm conservation and management of plant genetic resources for food and agriculture](#)'. LINKAGES was developed in synergy with the Horizon2020-funded Diversifood project (www.diversifood.eu), of which Rete Semi Rurali (RSR) is active partner. A particular connection exists with Diversifood tasks 4.2 (Tools for managing Community Seed Systems) and 4.3 (Defining Community Seed Banks). LINKAGES contributes to better clarifying the relationships between the on-farm community seed management systems (seed networks, community seed banks, seed saver organizations) and the more formalized *ex situ* conservation world, providing inputs on how to better integrate the two realms.

Partners and roles

Project partners were chosen to represent the genebank, on-farm, farmer and seed saver stakeholder groups; each supported the development, circulation and follow-up of the survey, as well as the dissemination of its results, within their own communities. This strategy was meant to maximize the chances of having a good response rate to the survey and making its results available to wider *ex situ* and on-farm communities. These partners were:

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Partner institution	Person(s)	Thematic area	Role	Contribution
1. Rete Semi Rurali (RSR)	Riccardo Bocci, Gea Galluzzi, Livia Ortolani	On-farm/ sustainable use (farmers)	<ul style="list-style-type: none"> • ACTIVITY COORDINATOR • Develop initial and final survey drafts • Circulate and follow up on the survey in the farmers' community 	ECPGR
			<ul style="list-style-type: none"> • Analyse the data from all respondents • Develop/discuss recommendations for improving <i>ex situ</i>/on-farm linkages • Disseminate the results in the farmers' community 	In-kind (Diversifood project)
2. Centre for Genetic Resources, the Netherlands – CGN	Theo van Hintum	<i>Ex situ</i>	<ul style="list-style-type: none"> • PARTNER • Provide input to survey development • Circulate and follow up on the survey, disseminate its results, in the <i>ex situ</i> community 	ECPGR
3. Pro Specie Rara- PSR	Bela Bartha	On-farm conservation/ sustainable use (seed savers/ amateurs)	<ul style="list-style-type: none"> • PARTNER • Provide input to survey development • Circulate and follow up on the survey, disseminate its results, in the seed savers'/amateurs' community 	ECPGR
4. University of Perugia	Valeria Negri	On-farm conservation	<ul style="list-style-type: none"> • PARTNER • Provide scientific/technical advice during meetings 	ECPGR

In-kind contributions were made by the Research Centre for Olive, Citrus and Fruit Trees of the Italian Council for Agricultural Research and Analysis of Agricultural Economics (CREA-OFA) (Petra Engel and Maria Antonietta Palombi), the ECPGR Secretariat (Lorenzo Maggioni) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) (Mario Marino). Members of the Diversifood community (project partners and stakeholders) were involved in the testing, validation and circulation of the on-farm surveys in selected countries (Spain, France and the UK).

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APPROACH AND ACTIVITIES

The project activities were designed with the intention of contributing to an assessment of whether European public collections are easily available to direct users such as farmers or seed savers, what sort of agreements or processes genebanks use when distributing materials to these recipients, and if there are difficulties or resistances on any or both sides. The planned activities were:

- An initial kick-off/planning meeting early in 2017, involving all project partners in outlining and defining the project activities and each partner's role;
- Analyses of the reports to the Governing Body of the ITPGRFA on European genebank distributions, to assess the relative weight of direct users among overall recipients of germplasm and any changing trend over time;
- An online survey among genebank curators to record their experience with distributions to direct users, and their use of the Standard Material Transfer Agreement (SMTA) or other simplified options in these cases;
- An online survey in five languages among farmers and seed savers to assess the extent to which they use *ex situ* materials (and for what), their expectations, needs and difficulties;
- A final workshop in spring-summer of 2018, back-to-back with the Diversifood project: this final workshop would bring together selected participants to the project's activities, to discuss, refine and validate the results and define a way forward for better interactions between *ex situ* and on-farm communities at European and international levels.

The texts of the surveys (English version) are attached to this document as Annexes 2 and 3.

RESULTS

During the kick-off meeting, held on 12 January 2017 at Bioversity International's headquarters in Maccarese (Rome), the basic content and structure, as well as the dissemination strategy for the surveys was outlined. It was decided to consult with the Treaty to get access to the reports on germplasm distributions. The Treaty's response to the project's request, mediated by project partner Theo Van Hintum, made it evident that the aggregation of data in those reports made it impossible to extract the data needed for the relevant LINKAGES activity, which was therefore dropped.

Over the following months, the two surveys were designed, one for the *ex situ* community (genebank curators, managers) in English, and one for the on-farm community (seed networks, seed saver associations, farmers' organizations) in five languages (English, Italian, German, French and Spanish). The questionnaires were validated by project partners and administered online through RSR's website platform. While defining "direct use", "direct users" and "direct use requests" was challenging, we kept the definition quite broad

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(explaining it in the surveys' introductory text), so as to capture all those requests for germplasm which do not fall within the conventional research/breeding pipeline but are rather made to genebanks by individuals or communities who wish to embed crop genetic diversity in their on-farm sustainable production or participatory research endeavours.

The *ex situ* questionnaire was circulated thanks to the intermediation of the ECPGR, who sent the link to National Coordinators, inviting them to forward it to genebank curators in their countries and encouraging its compilation. The on-farm questionnaire was circulated by on-farm project partners and other seed network contacts in their own communities (using the form in the appropriate language).

Approximately two months after their launching, the surveys were closed and results analysed by RSR. The final meeting was organized 4-5 June 2018 at the Foresteria Valdese in Florence, hosted by RSR with logistical support from the ECPGR and financial support (for non-ECPGR funded participants) by Diversifood. The meeting brought together 19 participants (including project partners) from 12 countries; eight *ex situ* institutions and five on-farm networks or associations were represented in the meeting. The list of participants is attached as Annex 7 to this report. The meeting was an interesting and fruitful opportunity to discuss the findings from the two surveys, which are summarized in the following paragraphs.

***Ex situ* survey findings**

We received 45 complete answers from genebank curators in 21 countries, covering a range of different crops and distributing an average of around 100-200 samples per year. With just one exception, all genebanks have received "direct use" requests for germplasm, and these types of requests were reported to be increasing by half of our respondents. Most "direct use" requests came from farmers and seed savers, and a relatively smaller proportion from their associations or organizations. While most curators declared not to have a specific policy for dealing with direct users' requests (70%), around a quarter of our responses indicated they had a specific policy in place, although not all specified what it consisted in specifically. The use of an SMTA was quite frequent even in dealing with direct users but often in a simplified form, while around 22% of curators stated not to be using a transfer agreement at all in these cases. Finally, in terms of collaborations with the on-farm world, the majority of genebank managers answered positively, being engaged more or less sporadically with on-farm actors and farmers in projects or networks. More details, numbers and graphs can be found in the *ex situ* presentation given at the meeting.¹ Regarding collaborations with the on-farm/direct users' world, in the final workshop's discussions genebank managers stressed the fact that their mandates often preclude them from distributing more than minimum quantities of seed to users, although they are aware that such quantities are often limiting for the collective experimentations and direct uses which the on-farm communities are involved in. Some of the curators attending the meeting expressed their willingness to be involved in projects, to be developed by the on-farm community, to multiply greater quantities of seed for distribution among farmers participating in collective experimentation through use, thus

¹ [Results from the *ex situ* survey](#)

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giving more visibility to certain materials they host and serving the on-farm communities better.

On-farm survey findings

We received 45 complete answers from “direct users” in 8 countries, covering a range of different actor types including farmers, farmers associations and technicians working closely with local farmers. Respondents are equally involved in commercial organic/biodynamic production as well as on-farm conservation of landraces and breeding/selection activities. Most of the respondents already experienced an interaction with a genebank to request seeds and the vast majority obtained the material requested. An intermediary organization or network often helped individual users with the request. The promotion of a specific variety through collective processes and seed exchanges was the main purpose for which the respondents asked for germplasm. A large proportion (over 75%) of surveyed direct users declared a high level of satisfaction with the material received, while some dissatisfaction was expressed in terms of the associated information. Finally, more than 40% of the direct users reported being engaged with one or more *ex situ* institutions in collaborative projects or networks. More details, numbers and graphs can be found in the on-farm presentation given at the meeting.² Regarding interactions with *ex situ* institutions, on-farm representatives who participated in the final workshop appreciated the willingness of genebank curators to be involved in projects focused on multiplication of greater quantities of seed for direct use; however, they also stressed the importance of sharing the burden of developing such a project, calling for full participation in the effort of providing seeds of interesting and promising varieties to on-farm communities.

RECOMMENDATIONS

The surveys and the final discussions in the project’s closing workshop yielded the following recommendations and ideas for the future:

- Continue creating opportunities for exchange/interaction between *ex situ*/on-farm communities around concrete issues such as:
 - Improving the varied scenario of MTA/SMTAs currently used by on-farm communities for material exchange, ensuring the possibility of interactions with genebank collections and modalities;
 - Possibility of integration/communication (with careful consideration of privacy issues) between the databases used by on-farm networks and communities and those used by *ex situ* genebanks;
 - Joint development of pilot projects and initiatives, fully shared among *ex situ* and on-farm actors, to multiply/disseminate *ex situ* germplasm of interest to on-farm communities and/or small-scale organic farmers.

² [Results from the on-farm survey](#)

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Opportunities for these continued exchanges and interactions could be offered by ongoing EU-funded projects focusing on synergies between *ex situ/in situ*/on-farm conservation approaches and communities, namely the Dynaversity and Farmers' Pride projects in which some LINKAGES partners are involved. Rete Semi Rurali (RSR) is a partner of the Dynaversity project and will take care of embedding the issues emerging from LINKAGES into this project, finding opportunities to research them further. Other opportunities can be offered by seed networks' farmer field days and visits to experimental fields, which could allow *ex situ* personnel to get better acquainted with the possibilities offered by seed/farmer networks in terms of germplasm evaluation/characterization. Dedicated meetings of the ECPGR Working Groups can also offer opportunities for deepening some of the aspects emerging from LINKAGES. Working Group members/Chairs are called to make these spaces available when they see the opportunity.

- Set up a new international journal for publications focused on participatory, “informal”, decentralized research on organic agriculture, seeds and agrobiodiversity. The International Treaty had proposed something similar some time ago and the ECPGR is planning the development of a ‘Genetic Resources Journal’ within the framework of a recently approved EU research project. It would be good to have someone from the European seed networks represented in the editorial board together with experts from genebanks, so as to work together on evaluating research results, which come from both worlds.
- Develop a pilot project proposal involving selected national genebanks and on-farm networks to test the evaluation/characterization of priority germplasm sets of interest for organic, small scale agriculture in farmers' fields and sharing of the resulting data (with intellectual property considerations) with mutual benefit for farmers and genebanks. This could be a first step towards establishing an “alternative” evaluation network capable of incorporating the need for formal scientific reliability and the participatory advantages of working directly in a more informal, on-farm context, establishing new integrated research protocols. An opportunity to be explored for this possible proposal is the Horizon 2020 call “SFS-28-2019-Genetic resources and pre-breeding communities”, with the topic “adding value to plant GenRes” in 2019; another opportunity could be the next round of ECPGR Activity Grant Scheme, which is expected for 2019.
- Develop the bases for an *ex situ*/on-farm “alliance” (definition, structure and mandate to be defined), which could stem from the above interactions and joint activities, and become a steward of a more integrated vision of agrobiodiversity conservation and contribute to stronger implementation of the International Treaty's Articles 6 and 9 on sustainable use and farmers' rights in Europe.

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BIBLIOGRAPHY

[Objectives of ECPGR for Phase IX \(2014-2018\) - \(v2, April 2015\)](#)

[Framework report on the use of plant genetic resources within ECPGR \(June 2014\)](#)

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Annex 1. Agenda of the LINKAGES kick-off meeting (12 January 2017, Maccarese, Italy)

Programme

Meeting to start outlining the survey instruments that will be used in the project to assess the extent to which genebank materials are accessible to direct users such as farmers, amateurs and seed custodians/savers.

Venue

Bioversity International, First floor meeting room

Thursday 12 January 2017

09:30-09:45	Welcome to the participants by ECPGR Secretariat (Lorenzo Maggioni)
9:45-10:00	Project overview (Rete Semi Rurali)
10:00-10:30	<i>Coffee break</i>
10:30-13:00	Planning of the <i>ex situ</i> related activities: <ul style="list-style-type: none">– Analysis of the ITPGRFA Governing Body reports– Survey for <i>ex situ</i> communities<ul style="list-style-type: none">○ Survey outline○ List of respondents
13:00-14:00	<i>Lunch break</i>
14:00-15:30	Planning of the survey for on-farm communities <ul style="list-style-type: none">– Survey outline– Surveyee list
15:30-17:00	Planning of the survey for on-farm communities (continued)

Participants

1. Béla Bartha – Pro Specie Rara - Switzerland
2. Riccardo Bocci (Activity Coordinator) – Rete Semi Rurali – Italy
3. Petra Engel – CREA – Italy
4. Gea Galluzzi – Rete Semi Rurali – Italy
5. Theo van Hintum – CGN – Netherlands
6. Lorenzo Maggioni – ECPGR Secretary

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Annex 2. Text of the *ex situ* survey (English version)

LINKAGES survey to *ex situ* curators

The following survey is part of the ECPGR activity “LINKAGES” which aims at understanding the current interactions and synergies between *ex situ* institutions and on-farm actors (seed savers, farmers and their associations and networks) in Europe. LINKAGES seeks a better understanding of the extent to which genebank materials are available, useful and accessible to so called “final” or “direct” users, which are here defined as those who do not request and use *ex situ* materials for formal pre-breeding, breeding or genetic/genomic research purposes, but rather for on-farm conservation, collective field experimentation and local production. To do this, LINKAGES will circulate two surveys, one among genebank curators and the other among on-farm organizations and their individual members (farmers, seed savers, technicians). As genebank manager or curator of a germplasm collection, you are receiving the former survey. Your answers will be instrumental for constructing the scenario from the *ex situ* standpoint; they will be analysed together with answers from your colleagues around Europe and in parallel to answers from the on-farm survey. The overall results will be shared, fine-tuned and discussed during a workshop organized in collaboration with European project Diversifood (www.diversifood.eu) in the spring of 2018. Some of the respondents from both the *ex situ* and on-farm worlds will be invited to attend the event.

Number of germplasm requests

How many requests for materials do you receive, on average, per year?

- less than 100
- 100-500
- 500-1000
- over 1000

Requests for direct use

Do you receive requests for germplasm which can be considered for “direct use”?

- yes
- no (if no, can you explain why, in your opinion or knowledge, you do not receive direct use requests?)

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Do you have a specific policy regarding requests for “direct use” (i.e. requests from farmers or farmer associations interested in multiplying and directly using the materials, as they are, in production systems or in on-farm activities?) or do you treat them as any other request for material? [open answer]

How many requests for germplasm for direct use purposes do you receive per year, on average?

- less than 20
- 20-100
- over 100

Have these types of requests been increasing in the last 5-10 years?

Actor types

Who are the main actors requesting materials for direct use? Please provide an estimated percentage for each suggested category over the total of direct use requests

- Farmers
- Seed savers/amateurs
- Farmer associations
- Seed saver associations
- NGOs

Origin of the requests

Do these requests mostly come from within the country of the genebank or from other countries?

- from within the country of the genebank
- from other countries
- equally from within the country and from abroad

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Species most requested

Which species among those you conserve are mostly requested? Please indicate the first three in order of frequency of requests

Material types

What types of material are usually requested in these cases? (e.g. mostly landraces, mostly elite lines, crop wild relatives or other)

Response to germplasm requests

What kind of agreements do you use when distributing materials from your collection?

- Standard Material Transfer Agreement (SMTA) as defined by the International Treaty on PGRFA
- Another MTA (How does it differ from the Treaty's SMTA?)
- Other (please describe it briefly)
- No agreement

When you receive requests for direct use, do you send out the material (given it is available and in good health)?

- Yes, always
- Only in a few cases (Please specify which cases and based on what considerations)
- No (why not? Do you explain your reasons to requesters?)

Do you use different agreements or arrangements when distributing materials from your collection to "direct users"?

- Yes (Please briefly describe such agreement or arrangement)
- We use no agreement (Why?)
- Not relevant (we don't distribute to direct users)

Do you have any observation or comment that you wish to share on your institutions' experience with "direct use" requests?

Apart from the distribution of genetic resources, does your organization collaborate formally with direct users (farmers, seed savers) or their organizations?

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- Yes (Please describe the projects, initiatives or platforms (national or international) in which you collaborate)
- No (Do you believe there is potential for greater collaboration/interactions? In which thematic areas?)

Do you publish the total numbers of requests and the total genetic resources you distribute annually?

- Yes, we publish it online or in our annual report
- No

Thank you for your collaboration!

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Annex 3. Text of the *on-farm* survey (English version)

Survey to on-farm communities

Questions

General information

- Are you a:
 - Farmer
 - Seed saver
 - Home gardener/hobbyist
 - Seed network technician/ animator
 - Small seed producer/distributor [please briefly describe how you operate with relation to seed production/commercialization, e.g. are you a formal seed enterprise, what type of seed do you sell? Do you deal with conservation or amateur varieties? Do you serve the organic market?]

- What is your main activity?
 - Commercial production
 - Organic/biodynamic
 - Conventional
 - Self-sufficiency production
 - On-farm conservation
 - On-farm variety selection/adaptation/breeding

- What crops are you most interested in?

Relationships with genebanks

- Do you think a genebank is an appropriate place for you to ask for seed for your use?
 - Yes (please explain why)
 - No (please explain why)

- Have you ever requested seed from *ex situ* collections/genebanks in or outside Europe?
 - Yes. If so, from which ones? Of which crops? For what purposes?
 - No (please explain why)

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- What did you use the requested genetic resources for?
 - o Self-consumption
 - o Promotion among farmers through participatory research and seed exchange
 - o Valorization of the final product

- Was the information on the varieties available in genebanks sufficient and useful for you to select the materials you wished to request?
 - o Yes
 - o No. If so, what sort of information would you need to be able to make more informed choices about the materials that may be useful to you?
 - o Not relevant since I never searched for this type of information

Contacting genebanks

- Do you find it straightforward to contact genebanks and/or to get information on the procedures for making a request for germplasm?
 - o Yes (please explain why)
 - o No (please explain why)

- Through which channels did you express your request?
 - o Email to website address
 - o Online form
 - o Informal request thanks to contact with genebank personnel
 - o Other
 - o Not relevant since I never requested material from genebanks

- Was your request transmitted through an organization you belong to or that you asked to help you on this occasion?
 - o Yes, I used the intermediation of an organization (please specify which one)
 - o No, I made the request in my name

Getting the seed

- Did you get the seed you requested?
 - o If yes, under what conditions (e.g. MTA, SMTA, payments)?
 - o If no, can you share the explanation (if any) given by the *ex situ* institution(s)?
 - o Not relevant since I never requested material from genebanks

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- If your request was fulfilled, were you satisfied with the material you received (in terms of timeliness of the distribution, quantity and quality of the seed, correspondence to variety description, uniformity, etc.)?
 - o Yes (please spend a few words on your experience and satisfaction)
 - o No. If so, what were the main problems you experienced with the seeds?

Collaborations with *ex situ* institutions

- Apart from the distribution of genetic resources, do you or your organization collaborate formally with *ex situ* institutions?
 - o Yes [Please describe the platforms/projects/initiatives (national or international) in which you collaborate]
 - o No

Future perspectives

- Based on your experience or on your expectations, would you be interested in receiving (more) seeds from *ex situ* collections? What do you see as the main added-value of receiving germplasm from these institutions and the advantages offered by this kind of relationship with these institutions? Please elaborate briefly on this.

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Annex 4. Agenda of the final LINKAGES/DIVERSIFOOD workshop (4-5 June 2018, Florence, Italy)



4th June

- 14.00 Participant registration
- 14.30 Opening session by LINKAGES and DIVERSIFOOD – Lorenzo Maggioni (ECPGR) and Riccardo Bocci (RSR)
- 15.00 Overview of the project LINKAGES - Gea Galluzzi (RSR)
- 15.10 Presentation and discussion of the results of the *ex situ* survey - Gea Galluzzi (RSR)
- 16.00 Coffee break
- 16.30 Presentation and discussion of the results of the on-farm survey - Livia Ortolani (RSR)
- 18.00 End of the session
- 19.30 Walk and social dinner downtown

5th June

- 09.00 Plenary discussion on pending issues and ways forward for greater synergies among *ex situ* and on-farm communities - LINKAGES project partners
- 10.30 Coffee break
- 11.00 DIVERSIFOOD presentation on databases used by social actors for managing agrobiodiversity (exchange with participants) and possible integration with the *ex situ* system – DIVERSIFOOD project partners
- 12.00 Wrap up and next steps - RSR
- 13.00 Lunch at the Foresteria Valdese

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Annex 5. Preparatory document for the LINKAGES final workshop (4-5 June 2018, Florence, Italy)



Dear invitees to the LINKAGES final workshop,

Hoping to contribute to your interest and commitment to attend the LINKAGES final workshop, we are sharing this brief document which summarises the main results emerging from the surveys and outlines a few preliminary points of discussion for our meeting.

As you know, the LINKAGES project circulated two surveys, one among genebank curators and one among on-farm representatives (farmers, seed savers, and their collective organizations), to gather data on how “direct use” germplasm requests were handled. While defining direct use was challenging, we kept the definition quite broad, intending to capture all those requests for germplasm which do not fall within the conventional research/breeding pipeline but are rather made to genebanks by individuals or communities who wish to embed crop genetic diversity in their on-farm sustainable production or participatory research endeavours.

Ex situ findings

We received 45 complete answers from genebank curators in 21 countries, covering a range of different crops and distributing an average of around 100-200 samples per year. With just one exception, all genebanks have received “direct use” requests for germplasm, and these types of requests were reported to be increasing by half of our respondents. Most “direct use” requests came from farmers and seed savers, and a relatively smaller proportion from their associations or organizations. While most curators declared not to have a specific policy for dealing with direct users’ requests (70%), around a quarter of our responses indicated they had a specific policy in place, although not all specified what it consisted in specifically. The use of an SMTA was quite frequent even in dealing with direct users but often in a simplified form, while around 22% of curators stated not to be using a transfer agreement at all in these cases. Finally, in terms of collaborations with the on-farm world, the majority of

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genebank managers answered positively, being engaged more or less sporadically with on-farm actors and farmers in projects or networks.

On-farm findings

We received 45 complete answers from “direct users” in 8 countries, covering a range of different actor types including farmers, farmers associations and technicians working closely with local farmers. Respondents are equally involved in commercial organic/biodynamic production as well as on-farm conservation of landraces and breeding/selection activities. Most of the respondents already experienced an interaction with a gene bank to request seeds and the vast majority obtained the material requested. An intermediary organization or network often helped individual users with the request. The promotion of a specific variety through collective processes and seed exchanges was the main purpose for which the respondents asked for germplasm. A large proportion (over 75%) of surveyed direct users declared a high level of satisfaction with the material received, while some dissatisfaction was expressed in terms of the associated information. Finally, more than 40% of the direct users reported being engaged with one or more *ex situ* institutions in collaborative projects or networks.

Tentative issues for discussion

- Do we have a shared and common view of what can be considered a “direct use” request and of what kind of actors are making these types of requests?
- Which specific agreements or policies are in place (if they differ from the default ones) for direct use requests (what do “simplified SMTAs” look like? Are they reported to the Treaty’s Governing Body or other relevant institutions in a similar way as “normal SMTAs”?)
- How does the *ex situ* community see the “direct users” communities they serve, in terms of potential collaborations and synergies in carrying out conservation and innovation around genetic resources?
- Who are the “direct users” interacting with the *ex situ* community? Are they perhaps not only private farmers/gardeners but actors embedded in communities where meaningful on-farm conservation and experimentation take place?
- How can we improve the interaction between these direct users and the *ex situ* community and how could this contribute to an integrated strategy for conservation and sustainable use of plant genetic resources?
- What can be the role of “direct users” involved in collective processes and seed exchanges in agrobiodiversity conservation policies? Could their activity become

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complementary/synergic to the one of the *ex situ* community and how to foster this?

- How can knowledge exchange between *ex situ* and on-farm actors involved in collective experimentation/innovation processes improve the information associated to crop germplasm?

While we finalise the analyses of the two surveys to present the complete results during the meeting, we encourage you to develop your own questions and curiosities which will surely enrich our two day discussion.

We hope to see you soon,

The local organizers from Rete Semi Rurali,

Livia Ortolani
Riccardo Bocci
Gea Galluzzi

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Annex 6. Document outlining the future steps as emerging from the discussion among participants to the final workshop



LINKAGES Activity final workshop

4 - 5 June 2018, Florence, Italy

Future plans and concrete steps

- ❖ Create future moments for more exchange/interaction between *ex situ* /on-farm communities around concrete issues such as:
 - Improving the varied scenario of MTA/SMTAs currently used by on-farm communities for material exchange, ensuring the possibility of interactions with genebank collections and modalities;
 - Possibility of integration/communication (with careful consideration of privacy issues) between the databases used by on-farm networks and communities and those used by *ex situ* genebanks;
 - Pilot projects on multiplication/dissemination of *ex situ* germplasm of interest to on-farm communities and/or small-scale organic farmers.

Opportunities for these continued exchanges and interactions could be offered by ongoing EU-funded projects focusing on synergies between *ex situ/in situ*/on-farm conservation approaches and communities, namely the DYNAVERSITY and FARMERS' PRIDE projects in which some LINKAGES partners are involved. Rete Semi Rurali (RSR) is part of the Dynaversity project and will take care of embedding the issues emerging from LINKAGES into this project, finding opportunities to research them further. Other opportunities can be offered by seed networks' farmer field days and visits to experimental fields, which could allow *ex situ* personnel to get better acquainted with the possibilities offered by seed/farmer networks in terms of germplasm evaluation/characterization. Dedicated meetings of the ECPGR Working Groups can also offer opportunities for deepening some of the aspects emerging from LINKAGES. Working Group members/Chairs are called to make these spaces available when they see the opportunity.

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- ❖ Set up a new international journal for publications focused on participatory, “informal”, decentralized research on organic agriculture, seeds and agrobiodiversity. The International Treaty had proposed something similar some time ago and the ECPGR is planning something along these lines within the framework of a recently approved EU research project. It would be good to have someone from the European seed networks represented in the editorial board together with experts from genebanks, so as to work together on evaluating research results, which come from both worlds.
- ❖ Develop a pilot project proposal involving selected national genebanks and on-farm networks to test the evaluation/characterization of priority germplasm sets of interest for organic, small scale agriculture in farmers’ fields and sharing of the resulting data (with intellectual property considerations) with mutual benefit for farmers and genebanks. This could be a first step towards establishing an “alternative” evaluation network capable of incorporating the need for formal scientific reliability and the participatory advantages of working directly in a more informal, on-farm context, establishing new integrated research protocols. An opportunity to be explored for this possible proposal is the Horizon 2020 call “SFS-28-2019-Genetic resources and pre-breeding communities”, with the topic “adding value to plant GenRes” in 2019; another opportunity could be the next round of ECPGR Activity Grant Scheme, which is expected for 2019.
- ❖ Develop the bases for an *ex situ*/on-farm “alliance” (definition, structure and mandate to be defined), which could stem from the above interactions and joint activities, and become a steward of a more integrated vision of agrobiodiversity conservation and contribute to stronger implementation of the International Treaty’s Articles 6 and 9 on sustainable use and farmers’ rights in Europe.

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Annex 7. List of participants to the final LINKAGES workshop (4-5 June 2018, Florence, Italy)

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