



### **S3: Questionnaire for FLR practitioners about the origin of seeds and seedlings for restoration in Southeast Asia**

This survey is for organisations and businesses who are involved in planting or propagating native tree species in Southeast Asia. Your answers will help us to understand challenges in the seed supply chain and to develop free tools that support forest and landscape restoration. The results of this research will contribute to creating a more sustainable seed supply and develop a tool to document seed sources.

It would really help us if you could respond to this survey. The survey will only take about 15-20 minutes to complete. Your responses will remain confidential and will be anonymised during the analysis.

The term "seed" in this survey refers to any planting material, including seeds, seedlings, wildlings and vegetative material.

If you are working on several separate projects, please describe your latest project or fill in a survey for each project.

Thank you in advance for your help.

#### **Privacy Notice**

This privacy notice tells you about the information we collect from you when you agree to participate in our survey. The survey on Origin of seeds and seedlings for restoration in southeast Asia is aimed at organisations who are involved in planting native trees for restoration efforts in southeast Asia. The results of this study will enable us to understand challenges in the seed supply chain and to help with the development of an application called SeedIT, which will be used to document seed sources. The survey is developed as part of a master thesis research project at ETH Zurich in consultation with the Alliance of Bioversity International and CIAT and the Asia Pacific Forest Genetic Resources Programme (APFORGEN).

In collecting this information, we are acting as a data controller and, by law, we are required to provide you with information about us, about why and how we use your data, and about the rights you have over your data.

#### **1. Who are we?**

We are the Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT). Our address is Via dei Tre Denari 472/a, 00054, Fiumicino, Rome, Italy. You can contact us by post at the above address or by email at [bioversity-ds-requests@cgiar.org](mailto:bioversity-ds-requests@cgiar.org)

#### **2. What personal data do we collect?**

You can participate in the survey without giving your details, but if you are interested in learning more about SeedIT or about the related App, and would like us to contact you, we ask for the following information: Name, Organisation, City/Town, Country and Email Address

#### **3. Why do we collect this information?**

If you supply your personal data we will only use it to send you information regarding the results of the survey, a more in depth explanation of the SeedIT project and the related App.



#### **4. What do we do with your information?**

The survey is hosted and collected through monkey survey. The privacy conditions and notice of Monkey Survey can be accessed here: [https://www.surveymonkey.com/mp/legal/privacy-basics/?ut\\_source=survey\\_pp](https://www.surveymonkey.com/mp/legal/privacy-basics/?ut_source=survey_pp) . The survey is developed as part of a master thesis research project at ETH Zurich.

#### **5. How long do we keep your information for?**

The data will be retained for 9 months, at which time the information you have supplied will be anonymized , however, you can request at any time for us to remove it from the database by sending an email to [bioversity-ds-requests@cgiar.org]

#### **6. Your rights over your information**

By law, you can ask us what information we hold about you, and you can ask us to correct it if it is inaccurate. You can also ask for it to be erased or ask us to stop using your information. The simplest way to do this is to withdraw your consent, which you can do at any time, either by emailing or writing using the contact details above.

#### **7. Your right to complain**

If you have a complaint about our use of your information, you can contact the Italian Data Protection authority at [http://www.garanteprivacy.it/web/guest/home\\_en](http://www.garanteprivacy.it/web/guest/home_en)

## Origin of seeds and seedlings for restoration in southeast Asia

### 1. What kind of organisation are you?

- ☐ Government organisation
- ☐ Non-governmental organisation
- ☐ Commercial nursery
- ☐ Other (please specify)
- ☐ Community-based nursery
- ☐ Academic or research organisation

### 2. Which country are you based in?

### 3. Please tell a bit about which tree species you are propagating or planting.

What are the main tree species you work with?

Please provide the scientific name.

Do you work with threatened tree species, and if yes, which ones?

How many native tree species are you working with?

What proportion of all planted trees species belong to native species (%)?

Total number of seedlings propagated or raised per year (including vegetative propagation and wildlings):

Total number of seedlings planted per year:

4. If you are involved in planting native tree species: What are the main objectives of your project?

	Main purpose	Secondary purpose	N/A
Restoring habitats for native animals and plants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conserving rare or threatened species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon sequestration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Timber production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Food production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Producing other non-timber forest products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agroforestry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving soil quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural or aesthetic values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

\* 5. Does your organisation collect some seed on your own?

- ☐ Yes
- ☐ No, we buy all the seed we need

## Origin of seeds and seedlings for restoration in southeast Asia

### 6. Why do you collect seed yourselves?

- ☐ Cost
- ☐ Lack of suppliers
- ☐ Want to ensure quality
- ☐ Other (please specify)

### 7. Would you be interested to buy seed under the following circumstances?

	Yes	Probably yes	Probably no	No
If it was easier to get in touch with suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If they sold cheaper seed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If they sold the species you prefer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If they sold the provenance you prefer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If they provided more information about the origin of seed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

### \* 8. Does your organisation also buy seed?

- ☐ Yes
- ☐ No

## Origin of seeds and seedlings for restoration in southeast Asia

9. What kind of organisation do you usually buy from? Please rank at least one option (1 being most important) and leave the other options empty.



Community nursery



Commercial nursery



Governmental nursery



Individual seed collectors

10. How do you choose which suppliers to buy seed from? Please select up to three most important reasons in order of priority (number 1 being most important) and leave the other options empty.

☐

They sell the species we want

☐

They sell the provenance (=geographic origin of the seed) we want

☐

They give information about seed quality

☐

Good price

☐

They are able to supply the amount needed

☐

They are reliable and supply on time

☐

They are the nearest supplier

☐

We don't know other suppliers

11. What information about seed do you receive from the suppliers?

	never	rarely	sometimes	often	always
Species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provenance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Type of source: natural forest, planted forest, seed stand, seed orchard, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forest condition, e.g. level of degradation, habitat fragmentation, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Type of propagation material: propagated from seed, propagated vegetatively, wildling (wild seedling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendations on the suitability of the species' provenance for our project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Germination rate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of trees which the seeds are collected from (for each species)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments

12. What other information would you like to get from the suppliers? Why would this be important to you?



13. How often are you facing the following challenges when it comes to dealing with suppliers?

	never	rarely	sometimes	often	always
Overall lack of suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficult to reach suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suppliers are not able to meet the quantity required	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We do not know which suppliers have which material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficult to find out when seed is available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficult to get information about seed quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Would your organisation be interested to buy more seed, if it was easier to deal with suppliers?

- ☐ Yes, definitely
- ☐ Yes, but we currently do not have the funding to do so
- ☐ No, we are happy with the current supply
- ☐ Other (please specify)

15. How happy are you with the quality of the seed you buy, and why? What could be improved?

16. Would you consider paying a higher price for seed than what you currently pay, if these seed met your criteria better?

- ☐ Yes, definitely
- ☐ Yes, but we currently do not have the funding to do so
- ☐ Maybe, if the benefits are very clear
- ☐ No, we are happy with the current quality

Comments

## Origin of seeds and seedlings for restoration in southeast Asia

17. What do you perceive as high quality seed? Please rank only the three most decisive characteristics from 1 to 3, 1 being the most important one.



Clean seed, no pests, not rotting

☐ N/A



Good provenance

☐ N/A



High germination rate

☐ N/A



Documented seed origin

☐ N/A



Seeds are sourced from many mother trees per species

☐ N/A



Seed from large forest areas

☐ N/A



Locally sourced seed

☐ N/A

18. How often are you facing the following challenges regarding the quality of seed supply?

	never	rarely	sometimes	often	always	I don't know
Overall lack of seed to meet the demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of preferred species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of preferred provenance or origin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available material is too expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Origin of available material is unknown	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seeds are only available at irregular times	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seed is not clean, rotting, has pests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Too low germination rate/seedlings grow slowly or die	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seeds are from too less mother trees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

19. Do you keep records of the following in your project (select all that apply)?

	No	Yes, but not systematically	Yes, by year	Yes, by species	Yes , by seed source or supplier
Germination rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seedling growth rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seedling survival rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments

20. If you keep records, please explain briefly why this information is important for you.

21. If your project is funded by another organisation: Is keeping records of the above information required from the funders/donors of your project?

- ☐ Yes
- ☐ No
- ☐ Comments

22. To support documenting seed sources and communication between seed suppliers and buyers, we are developing a free phone-based application "[SeedIT](#)". With this app, users will be able to maintain records about collected species and origin, and get updates from the suppliers. It also works offline for remote areas without internet connection. Would your project be interested to try SeedIT?

- ☐ Yes, please send me more information
- ☐ Yes, but we do not have access to phone-based apps
- ☐ No, we are happy with the current communication with the suppliers
- ☐ No, we have already other ways to document seed sources (please explain)
- ☐ Comments

23. Please provide your contact details if you want us to contact you for further information.

**Name**

**Organisation**

**City/Town**

**Country**

**Email Address**