

Table S3. PES survey with landowners**Section 1:****Preamble 1**

We are conducting a study on tree planting efforts in Lebanon. In this phase of our study, we are conducting land-use surveys to know more about tree planting taking place on private lands.

- 1) Have you done any tree planting (of any kind) on your property? [Y]/[N] – (If no, jump to Q7) – if yes, then:
- a) When did you last plant trees (EA to write year & season): _____ / _____
- b) Where have you planted these trees (EA to tick below and note the exact plot referred if there are many): _____
- i) In cultivated farmlands, e.g. terraced orchards (fruit, olive, stone pine)
- (1) Intermixed with crops
- (2) Along borders/margins
- (3) As woodlots (small batches)
- ii) In previously abandoned farmlands
- iii) In range/scrublands, e.g. *jurd* or rocky slopes/outcrops
- iv) In forests or woodlands, e.g. recently burned
- v) Along roadsides
- vi) Near residence
- vii) Other: _____
- c) What kinds of trees did you plant, their approximate numbers, and approximate coverage (such as % of area) – see plot map in appendix:

Table of tree species – trees planted				
Q1c	Species		Numbers	Coverage (%)
Fruit	1	Apple		
	2	Citrus		
	3	Stone fruits		
	4	Avocado		
	5	Pomegranate		
	6	Other:		
Nut	7	Stone pine		
	8	Walnut		
	9	Almond		
	10	Chestnut		
	11	Other:		
Oil/fruit	12	Olive		
Forest	13	Cedar		

14	Cypress		
15	Poplar		
16	Oak		
17	Fir		
18	Melia		
19	Eucalyptus		
20	Other:		

- 2) Did you face any problems with the planting or management of the trees? [Y]/[N] – if yes, please explain (EA to tick any that apply):
- Difficulty in planting, e.g. rocky soils
 - Difficulty in getting seedlings
 - Difficulty in watering
 - Poor survival due to pests, drought, poor seedlings, etc
 - Other: _____
- 3) Would you say that your efforts were successful? [Y]/[N] – Please explain (EA to tick any that apply and add details)
- High survival (%): _____
 - High yield (e.g. fruit/nuts): _____
 - High growth rate: _____
 - Other: _____
- 4) Why did you plant these trees?
- Market the products, i.e. income
 - Self-consumption, including wood products
 - Erosion control
 - Windbreak
 - Landscape beauty
 - Healthy environment, e.g. clean air
 - Likes to plant trees
 - Other: _____
- 5) Did you get support or services from somewhere to help you plant these trees, either organizations or individuals? [Y]/[N] – if so, please provide details:
- Agricultural coop: _____
 - MOA: _____
 - NGOs: _____
 - Agricultural expert: _____
 - Municipality
 - Family members
 - Community
 - Other: _____

6) Do you have plans to do any more of this or any other kind of tree planting? [Y]/[N]/[Not sure] – (if no, jump to Q7) – if yes, then:

a) Where would you plant more trees?

i) In cultivated farmlands, e.g. terraced orchards (fruit, olive, stone pine)

(1) Intermixed with crops

(2) Along borders/margins

(3) As woodlots (small batches)

ii) In previously abandoned farmlands

iii) In range/scrublands, e.g. *jurd* or rocky slopes/outcrops

iv) In forests or woodlands, e.g. recently burned

v) Along roadsides

vi) Near residence

vii) Other: _____

b) What kinds of trees would you like to plant, how many of each and how much coverage [refer to map of original planting to determine which plot(s)]:

Table of tree species – trees to be planted				
Q6b	Species		Numbers	Coverage (%)
Fruit	1	Apple		
	2	Citrus		
	3	Stone fruits		
	4	Avocado		
	5	Pomegranate		
	6	Other:		
Nut	7	Stone pine		
	8	Walnut		
	9	Almond		
	10	Chestnut		
	11	Other:		
Oil/fruit	12	Olive		
Forest	13	Cedar		
	14	Cypress		
	15	Poplar		
	16	Oak		
	17	Fir		
	18	Melia		
	19	Eucalyptus		
	20	Other:		

c) How are you planning on doing this:

i) Myself / on my own cost (time/labour)

ii) Hiring someone

iii) Help from 3rd party (e.g. NGO, MOA, etc)

(1) Details: _____

iv) Other: _____

7) If you don't plan on planting trees either now or in the future, what is the reason for this:

a) Lack of know-how

b) Lack of interest

c) Cost/effort – inputs, labour, etc (i.e. direct costs)

d) Age (too old to take care of land; no interest from children/family members)

e) Availability of suitable land

f) Prefer to use the land for other uses (i.e. opportunity costs)

g) Availability of seedlings

h) Concerns about success/risk of failure

i) Other: _____

Section 2

Preamble 2:

We would like to present a set of hypothetical scenarios in which external organisations interested in conserving biodiversity would help landowners willing to plant native trees on their land. Here is a list of species we've identified along with some photos of the trees and shrubs.

Scenario 1:

Let's imagine that you are given seedlings and technical advice free of charge. In addition, you were offered money to cover the costs of planting and managing seedlings in the form of an **interest-free loan**. The loan repayments would be annual over a period of 5 years. However, the repayments would be cancelled if the survival rate is over 80% each year from the initial planting. Hence, survival rates below 80% would reduce the cancellation proportionally and you would pay only for those seedlings which don't survive. Or in other words, if you had 65% survival, your repayment would be 35%.

If the project collapses for some reason, debts would be cancelled. Your role would be to plant and manage the seedlings given to you to ensure survival.

8) Would you be interested in such a scheme? [Y]/[N] – (if no, jump to Q9) – If yes, then:

a) Where would you plant the seedlings: _____

i) In cultivated farmlands, e.g. terraced orchards (fruit, olive, stone pine)

(1) Intermixed with crops

(2) Along borders/margins

(3) As woodlots (small batches)

ii) In previously abandoned farmlands

iii) In range/scrublands, e.g. *jurd* or rocky slopes/outcrops

iv) In forests or woodlands, e.g. recently burned

v) Along roadsides

- vi) Near residence
- vii) Other: _____
- b) How much land would you plant? (approx area): _____ units: _____
- c) What % of this area would you plant (or # of seedlings per 100 m²): _____
- d) Would this scheme change the existing planting plans you have (if applicable – refer to Sect. 1)
[Y]/[N]/[maybe]
- i) Explain: _____
- e) What would you see as the main benefits of this scheme?
- i) Explain: _____
- 9) If you wouldn't be interested in such as scheme, please explain why (open-ended and coded):
- a) Don't trust these kinds of schemes
- b) Don't like taking on debt
- c) Age (don't like taking on debt which might be passed onto next generation)
- d) Other land uses still more attractive (thus indicating would need payments)
- e) Worried about losing tenure / not being allowed to clear land
- f) Get better assistance (i.e. free seedlings etc) from other NGOs or gov't (probe to specify organisation and scheme, what species):
- i) Details: _____
- g) Don't like these species – would prefer others
- h) Other: _____

Scenario 2

Now, let's imagine that you are given seedlings and technical advice free of charge. In addition, you are given money to pay for labour in planting and managing the trees in the form of a **grant or gift**. In other words, you would receive the same assistance as the previous scenario, but it would be free with no repayments from you.

10) Would you be interested in such a scheme? [Y]/[N] – (if no, jump to Q11) – If yes, then:

- a) Where would you plant the seedlings: _____
- i) In cultivated farmlands, e.g. terraced orchards (fruit, olive, stone pine)
- (1) Intermixed with crops
- (2) Along borders/margins
- (3) As woodlots (small batches)
- ii) In previously abandoned farmlands
- iii) In range/scrublands, e.g. *jurd* or rocky slopes/outcrops
- iv) In forests or woodlands, e.g. recently burned
- v) Along roadsides
- vi) Near residence

- vii) Other: _____
- b) How much land would you plant? (approx area): _____ units: _____
- c) What % of this area would you plant (or # of seedlings per 100 m²): _____
- d) Would this scheme change the existing planting plans you have (if applicable – refer to Sect. 1)
[Y]/[N]/[maybe]
- i) Explain: _____
- e) What would you see as the main benefits of this scheme?
- i) Explain: _____
- 11) If you wouldn't be interested in such as scheme, please explain why (open-ended and coded):
- a) Don't trust these kinds of schemes
- b) Don't believe that receiving money for free (w/o conditions) would motivate me
- c) Age (don't have the physical capacity to take on such responsibilities)
- d) Other land uses still more attractive (thus indicating would need payments)
- e) Worried about losing tenure / not being allowed to clear land
- f) Get better assistance (i.e. free seedlings etc) from other NGOs or govt (probe to specify organisation and scheme, what species):
- i) Details: _____
- g) Don't like these species – would prefer others
- h) Other: _____

Scenario 3

In this scenario, you would be given seedlings and technical assistance for free, money to pay for the full direct costs of planting (but not income foregone), *and* annual payments based on survival rates. You would receive 10,000 LL (or about \$7) per seedling planted in the first year, so the more you plant, the more payments you receive. Additional payments (around 5,000 LL per seedling) would be made each year over a period of 5 years that are based on % survival (for example, 65% survival = 65% of the payment), but if it's less than 25%, there is no payment. Annual payment rates are also based on difficulty of terrain being and the number of different native species being planted.

12) Would you be interested in such a scheme? [Y]/[N] – (if no, jump to Q13) – If yes, then:

- a) Where would you plant the seedlings: _____
- i) In cultivated farmlands, e.g. terraced orchards (fruit, olive, stone pine)
- (1) Intermixed with crops
- (2) Along borders/margins
- (3) As woodlots (small batches)
- ii) In previously abandoned farmlands
- iii) In range/scrublands, e.g. *jurd* or rocky slopes/outcrops
- iv) In forests or woodlands, e.g. recently burned

v) Along roadsides

vi) Near residence

vii) Other: _____

b) How much land would you plant? (approx area): _____ units: _____

c) What % of this area would you plant (or # of seedlings per 100 m²): _____

d) Would this scheme change the existing planting plans you have (if applicable – refer to Sect. 1)
[Y]/[N]/[maybe]

i) Explain: _____

e) What would you see as the main benefits of this scheme?

i) Explain: _____

13) If you wouldn't be interested in such as scheme, please explain why (open-ended and coded):

a) Don't trust these kinds of schemes / not interested

b) Don't like taking on debt / these kinds of responsibilities

c) Age (don't like taking on debt which might be passed onto next generation)

d) Other land uses still more attractive (thus indicating would need payments)

e) Worried about losing tenure / not being allowed to clear land

f) Get better assistance (i.e. free seedlings, etc) from other NGOs or gov't (probe to specify organisation and scheme, what species):

i) Details: _____

g) Don't like these species – would prefer others

h) Other: _____

Section 3 – future plans and challenges

Preamble 3:

We understand that circumstances change and that you might want to do other things with the plot of land that you planted (assuming they expressed interest in a least one scenario?). Regarding this:

14) What are some of the possible land-use changes you would foresee in the future on these specific plots of land that you might consider planting native trees on:

a) Building

b) Changing crops

c) Stopping cultivation

d) Raising livestock

e) Passing land onto children / family members

f) Tourism

g) Selling the land

h) Other: _____

- 15) In the long run (following the project), what factors would determine whether you would maintain the trees on the land once they were planted (open ended question, coded by interviewer)?
- Land prices for development, e.g. value of land increasing
 - Agricultural product prices – i.e. competing land uses
 - Biodiversity – intrinsic value motivations
 - Environmental benefits – e.g. erosion control, windbreaks, etc
 - Amenity/aesthetic benefits – increase landscape beauty
 - Passing on land to descendents
 - Other decision makers (family members, etc)
 - Whether the NGO (other any other 3rd party) maintained its interest
 - Opinion of neighbours, community, etc
 - Other: _____

If yes to one or more of the options above:

- 16) What other incentives would encourage you to plant more of your land with forest trees?
- Financial support, e.g. longer term payments
 - Technical support, e.g. consulting
 - Market support, e.g. access to market
 - Help with infrastructure, e.g. roads, irrigation, etc
 - Other: _____

- 17) Would you be interested in longer term agreements, to receive payments say every 5 years conditional on survival [Y]/[N]
- Explain: _____

- 18) In your opinion, how do you think planting of forest trees on private land should be encouraged by organisations interested in native biodiversity?
- Explain: _____

Section 4 – Basic info on landowner

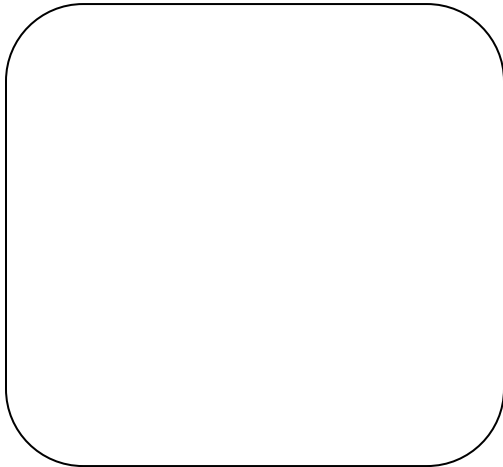
- Participant ID # (internal): _____
- Year of birth: _____
- Sex: [M] / [F]
- Married: [Y] / [N] – Other (optional, only if mentioned): _____
- Number of household members: _____
- Amount of time spent in village (near plot of land being surveyed/studied):
 - Permanent/year round []
 - Weekends and holidays only []
 - Summer only []
 - Rarely – non-resident []
- Residency details (near plot of land being surveyed/studied): _____

- a) Family house, i.e. reside with parents, siblings, in-laws, etc []
 - b) Own residence []
 - c) Rental []
- 26) How much non-residential land do you own? (approximate m²): _____
- a) Is this property contiguous? [Y]/[N]
- 27) Occupation:
- a) Full-time farmer []
 - b) Part-time farmer, e.g. hobby []
 - c) Subsistence []
 - d) Employee (private sector) []
 - e) Employee (public sector) []
 - f) Self-employed/entrepreneur; freelancer []
 - i) Details: _____
- 28) Education (highest level):
- a) Primary/école primaire []
 - b) Secondary/lycée []
 - c) Baccalaureate []
 - d) Technical school []
 - e) University []
 - f) Other: _____

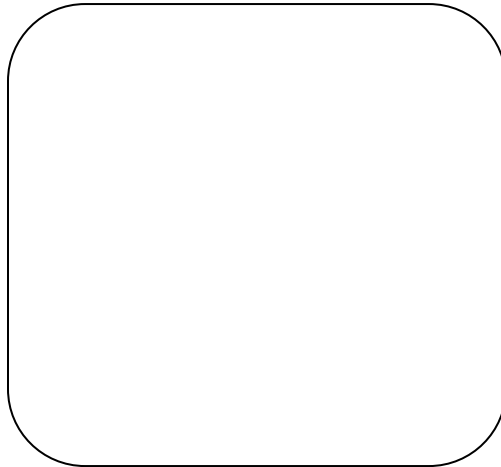
Section 5 – General topographical info:

- A. Date of survey: _____
- B. IPA #: _____
 - 1. Corridor (between IPAs): [Y] / [N]
- C. District: _____
- D. Village: _____
- E. Elevation (range): _____
- F. Cadastral maps available: [Y]/[N]
- G. Main water source (name), e.g. spring, river, well: _____
- H. GPS coordinates (plot): _____
 - 1. GIS maps of plot available: [Y]/[N]

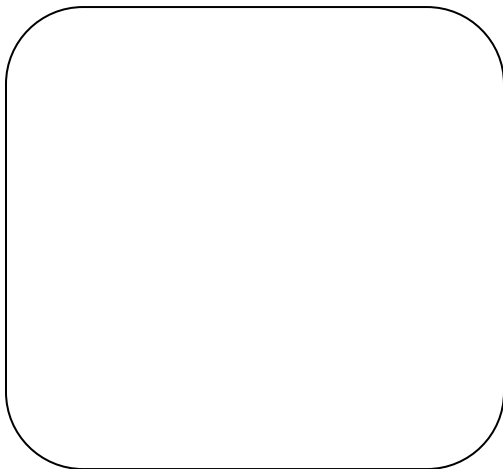
Plot 1 – Name:



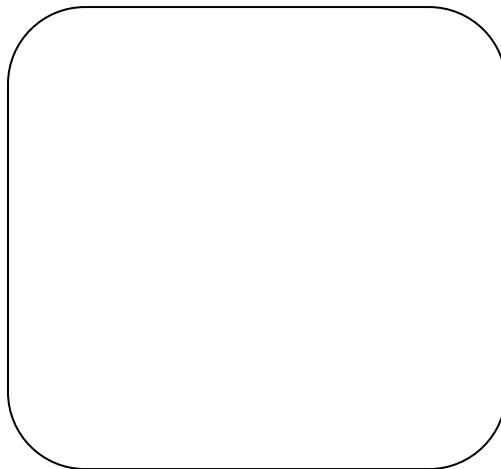
Plot 2 – Name:



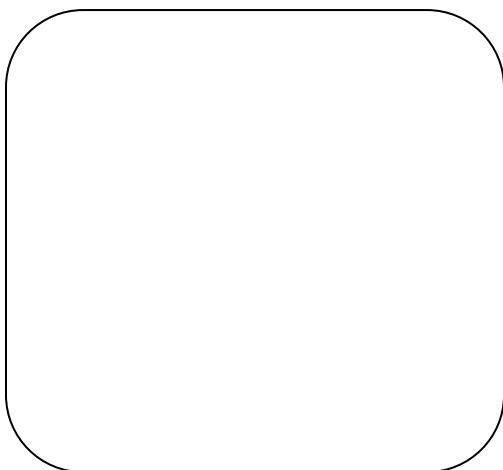
Plot 3 – Name:



Plot 4 – Name:



Plot 5 – Name:



Plot 6 – Name:

