

**Report for Activity 1.2:
Establish reforestation awareness service**

For ITTO Project: PD 552/09 Rev. 1 (F)

*Encouraging Customary Landowners in the Lowlands of Papua New
Guinea's Central Province to Reforest their Grasslands
with High Value Trees*

BACKGROUND AND OBJECTIVES

ITTO Project 552/09 aims to create a model reforestation framework that encourages customary landowners in the Central Province lowlands to grow high value trees on their grasslands. Project outputs relate to the establishment of training, awareness and support services that will be managed and sustained by the PNG Forest Authority (PNGFA) in collaboration with the National Department of Education (NDoE), National Agricultural Research Institute (NARI) and Small to Medium Enterprise Corporation (SMEC).

Under Output 1, the Project Logframe expects representatives from each target group to have access to practical and attractive information about reforestation issues, options and processes; to be verified through materials and activity reports.

Activity 1.2 involves the creation of a reforestation awareness service for landowners and the wider community. The PNGFA Afforestation & Reforestation Directorate leads the design and delivery of a cost-effective and sustainable program that targets key organizations and personnel using a range of communication methods. In December 2018, Pacific Island Projects (PIP) was recruited as Short-term Consultant (STC) to lead the delivery of a reforestation awareness service for Central Province using the Landowner Awareness Kit (LAK).

This Report for Activity 1.2 describes the step-by-step landowner awareness activities that were undertaken with the 3 target communities in the Central Province lowlands.

ABBREVIATIONS

LAK	Landowner Awareness Kit
MS	Microsoft
NARI:	National Agricultural Research Institute
NDoE:	National Department of Education
OPGPD	Operation Painim Graun na Planim Diwai
PNG	Papua New Guinea
PNGFA	PNG Forest Authority
SMEC:	Small to Medium Enterprise Corporation
STC:	Short-term Consultant

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1. SELECTION OF AWARENESS MATERIALS

1.1 Initial consultations

During Field Trip 1 (11-15 December 2018), the project partners assessed the present need for reforestation awareness at the project’s third model site: Barakau village. Seven community representatives were interviewed (4 male and 3 female). The charts below indicate respondents are interested to plant trees on their land, but have limited know-how and experience. More information was needed about reforestation issues & options.

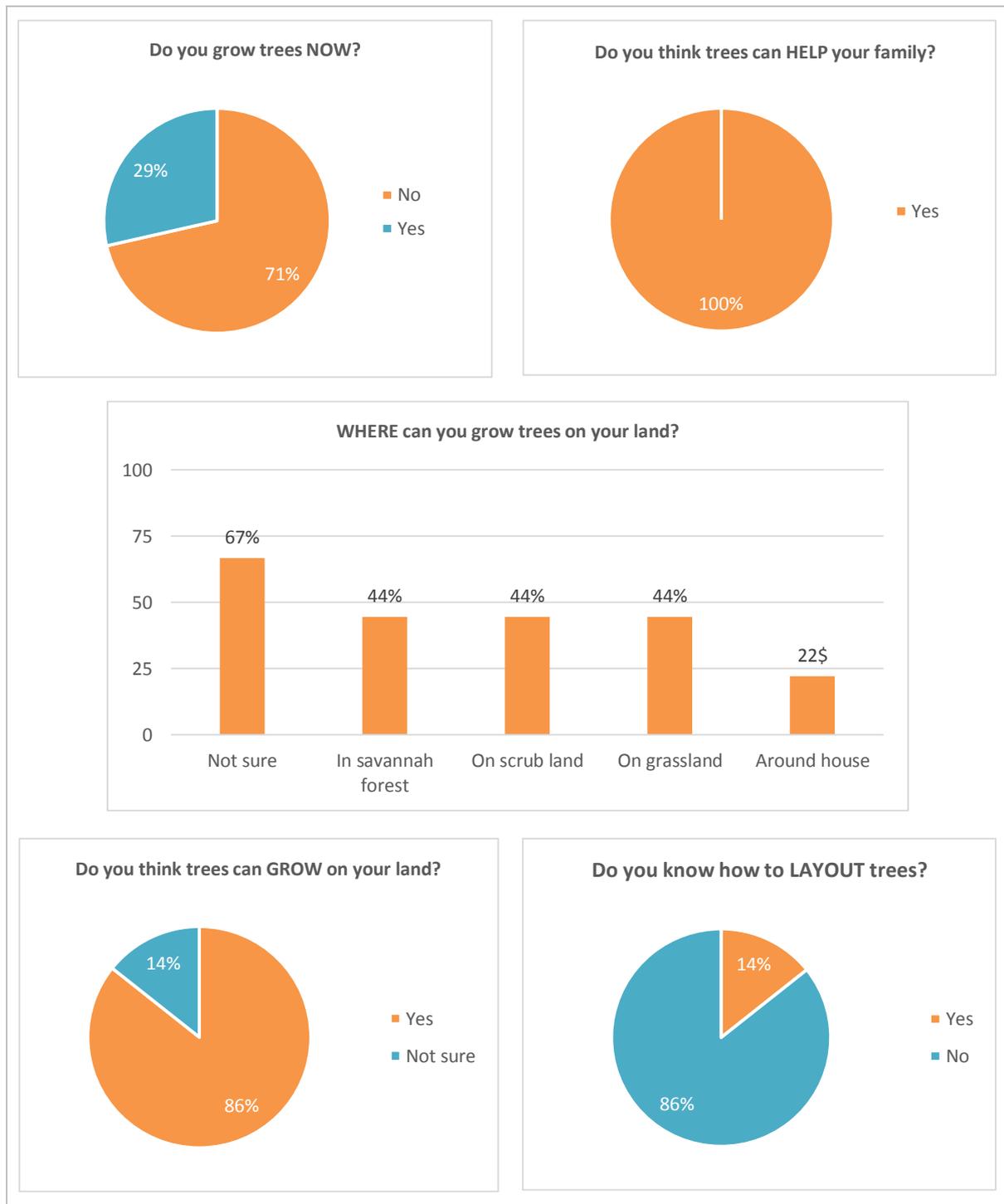


Figure 1: Results of the project’s initial assessment at Barakau village.

1.2 Selection of awareness resources

Following Field Trip 1, 8 awareness resources were selected from the LAK to provide landowners at the 3 sites with more information about reforestation issues and options:

- Video, pamphlet, posters & presentation exploring the topic “Why Plant Trees?”
- Pamphlet introducing the PNGFA’s “Operation Painim Graun na Planim Diwai”
- Video, pamphlet & presentation exploring the topic “Are you Ready to Plant Trees?”

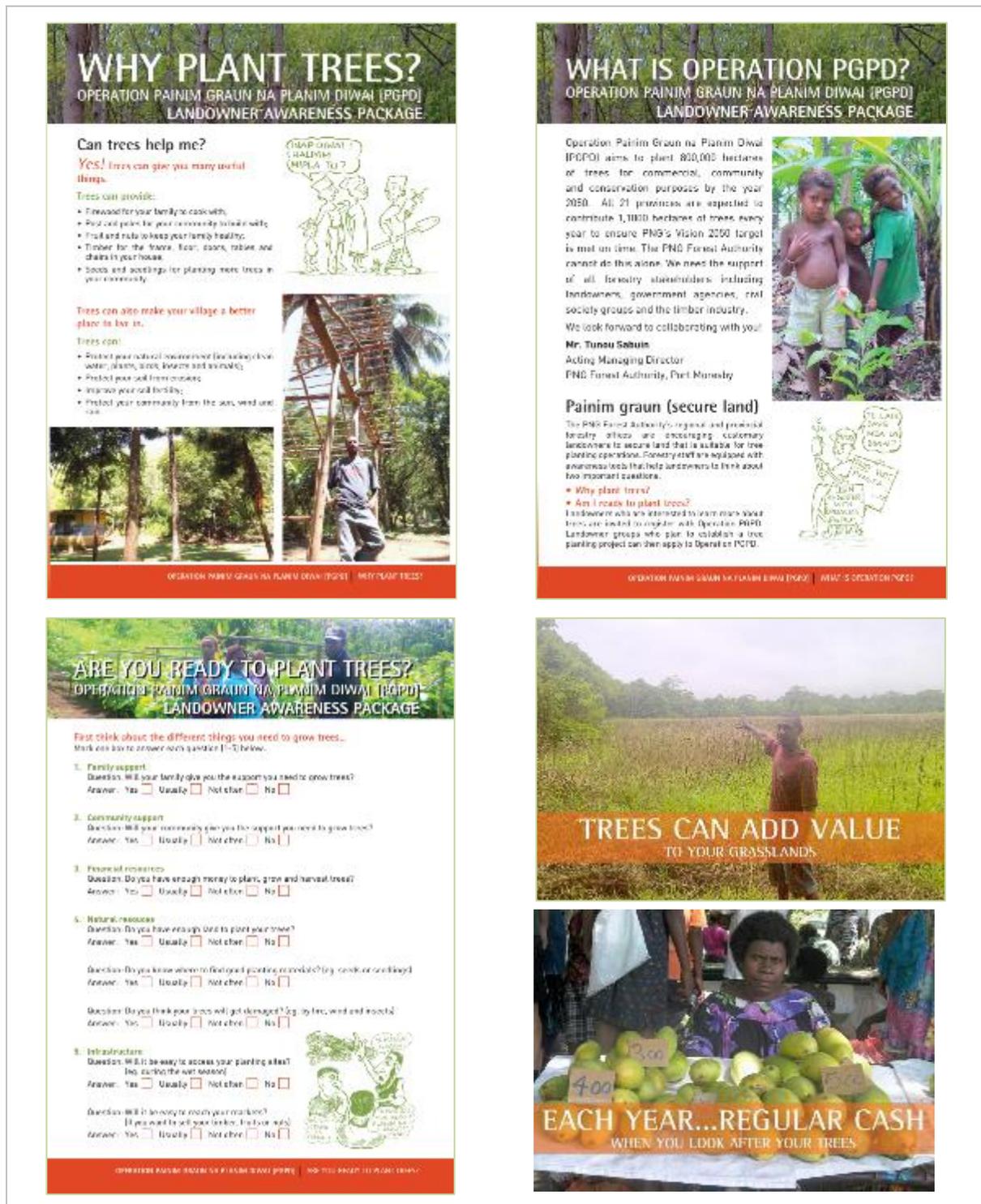


Figure 2: Pamphlets and posters were selected to accompany the awareness videos and presentations

1.3 Preparation field workers guidelines

Following Field Trip 6 (13 February to 14 March 2022), a User Guide was prepared to support the roll-out of the LAK resources across PNG, with the following contents:

- Foreword by the PNGFA’s Managing Director
- Purpose
- Process
- Guidelines
- Partners



Figure 3: The LAK User Guide assists the PNGFA and its outreach partners to identify landowners and landowner groups who are ready to plant trees on their land under Operation PGPD

2. REGISTRATION OF INTERESTED LANDOWNERS

2.1 Data collection training

During Field Trip 2 (20-24 May, 2019) and Field Trip 3 (17-21 June, 2019), 5 project team members (4 male and 1 female) were trained to collect baseline data from individual landowners within the 3 model communities using the Landowner Registration Form (see Annex 4.1, page 10). The in-house training covered survey objectives, participants, techniques and questions. Participants were also shown how to set-up and utilise the KoboCollect software on their mobile devices, as well as inspect the data collected on the KoboToolbox platform.

2.2 Landowner awareness

During Field Trip 3, the landowner awareness videos, posters and pamphlets were presented to the 3 model communities alongside the School Teachers Kit (see Report for Activity 1.1) and Tree Growers Tool Kit (see Report for Activities 2.2 and 3.2). The Community Outreach

Centre Evaluation Form (see Annex 4.2, page 17) was used to collect initial feedback and suggestions from community representatives. The evaluation form was completed by 62 participants (including teachers and school children) with positive results (see Figures 5 & 7).



Figure 4: Community representatives viewing the reforestation awareness videos at Barakau (left) and Gomore (right).

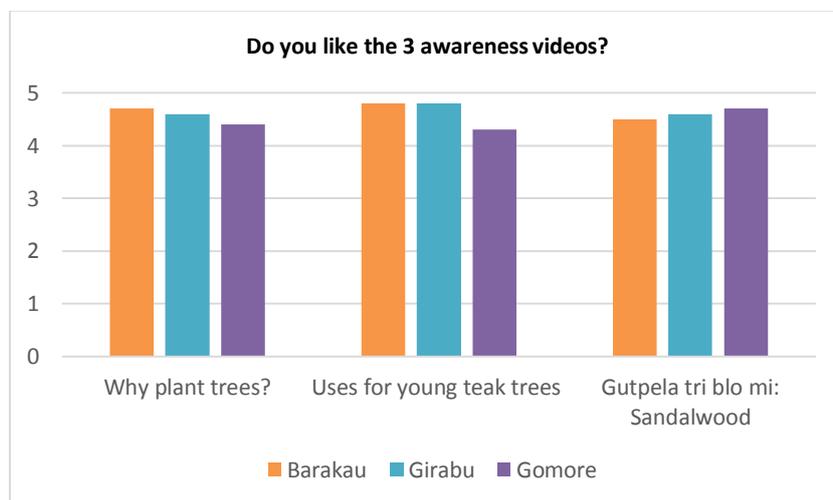


Figure 5: Average scores for the awareness video evaluation question (scoring from 1=low to 5=high).

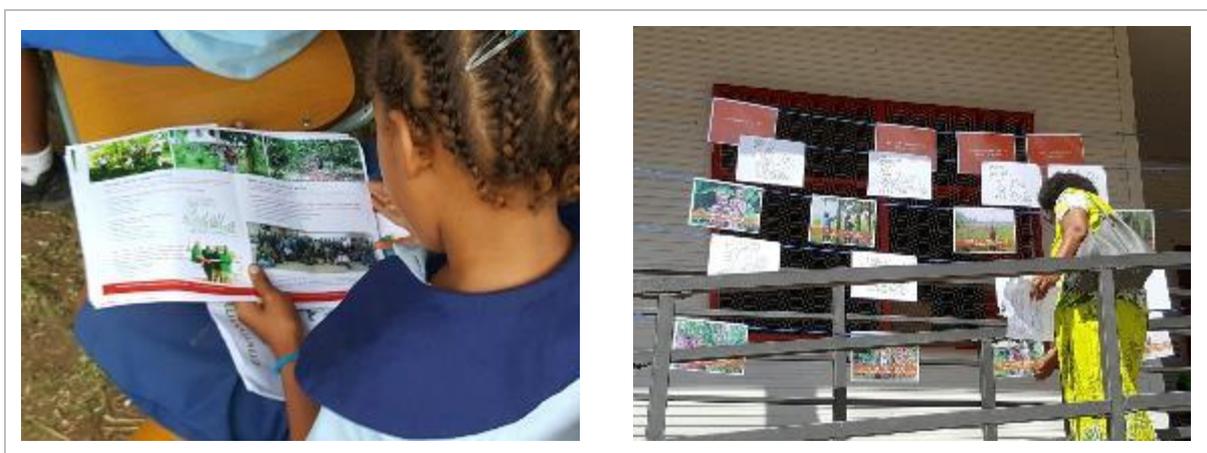


Figure 6: Community representatives viewing the reforestation awareness pamphlets and posters at Barakau (right) and Girabu (left).

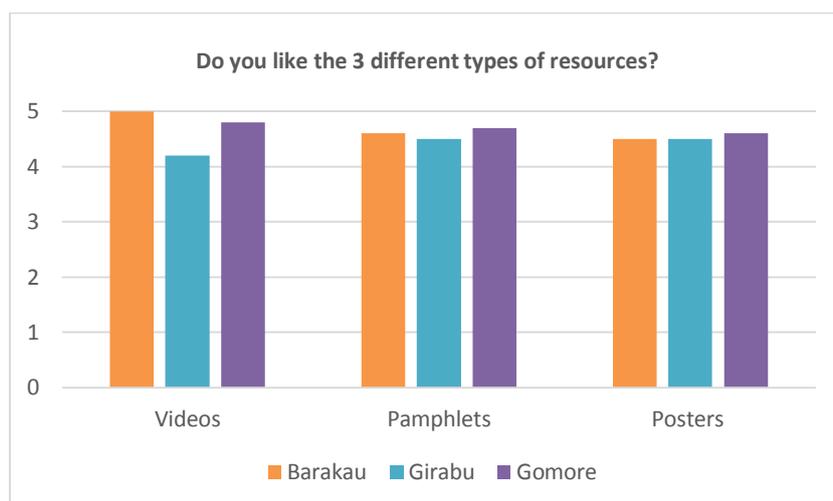


Figure 7: Average scores for the resource type evaluation question (scoring from 1=low to 5=high).

The following suggestions were recorded on the evaluation forms:

- I suggest that your team come again and do more awareness because this is an opportunity for us farmers and landowners for reforesting our community
- Yes, more awareness workshops in our village or area
- Yes, because our future generation can benefit from the trees that we plant
- It is good if you can provide posters and handouts
- Pay regular visits to the sites that accepted the service
- I want to make sure that this awareness must be successful
- I would like you to provide some seed so I can plant
- Is it possible to assist landowners to register their ILGs?
- Everything we've seen is all good, what we need is your assistance
- Do more awareness

2.3 Landowner registration

During Field Trip 3, the Landowner Registration Form (see Annex 4.1) was used to collect baseline data from landowners interested to plant (more) trees on their land. Two of the trained data collectors (all male) registered 15 community representatives from Barakau Village (25% female) and 14 representatives from Gomore Village (50% female). There was insufficient time to conduct interviews in Girabu. All surveys were conducted during normal working hours, so respondents were likely to be either unemployed or self-employed.



Figure 8: Data collectors interviewing community representatives using pen and paper (left) and KoboCollect (right)

Figure 9 shows that a high proportion of active farmers were women. Although more farmers were growing cash crops than trees, everyone interviewed indicated they would like to grow (more) trees in the future.

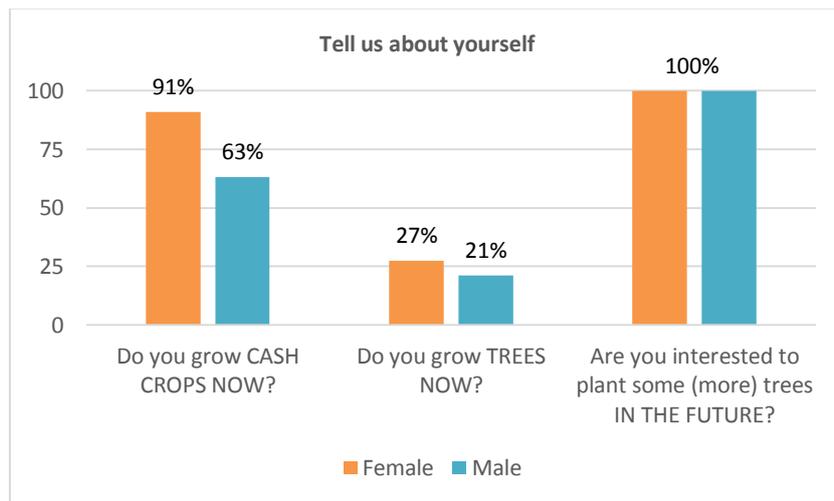


Figure 9: Percentage of farmers interviewed who answered “yes” to 3 baseline questions

Whilst all 7 tree growers from both villages (4 males and 3 females) indicated that their trees were family-owned (see Figure 10, page 7), there were some differences between villages with regards to the respondents’ reasons for growing trees and the constraints faced.

Similarities between villages related to the need for:

- Products for home/community use, firewood, timber and soil erosion control (top chart)
- Planting materials and information (bottom chart)

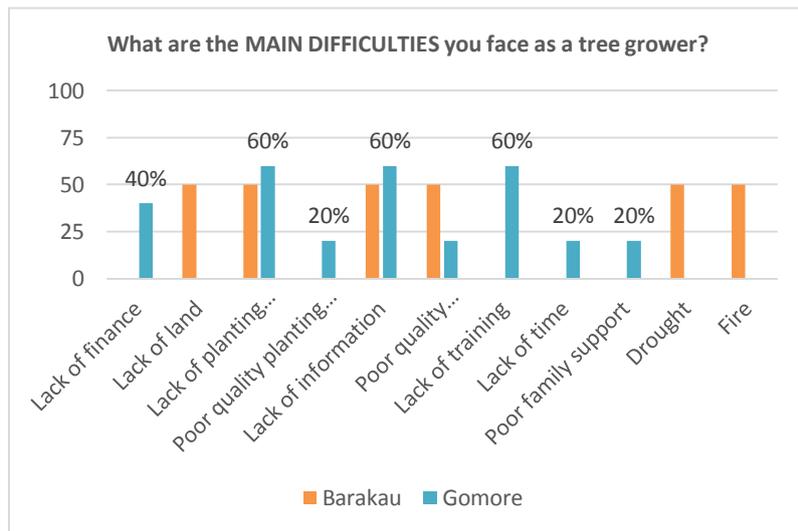
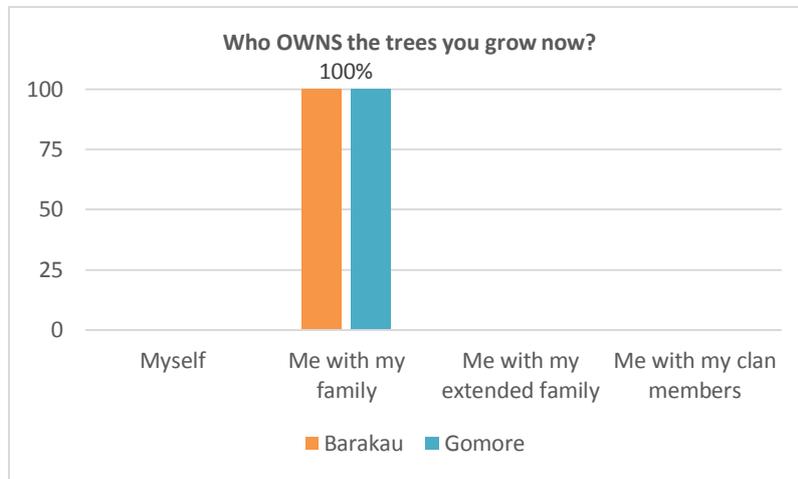
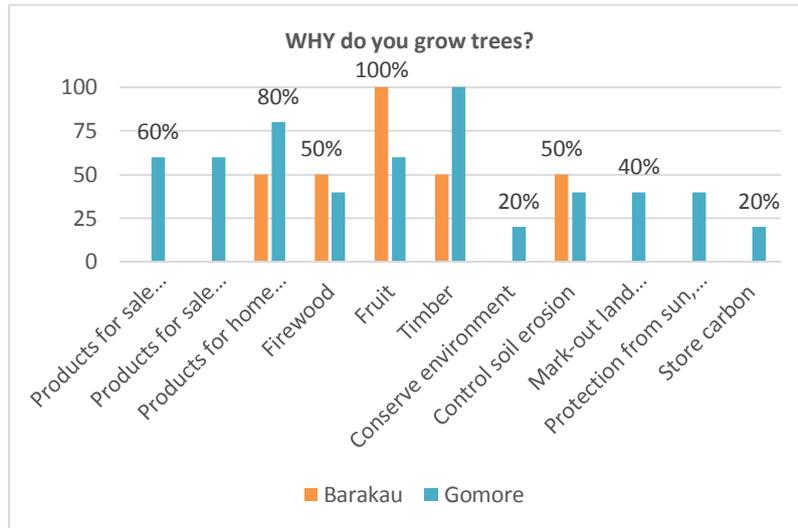


Figure 10: Responses given by farmers currently growing trees to 3 more baseline questions.

Figure 11 shows that information needs were broad; ranging from reforestation awareness through to technical training. Most people interviewed preferred print to electronic media.

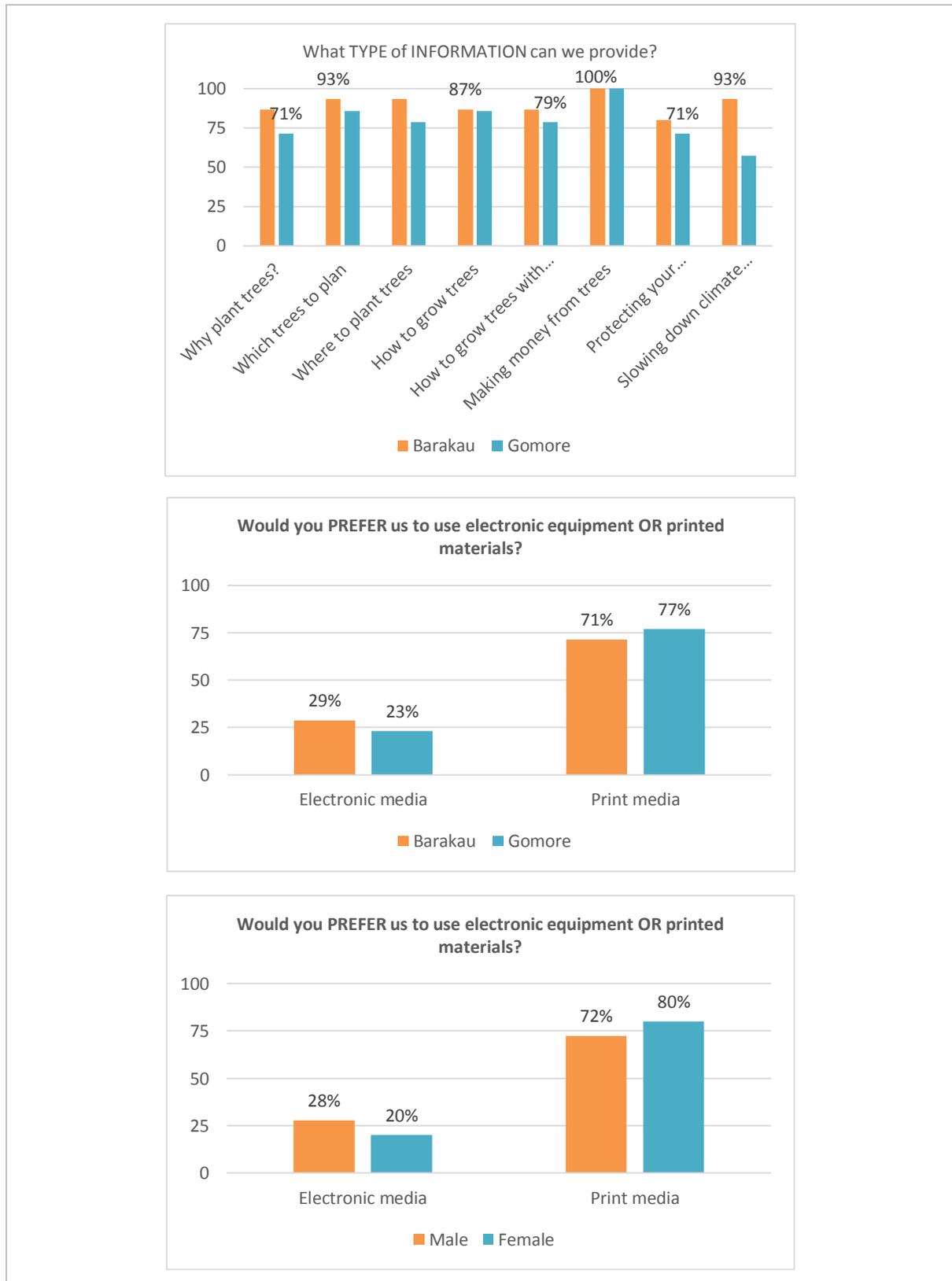


Figure 11: Responses given by everyone interviewed with regards to communication needs and preferences.

3. LAND-USE PLANNING

3.1 Which trees shall I plant?

During Field Trip 6 (13 February to 14 March 2022), the LAK’s tree selection pamphlets for the Central Province lowlands (see Report for Activities 2.2 and 3.2) were presented to the 2 target communities in Rigo District (Gomore and Girabu villages). The 7 pamphlets (1 “tree selector” and 6 “tree factsheets”) were given to community residents of all ages to promote 6 high-value trees that grow well in the Central Province lowlands: damson terminalia (*Terminalia sericocarpa*); mahogany (*Swietenia macrophylla*); mango (*Mangifera indica*); rosewood (*Pterocarpus indicus*); sandalwood (*Santalum macgregorii*); and teak (*Tectona grandis*). These pamphlets provide information on tree products and ecosystem services, site selection, nursery establishment, planting-out and maintenance, and market opportunities and requirements.

3.2 What are the costs and returns?

During Field Trip 6 (13 February to 14 March 2022), the LAK’s costs and returns calculator for teak was presented to the 2 target communities in Rigo District (Gomore and Girabu villages). The community school’s laptop, tablet and TV screen (see Report for Activities 2.2 and 3.2) were used to show how this user-friendly MS Excel workbook helps landowners to estimate income and expenses throughout the growing cycle, and calculate the financial returns of timber production at different years of harvest.



Figure 12: The LAK’s land-use planning resources assist with tree selection and financial modelling.

4. CONCLUSIONS AND RECOMMENDATIONS

The selection of reforestation awareness materials for the Central Province lowlands, and the subsequent awareness activities at Barakau, Girabu and Gomore villages has led to 29 farmers registering with the PNGFA’s national reforestation program “*Operation Painim Graun na Planim Diwai*” (OPGPD).

The initial evaluation demonstrates that community representatives (including school teachers and children) were satisfied with the selected landowner awareness videos, pamphlets and posters. The registration results indicate that whilst more farmers are growing cash crops than trees, everyone interviewed (both men and women) would like to grow (more) trees in the future.

Common community constraints related to:

- The need for wood products for home/community use, firewood, timber and soil erosion control.
- Lack of planting materials for tree growers.
- Lack of / poor quality information about choosing, growing and making money from trees (with a preference for print media).



Figure 13: The project team participating in the welcome activities at Girabu.

The feedback received from community representatives, and the landowner registration findings provide a sound basis for the following recommendations:

- The PNGFA should continue to undertake landowner awareness in the Kairuki-Hiri and Rigo Districts of Central Province using the LAK videos, posters and pamphlets; encouraging men, women and children to reforest their under-utilised grasslands (and other suitable land types) with high value trees. The trained data collectors should be used to register individuals interested to plant (more) trees.
- The PNGFA representatives from each model community should provide ongoing, on-site support to ensure that the men, women and children who are interested to plant trees within the 3 model sites receive priority support (e.g. planting materials, ILG formation)
- PIP should provide ongoing support as required via phone/email with PNGFA staff and community outreach centres.

5. ANNEXES

5.1 Landowner Registration Form

	Operation Painim Graun na Planim Diwai: Registration Form for Tree Growers v72	
<p>The purpose of this survey is to learn more about landowners who are growing trees now <u>or</u> are interested to grow trees in the future. The information collected will help us to provide better services for tree growers in Papua New Guinea. All respondents who complete this form will be registered with:</p> <ul style="list-style-type: none">• PNG Forest Authority through "Operation Painim Graun na Planim Diwai"• Pacific Island Projects through the "Tree Growers Tool Kit"		
INTERVIEW DETAILS <i>First provide some background information (before you start the interview)...</i>		
1. Name of interviewer Full name:		2. Gender of interviewer (select one) Female <input type="checkbox"/> ; Male <input type="checkbox"/>
3. Date of interview Day-Month-Year:	4. Time of interview Start: Stop:	
5. Name of the organisation you work for Name:		6. Your position within the organisation Position:
7. Ask the respondent (person being interviewed) to consent to the following terms and conditions of the interview: <i>The purpose of this survey is to learn more about landowners who are growing trees now <u>or</u> are interested to grow trees in the future. The information collected will help us to provide better services for tree growers in Papua New Guinea. All respondents who complete this form will be registered with:</i> <ul style="list-style-type: none">• PNG Forest Authority through "Operation Painim Graun na Planim Diwai"• Pacific Island Projects through the "Tree Growers Tool Kit" OK. Please continue <input type="checkbox"/>		
A. TELL US ABOUT YOURSELF <i>Now start the 1st part of the survey...</i>		
8. What is your name? First name: Last name:		
9. Where do you live? Village name: Ward name: LLG name: District name: Province name: GPS reading:		
10. Enter respondent's gender (select one) Female <input type="checkbox"/> ; Male <input type="checkbox"/>		11. Are you the household head? (select one) Yes <input type="checkbox"/> ; No <input type="checkbox"/>
Operation Painim Graun na Planim Diwai Registration Form for Tree Growers v72		1 of 7

12. How are you related to the members of your household? (select one or more)

Grandmother / Grandfather ; Aunt / Uncle ; Cousin ; Son / Daughter ; Husband / Wife
Mother / Father (living with husband / wife) ; Mother / Father (not living with husband / wife) ;
Single adult (NO children)

Other (specify)

13. Are you employed? (select one)

Yes (part-time) ; Yes (full-time) ; Now go to [Question a](#) No Now go to [Question 14](#)

a. Where do you work? (select one)

In village ; Near village ; LLG centre ; District centre ; Provincial centre

Other (specify)

14. What position(s) do you hold within your community? (select one or more)

Church leader ; Clan leader ; Farmer ; Group leader ; Ward leader ;

Other (specify)

15. Are you a member of an incorporated land group (ILG)? (select one)

Yes Now go to [Questions a-c](#) No Now go to [Question 16](#)

a. What is the registered name of the ILG?

b. What is the registration number of the ILG?

c. When was the ILG registered?

16. Are you a member of a grower co-operative? (select one)

Yes Now go to [Question a](#) No Now go to [Question 17](#)

a. What is the name of the co-operative?

17. Do you grow cash crops now? (select one)

Yes Now go to [Question a](#) No Now go to [Question 19](#)

a. Which cash crop(s) do you grow now? (select one or more)

Betelnut ; Cocoa ; Coconuts ; Coffee ; Fruit/vegetables ; Oil palm ; Tobacco ; Vanilla

Other (specify)

18. Why do you grow cash crops? (select one or more)

Cash for daily use (e.g. food) ; Short-term savings (e.g. school fees) ; Long-term savings (e.g. house)

Other (specify)

19. Do you grow trees now? (select one)

Yes Now go to [Question a](#)

No Now go to [Question 22](#)

a. Which trees do you grow now? (select one or more)

Balsa ; Galip ; Kalopulim ; Kamarere ; Kwila ; Malas ; Rosewood ; Taun ; Teak

Acacia ; Castanopsis ; Casuarina ; Cryptocarya ; Eucalyptus grandis ; Eucalyptus robusta

Hoop pine ; Klinki pine ; Nothofagus ; Pinus spp.

Other (specify)

20. Why do you grow trees? (ask respondent to think of 3 or more reasons)

Products for sale (cash) ; Products for sale (savings) ; Products for home and community use

Firewood ; Fruit and nuts ; Poles ; Seeds and/or seedlings ; Timber

Conserve environment ; Control soil erosion ; Improve soil fertility ; Mark-out land boundaries

Protection from sun, wind, rain ; Store carbon

Other (specify)

21. What are your top 3 reasons for growing trees? (rank 1st, 2nd and 3rd with reference to Question 20)

1st choice:

2nd choice:

3rd choice:

22. Are you interested to plant some (more) trees in the future? (select one)

Yes If the answer to Question 19 was "Yes", now go to [Question 23](#)

If the answer to Question 19 was "No", now go to [Question 39](#)

No If the answer to Question 19 was "Yes", now go to [Question 23](#)

If the answer to Question 19 was "No", now go to [Question 45](#)

B. TELL US ABOUT YOUR TREES

Now start the 2nd part of the survey (with reference to [Question 19](#))...

23. How many trees do you grow now? (select one)

0 ; 1-10 ; 11-100 ; 101-250 ; 251-1000 ; 1,001+

24. What area has been planted? (estimate area with reference to Question 23)

Hectares:

25. Who owns the trees you grow now? (select one or more)

Myself ; Me with my family ; Me with my extended family ; Me with my clan members

Other (specify)

26. Where are your trees planted? (select one or more)

- In rainforest (highland) ; In rainforest (lowland) ; In savannah forest ; In swamp forest
In degraded forest (gardening) ; In degraded forest (logged) ; In degraded forest (other)
On cleared land ; On scrub land ; On grassland ; On wetland ; In mangrove
Around house ; In village ; With cash crops ; With food crops
Other (specify)

27. How are your trees laid out? (select one or more)

- Along boundary ; Randomly spaced ; In empty spaces
In food gardens ; In block/s (trees and crops) ; In block/s (trees only) ;
In plantation/s (trees and crops) ; In plantation (trees only)
Other (specify)

28. When did you plant your trees? (select one or more)

- This year ; Last year ; 1-5 years ago ; 6-10 years ago ; 11-25 years ago ; 26+ years ago

29. How did you plant your trees? (select one or more)

- From cuttings ; From seeds ; From seedlings ; From wildings
Other (specify)

30. Where did you collect the seeds / seedlings / cuttings / wildings from? (select one or more)

- Own land (any tree) ; Own land (selected tree) ; Own land (selected fruit or nut)
Other land (any tree) ; Other land (selected tree) ; Other land (selected fruit or nut)
Local nursery ; District nursery ; Provincial nursery (PNGFA) ; Provincial nursery (other)
Local market ; District market ; Provincial market
Other (specify)

31. What are the main difficulties that you face as a tree grower? (ask respondent to think of 3 or more problems)

- Lack of finance ; Lack of land ; Lack of planting materials ; Poor quality planting materials
Lack of information ; Poor quality information ; Lack of training ; Poor quality training
Lack of markets ; Poor relationship with buyers ; Poor access to markets and services
Lack of time ; Poor family support ; Poor community support
Drought ; Fire ; Flood ; Pests / disease
Other (specify)

32. What are the top-3 difficulties (rank 1st, 2nd and 3rd with reference to Question 31)

- 1st choice:
2nd choice:
3rd choice:

D. HOW CAN WE COMMUNICATE WITH YOU?

Now start the 4th part of the survey...

39. Would you like to register with “Operation Painim Graun na Planim Diwai” and the “Tree Growers Tool Kit”? (select one)

Yes *Now go to Question a*

No *Now go to Question 45*

a. What type of information can we send you? (select one or more)

Why plant trees? ; Which trees to plant? ; Where to plant trees?

How to grow trees? ; How to grow trees with crops? ; Making money from trees

Protecting your environment with trees ; Slowing down climate change with trees

Other (specify)

40. Can we communicate with you using electronic equipment (like radio or mobile phone)? (select one)

Yes *Now go to Question a*

No *Now go to Question 41*

a. What type(s) of electronic equipment can we use? (select one or more)

Radio ; Computer ; Fax ; Mobile-phone ; Smart-phone ; Tablet

CD ; Flash drive ; Email ; Text message ; Video ; Website

Other (specify)

41. Can we communicate with you using printed materials? (select one)

Yes *Now go to Question a*

No *Now go to Question 43*

a. What type(s) of printed materials do you like to read? (select one or more)

Pamphlets ; Newsletters ; Reports

Other (specify)

b. Where can you collect printed materials from? (select one or more)

Post office box ; Govt (PNGFA area office) ; Govt (PNGFA provincial office)

Govt (Provincial) ; Govt (District) ; Govt (LLG) ; Non-govt ; Church ; Private sector

Other (specify)

42. Would you prefer us to use electronic equipment or printed materials? (select one)

Electronic media ; Print media

43. What language can we use? (select one or more)

English ; Motu ; Tok Pisin ; Tok Ples

44. What are your contact details? (Complete with reference to Questions 40a and 41b)

Mobile number: Landline number:

Fax number: Email address:

Post office box:

45. How did you find out about “Operation Painim Graun na Planim Diwai”? *(select one or more)*

Radio ; Text message ; Pamphlet ; Video ; Meeting invitation ; Word-of-mouth

Other (specify)

46. Who gave you this information ? *(select one or more)*

Govt (PNGFA) ; Govt (Provincial) ; Govt (District) ; Government (LLG) ;

Non-govt ; Church ; Private sector Neighbour ; Friend ; Family member

Other (specify)

47. Thank you for registering with “Operation Painim Graun na Planim Diwai” and the “Tree Growers Tool Kit”!

Advise the respondent that he/she will be sent a confirmation email or text message...

5.2 Community Outreach Centre: Evaluation Form



Community Outreach Centre: Evaluation Form

The ITTO Reforestation Project aims to encourage customary landowners in Central Province to grow high value trees on their grasslands. The project team has been invited to establish a **Community Outreach Centre at Barakau Primary School** that will focus on the information needs of landowners, school children and tree growers in Barakau Village. This work is being undertaken with support from the PNG Forest Authority, Pacific Island Projects and SME Corporation.

The purpose of this questionnaire is find out how we can improve our one-stop information service for the Barakau village community. **Please complete questions 1-3 with a pen.**

1. COMMUNITY RESOURCES						
<i>OUR QUESTION</i> (Circle your score for questions a-f and then add any comments to question g)					<i>YOUR SCORE</i> (1=low, 5-high)	
a. Do you like the four BIBLE EXPLORERS PACK folders?	1. Reading scripture	1	2	3	4	5
	2. Bible themes	1	2	3	4	5
	3. Bible stories	1	2	3	4	5
	4. Bible words	1	2	3	4	5
b. Do you like the three SCHOOL TEACHERS PACK folders?	1. Elementary	1	2	3	4	5
	2. Lower primary	1	2	3	4	5
	3. Upper primary	1	2	3	4	5
c. Do you like the three TREE GROWERS TOOL KIT folders?	4. Choosing trees	1	2	3	4	5
	5. Growing trees	1	2	3	4	5
	6. Making money from trees	1	2	3	4	5
d. Do you like these five different TYPES OF RESOURCES?	1. Video	1	2	3	4	5
	2. Handouts	1	2	3	4	5
	3. Posters	1	2	3	4	5
	4. Presentations	1	2	3	4	5
	5. Technical notes	1	2	3	4	5
e. Would you like to visit the BARAKAU OUTREACH CENTRE again?					Yes	No
f. Do you have a COMPUTER OR TOUCH SCREEN PHONE?					Yes	No
• Would you like to ACCESS our library resources on your computer or phone?					Yes	No
g. Do you have any SUGGESTIONS to help us improve our one stop information service?						

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2. AWARENESS VIDEOS						
<i>OUR QUESTION</i> (Circle your score for questions a-c and then add any comments to question d)					<i>YOUR SCORE</i> (1=low, 5-high)	
a. Do you like these three AWARENESS VIDEOS?	1. Why plant trees?	1	2	3	4	5
	2. Uses for young teak trees	1	2	3	4	5
	3. Gutpela tri blo mi: Sandalwood	1	2	3	4	5
b. Would you like to see more VIDEOS at the Barakau Outreach Centre?					Yes	No
c. Do you have a COMPUTER or TOUCH SCREEN PHONE?					Yes	No
• Would you like to ACCESS our video resources on your computer or phone?					Yes	No
d. Do you have any SUGGESTIONS to help us improve our one-stop information service?						

3. LANDOWNER REGISTRATION		
<i>OUR QUESTION</i> (Answer questions a-e and then add any comments to question f)		<i>YOUR ANSWER</i>
a. What is your name?		
b. Where do you live?		
c. What are your contact details (email address and/or mobile number)		
d. Have you planted any trees on your land?		Yes No
e. Are you interested to plant some (more) trees on your land?		Yes No
• Have you registered with <i>Operation Painim Graun na Planim Dïwai</i> ?		Yes No
f. Do you have any SUGGESTIONS to help us improve our one stop information service?		

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