

Asia-Pacific Network for Sustainable Forest Management and Rehabilitation

# **(Demonstration of Sustainable Upland Agroforestry**

# Systems in Chinese Taipei

# **Overall Work Plan**

Period Covered by

Sep, 2011 to Aug, 2013

### Submitted by

Taiwan Forestry Research Institute, Chinese Taipei (TFRI)



Asia-Pacific Network for Sustainable Forest Management and Rehabilitation

# OVERALL WORK PLAN Constration of Sustainable Upland Agroforestry Systems in Chinese Taipei

October 21, 2011

## Project Overall Plan

Title of project: Demonstra	ation of Sustainable Unl	and Agroforestry Systems in										
	•											
Chinese Ta Project Number:APFNet-2010-	•											
Period covered by the report:												
From September 2011 to August 2013												
Name of the Executing Agency: Taiwan Forestry Research Institute, Chinese Taipei												
Grant received (US\$):	Fund used (US\$):	Balance (US\$):										
400,000												
Counterpart contribution	Counterpart contribution	Balance (US\$):										
received (US\$): 137,000	used (US\$):											
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(Cover Page)

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### Table of Contents

Cover Page	1
1) Annual Program for 2 years	4
1.1. Outputs and Activities	4
1.2. Annual Activity Program	6
1.3. Monitoring and reporting	8
2) Personnel planning, coordination and institutional relations	9
2.1. Project personnel, partners and support-organizations	9
2.2. Involved organizations, stakeholders, communities	10
3) Budget	11
3.1. Overall Yearly Budget by Activity	11
3.2. Purchases of equipment and materials	21

### 1) Annual Program for 2 years

### 1.1. Outputs and Activities

Output 1: At least 2 agroforestry management systems will be developed by TFRI.

- Activity 1.1: Study sites selection and experimental plots establishment (TFRI)
  - Sub-activity 1.1.1: Site preparation for 4 study sites
  - Sub-activity 1.1.2: Seedling nursing in greenhouse and interplanting at

study sites

Sub-activity 1.1.3: Seedling and crop tending, including weeding,

fertilizing and watering at study sites

Activity 1.2: Data collection and analyses, including the growth data of trees and cash crops, biodiversity indexes, and environmental factors (TFRI)

Sub-activity 1.2.1: Collecting growth data of trees and cash crops

Sub-activity 1.2.2: Monitoring changes of biodiversity index, such as vegetation diversity

Sub-activity 1.2.3: Environmental factors (e.g. air & soil temperature,

rainfall, wind meter, light meter, moisture) recording

Activity 1.3: Model simulation for agroforestry systems (TFRI) Sub-activity 1.3.1: Literature review

- Sub-activity 1.3.2: Field data calculation and computer simulation
- Activity 1.4: Aboard training tours to different countries, including the US and China (TFRI)

Sub-activity 1.4.1: One training tour to China in year 1

Sub-activity 1.4.2: One training tour to the US in year 1

Sub-activity 1.4.3: One training tour to China in year 2

Output 2: To establish and verify the criteria and indicators for evaluating the sustainability of these agroforestry systems (TFRI, TFB and CFA)

- Activity 2.1: To select 3 upland villages for cooperative studies including income analyses and land productivity evaluation (TFRI, TFB and CFA).
  - Sub-activity 2.1.1: Income analyses of all activities relevant to the

study sites

Sub-activity 2.1.2: Land productivity evaluation of study sites

Sub-activity 2.1.3: Interviews with farmers to understand their input

and need

Activity 2.2: To set up 3 demonstration areas for verifying the ability of soil and water conservation of these agroforestry systems, will be carried out by TFRI

Sub-activity 2.2.1: setting up soil and water conservation

demonstration sites

Sub-activity 2.2.2: collecting soil erosion data

Sub-activity 2.2.3: estimation of soil carbon leakage

Output 3: to foster technical teams to be organized by farmers of village communities in uplands for technology dissemination, will be carried out by TFRI and CFA.

Activity 3.1: organize 2 seminars for technological discussion and experience exchange (TFRI, TFB, and CFA)

Sub-activity 3.1.1: Inception workshop for introducing this project

Sub-activity 3.1.2: Organizing a seminar on agroforestry technological

discussion and experience exchange

Activity 3.2: To select and train farmers for organizing 2-3 technical teams from upland villages helping technological dissemination (TFRI, TFB and CFA)

Sub-activity 3.2.1: Arranging seminars on explaining sustainable

agroforestry systems

Sub-activity 3.2.2: Organizing training workshops on agroforestry

technology in selected upland village communities

Sub-activity 3.2.3: Assisting trained technical teams to disseminate agroforestry technology

Activity 3.3: To set up at least 2 demonstration sites

Sub-activity 3.3.1: Choose 2 demonstration sites of different

sustainable upland agroforestry systems from all study sites

Sub-activity 3.3.2: Holding an international symposium on sustainable agroforestry

### 1.2. Annual Activity Program

Table 1Overall activity program table

OUTPUTS/ACTIVITIES	RESPONSIBLE									Ac	tivi	ty F	rog	Iran	n (ir	ח m	ont	hs)							
	PARTY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Output 1:																									
Act1.1	TFRI																								
Sub activity 1.1.1	TFRI																								
Sub activity 1.1.2	TFRI																								
Sub activity 1.1.3	TFRI																								
Act1.2	TFRI																								
Sub activity 1.2.1	TFRI																								
Sub activity 1.2.2	TFRI																								
Sub activity 1.2.3	TFRI																								
Act1.3	TFRI																								
Sub activity 1.3.1	TFRI																								
Sub activity 1.3.2	TFRI																								
Act1.4	TFRI																								
Sub activity 1.4.1	TFRI																								
Sub activity 1.4.2	TFRI																								
Sub activity 1.4.3	TFRI																								

OUTPUTS/ACTIVITIES	RESPONSIBLE									Ac	tivi	ty F	Prog	ran	n (ir	ח m	ont	hs)							
	PARTY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Output 2:																									
Act2.1	TFRI, TFB, CFA																								
Sub activity 2.1.1	TFRI																								
Sub activity 2.1.2	TFRI																								
Sub activity 2.1.3	TFRI, TFB, CFA																								
Act2.2	TFRI																								
Sub activity 2.2.1	TFRI																								
Sub activity 2.2.2	TFRI																								
Sub activity 2.2.3	TFRI																								
Output 3:																									
Act3.1	TFRI, TFB, CFA																								
Sub activity 3.1.1	TFRI, TFB, CFA																								
Sub activity 3.1.2	TFRI, TFB, CFA																								
Act3.2	TFRI, TFB, CFA																								
Sub activity 3.2.1	TFRI, TFB, CFA																								
Sub activity 3.2.2	TFRI, TFB, CFA																								
Sub activity 3.2.3	TFRI, TFB, CFA																								
Act3.3	TFRI																								
Sub activity 3.3.1	TFRI																								
Sub activity 3.3.2	TFRI																								

Site preparation and interplanting at new study sites should be established by the end of the third month. Soil and water conservation demonstration sites should be set up within 5 months. Growth data of trees and cash crops, and vegetation biodiversity will be surveyed twice a year, i.e. the beginning and the end of a growing season. Environmental factors will be recorded during the whole project period.

Income analyses will follow the major activity farming schedule of farmers. Since summer is the typhoon season in Chinese Taipei, we will plan more frequent soil erosion data collection from June to September. The soil erosion data will then be used to estimate the soil carbon leakage.

Model simulation for agroforestry systems will start in the second year when year 1 field data is available. After seminars on explaining sustainable agroforestry systems held in year 1, selected technical teams will be trained in year 2.

#### 1.3. Monitoring and reporting

- 1. Meeting: To monitoring the progress of project, the project director will hold a meeting with the research team at least bimonthly. Each researcher will have a brief report of their current progress, problems they are facing, and future planning.
- 2. Project report:
- a. A written and oral report is required to be completed by TFRI at the end of each calendar year.
- b. A quarterly progress report will be submitted to APFNet at the end of each quarter.
- c. When the first year project is finished, a complete annual project report will be submitted to APFNet.
- d. Within 1 month after the project termination date, a project completion report and financial statement will be submitted.
- 3. Monitoring:
  - a. TFRI has a complete financial and research management system for all research projects, including a tracking and assessment system and a committee.
  - b. A Project Steering Committee (PSC) has been established. There are eight members of the PSC, including a representative from TFRI (director general), a government authority (TFB director general), president of Chinese Forestry Association (Chinese Taipei), and five forestry professors from different universities. Dr. Yue-hsing Huang, TFRI director general, is the PSC chair.

The PSC meeting will hold three times:

- 1. Inception stage (approval of first year annual plan and overall plan);
- 2. The end of year 1 (assessment of year 1 project progress and approval of second year annual plan);
- 3. Project termination (evaluation of the project completion report and financial statement).
- 2) Personnel planning, coordination and institutional relations

#### 2.1. Project personnel, partners and support-organizations

Except the project director, a TFRI research team will be organized. The member of the team will include researchers from the Silviculture Division, Watershed Management Division, Forest Management Division, and Forestry Economics Division. The tasks and responsibilities of the key members of project management team are described as below:

Name	TFRI Division	Position	Tasks and responsibilities					
Cheng-Kuen	Silviculture	Project	Project progress monitoring,					
Ho	Onviolatio	director	tree breeding, site selection					
Fen-Hui		Draiget conjor	Agroforest management					
	Silviculture	Project senior	systems and experimental site					
Chen		staff	establishment					
Ching-Te	Silviculture	Project senior	Plant propagation and planting					
Chien	Silviculture	staff	design					
Juang-Pey	Watershed	Project senior	Soil and water conservation					
Lin	Management	staff	evaluation					
Chen-Chen	Watershed	Project senior	Soil erosion and surface runoff					
Tsai	Management	staff	analysis					
Chih-Ming	Forest	Project senior	Model simulation, forest					
Chiu	Management	staff	management					
Chin-Shien	Forestry	Project senior	Upland village cooperation,					
Wu	Economics	staff	economics analysis					
	Taimalee		Establishing criteria and					
Jiunn-Cheng	Research	Project senior	indicators for evaluating					
Lin		staff	sustainability, carbon					
	Center		sequestration					
12		Draiget	Field and laboratory work,					
	Silviculture	Project	general affairs, administrative					
Technicians		Technicians	management					

Table 2	Project management team
I able z	Project management team

The project will be carried out mainly by (TFRI), cooperated with the Taiwan Forestry Bureau (TFB) and the Chinese Forestry Association (CFA, Chinese Taipei). TFB, responsible for managing national forests and regulating private forests, will help in upland village and technical term selection, and in organizing discussion seminars. CFA, an association connecting academy and industry in forestry, will be in charge of technical teams training.

#### 2.2. Involved organizations, stakeholders, communities

Farmers who provide their farms as experimental plots, farmers' communities, and industries interested in forest products are the secondary stakeholders. All stakeholders and their role are identified as detailed in Table 3 . The research team will visit the farmer/community on a monthly basis to either tend seedlings, collect data, interview farmers, or provide technical support. Any mistake or damage of the experiments noticed during research team visit or reported from local farmer/community will be correct in a timely manner.

Stakeholder	Characteristics	Droblomo poodo	Involvement in project				
	Characteristics	Problems, needs,	Involvement in project				
group		interests					
Primary stak	eholders						
TFRI	Administration department	Developing sustainable agroforestry systems	Executing agency				
TBF	Administration department	National forests management	Collaborating agency				
CFA	NGO	Community forestry education	Collaborating agency				
Farmers	Individual	Improving livelihood	Providing experimental plot				
Upland Villages	Community	Supporting farmers	Organizing and helping farmers				
Secondary s	takeholders						
Industries	Company	Developing forest product industry	Facilitating the cooperation among research teams, farmers, and industries				

### 3) Budget

### 3.1. Overall Yearly Budget by Activity

### 1) APFNet and executing agency budget by component

Table 4 APFNet budget by component (C1).

Annual Disbursements			
Budget components	TOTAL	Year 1	Year 2
1. Inception funds	53,790	53,790	0
2. International and national consultants	0	0	0
3. Project Staff	126,000	51,600	74,400
4. Study tour & travel expenses	70,530	48,550	21,980
5. Survey/ case study	0	0	0
6. Sub-contracts	25,000	2,500	22,500
7. Training & workshops	25,820	8,000	17,820
8. Equipment and material	64,960	26,960	38,000
9. Office administration	32,150	12,500	19,650
Subtotal 1	398,250	203,900	194,350
10. Monitoring and review cost	1,750	0	1,750
Subtotal 2	1,750	0	1,750
TOTAL	400,000	203,900	196,100

Table 5Executing agency budget by component (C2).

Annual Disbursements			
Dudaat aanaa aata	TOTAL	Year 1	Year 2
Budget components			
1. International and national consultants	0	0	0
2. Project Staff	90,000	45,000	45,000
3. Study tour & travel expenses	7,800	7,800	0
4. Survey/ case study	7,200	7,200	0
5. Sub-contracts	12,000	12,000	0
6. Training & workshops	8,000	3,000	5,000
7. Equipment and material	9,000	6,000	3,000
8.Miscellenous	0	0	0
Subtotal 1	134,000	81,000	53,000
9. Executing agency management cost	3,000	1,350	1,650
TOTAL	137,000	82,350	54,650

## 2) Overall Project budget by Activity and component

	Activities/item				Total	Input	Total			Executin
No. 1)	cost	Cost Budget	Detailed Expenses	Unit name	# of unit	unit	Budget	Year 1 <sup>2)</sup>	Year 2	g agency
	Preparation pl	nase funds (TFRI)								
C2- 3	Survey of demonstratio n sites	Local transportation & accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	120	65	7,800	7,800	0	TFRI
C2- 4		Site survey labors (2 persons for 3 months)	per-person-months for data collection and analysis	per person- month	6	1,200	7,200	7,200	0	
C2- 5	Sub contract	Contract for seedling nursing	economical tree seedlings for interplanting with crop	per seedling	10,000	1	12,000	12,000	0	
SUB T	OTAL Prepara	tion phase funds					27,000	27,000	0	
	Inception Wor	kshop								
C1- 1	Study tour & travel expenses	Local transportation & accommodation costs	airfare, high speed rail, car rental, train, accommodation	per person-day	30	50	1,500	1,500	0	TFRI, CFA, TFB
C1- 1 C2- 6	Training & workshops	Workshop fare	Meeting package, dissert, meal, and welcome dinner, instructor fee	per person-day	150	58	8,700	8,700	0	
C1- 1	Office administration	Office supplies & expenses	Electricity, water, utilities, stationery, meeting package	batch	1	500	500	500	0	
C2- 9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	1	75	75	75	0	

C1- 1 C2- 6	Monitoring and review cost	Travel and living expenses on Workshop	Local transportation, accommodation, dissert, meal, attendance fee	per person-day	25	72	1,800 <b>12,575</b>	1,800 <b>12,575</b>	0	
			ement systems will be developed	hy TFRI			12,575	12,575	0	
			on and experimental plots establis							
C2- 2	Project Staff	Project senior staff salary	Per-person-month	months	2.5	2,500	6,250	6,250	0	TFRI
C2- 2		Project technician salary	Per-person-month	months	5	1,000	5,000	5,000	0	
C1- 1 C1- 3		salary for a contract assistant with BS degree	Per-person-month for plot management	months	12	1,200	14,400	14,400	0	
C1- 1 C1- 4	Study tour & travel expenses	Local transportation& accommodation costs	Airfare, high speed rail, car rental, accommodation	per person-day	25	50	1,250	1,250	0	
C1- 1 C1- 6	Sub contract	Contract for site preparation	Site preparation and rental	contract	6	4,250	25,500	12,750	12,750	
C1- 1 C1- 6		Contract for forestation	Seedling nursing, interplanting, complementary planting	contract	6	750	4,500	2,250	2,250	
C1- 1 C1- 6		Contract for forest and crop tending	Thinning, weeding, fertilizing, watering	contract	6	1,000	6,000	3,000	3,000	
C1- 1 C1- 6		Contract for equipment maintenance	Maintaining the monitoring equipment work	contract for 6 equipments	6	1,000	6,000	3,000	3,000	
C1- 1 C1- 9	Office administration	Office supplies & expenses	Electricity, water, utilities	batch	8	1,000	8,000	4,000	4,000	

C2-9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	8	75	600	300	300			
SOB I	OTAL Activity							52,200	25,300			
	Activity 1.2 Data collection and analyses, including the growth data of trees and cash crops, biodiversity indexes, and environmental factors (TFRI)											
C2- 2	Project Staff	Project senior staff salary	Per-person-month	months	4	2,500	10,000	3,750	6,250	TFRI		
C2- 2		Project technician salary	Per-person-month	months	8	1,000	8,000	3,000	5,000			
C1- 1 C1- 3		salary for a contract assistant with MS degree	per-person-months for data collection and analysis	months	24	1,600	38,400	19,200	19,200			
C1- 1 C1- 4	Study tour & travel expenses	Local transportation& accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	100	50	5,000	1,400	3,600			
C1- 8	Equipment and materials	Rainfall measurement	rainfall gauge with sensor	set	3	2,000	6,000	6,000	0			
C1- 8		Air & soil temperature, wind meter, light meter, moisture recording	outdoor weather station	set	1	6,300	6,300	6,300	0			
C1- 1 C1- 8		Data logger, data download	PC and NB	set	2	1,500	3,000	3,000	0			
C2-7		Data analysis	PC	set	2	1,500	3,000	3,000	0			

C1- 1 C1- 8		Materials	fertilizer, chemicals, vessels, fuel, water potential and soil sampling instruments, equipment maintenance, etc.	batch	50	1,140	57,000	19,000	38,000	
C1-6	Sub contract	Contract for vehicle repairs/ maintenance	Maintaining and/or repairing vehicles	contract	6	500	3,000	1,500	1,500	
C1- 1 C1- 9	Office administration	Office supplies & expenses	Electricity, water, utilities, stationery, meeting package	batch	12	950	11,400	5,400	6,000	
C2- 9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	12	75	900	450	450	
SUB T	OTAL Activity	1.2					152,000	72,000	80,000	
	Activity 1.3 Mo	odel simulation for	agroforestry systems (TFRI)							
C2- 2	Project Staff	Project senior staff salary	Per-person-month	months	2.5	2,500	6,250	0	6,250	TFRI
C2- 2		Project technician salary	Per-person-month	months	5	1,000	5,000	0	5,000	
C1-3		salary for a post doctor	per-person-months for model simulation	months	12	2,200	26,400	0	26,400	
C1- 4	Study tour & travel expenses	Local transportation & accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	25	50	1,250	0	1,250	
C2- 7		Data analysis	PC	set	1	1,500	1,500	0	1,500	
C1- 9	Office administration	Office supplies & expenses	Electricity, water, utilities, stationery, meeting package	batch	4	850	3,400	0	3,400	

C2-9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	4	75	300	0	300	
SOR I	OTAL Activity		to the UC and Chine (TEDI)				44,100	0	44,100	
		oard training tours	to the US and China (TFRI)							
C1- 4	Study tour & travel expenses	Aboard training tour to the US	airfare, car rental, living expensive	per person-trave I for 8 days	5	6,300	31,500	31,500	0	TFRI, Univ
C1- 4	Study tour & travel expenses	Aboard training tour to China 1	airfare, car rental, living expensive	per person-trave I for 8 days	7	1,350	9,450	9,450	0	TFRI, Univ
C1- 4	Study tour & travel expenses	Aboard training tour to China 2	airfare, car rental, living expensive	per person-trave I for 8 days	7	1,550	10,850	0	10,850	TFRI, Univ
SUB T	OTAL Activity	1.4		· · · · · ·			51,800	40,950	10,850	
TOTA	BUDGET OL	JTPUT 1					325,400	165,150	160,250	
Output CFA)	2: To establis	h and verify the cri	teria and indicators for evaluating	the sustainab	ility of t	hese a	groforest	try syster	ns (TFRI	, TFB and
	Activity 2.1: To TFB and CFA	•	illages for cooperative studies inc	luding income	analys	ses and	d land pro	oductivity	evaluatio	on (TFRI,
C2- 2	Project Staff	Project senior staff salary	Per-person-month	months	2.5	2,500	6,250	6,250	0	TFRI
C2- 2		Project technician salary	Per-person-month	months	5	1,000	5,000	5,000	0	
C1- 3		salary for a contract post doctor	per-person-months for model simulation	months	12	2,200	26,400	26,400	0	

C1- 4	Study tour & travel expenses	Local transportation & accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	50	50	2,500	2,500	0		
C1- 7 C2- 6	Training & workshops	Workshop fare	Meeting package, dissert, meal	per person-day	60	55	3,300	3,300	0		
C1- 9	Office administration	Office supplies & expenses	Electricity, water, utilities, stationery, meeting package	batch	5	700	3,500	3,500	0		
C2- 9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	5	75	375	375	0		
SUB T	OTAL Activity	2.1					47,325	47,325	0		
Activity 2.2 To set up 3 demonstration areas for verifying the ability of soil and water conservation of these agroforestry systems,											
	will be carried	out by TFRI									
C2- 2	Project Staff	Project senior staff salary	Per-person-month	months	3.5	2,500	8,750	2,500	6,250	TFRI	
C2- 2		Project technician salary	Per-person-month	months	7	1,000	7,000	2,000	5,000		
C1- 3		salary for a contract assistant with BS degree	per-person-month for identify criteria	months	12	1,200	14,400	0	14,400		
C1- 4	Study tour & travel expenses	Local transportation& accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	70	50	3,500	1,000	2,500		
C1- 1 C1- 8 C2- 7	Equipment and materials	Soil erosion monitoring	soil erosion collector and analyzer	set	6	1,000	6,000	6,000	0		
C2-7		Data analysis	PC	set	1	1,500	1,500	0	1,500		

C1-9	Office administration	Office supplies & expenses	Electricity, water, utilities, stationery, meeting package	batch	3	1,000	3,000	600	2,400			
C2- 9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	3	75	225	0	225			
SUB T	SUB TOTAL Activity 2.2 44,375 12,100 3											
ΤΟΤΑΙ	TOTAL BUDGET OUTPUT 2 91,700 59,425 32,275											
	Output 3: To foster 3 technical teams to be organized by farmers of village communities in uplands for technology dissemination, will be carried out by TFRI and CFA											
	Activity 3.1: organize 1-2 seminars for technological discussion and experience exchange (TFRI, TFB, and CFA)											
C2- 2	Project Staff	Project senior staff salary	Per-person-month	months	2.5	2,500	6,250	6,250	0	TFRI		
C2- 2		Project technician salary	Per-person-month	months	5	1,000	5,000	5,000	0			
C1- 4	Study tour & travel expenses	Local transportation& accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	50	50	2,500	2,500	0	TFRI, CFA		
C1- 7 C2- 6	Training & workshops	Workshop fare	Meeting package, dissert, meal, welcome dinner, instructor fee	per person-day	100	62	6,200	6,200	0			
C1- 9	Office administration	Office supplies & expenses	Electricity, water, utilities, stationery, meeting package	batch	2	1,000	2,000	2,000	0			
C2- 9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	2	75	150	150	0			
	OTAL Activity						,	22,100	0			
	Activity 3.2: To select and train farmers for organizing 2-3 technical teams from upland villages helping technological dissemination (TFRI, TFB and CFA)											

C2- 2	Project Staff	Project senior staff salary	Per-person-month	months	2.5	2,500	6,250	0	6,250	TFRI
C2- 2		Project technician salary	Per-person-month	months	5	1,000	5,000	0	5,000	
C1- 3		salary for a contract assistant with BS degree	per-person-month for identify criteria	months	12	1,200	14,400	0	14,400	
C1- 4	Study tour & travel expenses	Local transportation& accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	20	64	1,280	0	1,280	
C1- 7 C2- 6	Training & workshops	Workshop fare	Meeting package, dissert, meal, welcome dinner, instructor fee	per person-day	65	68	4,420	0	4,420	TFRI, TFB and CFA
C2- 6		Other workshop fare	conference room and facilities	set	3	300	900	0	900	
C1- 9	Office administration	Office supplies & expenses	Electricity, water, utilities, stationery, meeting package	batch	2	800	1,600	0	1,600	
C2- 9	TFRI management cost	Office supplies & expenses	Electricity, water, utilities, phone	batch	2	75	150	0	150	
SUB T	OTAL Activity						34,000	0	34,000	
	Activity 3.3: To	o set up at least 2	demonstration sites (TFRI, TFB a	nd CFA)						
C1- 4	Study tour & travel expenses	Local transportation& accommodation costs	airfare, high speed rail, car rental, accommodation	per person-day	50	50	2,500	0	2,500	TFRI

C1- 7 C2- 6		Keynote and invited speaker (China 2, Japan	airfare, accommodation	per person	4	2,500	10,000	0	10,000	
C1- 9	Office	1, US 1) expenses Office supplies &	Electricity, water, utilities,	batch	3	750	2,250	0	2,250	
	administration TFRI management cost	expenses Office supplies & expenses	stationery, meeting package Electricity, water, utilities, phone	batch	3	75	225	0	225	
C1- 10	Monitoring and review cost	Travel and living expenses	Local transportation, accommodation, dissert, meal, attendance fee	per person-day	14	125	1,750	0	1,750	
	SUB TOTAL Activity 3.3							0 <b>22,100</b>	24,225	
	TOTAL BUDGET OUTPUT 3 Total budget								<u>58,225</u> 250,750	

<sup>1)</sup> No. is following the definition of Table 4 APFNet budget by component and Table 5 Executing agency budget by component.

<sup>2)</sup> Preparation phase funds were included in year 1 budget.

#### 3.2. Purchases of equipment and materials

As TFRI is a government agent, all purchase of equipment and materials have to abide local laws and regulations, such as Government Procurement Act of Chinese Taipei. Procurement personnel, procurement supervision personnel, and accounting personnel of TFRI will ensure the research team follows all financial rules.

Instead of signing subcontract with each individual/party of this project, all services/labors (such as site preparation, interplanting and weeding labors) have to be purchased/ hired through an inter-entity supply contract between TFRI and a single supplier.

Name: Cheng-Kuen Ho

Position held: Project Director/

Senor researcher and chief Silviculture Division Taiwan Forestry Research Institute Chinese Taipei

Cheng-Kuen Ido

Date: October 21, 2011