

Draft Environment and Social Impact Assessment

Project Number: 55205-001
29 April 2022

Lao PDR: Monsoon Wind Power Project Part 19: Appendix F (part 5)

Prepared by Impact Energy Asia Development Limited (IEAD) for the Asian Development Bank.

This draft environment and social impact assessment is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. Your attention is directed to the [“terms of use”](#) section of ADB's website.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.



Monsoon Wind Power Project, Sekong and Attapeu Provinces, Lao PDR

Environmental and Social Impact
Assessment

29 April 2022

Project No.: 0598121

Document details	
Document title	Monsoon Wind Power Project, Sekong and Attapeu Provinces, Lao PDR
Document subtitle	Environmental and Social Impact Assessment
Project No.	0598121
Date	29 April 2022
Version	2.0
Author	Aurora Finiguerra, Cheryl Ng, Elaine Wong, Hoa Tran, Jacopo Ventura, Mingkwan Naewjampa, Shubhankar Khare, Tirapon Premchitt, Winee Tammaruk
Client Name	Impact Energy Asia Development Limited (IEAD)

Document history

Version	Revision	Author	Reviewed by	ERM approval to issue		Comments
				Name	Date	
1	1.1	As above	Kamonthip Ma-Oon, Sabrina Genter, Les Hatton, George Chatziannidis, Simone Poli, Aniket Jalgaonkar	Kamonthip Ma-Oon	18-02-22	Draft to IEAD
1	1.2	As above	As above	Kamonthip Ma-Oon	25-02-22	Draft to IEAD
1	1.3	As above	As above	Kamonthip Ma-Oon	23-03-22	Draft to IEAD and ADB
1	1.4	As above	As above	Kamonthip Ma-Oon	30-03-22	Draft to IEAD and ADB
1	1.4	As above	As above	Kamonthip Ma-Oon	21-04-22	Draft to IEAD and ADB
2	2.1	As above	As above	Kamonthip Ma-Oon	29-04-22	Final ESIA Report

APPENDIX F BIODIVERSITY BASELINE SURVEY REPORTS

ANNEXES

Annex 1a-1. Summary of plant plot by Survey Block (SB1 – Annamite) based on DAFOR

Botanical Surveys											
Site name	Survey Block 1	Date and Time	13-15/7/2021	Latitude		Longitude		Monitoring Plot (ID Number)	lot 1-1/1-2/1-3/1-4/1-5/1-		
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.						Monitoring Plot Size	0.6 ha			
Air Temperature (°C)	27	Cloud Cover	0	Rain	0	Wind	0	rief weather descriptio	Warm and hot in the morning		
Habitat types present	Disturbed forests near Ban Dak Taoak, National Protection Area along the border to Vietnam										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Lower montane evergreen forest dominated by the family Lauraceae and Fagaceae				Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood		
				Combined impact score							
				Notes on impacts within the plot and near		Forest located in the village, easy to enter and destroy the forest					
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	12	Canopy mean cover (%)	80	Understorey mean height (m)	4	Understorey mean cover (%)	20	Herbaceous layer mean height (m)	0.6	erbaceous layer mean cover (%)	10
Approx age of canopy (yrs)	60	Bare ground cover (%)	20	Water cover (%)		Moist Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegeta											
Mean veg height (cm)	120	Max veg height (cm)	300								
Vegetation cover (%)	90	Bare ground cover (%)	10	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR		
<i>Acronychia pedunculata</i>	A	<i>Endospermum diadenum</i>	F	<i>Litsea monopetala</i>	D						
<i>Aglaia tomentosa</i>	D	<i>Engelhardtia serrata</i>	O	<i>Litsea umbellata</i>	D						
<i>Alniphyllum</i>	A	<i>Engelhardtia cf. roxburghiana</i>	O	<i>Machilus sp.1</i>	D						
<i>Anacolosia clarkei</i>	F	<i>Engelhardtia sp.1</i>	O	<i>Madhuca pierrei</i>	A						
<i>Anacolosia griffithii</i> Mast.	A	<i>Exbucklandia tonkinensis</i>	O	<i>Magnolia braianensis</i>	A						
<i>Aporosa yunnanensis</i>	D	<i>Gironniera subaequalis</i>	F	<i>Magnolia sp.1</i>	F						
<i>Artocarpus</i>	F	<i>Glochidion eriocarpum</i>	O	<i>Meliosma cambodiana</i>	O						
<i>Calophyllum pisiferum</i>	F	<i>Glochidion cf. rubrum</i>	O	<i>Monoon sp.1</i>	R						
<i>Cinnamomum curvifolium</i>	D	<i>Heynea trijuga</i>	O	<i>Nephelium hypoleucum</i>	D						
<i>Clerodendrum cyrtophyllum</i>	D	<i>Horsfieldia thorellii</i>	F	<i>Pinus kesiya</i>	O						
<i>Cleyera cf. bokorensis</i>	D	<i>Knema cf. lenta</i>	O	<i>Polyalthia</i>	A						
<i>Cratoxylum sumatranum</i>	F	<i>Lindera bokorensis</i>	O	<i>Polyosma</i>	O						
<i>Dacrydium elatum</i>	F	<i>Lindera sp.1</i>	F	<i>Pseuduvaria</i>	O						
<i>Diospyros filipendula</i>	F	<i>Lithocarpus corneus</i>	D	<i>Psydrax</i>	O						
<i>Diplospora sp.1</i>	F	<i>Lithocarpus garrettianus</i>	O	<i>Quercus sp.1</i>	O						
<i>Diplospora sp.2</i>	F	<i>Lithocarpus pierrei</i>	A	<i>Quercus sp.2</i>	A						
<i>Elaeocarpus dubius</i>	F	<i>Lithocarpus sp.1</i>	A	<i>Schima crenata</i>	D						
<i>Elaeocarpus griffithii</i>	O	<i>Lithocarpus sp.2</i>	O	<i>Sterculia parviflora</i>	D						
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.											
Red list species to be marked in list using *											
Invasive species to be marked in list using **											
Photo references											

List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)					
Species	DAFOR	Species	DAFOR	Species	DAFOR
Stewartia laotica	O	Asplenium phyllitidis D. Don	D	Ophiopogon dracaenoides (Baker) Hook.f.	O
Styrax chinensis	O	Pteridium aquilinum (L.) Kuhn	D	Piper	O
Styrax sp.1	O	Selaginella wallichii (Hook. & Grev.) Spring	D	Plectocomia pierreana Becc.	O
Symplocos atrilivacea	D	Smilax	D	Smilax glabra Roxb.	O
Symplocos caudata	F	Alyxia	A	Styrax	O
Syzygium angkae	O	Diplazium donianum (Mett.) Tardieu	A	Tetrastigma	O
Syzygium antisepticum	A	Fimbristylis	A	Zingiber	R
Syzygium lineatum	D	Ardisia crenata Sims	F		
Syzygium syzygioides	F	Cyperus	F		
Syzygium sp.1	R	Eulalia contorta (Brongn.) Kuntze	F		
Syzygium sp.2	O	Alpinia	O		
Xanthophyllum ellipticum	O	Ardisia gigantifolia Stapf	O		
		Ardisia sp.1	R		
		Aspidistra	O		
		Blastus borneensis Cogn.	O		
		Calophyllum	O		
		Ixora javanica (Blume) DC.	O		
		Lindsaea ensifolia Sw.	O		
		Mapania	O		
		Nepheleum hypoleucum Kurz	O		
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.					
Red list species to be marked in list using *					
Invasive species to be marked in list using **					
Photo references					

Detailed plant plots of the Survey block 1 as below

Plant plot 1.1

Botanical Surveys																
Site name	Survey Block 1	Date and Time	7/13/2021	Latitude	752943	Longitude	1719617	Monitoring Plot (ID Number)	1-1							
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.						Monitoring Plot Size	0.1 ha								
Air Temperature (°C)	27	Cloud Cover	0	Rain	0	Wind	0	if weather descrip	Warm and hot in the morning							
Habitat types present	Disturbed forests near Ban Dak Taoak, National Protection Area along the border to Vietnam															
Site and vegetation description						Condition assessment scores and comments (fire, wildlife and human activity)										
<p style="text-align: center;">Lower montane evergreen forest dominated by the family Fagaceae</p>						Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood					
						Combined impact score										
						Notes on impacts within the plot, and near						Forest located in the village, easy to enter and destroy the forest.				
For forest habitat describe canopy, understorey and ground flora																
Canopy mean height (m)	14	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	30	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	15					
Approx age of canopy (yrs)	45	Bare ground cover (%)	20	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	4							
For other habitats record overall max and mean height of vegetation																
Mean veg height (cm)	100	Max veg height (cm)	200													
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0											
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)																
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR					
<i>Aglaiia tomentosa</i> Teijsm. & Binn.	A	<i>Lithocarpus corneus</i> (Lour.) Rehder	A	<i>Ardisia gigantifolia</i> Stapf	O											
<i>Acronychia pedunculata</i> (L.) Miq.	O	<i>Lithocarpus pierrei</i> (Hickel & A.Camus) A.Camus	A	<i>Asplenium phyllitidis</i> D. Don	O											
<i>Antidesma montanum</i> Blume	O	<i>Madhuca pierrei</i> (F.N.Williams) H.J.Lam	O	<i>Diplazium donianum</i> (Mett.) Tardieu	O											
<i>Balakata baccata</i> (Roxb.) Esser	O	<i>Melicope glomerata</i> (Craib) T.G.Hartley	O	<i>Ixora javanica</i> (Blume) DC.	F											
<i>Beilschmiedia</i>	F	<i>Melicope pteleifolia</i> (Champ. ex Benth.) T.G.Hartley	O	<i>Nephelium hypoleucum</i> Kurz	F											
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	D	<i>Monoon</i> sp.1	R	<i>Plectocomia pierreana</i> Becc.	O											
<i>Cinnamomum curvifolium</i> (Lam.) Nees	F	<i>Quercus</i> sp.1	D	<i>Pteridium aquilinum</i> (L.) Kuhn	O											
<i>Endospermum diadenum</i> (Miq.) Airy Shaw	F	<i>Sterculia parviflora</i> Roxb.	F	<i>Selaginella wallichii</i> (Hook. & Grev.) Spr	O											
<i>Gironniera subaequalis</i> Planch.	O	<i>Symplocos caudata</i> Wall. ex G.Don	F	<i>Smilax glabra</i> Roxb.	F											
<i>Gomphandra javanica</i> (Blume) Valetton	O	<i>Symplocos atrilivacea</i> Merr. & Chun ex H.L.H.	O	<i>Tetrastigma</i>	F											
<i>Heynea trijuga</i> Roxb. ex Sims	O			<i>Zingiber</i>	F											
<i>Horsfieldia thorelii</i> Lecomte	F															
<i>Lasianthus chinensis</i> (Champ.) Benth.	F															
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **																

Plant plot 1.2

Botanical Surveys											
Site name	Survey Block 1	Date and Time	7/13/2021		Latitude	752607	Longitude	1718678	Monitoring Plot (ID Number)	1-2	
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.								Monitoring Plot Size	0.1 ha	
Air Temperature (°C)	27	Cloud Cover	0	Rain	0	Wind	0	if weather description	Warm and hot in the morning		
Habitat types present	Disturbed forests near Ban Dak Taoak, National Protection Area along the border to Vietnam										
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)						
Lower montane evergreen forest dominated by the family Fagaceae					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					Notes on impacts within the plot and nearby					Forest located in the village, easy to enter and destroy the forest	
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	14	Canopy mean cover (%)	85	Understorey mean height (m)	3	Understorey mean cover (%)	25	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	20
Approx age of canopy (yrs)	60	Bare ground cover (%)	15	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	4		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	150	Max veg height (cm)	340								
Vegetation cover (%)	90	Bare ground cover (%)	10	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR
Lithocarpus corneus (Lour.) Rehder	D	Lithocarpus corneus (Lour.) Rehder	D								
Anacolsa clarkii Pierre	F	Litsea umbellata (Lour.) Merr.	A								
Anacolsa griffithii Mast.	A	Magnolia braianensis (Gagnep.) Figlar	O								
Artocarpus	F	Magnolia sp.1	O								
Calophyllum pisiferum Planch. & Triana	A	Meliosma cambodiana Pierre	O								
Cinnamomum javanicum Blume	A	Schima crenata Korth.	A								
Diplospora sp.1	F	Sterculia parviflora Roxb.	D								
Elaeocarpus griffithii (Wight) A.Gray	O	Stewartia laotica (Gagnep.) J.Li & T.L.Ming	O								
Engelhardtia serrata Blume	O	Symplocos atrilivacea Merr. & Chun ex H.L.L	A								
Engelhardtia sp.2	F	Symplocos caudata Wall. ex G.Don	A								
Exbucklandia tonkinensis (Lecomte) H.T.Ch	F	Syzygium angkai (Craib) Chantar. & J.Parn	O								
Glochidion eriocarpum Champ. ex Benth.	O										
Horsfieldia thorelii Lecomte	O										
Litsea monopetala (Roxb.) Pers.	F										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 1.3

Botanical Surveys											
Site name	Survey Block 1	Date and Time	7/14/2021	Latitude	752318	Longitude	1717523	Monitoring Plot (ID Number)	1-3		
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.							Monitoring Plot Size	0.1 ha		
Air Temperature (°C)	27	Cloud Cover	0	Rain	0	Wind	0	if weather descrip	Warm and hot in the morning		
Habitat types present	Disturbed forests near Ban Dak Taoak, National Protection Area along the border to Vietnam										
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)						
<p style="text-align: center;">Lower montane evergreen forest dominated by the family Lauraceae and Myrtaceae</p>					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					Notes on impacts within the plot and nearby					Forest located in the village, easy to enter and destroy the forest	
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	13	Canopy mean cover (%)	70	Understorey mean height (m)	3	Understorey mean cover (%)	25	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx age of canopy (yrs)	65	Bare ground cover (%)	30	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	10		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	80	Max veg height (cm)	250								
Vegetation cover (%)	90	Bare ground cover (%)	10	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR
Diospyros filipendula Pierre ex Lecomte	O	Elaeocarpus dubius DC.	O								
Gironniera subaequalis Planch.	O	Goniothalamus tamirensis Pierre ex Finet & G	F								
Lithocarpus corneus (Lour.) Rehder	O	Medinilla septentrionalis (W.W.Sm.) H.L.Li	O								
Machilus sp.1	D	Polyalthia parviflora Ridl.	O								
Magnolia braianensis (Gagnep.) FiglarMag	O	Prunus arborea (Blume) Kalkman	F								
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR
Diospyros filipendula Pierre ex Lecomte	O	Elaeocarpus dubius DC.	O								
Gironniera subaequalis Planch.	O	Goniothalamus tamirensis Pierre ex Finet & G	F								
Lithocarpus corneus (Lour.) Rehder	O	Medinilla septentrionalis (W.W.Sm.) H.L.Li	O								
Machilus sp.1	D	Polyalthia parviflora Ridl.	O								
Magnolia braianensis (Gagnep.) FiglarMag	O	Prunus arborea (Blume) Kalkman	F								
Nephelium hypoleucum Kurz	O	Xanthophyllum ellipticum Korth. ex Miq.	O								
Pseuduvaria	O										
Quercus sp.1	A										
Schima crenata Korth.	A										
Styrax chinensis Hu & S.Ye Liang	O										
Styrax sp.1	O										
Symplocos atriolivacea Merr. & Chun ex H.	O										
Syzygium sp.1 (big lvs)	R										
Syzygium antisepticum	D										
Syzygium syzgioides (Miq.) Merr. & L.M.F	A										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 1.4

Botanical Surveys													
Site name	Survey Block 1	Date and Time	7/14/2021	Latitude	751395	Longitude	1717920	Monitoring Plot (ID Number)	1-4				
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.							Monitoring Plot Size	0.1 ha				
Air Temperature (°C)	27	Cloud Cover	0	Rain	0	Wind	0	if weather description	Warm and hot in the morning				
Habitat types present	Disturbed forests near Ban Dak Taoak, National Protection Area along the border to Vietnam												
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)								
Lower montane evergreen forest dominated by the family Lauraceae					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood			
					Combined impact score								
					Notes on impacts within the plot and nearby					Forest located in the village, easy to enter and destroy the forest			
For forest habitat describe canopy, understorey and ground flora													
Canopy mean height (m)	15	Canopy mean cover (%)	85	Understorey mean height (m)	3	Understorey mean cover (%)	40	Herbaceous layer mean height (m)	0.4	Herbaceous layer mean cover (%)	35		
Approx age of canopy (yrs)	45	Bare ground cover (%)	15	Water cover (%)	1	Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5				
For other habitats record overall max and mean height of vegetation													
Mean veg height (cm)	180	Max veg height (cm)	250										
Vegetation cover (%)	95	Bare ground cover (%)	5	Water cover (%)	0								
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)													
Species	DAFOR		Species	DAFOR		Species	DAFOR		Species	DAFOR			
Acronychia sp.1	O		Heptapleurum cambodiana Yahara & Tagane	O									
Aglala tomentosa Teijsm. & Binn.	O		Syzygium lineatum (DC.) Merr. & L.M.Perry	O									
Anacolosia griffithii Mast.	O		Syzygium sp.2	D									
Artocarpus	O		Dacrydium elatum (Roxb.) Wall. ex Hook.	O									
Cleyera sp.1	D		Diospyros filipendula Pierre ex Lecomte	F									
Cratogeomys sumatranum (Jack) Blume	O		Medinilla septentrionalis (W.W.Sm.) H.L.Li	O									
Dacrydium elatum (Roxb.) Wall. ex Hook.	F		Memecylon	O									
Elaeocarpus dubius DC.	O												
Engelhardtia sp.2	O												
Gironniera subaequalis Planch.	O												
Gomphia serrata (Gaertn.) Kanis	O												
Lithocarpus garrettianus (Craib) A.Camus	O												
Lithocarpus sp.1	D												
Magnolia sp.1	F												
Psychax sp.1	F												
<p>DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.</p> <p>Red list species to be marked in list using *</p> <p>Invasive species to be marked in list using **</p>													

Plant plot 1.5

Botanical Surveys													
Site name	Survey Block 1	Date and Time	7/15/2021		Latitude	751734	Longitude	1717636	Monitoring Plot (ID Number)	1-5			
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.								Monitoring Plot Size	0.1 ha			
Air Temperature (°C)	30	Cloud Cover	0	Rain	0	Wind	0	if weather descrip	Warm and hot in the morning				
Habitat types present	Disturbed forests near Ban Dak Taoak, National Protection Area along the border to Vietnam												
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)								
<p style="text-align: center;">Lower montane evergreen forest dominated by the family Lauraceae</p>					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood			
					Combined Impact score								
					Notes on impacts within the plot and near					Forest located in the village, easy to enter and destroy the forest			
For forest habitat describe canopy, understorey and ground flora													
Canopy mean height (m)	12	Canopy mean cover (%)	90	Understorey mean height (m)	5	Understorey mean cover (%)	60	Herbaceous layer mean height (m)	0.4	Herbaceous layer mean cover (%)	40		
Approx age of canopy (yrs)	50	Bare ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5				
For other habitats record overall max and mean height of vegeta													
Mean veg height (cm)	100	Max veg height (cm)	250										
Vegetation cover (%)	90	Bare ground cover (%)	10	Water cover (%)	0								
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)													
Species	DAFOR		Species	DAFOR		Species	DAFOR						
<i>Aglala tomentosa</i> Teijsm. & Binn.	O		<i>Polyosma</i> sp.1	A									
<i>Aporosa</i> sp.1	D		<i>Polyosma</i> sp.2	O									
<i>Calophyllum pisiferum</i> Planch. & Triana	O		<i>Syzygium antisepticum</i> (Blume) Merr. & L.M.	F									
<i>Carallia brachiata</i> (Lour.) Merr.	O		<i>Syzygium</i> sp.2	F									
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	D		Unknown Phyllanthaceae	O									
<i>Cinnamomum javanicum</i> Blume	O		<i>Xanthophyllum ellipticum</i> Korth, ex Miq.	O									
<i>Dacrycarpus imbricatus</i> (Blume) de Laub.	O												
<i>Diplospora</i> sp.2	O												
<i>Endospermum diadenum</i> (Miq.) Airy Shaw	O												
<i>Knema</i> sp.1	O												
<i>Lindera</i> cf. <i>bokorensis</i> Yahara & Tagane	O												
<i>Lithocarpus</i> sp.2	O												
<i>Madhuca pierrei</i> (F.N. Williams) H.J. Lam	O												
<i>Magnolia</i> cf. <i>braianensis</i> (Gagnep.) Figlar	O												
<i>Neolitsea</i> sp.1	R												
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **													

Plant plot 1.6

Botanical Surveys													
Site name	Survey Block 1	Date and Time	7/16/2021	Latitude	752607	Longitude	1719693	Monitoring Plot (ID Number)	1-6				
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.							Monitoring Plot Size	0.1 ha				
Air Temperature (°C)	30	Cloud Cover	0	Rain	0	Wind	0	if weather describes	Warm and hot in the morning				
Habitat types present	Disturbed forests near Ban Dak Taoak, National Protection Area along the border to Vietnam												
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)								
Lower montane evergreen forest dominated by the family Lauraceae					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood			
					Combined impact score								
					Notes on Impacts within the plot and nearby					Forest located in the village, easy to enter and destroy the forest			
For forest habitat describe canopy, understorey and ground flora													
Canopy mean height (m)	13	Canopy mean cover (%)	70	Understorey mean height (m)	2	Understorey mean cover (%)	40	Herbaceous layer mean height (m)	0.4	Herbaceous layer mean cover (%)	35		
Approx age of canopy (yrs)	45	Bare ground cover (%)	30	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5				
For other habitats record overall max and mean height of vegetat													
Mean veg height (cm)	90	Max veg height (cm)	180										
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0								
List of dominant species within the plot that define the habitat types and any notable species (including Red List/invasive)													
Species	DAFOR	Species	DAFOR	Species	DAFOR								
Cinnamomum javanicum Blume	F												
Clerodendrum cyrtophyllum Turcz.	O												
Cleyera sp.1	O												
Lindera sp.1	A												
Lithocarpus comeus (Lour.) Rehder	O												
Lithocarpus pierrei (Hickel & A.Camus) A.Camus	A												
Litsea umbellata (Lour.) Merr.	A												
Madhuca pierrei (F.N.Williams) H.J.Lam	O												
Monoon sp.2	O												
Neolitsea zeylanica (Nees & T. Nees) Merr.	A												
Nephelium hypoleucum Kurz	D												
Polyalthia sp.1	O												
Heptapleurum cambodiana Yahara & Tagane	A												
Unknown_Euphorbiaceae	O												
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.													
Red list species to be marked in list using *													
Invasive species to be marked in list using **													

Annex 1a-2. Summary of tree species list in the Survey Block 1

No	Scientific Name	Local Name	Family	IUCN Red List
1	<i>Acronychia pedunculata</i>	ປ້າແຂບທອງ (Pao khaeb thong)	Rutaceae	
2	<i>Aglaia tomentosa</i>	ຍິງກະສັງ (Gnong kasang)	Meliaceae	
3	<i>Alniphyllum</i>	ຍານດົງ (Gnan dong)	Styracaceae	
4	<i>Anacolosia clarkei</i>	ແຄະ (Khae)	Olacaceae	
5	<i>Anacolosia griffithii</i> Mast.	ແຊະ (Sae)	Olacaceae	
6	<i>Aporosa yunnanensis</i>	ເໝືອດໃບແຫຼມ (Maud bai-laem)	Phyllanthaceae	
7	<i>Artocarpus</i>	ມື້ປ່າ (Mee pa)	Moraceae	
8	<i>Calophyllum pisiferum</i>	ກະທົງ (Ka thueng)	Calophyllaceae	
9	<i>Carallia brachiata</i>	ບັ້ງນັ່ງ (Bong nang)	Rhizophoraceae	
10	<i>Castanopsis acuminatissima</i>	ກໍ່ເດືອຍ (Kor deau)	Fagaceae	
11	<i>Cinnamomum curvifolium</i>	ຈວງ (Juang)	Lauraceae	
12	<i>Clerodendrum cyrtophyllum</i>	ພວງພີ້ (Phoung phee)	Lamiaceae	
13	<i>Cleyera cf. bokorensis</i>	ໄກ້ (Kaii)	Pentaphylacaceae	
14	<i>Cratoxylum sumatranum</i>	ຕິ້ວ (Tiew)	Hypericaceae	
15	<i>Dacrydium elatum</i>	ຮິ່ງຫອມ (Hinh hom)	Podocarpaceae	
16	<i>Diospyros filipendula</i>	ຄັນຈ້ອງ (Khan jong)	Ebenaceae	
17	<i>Diplospora sp.1</i>	ສ້ຽນ (Sean)	Rubiaceae	
18	<i>Diplospora sp.2</i>	ສ້ຽນ (Sean)	Rubiaceae	
19	<i>Elaeocarpus dubius</i>	ແຊງແຊວ (Saeng seo)	Elaeocarpaceae	
20	<i>Elaeocarpus griffithii</i>	ມຸນ (Moun)	Elaeocarpaceae	
21	<i>Endospermum diadenum</i>	ຕະພົງ (Ta phong)	Euphorbiaceae	
22	<i>Engelhardtia serrata</i>	ຟາວຂຽວໜາມ (Phao khiew)	Juglandraceae	
23	<i>Engelhardtia cf. roxburghiana</i>	ຟາວຂຽວ (Phao khiew)	Juglandraceae	
24	<i>Engelhardtia sp.1</i>	ຟາວ (Phao)	Juglandraceae	
25	<i>Exbucklandia tonkinensis</i>	ໂພກາບລາງ (Pho kablang)	Hamamelidaceae	
26	<i>Gironniera subaequalis</i>	ຫາງແມງໄອ່ (Hang maeng-ai)	Cannabaceae	
27	<i>Glochidion eriocarpum</i>	ຂີ້ມົດ (Khee mod)	Phyllanthaceae	
28	<i>Glochidion cf. rubrum</i>	ແດງນ້ຳ (daeng nam)	Phyllanthaceae	
29	<i>Gomphia serrata</i>	ຊ້າງນ້ຳວ (Sang nao)	Ochnaceae	
30	<i>Heptapleurum cambodianum</i>	ຕ້າງ (Tang)	Araliaceae	
31	<i>Heynea trijuga</i>	ໝາກແຟນ (Mak fane)	Meliaceae	
32	<i>Horsfieldia thorelii</i>	ເລືອດນົກ (Leaud nok)	Myristicaceae	
33	<i>Knema cf. lenta</i>	ເລືອດຄວາຍ (Leaud khouay)	Myristicaceae	
34	<i>Lindera bokorensis</i>	ບົງບໍກໍ (Bong bokor)	Lauraceae	
35	<i>Lindera sp.1</i>	ບົງ (Bong)	Lauraceae	
36	<i>Lithocarpus corneus</i>	ກໍ່ຫຼັບ (Kor Rab)	Fagaceae	
37	<i>Lithocarpus garrettianus</i>	ກໍ່ແປ້ນ (Kor Pane)	Fagaceae	
38	<i>Lithocarpus pierrei</i>	ກໍ່ກັກ (Kor Kak)	Fagaceae	
39	<i>Lithocarpus sp.1</i>	ກໍ່ (Kor)	Fagaceae	
40	<i>Lithocarpus sp.2</i>	ກໍ່ (Kor)	Fagaceae	
41	<i>Litsea monopetala</i>	ໝໍ້ຫອມ (Mee hom)	Lauraceae	
42	<i>Litsea umbellata</i>	ບົງຮ້າງ (Bong hang)	Lauraceae	
43	<i>Machilus sp.1</i>	ຕອງຫອມ (Tong Hom)	Lauraceae	
44	<i>Madhuca pierrei</i>	ລະມຸດຊາງ (Lamout sang)	Sapotaceae	
45	<i>Magnolia braianensis</i>	ຈໍາປີປ່າ (Champi Pa)	Magnoliaceae	
46	<i>Magnolia sp.1</i>	ຈໍາປີປ່າ (Champi Pa)	Magnoliaceae	

47	Meliosma cambodiana	ໝາກກອກພູ (Mak kok phou)	Sabiaceae	
48	Monoon sp.1	ຢາງໂອນ (Yang oun)	Annonaceae	
49	Neolitsea zeylanica sp.1	ໄຟເດືອນຫ້າ (Fai deuanha)	Lauraceae	
50	Neolitsea sp.1	ໄຟເດືອນຫ້າ (Fai deuanha)	Lauraceae	
51	Nephelium hypoleucum	ຄໍ່ແລນ (Kho lane)	Sapindaceae	
52	Pinus kesiya	ແປກສາມໃບ (Peak sambai)	Pinaceae	
53	Polyalthia	ນ້ຳເຕົ້າກົກ (Namtao kok)	Annonaceae	
54	Polyosma	ເໝືອດໂລດ (Maud lod)	Escalloniaceae	
55	Pseuduvaria	ກ້ວຍເຫງັນຕົ້ນ (Kouay ngen ton)	Annonaceae	
56	Psydrax	ກະປະ (Ka-pa)	Rubiaceae	
57	Quercus sp.1	ກໍ່ (Kor)	Fagaceae	
58	Quercus sp.2	ກໍ່ (Kor)	Fagaceae	
59	Schima crenata	ຄາຍໄສ້ (Khai Soh)	Theaceae	
60	Sterculia parviflora	ບໍ່ໃບໃຫ້ຍ (Por baiyai)	Malvaceae	
61	Stewartia laotica	ບໍ່ເຫືອງລາວ (Por huang lao)	Theaceae	
62	Styrax chinensis	ຍານຈິນ (Gnan chin)	Styracaceae	
63	Styrax sp.1	ຍານ (Gnan)	Styracaceae	
64	Symplocos atriolivacea	ເໝືອດຄອມ (Maud khom)	Symplocaceae	
65	Symplocos caudata	ເໝືອດຄອມນ້ອຍ (Maud khom noy)	Symplocaceae	
66	Syzygium angkae	ຫວ້າກາ (Wha ka)	Myrtaceae	
67	Syzygium antisepticum	ສະເມັກແດງ (Samek deang)	Myrtaceae	
68	Syzygium lineatum	ຫວ້າຈ່ອຍ (Wha joi)	Myrtaceae	
69	Syzygium syzygioides	ຫວ້າຢອງ (Wha yong)	Myrtaceae	
70	Syzygium sp.1	ຫວ້າ (Wha)	Myrtaceae	
71	Syzygium sp.2	ຫວ້າ (Wha)	Myrtaceae	
72	Xanthophyllum ellipticum	ແສງດົງ (Seng dong)	Polygalaceae	

Annex 1b-1. Summary of plant plot by Survey Block (SB2 – Annamite)

Botanical Surveys											
Site name	Survey Block 2		Date and Time	26-18/2/2021		Latitude		Longitude		Monitoring Plot (ID Number)	Plot 2-1/2-2/2-3/2-4/2-5/2-6
Surveyors	Souleleth, P., Soukhavong, M., Thonghakdy, N., Bouttavong, T.									Monitoring Plot Size	0.6 ha
Air Temperature (°C)	27	Cloud Cover	0	Rain	0	Wind	0	Brief weather description	Warm and hot in the morning		
Habitat types present	Underconstruction road from the international border to Vietnam										
Site and vegetation description						Condition assessment scores and comments (fire, wildlife and human activity)					
Lower montane evergreen forest dominated by the family Fagaceae and Lauraceae						Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood
						Notes on impacts within the plot and nearby					
Use forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	34	Canopy mean cover (%)	85	Understorey mean height (m)	7	Understorey mean cover (%)	20	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx. age of canopy (yrs)	80	Rare ground cover (%)	15	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	3		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	150	Max veg height (cm)	280								
Vegetation cover (%)	85	Rare ground cover (%)	10	Water cover (%)	5						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
<i>Acer laurinum</i>	D	<i>Fagraea ciliarica</i>	F	<i>Magnolia brainensis</i>	F						
<i>Alangium</i> sp.1	D	<i>Garcinia hanburyi</i>	F	<i>Meliosma cambodiana</i>	R						
<i>Alseodaphne bidoupensis</i>	A	<i>Garcinia pedunculata</i>	D	<i>Mimocylon mimifolium</i>	O						
<i>Annalsia fragrans</i>	D	<i>Gironiera subaequalis</i>	F	<i>Monoon jucundum</i>	A						
<i>Aporosa yunnanensis</i>	F	<i>Heptapleurum cambodianum</i>	D	<i>Nageia fleuryi</i> *	O						
<i>Calophyllum dryobalanoides</i>	O	<i>Ilex excavata</i>	D	<i>Neritosa tomentosa</i>	O						
<i>Castanopsis acuminatissima</i>	A	<i>Ilicium roseum</i>	A	<i>Pinus dalatensis</i> *	R						
<i>Castanopsis piniformis</i>	D	<i>Ixora javanica</i>	O	<i>Platanus latifolia</i>	O						
<i>Chionanthes ramiflorus</i>	D	<i>Lasianthus cf. viridiramis</i>	O	<i>Podocarpus nerifolius</i>	O						
<i>Cinnamomum javanicum</i>	O	<i>Lindera bokorensis</i>	O	<i>Polyosma dolichocarpa</i>	A						
<i>Dacrydium imbricatum</i>	F	<i>Lindera</i> sp.1	O	<i>Psidium</i> sp.2	O						
<i>Dacrydium elatum</i>	D	<i>Lithocarpus corneus</i>	D	<i>Pyrenaria polianensis</i>	F						
<i>Despyros filipendula</i>	D	<i>Lithocarpus pierreii</i>	A	<i>Quercus cf. langbianensis</i>	O						
<i>Eleocharis dubius</i>	F	<i>Lithocarpus</i> sp.3	A	<i>Quercus thorelii</i>	O						
<i>Eleocharis griffithii</i>	O	<i>Lithocarpus</i> sp.4	R	<i>Sarcosperma kontumense</i>	O						
<i>Eleocharis limitaneus</i>	O	<i>Litsea bauensis</i>	D	<i>Schinus crenata</i>	O						
<i>Endospermum diadenum</i>	O	<i>Litsea umbellata</i>	F	<i>Sterculia lasophylla</i>	R						
<i>Engelhardtia serrata</i>	O	<i>Machilus</i> sp.1	A	<i>Sterculia parviflora</i>	F						
<i>Eurya</i>	O	<i>Machilus angustifolia</i>	D	<i>Stemartia laetica</i>	F						
<i>Eubucklandia</i>	O	<i>Madhuca cochinchinensis</i>	R	<i>Symplocos anomala</i>	D						
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.											
Red list species to be marked in list using *											
Invasive species to be marked in list using **											
Photo references											

List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)			
Species	DAFOR	Species	DAFOR
<i>Symplocos atrivaccina</i>	F	<i>Lasianthus</i>	D
<i>Symplocos dolichotricha</i>	F	<i>Hedyotis</i>	D
<i>Syzygium antisepticum</i>	O	<i>Alysic</i>	D
<i>Ternstroemia gymnanthera</i>	O	<i>Arenga westerhoutii</i> Griff.	D
<i>Urophyllum</i> sp.1	O	<i>Asplenium phyllitidis</i> D. Don	D
<i>Urophyllum</i> sp.2	O	<i>Lygodium microphyllum</i> (Cas.) R.Br.	D
<i>Urophyllum</i> sp.3	O	<i>Lygodium salicifolium</i> C.Presl	D
<i>Vaccinium cf. bidouperis</i>	R	<i>Polystichum attenuatum</i> Tagawa & T. Iwats.	D
<i>Xanthophyllum ellipticum</i>	F	<i>Pothos chinensis</i> (Baf.) Merr.	D
		<i>Pteridium aquilinum</i> (L.) Kuhn	D
		<i>Selaginella wallichii</i> (Hook. & Grev.) Spring	D
		<i>Vandenboschia auriculata</i> (Blume) Copel.	D
		<i>Aglaonema costatum</i> N.E.Br.	A
		<i>Anomum</i>	A
		<i>Anomum uliginosum</i> K.D.King	A
		<i>Angiopteris cf. wangii</i> Ching	A
		<i>Ardisia</i>	A
		<i>Argostemma bartramii</i> Pierre ex Pitt.	A
		<i>Begonia malabarica</i> Lam.	A
		<i>Blattaria</i>	A
		<i>Sibbitis</i>	R
		<i>Bulbophyllum</i>	R
		<i>Cnestis palata</i> (Lour.) Merr.	O
		<i>Cyperus</i>	A
		<i>Diplazium donianum</i> (Mett.) Tardieu	A
		<i>Isora</i>	O
		<i>Jaricia</i>	O
		<i>Lindsaea ensifolia</i> Sw.	A
		<i>Odontocoria chinensis</i> (L.) J.Sm.	A
		<i>Oeyipora</i>	A
		<i>Pothos gigantipes</i> Buchet ex P.C. Boyce	O
		<i>Rhaphidophora</i>	A
		<i>Strobilanthes</i>	O
		<i>Tabernaemontana</i>	A
		<i>Tetrastigma</i>	O
		<i>Woodwardia japonica</i> (L.f.) Sm.	A
		<i>Zingiber</i>	R
		<i>Zinghus</i>	O

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Photo references

Detailed plant plots of the Survey block 2 as below

Plant plot 2.1

Botanical Surveys											
Site name	Survey Block 2	Date and Time	7/16/2021		Latitude	750740	Longitude	1722688	Monitoring Plot (ID Number)	2-1	
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.								Monitoring Plot Size	0.1 ha	
Air Temperature (°C)	26	Cloud Cover	4	Rain	4	Wind	0	Brief weather description	Clear sky and warm in them orning, light-heavy rain and strong wind in the afternoon		
Habitat types present	Underconstruction road from the International border to Vietnam										
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)						
<p>Lower montane evergreen forest dominated by the family Fagaceae and Lauraceae</p>					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					es on impacts within the plot and nes					The new road will be caused high impacts to the habitat and rare trees (e.g. Dalat Pine (<i>Pinus dalatensis</i>) were recently cut-down during the road construction)	
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	14	Canopy mean cover (%)	85	Understorey mean height (m)	7	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx age of canopy (yrs)	80	Bare ground cover (%)	15	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetati											
Mean veg height (cm)	150	Max veg height (cm)	280								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
<i>Alseodaphne bidoupensis</i> Yahara	O	<i>Quercus thorelii</i> Hickel & A.Camus	A								
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	D	<i>Sterculia parviflora</i> Roxb.	A								
<i>Cinnamomum javanicum</i> Blume	O	<i>Syzygium antisepticum</i> (Blume) Merr. & L.M.P.	O								
<i>Diospyros filipendula</i> Pierre ex Lecomte	F	<i>Urophyllum</i> sp.1	O								
<i>Elaeocarpus dubius</i> DC.	O	<i>Xanthophyllum ellipticum</i> Korth. ex Miq.	A								
<i>Engelhardtia serrata</i> Blume	O										
<i>Garcinia hanburyi</i> Hook.f.	O										
<i>Ilex excavata</i> Pierre	A										
<i>Lithocarpus pierrei</i> (Hickel & A.Camus) A.C.	A										
<i>Litsea baviensis</i> Lecomte	D										
<i>Mangifera</i>	O										
<i>Monoon jucundum</i> (Pierre) B.Xue & R.M.K.S	A										
<i>Neolitsea tomentosa</i> H.W. Li	F										
<i>Nephellium hypoleucum</i> Kurz	O										
<i>Pinus dalatensis</i> *	R										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.											
Red list species to be marked in list using *											
Invasive species to be marked in list using **											

Plant plot 2.2

Botanical Surveys											
Site name	Survey Block 2	Date and Time	7/16/2021		Latitude	750569	Longitude	1723483	Monitoring Plot (ID Number)	2-2	
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.								Monitoring Plot Size	0.1 ha	
Air Temperature (°C)	26	Cloud Cover	3	Rain	2	Wind	4	Brief weather description	Clear sky and warm in them orning, light-heavy rain and strong wind in the afternoon		
Habitat types present	Underconstruction road from the International border to Vietnam										
Site and vegetation description					Condition assesment scores and comments (fire, wildlife and human activity)						
<p>Lower montane evergreen forest dominated by the family Fagaceae and Lauraceae</p>					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					es on impacts within the plot and near					The new road will be caused high impacts to the habitat and rare trees (e.g. Dalat Pine (<i>Pinus dalatensis</i>) were recently cut-down during the road construction)	
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	15	Canopy mean cover (%)	80	Understorey mean height (m)	7	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx age of canopy (yrs)	80	Bare ground cover (%)	20	Water cover (%)	0	Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetati											
Mean veg height (cm)	150	Max veg height (cm)	280								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR		Species	DAFOR		Species	DAFOR				
<i>Aporosa yunnanensis</i> (Pax & K.Hoffm.) F.P.	O		<i>Schima crenata</i> Korth.	F							
<i>Archidendron clypearia</i> (Jack) I.C.Nielsen	F		<i>Symplocos anomala</i> Brand	O							
<i>Dacrycarpus imbricatus</i> (Blume) de Laub.	D		<i>Syzygium antisepticum</i> (Blume) Merr. & L.M.P	O							
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	A		<i>Vaccinium cf. bidouensis</i>	R							
<i>Elaeocarpus dubius</i> DC.	O		<i>Xanthophyllum ellipticum</i> Korth. ex Miq.	A							
<i>Eurya</i>	O										
<i>Heptapleurum cf. cambodiana</i> Yahara & Tak	A										
<i>Ilex excavata</i> Pierre	O										
<i>Ixora javanica</i> (Blume) DC.	O										
<i>Lindera</i> sp.1	O										
<i>Machilus</i> sp.1	A										
<i>Magnolia braianensis</i> (Gagnep.) Figlar	A										
<i>Monoon jucundum</i> (Pierre) B.Xue & R.M.K.S	O										
<i>Platea latifolia</i> Blume	O										
<i>Polyalthia</i>	F										
<p>DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.</p> <p>Red list species to be marked in list using *</p> <p>Invasive species to be marked in list using **</p>											

Plant plot 2.3

Botanical Surveys											
Site name	Survey Block 2	Date and Time	7/17/2021		Latitude	751025	Longitude	1722672	Monitoring Plot (ID Number)	2-3	
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.								Monitoring Plot Size	0.1 ha	
Air Temperature (°C)	28	Cloud Cover	4	Rain	2	Wind	4	Brief weather description	Clear sky and warm in them orning, light-heavy rain and strong wind in the afternoon		
Habitat types present	Underconstruction road from the International border to Vietnam										
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)						
Lower montane evergreen forest dominated by the family Fagaceae					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					Notes on impacts within the plot and near		The new road will be caused high impacts to the habitat and rare trees (e.g. Dalat Pine (Pinus dalatensis) were recently cut-down during the road construction)				
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	13	Canopy mean cover (%)	90	Understorey mean height (m)	6	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	4
Approx age of canopy (yrs)	80	Bare ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	4		
For other habitats record overall max and mean height of vegeta											
Mean veg height (cm)	150	Max veg height (cm)	280								
Vegetation cover (%)	90	Bare ground cover (%)	10	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/invasive)											
Species	DAFOR		Species	DAFOR		Species	DAFOR		Species	DAFOR	
Alseodaphne bidoupensis Yahara	A		Arenga westerhoutii Griff.	O							
Dacrydium elatum (Roxb.) Wall. ex Hook.	O		Blastus	O							
Gironniera subaequalis Planch.	A		Ikora	F							
Heptapleurum cambodiana Yahara & Taga	A		Justicia	O							
Ilex excavata Pierre	A		Lasianthus	F							
Illicium roseum Yahara	A		Pteridium aquilinum (L.) Kuhn	O							
Lithocarpus cornuus (Lour.) Rehder	D		Tetragium	O							
Nageia fleuryi (Hickel) de Laub.*	O										
Schima crenata Korth.	F										
Sterculia parviflora Roxb.	D										
Symplocos anomala Brand	A										
Symplocos dolichotricha Merr.	A										
Syzygium antisepticum (Blume) Merr. & L.	F										
Xanthophyllum ellipticum Korth. ex Miq.	O										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.											
Red list species to be marked in list using *											
Invasive species to be marked in list using **											

Plant plot 2.4

Botanical Surveys											
Site name	Survey Block 2	Date and Time	7/18/2021		Latitude	752726	Longitude	1722359	Monitoring Plot (ID Number)	2-4	
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.										
Air Temperature (°C)	30	Cloud Cover	3	Rain	3	Wind	4	Brief weather description	Clear sky and warm in them orning, light-heavy rain and strong wind in the afternoon		
Habitat types present	Underconstruction road from the International border to Vietnam										
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)						
<p style="text-align: center;">Lower montane evergreen forest dominated by the family Fagaceae</p>					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					Notes on impacts within the plot and near					The new road will be caused high impacts to the habitat and rare trees (e.g. Dalat Pine (<i>Pinus dalatensis</i>) were recently cut-down during the road construction)	
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	11	Canopy mean cover (%)	90	Understorey mean height (m)	5	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	4
Approx age of canopy (yrs)	80	Bare ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	200	Max veg height (cm)	350								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (Including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
<i>Aporosa yunnanensis</i> (Pax & K.Hoffm.) F.P.S.	O	<i>Meliosma cambodiana</i> Pierre	R	<i>Alyxia</i>	F						
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	F	<i>Platea latifolia</i> Blume	F	<i>Arenga westerhoutii</i> Griff.	F						
<i>Castanopsis piriformis</i> Hickel & A.Camus	D	<i>Polyosma dolichocarpa</i> Merr.	A	<i>Asplenium phyllitidis</i> D. Don	O						
<i>Chionanthus ramiflorus</i> Roxb.	O	<i>Sarcosperma cf. kontumense</i> Gagnep. ex Aubr.	O	<i>Bolbitis</i>	O						
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	F	<i>Sterculia lissophylla</i> Pierre	R	<i>Bulbophyllum</i>	F						
<i>Elaeocarpus dubius</i> DC.	O	<i>Symplocos anomala</i> Brand	O	<i>Cyperus</i>	O						
<i>Elaeocarpus griffithii</i> (Wight) A.Gray	O	<i>Symplocos atrilivacea</i> Merr. & Chun ex H.L. Li	F	<i>Hedyotis</i>	F						
<i>Endospermum diadenum</i> (Miq.) Alry Shaw	O	<i>Xanthophyllum ellipticum</i> Korth. ex Miq.	A	<i>Lasianthus</i>	F						
<i>Fagraea ceilanica</i> Thunb.	O			<i>Lygodium microphyllum</i> (Cav.) R.Br.	O						
<i>Garcinia pedunculata</i> Roxb. ex Buch.-Ham.	D			<i>Onysoora</i>	O						
<i>Heptapleurum cf. cambodiana</i> Yahara & Terauchi	A			<i>Zingiber</i>	F						
<i>Illicium roseum</i> Yahara	A			<i>Ziziphus</i>	O						
<i>Lithocarpus pierreii</i> (Hickel & A.Camus) A.Camus	F										
<i>Litsea baviensis</i> Lecomte	D										
<i>Mastixia pentandra</i> subsp. <i>cambodiana</i> (Pongpipat) Pongpipat	O										

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.
Red list species to be marked in list using *
Invasive species to be marked in list using **

Plant plot 2.5

Botanical Surveys											
Site name	Survey Block 2	Date and Time	7/18/2021		Latitude	752836	Longitude	1721953	Monitoring Plot (ID Number)	2-5	
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.								Monitoring Plot Size	0.1 ha	
Air Temperature (°C)	30	Cloud Cover	3	Rain	3	Wind	4	Brief weather description	Clear sky and warm in the morning, light-heavy rain and strong wind in the afternoon		
Habitat types present	Underconstruction road from the International border to Vietnam										
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)						
Lower montane evergreen forest dominated by the family Fagaceae					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					Notes on impacts within the plot and near					The new road will be caused high impacts to the habitat and rare trees (e.g. Dalat Pine (<i>Pinus dalatensis</i>) were recently cut-down during the road construction)	
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	14	Canopy mean cover (%)	90	Understorey mean height (m)	5	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	4
Approx age of canopy (yrs)	80	Bare ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	150	Max veg height (cm)	300								
Vegetation cover (%)	90	Bare ground cover (%)	10	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR		Species	DAFOR		Species	DAFOR		Species	DAFOR	
<i>Acer laurinum</i> Hassk.	F		<i>Machilus angustifolia</i> Mas & Yahara	O		<i>Amomum</i>	F				
<i>Anneslea fragrans</i> Wall.	O		<i>Madhuca cochinchinensis</i> (Pierre ex Dubard)	R		<i>Ardisia</i>	O				
<i>Aporosa yunnanensis</i> (Pax & K.Hoffm.) F.P	O		<i>Mastixia pentandra</i> subsp. <i>cambodiana</i> (Pierre)	A		<i>Asplenium phyllitidis</i> D. Don	O				
<i>Calophyllum dryobalanoides</i> Pierre	O		<i>Memecylon minimifolium</i> H. Perrier	F		<i>Bredia</i>	O				
<i>Castanopsis acuminatissima</i> (Blume) A.DC	F		<i>Nephellium hypoleucum</i> Kurz	A		<i>Diplazium donianum</i> (Mett.) Tardieu	O				
<i>Castanopsis piriformis</i> Hickel & A.Camus	A		<i>Podocarpus nerilifolius</i> D.Don	O		<i>Hedyotis</i>	F				
<i>Dacrycarpus imbricatus</i> (Blume) de Laub.	O		<i>Psychax</i> sp.2	O		<i>Lasianthus</i>	F				
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	O		<i>Pyrenaria poilaneana</i> Gagnep.	O		<i>Lygodium microphyllum</i> (Cav.) R.Br.	F				
<i>Elaeocarpus limitaneus</i> Hand.-Mazz.	F		<i>Quercus cf. langbianensis</i> Hickel & A.Camus	O		<i>Polystichum attenuatum</i> Tagawa & Z.Iwats.	O				
<i>Heptapleurum cf. cambodiana</i> Yahara & Tardieu	O		<i>Symplocos anomala</i> Brand	D		<i>Pteridium aquilinum</i> (L.) Kuhn	O				
<i>Illicium roseum</i> Yahara	O		<i>Ternstroemia gymnanthera</i> (Wight & Arn.) Sp	O		<i>Vandenboschia auriculata</i> (Blume) Copel.	O				
<i>Lasianthus cf. viridiramis</i>	F		<i>Urophyllum</i> sp.2	F		<i>Woodwardia japonica</i> (L.f.) Sm.	O				
<i>Lithocarpus</i> sp.3	A										
<i>Lithocarpus</i> sp.4	R										
<i>Litsea baviensis</i> Lecomte	F										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.											
Red list species to be marked in list using *											
Invasive species to be marked in list using **											

Plant plot 2.6

Botanical Surveys											
Site name	Survey Block 2	Date and Time	7/18/2021		Latitude	752943		Longitude	1720599	Monitoring Plot (ID Number)	2-6
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.									Monitoring Plot Size	0.1 ha
Air Temperature (°C)	30	Cloud Cover	3	Rain	3	Wind	3	Brief weather description	Clear sky and warm in the morning, light-heavy rain and strong wind in the afternoon		
Habitat types present	Underconstruction road from the international border to Vietnam										
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)						
Lower montane evergreen forest dominated by the family Fagaceae					Fire	NA	Wildlife	NA	Human activity	Shifting and cutting wood	
					Combined impact score						
					Notes on impacts within the plot and near		The new road will be caused high impacts to the habitat and rare trees (e.g. Dalat Pine (<i>Pinus dalatensis</i>) were recently cut-down during the road construction)				
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	11	Canopy mean cover (%)	80	Understorey mean height (m)	4	Understorey mean cover (%)	15	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	4
Approx age of canopy (yrs)	80	Bare ground cover (%)	20	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	150	Max veg height (cm)	250								
Vegetation cover (%)	85	Bare ground cover (%)	10	Water cover (%)	5						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR		Species	DAFOR		Species	DAFOR				
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	O		<i>Urophyllum</i> sp.3	F		<i>Alyxia</i>	O				
<i>Exbucklandia</i>	O					<i>Angiopteris</i> cf. <i>wangii</i> Ching	O				
<i>Fagraea ceilanica</i> Thunb.	O					<i>Argostemma bariense</i> Pierre ex Pit.	F				
<i>Ficus hirta</i> Vahl	O					<i>Lasianthus</i>	F				
<i>Lindera bokorensis</i> Yahara & Tagane	F					<i>Lindsaea ensifolia</i> Sw.	O				
<i>Lithocarpus pierrei</i> (Hickel & A.Camus) A.C.	A					<i>Odontosoria chinensis</i> (L.) J.Sm.	O				
<i>Litsea baviensis</i> Lecomte	D					<i>Polystichum attenuatum</i> Tagawa & Z.Iwats.	O				
<i>Magnolia bralanensis</i>	F					<i>Strobilanthes</i>	F				
<i>Nephellium hypoleucum</i> Kurz	A					<i>Vandenboschia auriculata</i> (Blume) Copel.	O				
<i>Polyosma dolichocarpa</i> Merr.	O										
<i>Polyosma</i> sp.1	A										
<i>Pyrenaria poilaneana</i> Gagnep.	F										
<i>Stewartia laotica</i> (Gagnep.) J.Li & T.L.Ming	A										
<i>Symplocos anomala</i> Brand	O										
<i>Symplocos atriolivacea</i> Merr. & Chun ex H.	O										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Annex 1b-2. Summary of tree species list in the Survey Block 2

No	Scientific Name	Local Name	Family	IUCN Red List
1	<i>Acer laurinum</i>	ກ່ວມ (Kuam)	Sapindaceae	
2	<i>Alangium sp.1</i>	ສະລິກດົງ (Salik dong)	Cornaceae	
3	<i>Alseodaphne bidoupensis</i>	ຂີ້ໝັ້ນຕົ້ນ (Khem in ton)	Lauraceae	
4	<i>Anneslea fragrans</i>	ແກ້ມອື່ນ (Kaem oun)	Pentaphylacaceae	
5	<i>Aporosa yunnanensis</i>	ເໝືອດໃບແຫຼມ (Maud bai-laem)	Phyllanthaceae	
6	<i>Calophyllum dryobalanoides</i>	ພະອົງ (Pha-ong)	Calophyllaceae	
7	<i>Castanopsis acuminatissima</i>	ກໍ່ເດືອຍ (Kor deau)	Fagaceae	
8	<i>Castanopsis piriformis</i>	ກໍ່ຂີ້ໝູ (Kor khemou)	Fagaceae	
9	<i>Chionanthes ramiflorus</i>	ເຂົ້າສານຫຼວງ (Khaosan luang)	Oleaceae	
10	<i>Cinnamomum javanicum</i>	ແຄຫອມ (Khae hom)	Lauraceae	
11	<i>Dacrycarpus imbricatus</i>	ຮຶງຂຽວ (Hinh khiew)	Podocarpaceae	
12	<i>Dacrydium elatum</i>	ຮຶງຫອມ (Hing hom)	Podocarpaceae	
13	<i>Diospyros filipendula</i>	ຄັນຈ້ອງ (Khan jong)	Ebenaceae	
14	<i>Elaeocarpus dubius</i>	ແຊງແຊວ (Saeng seo)	Elaeocarpaceae	
15	<i>Elaeocarpus griffithii</i>	ມູນ (Moun)	Elaeocarpaceae	
16	<i>Elaeocarpus limitaneus</i>	ມູນດົງ (Moun dong)	Elaeocarpaceae	
17	<i>Endospermum diadenum</i>	ຕະພົງ (Ta phong)	Euphorbiaceae	
18	<i>Engelhardtia serrata</i>	ຟ່າວຂຽວໜາມ (Phao khiew)	Juglandraceae	
19	<i>Eurya</i>	ຫາງດີ (Hang dee)	Pentaphylacaceae	
20	<i>Exbucklandia</i>	ໂພກາບລາງ (Pho kablang)	Hamamelidaceae	
21	<i>Fagraea ceilanica</i>	ຕັງນົກ (Tang nok)	Gentianaceae	
22	<i>Garcinia hanburyi</i>	ສົ້ມປ່ອງ (Som pong)	Clusiaceae	
23	<i>Garcinia pedunculata</i>	ສົ້ມໂມງ (Som mong)	Clusiaceae	
24	<i>Girouneria subaequalis</i>	ຫາງແມງໄອ່ (Hang maeng-ai)	Cannabaceae	
25	<i>Heptapleurum cambodianum</i>	ຕ້າງ (Tang)	Araliaceae	
26	<i>Ilex excavata</i>	ໄຂ່ມັດ (Khai mod)	Aquifoliaceae	
27	<i>Illicium roseum</i>	ຈັນບານ (Chan ban)	Schisandraceae	
28	<i>Ixora javanica</i>	ເຂັ້ມດົງ (Khem dong)	Rubiaceae	
29	<i>Lasianthus cf. viridiramis</i>	ຄັນແຮ້ວດໍາ (Khanheo dam)	Rubiaceae	
30	<i>Lindera bokorensis</i>	ບົງບໍ່ກໍ (Bong bokor)	Lauraceae	
31	<i>Lindera sp.1</i>	ບົງ (Bong)	Lauraceae	
32	<i>Lithocarpus corneus</i>	ກໍ່ຫຼັບ (Kor Rab)	Fagaceae	
33	<i>Lithocarpus pierrei</i>	ກໍ່ກັກ (Kor Kak)	Fagaceae	
34	<i>Lithocarpus sp.3</i>	ກໍ່ (Kor)	Fagaceae	
35	<i>Litsea baviensis</i>	ບົງຫອມ (Bong hom)	Lauraceae	
36	<i>Litsea umbellata</i>	ບົງຮ້າງ (Bong hang)	Lauraceae	
40	<i>Machilus sp.</i>	ຕອງຫອມ (Tong Hom)	Lauraceae	
37	<i>Machilus angustifolia</i>	ຕອງຫອມໃບແຄບ (Tong Hom bai khaeb)	Lauraceae	
38	<i>Madhuca cochinchinensis</i>	ລະມຸດຊາງ (Lamout sang)	Sapotaceae	
39	<i>Magnolia braianensis</i>	ຈໍາປີປ່າ (Champi Pa)	Magnoliaceae	
40	<i>Mastixia pentandra subsp. cambodiana</i>	ໝາກເຖົ້ນ (Mak thern)	Cornaceae	
41	<i>Meliosma cambodiana</i>	ໝາກກອກພູ (Mak kok phou)	Sabiaceae	
42	<i>Memecylon minimifolium</i>	ເໝືອດຫິນດອກນ້ອຍ (Maud hin dok noy)	Melastomataceae	
43	<i>Monoon jucundum</i>	ຢາງໂອນ (Yang oun)	Annonaceae	
44	<i>Nageia fleuryi</i>	ພະຍາໄມ້ (Phaya mai)	Podocarpaceae	NT

45	<i>Neolitsea tomentosa</i>	ໄຟເດືອນຫ້າຂົນ (Fai deuanha khon)	Lauraceae	
46	<i>Pinus dalatensis</i> var. <i>bidoupensis</i>	ແປກຫ້າໃບ (Peak habai)	Pinaceae	NT
47	<i>Platea latifolia</i>	ມັນໝູ (Man mou)	Icacinaceae	
48	<i>Podocarpus neriifolius</i>	ກະດອງ (Kadong)	Podocarpaceae	
49	<i>Polyosma dolichocarpa</i>	ເໝືອດດົງ (Maud dong)	Escalloniaceae	
50	<i>Psydrax</i> sp.2	ກະປະ (Ka-pa)	Rubiaceae	
51	<i>Pyrenaria poilaneana</i>	ໝັງດົງ (Miang dong)	Theaceae	
52	<i>Quercus langbianensis</i>	ກໍ່ລັງບຽງ (Kor langbian)	Fagaceae	
53	<i>Quercus thorelii</i>	ກໍ່ດາວ (Kor dao)	Fagaceae	
54	<i>Sarcosperma kontumense</i>	ເໝືອດກອນຕຸມ (Maud hom kontum)	Sapotaceae	
55	<i>Schima crenata</i>	ຄາຍໂສ້ (Khai Soh)	Theaceae	
56	<i>Sterculia lissophylla</i>	ປໍເມືອກ (Por muaek)	Malvaceae	
57	<i>Sterculia parviflora</i>	ປໍໃບໃຫ້ຍ (Por baiyai)	Malvaceae	
58	<i>Stewartia laotica</i>	ປໍເຫືອງລາວ (Por huang lao)	Theaceae	
59	<i>Symplocos anomala</i>	ເໝືອດນ້ອຍ (Maud noi)	Symplocaceae	
60	<i>Symplocos atriolivacea</i>	ເໝືອດຄອມ (Maud khom)	Symplocaceae	
61	<i>Symplocos dolichotricha</i>	ເໝືອດຄອມນ້ອຍ (Maud khom noy)	Symplocaceae	
62	<i>Syzygium antisepticum</i>	ສະເມັກແດງ (Samek deang)	Myrtaceae	
63	<i>Ternstroemia gymnanthera</i>	ເມືອກ (Mueak)	Pentaphylacaceae	
64	<i>Urophyllum</i> sp.1	ແຂ້ງ (Khaeng)	Rubiaceae	
65	<i>Urophyllum</i> sp.2	ແຂ້ງ (Khaeng)	Rubiaceae	
66	<i>Urophyllum</i> sp.3	ແຂ້ງ (Khaeng)	Rubiaceae	
67	<i>Vaccinium</i> cf. <i>bidoupensis</i>	ພວງໄຂ່ມຸກ (Phouang khaimouk)	Ericaceae	
68	<i>Xanthophyllum ellipticum</i>	ແສງດົງ (Seng dong)	Polygalaceae	

Annex 1c-1. Summary of plant plot by Survey Block (SB3 – Phou Kounking E)

Botanical Surveys														
Site name	Survey Block 3		Date and Time	23-24/7/2021		Latitude		Longitude		Monitoring Plot (ID Number)	Plot 3-1/3-2/3-3/3-4/3-5/3-6			
Surveyors	Souledeh, P., Soukhavong, M., Thonghakdy, N., Bouttavong, T.									Monitoring Plot Size	0.6 ha			
Air Temperature (°C)	25	Cloud Cover	6	Rain	5	Wind	7	Brief weather description		Cloudy with light-heavy rain and cool				
Habitat types present	Forest protection near Ban Dak Rem													
Site and vegetation description						Condition assessment scores and comments (Fire, wildlife and human activity)								
Montane evergreen forest, dense of high trees at foothills and sparsely of small trees towards the summit						Fire	NA	Wildlife	NA	Human activity	Cutting trees			
						Combined impact score			Notes on impacts within the plot and nearby			Clear-cutting of vegetation for the Transmission Lines throughout the survey		
For forest habitat describe canopy, understorey and ground flora														
Canopy mean height (m)	14	Canopy mean cover (%)	90	Understorey mean height (m)	5	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	1	Herbaceous layer mean cover (%)	5			
Approx age of canopy (yrs)	70	Base ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.2	Moss Layer mean cover (%)	10					
For other habitats record overall max and mean height of vegetation														
Mean veg height (m)	150	Max veg height (m)	350											
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0									
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)														
Species	DAFOR	Species	DAFOR	Species	DAFOR									
<i>Acer laurinum</i>	R	<i>Pinus kesiya</i>	O	<i>Diplazium donianum</i> (Mett.) Tardieu	D									
<i>Anneslea fragrans</i>	F	<i>Rhododendron simsii</i>	A	<i>Nephrolepis cordifolia</i> (L.) C. Presl	D									
<i>Apodytes dimidiata</i>	O	<i>Rhodomyrtus tomentosa</i>	R	<i>Polystichum attenuatum</i> Tagawa & Z. Iwats.	D									
<i>Castanopsis acuminatissima</i>	O	<i>Schinus crenata</i>	D	<i>Woodwardia japonica</i> (L.f.) Sm.	D									
<i>Castanopsis clarkii</i>	A	<i>Semecarpus reticulata</i>	O	<i>Odontosoria chinensis</i> (L.) Sm.	D									
<i>Chionanthus sp.1</i>	O	<i>Stewartia laotica</i>	O	<i>Pteridium aquilinum</i> (L.) Kuhn	D									
<i>Decrycarrus imbricatus</i>	A	<i>Symplocos caudata</i>	A	<i>Torenia sp.</i>	A									
<i>Daphniphyllum beddomei</i>	A	<i>Symplocos lucida</i>	D	<i>Impatiens hirsutisepala</i> Tardieu	R									
<i>Engelhardtia serrata</i>	R	<i>Syzygium ambisecticum</i>	A	<i>Lygodium salicifolium</i> C.Presl	A									
<i>Eubucklandia tonkinensis</i>	F	<i>Syzygium attenuatum</i>	A	<i>Selaginella wallichii</i> (Hook. & Gray.) Spring	A									
<i>Gironniera subaequalis</i>	O	<i>Syzygium lineatum</i>	O	<i>Zingiber melis</i> Skarriick, H.B. Tran & Sida f.	A									
<i>Heptapleurum cambodianum</i>	F	<i>Toxicodendron surcellanum</i>	O	<i>Ardisia villosa</i> Rob.	A									
<i>Ilex sp.1</i>	R			<i>Asplenium phyllitidis</i> D. Don	A									
<i>Illicium rasum</i>	A			<i>Barleria sp.</i>	R									
<i>Liquidambar excelsa</i>	A			<i>Begonia difformis</i> (Irmsch.) W.C. Leong, C.J. Peng & X.F. Chu	R									
<i>Lithocarpus elephantum</i>	O			<i>Dendrobium sp.</i>	R									
<i>Lithocarpus pierreii</i>	F			<i>Goodyera sp.</i>	R									
<i>Neolitsea zeylanica</i>	O			<i>Ampelopsis cantoniensis</i> (Hook. & Arn.) Planch.	R									
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.														
Red list species to be marked in list using *														
Invasive species to be marked in list using **														
Photo references														
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)														
Species	DAFOR	Species	DAFOR	Species	DAFOR									
<i>Ardisia crenata</i> Sims	F	<i>Phlogacanthus pubinervis</i> T. Anderson	O											
<i>Cissus</i>	F	<i>Piper</i>	O											
<i>Orchidia sp.</i>	F	<i>Pothos gigantipes</i> Buchet ex P.C. Boyce	O											
<i>Lasiacanthus chevalieri</i> Pit.	F	<i>Rungia pectinata</i> (L.) Nees	O											
<i>Pleocnemia sp.</i>	F	<i>Staurogyne racemosa</i> Kuntze	O											
<i>Dathos chinensis</i> (Raf.) Merr.	F	<i>Zingiber sp.</i>	O											
<i>Rhaphidophora</i>	F													

Plant plot 3.1

Botanical surveys											
Site name	Survey Block 3	Date and Time	7/23/2021	Latitude	754837	Longitude	-1712290	Monitoring Plot ID Number	3-1		
Surveyors	Souladeth P., Soukhavong M., Thonohakdy, N., Boutthavong T.			Monitoring Plot Size	0.1 ha						
Air Temperature (°C)	20	Cloud Cover	8	Rain	4	Wind	7	Brief weather description	Cloudy with light-heavy rain and cool		
Habitat types present	Forest protection near Ban Dak Renn										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Montane evergreen forest, dense of high trees at foothills and sparsely of small trees towards the summit				Fire	NA	Wildlife	NA	Human activity	Cutting trees		
				Combined impact score:							
				Notes on impacts within the plot and near				Clear-cutting of vegetation for the Transmission Lines throughout the survey sites			
For forest habitat describe canopy, understory and ground flora											
Canopy mean height (m)	14	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	1	Herbaceous layer mean cover (%)	5
Approx age of canopy (yrs)	65	Base ground cover (%)	20	Water cover (%)		Moss Layer mean height (m)	0.2	Moss Layer mean cover (%)	10		
For other habitats record overall size and mean height of vegetation											
Mean veg height (m)	140	Max veg height (m)	350								
Vegetation cover (%)	85	Base ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red list/invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR				
<i>Acrostichum fragile</i> Wall.	O	<i>Neolitsea zylamira</i> (Nees & T. Nies) Merr.	O	<i>Ancistrocladus tectorius</i> (Lour.) Merr.	O						
<i>Apodytes dimidiata</i> E.Mey. ex Arn.	O	<i>Pinus kesiya</i> Royle ex Gordon	A	<i>Andisia crenata</i> Sims	O						
<i>Chasalia curviflora</i> (Wall.) Thwaites	F	<i>Rhododendron simsii</i> Planch.	O	<i>Barleria</i> sp.	B						
<i>Castanopsis acuminatissima</i> (Blume) A.C.	F	<i>Rhodoleia championii</i> Hook f.	F	<i>Dendrobium</i> sp.	F						
<i>Chionanthus</i> sp.1	O	<i>Schoepfia fragrans</i> Wall.	O	<i>Diplazium donianum</i> (Mett.) Tardieu	O						
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	A	<i>Schinus crenata</i> Korth.	D	<i>Isora tigris</i> (R.Br. ex Wight & Arn.)	F						
<i>Daphniphyllum beddomei</i> Craib	O	<i>Semecarpus reticulata</i> Lecomte	F	<i>Neanotis wightiana</i> (Wall. ex Wight & Arn.) W.H.Lewis	F						
<i>Eubucklandia tonkinensis</i> (Lecomte) Steenis ex Makas	O	<i>Stewartia laetitia</i> (Gagnep.) L.J. & T.L.Ming	F	<i>Odonobesaria chinensis</i> (L.) I.Sm.	O						
<i>Grommiera subaequalis</i> Planch.	O	<i>Symplocos caudata</i> Wall. ex G. Don	A	<i>Polystichum attenuatum</i> Tagawa & Z. Iwats.	O						
<i>Gnetum gnemon</i> L.	O	<i>Syzygium antisepticum</i> (Blume) Merr. & L.M.Perry (M)	O	<i>Smilax glabra</i> Roxb.	O						
<i>Ilex</i> sp.1	R	<i>Syzygium lineatum</i> (DC.) Merr. & L.M.Perry	O								
<i>Illium roseum</i> Yabara	O	<i>Taxicodendron succedaneum</i> (L.) Kuntze	O								
<i>Liquidambar excelsa</i> (Norrtha) Oken	O										
<i>Lithocarpus hamandi</i> (Hickel & A.Camus) A.Camus	O										
<i>Libes martabanica</i> (Kurz) Hook.f.	O										

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Plant plot 3.2

Botanical Surveys									
Site name	Survey Block	Date and Time	Latitude	Longitude	Monitoring Plot (ID) Number	Monitoring Plot Size			
	Survey Block 3	7/23/2021	755209	1712082	S-2	0.1 ha			
Surveyors									
Souledeh, P., Soukhavong, M., Thonphakdy, N., Boutsavong, T.									
Air Temperature (°C)	Cloud Cover	Rain	Wind	Brief weather description					
25	5	4	7	Cloudy with light-heavy rain and cool					
Habitat types present									
Forest protection near Ban Oak Betn									
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)				
Montane evergreen forest, dense of high trees at foothills and sparsely of small trees towards the summit					Fire	Wildlife	Human activity	Cutting trees	
					NA	NA	NA	Cutting trees	
					Combined impact score		Notes on impacts within the plot and nearby		
					Clear-cutting of vegetation for the Transmission Lines throughout the survey sites				
For forest habitat describe canopy, understorey and ground flora									
Canopy mean height (m)	Canopy mean cover (%)	Understorey mean height (m)	Understorey mean cover (%)	Herbaceous layer mean height (m)	Herbaceous layer mean cover (%)				
13	85	5	10	1	5				
Approx age of canopy (yr)	Bare ground cover (%)	Water cover (%)	Moist Layer mean height (m)	Moist Layer mean cover (%)					
55	15		0.3	10					
For other habitats record overall max and mean height of vegetation									
Mean veg height (m)	Max veg height (m)	Water cover (%)							
140	280	0							
Vegetation cover (%)	Bare ground cover (%)								
85	15								
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)									
Species	DAFOR	Species	DAFOR	Species	DAFOR				
<i>Anneslea fragrans</i> Wall.	A	<i>Rhododendron somali</i> Planch.	O	<i>Embellia oblongifolia</i> Hemsl.	O				
<i>Apodytes dimidiata</i> E. Mey. ex Arn.	O	<i>Schinus molle</i> Korth.	O	<i>Ancistrocladus tectorius</i> (Lour.) Merr.	O				
<i>Andisia gracilenta</i> C. M. Hu & J.F. Vidal	O	<i>Schoepfia fragrans</i> Wall.	O	<i>Andisia crenata</i> Sims	O				
<i>Breymia</i> sp.	O	<i>Stewartia leucica</i> (Gagnep.) Li & T.L. Ming	O	<i>Barleria</i> sp.	R				
<i>Castanopsis acuminatissima</i> (Blume) A.D.C.	O	<i>Symplocos caudata</i> Wall. ex G. Don	O	<i>Begonia difformis</i> (Limah.) W.C. Leong, C.J. Peng & K.F. Chu	O				
<i>Castanopsis clarkii</i> King ex Hook. f.	A	<i>Syzygium antisepticum</i> (Blume) Merr. & L.M. Perry (M)	A	<i>Dioscorea</i> sp.	O				
<i>Daephniphyllum beddomei</i> Craib	O	<i>Syzygium attenuatum</i> (Miq.) Merr. & L.M. Perry	O	<i>Diplazium donianum</i> (Mitt.) Tardieu	O				
<i>Dendrotrapezia varians</i> (Blume) Miq.	O			<i>Orchidia</i> sp.	O				
<i>Exbucklandia tonkinensis</i> (Lecote) Steenis ex Makel	O			<i>Goodyera</i> sp.	F				
<i>Gonimmlera subaequalis</i> Planch.	O			<i>Nephrolepis cordifolia</i> (L.) C. Presl	O				
<i>Illicium roseum</i> Yohara	A			<i>Pleocnemia</i> sp.	O				
<i>Lithocarpus elephantum</i> (Hance) A. Camus	O			<i>Tetrastigma ramentaceum</i> Planch.	O				
<i>Lithocarpus piemei</i> (Hickel & A. Camus) A. Camus	A			<i>Woodwardia japonica</i> (L.f.) Sm.	O				
<i>Utsea martabanica</i> (Kurz) Hook. f.	O								
<i>Neolitsea seylanica</i> (Nees & T. Nees) Merr.	F								

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Plant plot 3.3

Botanical Surveys												
Site name	Survey Block 3	Date and Time	7/23/2021	Latitude	735792	Longitude	1732515	Monitoring Plot (ID Number)	3-3			
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.							Monitoring Plot Size	0.3 ha			
Air Temperature (°C)	25	Cloud Cover	8	Rain	4	Wind	7	Brief weather description	Cloudy with light-heavy rain and cool			
Habitat types present	Forest protection near Ban Dak Rem											
Site and vegetation description					Condition assessment scores and comments (Fire, wildlife and human activity)							
Montane evergreen forest, dense of high trees at foothills and sparsely of small trees towards the summit					Fire	NA	Wildlife	NA	Human activity	Cutting trees		
					Combined impact score		Notes on impacts within the plot and nearby			Clear-cutting of vegetation for the Transmission Lines throughout the survey sites		
For forest habitat describe canopy, understorey and ground flora												
Canopy mean height (m)	5	Canopy mean cover (%)	90	Understorey mean height (m)	5	Understorey mean cover (%)	8	Herbaceous layer mean height (m)	1	Herbaceous layer mean cover (%)	5	
Approx age of canopy (yrs)	85	Bare ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.2	Moss Layer mean cover (%)	5			
For other habitats record overall max and mean height of vegetation												
Mean veg height (m)	140	Max veg height (cm)	300									
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0							
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)												
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR			
Anneslea fragrans Wall.	A	Symplocos caudata Wall. ex G. Don	O	Ardisia villosa Roxb.	O							
Apodytes dimidiata E.Mey. ex Arn.	F	Symplocos lucida (Thunb.) Siebold & Zucc.	A	Diplazium donianum (Mett.) Tardieu	O							
Ardisia gracilentra C.M.Hu & J.E.Vidal	O	Syzygium antisepticum (Blume) Merr. & L.M.P.	O	Impatiens hirsutisepala Tardieu	O							
Castanopsis acuminatissima (Blume) A. DC.	A	Syzygium attenuatum (Miq.) Merr. & L.M.Perr	A	Liparis bootanensis Griff.	F							
Dacrydium elatum (Roxb.) Wall. ex Hook.	F			Nephrolepis cordifolia (L.) C.Presl	O							
Daphniphyllum beddomei Craib	F			Odontosoria chinensis (L.) J.Sm.	O							
Exbucklandia tonkinensis (Lecomte) Steenis ex Mak	O			Phlogacanthus pubinervis T.Anderson	O							
Gronniera subaequalis Planch.	O			Polystichum attenuatum Tagawa & Z. Iwats.	O							
Heptapleurum cf. cambodiana Yahara & Tagane	O			Smilax lanceifolia Roxb.	O							
Lithocarpus hamandii (Hickel & A.Camus) A.Camus	A			Zingiber mellis Scopnick, H.B.Trân & Sida f. *	F							
Utsea maritabanica (Kurz) Hook.f.	A											
Rhododendron simlai Planch.	D											
Rhodoleia championii Hook.f.	O											
Rhodomyrtus tomentosa Wight	R											
Schinus molle Korth.	A											
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **												

Plant plot 3.4

Botanical Surveys												
Site name	Survey Block 3	Date and Time	7/24/2021	Latitude	731654	Longitude	1712796	Monitoring Plot (ID Number)	3-4			
Surveyors	Souladeth, P., Soukhavong, M., Thonghakdy, N., Bouttavong, T.								Monitoring Plot Size	0.3 ha		
Air Temperature (°C)	25	Cloud Cover	8	Rain	5	Wind	7	Brief weather description	Cloudy with light-heavy rain and cool			
Habitat types present	Forest protection near Ban Dak Rem											
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)							
Montane evergreen forest, dense of high trees at foothills and sparsely of small trees towards the summit					Fire	NA	Wildlife	NA	Human activity	Cutting trees		
					Combined impact score							
					Notes on impacts within the plot and nearby				Clear-cutting of vegetation for the Transmission Lines throughout the survey sites			
For forest habitat describe canopy, understorey and ground flora												
Canopy mean height (m)	34	Canopy mean cover (%)	75	Understorey mean height (m)	5	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	1	Herbaceous layer mean cover (%)	5	
Approx age of canopy (yrs)	70	Bare ground cover (%)	25	Water cover (%)		Moss Layer mean height (m)	0.2	Moss Layer mean cover (%)	10			
For other habitats record overall max and mean height of vegetation												
Mean veg height (cm)	150	Max veg height (cm)	350									
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0							
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)												
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR			
<i>Ardisia gracilentia</i> C.M.Hu & J.E.Vidal	O	<i>Schoepfia fragrans</i> Wall.	O	<i>Antistrocladus tectorius</i> (Lour.) Merr.	O							
<i>Breynia</i> sp.	R	<i>Symplocos lucida</i> (Thunb.) Siebold & Zucc.	A	<i>Embelia oblongifolia</i> Hemsl.	O							
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	A	<i>Syzygium attenuatum</i> (Miq.) Merr. & L.M.P.	A	<i>Heliconia parasitica</i> Lour.	O							
<i>Dacrydium imbricatum</i> (Blume) de Laub.	O	<i>Syzygium antisepticum</i> (Blume) Merr. & L.P.	F	<i>Ampelopsis cantoniensis</i> (Hook. & Arn.) Planch.	O							
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	A			<i>Dendrobium</i> sp.	R							
<i>Daphniphyllum beddomei</i> Craib	A			<i>Diplazium donianum</i> (Mett.) Tardieu	O							
<i>Dendrotrophe varians</i> (Blume) Miq.	O			<i>Gomphospermum</i> sp.	O							
<i>Heptapleurum cf. cambodianum</i> Yahara & Tagane	D			<i>Lasiacanthus chevalieri</i> Pit.	F							
<i>Illicium roseum</i> Yahara	A			<i>Nephrolepis cordifolia</i> (L.) C.Presl	O							
<i>Liquidambar excelsa</i> (Noronha) Oken	O			<i>Odontosoria chinensis</i> (L.) J.Sm.	O							
<i>Lithocarpus harmandii</i> (Hickel & A.Camus) A.Camus	D			<i>Polystichum attenuatum</i> Tagawa & Z. Iwats.	O							
<i>Urtica martabanica</i> (Kurz) Hook.f.	F			<i>Sabia parviflora</i> Wall. ex Roxb.	O							
<i>Mediaca pierrei</i> (F.N.Williams) H.J.Lam	R			<i>Smilax corbularia</i> Kunth	O							
<i>Neolitsea zeylanica</i> (Nees & T. Nees) Merr.	D			<i>Staurogyne racemosa</i> Kuntze	O							
<i>Schinus crenata</i> Korth.	D			<i>Woodwardia japonica</i> (L.f.) Sm.	O							
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **												

Plant plot 3.5

Botanical Surveys														
Site name	Survey Block 3	Date and time	7/24/2021	Latitude	731869	Longitude	1712562	Monitoring Plot (ID Number)	3-5					
Surveyors	Souladeth, P., Soukhavong, M., Thonshakdy, N., Boultavong, T.						Monitoring Plot Size	0.1 ha						
Air Temperature (°C)	25	Cloud Cover	8	Rain	4	Wind	7	Brief weather description	Cloudy with light-heavy rain and cool					
Habitat types present	Forest protection near Baa Dak Rem													
Site and vegetation description					Condition assessment scores and comments (fire, wildlife and human activity)									
Montane evergreen forest, dense of high trees at foothills and sparsely of small trees towards the summit					Fire	NA	Wildlife	NA	Human activity	Cutting trees				
					Combined impact score					Clear-cutting of vegetation for the Transmission Lines throughout the survey sites				
					Notes on impacts within the plot and nearby									
For forest habitat describe canopy, understorey and ground flora														
Canopy mean height (m)	13	Canopy mean cover (%)	90	Understorey mean height (m)	6	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	1	Herbaceous layer mean cover (%)	5			
Approx age of canopy (Yrs)	70	Bare ground cover (%)	10	Water cover (%)		Moss layer mean height (m)	0.2	Moss layer mean cover (%)	10					
For other habitats record overall max and mean height of vegetation														
Mean veg height (cm)	140	Max veg height (cm)	350											
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0									
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)														
Species	DAFOR	Species	DAFOR	Species	DAFOR									
<i>Acer laurinum</i> Hassk.	R	<i>Neolitsea zeylanica</i> (Nees & T. Nees) Merr.	A	<i>Alpinia</i>	F									
<i>Anacostea griffithii</i> Mast.	O	<i>Schima crenata</i> Korth.	A	<i>Amomum</i>	F									
<i>Castanopsis acuminatissima</i> (Blume) A. DC.	A	<i>Symplocos caudata</i> Wall. ex G. Don	O	<i>Ardisia</i>	O									
<i>Castanopsis clarkii</i> King ex Hook. f.	A	<i>Symplocos lucida</i> (Thunb.) Siebold & Zucc.	O	<i>Citrus</i>	O									
<i>Dacrydium elatum</i> (Robt.) Wall. ex Hook.	R	<i>Scyplium attenuatum</i> (Miq.) Merr. & L.M.Perry	F	<i>Diplazium donianum</i> (Mett.) Tardieu	O									
<i>Daphniphyllum beddomei</i> Craib	R			<i>Lasiacanthus</i>	F									
<i>Dendrotrichum varians</i> (Blume) Miq.	O			<i>Lygodium salicifolium</i> C. Presl	O									
<i>Engelhardtia serrata</i> Blume	R			<i>Nepenthes cordifolia</i> (L.) C. Presl	O									
<i>Exbucklandia tonkinensis</i> (Lecomte) Steenis ex Makasi	O			<i>Piper</i>	O									
<i>Hedyotis cf. cambodianum</i> Yahara & Tagane	O	Woody Climbers:		<i>Pothos chinensis</i> (Raf.) Merr.	O									
<i>Ilex</i> sp. 1	A	<i>Ancistrocladus tectorius</i> (Lour.) Merr.	F	<i>Pothos peltatus</i> Buchet ex P.C. Boyce	O									
<i>Illicium roseum</i> Yahara	O	<i>Gnetum</i> sp.	O	<i>Rhaphidophora</i>	O									
<i>Lithocarpus elephantum</i> (Hance) A. Camus	A			<i>Selaginella wallisii</i> (Hook. & Grev.) Spring	O									
<i>Lithocarpus harmandi</i> (Lockhart & A. Camus) A. Camus	A			<i>Torenia</i> sp.	O									
<i>Litsea martabanica</i> (Kurz) Hook. f.	A			<i>Woodwardia japonica</i> (L.f.) Sm.	O									
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.														
Red list species to be marked in list using *														
Invasive species to be marked in list using **														

Plant plot 3.6

Botanical Surveys											
Site name	Survey Block 3	Date and time	7/24/2021	Latitude	752041	Longitude	1712500	Monitoring Plot (ID Number)	3-6	Monitoring Plot Size	0.1 ha
Surveyors	Soulaoth P., Soukhavong M., Thonghakdy B., Bouttavong T.										
Air Temperature (°C)	20	Cloud Cover	6	Rain	5	Wind	7	Brief weather description	Cloudy with light-heavy rain and cool		
Habitat types present	Forest protection near San Dak Rern										
Site and vegetation description						Condition assessment scores and comments (fire, wildlife and human activity)					
Montane evergreen forest, dense of high trees at foothills and sparsely of small trees towards the summit						Fire	NA	Wildlife	NA	Human activity	Cutting trees
						Combined Impact score					
						Notes on aspects within the plot and nearby					
For forest habitat describe canopy, understory and ground flora											
Canopy mean height (m)	15	Canopy mean cover (%)	85	Understorey mean height (m)	4	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	5	Herbaceous layer mean cover (%)	5
Approx age of canopy (yrs)	70	Bare ground cover (%)	15	Water cover (%)		Moss layer mean height (m)	0.2	Moss layer mean cover (%)	10		
For other habitats record overall max and mean height of vegetation											
Mean veg height (m)	140	Max veg height (m)	350								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR				
<i>Castanopsis acuminatissima</i> (Blume) A DC	F	<i>Semecarpus reticulata</i> Lecomte	F	<i>Appelopsis cantoniensis</i> (Hook. & Arn.) Planch.	D						
<i>Castanopsis clarki</i> King ex Hook f.	O	<i>Symplocos caudata</i> Wall. ex G. Don	A	<i>Ardisia villosa</i> Roxb.	D						
<i>Cinnamomum curvifolium</i> (Lam.) Nees	A	<i>Symplocos lucida</i> (Thunb.) Siebold & Zucc.	O	<i>Asplenium philifidii</i> D. Don	A						
<i>Cinnamomum javanicum</i> Blume	D	<i>Syzygium antisepticum</i> (Blume) Merr. & L.M.Perry (N)	F	<i>Oplismenus donianum</i> (Mett.) Tardieu	D						
<i>Daphniphyllum beddomei</i> Craib	F	<i>Syzygium attenuatum</i> (Miq.) Merr. & L.M.Perry	O	<i>Odontosoria chinensis</i> (L.) Sm.	O						
<i>Excoecaria tonkinensis</i> (Lecomte) Steenis ex Makr	F	<i>Syzygium limatum</i> (DC.) Merr. & L.M.Perry	A	<i>Oxyspora cf. umbellata</i> (Hook f. ex Triana) J.F. Maxwell	F						
<i>Glochidion eriocephalum</i> Champ. ex Benth.	D	<i>Toxicodendron succedaneum</i> (L.) Kuntze	O	<i>Pleocnemia</i> sp.	O						
<i>Horsfieldia thoracica</i> Lecomte	O			<i>Polystichum attenuatum</i> Tagawa & Z. Jwets.	O						
<i>Liquidambar excelsa</i> (Noronha) Oken	R			<i>Pteridium aquilinum</i> (L.) Kuhn	D						
<i>Lithocarpus elephantum</i> (Hayden) A Camus	O			<i>Rungia pectinata</i> (L.) Nees	O						
<i>Lithocarpus hamandii</i> (Hickel & A. Camus) A. Camus	D			<i>Sabia parviflora</i> Wall. ex Roxb.	A						
<i>Lithocarpus pierrei</i> (Hickel & A. Camus) A. Camus	O			<i>Smilax corbularia</i> Kunth	O						
<i>Litsea martabanica</i> (Kurz) Hook f.	A			<i>Smilax glabra</i> Roxb.	O						
<i>Nepenthes merrilliana</i> (Nees & T. Nees) Merr.	O			<i>Smilax lanceifolia</i> Roxb.	O						
<i>Schima crenata</i> Korth.	A			<i>Tetrastigma ramentaceum</i> Planch.	F						
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Annex 1c-2. Summary of tree species list in the Survey Block 3

No	Scientific Name	Local Name	Family	IUCN Red List
1	<i>Acer laurinum</i>	ກ່ວມ (Kuam)	Sapindaceae	
2	<i>Anneslea fragrans</i>	ແກ້ມອື່ນ (Kaem on)	Pentaphylacaceae	
3	<i>Apodytes dimidiata</i>	ພັບດົງ (Phab dong)	Icacinaceae	
4	<i>Castanopsis acuminatissima</i>	ກໍ່ເດືອຍ (Kor deau)	Fagaceae	
5	<i>Castanopsis clarkei</i>	ກໍ່ໜາມ (Kor nam)	Fagaceae	
6	<i>Chionanthes sp.1</i>	ເຂົ້າສານຫຼວງ (Khaosan luang)	Oleaceae	
7	<i>Dacrycarpus imbricatus</i>	ຮຶ່ງຂຽວ (Hinh khiew)	Podocarpaceae	
8	<i>Daphniphyllum beddomei</i>	ດິກດົງ (Dik dong)	Daphniphyllaceae	
9	<i>Engelhardtia serrata</i>	ພ່າວຂຽວໜາມ (Phao khiew)	Juglandaceae	
10	<i>Exbucklandia tonkinensis</i>	ໂພກາບລາງ (Pho kablang)	Hamamelidaceae	
11	<i>Gironniera subaequalis</i>	ຫາງແມງໄອ່ (Hang maeng-ai)	Cannabaceae	
12	<i>Heptapleurum cambodianum</i>	ຕ້າງ (Tang)	Araliaceae	
13	<i>Ilex sp.1</i>	ໄຂ່ມິດ (Khai mod)	Aquifoliaceae	
14	<i>Illicium roseum</i>	ຈັນບານ (Chan ban)	Schisandraceae	
15	<i>Liquidambar excelsa</i>	ສິບດາວ (Sob dao)	Altingiaceae	
16	<i>Lithocarpus elephantum</i>	ກໍ່ຊ້າງ (Kor xang)	Fagaceae	
17	<i>Lithocarpus pierrei</i>	ກໍ່ກັກ (Kor Kak)	Fagaceae	
18	<i>Litsea martabanica</i>	ໝີ່ບົງຫອມ (Mee bonghom)	Lauraceae	
19	<i>Madhuca pierrei</i>	ລະມຸດຊາງປ່າ (Lamout sang pa)	Sapotaceae	
20	<i>Neolitsea zeylanica</i>	ໄຟເດືອນຫ້າ (Fai deuanha)	Lauraceae	
21	<i>Pinus kesiya</i>	ແປກສາມໃບ (Peak sambai)	Pinaceae	
22	<i>Rhododendron simsii</i>	ກູຫຼາບປ່າ (Koulab pa)	Ericaceae	
23	<i>Rhodomyrtus tomentosa</i>	ໂພງແກ້ມ (Phong kaem)	Myrtaceae	
24	<i>Schima crenata</i>	ຄາຍໄສ້ (Khai Soh)	Theaceae	
25	<i>Semecarpus reticulata</i>	ນ້ຳກຶ້ງດຳ (Namkieng dam)	Anacardiaceae	
26	<i>Stewartia laotica</i>	ປໍເຫືອງລາວ (Por huang lao)	Theaceae	
27	<i>Symplocos caudata</i>	ໝີ່ອດມົນ (Maud mon)	Symplocaceae	
28	<i>Symplocos lucida</i>	ໝີ່ອດພູ (Maud phou)	Symplocaceae	
29	<i>Syzygium antisepticum</i>	ສະເມັກແດງ (Samek deang)	Myrtaceae	
30	<i>Syzygium attenuatum</i>	ຫວ້າສະເມັກ (Wha samek)	Myrtaceae	
31	<i>Syzygium lineatum</i>	ຫວ້າຈ່ອຍ (Wha joi)	Myrtaceae	
32	<i>Toxicodendron succedaneum</i>	ເບັນຮັກ (Ben hak)	Anacardiaceae	

Annex 1d-1. Summary of plant plot by Survey Block (SB4 – Phou Koungking W)

Botanical Surveys														
Site name	Survey Block 4		Date and Time	25-27/7/2021		Latitude		Longitude		Monitoring Plot (ID Number)	Plot 4-1/4-2/4-3/4-4/4-5/4-6			
Surveyors	Souladeth, P., Soukayong, M., Thonphakdy, N., Bouttavong, T.									Monitoring Plot Size	0.6 ha			
Air Temperature (°C)	25	Cloud Cover	5	Rain	4	Wind	6	Brief weather description	Cloudy with moderate-heavy rain and strong breeze					
Habitat types present	Forest protection between Ban Plao and Ban Dak Rern													
Site and vegetation description						Condition assessment scores and comments (fire, wildlife and human activity)								
Montane evergreen forest, dense of broad-leaved trees and some pine forest						Fire	NA	Wildlife	NA	Human activity	Tree logging			
						Combined Impact score			Notes on impacts within the plot and nearby			Clear-cutting of vegetation for the Transmission Lines and illegal logging throughout the survey sites		
For forest habitat describe canopy, understorey and ground flora:														
Canopy mean height (m)	14	Canopy mean cover (%)	90	Understorey mean height (m)	6	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	5			
Approx age of canopy (yrs)	80	Bare ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5					
For other habitats record overall max and mean height of vegetation:														
Mean veg height (cm)	150	Max veg height (cm)	250											
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0									
List of dominant species within the plot that define the habitat types and any notable species (including Red list/invasive)														
Species	DAFOR	Species	DAFOR	Species	DAFOR									
<i>Acridosma japonicum</i>	D	<i>Pinus kesiya</i>	A	Herbaceous:										
<i>Castanopsis acuminatissima</i>	D	<i>Pittosporum pauciflorum</i> *	B	<i>Gleichenia</i> sp.	D									
<i>Dacrydium elatum</i>	A	<i>Polygala tonkinensis</i>	B	<i>Asplenium</i>	D									
<i>Daphniphyllum majus</i>	R	<i>Pyrenaria polianensis</i>	F	<i>Lindsaea ensifolia</i> Sw.	D									
<i>Elaeocarpus griffithii</i>	D	<i>Quercus langbianensis</i> *	F	<i>Brachytome wallichii</i> Hook.f.	D									
<i>Engelhardtia serrata</i>	R	<i>Scleria crenata</i>	F	<i>Hedyotis</i> sp.	D									
<i>Eubucklandia tonkinensis</i>	D	<i>Sterculia lissophylla</i>	F	<i>Melicope</i> sp.	A									
<i>Garcinia pedunculata</i>	D	<i>Symplocos wiktstroemifolia</i>	D	<i>Andisia crenata</i> Sims	A									
<i>Gironniera subaequalis</i>	F			<i>Gomphostemma</i> sp.	A									
<i>Gynnanthes remota</i>	A			<i>Alpinia</i> sp.	F									
<i>Ilex chapaensis</i>	D			<i>Smilax glabra</i> Roxb.	F									
<i>Ilex sacavata</i> Pierre	F			<i>Tournefortia</i> sp.	F									
<i>Illicium</i> sp. 1	R			<i>Adenia</i> sp.	F									
<i>Udora bokorensis</i>	F			<i>Arundina graminifolia</i> (D. Don) Hochr	F									
<i>Litocarpus harmandi</i>	D			<i>Andisia villosa</i> Roxb.	D									
<i>Litsea martabanica</i>	A			<i>Arenca</i>	O									
<i>Litsea umbellata</i>	D			<i>Breynia glauca</i> Craib	O									
<i>Macaranga kurzii</i>	O			<i>Craspedolobium unjigum</i> (Gagnep.) Z. Wei & Pedley	O									
<i>Milletia leucantha</i>	F			<i>Embelia ribes</i> Burm.f.	O									
<i>Morinda</i> sp.	O			<i>Oryzopsis cf. umbellata</i> (Hook.f. ex Triana) J.F. Maxwell	O									
<i>Neolitsea zylatica</i>	O			<i>Peltos</i>	O									
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.														
Red list species to be marked in list using *														
Invasive species to be marked in list using **														
Photo references														

Plant plot 4.1

Botanical Surveys											
Site name	Survey Block 4	Date and Time	7/25/2021	Latitude	72888	Longitude	1732825	Monitoring Plot (S) Number	4-1		
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.										
Air Temperature (°C)	22	Cloud Cover	6	Rain	3	Wind	6	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection between Ban Pilo and Ban Dak Sam										
Site and vegetation description				Condition assessment scores and comments (Fire, wildlife and human activity)							
Montane evergreen forest, dense of broad-leaved trees and some pine forest				Fire	NA	Wildlife	NA	Human activity	Tree logging		
				Combined impact score	Notes on impacts within the plot and nearby						
				Clear-cutting of vegetation for the Transmission Lines and illegal logging throughout the survey sites							
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	15	Canopy mean cover (%)	85	Understorey mean height (m)	7	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	5
Approx age of canopy (yrs)	80	Bare ground cover (%)	15	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (m)	150	Max veg height (m)	320								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red list/Invasive)											
Species		DAFOR	Species	DAFOR	Species	DAFOR					
<i>Adiantum integrifolium</i> T. Anderson ex Dyer	O	<i>Lindera cf. tokomense</i> Tshara & Tague	F	<i>Schoepfia fragrans</i> Wall.	O						
<i>Androsace japonicum</i> Siebold et Zucc.	O	<i>Lithocarpus hammanii</i> (Hickel & A.Camus) A.Camus	F	<i>Stemodia hispidophylla</i> Pierre	O						
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	O	<i>Utsea maritabanica</i> (Kurz) Hook f.	A	<i>Symplocos wikstroemifolia</i> Hayata	A						
<i>Dacrydium elatum</i> (Roxb.) Walp. ex Hook.	O	<i>Utsea umbellata</i> (Lour.) Merr.	O								
<i>Daphniphyllum majus</i> Mull. Arg.	O	<i>Macaranga kurzii</i> Pax & K. Hoffm.	F								
<i>Dasocarpus griffithii</i> (Wight) A.Grey	O	<i>Millettia pachyloba</i> Drake	O	Herbaceous:							
<i>Engelhardtia serrata</i> Blume	O	<i>Morinda</i> sp.	O	<i>Adenia</i> sp.	O						
<i>Exbucklandia tonkinensis</i> (Lecomte) Steenis ex Makino	O	<i>Pinus kesiya</i> Royle ex Gordon	F	<i>Alpinia</i> sp.	O						
<i>Garcinia pedunculata</i> Roxb. ex Buch.-Ham.	A	<i>Pitosporum pauciflorum</i> Hook. & Arn. *	O	<i>Brachytome wallichii</i> Hook.f.	O						
<i>Gleichenia subaequalis</i> Planch.	F	<i>Polypodium tonkinensis</i> Chodat	O	<i>Gleichenia</i> sp.	O						
<i>Gomphandra</i> sp.	O	<i>Psychotria cambodiana</i> Pierre ex Pit.	F	<i>Hedyotis</i> sp.	F						
<i>Gynanthes remota</i> (Steenis) Esser	F	<i>Pyrenaria poilanensis</i> Gagnep.	O	<i>Lindsaea ensifolia</i> Sw.	O						
<i>Ilex chapensis</i> Merr.	O	<i>Quercus langbianensis</i> (Rickett & A.Camus) *	O	<i>Melicope</i> sp.	F						
<i>Ilex excavata</i> Pierre	O	<i>Rhododendron</i> sp.	O	<i>Smilax glabra</i> Roxb.	F						
<i>Ocimum</i> sp. 1	S	<i>Schinus molle</i> Korth.	O								
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, S - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 4.2

Botanical Surveys											
Site name	Survey Block 4	Date and time	7/25/2021	Latitude	728974	Longitude	1712562	Monitoring Plot (ID Number)	4-2		
Surveyors	Souladeth, P., Soukhaing, M., Thonghakdy, N., Bouttavong, T.							Monitoring Plot Size	0.1 ha		
Air Temperature (°C)	25	Cloud Cover	8	Rain	4	Wind	6	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection between Ban Plas and Ban Dak Fern										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Montane evergreen forest, dense of broad-leaved trees and some pine forest				Fire	NA	Wildlife	NA	Human activity	Tree logging		
				Combined impact score		Notes or impacts within the plot and nearby		Clear-cutting of vegetation for the Transmission Lines and illegal logging throughout the survey sites			
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	13	Canopy mean cover (%)	85	Understorey mean height (m)	7	Understorey mean cover (%)	8	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	5
Approx age of canopy (yrs)	80	Bare ground cover (%)	15	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	4		
For other habitats record overall max and mean height of vegetation:											
Mean veg height (m)	150	Max veg height (m)	250								
Vegetation cover (%)	90	Bare ground cover (%)	10	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red list/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR		
<i>Adinandra integerrima</i> T. Anderson ex Dyer	O	<i>Litsea umbellata</i> (Lour.) Merr.	D	<i>Adinandra integerrima</i> T. Anderson ex Dyer	O						
<i>Antidesma japonicum</i> Siebold et Zucc.	O	<i>Memecylon ilacinum</i> Zoll. & Mor.	O	<i>Antidesma japonicum</i> Siebold et Zucc.	O						
<i>Artisia gracilentia</i> C.M.Hu & J.E.Vidal	F	<i>Milletia pachyloba</i> Drake	F	<i>Artisia gracilentia</i> C.M.Hu & J.E.Vidal	F						
<i>Castanopsis acuminatissima</i> (Blume) A.DC.	O	<i>Pittosporum pauciflorum</i> Hook. & Arn. *	R	<i>Memecylon ilacinum</i> Zoll. & Mor.	O						
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	O	<i>Polypodium tonkinensis</i> Chodat	R	<i>Psychotria cambodiana</i> Pierre ex Pit.	F						
<i>Daphniphyllum majus</i> Müll.Arg.	O	<i>Psychotria cambodiana</i> Pierre ex Pit.	F	<i>Pyrenaria polianensis</i> Gagnep.	O						
<i>Elaeocarpus griffithii</i> (Wight) A.Gray	O	<i>Pyrenaria polianensis</i> Gagnep.	O	<i>Quercus langbianensis</i> Hickel & A.Camus *	F						
<i>Engelhardtia serrata</i> Blume	O	<i>Quercus langbianensis</i> Hickel & A.Camus *	F	<i>Schinus crenata</i> Korth.	O						
<i>Eduocandia tonkinensis</i> (Lecomte) Steenis ex Malesh	O	<i>Schinus crenata</i> Korth.	O	<i>Schoepfia fragrans</i> Wall.	O						
<i>Garcinia pedunculata</i> Roth. ex Buch.-Ham.	A	<i>Schoepfia fragrans</i> Wall.	O	<i>Sterculia tosoophylla</i> Pierre	O						
<i>Grossiera subaequalis</i> Planch	F	<i>Sterculia tosoophylla</i> Pierre	O								
<i>Gynmnanthes remota</i> (Steenis) Esser	F	<i>Symplocos wikstroemifolia</i> Hayata	A								
<i>Ilex chapeensis</i> Merr.	A										
<i>Ilex excavata</i> Pierre	O										
<i>Lithocarpus harmandii</i> (Hickel & A.Camus) A.Camus	F										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 4.3

Botanical Survey											
Site name	Survey Block 4	Date and Time	7/26/2021	Latitude	729218	Longitude	1712797	Monitoring Plot (ID Number)	4-3		
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouitavong, T.								Monitoring Plot Size	0.1 ha	
Air Temperature (°C)	25	Cloud Cover	5	Rain	4	Wind	6	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection between Ban Pao and Ban Dak Rem										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Montane evergreen forest, dense of broad-leaved trees and some pine forest				Fire	NA	Wildlife	NA	Human activity	Tree logging		
				Combined impact score							
				Notes on impacts within the plot and nearby	Clear-cutting of vegetation for the Transmission Lines and illegal logging throughout the survey sites						
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	14	Canopy mean cover (%)	80	Understorey mean height (m)	6	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	5
Approx age of canopy (yr)	80	Bare ground cover (%)	10	Water cover (%)	0	Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (m)	150	Max veg height (m)	250		0						
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)							
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR		
<i>Adinandra integrifolia</i> T. Anderson ex Dyer	O	<i>Memecylon filicium</i> Zoll. & Mor.	F	<i>Alpinia</i> sp.					O		
<i>Antidesma japonicum</i> Siebold et Zucc.	O	<i>Milletia pachyloba</i> Drake	F	<i>Ardisia crenata</i> Sims					O		
<i>Castanopsis acuminatissima</i> (Blume) A.C.	O	<i>Pittosporum pauciflorum</i> Hook. & Arn. *	O	<i>Asplenium</i>					F		
<i>Daphniphyllum majus</i> Muell. Arg.	F	<i>Polygala tonkinensis</i> Chodat	O	<i>Brachyotum wallichii</i> Hook. f.					F		
<i>Elaeocarpus griffithii</i> (Wight) A.Gray	F	<i>Psychotria cambodiana</i> Pierre ex Pit.	F	<i>Gleichenia</i> sp.					O		
<i>Engelhardia serrata</i> Blume	R	<i>Pyrenaria polianana</i> Gagnep.	F	<i>Lindaea ensifolia</i> Sw.					F		
<i>Garcinia pedunculata</i> Roxb. ex Buch.-Ham.	A	<i>Quercus langbianensis</i> Hickey & A.Camus **	F	<i>Melicope</i> sp.					O		
<i>Ginsengia subaequalis</i> Planch.	O	<i>Schoepfia fragrans</i> Wall.	O								
<i>Gynnanthes remota</i> (Steenis) Easer	A	<i>Sterculia tosoophylla</i> Pierre	O								
<i>Ilex chapeana</i> Merr.	A	<i>Symplocos wiktstroemifolia</i> Hayata	O								
<i>Ilex excavata</i> Pierre	O										
<i>Lindera</i> cf. <i>Isokorensis</i> Yahara & Tagane	F										
<i>Lithocarpus hermandii</i> (Hickel) & A.Camus) A.Camus	F										
<i>Urasa umbellata</i> (Lour.) Merr.	O										
<i>Macaranga kuetzi</i> Pax & S. Hoffm.	F										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 4.4

Botanical Surveys											
Site name	Survey Block 4	Date and Time	7/26/2021	Latitude	730017	Longitude	1712248	Monitoring Plot (ID Number)	4-4		
Surveyors	Souladeth, P., Soukhavong, M., Theophakdy, N., Bouttavong, T.						Monitoring Plot Size	0.1 ha			
Air Temperature (°C)	22	Cloud Cover	6	Rain	3	Wind	6	Brief weather description: Cloudy with moderate-heavy rain and strong breeze			
Habitat types present	Forest protection between Ban Pao and Ban Dak Rea										
site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Montane evergreen forest, dense of broad-leaved trees and some pine forest				Fire	NA	Wildlife	NA	Human activity	Tree logging		
				Combined impact score							
				Notes on impacts within the plot and nearby:				Clear-cutting of vegetation for the Transmission Lines and illegal logging throughout the survey sites			
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	15	Canopy mean cover (%)	90	Understorey mean height (m)	5	Understorey mean cover (%)	7	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	3
Approx age of canopy (yrs)	80	Stem ground cover (%)	10	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	3		
For other habitats record overall mass and mean height of vegetation											
Mean veg height (cm)	150	Mean veg height (cm)	300								
Vegetation cover (%)	90	Rare ground cover (%)	10	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red list/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR		
<i>Adnandra integrifolia</i> T. Anderson ex Dyer	O	<i>Pittosporum pauciflorum</i> Hook. & Arn. *	O	<i>Arenga</i>	O						
<i>Antidesma japonicum</i> Siebold et Zucc.	O	<i>Polygala tonkinensis</i> Chodat	O	<i>Asplenium</i>	O						
<i>Artisia gracilenta</i> C.M. Hu & J.E. Vidal	F	<i>Pyrenaria polianana</i> Gagnep.	F	<i>Brachytome wallichii</i> Hook. f.	F						
<i>Castanopsis acuminatissima</i> (Blume) A. DC.	O	<i>Quercus langbianensis</i> Hickel & A. Camus *	F	<i>Gleichenia</i> sp.	O						
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	A	<i>Schoepfia fragrans</i> Wall.	O	<i>Gomphostemma</i> sp.	F						
<i>Dacrydium elatum</i> (Roxb.) Wall. ex Hook.	A	<i>Sterculia lissophylla</i> Pierre	O	<i>Lindaea enuifolia</i> Sw.	O						
<i>Daphniphyllum majus</i> Mill. Arg.	F	<i>Symplocos wilsonii</i> Hayata	O	<i>Melicope</i> sp.	F						
<i>Garcinia pedunculata</i> Roxb. ex Buch.-Ham.	A	<i>Syzygium antisepticum</i> (Blume) Merr. & L.M. Perry B.	F	<i>Sabia parviflora</i> Wall. ex Roxb.	O						
<i>Gymnanthes remota</i> (Steenis) Eiser	F										
<i>Ilex chapensis</i> Merr.	O										
<i>Ilex excavata</i> Pierre	O										
<i>Lindera cf. bokorensis</i> Yahara & Tagane	F										
<i>Lithocarpus hamandii</i> (Hickel & A. Camus) A. Camus	A										
<i>Litsea umbellata</i> (Lour.) Merr.	A										
<i>Mimocylon ilacnum</i> Zoll. & Mor.	O										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare, Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 4.5

Botanical Surveys											
Site name	Survey Block 4	Date and Time	7/27/2021	Latitude	730445	Longitude	1712019	Monitoring Plot ID Number	4-5	Monitoring Plot Size	0.1 ha
Surveyors	Souladeth P., Soukhavong M., Thonghakdy N., Boultavong T.										
Air Temperature (°C)	27	Cloud Cover	4	Rain	3	Wind	5	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection between Ban Plas and Ban Dai Rern										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Montane evergreen forest, dense of broad-leaved trees and some pine forest				Fire	NA	Wildlife	NA	Human activity	Tree logging		
				Combined impact score				Notes on impacts within the plot and nearby:		Clean-cutting of vegetation for the transmission lines and illegal logging throughout the survey sites.	
For forest habitat describe canopy, understorey and ground flora.											
Canopy mean height (m)	15	Canopy mean cover (%)	90	Understorey mean height (m)	7	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	5
Approx age of canopy (yrs)	80	Rare ground cover (%)	10	Water cover (%)		Moss layer mean height (m)	0.1	Moss layer mean cover (%)	4		
For other habitats record overall max and mean height of vegetation.											
Mean veg height (m)	200	Max veg height (cm)	330								
Vegetation cover (%)	80	Rare ground cover (%)	20	Water cover (%)							
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive).											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
<i>Alinandra integririma</i> T. Anderson ex Dyer	O	<i>Lithocarpus hermandii</i> (Hickel & A. Camus) & Camus	F	<i>Symplocos wilsonii</i> Hayata	A						
<i>Antidesma japonicum</i> Siebold et Zucc.	O	<i>Utsea maritima</i> (Kurz) Hook. f.	A	<i>Syzgium</i>	F						
<i>Castanopsis acuminatissima</i> (Blume) A. DC.	F	<i>Utsea umbellata</i> (Lour.) Merr.	O								
<i>Dacrydium elatum</i> (Roob.) Wall. ex Hook.	O	<i>Macaranga kurzii</i> Pax & K. Hoffm.	F	Herbaceous/ferns:							
<i>Daphniphyllum majus</i> Muill. Arg.	R	<i>Memecylon</i>	F	<i>Oryzopsis cf. umbellata</i> (Hook. f. ex Triana) (f. Maxwell)	O						
<i>Elaeocarpus griffithii</i> (Wight) A. Gray	O	<i>Milletia pachyloba</i> Drake	O	<i>Andisia crenata</i> Sims	O						
<i>Engelhardtia serrata</i> Blume	O	<i>Morinda</i> sp.	F	<i>Asplenium</i>	O						
<i>Exbucklandia tonkinensis</i> (Lecomte) Steenis ex Mak	O	<i>Pinus kesiya</i> Royle ex Gordon	O	<i>Gleichenia</i> sp.	O						
<i>Garcinia pedunculata</i> Roxb. ex Buch.-Ham.	A	<i>Pittosporum guineense</i> (Roxb.) Hook. & Arn. *	O	<i>Hedyotis</i> sp.	F						
<i>Gironniera subaequalis</i> Planch	O	<i>Polygala tonkinensis</i> Chodat	O	<i>Lindaea ensifolia</i> Sw.	F						
<i>Gynnanthes remota</i> (Steenis) Esser	F	<i>Pyrenaria poilaneana</i> Gagnep.	O	<i>Melicope</i> sp.	F						
<i>Ilex chapaensis</i> Merr.	O	<i>Quercus langbianensis</i> Hickel & A. Camus *	F	<i>Pothos</i>	O						
<i>Ilex excelsa</i> Pierre	O	<i>Schinus crenata</i> Korth	O	<i>Smilax glabra</i> Roxb.	F						
<i>Illicium</i> sp. 1	R	<i>Schoepfia fragrans</i> Walp.	F	<i>Tetrastigma ramentaceum</i> Planch	O						
<i>Lindera cf. bokorensis</i> Yahara & Tagane	F	<i>Sterculia lissophylla</i> Pierre	O	<i>Zingiber</i>	O						

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Plant plot 4.6

Botanical Surveys											
Site name	Survey Block 4	Date and Time	7/27/2021	Latitude	731205	Longitude	1712548	Monitoring Plot (ID Number)	4-6		
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Bouttavong, T.							Monitoring Plot Size	0.1 ha		
Air Temperature (°C)	28	Cloud Cover	3	Rain	2	Wind	5	Brief weather description: Cloudy with moderate-heavy rain and strong breeze			
Habitat types present	Forest protection between Ban Piao and Ban Dak Rem										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Montane evergreen forest, dense of broad-leaved trees and some pine forest				Fire	NA	Wildlife	NA	Human activity	Tree logging		
				Combined impact score		Notes on impacts within the plot and nearby			Clear-cutting of vegetation for the Transmission Lines and illegal logging throughout the survey sites		
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	14	Canopy mean cover (%)	85	Understorey mean height (m)	7	Understorey mean cover (%)	5	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	5
Approx age of canopy (yrs)	80	Bare ground cover (%)	15	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	3		
For other habitats record overall max and mean height of vegetation											
Mean veg height (m)	150	Max veg height (m)	300								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR		
<i>Adinandra integrerrima</i> T. Anderson ex Dyer	O	<i>Pittosporum pauciflorum</i> Hook. & Arn. *	O	Herbaceous/ferns:							
<i>Antidesma japonicum</i> Siebold et Zucc.	O	<i>Polypodium tonkinensis</i> Chodat	O	<i>Adenia</i> sp.					O		
<i>Callicarpa rubella</i> Lindl.	F	<i>Schinus molle</i> Korth.	F	<i>Ardisia villosa</i> Roxb.					O		
<i>Castanopsis acuminatissima</i> (Blume) A. DC.	D	<i>Schoepfia fragrans</i> Wall.	O	<i>Arundina graminifolia</i> (L. Don) Hochr.					F		
<i>Decrydium elatum</i> (Roxb.) Walp. ex Hook.	O	<i>Syzygium lineatum</i> (DC.) Merr. & L.M. Perry	O	<i>Asplenium</i>					O		
<i>Daphniphyllum majus</i> Müll. Arg.	O			<i>Brachyotum wallisii</i> Hook. f.					F		
<i>Engelhardtia serrata</i> Blume	O			<i>Breynia glauca</i> Craib					O		
<i>Girardinia subaequalis</i> Planch.	O	Woody Climber:		<i>Craspedotribum uniuigum</i> (Gagnep.) Z. Wei & Peilley					O		
<i>Gynanthes remota</i> (Steenis) Esser	F	<i>Phanera lorantha</i> Pierre ex Gagnep.	F	<i>Embelia ribes</i> Burmf.					O		
<i>Hedyotis chapeensis</i> Merr.	D			<i>Gleichenia</i> sp.					O		
<i>Lithocarpus harmandii</i> (Hickel & A. Camus) A. Camus	A			<i>Gomphostemma</i> sp.					O		
<i>Litsea marlabanica</i> (Kurz) Hook. f.	A			<i>Hedyotis</i> sp.					F		
<i>Litsea umbellata</i> (Lour.) Merr.	O			<i>Lindsaea ensifolia</i> Sw.					O		
<i>Macaranga kurzii</i> Pax & K. Hoffm.	F			<i>Melicope</i> sp.					O		
<i>Neolitsea zeylanica</i> (Nees & T. Nees) Merr.	F			<i>Torenia</i> sp.					O		
DAFOR SCALE: O - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare Red list species to be marked in list using * Invasive species to be marked in list using **											

Annex 1d-2. Summary of tree species list in the Survey Block 4

No	Scientific Name	Local Name	Family	IUCN Red List
1	<i>Antidesma japonicum</i>	ເໝ້າພູ (Mao phou)	Phyllanthaceae	
2	<i>Castanopsis acuminatissima</i>	ກໍ່ເດືອຍ (Kor deau)	Fagaceae	
3	<i>Dacrydium elatum</i>	ຮຶງຫອມ (Hinh hom)	Podocarpaceae	
4	<i>Daphniphyllum majus</i>	ດິກດົງ (Dik dong)	Daphniphyllaceae	
5	<i>Elaeocarpus griffithii</i>	ມູນ (Moun)	Elaeocarpaceae	
6	<i>Exbucklandia tonkinensis</i>	ໂພກາບລາງ (Pho kablang)	Hamamelidaceae	
7	<i>Garcinia pedunculata</i>	ສົ້ມໂມງ (Som mong)	Clusiaceae	
8	<i>Gironniera subaequalis</i>	ຫາງແມງໄອ່ (Hang maeng-ai)	Cannabaceae	
9	<i>Gymnanthes remota</i>	ປີກ (Pik)	Euphorbiaceae	
10	<i>Ilex chapaensis</i>	ໄຂ່ມິດຊາປ່າ (Khai mod sapa)	Aquifoliaceae	
11	<i>Ilex excavata</i> Pierre	ໄຂ່ຂາວ (Khai mod)	Aquifoliaceae	
12	<i>Illicium</i> sp. 1 ***	ຈັນ (Chan)	Schisandraceae	
13	<i>Lindera bokorensis</i>	ບົງບໍກໍ (Bong bokor)	Lauraceae	
14	<i>Lithocarpus harmandii</i>	ກໍ່ໝັນ (Kor man)	Fagaceae	
15	<i>Litsea martabanica</i>	ໝໍ້ບົງຫອມ (Mee bonghom)	Lauraceae	
16	<i>Litsea umbellata</i>	ບົງຮ້າງ (Bong hang)	Lauraceae	
17	<i>Macaranga kurzii</i>	ແສ້ (Sae)	Euphorbiaceae	
18	<i>Millettia leucantha</i>	ຄໍາພີ່ຕາຄວາຍ (Khamphée ta-khouay)	Fabaceae	
19	<i>Morinda</i> sp.	ຍໍປ່າ (Gno pa)	Rubiaceae	
20	<i>Neolitsea zeylanica</i>	ໄຟເດືອນຫ້າ (Fai deuanha)	Lauraceae	
21	<i>Pinus kesiya</i>	ແປກສາມໃບ (Peak sambai)	Pinaceae	
22	<i>Pittosporum pauciflorum</i>	ສຸມດອກນ້ອຍ (Soum dok-noi)	Pittosporaceae	VU
23	<i>Polygala tonkinensis</i>	ຕ້າງໄກ່ (Tang kai)	Polygalaceae	
24	<i>Pyrenaria poilaneana</i>	ໝໍ້ຽງດົງ (Miang dong)	Theaceae	
25	<i>Quercus langbianensis</i>	ກໍ່ລັງບຽງ (Kor langbian)	Fagaceae	NT
26	<i>Schima crenata</i>	ຄາຍໂສ້ (Khai Soh)	Theaceae	
27	<i>Sterculia lissophylla</i>	ປໍເມືອກ (Por muaek)	Malvaceae	
28	<i>Symplocos wikstroemiifolia</i>	ຄອມປ່າ (Khom pa)	Symplocaceae	

Annex 1e-1. Summary of plant plot by Survey Block (SB5 – Phou Yai)

Botanical Surveys											
Site name	Survey Block 5		Date and Time	22-22/7/2021		Latitude		Longitude		Monitoring Plot (ID Number)	Plot 5-1/5-2/5-3/5-4/5-5/5-6
Surveyors	Souladeth, P., Soukhavong, M., Thonphakdy, N., Routhavong, T.									Monitoring Plot Size	0.5 ha
Air Temperature (°C)	22	Cloud Cover	6	Rain	3	Wind	6	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection near Ban Pao										
Site and vegetation description						Condition assessment scores and comments (fire, wildlife and human activity)					
Disturbed forest near the village, dense of middle and young trees						Fire	NA	Wildlife	NA	Human activity	Cutting trees
						Combined impact score					
						Notes on impacts within the plot and nearby		Clear-cutting of vegetation for the Transmission Lines throughout the survey sites			
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	12	Canopy mean cover (%)	85	Understorey mean height (m)	3	Understorey mean cover (%)	20	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx. age of canopy (yrs)	50	Bare ground cover (%)	15	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	120	Max veg height (cm)	260								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species			DAFOR	Species			DAFOR	Species			DAFOR
Acer laurinum		D	Heptapleurum cambodianum		A	Quercus		A			
Aporosa terapeura		D	Ilex chapaensis		F	Semecarpus reticulata		D			
Aporosa yunnanensis		O	Illicium tenuifolium		R	Symplocos theifolia		A			
Balakata baccata		A	Lindera annamensis		A	Symplocos wikstroemifolia		A			
Benkara		R	Lithocarpus harmandi		D	Syzygium antisepticum		F			
Calophyllum piferum		D	Lithocarpus pierrei		A	Syzygium claviflorum		A			
Camellia klotz		F	Litsea cambodianum		A	Syzygium		O			
Camellia sp. 1		R	Litsea martabanica		D	Temstroemia gymnanthera		F			
Castanopsis acuminatissima		A	Machilus angustifolia		D	Toxicodendron succedaneum		O			
Cinnamomum curvifolium		F	Mastania pentandra subsp. cambodiana		O	Xanthophyllum sp. 1		F			
Cinnamomum		O	Mitrotropis		O						
Diospyros		O	Nageia flexuosa*		F						
Eleocharis griffithii		O	Neolitsea zeylanica		F						
Engelhardtia serrata		O	Nephetium hypoleucum		A						
Garcinia pentunculata		O	Pinus kesiya		A						
Gardenia		O	Pitcolobium pauciflorum		F						
Gironniera subaequalis		F	Podocarpus pilgeri		A						
Gomphandra		O	Polystachya		O						
Goniolobus		O	Polygala tonkinensis		O						
Gymnanthes remota		A	Psychotria		O						
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.											
Red list species to be marked in list using *											
Invasive species to be marked in list using **											
Photo references											

List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)					
Species	DAFOR	Species	DAFOR	Species	DAFOR
<i>Polystichum attenuatum</i> Tagawa & Z. Iwats.	D	<i>Alzophila cotularis</i> Baker	O		
<i>Archidendron clypearia</i> (Jack) L.C.Nielsen	D	<i>Derris</i> sp.	O		
<i>Torenia</i> sp.	D	<i>Ixora</i> sp.	R		
<i>Diplazium donianum</i> (Mett.) Tardieu	D	<i>Phyllanthus roseus</i> (Craib & Hutch.) Belle	O		
<i>Woodwardia japonica</i> (L.f.) Sm.	D	<i>Calamus</i>	F		
<i>Econymus mitratus</i> Pierre	D	<i>Canthium</i>	O		
<i>Heterosmilax paniculata</i> Gagnep.	A	<i>Medinilla septentrionalis</i> (W.W.Sm.) H.L.Li	O		
<i>Embelia ribes</i> Burm.f.	A	<i>Melastoma</i>	O		
<i>Ardisia villosa</i> Roeb.	A	<i>Odontosoria chinensis</i> (L.) Sm.	F		
<i>Asplenium</i>	A	<i>Oxypera</i> sp.	O		
<i>Lasianthus curtisii</i> King & Gamble	A	<i>Prismatomers</i> sp.	O		
<i>Alpinia</i> sp.	R	<i>Rubus rugosus</i> Sm.	O		
<i>Arundina graminifolia</i> (D. Don) Hochr.	F	Unknown Acanthaceae	O		
<i>Breynia glauca</i> Craib	F	Unknown Arecaceae	O		
<i>Callicarpa rubella</i> Lindl.	F	<i>Torenia</i> sp.	F		
<i>Craspedolobium unguipum</i> (Gagnep.) Z. Wui & Pedley	F				
<i>Lasianthus hirsutus</i> (Roeb.) Merr.	F				
<i>Ophiopogon</i> sp.	F				
<i>Smilax corbisularia</i> Kunth	F				
Unknown Menispermaceae	R				

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Photo references

Detailed plant plots of the Survey block 5 as below

Plant plot 5.1

Botanical surveys											
Site name	Survey Block 5	Date and Time	7/21/2021	Latitude	723071	Longitude	1710374	Monitoring Plot (ID Number)	S-1		
Surveyors	Souleath, P., Soukhavong, M., Thonchakdy, N., Boutheavong, T.										
Air Temperature (°C)	22	Cloud Cover	0	Rain	3	Wind	6	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection near Ban Piao										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Disturbed forest near the village, dense of middle and young trees				Fire	NA	Wildlife	NA	Human activity	Cutting trees		
				Combined impact score				Notes on impacts within the plot and nearby		Clear-cutting of vegetation for the Transmission Lines throughout the survey sites	
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	13	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	20	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx age of canopy (yrs)	50	Bare ground cover (%)	20	Water cover (%)		Miss Layer mean height (m)	0.1	Miss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (m)	120	Max veg height (m)	260								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR		Species	DAFOR		Species	DAFOR		Species	DAFOR	
Acer laurinum Hassk.		O	Alex chinensis Merr.		O	Syzygium antisepticum (Blume) Merr. & L.M.Perry (Myrt)		F			
Aporosa tetrapleura Hance		D	Allicium tenuifolium (Brid.) A.C. Sm.		R	Syzygium claviflorum (Roxb.) Wall. ex A.M. Cowan & Co.		D			
Aporosa sumranensis (Fax & K.uffm.) P.P. Metcalf		O	Uncaria anomala H. Liu, Laurel		F	Thunbergia gymnanthera (Wright & Arn.) Sprague		O			
Beleakata baccata (Roxb.) Esser		F	Uthocarpus harmandii (Trickel & A. Camus) A. Camus		D	Sandrophylillum sp. 3		D			
Benkara sp.		R	Uthocarpus pierrei (Hickel & A. Camus) A. Camus		A						
Camellia kissoi Wall.		F	Utsea cambodianum Lecomte		F						
Camellia sp.		R	Machilus angustifolia Mase, Tagane & Yahara		D						
Cestonopsis acuminatissima (Blume) A.D.C.		F	Microtropis sp.		O						
Cinnamomum curvifolium (Lam.) Nees		F	Nephtelium hypoleucum Kurz		O	Archidendron clypearia (Jack) I.C. Nielsen		O			
Elaeocarpus griffithii (Wright) A. Gray		O	Pittosporum pauciflorum Hook. & Arn		O	Ardisia villosa Roxb.		O			
Engelhardtia serrata Blume		O	Podocarpus pilgeri Foxw.		O	Diselium donianum (Mett.) Tardieu		F			
Garcinia pedunculata Roxb. ex Buch.-Ham.		O	Polygala tenkinensis Choisy		O	Euonymus mitratus Pierre		F			
Girardinia subaequalis Planch		O	Psychotria sp.		F	Heterosmilax paniculata Gagnep.		O			
Gomphandra sp.		O	Quercus sp.		F	Ophiopogon sp.		O			
Goniothalamus sp.		F	Symplocos theifolia D. Don		A	Polystichum attenuatum Tagawa & Z. Iwats.		F			
Gymnanthes remota (Steenis) Esser		F	Symplocos wikstroemifolia Hayata		D	Syzygium antisepticum (Blume) Merr. & L.M.Perry (Myrt)		F			
						Woodwardia japonica (L.f.) Sm.		F			

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Plant plot 5.2

Botanical Surveys											
Site name	Survey Block 5	Date and time	7/21/2021	Latitude	723254	Longitude	1710986	Monitoring Plot (ID Number)	5-2		
Surveyors	Souladeth, P., Soukhavong, M., Thonbakhdy, N., Bouttavong, T.										
Air Temperature (°C)	25	Cloud Cover	4	Rain	3	Wind	6	Brief weather description	Cloudy with moderate/heavy rain and strong breeze		
Habitat types present	Forest protection near Ban Plog										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Disturbed forest near the village, dense of middle and young trees				Fire	NA	Wildfire	NA	Human activity	Cutting trees		
				Combined Impact score				Clear-cutting of vegetation for the Transmission Lines throughout the survey sites			
				Notes on impacts within the plot and nearby							
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	10	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	20	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx age of canopy (yrs)	50	Bare ground cover (%)	20	Water cover (%)		Moss Layer mean height (m)	0.1	Shrub Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	120	Max veg height (cm)	290								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red list/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
Acer laurinum Hassk.	D	Microtripsis sp.	D	Alpinia sp.	R						
Aporosa tetralopura Hance	A	Pinus kesiya Royle ex Gordon	D	Archidendron clypearia (Jack) J.C. Nielsen	O						
Balakata beccata (Roxb.) Esser	F	Pittosporum pauciflorum Hook. & Arn.	O	Seymia glauca Craib	O						
Benkara sp.	D	Podocarpus pilgeri Fove.	O	Calamus	O						
Camellia klossii Wall.	F	Psychotria sp.	F	Calliandra rubella Lindl.	F						
Castanopsis acuminatissima (Blume) A.DC.	F	Quercus sp.	F	Dialium donianum (Mett.) Tardieu	F						
Gironniera subaequalis Planch	D	Symplocos theibolia D.Don	O	Embelia ribes Burm.f.	F						
Gomphandra sp.	D	Ternstroemia gymnanthera (Wight & Arn.) Joragun	O	Euonymus mitratus Pierre	O						
Goniothalamus sp.	A	Xanthophyllum sp. 3	D	Lesianthus curtisii King & Gamble	F						
Gynnanthes remota (Steenis) Esser	F			Lesianthus hirsutus (Roxb.) Merr.	F						
Ilex chapaensis Merr.	D			Polystichum attenuatum Tagawa & Z. Iwats.	O						
Lindera annamensis H. Liu, Laurac	F			Smilax corbularia Kunth	O						
Lithocarpus pierreii (Nickel & A.Camus) A.Camus	F			Unknown, Menispermaceae	R						
Litsea cambodianum Lecomte	F			Woodwardia japonica (L.f.) Sm.	O						
Machilus angustifolia Mase, Tagawa & Yahara	F										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 5.3

Botanical Surveys											
Site name	Survey Block	Date and Time	Latitude	Longitude	Monitoring Plot (ID Number)	Monitoring Plot Size					
Surveyors	Souladeith P., Soukhavong M., Thongphakdy N., Bouttavong T.										
Air Temperature (°C)	26	Cloud Cover	4	Rain	3	Wind	5	Brief weather description			
Habitat types present		Forest protection near San Piao								Cloudy with moderate-heavy rain and strong breeze	
Site and vegetation description			Condition assessment scores and comments (fire, wildlife and human activity)								
Disturbed forest near the village, dense of middle and young trees			Fire	NA	Wildlife	NA	Human activity	Cutting trees			
			Combined impact score			Notes on impacts within the plot and nearby					
Clear-cutting of vegetation for the Transmission Lines throughout the survey sites											
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	17	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	20	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	7
Age/size of canopy (m)	50	Bare ground cover (%)	20	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (m)	100	Max veg height (m)	250								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	5						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR	Species	DAFOR				
<i>Artocarpus gracilens</i> C.M.Hu & J.E. Vidal	O	<i>Nepenthes hypoleucum</i> Karst	A	<i>Archidendron zippangii</i> (Leav.) C. Nielsen	A						
<i>Aporosa terapleura</i> Hance	D	<i>Pithecolobium peucephyllum</i> Hook. & Arn.	O	<i>Artocarpus villosus</i> Roxb.	O						
<i>Balakata baccata</i> (Roxb.) Esser	F	<i>Polystichum tonkinensis</i> Chodat	O	<i>Arundina graminifolia</i> (D. Don) Hochr.	F						
<i>Cestranopsis acuminatissima</i> (Blume) A.DC.	F	<i>Psychotria</i> sp.	O	<i>Crospelobium unijugum</i> (Gagnep.) Z.Wei & Pedley	O						
<i>Garcinia pedunculata</i> Robb. ex Buch.-Ham.	O	<i>Symplocos theifolia</i> D. Don	O	<i>Diplazium dohianum</i> (Mett.) Tardieu	O						
<i>Goniothalamus</i> sp.	F	<i>Syzygium antisepticum</i> (Blume) Merr. & L.M. Perry (M)	F	<i>Embelia ribes</i> Burm.f.	O						
<i>Gynanthes remota</i> (Steenis) Esser	F	<i>Terstroemia gymnanthera</i> (Wight & Arn.) Sprague	O	<i>Euonymus mitratus</i> Pierre	O						
<i>Heptapleurum cf. cambodianum</i> Yahara & Tagane	O			<i>Heterosmilax paniculata</i> Gagnep.	O						
<i>Ilex chapeensis</i> Merr.	D			<i>Ophiopogon</i> sp.	O						
<i>Illicium tenuifolium</i> (Bl.) J.A.C. Sm.	R			<i>Phanera loranthoides</i> Pierre ex Gagnep.	O						
<i>Lindera annamensis</i> H. Liu, Laurac	D			<i>Polystichum attenuatum</i> Tagawa & Z. Iwats.	O						
<i>Litocarpus pierrei</i> (Hickel & A.Camus) A.Camus	A			<i>Torenia</i> sp.	F						
<i>Litsea cambodianum</i> Lecomte	A										
<i>Machilus angustifolia</i> Mess. Tagane & Yahara	D										
<i>Microtropis</i> sp.	O										

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Plant plot 5.4

Botanical Surveys											
Site name	Survey Block 5	Date and Time	7/22/2021	Latitude	722434	Longitude	1712428	Monitoring Plot ID Number	S-4		
Surveyors	Suladeth P., Soukhasong M., Thonghakdy N., Boultavong T.							Monitoring Plot Size	0.1 ha		
Air Temperature (°C)	27	Cloud Cover	6	Rain	3	Wind	E	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection near Ban Plass										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Disturbed forest near the village, dense of middle and young trees				Fire	NA	Wildlife	NA	Human activity	Cutting trees		
				Combined impact score	Notes on impacts within the plot and nearby			Clear-cutting of vegetation for the Transmission Lines throughout the survey sites			
For forest habitat, describe canopy, understory and ground flora											
Canopy mean height (m)	10	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	35	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	10
Approx size of canopy (m)	50	Bare ground cover (%)	20	Water cover (%)		Miss Layer mean height (m)	0.1	Miss Layer mean cover (%)	5		
For other habitats, record overall max and mean height of vegetation											
Mean veg height (m)	100	Max veg height (m)	250								
Vegetation cover (%)	80	Bare ground cover (%)	20	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
<i>Acer laurinum</i> Hassk.	D	<i>Polyalthia</i>	F	<i>Archidendron clypearia</i> (Jack) I.C.Nielsen	F						
<i>Artisia gracilenta</i> C.M.Hu & J.E.Vidal	O	<i>Polygala tonkinensis</i> Chodat	O	<i>Artisia villosa</i> Roxb.	D						
<i>Balaista baccata</i> (Rohb.) Esser	A	<i>Psychotria</i> sp.	F	<i>Anundina graminifolia</i> (D. Don) Hochr.	F						
<i>Calophyllum pliciferum</i> Planch. & Triana	D	<i>Semecarpus reticulata</i> (Lecomte)	D	<i>Asplenium</i>	D						
<i>Canthium</i>	F	<i>Symplocos theilata</i> D. Don	O	<i>Craspediobium unijugum</i> (Gagnep.) Z.Wei & Pedley	F						
<i>Castanopsis acuminatissima</i> (Blume) A.D.C.	A	<i>Spargium antisepticum</i> (Blume) Merr. & L.M.Perry (N)	A	<i>Diplazium donianum</i> (Mett.) Tardieu	D						
<i>Cinnamomum curvifolium</i> (Lam.) Nees	F	<i>Ternstroemia gymnanthera</i> (Wight & Arn.) Sprague	O	<i>Embelia ribes</i> Burm.f.	D						
<i>Gymnanthes remota</i> (Steenis) Esser	F	<i>Toxicodendron succedaneum</i> (L.) Kuntze	D	<i>Eunymus mitratus</i> Pierre	O						
<i>Lithocarpus harmandii</i> (Picquel. & A.Camus) A.Camus	A	<i>Xanthophyllum</i> sp. B	O	<i>Heterosmilax paniculata</i> Gagnep.	D						
<i>Libea mertabanica</i> (Kurz) Hook.f.	D			<i>Phanera loranthia</i> Pierre ex Gagnep.	F						
<i>Machilus angustifolia</i> Mase, Tagane & Yatsara	D			<i>Polystichum attenuatum</i> Tagawa & Z. Iwats.	O						
<i>Melastoma</i>	O			<i>Torenia</i> sp.	O						
<i>Melicope strobilifera</i> (Champ. ex Benth.) T.G. Hartley	O										
<i>Nephelepis hypoleucum</i> Kurz	F										
<i>Podocarpus pilgeri</i> Focke	D										
DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Plant plot 5.5

Botanical Surveys											
Site name	Survey Block 5	Date and Time	7/22/2021	Latitude	722080	Longitude	1713133	Monitoring Plot (ID Number)	S-5		
Surveyors	Souladeth, P., Soukhavong, M., Thonhakdy, N., Bouttavong, T.						Monitoring Plot Size	0.1 ha			
Air Temperature (°C)	26	Cloud Cover	4	Rain	3	Wind	8	Brief weather description	Cloudy with moderate-heavy rain and strong breeze		
Habitat types present	Forest protection near San Plas										
Site and vegetation description				Condition assessment scores and comments (fire, wildlife and human activity)							
Disturbed forest near the village, dense of middle and young trees				Fire	NA	Wildlife	NA	Human activity	Cutting trees		
				Combined impact score							
				Notes on impacts within the plot and nearby				Clear-cutting of vegetation for the Transmission Lines throughout the survey sites			
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	10	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	15	Herbaceous layer mean height (m)	0.3	Herbaceous layer mean cover (%)	10
Apporixage of canopy (yrs)	50	Bare ground cover (%)	20	Water cover (%)		Moss Layer mean height (m)	0.1	Moss Layer mean cover (%)	5		
For other habitats record overall max and mean height of vegetation											
Mean veg height (cm)	120	Max veg height (cm)	250								
Vegetation cover (%)	85	Bare ground cover (%)	15	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red List/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
Acer laurinum Hassk.	F	Ardisia villosa Robt.	O	Alpinia sp.	R						
Calophyllum proferum Blanch. & Triana	A	Breynia glauca Craib	O	Abopha costularis Baker	O						
Gardenia	A	Callicarpa rubella Lindl.	O	Dieris sp.	O						
Hectopleurum cf. cambodianum Yahara & Tagane	D	Isora sp.	O	Diplazium doyanum (Merr.) Tardieu	F						
Lithocarpus hamandi (Hickel & A. Camus) A. Camus	D	Lasiacanthus curtisii King & Gamble	A	Embellia ribes Burm.f.	O						
Litsea martabanica (Kurz) Hook.f.	D	Lasiacanthus hirsutus (Robt.) Merr.	O	Dioscorea chiensis (L.) Sm.	O						
Machilus angustifolia Mase, Tagane & Yahara	D	Medinilla septentrionalis (W.W.Sm.) H.L.Li	O	Phanera lorantha Pierre ex Gagnep.	F						
Mastixia gentiana subsp. cambodiana (Perris) K.M.N.	O	Oryzopsis sp.	O	Phyllanthus rosus (Crab & Hutch.) Bellef.	O						
Neolitsea zeylanica (Nees & T. Nees) Merr.	A	Prismatomeris sp.	O	Pleocnemia sp.	R						
Polygala tonkinensis Chodat	F	Rubus rugosus Sm.	O	Polystichum attenuatum Tagawa & Z. iwats.	O						
Quercus sp.	O	Urophyllum sp.	F	Torenia sp.	F						
Syzygium antisepticum (Blume) Merr. & L.M. Perry (M)	O			Unknown, Menispermaceae	O						
Syzygium sp.	A			Woodwardia japonica (L.f.) Sm.	O						

DAFOR SCALE: D - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare.
 Red list species to be marked in list using *
 Invasive species to be marked in list using **

Plant plot 5.6

Botanical Surveys											
Site name	Survey Block	Date and time	Latitude	Longitude	Monitoring Plot (ID Number)	Monitoring Plot size					
Surveys	Souladeth, P., Soukheavong, M., Thonphakdy, B., Bouttavong, T.	7/22/2021	722534	1713764	S-6	0.1 ha					
Air Temperature (°C)	27	Cloud Cover	3	Rain	3	Wind	5	Brief weather description		Cloudy with moderate-heavy rain and strong breeze	
Habitat types present	Forest protection near Ban Plac										
Site and vegetation description					Condition assessment scores and comments (Fire, wildlife and human activity)						
Disturbed forest near the village, dense of middle and young trees					Fire	NA	Wildlife	NA	Human activity	Cutting trees	
					Combined Impact score			Notes on impacts within the plot and nearby			Clear-cutting of vegetation for the Transmission Lines throughout the survey sites
For forest habitat describe canopy, understorey and ground flora											
Canopy mean height (m)	13	Canopy mean cover (%)	80	Understorey mean height (m)	5	Understorey mean cover (%)	10	Herbaceous layer mean height (m)	0.5	Herbaceous layer mean cover (%)	5
Approach of canopy (yrs)	50	Bare ground cover (%)	20	Water cover (%)		Moss Layer mean height (m)	0.1	Floes Layer mean cover (%)	3		
For other habitats record overall max and mean height of vegetation											
Mean veg height (m)	120	Max veg height (cm)	200								
Vegetation cover (%)	80	Bare ground cover (%)	20	Water cover (%)	0						
List of dominant species within the plot that define the habitat types and any notable species (including Red list/Invasive)											
Species	DAFOR	Species	DAFOR	Species	DAFOR						
Acer laurinum Hassk.	O	Vitellium tenuifolium (Bl.) A.C. Sm.	A	Alpinia sp.	R						
Azoreo yunnanensis (Pax & H. Hoffm.) P.P. Metzalf	O	Lindera annamensis H. Du, Lauroc	A	Archidendron clypearia (Jack) LC Nielsen	A						
Balaete baccata (Roxb.) Esser	F	Lithocarpus pierre (Hickel & A.Camus) A.Camus	A	Andisia villosa Roxb.	O						
Berika sp.	R	Litsea cambodianum Lecomte	O	Clerodendrum sp.	F						
Calophyllum pliciferum Planch. & Triana	A	Machilus angustifolia Mass. Tagane & Yehara	A	Craspedolobium unijugum (Gagnep.) Z. Wei & Pedley	F						
Camellia krasii Wall.	F	Microtropis sp.	O	Dalmanium donianum (Mett.) Tardieu	O						
Camellia sp.	R	Nageia fleuryi (Hickel) de Laub *	A	Embelia ribes Burm. f.	A						
Cestranopsis acuminatissima (Blume) A DC.	F	Nephelium hypoleucum Kurz	A	Euonymus mitratus Pierre	O						
Cinnamomum curvifolium (Lam.) Nees	O	Podocarpus pilgeri Focke	O	Icora sp.	R						
Cinnamomum sp.	O	Quercus sp.	O	Medinilla septentrionalis (W. W. Sm.) H. L. L.	F						
Diospyros sp.	O	Symplocos theifolia D. Don	O	Ophiopogon sp.	F						
Gomphandra sp.	O	Symplocos wilstroemifolia Hayata	O	Oxydora sp.	F						
Goniothalamus sp.	O	Syzygium claviflorum (Roxb.) Wall. ex A.M. Cowan &	A	Rubus rugosus Sm.	O						
Gynnanthes remota (Steenis) Esser	F	Ternstroemia gymnanthera (Wight & Arn.) Sprague	O	Torenia sp.	O						
Heptaleurum cf. sambodianum Yehara & Tagane	O	Xanthophyllum sp. 3	O								
DAFOR SCALE: O - Dominant, A - Abundant, F - Frequent, O - Occasional, R - Rare. Red list species to be marked in list using * Invasive species to be marked in list using **											

Annex 1e-2. Summary of tree species list in the Survey Block 5

No	Scientific Name	Local Name	Family	IUCN Red List
1	<i>Acer laurinum</i>	ກ່ວມ (Kuam)	Sapindaceae	
2	<i>Aporosa terapleura</i>	ໝືອດພູ (Maud phou)	Phyllanthaceae	
3	<i>Aporosa yunnanensis</i>	ໝືອດໃບແຫຼມ (Maud bai-laem)	Phyllanthaceae	
4	<i>Balakata baccata</i>	ລັບແລ (Lab lae)	Euphorbiaceae	
5	<i>Benkara</i>	ຄັດເຄົ້າ (Khat khao)	Rubiaceae	
6	<i>Calophyllum pisiferum</i>	ກະທົງ (Ka thueng)	Calophyllaceae	
7	<i>Camellia kissii</i>	ໝັງງອາມ (Miang arm)	Theaceae	
8	<i>Camellia sp.1</i>	ໝັງງ (Miang)	Theaceae	
9	<i>Castanopsis acuminatissima</i>	ກໍ່ເດືອຍ (Kor deau)	Fagaceae	
10	<i>Cinnamomum curvifolium</i>	ຈວງ (Juang)	Lauraceae	
11	<i>Cinnamomum</i>	ຈວງ (Juang)	Lauraceae	
12	<i>Diospyros</i>	ໝາກເກືອ (Mak keau)	Ebenaceae	
13	<i>Elaeocarpus griffithii</i>	ມຸນ (Moun)	Elaeocarpaceae	
14	<i>Engelhardtia serrata</i>	ຟ່າວຂຽວໝາມ (Phao khiew)	Juglandraceae	
15	<i>Garcinia pedunculata</i>	ສົ້ມໂມງ (Som mong)	Clusiaceae	
16	<i>Gardenia</i>	ພຸດຜາ (Phout pha)	Rubiaceae	
17	<i>Gironniera subaequalis</i>	ຫາງແມງໄອ່ (Hang maeng-ai)	Cannabaceae	
18	<i>Gomphandra</i>	ພູຟ່າ (Phou pha)	Stemonuraceae	
19	<i>Goniothalamus</i>	ເຂົ້າຫຼາມດົງ (Khao-larm dong)	Annonaceae	
20	<i>Gymnanthes remota</i>	ປີກ (Pik)	Euphorbiaceae	
21	<i>Heptapleurum cambodianum</i>	ຕ້າງ (Tang)	Araliaceae	
22	<i>Ilex chapaensis</i>	ໄຂ່ມິດຊາປ່າ (Khai mod sapa)	Aquifoliaceae	
23	<i>Illicium tenuifolium</i>	ຈັນບານ (Chan ban)	Schisandraceae	
24	<i>Lindera annamensis</i>	ລິນດາລາກ້ານແດງ (Lindara Kand-aeng)	Lauraceae	
25	<i>Lithocarpus harmandii</i>	ກໍ່ໝັນ (Kor man)	Fagaceae	
26	<i>Lithocarpus pierrei</i>	ກໍ່ກັກ (Kor Kak)	Fagaceae	
27	<i>Litsea cambodianum</i>	ບົງຂະເໝນ (Bong khmer)	Lauraceae	
28	<i>Litsea martabanica</i>	ໝໍ້ບົງຫອມ (Mee bonghom)	Lauraceae	
29	<i>Machilus angustifolia</i>	ຕອງຫອມໃບແຄບ (Tong Hom bai khaeb)	Lauraceae	
30	<i>Mastixia pentandra subsp. cambodiana</i>	ໝາກເຖິນ (Mak thern)	Cornaceae	
31	<i>Microtropis</i>	ຂາງແດງ (Khang daeng)	Celastraceae	
32	<i>Nageia fleuryi</i>	ພະຍາໄມ້ (Phaya mai)	Podocarpaceae	NT
33	<i>Neolitsea zeylanica</i>	ໄຟເດືອນຫ້າ (Fai deuanha)	Lauraceae	
34	<i>Nephelium hypoleucum</i>	ຄໍ່ແລນ (Kho lane)	Sapindaceae	
35	<i>Pinus kesiya</i>	ແປກສາມໃບ (Peak sambai)	Pinaceae	
36	<i>Pittosporum pauciflorum</i>	ສຸມດອກນ້ອຍ (Soum dok-noi)	Pittosporaceae	VU
37	<i>Podocarpus pilgeri</i>	ກະດອງ (Ka-dong)	Podocarpaceae	
38	<i>Polyalthia</i>	ນ້ຳເຕົ້າກົກ (Namtao kok)	Annonaceae	
39	<i>Polygala tonkinensis</i>	ຕ້າງໄກ່ (Tang kai)	Polygalaceae	
40	<i>Psychotria</i>	ດູກໄກ່ (Douk kai)	Rubiaceae	
41	<i>Quercus</i>	ກໍ່ (Kor)	Fagaceae	
42	<i>Semecarpus reticulata</i>	ນ້ຳກ້ຽງດໍາ (Namkieng dam)	Anacardiaceae	

43	<i>Symplocos theifolia</i>	ເໝືອດດົງ (Maud dong)	Symplocaceae	
44	<i>Symplocos wikstroemiifolia</i>	ຄອມປ່າ (Khom pa)	Symplocaceae	
45	<i>Syzygium antisepticum</i>	ສະເມັກແດງ (Samek deang)	Myrtaceae	
46	<i>Syzygium claviflorum</i>	ຫວ້າຫິນ (Wha hin)	Myrtaceae	
47	<i>Syzygium</i>	ຫວ້າ (Wha)	Myrtaceae	
48	<i>Ternstroemia gymnanthera</i>	ເມືອກ (Mueak)	Pentaphylacaceae	
49	<i>Toxicodendron succedaneum</i>	ເປັນຮັກ (Ben hak)	Anacardiaceae	
50	<i>Xanthophyllum sp.1</i>	ແສງດົງ (Seng dong)	Polygalaceae	

Annex 2. List of mammal records from the survey area

No	Common Name	Scientific Name	Lao Name	Cons. status	Level of Report	Level of Detection	Survey Blocks					Field Confirmation				Season	
							SB1	SB2	SB3	SB4	SB5	Seen	Track	Fecal	Other	Photo	Wet
1	Common Treeshrew	<i>Tupaia glis</i>	Ka tae		L	O	X	X	X	X	X				X	X	X
2	Indochinese ground squirrel	<i>Menetes bernores</i>	Ka tae khanglai		M	O	X	X	X	X	X	X				X	X
3	Eurasian Wild pig	<i>Sus scrofa</i>	Mou Pa		H	C	X	X	X	X	X	X	X		X	X	X
4	Wild pig	<i>Sus bucculentus</i>	Mou Pa													X	X
5	Bengal Slow Loris	<i>Nycticebus bengalensis</i>	Ling Lom	EN	H		X	X	X	X	X						
6	Pygmy Slow Loris	<i>Nycticebus pygmaeus</i>	Ling Lomnoy	EN	L			X									
7	Stump-tailed Macaque	<i>Macaca arctoides</i>	Ling din	VU	H	O		X	X	X	X		X		X	X	X
8	Long-tailed Monkey	<i>Macaca fascicularis (f)</i>	Ling hang yao	VU	L	O					X						
9	Clouded Leopard	<i>Neofelis nebulosa</i>	Sua lai mek	VU	L												
10	Large antlered Muntjac	<i>Muntiacus vuquangensis</i>	Fan khao nyai	CR	L												
11	Northern Pig-tailed Macaque	<i>Macaca leonina</i>	Ling kang	VU	L						X				X	X	X
12	Northern Buff-cheeked gibbon	<i>Normascus annamensis</i>	Thani kam toun	EN	H	O	X	X	X	X					X	X	X
13	Indo. Silvered Leaf Monkey	<i>Trachypithecus Germaini</i>	Ta Lung	EN	M			X	X	X	X						
14	Red-shanked Douc Langur	<i>Pygathrix nemaeus</i>	Khadeng	CR	H	O		X	X	X		X			X		X
15	Black Giant Squirrel	<i>Ratufa bicolor</i>	Kadang		H	O		X	X	X	X	X			X		X
16	Long-tailed Giant Rat	<i>Leopoldamys Sabanus</i>	Nou Wai		M	O		X	X	X	X		X		X	X	X
17	Greater Bandicoot Rat	<i>Bandicota indica</i>	Nou Phouk		H			X	X	X	X				X	X	X
18	Berdmore's berylmys	<i>Berylmys berdmorei</i>	Nou Thongkhao		H	F		X	X	X	X	X		X	X		X
19	Red-Spin Maxomys	<i>Maxomys surifer</i>	Nou Thongluang		H	O		X	X	X	X	X		X	X		X
20	House Rat	<i>Rattus Rattus</i>	Nou Ban		H	O		X	X	X	X	X		X			X
21	Cook's Mouse	<i>Mus cookii</i>	Nou Zing		H	O		X	X	X	X	X		X			X
22	Short-tailed Gymnure	<i>Hylomys suillus</i>			H	O			X	X	X	X				X	X
23	Chinese Pangolin	<i>Manis pentadactyla</i>	Lin Ngua	CR	H	O	X	X	X	X			X		X	X	X
24	Sunda Pangolin	<i>Manis javanica</i>	Lin Khouy	CR	H	F		X	X	X			X		X	X	X
25	Pallas' Squirrel	<i>Callosciurus erythraeus</i>	Ka Hok Thongdeng		M		X	X	X	X	X	X			X	X	X
26	Red-cheeked Squirrel	<i>Dremomys refigenis</i>	Ka Hok Keamdaeng								X				X		X
27	Squirrel spp.	<i>Callosciurus spp.</i>	Ka Hok Moum		L			X									
28	Eastern Striped Squirrel	<i>Tamiops maritimus</i>	Ka Len Dong		M	O		X	X		X	X					X
29	Cambodian Striped Squirrel	<i>Tamiops rodolphii</i>	Ka Len		M	F			X			X					X
30	Black Giant Squirrel	<i>Ratufa bicolor</i>	Kadang		H	F	X	X	X	X		X					X
31	Indian Giant Flying Squirrel	<i>Petaurista philippensis</i>	Bang Loua		H			X	X	X					X		X
32	Phayrei's flying squirrel	<i>Hylopetes phayrei</i>	Bang Tong							x	x						
33	Red-cheeked Flying Squirrel	<i>Hylopetes spadicesus</i>	Bang nai							x	x						
34	Hoary Bamboo Rat	<i>Rhizomys Pruinosus</i>	Oon Yai		M			X		X	X						
35	Bamboo Rat	<i>Rhizomys</i>	Oon Noy		M			X		X	X						
36	Moonrat	<i>Echinosorex gummarus</i>	Toon		M					X	X						
37	East Asian Porcupine	<i>Hystrix brachyura</i>	Men					X	X	X					X	X	X
38	Brush tailed Porcupine	<i>Atherurus macrourus</i>	Hon		M				X	X							X
39	Dhole	<i>Cuon alpinus</i>	Ma Nai	EN	M												
40	Binturong	<i>Arctictis Binturong</i>	Ngen Khor	VU	M												
41	Masked Palm Civet	<i>Paguma larvata</i>	Ngen kheua		L	O					X				X	X	X
42	Spotted Linsang		Ngen lingsang		L	O					X				X	X	X

43	Large Indian Civet	<i>Virverra zibetha</i>	Ngen Feng		H		X	X	X	X	X	X			X	X		X
44	Small Indian Civet	<i>Virverricular indica</i>	Ngen Eton		M		X	X	X	X	X	X					X	
45	Common Palm Civet	<i>Paradoxurus hermaphroditu</i>	Ngen Om		M		X	X	X	X	X		X				X	
46	Owston's Civet	<i>Chrotogale owstoni</i>	Ngen Lai Phat khon	EN	L				X	X							X	X
47	Yellow Throated Marten	<i>Martes flavigular</i>	Ma mai		M			X	X	X	X						X	X
48	Smooth coated Otter	<i>Lutrogale perspicillata</i>	Nak Khon Lep	VU	M			X	X	X								X
49	Crab-eating Mongoose	<i>Herpestes urva</i>	Jon Phone kin pu		H		X	X	X	X	X							X
50	Small Asian Mongoose	<i>Herpestes javanicus</i>	Jon Phonenoy		H		X	X	X	X	X							X
51	Asiatic Black Bear	<i>Ursus thibetanus</i>	Mee Khouy	VU	H			X										X
52	Sun Bear	<i>Ursus malayanus</i>	Mee Ma	VU	H	O	X	X	X	X	X		X		X		X	X
53	Great Hog Badger	<i>Arctonyx collaris</i>	Mou Leung	VU	M			X	X	X	X				X	X		X
54	Small-toothed Ferret Badger	<i>Melogale moschata</i>	Ma Leung		H	O		X	X	X	X				X	X	X	X
55	Leopard Cat	<i>Prionailurus bengalensis</i>	Sua Meo		H	O	X	X	X	X	X		X					X
56	Chinese Serow	<i>Capricornis milneedwardsii</i>	Nyouang	VU	H	F		X	X	X	X			X			X	X
57	Red Muntjac	<i>Muntiacus muntjac</i>	Fan		H	O	X	X	X	X		X	X	X	X	X	X	X
58	Annamite Muntjac	<i>Muntiacus truongson</i>	Fan Moh		H	O		X	X	X	X		X	X	X	X	X	X
59	Sambar Deer	<i>Cervus unicolor</i>	Kuang	VU	H	O	X	X	X	X	X		X		X	X	X	X
60	Chinese Goral	<i>Naemorhedus greseus</i>	Nyouang Pha	VU	M				X	X								
61	Annamite Striped Rabbit	<i>Negolagus timminsi</i>	Ka tai lai sua	EN	M													
Remarks: Level of Report Confidence: L = Low, M = Medium and H = High; Level of Detection: O = Occasional, F = Frequent, C = Common;																		