



Sub-national REDD+ planning:

Building capacity in managing PRAP spatial databases and GIS skills

UN-REDD PROGRAMME

Report of joint working sessions

*Working sessions convened as part of the
Viet Nam Phase II Programme*

19 – 23 September, Xuan Mai, IFEE/VFU

*26 – 30 September, Ho Chi Minh City, Sub-
FIPI South*

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The working sessions described on this report were organized and implemented collaboratively by UN-REDD Viet Nam National Programme, the Institute of Forest Ecology and Environment (IFEE) in Hanoi, the Forest Inventory & Planning Sub-Institute for the South in Ho Chi Minh City (Sub-FIPI South) and the UN Environment World Conservation Monitoring Centre (UNEP-WCMC) on behalf of the UN-REDD Programme.

The UN-REDD Programme is the “United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation (REDD+) in Developing Countries”. The Programme was launched in 2008 and builds on the convening role and technical expertise of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and UN Environment. The UN-REDD Programme supports nationally led REDD+ processes and promotes the informed and meaningful involvement of all stakeholders, including Indigenous Peoples and other forest-dependent communities, in national and international REDD+ implementation.

The UN-REDD Programme provided technical support from the UN Environment World Conservation Monitoring Centre (UNEP-WCMC) for this workshop. UNEP-WCMC is the specialist biodiversity assessment centre of UN Environment, the world’s foremost intergovernmental environmental organisation. The Centre has been in operation for over 35 years, combining scientific research with practical policy advice.

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Suggested citation:

García-Rangel, S., Hicks, C., Nguyen Thanh, P. (2017). *Sub-national REDD+ planning. Building capacity in managing PRAP spatial databases and GIS skills. Report of joint working sessions for the UN-REDD Viet Nam Phase II Programme*. Prepared on behalf of the UN-REDD Programme. UN Environment World Conservation Monitoring Centre, Cambridge UK.

Acknowledgements:

With special thanks to the UN-REDD Viet Nam Phase II Programme Management Unit, and participants in the joint working session for their contributions and input. We also acknowledge the support provided by Lera Miles (UNEP-WCMC).

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Acronyms and abbreviations

CIP	Co-Implementing Partner
DARD	Department for Agriculture and Rural Development
DONRE	Natural Resources and Environment
FREC	Forest Resources and Environment Center
GIS	Geographic Information Systems
GNSS	Global Navigation Satellite Systems
GPS	Global Positioning System
IFEE	Institute of Forest Ecology and Environment
PFES	Payment for Forest Ecosystem Services
PRAP	Provincial REDD+ Action Plan
REDD+	Reducing Emissions from Deforestation and Forest Degradation; ‘plus’ Conservation of forest carbon stocks, sustainable management of forests; and enhancement of forest carbon stocks
Sub-FIPI NW	North-West Office of the Forest Inventory and Planning sub-Institute
Sub-FIPI South	South Office of the Forest Inventory and Planning sub-Institute
UN Environment	United Nations Environment Programme
UN Environment UN-REDD	United Nations Environment Programme contribution to UN-REDD Programme
UNEP-WCMC	UN Environment World Conservation Monitoring Centre
VNUF	Viet Nam National University of Forestry

1 Introduction

This report presents the activities and outputs of two joint working sessions built on the needs of provincial technical staff in UN-REDD pilot provinces in Viet Nam. The working sessions aimed to develop capacity in spatial planning and the use of spatial data among provincial staff. The sessions



Photo: Initial insights from participants on potential uses for PRAP databases
(©UNEP-WCMC)

took place between 19 and 23 September 2016 at the Institute of Forest Ecology and Environment (IFEE), Viet Nam National University of Forestry (VNUF) in Xuan Mai, Ha Noi and from 26 to 30 September 2016 at the Office of the Forest Inventory and Planning sub-Institute for the South (Sub-FIPI South) in Ho Chi Minh City.

The objectives of these sessions were: (i) to build the capacity of provincial technical staff in managing and using the spatial databases compiled during the development of Provincial REDD+ Action Plans (PRAPs) and (ii) to enhance the participants' basic skills on Geographic Information Systems (GIS), for supporting PRAP implementation as well as for other provincial spatial-planning related activities. The sessions involved a week-long workshop in each location on spatial analysis, data collection and database management (The agenda for these session is included in Annex 1).

Fifty participants from the pilot provinces (from Departments for Agriculture and Rural Development (DARDs) and Natural Resources and Environment (DONREs)) and from the Co-Implementing Partners (CIPs) joined the working sessions. This included three female and 47 male participants. Experts from the CIPs supported their respective provincial teams during the sessions. The pilot provinces included were: Bac Kan, Ha Tinh, Lao Cai (for the session conducted in the North), and Binh Thuan and Ca Mau (for the session conducted in the South) (Participants list is provided in Annex 2). The working sessions involved learning-by-doing, with materials mainly in Vietnamese. MapInfo was used as the main GIS software; ArcGIS, MicroStation and AutoCAD were used when other processing applications were needed.

2 Joint working sessions on databases and spatial analysis: main topics covered

DAY 1

2.1 Opening & introductions

Each working session began with opening remarks by Phuong Nguyen (UN-REDD Viet Nam National Programme) highlighting the objectives of the workshop. Participants were also welcomed by Mr Pham Van Duan, the Deputy Director of IFEE in the Xuan Mai session, and by Mr Pham Trong Think and Mr Do Van Thong of Sub-FIPI South in Ho Chi Minh City. Remarks included the potential of the data generated by the PRAP process to both enhance the implementation of the PRAPs and strengthen forest management at the provincial level. A round of introductions followed and an overview of the agenda and objectives for the five-day' workshop was provided on each occasion.

Shaenandhoa García Rangel (UNEP-WCMC) introduced the role of spatial data and spatial analysis as tools for forest planning, including REDD+.

2.2 Introduction to PRAP databases

On both occasions, Phuong gave a presentation on the key concepts of climate change and REDD+, and the PRAP process in Viet Nam. Nguyen Van Thi (IFEE) and Do Van Thong (Sub-FIPI South) for North and South working sessions respectively, gave an overview of the PRAP databases, showing the structure and naming convention established for files and folders (Annex 3). This was followed by a short brainstorming session in which participants from each province shared their first impressions about how the databases could be used (e.g. land-use planning, identification of priority areas for REDD+).

Participants then copied the databases for their province and installed the software required during the session. They explored the data available and completed a short exercise designed to make sure that everything was set up and working as planned. Challenges were encountered due to some differences in system requirements and issues with some of the data. Most of these problems were solved, allowing the sessions to proceed.



Photo: Participants during Day 1 of working session in Ho Chi Minh City (@UNEP-WCMC)

DAY 2

2.3 Using GPS to update/correct maps

This exercise began with a short presentation from Shaenandhoa on Global Navigation Satellite Systems (GNSS) and how they function. Both IFEE and Sub-FIPI South introduced the GPS exercise, where the participants were organized in teams and used devices to access the Global Positioning System (GPS), rulers and collection forms to record information about species, quality, boundaries and tree biomass for plots in the VFU forest area (North) and Gia Dinh Park (South). Guidance was provided to the teams by the CIPs during the exercise.

The teams then calculated an estimated volume for the plot, mapped their results and presented them to the overall group. Shaenandhoa and Charlotte presented their results from a modified version of the exercise in which they had recorded sightings of biodiversity in the VFU forest area (e.g. butterflies, birds) and locations of touristic interest at Gia Dinh Park (e.g. gardens, landscape). Participants in the Northern working session also used MapInfo to update the information for the map of the VFU forest area (e.g. changing attributes of polygons), and added satellite images, layout and photos to show how the maps could be presented and used to help support planning or management.



Photos: Participants carry out GPS exercises in the VFU forest (left) and Gia Dinh Park (right) (@UNEP-WCMC)

DAY 3

2.4 Transforming between formats (MicroStation, AutoCAD to MapInfo)

Following the recap about the day before and a short overview of expected outcomes of the day, we began with a presentation on how to transform data from software such as MicroStation and AutoCAD into MapInfo format. Then, the participants carried out an exercise on this topic and each province had one member present their results, whilst discussing different options for transforming datasets. Issues related to the attribute table and how to preserve information during transformation were also discussed.



Photos: Participants work on and present transformation exercise at IFEE working session (@UNEP-WCMC)

2.5 Creating layers from statistics (e.g. population, poverty, ethnic minority groups)

The next activity involved creating a map layer from statistical data¹. Thi (IFEE) and Tran Thi Thanh Huong (Sub-FIPI South) gave a presentation providing guidance on the topic. Then, participants used poverty and population data from their provinces to create maps showing socio-economic information. Each province selected a participant to present their map. During the presentations, we discussed how different ranges of values could affect the message of the map, and layout considerations for the final output.

¹ This activity was carried on Day 4 in the South as a result of lessons learned from the session conducted in the North.

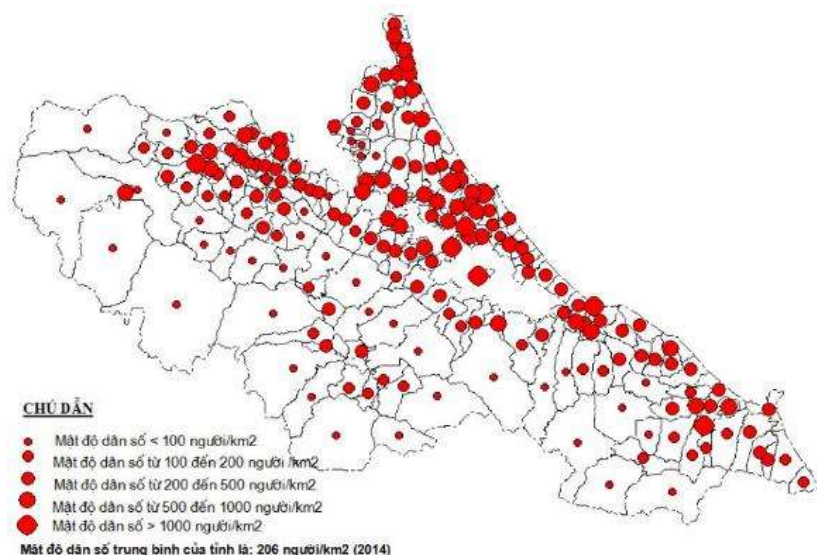


Figure: Spatial distribution of poverty across the Ha Tinh province



Photos: Participants discuss maps created from statistics at IFEE (left) and Sub-FIPI South (right) (©UNEP-WCMC)

2.6 Overlays: Forest cover and quality change analysis

We then started to work on carrying out analysis of change in forest cover and quality using MapInfo. This began with a discussion of the main issues to bear in mind when comparing different datasets in the context of a forest cover change analysis (e.g. different formats, projections, classification, data collectors and/or methods). The participants identified those issues that could be of potential concern in the context of Viet Nam. Thi (IFEE) and Nguyen Minh Khoa (Sub-FIPI South) gave a presentation on how to run this analysis using the provincial datasets on forest resources from two different periods. The participants then analysed the changes in forest cover and quality in a district of their province, between 2005 and 2010 (North) and 2006 and 2015 (South), and presented statistics from this evaluation.



Photos: Day 3 exercises on mapping forest cover and quality change (©UNEP-WCMC)

DAY 4

2.7 Zoning and prioritization: Criteria for planning and workflows

To start the day, Charlotte gave a presentation on planning criteria and spatial workflows to help develop maps showing priority areas for REDD+ and forestry interventions². We ran a quick brainstorming session about some examples of planning criteria for a particular intervention: setting up priority conservation areas. These included factors like: area size, species richness, presence of endemic species, forest management categories, cultural and historical sites, ecotourism potential and areas to avoid, such as zones set aside for hydropower development.

In their provincial groups, participants developed a workflow for a map to prioritize areas for particular interventions (e.g. forest rehabilitation, community forestry, afforestation). This involved defining the

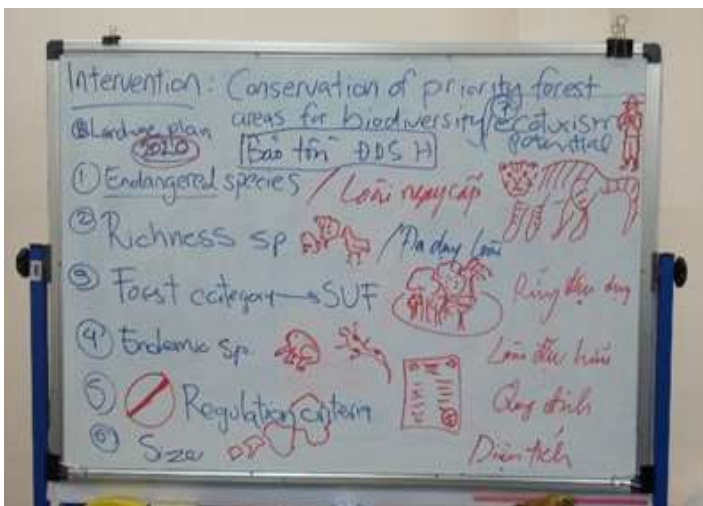


Photo: Brainstorming discussion results on criteria for planning and (©UNEP-WCMC)

output map, identifying the relevant criteria as well as the input data needed, and drawing a workflow that showed how the map was going to be created. Then, participants presented their workflows and got feedback from the other provinces and CIPs. This developed into an interesting discussion about the actual details of each intervention, availability of spatial data and the precise steps within the workflows. In the afternoon, the participants started to create their maps in MapInfo.

² This activity was carried out in the afternoon during the workshop in the South.



Photos: Ca Mau participants preparing their workflow (left) and Ha Tinh participant presenting their workflow (right) (©UNEP-WCMC)

2.8 Effective map layouts

Shaenandhoa gave a presentation on effective map layouts, providing tips on how to show the most important information and make maps clear and understandable³. Thi (IFEE) and Huong (Sub-FIPI South) showed the participants how to make map layouts in MapInfo, and they started to put their maps of priority areas from the previous exercise into a publishing layout⁴.

DAY 5

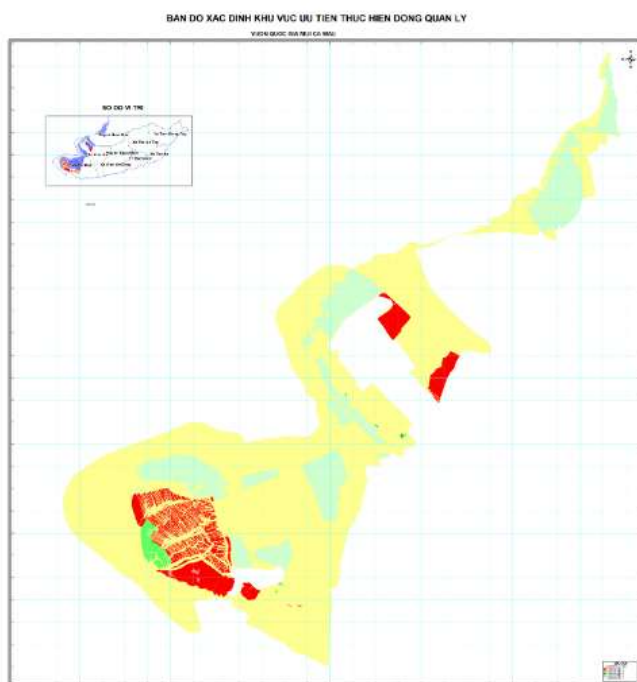


Figure: Final map prepared by Ca Mau participants showing areas prioritised for co-management of forests

2.9 Zoning and prioritization: Maps of priority areas

During this period, participants were able to continue developing and finalizing their priority area maps for particular interventions. Each province selected a participant to present the final maps showing priority areas for the different types of interventions in a particular spatial unit. These included: assisted regeneration of forests in one Forest Management Board area, and potential areas for co-management of protected forests within a national park, amongst others. The participants also prepared tables showing the criteria used for area selection, and how these were applied.

The maps prompted a lot of discussion and debate about on how to define particular types of interventions, how to interpret and combine different criteria, and map layout and presentation. Finally, we had a small

³ This presentation was given at the end of day 3 during the workshop in the South as a result of lessons learned from the workshop in the North.

⁴ Participants of the workshop in the South developed their maps during day 5 due to changes on the agenda.



competition involving independent judges who decided on which map had the most effective map layout and design.

2.10 Database use

The final activity of the day was to return to the initial discussion about how the PRAP databases could be used. After becoming familiar with the data over the past week, participants suggested more detailed ideas on potential uses, including analyses such as selecting areas for scaling up implementations, mapping areas for forest protection contracts and prioritizing areas for Payment for Forest Ecosystem Services (PFES), amongst others.



Photos: Competition for best final layout (©UNEP-WCMC)

Both working sessions were wrapped up with the presentation of certificates by the Deputy Director of IFEE (North) and the Deputy Director of Sub-FIPI

South, with closing remarks from Phuong (UN Environment UN-REDD).



Photos: Two provincial teams with their certificates, Lao Cai (left) and Binh Thuan (right) (©UNEP-WCMC)

The participants also provided feedback on the sessions and the usefulness of the topics and techniques covered for their future work. Overall, the participants rated the usefulness of the working session highly - in developing their knowledge about the use of spatial analysis and spatial databases for REDD+, they rated it as 8.5 (out of 10) in the North and 8.3 in the South. The specific areas where the participants felt their knowledge had increased the most were: using GPS equipment, importing data to maps and using attribute tables (North); and exporting and publishing maps, and importing data to maps (South).

3 Next Steps

Participants expressed their interest on applying the techniques and tools shared at the working sessions to their regular activities as forest practitioners. This could include selecting areas to scale up particular interventions, evaluate zoning, mapping different types of forest use and prioritize areas for PFES. In the near future, the UN-REDD Viet Nam National Programme will develop a handbook on spatial planning for sub-national REDD+ planning. This will be aimed at students and practitioners within the country, and it will be carried out with the support of IFEE and input from UNEP-WCMC.

Annex 1

Final agenda⁵

Date	Content
Day 0 Sunday 18/9	16:00: - Short meeting with IFEE on preparations
Day 1 Monday 19/9	8:00: - Review agenda and activities with CIPs - Review database set up: 1) Structure 2) Naming - Prepare for set up with provincial participants: USB sticks (MapInfo 10.5, Antivirus, databases, materials)
	<i>12:00 - 13:30 Lunch</i>
	13:30: - Opening & introductions (20 mins - IFEE) - Overview of session, objectives (15 mins - IFEE) - PRAP development process (20 mins - Phuong) - Intro to spatial data for REDD+: data requirements and challenges (30 mins – UNEP-WCMC)
	<i>15:00 – 15:30 Tea/coffee</i>
	15:30: - Intro to PRAP databases: Structure & design. (PPT) (10 mins - IFEE) - Prepare & install databases and software (MapInfo 10.5, antivirus) (1.5 hours) - Exercise on using the databases (UNEP-WCMC): o Finding files o Opening layers in MapInfo
Day 2 Tuesday 20/9	8:00 AM: Using GPS for updating/correcting maps: - Presentation on GPS background and activity (20 mins - IFEE) - GPS exercise in IFEE forest area (1.5 hrs – IFEE): upload map layer; distribute GPS equipment by team (2 teams per province); using data collection form, collect info on: o Position (5 positions) o Boundaries o Volume (at 5 positions) o Status (e.g. mixed, planted, natural forest)
	<i>10: 00 – 10:30 Tea/coffee break</i>
	10:30 - Mapping the results by team: positions, volume, status (1.5 hours)
	<i>12:00 – 13:30 Lunch</i>
	13:30 PM - Teams present results (1 hour) - Presentation on exporting results (20 mins - IFEE)
	<i>15:00 – 15:30 Tea/coffee</i>
	15:30: - Teams continue mapping boundaries (1 hour) - Present results (30 mins)
Day 3 Wednesday, 21/9	08:00 - Making basic layers: o Transforming between formats (MicroStation, AutoCAD to MapInfo) (2 hrs - IFEE)
	<i>10:00 – 10:30 Tea/coffee</i>
	10:30:

⁵ Some changes were made to the final agenda for the workshop carried out in the South given the experienced of conducting the workshop in the North. Details are mentioned accordingly on the main text of this report.

Date	Content
	<ul style="list-style-type: none"> - Creating layers from statistics (e.g. population, poverty, ethnic minority groups) (Using step by step guide, 2 hrs - IFEE) <p style="text-align: center;"><i>12:30 – 13:30 Lunch</i></p> <p>13:30</p> <ul style="list-style-type: none"> - Overlays: <ul style="list-style-type: none"> o Introduction (30 mins - IFEE) o Forest cover change analysis, between 2 periods at district level (Using step by step guide, 1 hr – IFEE) <p style="text-align: center;"><i>15:00 – 15:30 Tea/coffee</i></p> <p>15:30:</p> <ul style="list-style-type: none"> - Continue forest cover change analysis (1 hour) - Generate stats from map (1 hour)
<p>Day 4 Thursday 22/9</p>	<p>08:00</p> <ul style="list-style-type: none"> - Zoning and prioritization - Introduction – criteria for planning (20 mins - UNEP-WCMC) - Discussion/group work (1 activity per province: community forestry; natural regeneration; afforestation) (1.5 hrs - UNEP-WCMC) <p style="text-align: center;"><i>10:00 – 10:30 Tea/coffee</i></p> <p>10:30:</p> <ul style="list-style-type: none"> - Groups present workflows (30 mins) - Groups start to make maps of priority areas (1 hr) <p style="text-align: center;"><i>12:00 – 13:30 Lunch</i></p> <ul style="list-style-type: none"> - Effective map layouts (30 mins - UNEP-WCMC) - Map layout in MapInfo (30 mins – IFEE) - Continue making maps and put into layout (30 mins) <p style="text-align: center;"><i>15:00 – 15:30 Tea/coffee</i></p> <p>15:30</p> <ul style="list-style-type: none"> - Finalise maps (1 hour) - Present & discuss maps (30 mins)
<p>Day 5 Friday 23/9</p>	<p>08:00</p> <ul style="list-style-type: none"> - Discussion: what does each provincial team think the databases can be used for? (30 mins – UNEP-WCMC) - Each team to choose a topic and try to make the map, with help/trouble-shooting by CIPs, WCMC (1.5 hrs) <p style="text-align: center;"><i>10:00 – 10:30 Tea/coffee</i></p> <p>10:30:</p> <ul style="list-style-type: none"> - Continue making maps - Present results - Wrap up and evaluation form - Certificates <p><i>(Finish time is flexible)</i></p>

Annex 2

List of participants

Name	Position	Organisation	Gender
Bac Kan			
Nguyễn Văn Kiên	Kiểm lâm viên	Chi cục KL Bắc Kạn	M
Phan Tiểu Tuấn	Kiểm lâm viên	Chi cục KL Bắc Kạn	M
Vũ Văn Thịnh	Phó Hạt trưởng	Chi cục KL Bắc Kạn	M
Đặng Quang Minh	Kiểm lâm viên	Chi cục KL Bắc Kạn	M
Vi Văn Tuấn	Cán bộ kỹ thuật	Chi cục KL Bắc Kạn	M
Hà Đức Mạnh	Chuyên viên	Sở NN&PTNT	M
Nguyễn Văn Tuệ	Cán bộ hỗ trợ thúc đẩy	UN-REDD Bắc Kạn	M
Nông Ngọc Duyên	Cán bộ kỹ thuật	Sở TN&MT Bắc Kạn	M
Bình Thuận			
Ngô Công Dũng	Cán bộ kỹ thuật	Ban Quản lý rừng PH Sông Mao	M
Nguyễn Tấn Trọng	CV phòng Quản lý sử dụng rừng	Chi cục Lâm nghiệp	M
Trần Văn Huyền	Trạm trưởng	BQL Khu BTTN Tà Kóu	M
Nguyễn Thị Hương	Nhân viên phòng kỹ thuật - QL BVR	Ban QLRPH Sông Quao	F
Nguyễn Đăng Hay	Cán bộ Kỹ thuật	BQL Khu bảo tồn thiên nhiên Núi Ông	M
Phạm Đức Huy Hoàng	Chuyên viên CB KH-HC-PD	Chi cục Lâm nghiệp Bình Thuận PPMU Bình Thuận	M
Ngô Đình Lưu	NV Kỹ thuật	Ban QLRPH Lê Hồng Phong	M
Lê Hoàng Thảo	Trưởng phòng	Chi cục Bảo vệ môi trường Bình Thuận	M
Ca Mau			
Lê Đình Trường	Cán bộ Lâm nghiệp	Ban quản lý Chương trình UN-REDD tỉnh Cà Mau	M
Trần Thanh Quân	Trưởng phòng Quản lý Bảo vệ rừng & Bảo tồn thiên nhiên	Chi cục Kiểm lâm Cà Mau	M
Dương Đặng Vinh	Phó trưởng phòng Quản lý Bảo vệ rừng & Bảo tồn thiên nhiên	Chi cục Kiểm lâm Cà Mau	M
Nguyễn Văn Hiệp	Kiểm lâm viên	Chi cục Kiểm lâm Cà Mau	M
Lý Phước Hải	Chuyên viên	Chi cục Kiểm lâm Cà Mau	M
Lý Minh Phương	Cán bộ kỹ thuật	Ban quản lý rừng phòng hộ Nhung Miên	M
Phạm Hồng Hà	Trưởng phòng Đo đạc bản đồ và Viễn thám	Sở Tài nguyên và Môi trường tỉnh Cà Mau	M
Bùi Mai Khanh	Phó giám đốc Trung tâm Kỹ thuật - Công nghệ - Quan trắc tài nguyên môi trường	Sở Tài nguyên và Môi trường tỉnh Cà Mau	M
Ha Tinh			
Nguyễn Xuân Vỹ	Cán bộ Lâm nghiệp	PPMU Hà Tĩnh	M
Nguyễn Xuân Linh	Kiểm lâm viên	Chi cục Kiểm lâm Hà Tĩnh	M
Dương Thanh Huy	Kiểm lâm viên	Chi cục Kiểm lâm Hà Tĩnh	M
Hoàng Xuân Tài	Phó trưởng Ban	Ban QLRPH Sông Tiêm	M
Võ Song Hà	Cán bộ kỹ thuật	Ban QLRPH Nam Hà Tĩnh	M
Nguyễn Hải Vân	Cán bộ kỹ thuật	Ban QLRPH Hồng Lĩnh	M
Nguyễn Quang Hùng	Cán bộ kỹ thuật	Hạt Kiểm lâm thị xã Kỳ Anh	M
Lao Cai			
Tạ Quốc Trường	Cán bộ Chuyên trách	Ban QLCT UN-REDD tỉnh Lào Cai	M
Lê Tiến Sĩ	Cán bộ Chuyên trách	Ban QLCT UN-REDD tỉnh Lào Cai	M
Nguyễn Hữu Tuấn	Phó trưởng phòng	Chi cục Kiểm lâm	M
Đỗ Trọng Thuởng	Kiểm lâm viên	Chi cục Kiểm lâm	M

Lương Đức Hoàng	Kiểm lâm viên	Hạt kiểm lâm huyện Bát Xát	M
Nguyễn Văn Hoàng	Kiểm lâm viên	Chi cục Kiểm lâm	M

Name	Position	Organisation	Gender
Lao Cai			
Nguyễn Đức Thịnh	Kiểm lâm viên	Chi cục Kiểm lâm	M
Nguyễn Duy Nam	Chuyên viên	Sở Nông nghiệp và PTNT	M
CIPs			
Trần Thị Thanh Hương	Phó giám đốc Trung tâm Bản đồ và Cơ sở dữ liệu	Sub-FIPI South	F
Đỗ Văn Thông	Phó phân viện trưởng	Sub-FIPI South	M
Nguyễn Minh Khoa	Cán bộ kỹ thuật	Sub-FIPI South	M
Trần Hữu Mạnh	Cán bộ kỹ thuật	Sub-FIPI South	M
Nguyễn Quốc Bảo	Cán bộ kỹ thuật	Sub-FIPI South	M
Phạm Đức Cường	Trưởng phòng GIS	FREC	M
Phạm Mạnh Hà	Chuyên viên	FREC	M
Hoàng Thị Thu Hương	Cán bộ kỹ thuật	Sub-FIPI NW	F
Nguyễn Bá Quyền	Cán bộ kỹ thuật	Sub-FIPI NW	M
Nguyễn Văn Thị	Trưởng phòng GIS	IFEE	M
La Nguyễn Khang	Trưởng phòng	IFEE	M
UN-REDD			
Nguyen Thanh Phuong	National Programme Officer	UN Environment UN-REDD Viet Nam	M
Shaenandhoa Garcia Rangel	Programme Officer	UNEP-WCMC	F
Charlotte Hicks	Programme Officer	UNEP-WCMC	F

Annex 3

PRAP database folder structure and naming convention

PARENT_FOLDER	PROVINCIAL_FOLDER	CATALOG	DATA_TYPE_FOLDER	CLASSIFY_FOLDER	FILE_NAME_EXAMPLE	
REDD_DATASET	PROVINCE	DAUVAO	BANDO	HienTrangRung	HTI_BD_HienTrangRung_2015	
				BaLoaiRung	HTI_BD_BaLoaiRung_2015	
				SuDungDat	HTI_BD_SuDungDat_2015	
				DanSo	HTI_BD_DanSo_2015	
				DoiNgheo	HTI_BD_DoiNgheo_2015	
				KhaiKhoang	HTI_BD_KhaiKhoang_2015	
				ThuyDien	HTI_BD_ThuyDien_2015	
				GiaoThong	HTI_BD_GiaoThong_2015	
				LuuVuc	HTI_BD_LuuVuc_2015	
				XoiMon	HTI_BD_XoiMon_2015	
				DaDangSinhHoc	HTI_BD_DaDangSinhHoc_2015	
				ChayRung	HTI_BD_ChayRung_2015	
				DiaHinh	HTI_BD_DiaHinh_2015	
				LuongMua	HTI_BD_LuongMua_2015	
				LamSanNgoaiGo	HTI_BD_LamSanNgoaiGo_2015	
				ChuRung	HTI_BD_Churung_2015	
				QLRCongDong	HTI_BD_QLRCongDong_2015	
				SoVuViPham	HTI_BD_SoVuViPham_2015	
				DVMTR	HTI_BD_DVMTR_2015	
				BAOCAO	DanSo	HTI_BC_DanSo_2015
					DoiNgheo	HTI_BC_DoiNgheo_2015
					BaoVeRung	HTI_BC_BaoVeRung_2015
					QHSuDungDat	HTI_BC_QHSuDungDat_2015
					KhaiKhoang	HTI_BC_KhaiKhoang_2015
					ThuyDien	HTI_BC_ThuyDien_2015
					GiaoThong	HTI_BC_GiaoThong_2015
					DaDangSinhHoc	HTI_BC_DaDangSinhHoc_2015
					ChayRung	HTI_BC_ChayRung_2015
		GiaTriSXLN	HTI_BC_GiaTriSXLN_2015			
		LuongMua	HTI_BC_LuongMua_2015			
		LamSanNgoaiGo	HTI_BC_LamSanNgoaiGo_2015			
		ChuRung	HTI_BC_Churung_2015			
		QLRCongDong	HTI_BC_QLRCongDong_2015			
		SoVuViPham	HTI_BC_SoVuViPham_2015			
		DVMTR	HTI_BC_DVMTR_2015			
		SANPHAM	BANDO	DienBienRung	HTI_BD_DienBienRung_V1	
				VungUuTien	HTI_BD_VungUuTien_V1	
				ViTriThucHienGiaiPhap	HTI_BD_ViTriThucHienGiaiPhap_V1	
				Khac	
			BAOCAO		HTI_KehoachHanhDong_V1	
			ANH	HoiThao1	(Depend on name of photos)	
				HoiThao2	(Depend on name of photos)	
				HoiThao3	(Depend on name of photos)	
HopKyThuat	(Depend on name of photos)					
ThucDia	(Depend on name of photos)					