



MEMORANDUM OF UNDERSTANDING

BETWEEN

French National Research Institute for Sustainable Development (*Institut de Recherche pour le Développement*), hereinafter referred to as the "IRD", hereinafter referred to as the 'IRD', a public scientific and technological establishment with SIRET registration number 180006025 00159 and APE business code 7219Z, whose registered office is located at 44 Boulevard de Dunkerque, CS 90009, 13572 Marseille cedex 02, France

Represented by its Chairwoman, Mrs. Valérie VERDIER, who has delegated his signature for the purposes hereof to Florence MORINEAU, Regional Delegate IRD Occitanie.

The IRD is acting both in its own name and in the name and on behalf of the Joint Research Unit number 123, AMAP, managed by Mr. Thierry FOURCAUD;

Party of the first part,

AND

The Faculty of Science, Chiang Mai University, hereinafter referred to as "FS/CMU", a public institution of higher education, whose registered office is located at 239 Huaykaew Road A. Muang, Chiang Mai 50200, Thailand

Represented by Professor Dr. Torranin CHAIRUANGSRI, the Dean of the Faculty of Science, Chiang Mai University

Acting on its own behalf and on behalf of and for the account of the Forest Restoration Research Unit (thereafter referred to as "FORRU"), managed by Associate Professor Dr. Steve ELLIOTT;

Party of the second part,

The IRD and FS/CMU are hereinafter referred to individually as a 'Party' and together as the 'Parties'.





PREAMBLE

HAVING REGARD TO the current scientific researches and collaborations conducted by FS/CMU and IRD/AMAP researchers;

HAVING REGARD TO the future opportunities for renewing and expanding these collaborations with other international academic partners, in Southeast Asia and elsewhere,

Whereas:

IRD/AMAP and FS/CMU have started a collaboration in 2019, through a training session of researchers and students regarding the manipulation and analyses of ecological and spatial data in the R statistical software.

Researchers from IRD/AMAP and FS/CMU are currently collaborating on: (i) a research project funded by the BNP Paribas Foundation (France) aiming at understanding the ecological processes involved in natural reforestation dynamics; (ii) a research project funded by the National Science and Technology Development Agency (NSTDA) aiming at characterizing the dynamics of forest structure and diversity in Khao Yai National park using airborne LiDAR and hyperspectral data and; (iii) a research project aiming at comparing the dynamics of natural and assisted forest regeneration. Researchers from IRD/AMAP also engage to pursue training activities in FS/CMU regarding the manipulation of the R statistical software and of remote sensing data.

IT IS AGREED AS FOLLOWS

Article 1 - Definitions

Words in the plural may be understood in the singular and *vice versa*. The Parties expressly agree that the following terms shall have the meaning ascribed to them below, when beginning with a capital letter:

Confidential Information: means any kind of information and/or data, in any form, that is in the possession of one of the Parties and which is disclosed by that Party to the other Party for carrying out the Study or of which the other Party becomes aware in connection with this contract, either in writing, verbally or by any other means of disclosure, and which is clearly marked as confidential on the relevant medium or, in the case of a verbal disclosure, which the disclosing Party verbally stipulates is confidential and subsequently provides written confirmation to that effect within five (5) days.

Proprietary Knowledge: means any kind of information, knowledge, procedures, technologies, including know-how, software, biological material, drawings, chemicals and/or all other types of information, regardless of the medium in which they are stored, as well as all related rights, which belong to one Party or which were in a Party's possession prior to the effective date of this contract and/or developed or acquired by one Party independently from the performance of this contract.





Results: means any kind of information, knowledge, procedures, technologies, including know-how, software, biological material, drawings, chemicals and/or all other types of information, regardless of the medium in which they are stored, as well as all related rights, obtained or developed by the Parties in connection with this contract.

Scientific Manager: means, for each Party, the person responsible for the implementation of the Study and who oversees the technical aspects.

Study: Scientific and technical program which is the subject of this contract and a detailed description of which is provided in Appendix 1.

Article 2 - Purpose

This contract sets out the terms and conditions according to which FS/CMU and IRD shall cooperate for the joint implementation of the Study entitled:

The Ecology of Tropical Asian Forests

No changes can be made to the program of the Study without the prior agreement of both Parties.

Article 3 – Progress and supervision of the Study

The Scientific Managers appointed to carry out the Study are:

- For IRD: Mr. Maxime RÉJOU-MÉCHAIN, researcher at IRD,

For FS/CMU: Ms. Pimonrat TIANSAWAT, assistant professor at FS/CMU.

The Scientific Managers shall work and cooperate closely and shall promptly inform each other of any difficulties encountered, if any, in carrying out the Study.

Regular progress reviews shall be made during working meetings, that shall take place face to face or by any other means of communication, to discuss the Results obtained and possible changes to the work program. Each meeting shall be the subject of written minutes.

The implementation of the Study shall give rise to periodic interim reports progress describing the progress of the work.

At the end of the Study, the Scientific Managers shall draw up a final performance report containing details of the Results obtained.

Article 4 – Obligations of the Parties

It is expressly agreed between the Parties that the commitments provided for in this contract are due care obligations only.





4.1. IRD undertakes to:

- appoint and, if need be, send on a mission, depending on the possibilities, the scientific staff required for the program of the Study;
- contribute to purchasing equipment needed for field activities under the program of the Study;
- cover the salary of Dr. Maxime RÉJOU-MÉCHAIN.

4.2. FS/CMU undertakes to:

- make available, depending on the possibilities, the infrastructures necessary for the optimum carrying out of the Study;
- facilitate collaborative relationships with other public or private bodies;

4.3. Both Parties undertake to:

- search for additional funding together in order to improve the conditions in which the Study is implemented and to insure the continuity of the scientific work;
- make available all the necessary data necessary for the optimum carrying out of the Study;
- publish the results of the Study in scientific journals and fulfill the criteria of the International Committee of Medical Journal Editors definition of authorship (https://www.icmje.org/recommendations/). The author order and corresponding author will be jointly decided by The Scientific Managers according to the relative contribution of the people involved in the project.
- state in the acknowledgement section of published articles in scientific journals that the research work has been done at Chiang Mai University.

Article 5 – Personnel participating in the Study – Mutual staff hosting

The personnel of each Party whose list is annexed to this contract (Appendix 2) is assigned to the implementation of the Study.

A Party shall under no circumstances be regarded as the employer for any contract of employment or part-time work concluded by the other Party for the needs of this contract.

The terms and conditions according to which personnel of one Party is hosted into the premises of the other Party must be set out in a specific hosting agreement entered into between the Parties. This hosting agreement shall be drawn up according to the following principles:

- Each Party retains the hierarchical, administrative and scientific authority over its own personnel;
- Personnel hosted must comply with the internal rules applicable within the host establishment, as well as with the health and safety rules in force and instructions which are communicated to him for the use of equipment;





- If the hosted person is involved in an accident at work, the hosting Party shall promptly notify
 the Party employer and provide the latter with the information it requires to complete the
 related formalities;
- Non-employee staff (especially students, grant holders researchers) may be hosted only upon
 presentation of relevant documents certifying that they have subscribed all appropriate
 insurances, in particular health and accident coverage as well as professional civil liability
 insurance.

Article 6 - Equipment and technical resources

The list of the equipment and technical resources made available by the Parties for the implementation of the Study is given in the Appendix 3.

The Parties retain ownership of movable and immovable property that they make available for the implementation of this contract.

In case some equipment is jointly acquired by the Parties, they shall conclude a specific capital grant agreement to the benefit of the Party in charge of purchasing this equipment.

This agreement shall specify the financial breakdown of the purchase and shall designate the Party which shall own the equipment, as well as the Party in charge of maintenance and repairs.

This agreement shall also specify the conditions of use of the equipment, as well as the arrangements for funding its operation and maintenance.

Article 7 - Financing of the Study

Each Party manages according to its own budgetary and accounting procedures the funds that it allocates for carrying out the Study.

In case of external financing, each Party shall be responsible for the budget allocated thereto for carrying out the tasks assigned to it by the third party payer.

Article 8 - Civil liability

Each Party shall bear all the consequences of the civil liability it incurs towards the other Party and towards third parties and their beneficiaries pursuant to ordinary law for any physical injury or property damage caused by its staff or equipment, as well as by the staff or equipment managed by it or in its custody, without exercising any remedy against the other Party save in the event of gross or willful negligence on the part of said Party.

Each Party represents that it has taken out civil liability insurance in connection with the implementation of this contract.





Article 9 - Confidentiality

Each Party agrees not to publish or disclose by any means whatsoever any Confidential Information provided by the other Party or of which it might become aware in connection with the performance of this contract, without the written agreement of the disclosing Party.

The Parties may also decide to treat as Confidential Information certain results stemming from the Study and that might lead to the filing of an intellectual property application or that might be used in the form of a secret technical file. Any such decision must be taken jointly by the Scientific Managers responsible for the collaboration and the Parties' departments responsible for promotion.

Under these circumstances, the Parties agree to keep the said results confidential until such time as the relevant application has been published or, in the case of a secret technical file, for the whole duration of its exploitation.

The commitments provided for in this Article shall continue to apply throughout the term of this contract and for five (5) years following the early termination or expiry hereof.

Confidential Information shall not be deemed to include information which the Party concerned can prove:

- it was already aware of when the said information was disclosed by the disclosing Party;
- was published, communicated or became public knowledge other than through a breach of this contract; or
- was subsequently received from a third party entitled to disclose it.

Article 10 - Publications

The Parties shall jointly decide which Results may be the subject of a scientific publication or communicated to third parties.

Throughout the term of this contract and for eighteen (18) months after the contract has expired, any proposed publication or communication by one of the Parties of information concerning the work and/or the Results must be approved in writing by the other Party. Said Party must give notice of its decision within one (1) month of the request. If no reply is received within this time limit, this Party will be deemed to have given its agreement.

The other Party may delete or amend certain information if the disclosure thereof might adversely affect the industrial or commercial use or the protection under appropriate conditions of the Results. No such deletions or amendments should affect the scientific value of the publication. In any event, the publication or communication shall not be delayed beyond a period of eighteen (18) months of the request.

Such communications must mention the assistance provided by each Party for carrying out the Study. Furthermore, the name and even the logo of the Parties must appear clearly and visibly in such communications together with the name of the staff involved.





The Parties agree that the provisions of Article 9 and this Article 10 shall not preclude the following:

- the obligation incumbent on those involved in the Study to prepare a periodic report on their work for their employer, provided that such communication does not constitute a disclosure within the meaning of intellectual property provisions. Where applicable, should any information be highly confidential, the report will be kept confidential; or
- the defense of a PhD thesis, of an authorization to oversee research (HDR) thesis or of an internship report by researchers and students whose scientific work is linked to the subject matter of this contract, such defense to be organized as necessary so as to ensure that Confidential Information is protected, in accordance with applicable university rules.

Article 11 - Intellectual property

11.1 - Proprietary Knowledge

The Proprietary Knowledge of one Party that is made available to the other Party for the purposes of the Study shall remain that Party's exclusive property and must not be published in any form whatsoever without the explicit agreement of the Party that holds the relevant rights.

Each Party agrees not to reuse the Proprietary Knowledge of the other Party for any purpose other than the purpose for which it was provided to them.

If the direct or indirect use of the Results by one of the Parties or by a third party requires the use of the Proprietary Knowledge of the other Party, the latter shall endeavor, subject to the rights granted to third parties, to allow such use. The terms and conditions under which the Proprietary Knowledge is to be used must then be contractually agreed on a case-by-case basis.

11.2 - Results of the Study

11.2.1 - General principles

Subject to the rights of third parties (if any), and regardless of whether they are capable of protection by an intellectual property right, the Results shall jointly belong to the IRD and FS/CMU, in proportion to their respective intellectual, financial and material contributions.

The co-owners shall jointly agree how the Results should be protected, promoted and used.

If applicable, the co-owners shall promptly draw up co-ownership rules in order to:

- determine the share owned by each of them according to their respective intellectual, material and financial contributions;
- set the terms and conditions according to which the Results should be managed from an intellectual property perspective; and
- set the terms and conditions according to which the Results should be promoted and used.





11.2.2 - Protection

Unless the co-owners agree otherwise, any intellectual property application will be jointly filed in the name of the co-owners, who shall bear the cost of protecting the Results in proportion to their respective share of the said Results.

The co-owner Parties further agree to:

- ensure that the names of the authors and/or inventors are mentioned in the applications filed (unless the said authors and/or inventors object thereto in writing) in accordance with applicable statutory provisions;
- ensure that their respective employees who are named as authors or inventors sign the required documents and complete the required formalities to file, maintain and defend the said titles; and
- ensure that those of their employees who helped obtain the Results are remunerated fairly in accordance with applicable regulations.

If for any reason either co-owner Party should waive to apply, to pursue an issue or maintain one or other of these intellectual property rights, it will inform the other Party timely by registered letter and will execute any and all documents required, so that this Party could continue alone the proceedings for grant or maintain in force the right in question.

11.2.3 - Exploitation

- Each co-owner Party may freely use the Results free of charge for the purposes of future research, including in collaboration with third parties, but not for commercial purposes whether directly or indirectly.
- The co-owners of Results may negotiate and conclude with third parties, under the conditions laid down in the co-ownership rules mentioned in Article 11.2.1 above, any license agreement for industrial and/or commercial use of these Results, exclusive or not.
- However, none of the co-owners is authorized to make such a use until co-ownership rules and financial terms and conditions have been signed by the co-owners.

Article 12 - Term

This contract shall take effect on 01/09/2023 for a duration of 2 years.

It may be amended and extended pursuant to a supplemental agreement.

Article 13 - Termination

13.1 - This contract may be automatically terminated by any of the Parties if the other Party fails to fulfil one or more of the obligations stipulated herein. Termination will take effect three (3) months after service of formal notice setting out the reasons for the complaint, sent by the complainant to the





defaulting Party by recorded delivery, unless within such time limit, the defaulting Party fulfills its obligations or produces proof of an impediment owing to a *force majeure* event.

13.2 - Any of the Parties may terminate this contract at any time subject to three (3) months' written notice containing an indication of the reasons for termination and sent by recorded delivery or delivered in person to the other Party.

13.3 - The termination of this contract for whatever reason will not affect the obligations already outstanding. Furthermore, the Parties shall remain bound by their contractual obligations until the effective date of termination, without prejudice to the compensation to which a Party might be entitled owing to a loss or damage suffered on account of the early termination of the contract.

Article 14 - General provisions

14.1 - Assignment

This contract is entered into on a personal basis. Accordingly, neither Party may howsoever transfer the related rights or obligations without the prior consent of the other Party.

14.2 - Severability

In the event that one or more provisions of this contract are deemed to be invalid or held to be invalid pursuant to an applicable treaty, law or regulation, or following a final decision by an appropriate court, the other provisions hereof shall remain in full force and effect. The Parties shall promptly make the necessary changes while maintaining, to the extent possible, a balance between the rights and obligations of each Party, in accordance with the Parties' original intention when this contract was signed.

Article 15 - Governing law - Settlement of disputes

The validity and interpretation of this contract, as well as the performance hereof in the event of a dispute, shall be governed by Thai law.

In the event of a dispute, the Parties shall endeavor to resolve the dispute amicably before referring the matter to a court. The Scientific Managers and/or representatives of each Party shall therefore suggest any conciliation solution.

In the absence of an amicable settlement within one (1) month of the dispute being recorded and notified by one of the Parties to the other Party by registered letter, the dispute will be finally settled by the courts with jurisdiction over the registered office of the defendant.

Article 16 - Contractual documents

This document and the appendices hereto, namely the following, form an integral part of the contract:





Appendix 1: Scientific and technical program

Appendix 2: List of the personnel assigned to the implementation of the Study

Appendix 3: List of equipment and technical resources

The Parties have initialed the said appendices and represent that they are aware of the terms thereof.

Executed in three (3) originals in English.

In France, on 04/07/613

On behalf of the IRD,

Florence MORINEAU Regional Delegate IRD Occitanie In Chiang Mai, on 25/07/2023

On behalf of FS/CMU,

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Professor Dr. Torranin CHAIRUANGSRI Dean of The Faculty of Science





APPENDIX 1 - SCIENTIFIC AND TECHNICAL PROGRAM

Use of remote sensing tools to characterize the structure and composition of tropical forests.

Statistical analyses of forest inventory data to infer ecological processes behind the structure and composition of tropical forests.

Training students on the use of R statistical software, basic statistical analyses and basic use of remote sensing data.





APPENDIX 2 - LIST OF THE PERSONNEL ASSIGNED TO THE IMPLEMENTATION OF THE STUDY

- For IRD: Mr. Maxime RÉJOU-MÉCHAIN, researcher at IRD,

- For FS/CMU: Ms. Pimonrat TIANSAWAT, assistant professor at FS/CMU.





APPENDIX 3 - LIST OF EQUIPMENT AND TECHNICAL RESOURCES

From IRD: the equipment attached to AMAP will be available for the implementation of the study, notably:

- - 2 Laptops.
- Access to high-performance computing (HPC) resources (MESO-LR).

From FS/CMU:

- an office space with an internet connection to welcome the IRD staff from IRD when they work in FS/CMU.