



PERAN LIPI SEBAGAI OTORITAS KEILMUAN (**KEANEKARAGAMAN HAYATI**) DAN PELAYANAN REKOMENDASI

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Disampaikan dalam "Sosialisasi Perlizinan Peneliti Asing", Univ. Parahayangan . Bandung , 22 Mei 2019



DASAR HUKUM OTORITAS KEILMUAN LIPI



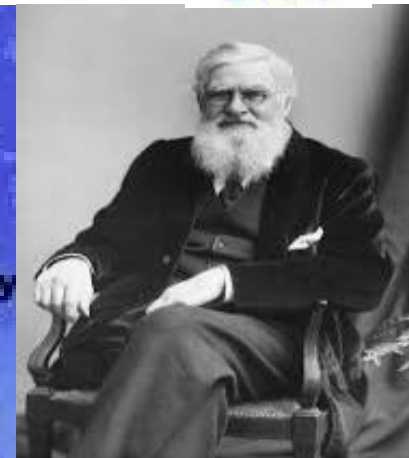
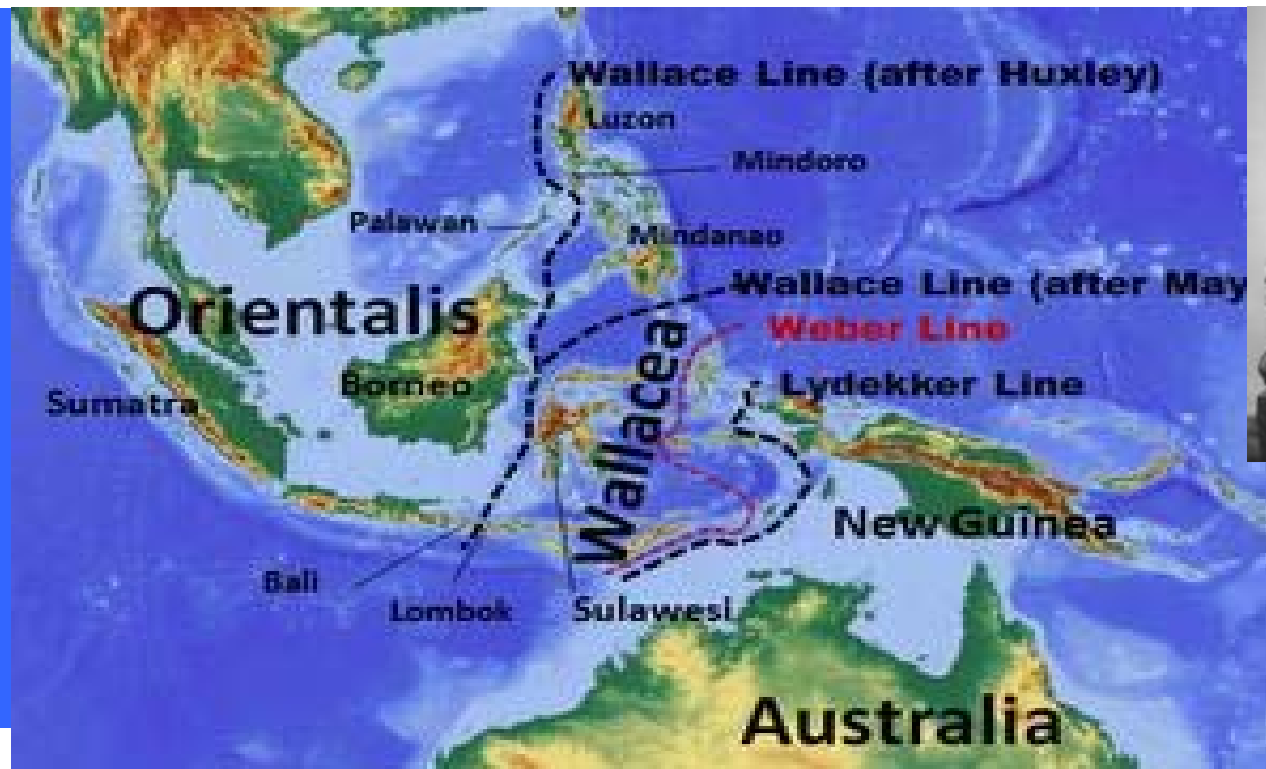
1. UU No. 5 Th 1990 tentang Konservasi Sumber Daya Alam Hayati dan Ekosistemnya.
2. UU No. 5 Th 1994 tentang Pengesahan *United Nations Convention on Biological Diversity* (Konvensi Perserikatan Bangsa-Bangsa Mengenai Keanekaragaman Hayati).
3. PP. No 7 th 1999 tentang Pengawetan Jenis Tumbuhan dan Satwa.
4. PP. No 8 th 1999 tentang Pemanfaatan Jenis Tumbuhan dan Satwa Liar.
5. PP. No 60 Th 2007 tentang Konservasi Sumber Daya Ikan.
6. Kepres RI No. 43 th 1978 tentang Pengesahan *Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora*.
7. Per-Men. PANRB No. 15 Tahun 2014 tentang Pedoman Standar Pelayanan.
8. Peraturan Kepala LIPI Nomor 8 Tahun 2015 tentang Standar Pelayanan di LIPI.
9. Keputusan Kepala LIPI Nomor 1973/A/2002 tentang Penunjukan Pusat Penelitian Biologi-LIPI sebagai Pelaksana Harian Otoritas Keilmuan (*Scientific Authority*) dalam Rangka Konservasi Tumbuhan dan Satwa Liar serta dalam Rangka Pelaksanaan *Convention on International Trade In Endangered Species of Wild Fauna and Flora*.



MENGAPA INDONESIA MENARIK UNTUK RISET



Biologi
Zoogeografi,
Geologi,
Klimatologi,
Kehati,
Antropologi,
Kesehatan,
Budaya,
Agama,
Bahasa,
dll





Nilai Utama KEHATI



- **Sumber Pangan**

- Karbohidrat
- Protein Nabati/ Hewani
- Vitamin dan Mineral



- **Sumber Obat**

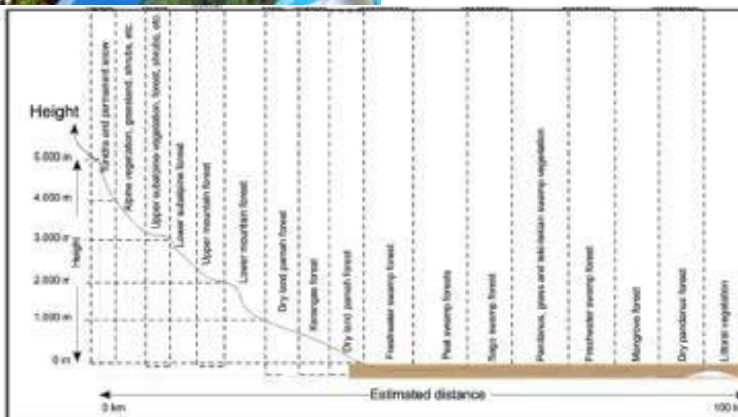
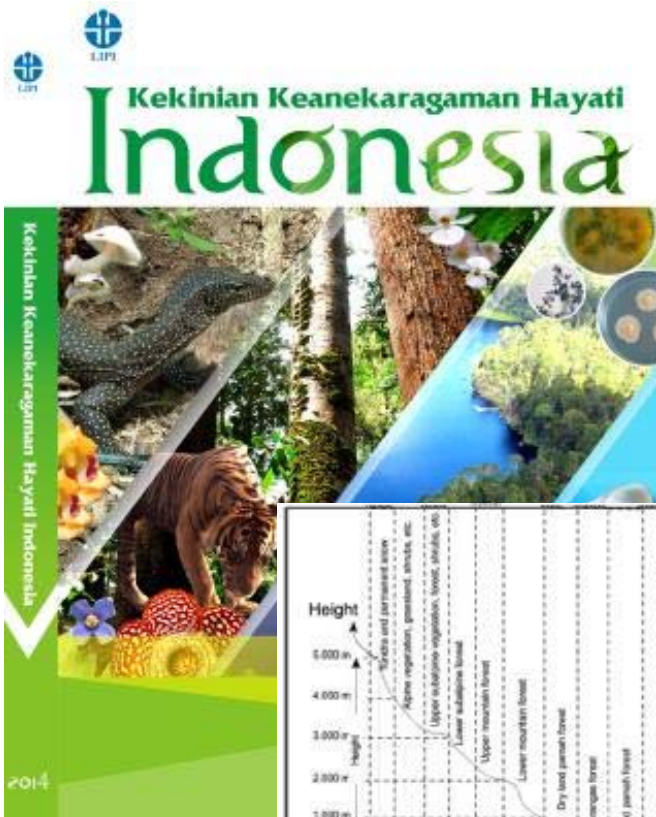


- **Sumber Energi**

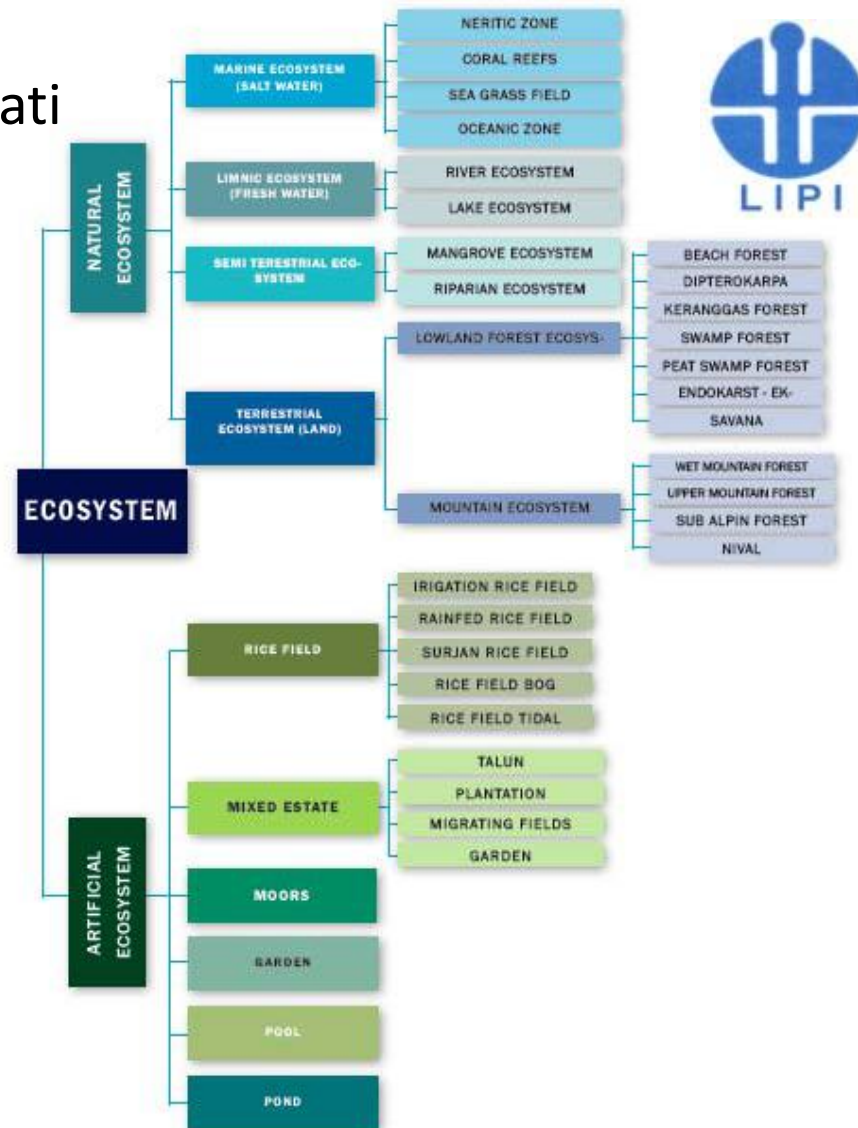




Indonesia KAYA Kenekaragaman Hayati (Kehati)



Source: modified from Karlawinata (2013)



Source: extracted from LIPI (2014)





Biota Laut

FAUNA

ALGAE

971 species

FLORA

143 species

Microbs

406 species

ECHINODERMATA

557 species

POLYCHAETA

527 species

CRUSTACEA

309 Species

CORAL

450 Species

FISHES

3.476 Species

MAMMALS

30 Species



Terestrial Biota

FAUNA

ALGAE
18 species



FLORA

MICROBS
401 species

VERTEBRATE

INVERTEBRATE



SPORES PLANTS

SPERMATOPHYTA

MAMMALS
720 species

BIRDS
1.605 species

AMPHIBIANS
385 species

REPTILES
723 species

FRESH WATER FISHES
1.248 species

KRIPTOGAM

FERNS
2.197 species

GYMNOSPERMAE
120 species

ANGIOSPERMAE
19. 112*



*From about 30.000-40.000 predicted existing species



Mengapa Riset Kehati Penting ??



- Pengembangan Iptek Kehati harus didukung oleh penelitian
- Persaingan penguasaan Iptek semakin ketat
- Penelitian lintas negara semakin banyak (globalisasi)
- **Minat peneliti Asing untuk datang ke Indonesia terus meningkat (Kehati dsb).**
- Publikasi Ilmiah Peneliti Indonesia tentang Kehati masih sangat sedikit



PENELITI TERKEMUKA DUNIA



Georg Eberhard Rumpf (1653- 1670) - RUMPIUS

Botanist Jerman melakukan eksplorasi Tumbuhan di Maluku 1653- 1670 dan menerbitkan buku *Herbarium Amboinense*. 7-volume 7,000 halaman

Alfred Russel Wallace (1823 -1913) adalah Bangsa Inggris terkenal sebagai naturalist, explorer, geographer, anthropologist, and biologist.

Di Indonesia (1854-1862) dengan buku Malay Archipelago

Richard Lydekker (1849 – 1915) adalah bangsa Inggris sebagai naturalis dan geologist dan menulis buku katalog mammals, reptiles and burung (10 vols., 1891)

Max Carl Wilhelm Weber or Max Wilhelm Carl Weber ahli Zoologi keturunan German-Belanda. 1902. *Introduction et description de l'expédition*,

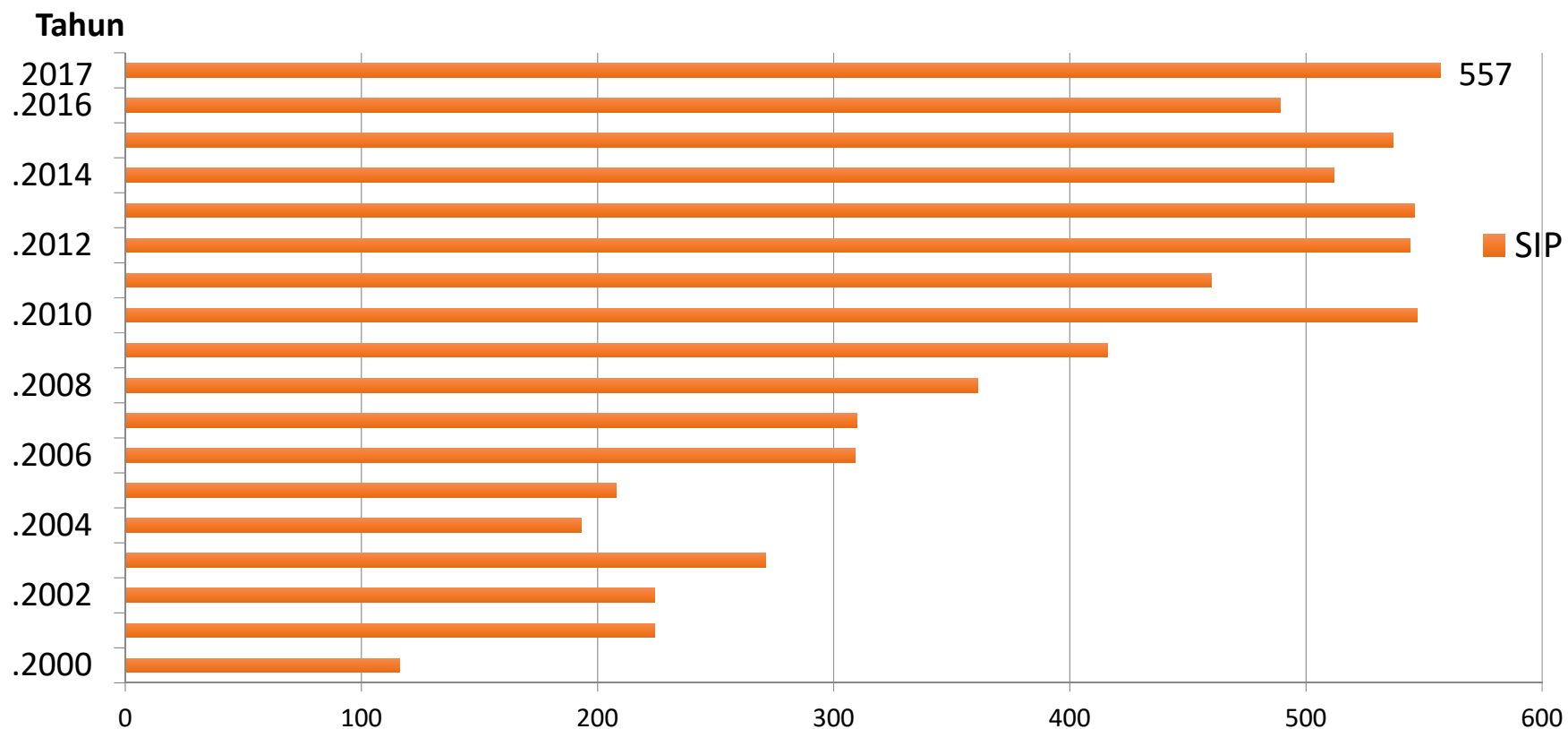


Alfred Russel Wallace





Jumlah Izin Penelitian (SIP) Asing dikeluarkan 2000-2017





Kerjasama Penelitian Internasional (Mandat UU No. 24/2000, Perjanjian International)



- **Memenuhi Peraturan dan Perundangan**
- **Keamanan dan Kepentingan (Kedaulatan) Indonesia, Institusi**
- **Harus institusional**
- **Memberikan manfaat secara adil**



UNTUK MEMENUHI Mandat UU No. 24/2000

Keamanan dan Kepentingan (Kedaulatan) **Indonesia DAN**

Memberikan manfaat secara adil DARI KERJASAMA Penelitian

Maka

Pemanfaatan Kekayaan “HAYATI’ harus diatur dengan suatu Perjanjian

Dengan

Perjanjian pengalihan material (MTA)



MATERIAL TRANSFER AGREEMENT (MTA) DAN PERMASALAHANNYA



LAHIRNYA MTA



- Penelitian terdahulu (Kesehatan, Pertanian & Biomaterial) tidak ada MTA (pertukaran material bisa/gratis)
- Dua dasawarsa terakhir, SDH ada nilai komersial maka lahirlah MTA di 2000an puncaknya di Protokol Nagoya 2010
- MTA adalah instrumen legal untuk penggunaan/pertukaran material biologi antara 2 atau lebih pihak dengan memperhatikan nilai *tangible biological* material (Material & bioinformatika)





Apa *Material Transfer Agreement* (MTA)

- Kontrak perjanjian tertulis yg mengatur pemindah tangan dari nilai berwujud (*tangible*).
- MTA menetapkan hak, kewajiban dan larangan baik untuk penyedia (*provider*) maupun penerima (*recipient*) atas material dan segala derivatnya & segala kerahasiaan informasi yang terkandung dalam material biologi yang dipindah tangankan.
- Yang diatur: hak atas kekayaan intelektual (aktual/potensial), **kewajiban**, kerahasiaan informasi penyedia, **publikasi hasil penelitian penerima**, **pembatasan** penggunaan materi, dan masalah hukum terkait lainnya bahwa penyedia dan penerima mungkin ingin membuat transaksi lain (Wisconsin Univ, USA, 2016-03-24)





Mengapa diperlukan MTA

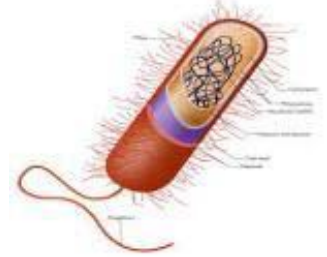


- **Melindungi** hak para pihak, publikasi yang dihasilkan/kekayaan intelektual serta kesalahpahaman/sengketa yang terjadi.
- **Melindungi penerima** 1) atas kemampuan penelitiannya untuk menggunakan dan mempublikasikan hasil penelitian; melindungi hak atas kekayaan intelektual; dan menentukan penggunaan informasi yang menyertainya. 2) memastikan persyaratan perjanjian tidak bertentangan dengan hak-hak yang diberikan dalam perjanjian
- **Melindungi penyedia**, atas kehilangan kontrol materi yang digunakan. Jika ada pelanggaran perjanjian, penyedia akan meninjau perjanjian tersebut sesuai dengan perundangan yang berlaku.



Material SDH apa yang dipindah tangankan

- Material SDH, > mikroba, binatang & tumbuhan serta ekstraknya dan derivatnya.
- **Informasi** yang dihasilkan dari material SDH
- Bacteria, Plasmids, Cultures, Cell Lines, Nucleotides, Transgenic Animals, Proteins, Pharmaceuticals





Landasan Hukum MTA



1. **PP 41.2014, Pasal 20 ayat 1.** Perguruan tinggi/lembaga penelitian dan pengembangan asing, badan usaha asing, dan orang asing dimaksud pada ayat (1) **tidak dapat membawa sampel dan/ atau spesimen bahan penelitian dan pengembangan keluar wilayah NKRI**, kecuali ditentukan lain oleh Peraturan Perundang-undangan (**PP 41.2014, Pasal 20 ayat 2**).
 - Penjelasan Psl 20 (2). Ketentuan Perundangan yang dimaksud adalah **Undang-Undang Nomor 4 Tahun 2006 tentang Pengesahan *International Treaty on Plant Genetic Resources for Food and Agriculture* yang mengatur *Material Transfer Agreement – MTA* (Perjanjian Pengalihan Bahan) penelitian dan Perment KLHK No. P2/2018 Tentang *AKSES PADA SDG SPESIES LIAR***
2. **Permentan No:15/Permentan/OT.140/3/2009 tentang PEDOMAN PENYUSUNAN PERJANJIAN PENGALIHAN MATERIAL**
3. **PermenKes No. 657/2009 tentang Pengiriman dan Penggunaan Spesimen Klinik, Materi Biologik dan Muatan informasi**
4. **Perka LIPI No. 9/2014 tentang Perjanjian Pengalihan Material di Lingkungan LIPI**



Prinsip MTA

- Melindungi material dan memastikan agar kegiatan penelitian dan pengembangan dengan menggunakan material tidak menimbulkan kerugian bagi NKRI
- Melindungi peneliti dari penyalahgunaan material
- Memberikan kemanfaatan sebesar-besarnya dari penggunaan material untuk meningkatkan daya saing bangsa dan kesejahteraan
- MTA disyahkan oleh Lembaga penyedia dan penerima
 - **Tidak boleh perorangan**



MTA setidaknya-tidaknya memuat

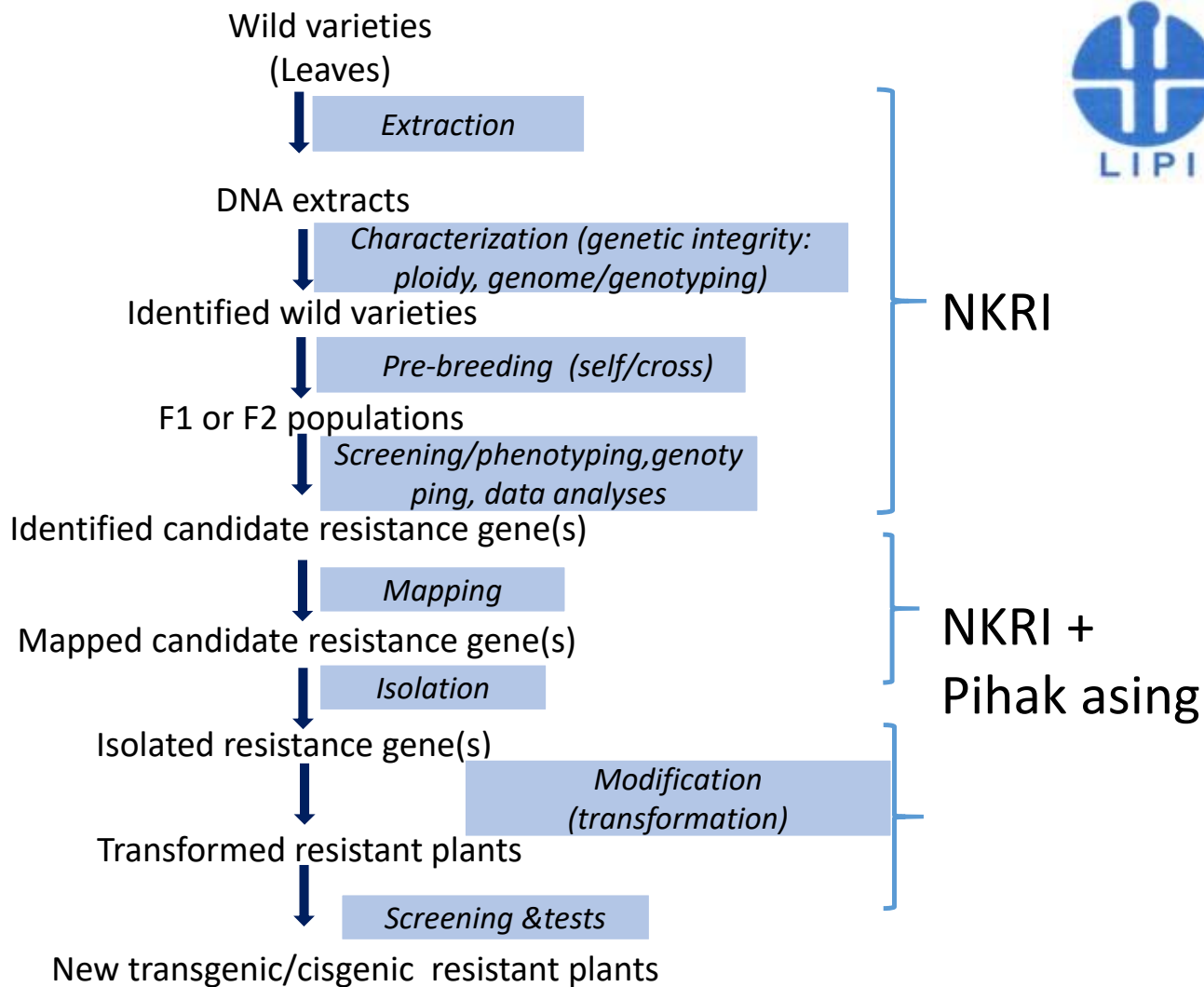
1. Identitas Penyedia dan Penerima
2. Deskripsi material
3. Tujuan pengalihan material
4. Hak dan kewajiban Penyedia dan Penerima
5. Perlakuan terhadap sisa material
6. Kepemilikan material
7. Penyelesaian Perselisihan
8. Pengaturan tentang Hak Kekayaan Intelektual (HKI)
9. Prinsip kerahasiaan
10. Mekanisme kepatuhan terhadap penelusuran kembali (*tracking system*)

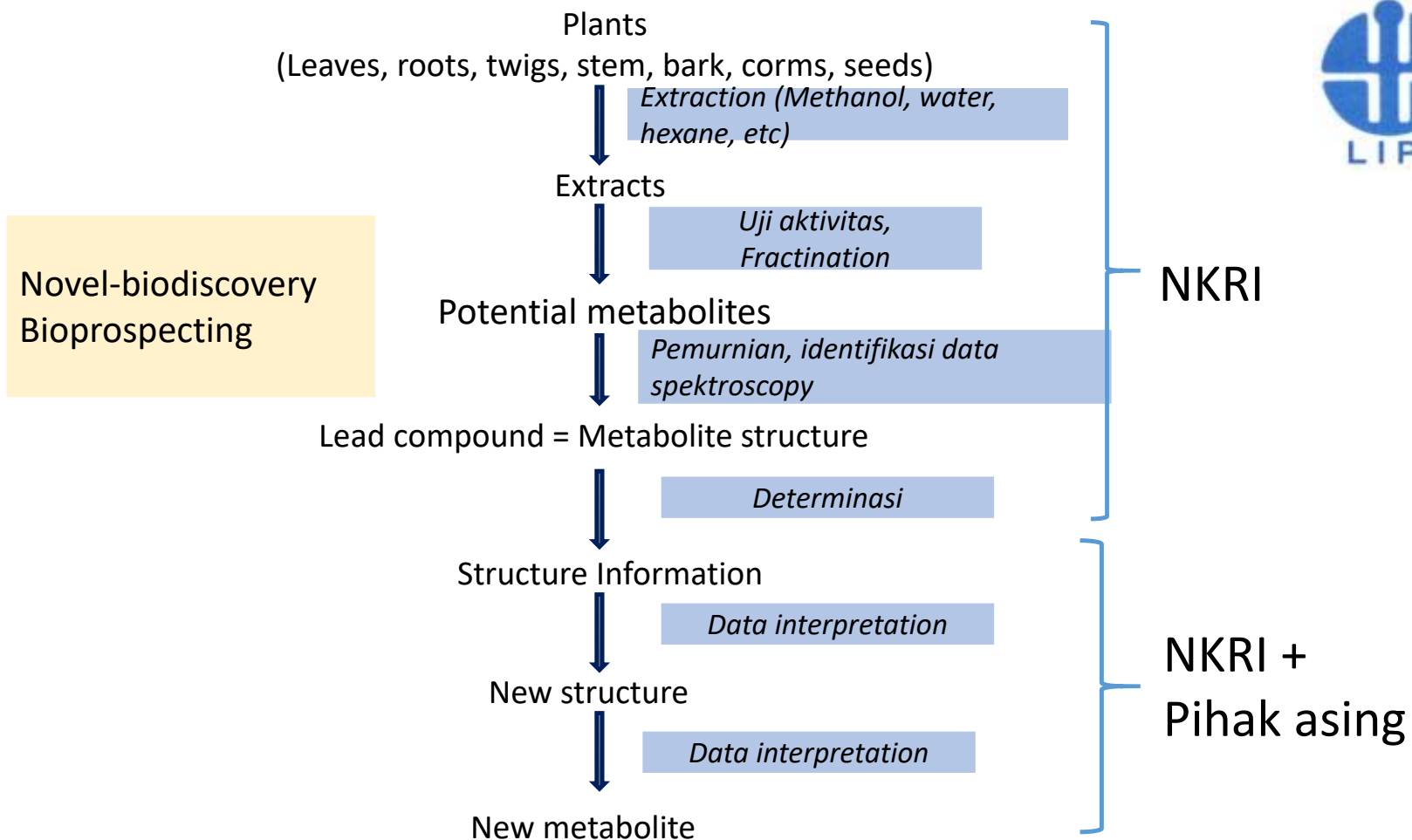


Molecular pre-breeding- mapping

Gene discovery-
transformation

Authorship : dari awal
bersama (kecuali yang
di kerjakan sendiri)

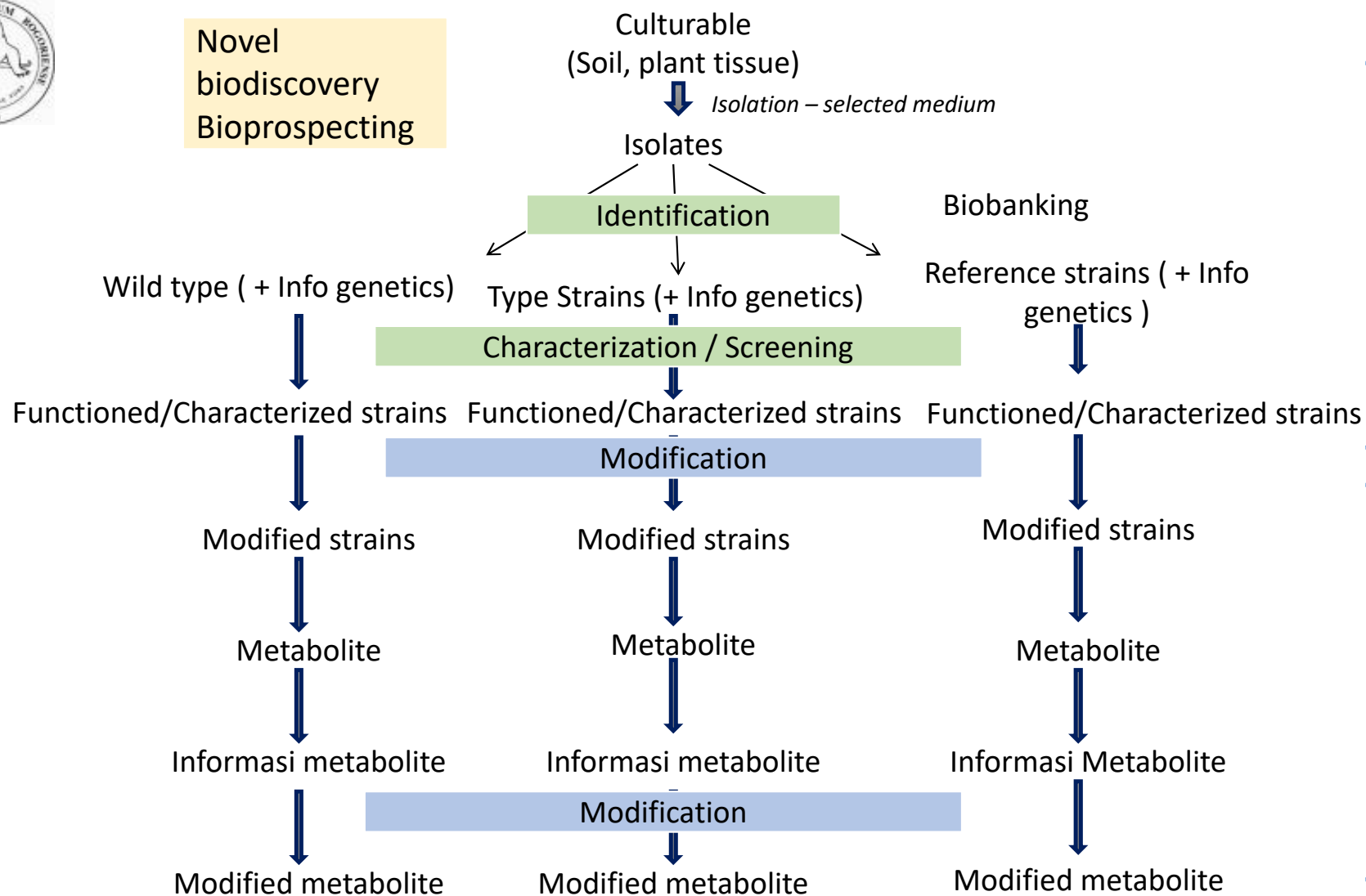




Authorship : dari awal bersama (kecuali yang di kerjakan sendiri)



Novel
biodiscovery
Bioprospecting

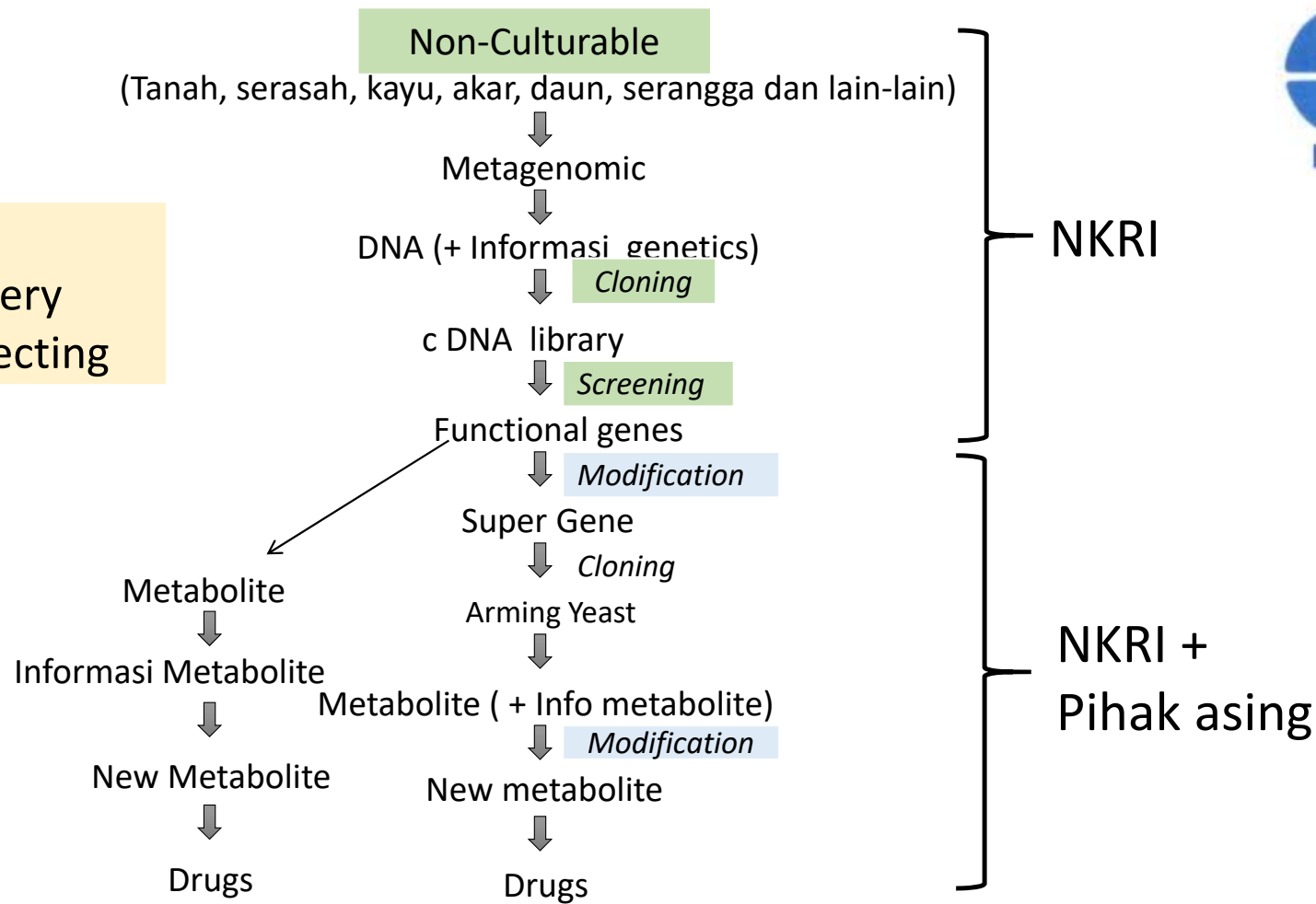


NKRI

NKRI +
Pihak
asing



Novel
biodiscovery
Bioprospecting





Definisi material menurut CBD

" **Biological diversity**" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

"**Biological resources**" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

" **Genetic material**" means any material of plant, animal, microbial or other origin containing functional units of heredity.

"**Genetic resources**" means genetic material of actual or potential value.

"**Country of origin of genetic resources**" means the country which possesses those genetic resources in in-situ conditions.

"**Country providing genetic resources**" means the country supplying genetic resources collected from in-situ sources, including populations of both wild and domesticated species, or taken from ex-situ sources, which may or may not have originated in that country.



ARTICLE XI MATERIALS

- (1) Materials as referred to in Article X point 1 are objects of research which are collected and used by The Parties during the implementation of these MAT according to Project Activities and material resulting from the activities of this project.
- (2) All materials as mentioned in the Verse 1 of Article XI that originate from Indonesia are **property of the Government of Republic of Indonesia** represented by RCB-LIPI.
- (3) recognize the **prior right of RCB-LIPI to ultimate possession of all Indonesian materials** obtained in the course of fieldwork within the Indonesian boundaries within the project. In the commitment thereof:
 - a. RCB-LIPI is allowed unchallenged **to control all Materials collected** by the Parties.
 - b. RCB-LIPI shall **own all specimens collected** from this collaboration which includes, but is not limited to, skins, skeletons, and parts and/or whole organisms preserved as dry or wet specimens.
 - c. Subject to the prevailing Indonesian laws and regulations and with approval of RCB-LIPI, may bring out the Materials collected in accordance to activities listed in Article II as **loan materials** and/or **permanent loan materials**.
 - d. Loan material and permanent loan material is defined as followed:

Loan material is material collected by the Parties and is transferred from RCB-LIPI to for the purpose of analysis or identification. The materials will be **returned** from to RCB-LIPI and/or **destroyed** upon the completion of the analysis or identification.

Whereas **permanent loan material** is materials that are preserved as dry or wet specimens; and are registered at RCB-LIPI but are not designated as holotype; which are transferred to as reference collection and shall be returned due to specific conditions stipulated in the MTA.

4. Specific provision for microorganism:

- a. The original materials and information contained therein obtained from culturable materials of which designated as wild type strains, type strains, and reference strain, shall be owned by RCB-LIPI. The information includes, but is not limited to, full genome, novel genes, functional genes, metabolites, proteins and their derivatives.
- b. The original information of microorganism obtained from unculturable materials as results of, such as but not limited to, metagenomics works shall be owned by RCB-LIPI. The information includes, but is not limited to, full genome, novel genes, functional genes, metabolites, proteins and their derivatives.
- c. RCB-LIPI shall grant to the right to use the materials and its information either original or modified for research and development purposes under the terms of these MAT. Where required for compliance with the terms and conditions set by scientific journals for the publication of the results, this right also includes the deposit of isolated microbial strains in the public collection of ... and InaCC-LIPI. Furthermore, referring to Article IX, the IPR will be jointly owned by The Parties.
- d. The modified materials and information from culturable and/or unculturable materials which are resulting in new product such as but not limited to a new strain, new functional gene and new functional metabolite shall be jointly owned by the Parties.
- e. All isolated strains shall be deposited at the Parties culture collections and kept for future reference as stipulated in Verse 3 of Article XI.

5. Specific provision for plants and animals extracts (hereinafter refer to extracts), information etc.

- a. The original extracts and its information that include but are not limited to genetic information, and new metabolites, lead compound and its natural derivatives shall be owned by RCB-LIPI.
- a. The modified extracts and its information which include but are not limited to genetic information, metabolite and artificially lead compound derivatives etc . shall be jointly owned by the Parties.
- b. The modifications of any kind based on materials from this project shall be jointly owned by the parties.



6. The Parties shall endeavor to primarily conduct the preparation and analysis of materials which include but are not limited to identification, characterization, isolation, extraction and modification in Indonesia.
7. In the circumstances that the preparation and analysis of material could not be conducted in Indonesia, subject to the prevailing Indonesian laws and regulations and with approval of RCB-LIPI, may bring out the Materials in accordance to activities listed in Article II. Scope of activity.
8. Materials shall be registered and preserved at the LIPI's collection prior to transfer of the materials amongst/ between The Parties for further analyses and/ or modification.
9. The Parties shall share records of the Project Collection and of the deposition of materials under the project to the internal or public collections of The Parties.
10. Material collections shall be completely closed at the end of these MAT. Remaining materials shall be returned to RCB-LIPI.
11. All research materials used in the collaboration shall follow the materials workflow stipulated on Annex 3 as the integral part of this agreement.
12. All research materials used in the collaboration will be transferred by using Material Transfer Agreement (MTA) and be approved by the Parties; termination of these MAT shall not affect rights and/or obligations under this Article (Annex 4).

CONTOH PASAL MTA LIPI



ARTICLE VIII PUBLICATIONS

- (1) Any publication resulted from this collaboration using materials of Indonesian biodiversity shall be authored and/or co-authored by contributors of The Parties.
- (2) The Parties have the right to review proposed publications of results obtained under these Mutually Agreed Term (MAT) prior to publication.
- (3) The Parties agree not to publish scientific results gathered under these MAT without the other party's consent.
- (4) The Indonesian side of The Parties shall contribute at least in the writing a section related to the materials obtained in Indonesia to ensure that the co-authorship comply with the international code of co-authorship.
- (5) Portions of data may be published in relevant Indonesian journals as agreed upon by the Parties.
- (6) The Parties agree to acknowledge the Government of Indonesia as the source of the Materials from Indonesia and/or the Government of for the Materials from in all publications.

ARTICLE IX

INTELLECTUAL PROPERTY RIGHTS

- (1) Any Intellectual Property (IP) brought by one of the Parties for the implementation of activities under these MAT shall remain the property of that Party. Except in case of willful misconduct or gross negligence, the Parties do not warrant that the rights of use granted by them can be executed without infringement of any third party's intellectual property rights. However, if any conflicting intellectual property rights become known during the Project, the Parties shall notify each other forthwith.
- (2) Any IP concerning data and information resulting from research activities conducted under these MAT shall be jointly owned by the Parties, and the Parties shall be allowed to use such property for non-commercial purposes free of royalty. Should the IP, data and information resulting from collaborative activities under these MAT be used for commercial purposes by one Party, the other Party shall be entitled to royalties on the principle of equitable contribution, based on (i) the contribution of the Party and (ii) materials that include genetic resources, traditional knowledge and folklore of the country of origin or contribution of The Parties representing their country of origin (iii) any income arising from the research activity. The value of the object materials of collaboration as part of contribution will be measured by taking into account the following factors:
 - a. The scarcity of the object (the rarer the object is, the higher its value will be);
 - b. The commercial value of the result of the research (the higher its commercial value is the higher its worth as part of the contribution will be);



- 3) Referring to point 2, any IP related to data and information which include, but are not limited to, high-quality photographic images, video and recording shall be jointly owned by the Parties and the Parties shall be allowed to use such properties for non-commercial purposes free of royalty.
- 4) The utilization of the findings of any research activities under these MAT outside the territories of the Republic of Indonesia and by one of the Parties requires prior written approval from the other Party on a case by case basis.
- 5) If either Party wishes to disclose confidential data and/or information resulted from cooperation activities under these MAT to any third Party, the disclosing Party must obtain prior consent from the other Party before any disclosure can be made.

CONTOH PASAL MTA LIPI

Struktur MTA disusun

- Title
- Preamble
- Definitions
- A description of use of the materials
- Confidential information
- IP rights
- Warranties
- Liability and/or indemnification
- Publication
- Governing law
- Termination
- Signatures
- Exhibits or appendices



Preamble

- Preamble (abstrak) dari manuskrip, merupakan landasan legal MTA yang mengikat perjanjian (*legally binding terms & conditions that follow*).
- Identifikasi waktu efektif, alamat para pihak.
- Mungkin juga memasukkan “*clauses describing the material*”, goal atau target penelitian yang diinginkan oleh para pihak



Definitions

- Di dalam MTA mungkin memiliki beberapa definisi yang secara spesifik harus diuraikan
- Misalnya, apa *materials, use of the materials, modifications, or inventions* dsb.



Description of use of the materials

- Pembatasan bagaimana penerima (*recipient*) boleh dan tidak boleh menggunakan material. MTA dilengkapi dengan appendix untuk menjelaskan batasan lebih detail dari material yang boleh dan tidak boleh digunakan.
- Misalnya; Material tidak boleh dipindah tangankan dan atau digunakan oleh pihak ketiga, atau menerima material dari pihak ketiga, atau tidak boleh dipindahkan kepada peneliti lain diluar projek dalam institusi yang sama.
- Atau pengaturan bahwa material tidak/boleh boleh digunakan untuk komersial



Confidential Information

Pihak penerima harus mematuhi untuk **merahasiakan** semua informasi dan hasil yang diperoleh dari material kepada pihak ke tiga

- Informasi,
- Data,
- Material,
- Keterangan tertulis yang berwujud terkait dengan material



Intellectual Property Rights



- Hak kekayaan intelektual harus dilindungi dalam MTA, termasuk Paten dan Varietas baru
- Menguraikan tentang pengaturan informasi inovatif/berharga dan royalti yang dihasilkan dari material yang didapat.



Warranties

- Dalam bagian ini harus ditulis secara jelas garansi, misalnya BAHWA PENGGUNAAN BAHAN TIDAK AKAN MELANGGAR PATEN, HAK CIPTA, MEREK DAGANG, ATAU HAK KEPEMILIKAN LAIN.
- Biasanya di tulis huruf besar



Liability and/or indemnification (ganti rugi)

- Kewajiban dan atau ganti rugi harus diuraikan dalam MTA bagian ini.
- Penerima bertanggung jawab atas kerusakan material yg mungkin timbul dari penggunaan, penyimpanan atau pembuangan material, serta modifikasi.
- Penyedia menetapkan ganti rugi, membebaskan, klaim, biaya, atau kewajiban lain yang terjadi diatas.



Publication

- Bagian ini harus menegaskan bahwa **penerima** tidak boleh mempublikasi/presentasikan hasil ke pada siapapun tanpa ijin penyedia.
- Apa bila akan mempublikasikan harus di informasikan kepada penyedia dalam waktu 30 – 45 hari sebelumnya untuk direview dan dipertimbangkan oleh **penyedia**



Governing law

- MTA harus ditentukan diatur oleh hukum yurisdiksi tertentu, negara.
- Hal ini mungkin ada masalah dalam kasus di yang penyedia dan penerima berada di yurisdiksi yang terpisah, negara, atau negara.
- Kebanyakan penyedia & penerima akan setuju pada hukum yang berlaku.

Termination

- Harus di jelaskan kapan perjanjian ini berakhir
- Apakah perlu ada perpanjangan harus diuraikan



Signatures

- Pejabat yang berwenang dari organisasi atau perusahaan yang menerima bahan.
- Peneliti menerima materi.
- Pejabat yang berwenang dari organisasi atau perusahaan yang menyediakan bahan.
- Peneliti memberikan materi.



PROVIDER	RECIPIENT
RESEARCH CENTER FOR BIOLOGY, INDONESIAN INSTITUTE OF SCIENCES	
DR. IR WITJAKSONO, M.SC Director Date:	Date:
Witnessed by,	Witnessed by,
Scientist	Scientist



Exhibits atau Appendices

- MTA biasanya dilengkapi penjelasan detail dalam lampiran di lembar akhir perjanjian.
- Penjelasan rinci tentang penelitian, protokol, atau daftar bahan.
- Kadang-kadang informasi rahasia yang sehingga dapat disunting lebih mudah daripada jika dimasukkan ke dalam perjanjian.

DALAM MTA UNTUK KERJASAMA PENELITIAN
PERLU DIPERHATIKAN ADANYA KEUNTUNGAN BERSAMA (PERMEN
NO. P2/2018 TENTANG AKSES PADA SDG SPESIES LIAR)



- . Pembayaran iuran
- . Pembagian royalti
- . Kontribusi perizinan komersialisasi
- . Pembayaran upah yang disepakati
- . Merupakan usaha bersama
- . Biaya penelitian
- dsb



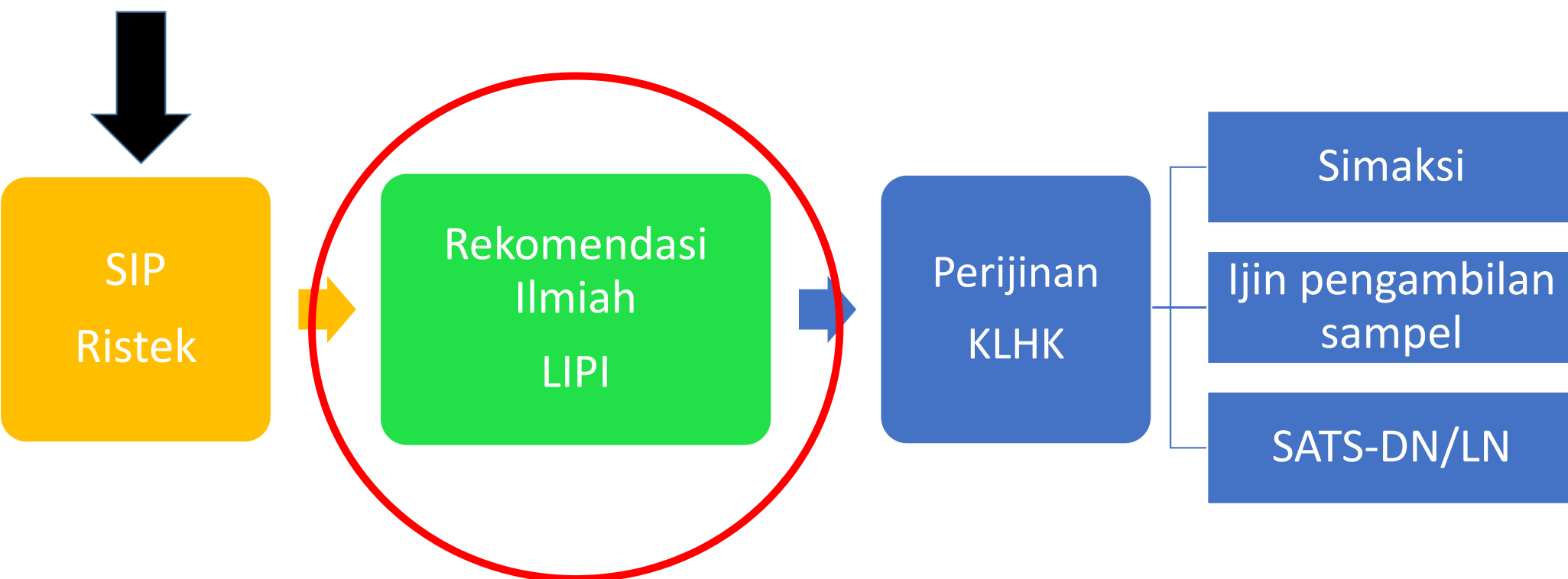
- . Publikasi bersama
- . Kepemilikan data bersama
- . Alih teknologi
- . Adanya pendidikan/pelatihan.
- . Fasilitas penelitian
- . Kemudahan akses sumber informasi
- . dsb



REKOMENDASI ILMIAH UNTUK PENELITIAN DARI *LIPI*



Peneliti asing





DASAR HUKUM

Keputusan Pemerintah No. 43/1978 tentang ratifikasi CITES

Convention on international Trade of Endangered Species (CITES): menjaga agar perdagangan internasional hidupan liar (satwa maupun tumbuhan) tidak menyebabkan kepunahan



UU No. 5/1990 tentang Konservasi Sumber Daya Alam dan Ekosistem

PP 8 /1999 tentang pemanfaatan jenis tumbuhan dan satwa liar

Pasal 65

poin a. Kementrian Kehutanan ditunjuk sebagai otoritas pengelola (*Management Authority/ MA*)

poin b. LIPI sebagai otoritas keilmuan (*Scientific Authority/ SA*)

Rekomendasi SATs-DN, SATs-LN

SK Ketua LIPI No. 1973/2002 Pusat Penelitian Biologi ditetapkan sebagai pelaksana harian otoritas keilmuan



ALUR KERJA PEMBERIAN REKOMENDASI ILMIAH





Syarat Pemberian Rekomendasi Ilmiah

1. Surat permohonan dari instansi
2. Proposal penelitian, yang berisi:
 - Tujuan pengambilan/pengalihan sampel
 - Metode dan lokasi pengambilan sampel
 - Cara pengawetan sampel
 - Tempat/lokasi penyimpanan dan analisis sampel
 - Jenis dan jumlah sampel
3. Pengambilan sampel terkait kerjasama luar negeri:
 - Perjanjian kerja sama
 - Perjanjian pengalihan sampel/ *Material Transfer Agreement (MTA)*.
 - Surat Ijin Penelitian dari Kementerian Riset Teknologi dan Pendidikan Tinggi Republik Indonesia.



Pengiriman permohonan:

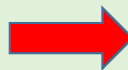


- Post:
Kepala Pusat Penelitian Biologi
Pusat Penelitian Biologi LIPI, Jl. Raya Jakarta Bogor km. 46 Cibinong
- Email:
biologi@mail.lipi.go.id
kerjasama.biologi@mail.lipi.go.id
- Disertai dengan nama dan kontak yang dapat dihubungi

SUBSTANSI YANG DIPERIKSA UNTUK PENERBITAN REKOMENDASI- Luar negeri

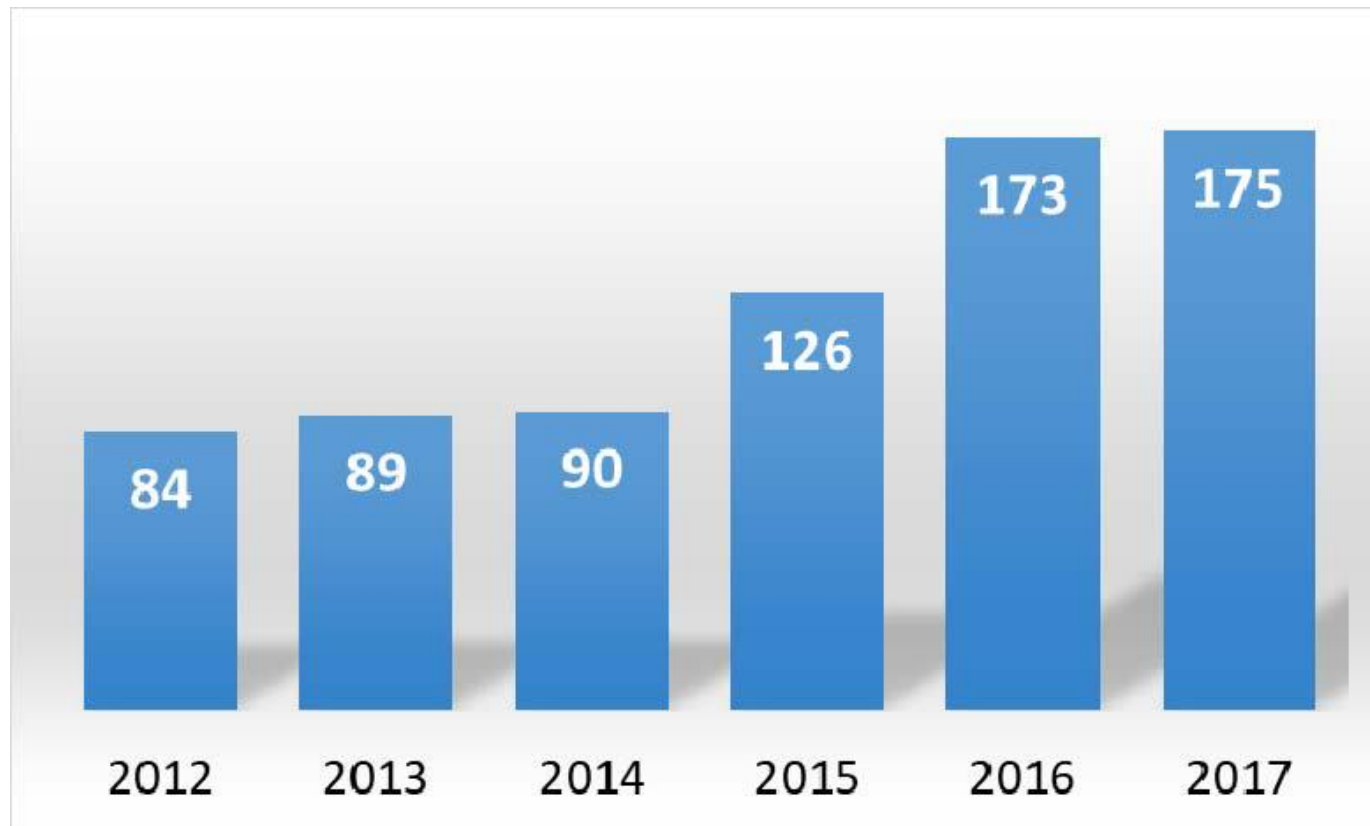


1. Dokumen perjanjian: LoA/MoU dan MTA;
2. Apakah tidak merugikan Indonesia?
3. Apakah menguntungkan Indonesia? Apabila iya, apa saja benefit yang didapat?
4. Proposal mengenai detail kegiatan penelitian;
5. Daftar sampel yang akan diambil/ dikoleksi/ dikirim ke luar negeri (penulisan nama jenis, jumlah sampel, dan pengemasan sampel harus jelas).

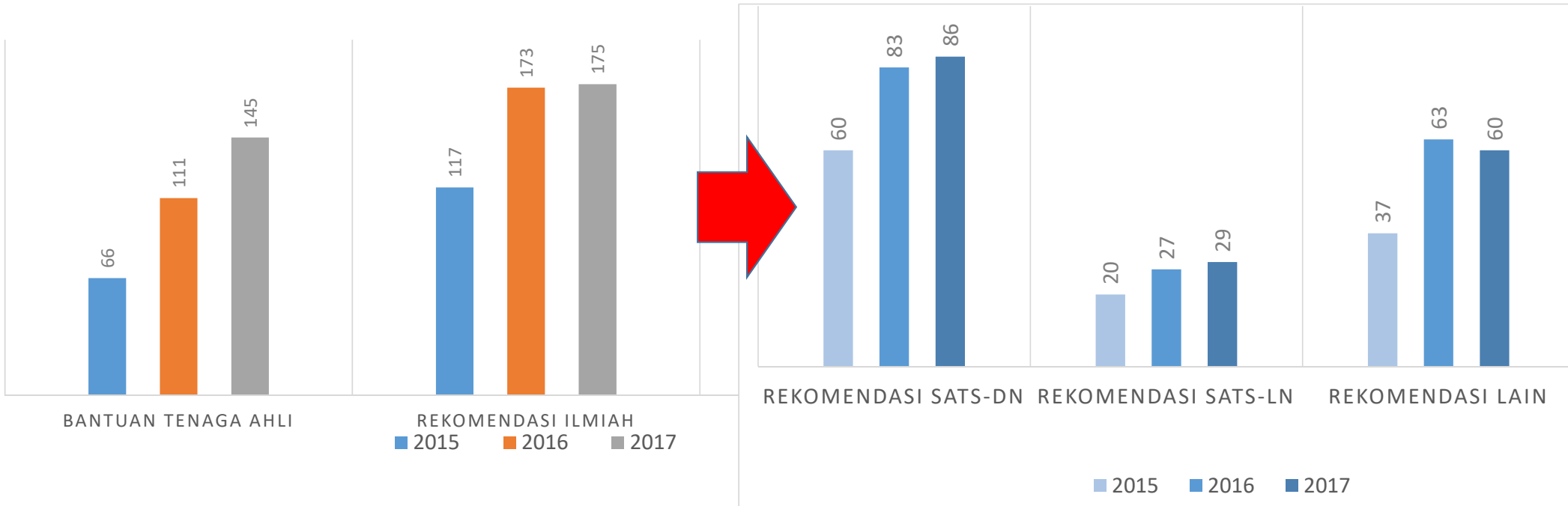
 SATS-DN



Data rekomendasi ilmiah yang dikeluarkan
Puslit Biologi dalam kurun 5 tahun terakhir-
tidak dipungut biaya



Jenis rekomendasi ilmiah



- Trend rekomendasi ilmiah meningkat sejalan waktu
- Rekomendasi lain termasuk rekomendasi export import TSL dan rekomendasi kuota TSL



Permasalahan yang dihadapi:



1. Dokumen yang dikirimkan belum lengkap;
2. Proposal kurang detail;
3. LoA/MoU/MTA dinilai lemah (merugikan) sehingga masih perlu diperbaiki;
4. Nama jenis, jumlah sampel, dan pengemasan sampel yang akan dikirim tidak jelas;
5. Material yang dikirimkan tidak sesuai dengan proposal
6. Daftar material yang akan dikirimkan tidak sesuai dengan isi MTA
7. Isi proposal tidak sesuai dengan apa yang diperjanjikan dalam MTA
8. Material yang dikirimkan keluar negeri (SATS-LN) tidak sesuai dengan yang diambil dengan izin dari lapangan (SAST-DN)
9. Peneliti yang berkompeten untuk mereview permohonan rekomendasi kadangkala sedang bertugas ke lapangan pada saat dibutuhkan untuk mereview permohonan tersebut.



Contoh PASAL DARI MTA

ARTICLE VIII PUBLICATIONS

- (1) Any publication resulted from this collaboration using materials of Indonesian biodiversity shall be authored and/or co-authored by contributors of The Parties.
- (2) The Parties have the right to review proposed publications of results obtained under these Mutually Agreed Term (MAT) prior to publication.
- (3) The Parties agree not to publish scientific results gathered under these MAT without the other party's consent.
- (4) The Indonesian side of The Parties shall contribute at least in the writing a section related to the materials obtained in Indonesia to ensure that the co-authorship comply with the international code of co-authorship.
- (5) Portions of data may be published in relevant Indonesian journals as agreed upon by the Parties.
- (6) The Parties agree to acknowledge the Government of Indonesia as the source of the Materials from Indonesia and/or the Government of for the Materials from in all publications.



ARTICLE IX INTELLECTUAL PROPERTY RIGHTS

- (1) Any Intellectual Property (IP) brought by one of the Parties for the implementation of activities under these MAT shall remain the property of that Party. Except in case of willful misconduct or gross negligence, the Parties do not warrant that the rights of use granted by them can be executed without infringement of any third party's intellectual property rights. However, if any conflicting intellectual property rights become known during the Project, the Parties shall notify each other forthwith.
- (2) Any IP concerning data and information resulting from research activities conducted under these MAT shall be jointly owned by the Parties, and the Parties shall be allowed to use such property for non-commercial purposes free of royalty. Should the IP, data and information resulting from collaborative activities under these MAT be used for commercial purposes by one Party, the other Party shall be entitled to royalties on the principle of equitable contribution, based on (i) the contribution of the Party and (ii) materials that include genetic resources, traditional knowledge and folklore of the country of origin or contribution of The Parties representing their country of origin (iii) any income arising from the research activity. The value of the object materials of collaboration as part of contribution will be measured by taking into account the following factors:
 - a. The scarcity of the object (the rarer the object is, the higher its value will be);
 - b. The commercial value of the result of the research (the higher its commercial value is the higher its worth as part of the contribution will be);



- 3) Referring to point 2, any IP related to data and information which include, but are not limited to, high-quality photographic images, video and recording shall be jointly owned by the Parties and the Parties shall be allowed to use such properties for non-commercial purposes free of royalty.
- 4) The utilization of the findings of any research activities under these MAT outside the territories of the Republic of Indonesia and by one of the Parties requires prior written approval from the other Party on a case by case basis.
- 5) If either Party wishes to disclose confidential data and/or information resulted from cooperation activities under these MAT to any third Party, the disclosing Party must obtain prior consent from the other Party before any disclosure can be made.



Kelemahan dalam dokumen perjanjian

The specific objectives of this project are

- To collect and isolate Indonesian marine invertebrates and microbes.
- To screening their medicinal value
- To isolate and determine chemical structures of biologically active compounds.
- To isolate genomes for taxonomic study, sequencing analysis, and expression study regarding secondary metabolites.

Penelitian hanya dilakukan oleh peneliti asing, kita hanya menonton dan menerima hasilnya saja.

2-2) Extracts of Marine invertebrates

The extracts are considered to be the derivative from genetic resource (non genetic resources), and the extracts can be transferred from Indonesian Univ. to Foreign country (A Univ.) without official agreement. However, both universities have responsibility for the storage of extracts and can not transfer the extracts to any third parties without agreement of both universities.

Tidak ada kewajiban untuk mendeposit mikroba yang berhasil di Isolasi di Indonesia.

?

2-3) Microbes

The isolation of microbes from marine invertebrates and sea sands performs only in Indonesia. ✓

A Univ. deposits the isolated microbes, and has responsibility for its storage. A Univ. must transfer the deposited microbes to Indonesian Univ. whenever they would like to. Both universities can not transfer the deposited microbes to any third parties without agreement of both universities.

A Univ. is able to cultivate the deposited microbes, analyze the constituents, and investigate the biological properties of constituents. A Univ. must disclose the obtained information regarding the microbe, whenever Indonesian Univ. would like to.

The isolated secondary metabolites are considered to be the derivative from genetic resource (non genetic resources).

2-4) Genomes of microbes

The genomes isolated from the microbes are deposited by A Univ. and the genomes can be used for taxonomic study, sequencing analysis, and expression study regarding secondary metabolites. All genomes and information of sequences is accessible Indonesian Univ. Both universities can not transfer the genomes and can not disclose the information of sequences to any third parties without agreement of both universities.

The compounds obtained from the expression study are considered to be the derivative from genetic resource (non genetic resources).

3. Benefit-Sharing

The researchers, who participated the collaboration research, can present the results in the form of scientific publication and conferences. The agreement has to be done prior to submitting the article and the abstract.

All genetic resources obtained from the collaboration research are dealt based on the spirits of CBD (Convention on Biological Diversity). Both universities do not claim the benefit regarding the development of the derivative from genetic resource (non genetic resources) as medicinal seeds.

Both universities must endeavor to solve any problems regarding the benefit-sharing based on the spirits of CBD.

Apakah hal ini sesuai dengan semangat CBD?

16. An Indonesian scientist (researcher or lecturer) who has a collaborative research with a foreign scientist may bring materials (including protected species or species listed in IUCN or CITES) abroad for his/her collaborative research. To do so, the scientist shall show the MoU document to the Scientific Authority (Indonesian Institute of Sciences) and after the document is clarified, the scientist will still have to meet the regulation of obtaining document permit from Indonesian Forestry Ministry for protected species or

For transferring the material (for non-protected species or from species that are not listed in IUCN or CITES) a List has to be deposit at

as author.

Melanggar peraturan perundangan → SATS-LN



CONTOH PELANGGARAN KERJASAMA

LIPI "Kecolongan "

News / Sains

LIPI "Kecolongan"

Rabu, 4 April 2012 | 08:56 WIB

JAKARTA, KOMPAS.com -

04 Apr 2012



JAKARTA, KOMPAS.com - Lembaga Ilmu Pengetahuan Indonesia (LIPI) kecolongan. Publikasi hasil kerjasama riset dengan peneliti asing di jurnal internasional tidak mencantumkan nama peneliti LIPI. Publikasi hasil riset yang dimaksud adalah penemuan spesies sekaligus genus tawon baru *Megaloptera garuda*. Hasil penemuan dimuat di jurnal *Zookeys*, Jumat (23/3/2012).



BOOK CONTRIBUTIONS

- Binternagel, Norbert, Juhrendt, Jana, Koch, Sebastian, Purnomo, Mangko, Schwarze, Stefan, Barkmann, Jan, Faust, Heiko (2010): Adaptation to climate change in Indonesia – livelihood strategies of rural households in the face of ENSO related droughts. In: Tschamtké, T., Leuschner, C., Veldkamp, E., Faust, H., Guhardja, E., Bidin, A. (eds.). Tropical Rainforests and Agroforests under Global Change. Springer-Verlag, Berlin, pp. 351-376. ISBN: 978-3-642-00492-6
- Klasen, Stephan, Faust, Heiko, Grimm, Michael, Schwarze, Stefan (2010): Demography, Development, and Deforestation at the Rainforest Margin in Indonesia. In: Tschamtké, T., Leuschner, C., Veldkamp, E., Faust, H., Guhardja, E., Bidin, A. (eds.). Tropical Rainforests and Agroforests under Global Change. Springer-Verlag, Berlin, pp. 213-238. ISBN: 978-3-642-00492-6
- Seeborg-Elverfeldt, Christina, Schwarze, Stefan, Faust, Heiko (2010): Institutions for Environmental Service Payment Programmes - Evidence from Community Resource Management Arrangements in Indonesia. In: Tschamtké, T., Leuschner, C., Veldkamp, E., Faust, H., Guhardja, E., Bidin, A. (eds.). Tropical Rainforests and Agroforests under Global Change. Springer-Verlag, Berlin, pp. 431-446. ISBN: 978-3-642-00492-6
- Van Edig, Xenia, Schwarze, Stefan, Zeller, Manfred (2010): The Robustness of Indicator Based Poverty Assessment Tools in Changing Environments - Empirical Evidence from Indonesia. In: Tschamtké, T., Leuschner, C., Veldkamp, E., Faust, H., Guhardja, E., Bidin, A. (eds.). Tropical Rainforests and Agroforests under Global Change. Springer-Verlag, Berlin, pp. 191-212. ISBN: 978-3-642-00492-6
- Olschewski, R., Tschamtké, Teja, Benítez, Pablo C., Schwarze, Stefan, Klein, Alexandra-Maria (2007): Economic evaluation of ecosystem services as a basis for stabilizing rainforest margins? A comparison of coffee landscapes in Ecuador and Indonesia. In: Tschamtké, T., Zeller, M., Leuschner, C. (eds.). Stability of Tropical Rainforest Margins: Linking Ecological, Economic and Social Constraints. Springer-Verlag, Berlin, pp. 263-276, ISBN: 3540302891.

Publikasi yang hampir tidak melibatkan peneliti Indonesia

Five new species and one new genus of recent miliolid foraminifera from Raja Ampat (West Papua, Indonesia)

BiodiversityPaleontologyTaxonomy

Meena Förderer, Martin R. Langer

Published June 23, 2016PubMed 27366652

Acknowledgements

The authors gratefully acknowledge Dr. Stephanie Pietsch for assistance with the collection of the samples, Georg Oleschinski for help with the SEM and Peter Göddertz and Kai Jäger for support with CT scan imaging. We thank Justin H. Parker, Tomas Cedhagen and an anonymous reviewer for constructive and helpful comments on the manuscript.

SAMPEL TIDAK DISIMPAN DI INDONESIA
TIDAK ADA ORANG INDONESIA YANG TERLIBAT

 Zootaxa 4079 (4)
<http://www.mapress.com/zootaxa/4079.html>
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<https://doi.org/10.1111/zoo.12402>
<http://zoobank.org/urn:lsid:zoobank.org:pub:18895002-F0ED-45EE-A01A-919A7529C6D8>

Description of *Heliocypha vantoli* spec. nov. from Siberut in the Mentawai Islands (Odonata: Chlorocyphidae)

MATTI HÄMÄLÄINEN

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Acknowledgements

I am grateful to Kirill A. Kolesnichenko and Andrey Medvedev for providing me with the unique opportunity to study the specimens of this new species. The former also kindly provided photographs of an *H. vantoli* male in life and of its habitat. Rory Dow provided relevant information on recent additions to the knowledge of the Sumatran dragonfly fauna. Vincent Kalkman checked some details of the type series of *Heliocypha angusta oceanis*. Peter Nielsen sent photographs of the holotype male of *Heliocypha angusta*. Albert Orr revised the first manuscript draft and improved the English expression. Sami Karjalainen helped with the illustrations. Oleg Kosterin provided useful information and he reviewed the submitted manuscript. I am grateful to all of them.

Material studied: Holotype ♂: Indonesia, Mentawai Islands (off Sumatra), Siberut Island, Madoba; ca. 1° 35' S, 99° 09' E; alt. 60 m asl., 29–31 January 2013, K.A. Kolesnichenko leg. Paratypes: 3 ♂ 1 ♀, same data as in holotype. Holotype deposited at RMNH (Leiden, The Netherlands)



Lesson learned



Kerja Sama Penelitian dengan Puslit Biologi-LIPI:

Sinergi dan persamaan kedudukan



Travel agent,
pengacara

ARTICLE III CONTRIBUTION BY RCB-LIPI

In pursuance of the prevailing laws and regulations in Indonesia, and subject to personnel and budget limitation, RCB-LIPI should:

- (1) Provide in-country coordination for research travel, including, but not limited to, the coordination of transport, accommodation, and personnel;
- (2) Assist in the acquisition of collecting, transport and export permits from the relevant Indonesian authorities, and provide capable field personnel, if available from its own staff;
- (3) Indemnify, defend and hold UF harmless for any damages incurred by UF as a result of or pursuant to RCB-LIPI's negligent actions in connection with this LoA.

ARTICLE IV CONTRIBUTION

Desiring to its financial ability and personnel limitation, and in pursuance of the prevailing laws and regulations in Indonesia, RCB-LIPI should:

- (1) Fund transportation and lodging expenses for travel directly related to collaborative research;
- (2) Pay research, collecting, export, import, transport, and other permit fees directly related to collaborative research;
- (3) Provide necessary field equipment used during collaborative research expeditions.

Membayar transport dan
penginapan, perijinan, menyediakan
peralatan lapang

ARTICLE III CONTRIBUTION BY RCB-LIPI

In pursuance of the prevailing laws and regulations in Indonesia, and subject to personnel and budget limitation, RCB-LIPI should:

- (1) Provide RCB-LIPI's expertises to conduct project activities listed in Article II;
- (2) RCB-LIPI has assigned _____, to work on collaborative project involving the activities listed in Article II.
- (3) Assist _____ delegates in arranging visas and other necessary paperwork (such as collection permits, export permits and phytosanitary certificates) to facilitate joint research visits and joint fieldwork in Indonesia;
- (4) Provide basic field equipments and facilities, subject to availability, used during collaborative research activity;

ARTICLE IV CONTRIBUTION BY

In pursuance of the prevailing laws and regulations in Indonesia, and subject to personnel and budget limitation, _____ should:

- (1) Provide _____
- (2) _____ has assigned _____, to work on collaborative project involving the activities listed in Article II.
- (3) Assist RCB-LIPI's delegates in arranging visas and other necessary paperwork (such as collection permits, export permits and phytosanitary certificates) to facilitate joint research visits and joint fieldwork in Indonesia;
- (4) Cover the cost for the fieldwork including travel, accommodation, material transfer and the counterpart fees as well as the genetic analyses and necessary field equipments used during collaborative research expeditions, the amounts to be mutually agreed upon by The Parties in advance;
- (5) Improve the Indonesian scientists in research activities through the direct involvement in any laboratory and field data collections and analysis conducted either in _____, Indonesia or other countries as agreed upon.
- (6) _____ agrees to be responsible for the negligent acts or omissions of its employees or agents while acting within the scope of their employment during the term of this LOA. Such

Exual coutership

7.3 Inventions generated by a Partner solely in the performance of the project (a "sole invention") shall be owned solely by that Partner.

Sole invention  Joint invention/
Jointly owned

16. Settlement of Disputes

16.1 The Partners agree to submit any disputes that may arise

16.2 If the Partners are unable to resolve any dispute, controversy or claim arising under, out of or relating to this contract and any subsequent amendments of this Agreement, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be submitted to mediation in accordance with the WIPO Mediation Rules. The place of mediation shall be Zurich, Switzerland. The language to be used in the mediation shall be English.

Place of mediation shall be
Zurich, Switzerland



Place of mediation shall be
Zurich, Switzerland

KERJASAMA GAGAL
DILAKSANAKAN

Terimakasih

TIM kerjasama Riset Pusat Penelitian Biologi LIPI, 2018

biologi@mail.lipi.go.id

