



Bogor Agricultural University (IPB)

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<http://ipb.ac.id>

“Strategi Memenangkan Hibah Kerjasama Internasional”

Oleh

Iskandar Z. Siregar

Direktur Program Internasional IPB

Guru Besar Department Silvikultur, Fakultas Kehutanan IPB



Isi Presentasi

- **Pendahuluan:**
 - Visi dan Strategi Riset
 - Infografis
- **Strategi:**
 - Agenda Global & Pendanaan
 - Konsorsium Riset Internasional
 - Manajemen Riset & Peraturan
 - *"Brain Gain & Brain Sustain"*
- **Lessons learned:**
 - Aspek Legal dan Pembagian Manfaat
- **Penutup**



Pendahuluan | Visi & Strategi

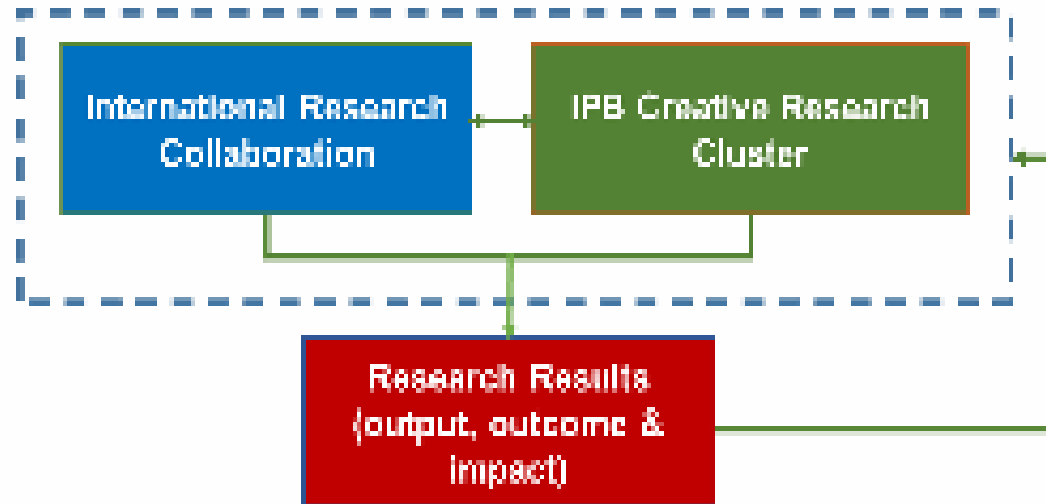
Visi IPB dalam Statuta (PP No. 66/2013):

“Menjadi terdepan dalam memperkokoh martabat bangsa melalui pendidikan tinggi unggul pada tingkat global di bidang **pertanian**, **kelautan**, dan **biosains** tropika” → Rencana Jangka Panjang IPB 2019-2045: *Techno-Socio-Entrepreneurial University*

Salah satu strategi terkait riset:



IPB international contacts







S#1 | Menyelaraskan dengan Agenda Global

Lokal ↔ Global



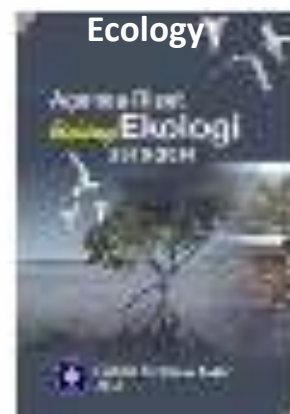
<https://sustainabledevelopment.un.org/sdgs>



<https://ww2.frost.com/research/techvision>



<http://dri.ipb.ac.id>



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S#1 | Menyelaraskan dengan Agenda Global Leadership

DFG Deutsche Forschungsgemeinschaft

Research Funding | Funded Projects | DFG is People

Home | Search | Press | Press releases | DFG | Publications in Germany's Excellence Strategy | Excellence Commission Approves 57 Clusters of Excellence

Press Release No. 43 | 27 September 2018

Final Decisions in Germany's Excellence Strategy: Excellence Commission Approves 57 Clusters of Excellence

Joint Press Release DFG (German Research Council) and HHG (German Council of Science and Humanities)

Funding to begin 1 January 2019 for initial seven years / €289 million annually / 118 eligible to compete in Universities of Excellence Funding line / Announcement of results in Bonn

Funding decisions have now been made in Germany's Excellence Strategy, a programme designed to strengthen top-level research at universities in Germany. On 27 September 2018, the Excellence Commission, consisting of the members of the International Committee of Experts and the research ministers of the federal and state governments, approved 57 Clusters of Excellence to be funded from among the 89 proposed projects.

Category of Excellence Strategy	International Journal of Excellence
1. Cluster of Excellence in Mathematics	Mathematics in Science and Technology
2. Cluster of Excellence in Earth and Environmental Sciences	Earth and Environmental Sciences
3. Cluster of Excellence in Life Sciences	Life Sciences
4. Cluster of Excellence in Medicine	Medicine
5. Cluster of Excellence in Engineering	Engineering
6. Cluster of Excellence in Humanities	Humanities
7. Cluster of Excellence in Social Sciences	Social Sciences
8. Cluster of Excellence in Interdisciplinary Research	Interdisciplinary Research
9. Cluster of Excellence in International Cooperation	International Cooperation
10. Cluster of Excellence in Research Infrastructure	Research Infrastructure
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[illegible][illegible]



S#2

Membentuk Konsorsium Riset Int.

Networking

No	Research Platforms (Consortia)	Research Area	Main Source of Funding
1	CRC990 – EFFoRTS (Goettingen, DE) – 2 nd Phase	Ecology & Socio-economy: Lowland Rainforest Transformation Systems	DFG/CRC990, RISTEKDIKTI
2	REDD+ (Copenhagen, DK)	Reducing Emission from Deforestation & Forest Degradation: Community Monitoring	DANIDA
3	ZOONOSSES (Nagoya, JP)	Health & Biomedicine: Flying Foxes & Involvement in Rabies-related Infectious Diseases	JST/SATREPS, JICA
4	Australia Indonesia Center (AIC) (Sydney, Monash, AU)	Food/Agriculture & Infrastructure: Cacao, Water Sensitive Cities	AIC, RISTEKDIKTI
5	EMBRIO (IPB Bogor, ID)	Marine Biodiversity: Coral Reef & Tuna	IPB, RISTEKDIKTI
6	LISAT (IPB Bogor, ID)	Remote Sensing/Satellite: Food Security & Environmental Monitoring	LAPAN, IPB, RISTEKDIKTI
7	PETUAH (IPB Bogor, ID)	Green Knowledge: Natural Resource Management, Sustainable Agriculture, Renewable Energy	MCA-I
8	Peat Fire (South Dakota, USA) – 2 nd Phase	Environment & Climate Change: Peat Fire Emission	NASA
9	Agri_Insurance (Chiba, JP)	Food Security: New Damage Assessment Process (Rice)	JST/SATREPS, JICA
10	ANBIOCORE (Mississippi, Rhode Island, USA)	Food Security & Sovereignty: Beef & Coral Reef Fisheries	USAID-SHERA



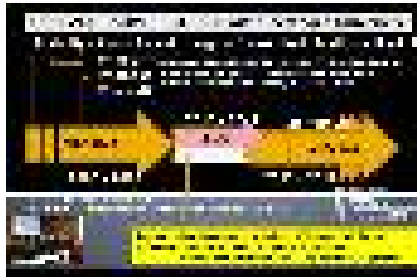
S#2

S#2 | Membentuk Konsorsium Riset Int.

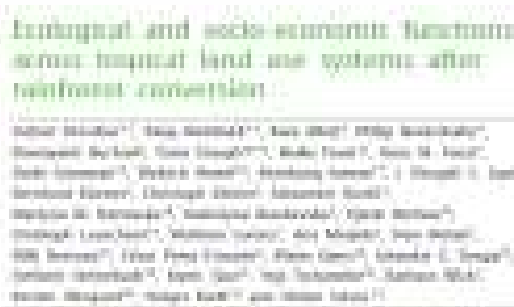
Networking

Menjamin keberlanjutan “*World Class Research*” dengan “*World Class Partner*” → *High level visit*

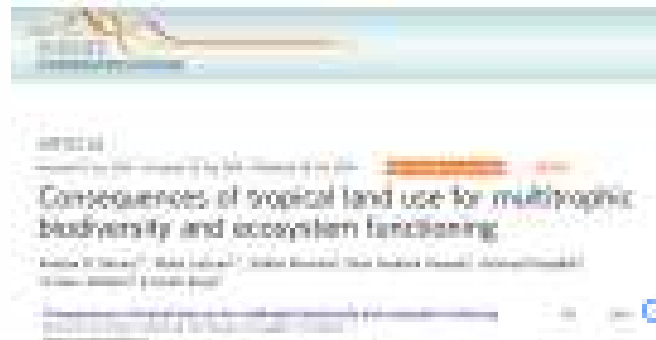




- Sejak 2012, konsorsium baru CRC990/EFForTS terbentuk (UGOE_{Goettingen}-IPB_{Bogor}-UNJA_{Jambi}-UNTAD_{Tadulako}) dengan lokasi di Jambi. **“Snow-ball effects”** dirasakan manfaatnya melalui berbagai peluang baru karena kapasitasnya yang meningkat.



- Riset ini berhubungan juga dengan kegiatan non-riset: Erasmus Mundus (EXPERTSASIA 1-4, EXPERTSUSTAIN, ALFABET, ERASMUS+) dan Kemitraan Dikti (DAAD) dan perkumpulan alumni
- Temuan penting:** pengetahuan baru terkait **biodiversitas**, **gemisi GRK**, **model pengayaan kebun sawit dll.**



Sustainability of Water Quality and Ecology

Volume 3, December 2018, Pages 1-13



Mitigation options for improving the ecosystem function of water flow regulation in a watershed with rapid expansion of oil palm plantations

Sarah Emma Delipou^{1,2,3,4}, Susan¹, Martin Wilson¹, Claudia Clarke¹, Raju Shrestha¹,
Johanna Hultqvist⁵, Kullu Moya⁶





REDD+

DANIDA FELLOWSHIP CENTER



- **REDD+** → Reducing Emission from Deforestation and Forest Degradation
- Sejak 2014 dengan melibatkan 3 mahasiswa doktoral IPB
- Lokasi riset di Kabupaten Berau (Kalimantan Timur)
- *Joint PhD supervision* dengan Univ Copenhagen dan Univ Roskilde di Denmark
- **Temuan penting:** kapasitas lokal untuk pemantauan SDA



REDD+

DANIDA FELLOWSHIP CENTER



Pengetahuan kapasitas pemantauan masyarakat lokal:

- 1. Biodiversitas & Stok Karbon**
- 2. Hak dan Akses terhadap Hutan**
- 3. Mata Pencaharian**





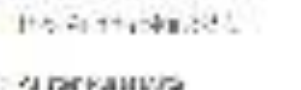
LISat | LAPAN, RISTEKDIKTI, IPB



- LAPAN-IPB Satelit (“**LISat**”) → didisain dan dikembangkan oleh LAPAN, dimana IPB bertanggungjawab untuk pengembangan algoritma dan aplikasi dataset.
- Didedikasikan untuk mendukung ketahanan pangan dan pemantauan lingkungan.
- Satelit LISat diluncurkan pada tanggal 22 Juni 2016 dengan PSLV Rocket di Sriharikota, India → Analisis data.
- Mitra LN yang teridentifikasi dari JP, UK, FI, DE



LAPAN, RISTEKDIKT, IPB

Pasat Data LISAT (Lapan-IPB *Satellite*)

Pusat Data LISaT
berlokasi di PPLH
IPB, Kampus IPB
Darmaga, Bogor

Registrasi untuk pemanfaatan data melalui tautan <http://lisat.ipb.ac.id/order>

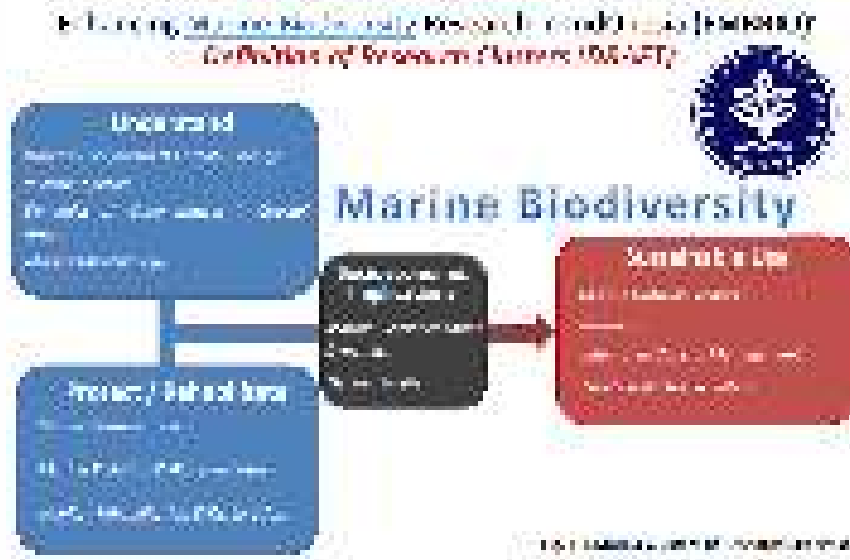
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EMBRIO

RISTEKDIKTI, IPB



- **EMBRIO**= *Enhancing Marine Biodiversity Research in Indonesia*
- Diinisiasi sejak 2013 dengan penyusunan “white paper” oleh tim interdisiplin
- Menarik mitra baik nasional maupun internasional
- Promosi konsorsium EMBRIO dan pengembangan MoU dengan berbagai mitra seperti Uni. Jena, Uni. Oldenburg (DE) & Aarhus (DK), Victoria University of Wellington (NZ) dll.
- **Temuan penting:** Invasi “**black disease sponge**” pada terumbu karang



EMBRIO

RISTEKDIKTI, IPB



Mar Biol (2017) 161:149–155
DOI 10.1007/s00227-017-0980-0

SENCKENBERG

ORIGINAL PAPER

Persistent outbreaks of the “black disease” sponge *Terpis* *avishawa* in Indonesian coral reefs

Heidi Muellegge¹ · Peter A. Schupp¹ · Muhammad Ihsan Firdaus¹ ·
Muhammad Yulianto² · Carsten Thiele¹

Persistent outbreaks of the “black disease” sponge *Terpis* *avishawa* in Indonesian coral reefs

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EMBRI



Enhancing
Marine Biodiversity Research
in Indonesia





JST, JICA & IPB

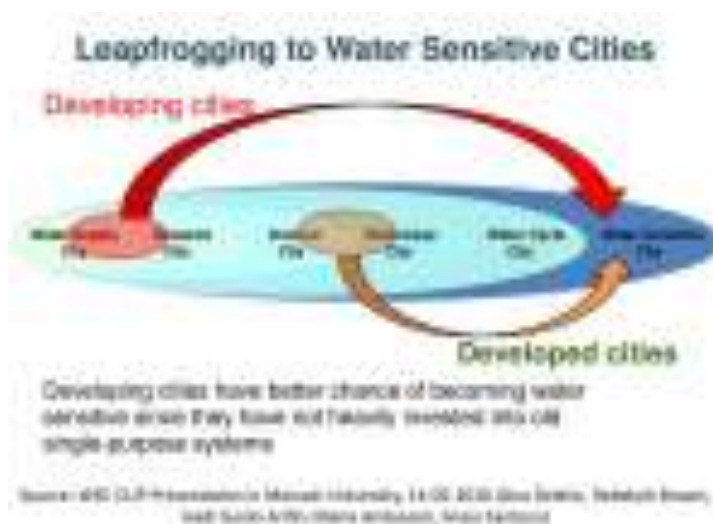


Temuan penting: *risk of viral transmission; daytime behavior of Pteropus vampyrus etc.*



AIC

| *IPB, Kemenristekdikti*



AIC (Australia Indonesia Center):
IPB berpartisipasi aktif sebagai “lead” institusi di Indonesia bekerjasama dengan Sydney University dan Monash University dengan tema riset sbb:

- ***Water Sensitive Cities*** (Monash University, IPB and UI) dan
- ***Cacao based farming system sustainability*** (Sydney University, IPB dan UNHAS)



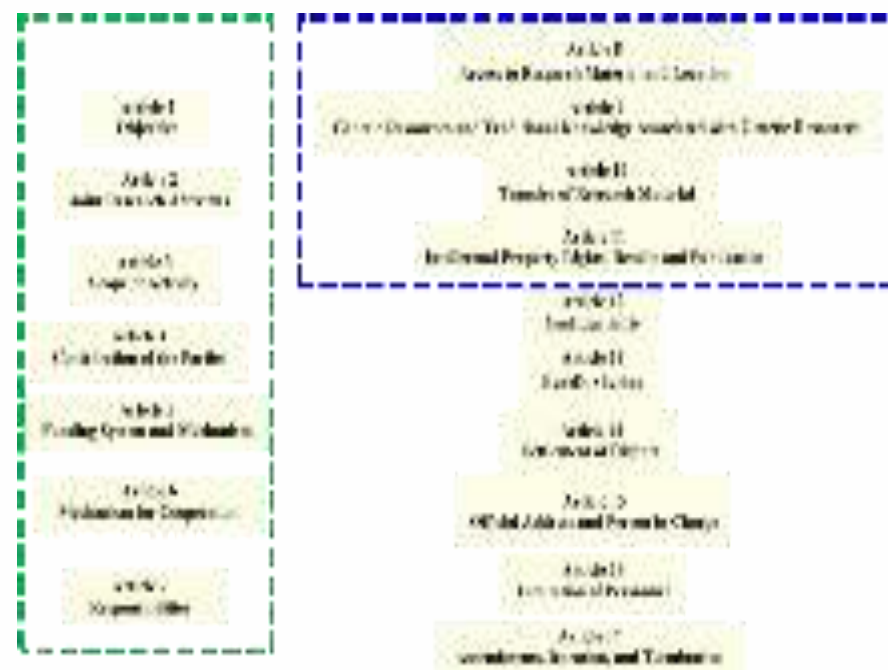
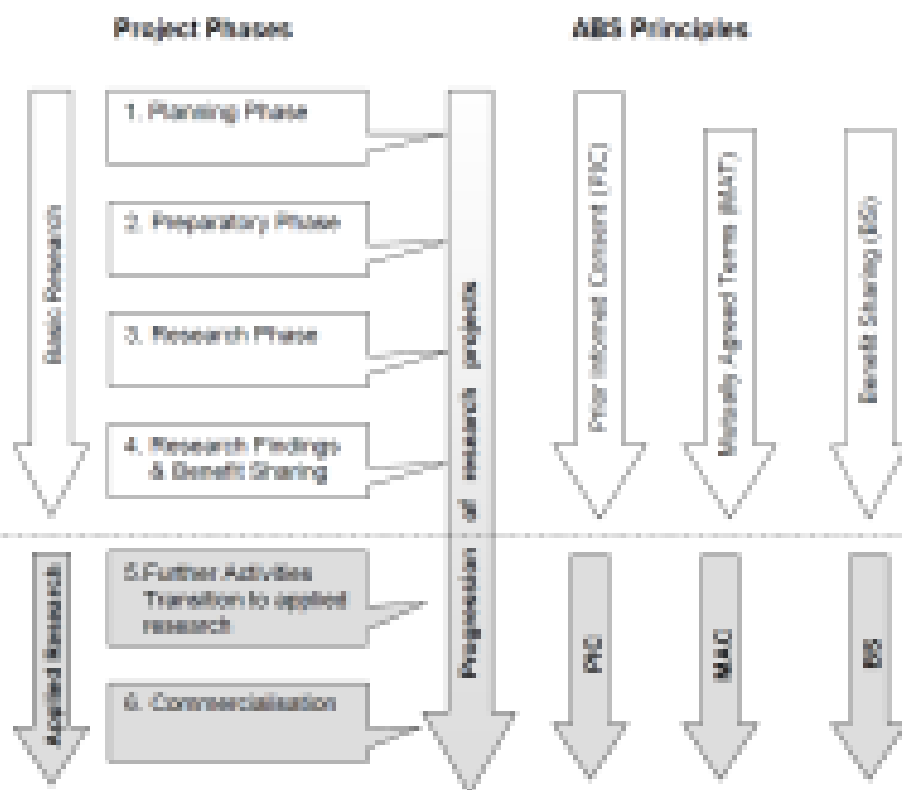
S#3

Memapankan Manajemen Riset

Processes

The Access and Benefit-Sharing (ABS) System under the CBD in Relation to the Phases of ABS Relevant Research Projects

Main contents of a contract agreement for biodiversity research – good reference



(Source: CRC990/EFForTS)

http://www.dfg.de/formulare/1_021e/1_021e.pdf



The diagram illustrates the architecture of the WR 3 IPB system. At the center is a yellow rounded rectangle labeled "WR 3 IPB". Inside this rectangle, there are three colored boxes: "Dit. PI" (blue), "Dit. KA" (purple), and "BLLH" (green), all connected by a horizontal line. Below these boxes is a black box labeled "Sistem pendukung lainnya". The central system is connected to ten blue ovals representing research consortia: "Konsorsium Riset #1", "Konsorsium Riset #2", "Konsorsium Riset #3", "Konsorsium Riset #4", "Konsorsium Riset #5", "Konsorsium Riset #6", "Konsorsium Riset #7", "Konsorsium Riset #8", "Konsorsium Riset #9", and "Konsorsium Riset #10". On the left side, a dashed black box contains three ovals: "Program, Finance & ME" (green), "Surat Tugas/SK" (purple), and "Pool of Experts" (red). The central system is connected to "Konsorsium Riset #9" and "Konsorsium Riset #8" via double-headed arrows. The central system is also connected to "Konsorsium Riset #10" via a double-headed arrow. The central system is connected to "Konsorsium Riset #1" via a double-headed arrow. The central system is connected to "Konsorsium Riset #2" via a double-headed arrow. The central system is connected to "Konsorsium Riset #3" via a double-headed arrow. The central system is connected to "Konsorsium Riset #4" via a double-headed arrow. The central system is connected to "Konsorsium Riset #5" via a double-headed arrow. The central system is connected to "Konsorsium Riset #6" via a double-headed arrow. The central system is connected to "Konsorsium Riset #7" via a double-headed arrow. The central system is connected to "Konsorsium Riset #8" via a double-headed arrow. The central system is connected to "Konsorsium Riset #9" via a double-headed arrow.



S#4

"Brain Gain & Brain Sustain"

Human Resources

NAMA PENERIMA PROGRAM ACADEMIC RECHARGING UNTUK Mendukung World Class University
DIREKTORAT JENDERAL SUMBER DAYA IPEK DAN PENDIDIKAN TINGGI TAHUN ANGGARAN 2018

Perguruan Tinggi Asal : Institut Pertanian Bogor

No	Nama	Negara	Lama (Hari)
1	Antonaga Jayanegara	Selvia	21
2	Muti Tounk	Australia	21
3	Nancy Dewi Yulliana	Belanda	21
4	Kevlyan Darmawan	Selvia	20
5	Huda S Darmawan	Denmark	17
6	Hendriat Handhiana	Singapura	28

(Global Networking with World Class Partners)





Lessons learned | Aspek Legal

- **Persiapkan MoU para pihak** → University to University (U to U) untuk berkolaborasi pada bidang pendidikan, riset dan diseminasinya
- **Persiapkan MoA (agreement)** → konten utama termasuk mengakomodasi konvensi-konvensi internasional, misalnya kewajiban ABS (*access dan benefit sharing*)
- **Persiapkan Joint Management Board (JMB)** atau *Joint Coordination Committee* (JCC) untuk implementasi riset → pilih personilnya dengan SK



Lessons learned | Aspek Legal

- **Persiapkan MTA (Material Transfer Agreement)** → isi utama tipe bahan riset, kepemilikan, tipe risetnya (komersial atau non-komersial, pemantauan sampel, publikasi bersama (sebutkan nama-nama penulis potensial di MTA untuk mengikat, kepemilikan KI bersama dll..)
- **Persiapkan *Data Exchange Agreement (DEA)*** → untuk mengatur interaksi pengkreasi dan pengguna data dalam kaitannya dengan publikasi
- **Persiapkan Kebijakan Publikasi** → untuk mengatur prosedur publikasi dalam konsorsium



Lessons learned | Pembagian Manfaat

DFG (DE)
Since 2012

- Dana Riset ABS (Access Benefit Sharing)
- Kompensasi ke pemilik lahan tempat riset, upah/gaji untuk staf lokal dll..

DFS (DE)
Since 2014

- Beasiswa penuh untuk Mhs S3 Indonesia
- Dana manajemen riset
- Konpensasi keterlibatan masyarakat local dll.

AIC (AU)
Since 2015

- Dana Manajemen Riset
- Gaji staf lokal dll.





Lessons learned

Pembagian Manfaat

Seminar ABS Research Fund CRC990/EFFoRTS





Lessons learned | Ringkasan

- Publikasi dan Paten bersama
- Hibah Peralatan
- Pengembangan fasilitas herbarium dll.
- **Pengembangan “twinning laboratory”**
- *On line access* pangkalan data riset
- Akses ke on line journal
- Pengembangan klaster riset
- Ragam kuliah tamu, seminar, lokakarya dan pelatihan
- **Pengembangan Jurnal Ilmiah**
- Mobilitas mahasiswa dan peneliti/dosen
- Visibilitas peneliti yang meningkat



Penutup – Catatan Penting

- **Kepatuhan terhadap regulasi** baik nasional maupun internasional
- Klasifikasi dengan tepat tipe risetnya:
commercial vs non-commercial research
- **Pembagian manfaat**, khususnya untuk riset biodiversitas dan pengetahuan tradisional dengan menyesuaikan sesuai konvensi internasional yang ada
- **Pengaturan pembagian manfaat yang adil → Perjanjian “ABS” khusus termasuk programnya**



Penutup – Catatan Penting

- **Konsorsium Riset Internasional** dapat menjawab permasalahan yang dijumpai untuk pelaksanaan riset berkualitas melalui *sharing* pendanaan, keahlian serta infrastruktur riset
- **Kerjasama riset internasional** perlu dijamin keberlanjutannya melalui pertemuan tingkat tinggi pimpinan universitas, pelibatan stakeholder terkait pemanfaatan hasil riset serta perluasan mitra kerjasama.



Thank You