



The Hevea Research Platform in Partnership An International Network for Research and Higher Education on Natural Rubber production





Upstream Scope from Rubber seed to Rubber bale

Current issues in natural rubber production
and processing



A shared scientific project
From Rubber tree seed to Rubber block

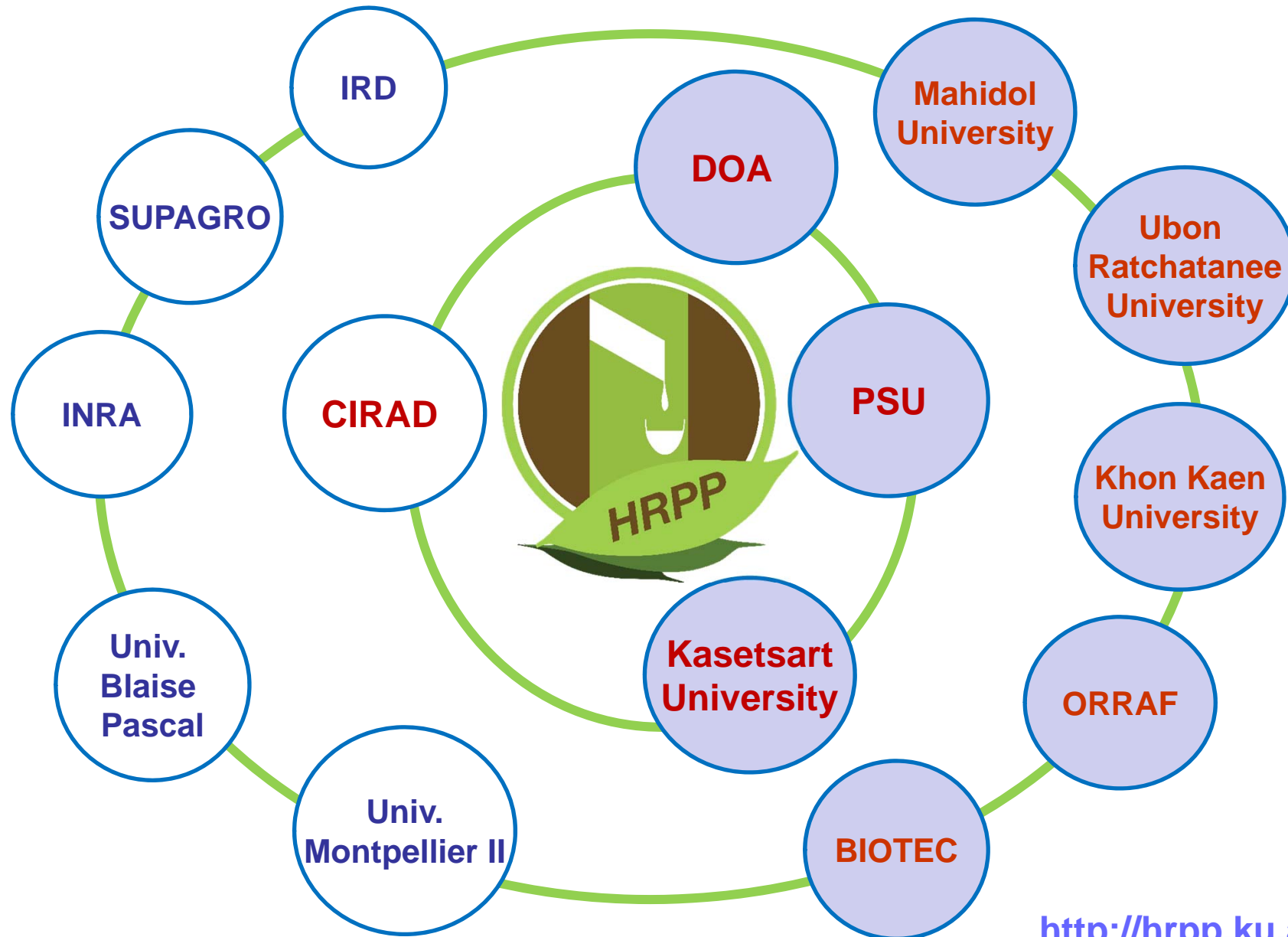
Main issues in natural
rubber production

Development bottlenecks
and related question to
research

Research
projects in
partnership



HRPP: a network of **14** research and higher education institutions from *Thailand* and *France*



<http://hrpp.ku.ac.th>



Upstream Scope : from Rubber seed to Rubber bale

One shared **Scientific project**

4 main fields

- Agronomy/physiology/environment
- Genetic/Biotechnology
- Technology and Quality
- Socio-economics





5 MAIN SCIENTIFIC THEMATICS

1. Productivity of rubber plantations
2. Impact of global and local changes on production and sustainability of rubber smallholdings in Thailand.
3. Social and environmental impacts of natural rubber production (plantations and primary processing)
4. Performances of plant material
5. Variability of the natural rubber quality



HUMAN RESOURCES

- ➔ **About 100 members:** Professors, Researchers, MsC and PhD students

- ➔ **8 French researchers permanently based in Thailand:**
 - 6 from CIRAD (5 in KU, 1 at LDD)
 - 2 from IRD (at LDD)

- ➔ **About 20 French researchers** supporting HRPP activities through missions to Thailand or hosting of Thai students and fellows in their laboratories in France



Higher Education and Capacity Building in HRPP

Strengthening human capacities in natural rubber research and development is part of the overall objective of the HRPP Platform.

Two parallel strategies are implemented to reach this goal:

- 1- **Training by Research** : Bsc, Masters and PhD
- 2- Development of a **Master Curriculum**: “Natural Rubber Production, Technology and Management”

Some outputs

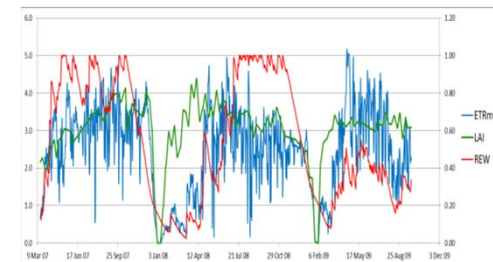
Agronomy

- Diagnosis tools to assess tapping systems (Latex Diagnosis, Bark diagnosis)
- Innovative tapping systems tailored to rubber clones and farmers constraints.



Ecophysiology

- Carbon, water and energy balance of rubber plantations
- Effect of water stress on rubber trees (adaptation to NE conditions)



Some outputs

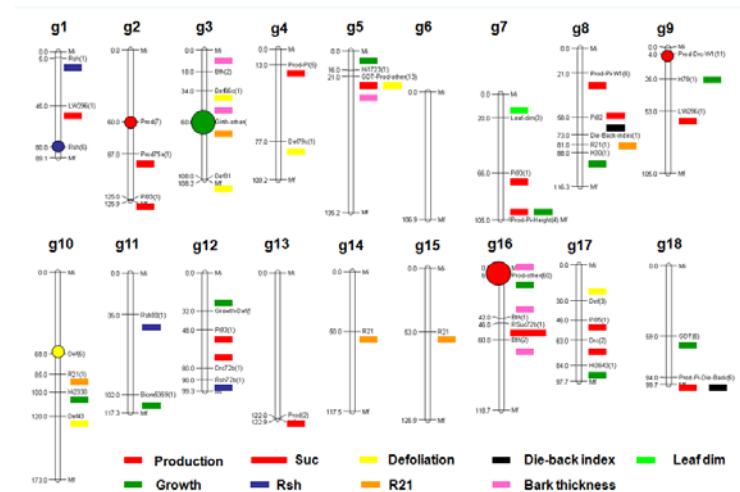
Environment

- Effect of rubber plantations on soil carbon stocks and soil properties.
- Effects of rubber plantations on soil biodiversity.



Genetics

- Identification of genetic markers (QTL, EST-SSR) for marker-assisted selection.
- Genetic variability and plasticity of tolerance to water stress



Some outputs

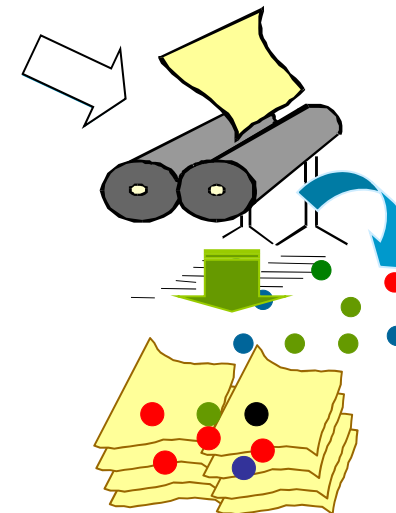
Socio-economy

- Drivers of farmers practices in traditional and new rubber planting areas
- Patterns of changes of rubber farms in Thailand (landholding, labour,...)



Technology and rubber quality

- Influence of non-isoprene (lipids, proteins) on NR consistency.
- Characterization of post-harvest maturation cup coagula.



Thank you for your attention



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