## 国有林(保安林)におけるゴムノキを活用した 住民参加型の森林回復モデルの広域化と住民組織強化

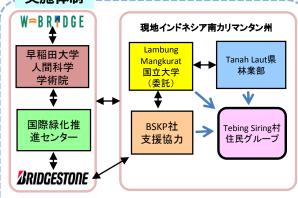
早稲田大学人間科学学術院 平塚基志 国際緑化推進センター Lambung Mangkurat 大学

### 背景と目的

- ✓ブリヂストン・カリマンタン・プランテーション社(BSKP社)は、インドネシ ア南カリマンタン州タナーラウト県でゴム園を経営。その周辺には、 森林が消失し、草地化した国有林(保安林)が広範囲に分布。
- ✓こうした国有林内の荒廃草地に「コミュニティ林制度」を適用し、ゴムノ キ植林を通して、森林回復と地域住民の生計向上が両立する「住 民参加型の森林回復モデル」を開発する。
- ✓ 開発したモデルの普及可能性、持続性確保のため、森林協同組合の 設立を視野に入れた住民組織の強化を検討する。



# 実施体制



- ✓ ゴム農園周辺の土地なし住民を対象として、
- ① 国有林地の使用権、非木材林産物の収益権を保証
- ② 初期費用(肥料、労働作業人件費等)を補助
- ③ BSKP社によるゴム優良苗木提供や栽培技術指導
- ④ 現地大学による住民組織強化、政府との連絡・調整

### 活動の成果

### 「住民の住民による住民のための森林回復」 現地実証に成功し、住民の参加意欲が高まる!



本プロジェクト対象地(Langkaras山)の開始前と植林後

#### <参加住民のゴム樹液収穫による収入の将来予測> 18 **エゴム林**0.5ha # 16 造成管理コスト 出・収入(百万ルピア/ 14 ゴム林0.5ha 12 ゴム販売収入 10 - 日雇い労働者 6 1人当たり 平均収入 農業従事世帯 1世帯当たり 平均収入 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 ゴム林齢(年生)

▶0.5ha(約250本)のゴム林から、現在の農業従事年収と同等の収入

#### 今後の展望・課題

- ① 1年以内には、ゴム樹液の収穫が可能 となり、住民の生計向上に期待!
- ② 山火事を防止することで、周辺の天然 性林も守られ、生物多様性も保全!
- ③ タナー・ラウト県内には、「コミュニティ 林制度」を適用して、77の住民グループ に計8.860haの国有林地の使用許可
  - → 本モデルの普及・拡大の可能性あり
- ④ 各地から視察者が訪れ、「社会林業プ ログラム」の推進政策に大きく貢献!

企業と住民が協働した森林区域の持続的な森林管理

住民参加型 森林区域管理 住民 企業 住民 ブリヂストン KP社 CSR, CSV 原材料 供給 住民 生産地化 住民



インドネシア大統領及び環境林業大臣の現地訪問 住民グループリーダーへ土地使用許可書の授与

本モデルを高評価、日本の支援に謝意 国内における普及・拡大を期待!

## Expanding the Area of and Bolstering Community Organizations in a Model for Rehabilitating Forests through Community Participation Using Rubber Trees in State Forests (Forest Reserves)

Motoshi Hiratsuka, Faculty of Human Sciences, Waseda University / Japan International Forestry Promotion and Cooperation Center (JIFPRO) / Lambung Mangkurat University

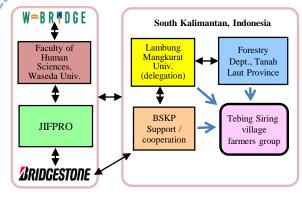
### **Background and Objective of Research/Activities**

- ✓ Bridgestone Kalimantan Plantation (BSKP) operates a rubber tree plantation located in Tanah Laut Regency, South Kalimantan, Indonesia. The state forest area, surrounding the BSKP, has been designated as a forest reserve, but it has turned into grassland.
- ✓ A "community forest system" will be implemented to turn such state-owned degraded grassland into forests, and improve the standard of living for local residents through the cultivation of rubber trees, by developing a "community participation-style forest rehabilitation model."

√The bolstering of community organizations will be examined with the possibility of establishing a farmers' cooperative association to spread the developed model and ensure its sustainability.



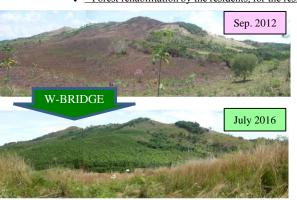
### Research/Activity Implementation System



- For farmers without land living near the BSKP:
- ① Guaranteed right to use state forest reserve land and right to harvest non-timber forest resources
- 2 Provision of high quality rubber seedlings and training in the cultivation techniques of BSKP
- 3 Bolstering of agricultural organizations through efforts by local universities, and coordination and cooperation with the government.
- Assistance in covering initial costs (fertilizer, labor costs, etc.)

### **Detailed Activities**

✓ "Forest rehabilitation by the residents, for the residents" "On-site demonstration succeeds, boosting their motivation to take part!"



Target project site (Mt. Langkaras) before the start of the project and after afforestation

Forecast of future income through harvests of rubber tree sap by participating residents > Development management cost for 0.5ha of rubber forest ncome/Expenditure (Million rupiah/Year 16 14 Rubber sales revenue from 0.5ha of rubber forest 12 10 Average income 8 per person for 6 day laborers 2 Average income per agricultural household Age of rubber trees (years)

> From 0.5ha (approx. 250 trees) of rubber forest, the income obtained is equivalent to the current annual income from agricultural work.

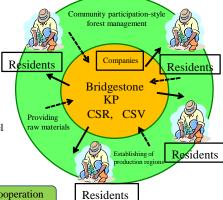
#### Results and observations, and future outlook and challenges

- 1) Rubber tree sap can be harvested within one year, so improvements in residents' livelihood is anticipated.
- ② By preventing mountain fires, the natural forests in the area are also protected, and biodiversity is conserved.
- 3 Application of the "community forest system" in the regency of Tanah Laut, granting approval for the use of 8,860 ha of state-owned forests by 77 residential

between companies and residents

4 Visits by observers from various places contribute significantly to the policy of promoting the "social

→ Potential for the widespread expansion of this model forestry program.' Sustainable management of forested areas through cooperation





Visit to local site by the President of Indonesia and the Minister of Environment and Forestry Granting of permit for use of the land to the group leader of the residents

The project won high appraisal. Gratitude expressed for Japan's support. Expectations expressed for the spread and expansion of this model!