Introduction

Pinus merkusii strain Kerinci is an Indonesia native species that found in 2° southern equator.

UICN showed that Pinus merkusii strain Kerinci became scarce and vulnerable.

Conservation of Pinus merkusii Strain Kerinci is important.
Natural Habitat

Pinus merkusii strain Kerinci spread naturally in Pungut Mudik and Bukit Tapan (around Kerinci Seblat National Park) with small clustered or solitary

Pic 1. at Pungut Mudik
Pic 2. at Bukit Tapan

Why P. merkusii strain Kerinci became scare?

The causes made Pinus merkusii strain Kerinci became scarce were:

1) the low natural regeneration ability,

2) land use forest conversion by the community with illegal logging

3) reduced genetic of P. merkusii strain Kerinci by P. merkusii strain Aceh plantation around it’s natural habitat (Edy, 2012).
Objective

- This study aim to rescue Pinus merkusii strain Kerinci from scarcity by conservation ex-situ

- Conservation of Pinus merkusii strain kerinci can be done by following procedure:
  1. Obtaining seedling
  2. Seedling preparation
  3. Site selection
  4. Plot development
  5. Plot maintenance

Conservation of Pinus merkusii strain kerinci

- Revocation is done carefully by lifting soil around the seedling so the roots are not damaged

- Polybag placed in beds be covered weaning plastic to keep the humidity remains high.

- Jambi, Kerinci regency (Cooling, 1968)
- Sipisopiso, Kecamatan Merek, (Ali, 2010). Link
3) **Site selection**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Altitude</td>
<td>900 - 1465 m</td>
<td>1488-1494 m</td>
</tr>
<tr>
<td>2</td>
<td>slopes</td>
<td>up to 85%</td>
<td>about 12%</td>
</tr>
<tr>
<td>3</td>
<td>Type of soil</td>
<td>red-yellow podzolic soil and ground podsol</td>
<td>Podsolic to Podsolic Brown Grey</td>
</tr>
<tr>
<td>4</td>
<td>climate type</td>
<td>A and B</td>
<td>B</td>
</tr>
<tr>
<td>5</td>
<td>average rainfall per year</td>
<td>1945-2027 mm</td>
<td>1550 mm</td>
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</tbody>
</table>

**Conservation of Pinus merkusii strain kerinci**

- **Plot development**
  - Planting holes size were 30 x 30 cm with depth of 25 cm and 0.5 kg compost was added for each hole. Spacing used was 5 x 7 m.

- **Plot Maintenance**
  - Routine maintenance was execute every 3 months, including plating around the plants, bushes clearing in plot and keeping firebreak clean.
Result

- The growth percentage of seeds from natural seedling that weaned with covered plastic were between 70-85% in nursery
- The percent survival reached 96.37% and growth average reach 24.6 cm at the age of 6 months after planting indicates that the *Pinus merkusii* strain kerinci can adapted in Sipisopiso.

Table. Average height growth and percent survival *Pinus merkusii* strain Kerinci until the age of 6 months after planting.

<table>
<thead>
<tr>
<th>Seed origin</th>
<th>Average height 1 bst</th>
<th>Average height 6 bst</th>
<th>Average Growth</th>
<th>Percent survival (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bukit Tapan</td>
<td>28, 63 cm</td>
<td>52.07 cm</td>
<td>22.68 cm</td>
<td>93%</td>
</tr>
<tr>
<td>Pungut Mudik</td>
<td>23, 87 cm</td>
<td>50.47 cm</td>
<td>26.60 cm</td>
<td>100%</td>
</tr>
</tbody>
</table>

CONCLUSIONS

- The *Pinus merkusii* strain kerinci can adapted in Sipisopiso showed by the percent survival that reach 96.37% and growth average reach 24.6 cm at the age of 6 months after planting

- The success of *Pinus merkusii* strain Kerinci by following the procedure
  1. Obtaining seedling
  2. Seedling preparation
  3. Site selection
  4. Plot development
  5. Plot maintenance

RECOMMENDATIONS

- Considering the conditions of Sipisopiso site, routine maintenance fire prevention is needed in developing ex situ plot.
THANK YOU