Oil palm requirements

- sunshine: between 1500 and 1800 hours a year;
- temperature: most favourable annual mean: 26°C, with monthly means of minima > 18° C, and a daily minimum temperature > 15°C;
- humidity: maximum with a monthly mean > 75%;
- water supply: requirement is 150 mm every month. If rainfall + soil reserve is below this value a given month, palms suffer from water deficit;
- soils: best yields are obtained on class I soils: deep soils with good water retention capacity which are rich in nutrients.
West and Central Africa
Agro-ecological conditions to meet requirements
Relation between water deficit and yield

Average yield in tFFB/ha

Mean annual water deficit in mm

Relation deducted from results obtained in Ivory Coast (1996)
Water deficit
consequences on overall yield and monthly distribution
Yield distribution in Cameroon

Yield comparison of the three estates

Actual yields

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<th>20</th>
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**Illoani**

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<td>139</td>
<td>2950</td>
<td>455</td>
</tr>
</tbody>
</table>

mean 127 2671 345
Comparison with Asia and South America

Why is there a yield gap?

Rainfall & sunshine distribution

Annual Rainfall and Sunshine Profile
Njala, Central Sierra Leone

Source: SLARI (Sierra Leone Agricultural Research Institute)
Sunshine distribution

Yearly sunshine

- Total sunshine
- Sunshine (months > 150mm)

Climate and yield profile in Riau province (Sumatra)
Climate and yield profile in Cameroon

Rainfall & sunshine comparison
Sumatra - Cameroun
Conclusion

African investors should go and grab land in south-east Asia where conditions are much better
Thank you for your attention