rePlsNT

Project rePLANT - 1.4 New Technologies for expeditious forest inventory KATAM application

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Data collection methodology

Implantação de estratégias colaborativas para a gestão integrada da floresta e do fogo



General Results

27/02

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DBH frequency



Scatter of mean DBH of each plot

Implantação de estratégias colaborativas para a gestão integrada da floresta e do fogo



Katam was in second place in this evaluation, with second best R² and RMSE, and lowest bias.

Distribution of residuals





Results by land typology







R ²	KAIAM
T1 EU – young	0,45
T2 EU – clean	
T3 EU – SL	
T4 EU – UC	
T5 EU – UC + SL	
T6a EU – COP 5y	
T6b EU – COP 10y	
T7 PB – young NR	
T8 PB – NR	
T9 PB – clean	
T10 PB – SL	
T11 PB – UC	
T12 PB – UC + SL	









· · · · Cepicon Type 5 Eucalyptus (high forest), with a height of approximately 20 metres, with the existence of under cover and sloping land

Adult pine forest planted at a medium density (500 to 800 trees/ha), with the presence of under cover and slopping land



Implantação de estratégias colaborativas para a gestão integrada da floresta e do fogo

Type 12

Eucalyptus coppice with stumps with 2 or more stems (after selection of stems) and age around 5 years

Implantação de estratégias colaborativas para a gestão integrada da floresta e do fogo

rePL္သNT Type 6a

Type 6b Eucalyptus col

Eucalyptus coppice with stumps with 2 or more stems (after selection of stems) and age around 10 years (close to harvesting)





Young pine forest obtained by natural regeneration before any intervention (density of approximately 4,000 trees/ha) with a height greater than 2 metres

Pine forest obtained by natural regeneration before any intervention (density between 2,500 trees/ha and 4,000 trees/ha)



R ²	KAIAM
T1 EU – young	0,45
T2 EU – clean	0,90
T3 EU – SL	0,56
T4 EU – UC	0,45
T5 EU – UC + SL	0,57
T6a EU – COP 5y	0,22
T6b EU – COP 10y	0,26
T7 PB – young NR	-
T8 PB – NR	-
T9 PB – clean	0,85
T10 PB – SL	0,87
T11 PB – UC	0,71
T12 PB – UC + SL	0,74



Conclusions

Identified problems

- Not including trees with DBH less than 6 cm in the measurements.
- Greater relative error showed for eucalyptus is connected to the presence of slope.
- Greater relative error showed for pine is connected to the presence of slope and under cover.

Possible solutions

- The application detects diameters smaller than 6 cm, it just does not include it in the measurements, but it is an issue that can be reversed.
- Filming on longer lines can increase the accuracy of results.
- Internal adjustments being made by suppliers can increase the accuracy of results in under-covered forests



Conclusions

Katam is a strong candidate for selection, especially in Eucalyptus typology stands

Other variables will be analyzed, such as height, volume and density of trees





