Novel Approach to Riparian Vegetation Monitoring

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Despite their significance, riparian ecosystems often face mismanagement, with riparian forests cut by local authorities to mitigate flood risks, disregarding their broader functions and services. This issue is exacerbated by societal desires to maintain 'clean' riverbanks

Ecosistem Services by Riparian Vegetation

Pest control
Riparian vegetation provides a habitat for beneficial pollinator and pest-control agents

Microclimate control
Overhanging branches help to keep water cool

Flood mitigation
Reducing water velocity

Buffer capacity
Soil microbes help to break down pollutants, particularly nitrate

Carbon storage
Plants take up and store carbon dioxide from the atmosphere

Corridors
For species movement to connect hotspot area

Habitat
Trees provide shade, habitat and food for wildlife

Sediment and chemical runoff
Surface water flow is slowed by riparian vegetation enabling sediment and pollutants to be filtered out

Erosion control
Root system consolidate banks

No Ecosystem Services!

There is a need for increased public awareness and more information on the state of riparian vegetation!
The RiVe method is a standardized approach for citizen scientists that aims to raise awareness and assess the state of riparian forests at local scale.

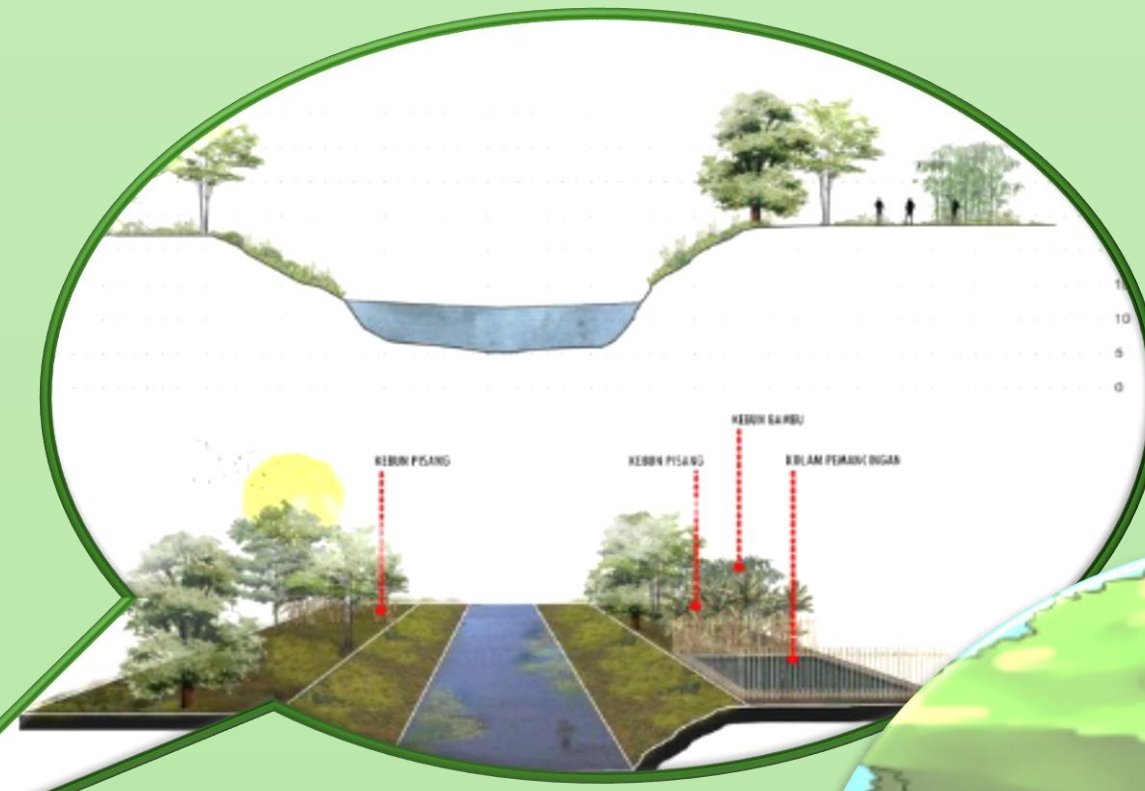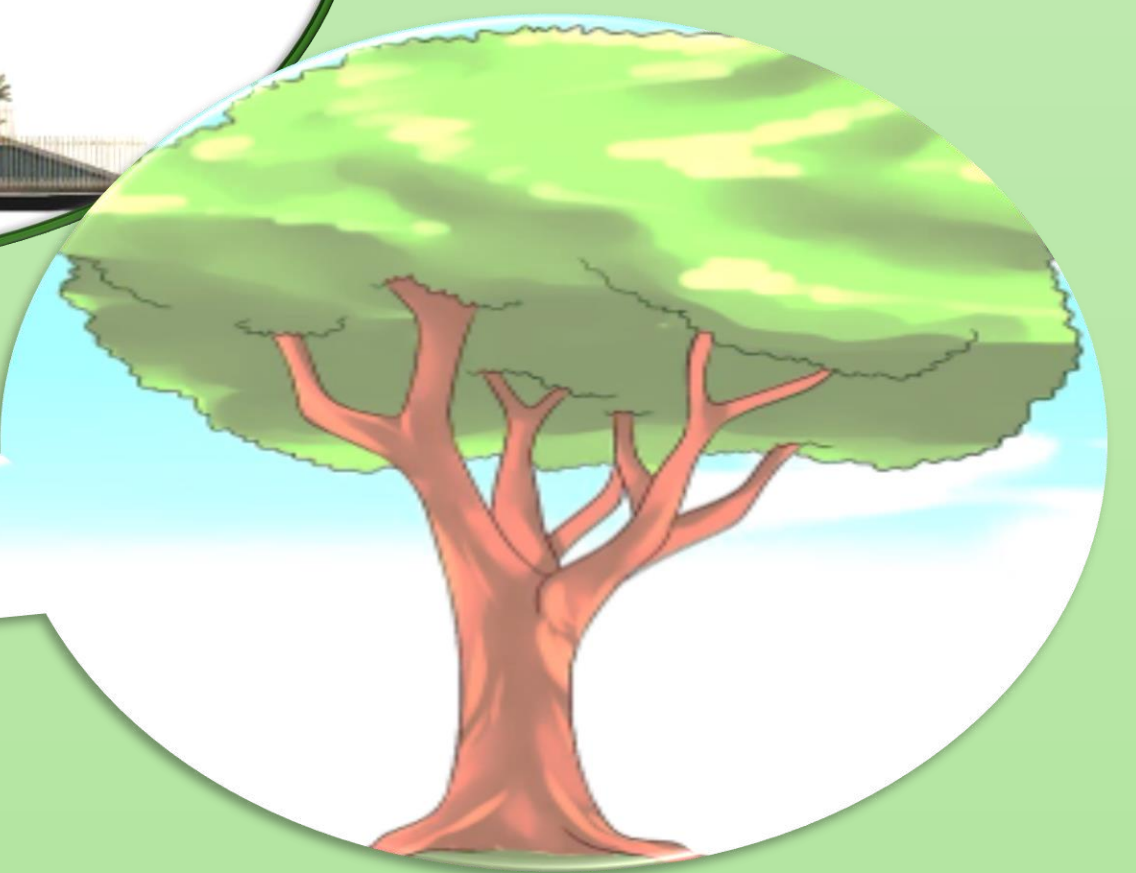## Parameters to be recorded in the RiVe format

ODK Collect | RiVe App

Decayng trees

Wood structure

River section

Forest Height

NATIVE vs INVASIVE SPECIES
From 1 to 3 m

12 target species

NATIVE vs INVASIVE SPECIES
above 3 m

sub-index of invasiveness

The RiVe method is accessible to non-experts while maintaining ecological significance. Collected parameters and the sub-index of invasiveness offer valuable informations in effective sustainable management of river corridors.

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