

Road map for Conservation and Management of Belowground Biodiversity

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KFRI has conducted a study on conservation and management of belowground biodiversity (BGBD) in the Kerala part of NBR

- Enabled to initiate a programme to understand the distribution pattern and role of BGBD at landscape level.



Indicator Species

Ants like *Lobopelta* sp. and *Leptogenys* sp. are indicators of forest disturbance

Species suitable for land restoration activities

Endogeic earthworms

Parryodrilus lavelee & *Pontoscolex corethrurus* showed a wide tolerance to land use changes

Cashew and AM Fungal association

High diversity of AM fungi may be helping cashew to grow even nutrient poor lateritic soil



The study also identified the weaknesses of the prevailing belowground biodiversity conservation and management practices.



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Salient observations in different landuse systems

- **Poor soil nutrient management**
- **Inadequate supply of organic manure**
- **Inadequate importance to cultivate and manage leguminous crops for green manure production and utilization**



- **Harvest of biomass without sufficient nutrient input is leading to the loss of nutrients from the crop lands.
Eg. Teak Plantations**
- **Application of heavy dose of Chemical pesticides at frequent interval**

Current landuse practices have adverse impact on belowground biodiversity



Thus, linkages between BGBD and sustainable agriculture and natural resource management are clear and straight forward

A number of policies are available to biodiversity conservation and management

But, **little efforts are made when it come to**

BGBD to make use of such policies for

- documentation,
- participation of stakeholders in conservation processes
- IPRs and benefit sharing



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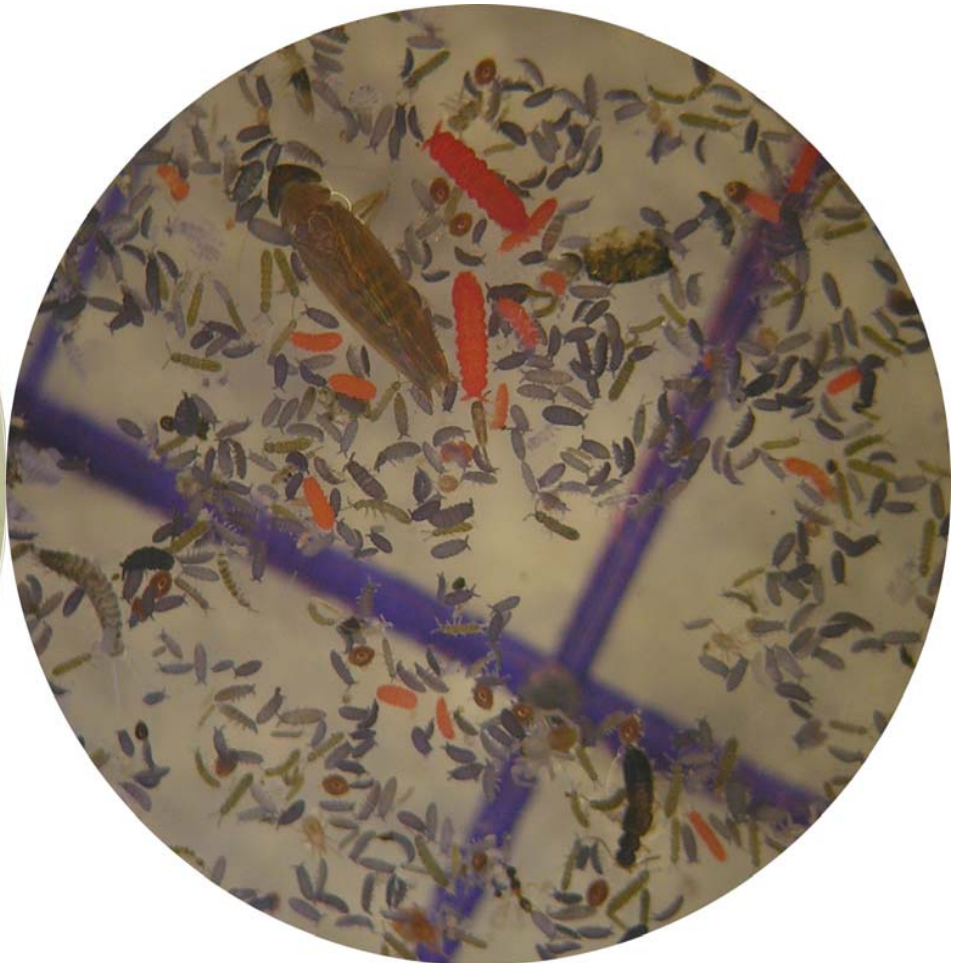
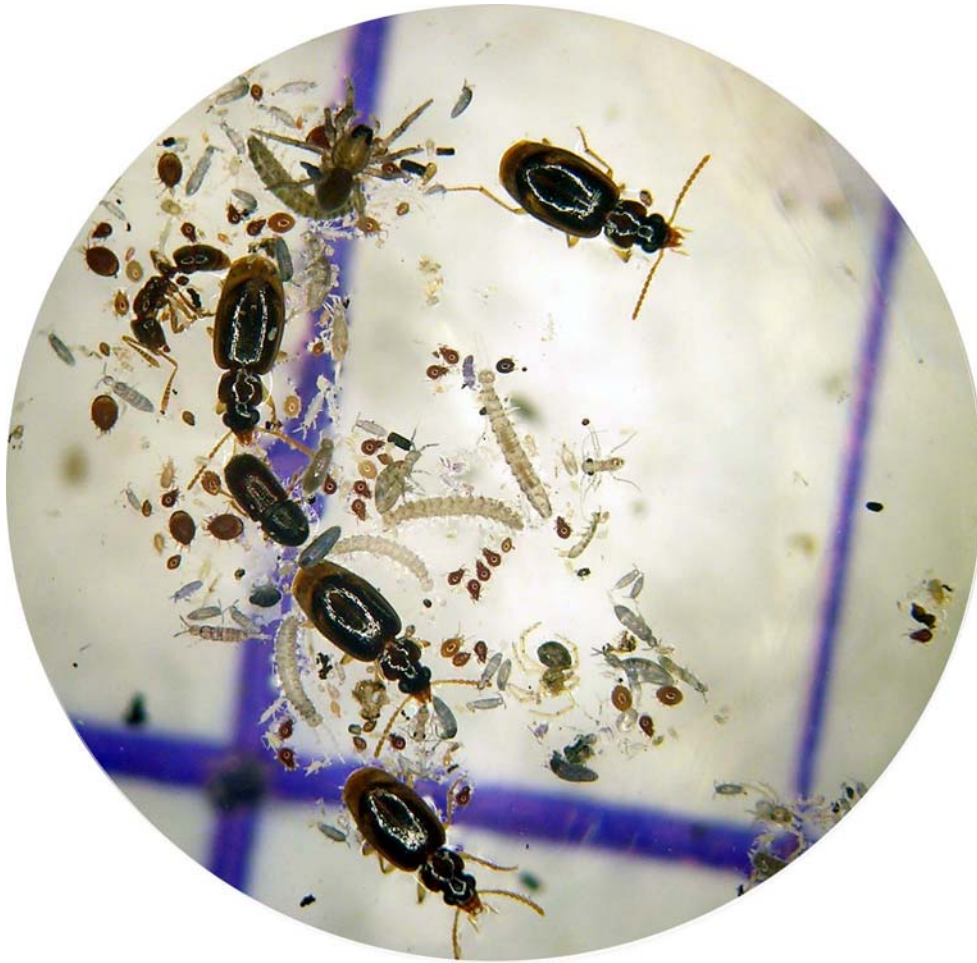
For BGBD Conservation and management,

We need

- Approaches different from those for AGBD to influence policy makers and implementers
 - BGBD constitutes invisible, silent ecosystem service providers
- Interdisciplinary research
- Activism
- Effective lobbying
- Effective knowledge transfer from research to policy development



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Thank you



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