RSPO Roundtable on Sustainable Palm Oil
RT9

22 November 2011, Kota Kinabalu

BMP for management and rehabilitation of natural vegetation

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4. Manual on Management and Rehabilitation of Natural vegetation associated with Oil Palm Plantations on peat

- Introduction
- Nature of peat swamp ecosystems
- Maintaining existing areas of PSF in or adjacent to OPP
- Rehabilitation of degraded sites
- Research and development
- Partnership with key stakeholders

Why to maintain natural vegetation in and around plantations?

- High Conservation value areas
- Flood control
- Groundwater maintenance/Supply
- Water quality protection
- Riverine Buffer zone
- Wildlife Habitat/Corridor
- Fish habitat
- Fire prevention
- Regulations

Challenges

- Maintaining natural water levels
- Preventing fire
- Encroachment by other parties
- Conflict with other developments
- Poor regeneration
- Connectivity

Fire prevention

- Maintain natural (high) water level
- Restrict entry
- Avoid encroachment
- Rehabilitate formerly burnt areas
- Regular monitoring
- Establish control capability (company/ community)

Root Cause: Linkage between Drainage and Fires

Water management and forest maintenance

- Essential to maintain a natural or near natural water regime.
- Avoid drainage or blocking of natural surface/subsurface flow
- Maintain connectivity to rivers and streams
- Adequate width for river corridors
- Conserve deep peat/domes to support maintenance of groundwater levels.
- Block abandoned drains and canals

Low level boundary canal leads to forest degradation and fire

High level boundary ditch maintains forest and prevents fire

Establishing and maintaining river reserves in plantation

Riverine reserve rehabilitation
within an oil palm plantation, sabah

Native tree nursery to
supply rehabilitation project

Replanting of degraded sites

- Nursery establishment
- Seed/wilding/cuttings
- Land preparation
- Planting
- Maintenance

Nursery Technique


ตังหนใบใหญ่
Calophyllum teysmannii

Rehabilitation sites of CKPP Project in Central Kalimantan

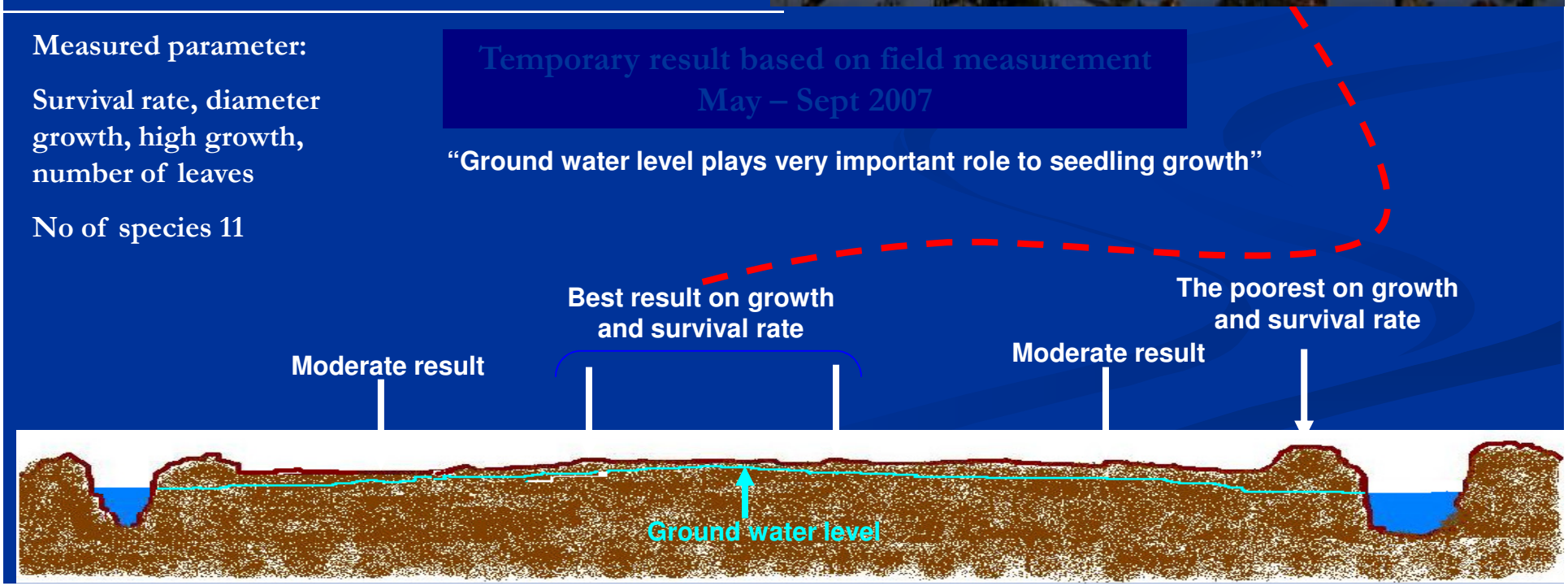
Measured parameter:

Survival rate, diameter growth, high growth, number of leaves

No of species 11

Temporary result based on field measurement
May – Sept 2007

"Ground water level plays very important role to seedling growth"



Community Engagement

Engage communities in rehabilitation and management of forest degraded areas

Link to community welfare

- Non-timber forest products
- Fisheries

Minimise encroachment and fire through joint action

Canal block constructed by local communities using the "spillway" design.

community groups are realizing the benefits of the canal blocks and water storage wells.

Community fire prevention and control

Conclusions

Main conclusion

- 60% of tropical peat is in Se asia and is of global significance for Biodiversity and climatre regulation.
- Conversion of intact peat swamp forests to oil palm plantations area leads to carbon losses, GHG emissions, loss of biodiversity and disruption of hydrology.
- Oil palm plantations generate significant economic and sopcial benefits espacially when land use rights are respected and benefits are equitably shared

Main conclusions

- To minimise future environmental impacts:
- Avoid/minimise new plantation development on intact, forested peatlands

For existing plantations on peat:

- Use BMP to enhance yield per ha (ie Reduce GHG/tCPO)
- To minimise GHG/other impacts focus on water table (as high as practically possible), decreasing fire risk, maintaining vegetation cover, avoiding flooding,, minimise inorganic fertiliser use, proper compaction, maintance of HCVF and buffer zones

Accumulated subsidence

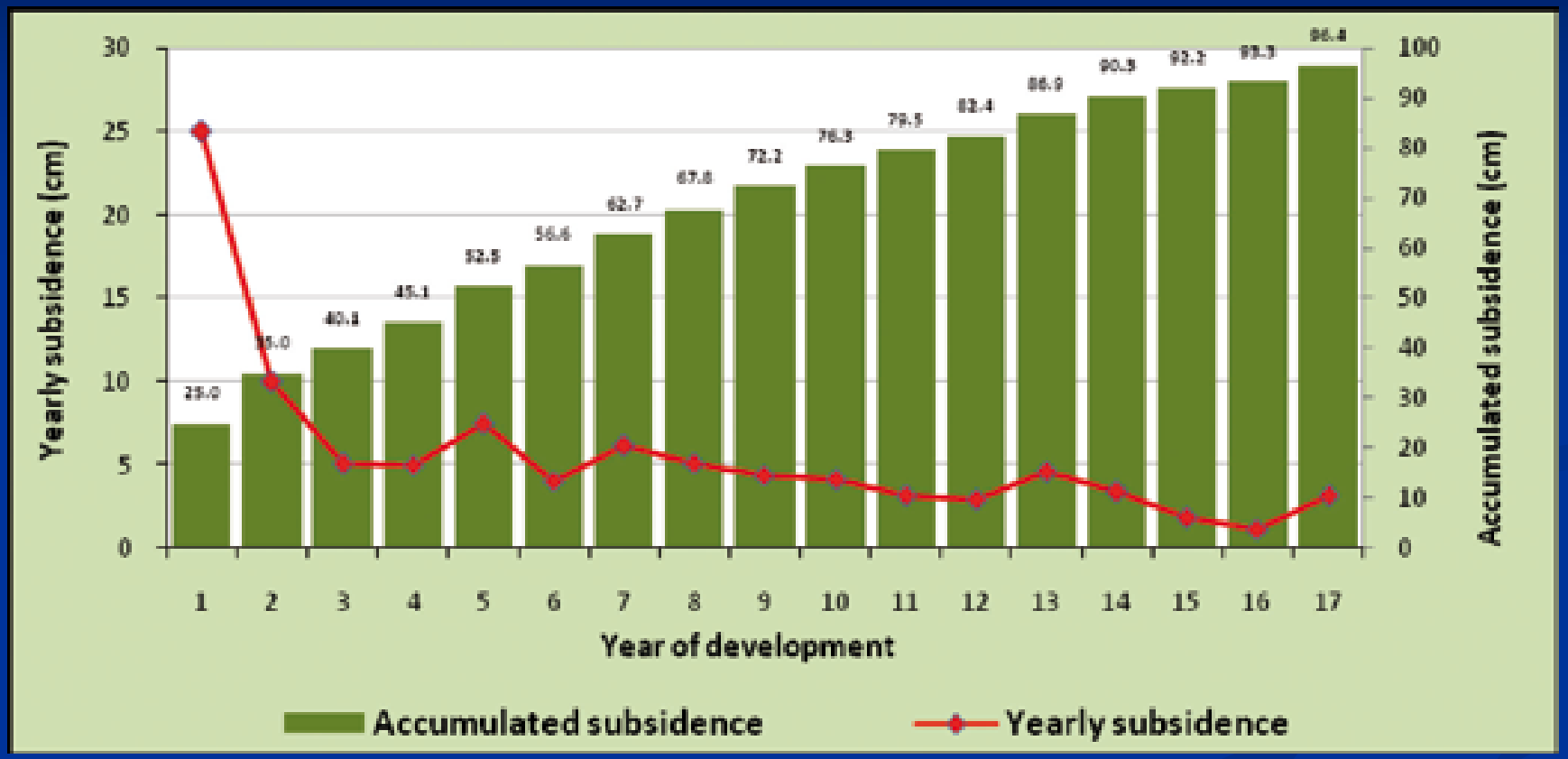
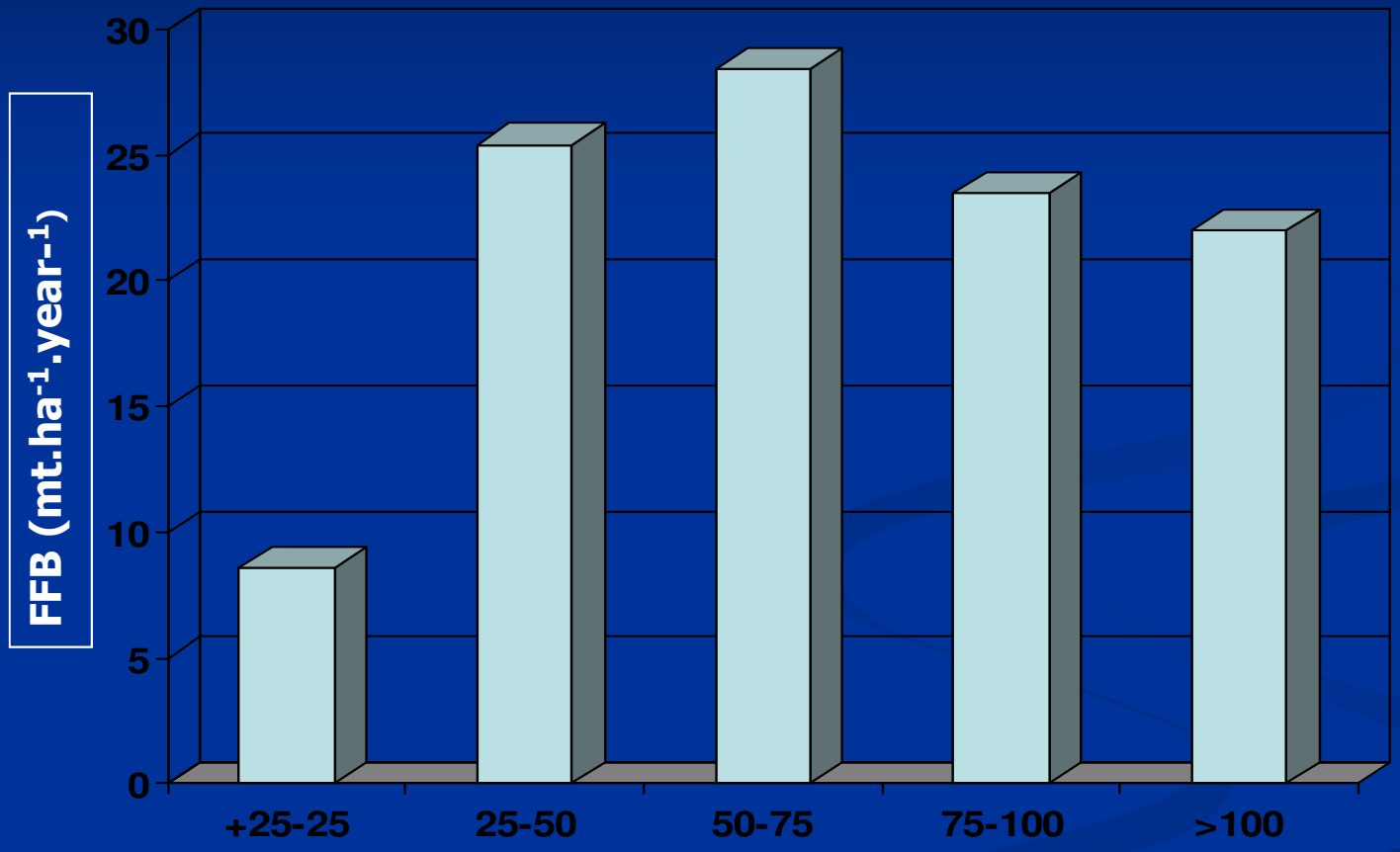


Figure 6. Yearly average and accumulated peat subsidence in the study area.

FFB YIELDS (1998 PLANTING) IN RELATION TO WATER LEVEL IN A PEAT ESTATE IN RIAU, SUMATRA.



Other emission reduction options

- Ground cover maintenance
- Soil compaction before planting
- maintaining ground cover,
- avoiding flooding,,
- minimise inorganic fertiliser use,
- Stop use of fertiliser in rainy periods
- proper compaction,
- maintance of HCVF and buffer zones
- Higher planting densities

Other GHG reduction

- Frond and EFB reuse and recycling
- Minimise POME production through Mill technology,
- Composting EFB and POME
- Biogas generation from POME
- Effective pond management and desludging
- Use of renewable fuels
- Fuel saving from water. Rail, buffalo transport

Recommendations

- All RSPO members should use the best practice guidance for all existing plantations on peat
- Changes/improvements in practice should be documented and impacts monitored and reported
- Good practice demonstration sites should be designated to benchmark standards
- Training materials should be developed and training programmes conducted
- Further guidance should be developed for smallholders
- Further development of oil palm plantations on intact peatlands should be avoided

Next steps

- Promotion of BMP – training and outreach materials
- Implementation of BMP
- Monitoring of emissions and emission reductions through BMPs
- The RSPO PLWG should continue work to support and monitor BMP implementation.
- Linkage to other processes – ASEAN, UNFCCC

Thank you