Environmental monitoring
Early fire detection and warning system is important on peat
TRAINING

• Training is important to achieve higher efficiency and productivity on peat.

• All levels of estate management, including supervisory staff and workers should be trained, to prevent making costly mistakes.
SOCIAL ASPECTS

- Estate office
- Staff quarter
- School
- Workers’ housing with basic amenities.
R&D Requirements on Peat

• More field trials on N, K, B, Cu under different moisture regimes and techniques of reducing leaching losses eg. testing coated urea and MOP.

• Study improved drainage system on peat dome eg. contour drainage.

• More R&D in measuring and mitigating GHG emissions from different peat types cultivated with oil palms (Role of TPL, MPOB, IOPRI).

• Intensify research on Ganoderma management.

• Testing of new planting materials esp. compact materials tolerant to Ganoderma, including clones.
CONCLUSIONS

• **Good implementation, monitoring and documentation of best management practices** are important for sustainable oil palm planting on peatland.

• Vital to maintain water at **50-70 cm** from the peat surface (40-60 cm groundwater table determined using piezometer) to maximize FFB yield and minimize GHG emissions.

• **Research and training** are essential to improve oil palm planting on tropical peatland.

• **Comments and feedbacks on this draft BMP** is most welcome.
THANK YOU
To commence development only when approval given

• Carry out perimeter survey & blocking.

Length of block : 1 km

Width : 200 - 250 m.

(Block size 20-25 ha)

(Carry distance - 100-125 m)

or 11-14 palms
UNDER-BRUSHING AND FELLING

• Slash small trees < 10 cm diameter.

• Use tracked excavators for felling.

• Ensure boundary stones remain intact.

• Ensure safety.
STACKING AND PLANTING ROWS

- One stacking row every four palm rows.

- Width of stacked row ( < 4 m ).

- Uproot all protruding stumps along planting and harvesting rows.

- Distance between planting points and edge of stacked row should > 1.5 m.
DRAIN CONSTRUCTION cont.

- Lining for drain to be carried out prior to drain construction.

- Sequences for drain construction:
  Outlet - perimeter - main - collection - field drain.

- Field drain should be constructed before stacking. One field drain to every 4 palm rows.

- During drain construction all obstruction spoil to be placed at least 2m from edges of drains to minimize back-filling.

- Distance between planting points and edges of field drains should > 2.0 m.
LINING AND PLANTING

• Lining of planting points to be done after compaction.

• Some adjustment may be required on distances between planting points before moving to the next planting row.

• Recommended planting distance: 8.5 m triangular with density of 160 palm/ha.

• Use hole-in-hole planting (deep planting)
ROAD CONSTRUCTION

• Types of road:
  Main access road (8.0 m width, 0.5 m thick)
  Perimeter road (5 to 6 m width, 0.5 m thick)
  Main road (5 to 6 m width, 0.5 m thick)
  Collection road (3.5 to 4 m width, 0.5 m thick)

  (Construct by pass junctions at every
   200 m along the collection road).

• Use heavy tracked excavators for road construction to
  enhance soil compaction.

• Materials: sand, mineral soil, sub-soil clay (cover with gravel).

• Avoid using long logs to reinforce road foundation, as when
  they decompose later, future road maintenance will be high.
Planting beneficial plants to attract natural enemies for biological control of leaf-eating caterpillars.
ZERO-BURNING

• Must adopt zero-burning.

• Controlled burning may be carried out only upon approval by Local Authority.

  • To minimize build up of pest and disease.
  • To reduce the use of chemicals.