

CHAPTER 6

CONCLUSIONS

6.1 Overall conclusions

1. Litterfall in the restored forest site will equal to that of natural forest within 20 years of restoration work.
2. Litterfall was the major input and to the top soil.
3. High soil organic carbon in the younger study site was due to less utilization by young trees.



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6.2 Schematic carbon diagram

Overall output was put in the box as following diagrams:

Control site

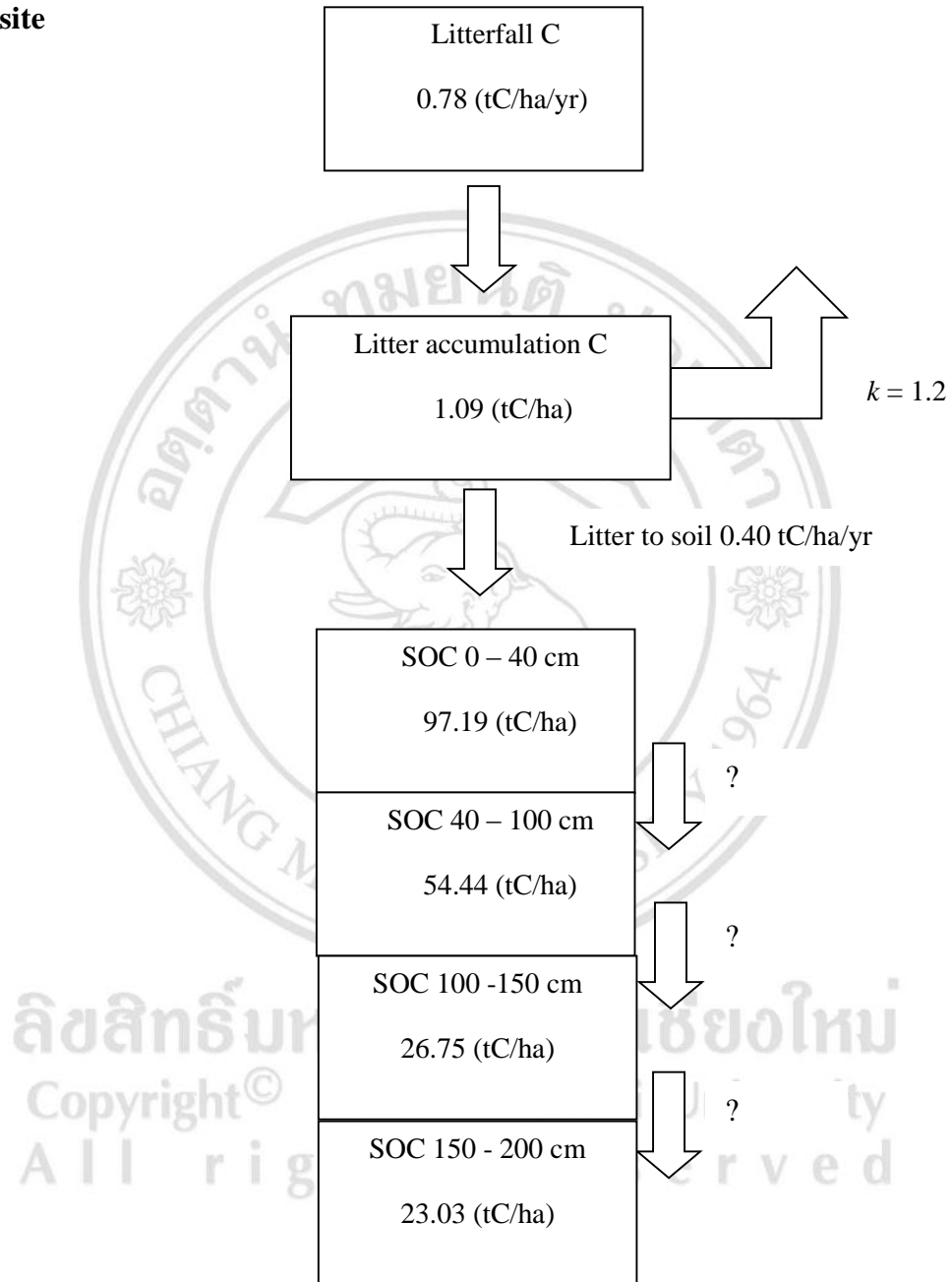


Figure 6.1 Diagram of control site

2-year-old site

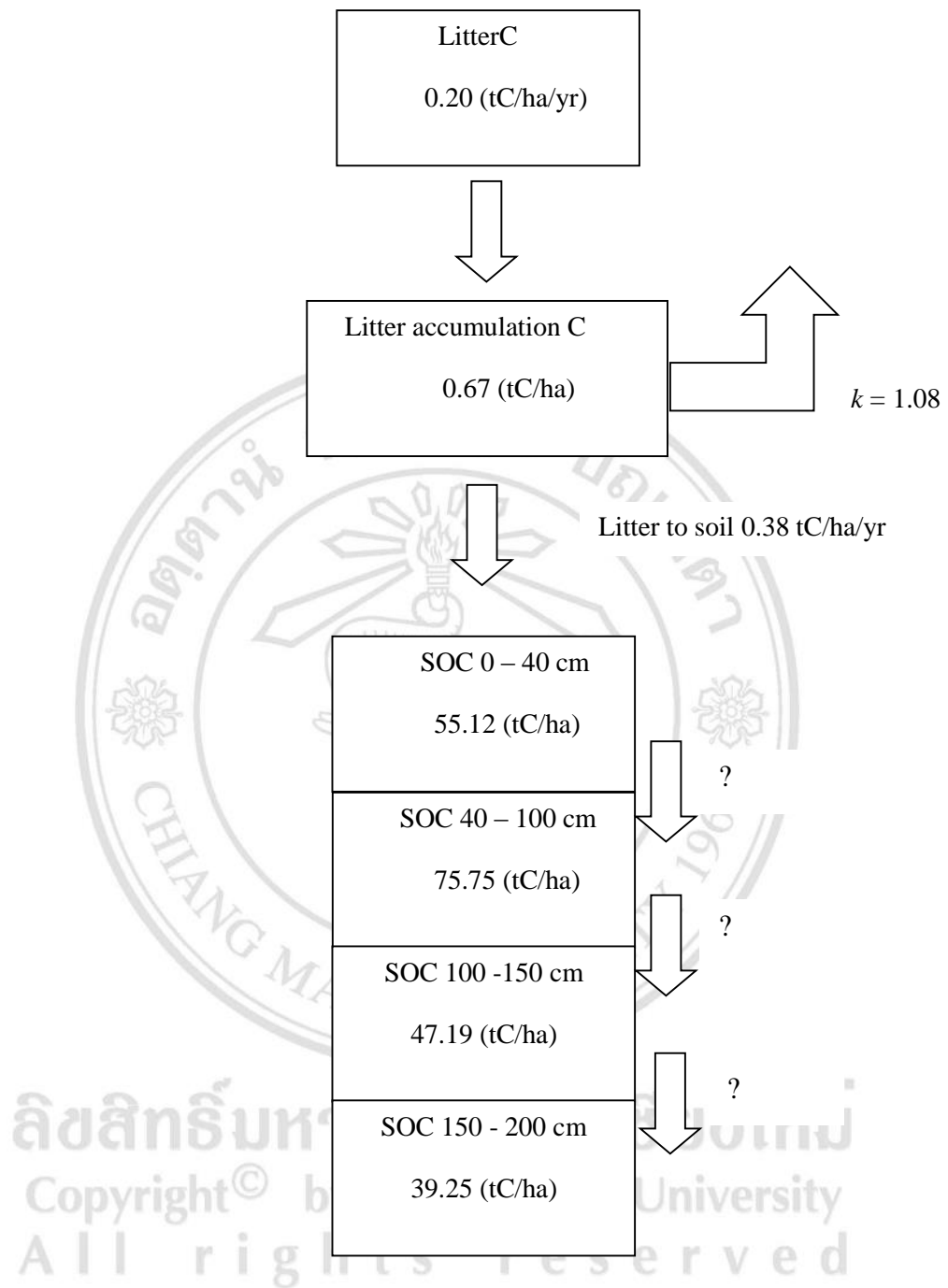


Figure 6.2 Diagram of 2-year-old site

7-year-old site

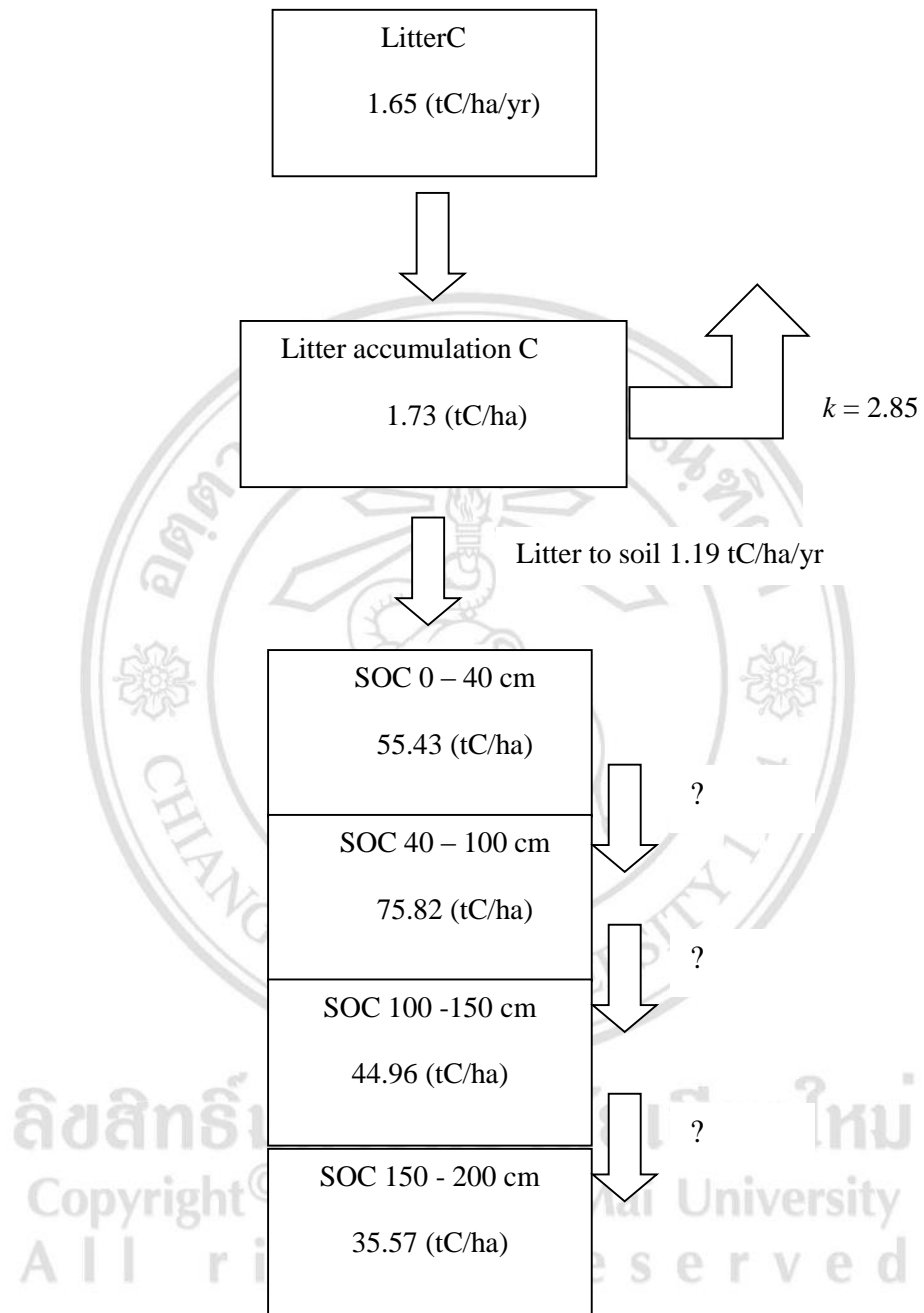


Figure 6.3 Diagram of 7-year-old site

11-year-old site

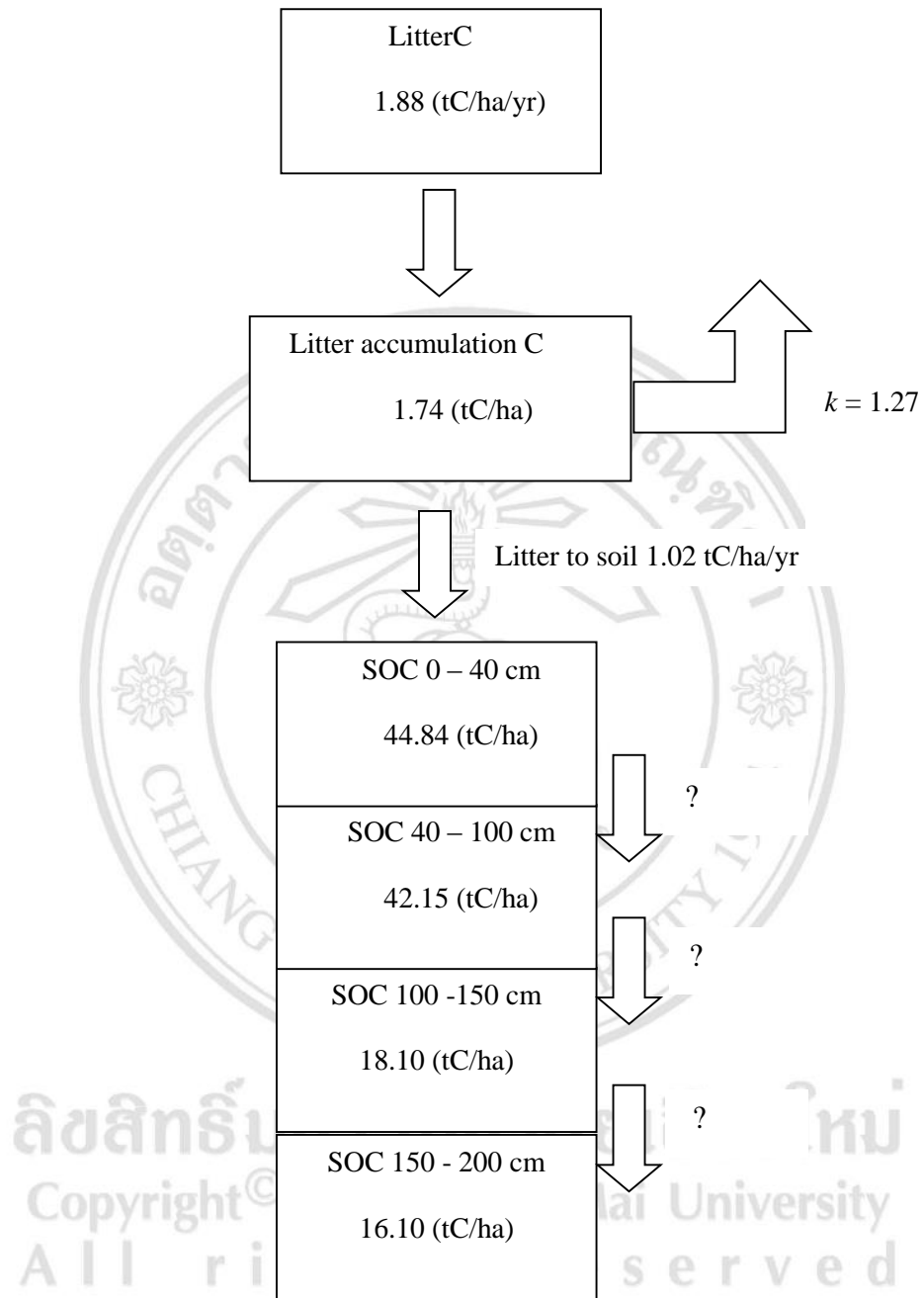


Figure 6.4 Diagram of 11-year-old site

Natural forest site

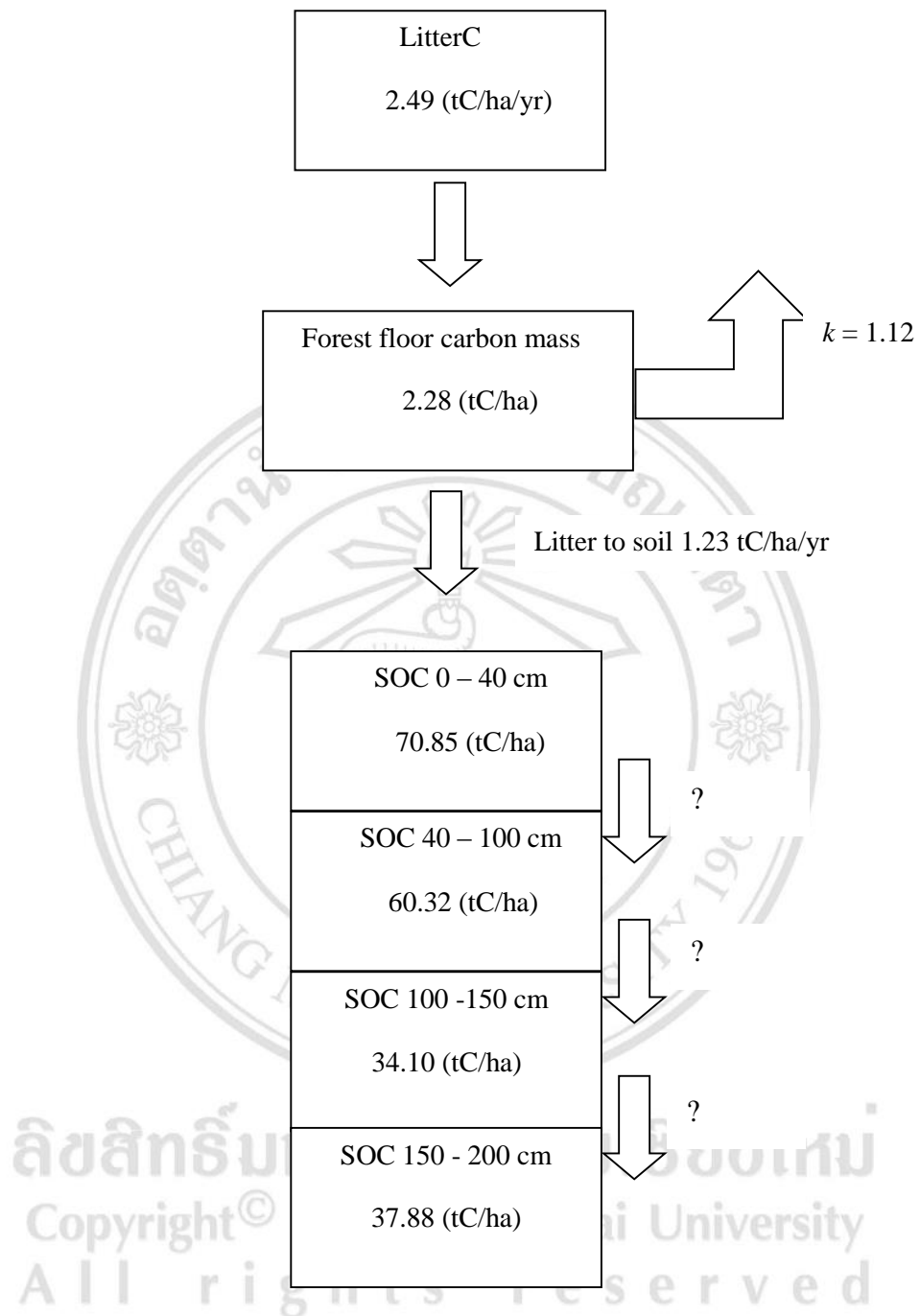


Figure 6.5 Diagram of natural forest site

6.3 Recommendations for further study

For SOC, long-term monitoring in the different plots is needed, and using radiocarbon for monitoring old and new carbon which in the study sites in the future would be interesting to investigate carbon dynamic in restored forest system. However, numerical model using field data was tried but lack of following data:

- soil respiration rate in different soil depths from top soil to deeper soil
- soil organic carbon accumulation rate
- organic carbon depletion rate per year
- transfer rate of organic carbon from top soil to deeper soil



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