

Part 1

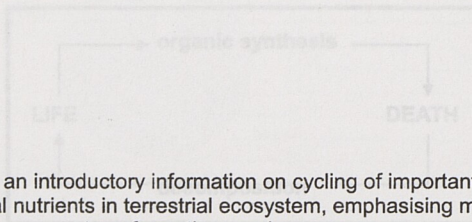
Introduction

CONTENTS

1. Introduction 5
2. Nitrogen 9
3. Phosphorus 29
4. Potassium 37
5. Sulfur 43
6. Iron and Manganese 55
7. Calcium and Magnesium 59
8. Literature 61

Remains of plant material (often after being consumed and partly destroyed by animals), and the remains of animals and other microorganisms, are decomposed by microorganisms. Especially, soil microorganisms play very important roles in decomposing organic substances into mineral nutrients and elements. The processes of synthesis and decomposition form the basic cycle of life and death (Fig. 1.1).

Fig. 1.1. The processes of synthesis and decomposition form the basic cycle of life and death. (adapted from Wood, 1995)



This text is an introductory information on cycling of important plant and microbial nutrients in terrestrial ecosystem, emphasising microbial transformations and processes.