

TABLE OF CONTENTS

1 INTRODUCTION	4
2. THEORETICAL PART	5
2.1 Air pollution	5
2.1.1 Sources of air pollution	5
2.1.2 Atmospheric deposition and harmful effects	5
2.1.3 Air pollution and international conventions	7
2.1.4 Monitoring the air pollution and effects	8
2.2 Mosses – bioindicators of atmospheric deposition loads	10
3 VISEGRAD SPACE AND AMBIENT AIR QUALITY	13
3.1 Short introduction of the Visegrad Group	13
3.2 Air quality monitoring practice in V4	20
3.3 Biomonitoring campaigns in V4	28
4. EXPERIMENTAL PART	32
4.1 Aims of the project	32
4.2 Material and Methods	32
4.2.1 Sampling plots	32
4.2.2 Collection and processing of samples	41
4.2.3 Determination of elements	42
4.2.4 Processing of results	43
4.3 Results and discussion	44
4.3.1 Cadmium	46
4.3.2 Chromium	53
4.3.3 Copper	60
4.3.4 Iron	66
4.3.5 Nickel	72
4.3.6 Lead	78
4.3.7 Vanadium	85
4.3.8 Zinc	91
4.4. Correlation and cluster analyses	98
4.5 Factors affecting the element content in moss	102
4.6 Comparison with other countries	104
4.7 Evaluation and utilization of results	105
5 CONCLUSIONS	113
6 REFERENCES	114
Acknowledgements	122
Executive summary	123
Streszczenie	124
Souhrn	125
Összefoglaló	126
Súhrn	127