



INVENTORY OF GRASSLAND SURFACES IN THE CRÍSUL ALB HYDROGRAPHIC BASIN, USING GIS TECHNIQUES

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Introduction

Grasslands (pastures and hayfields) can be seen as the main natural resources of rural territories, considering the predominantly agricultural profile of these areas. In this context, the present study has as its main purpose the inventory of grassland areas in the Crișul Alb river basin and their relationship with certain components of the natural environment (altitude, slope, relief unit and so on).

Material and method

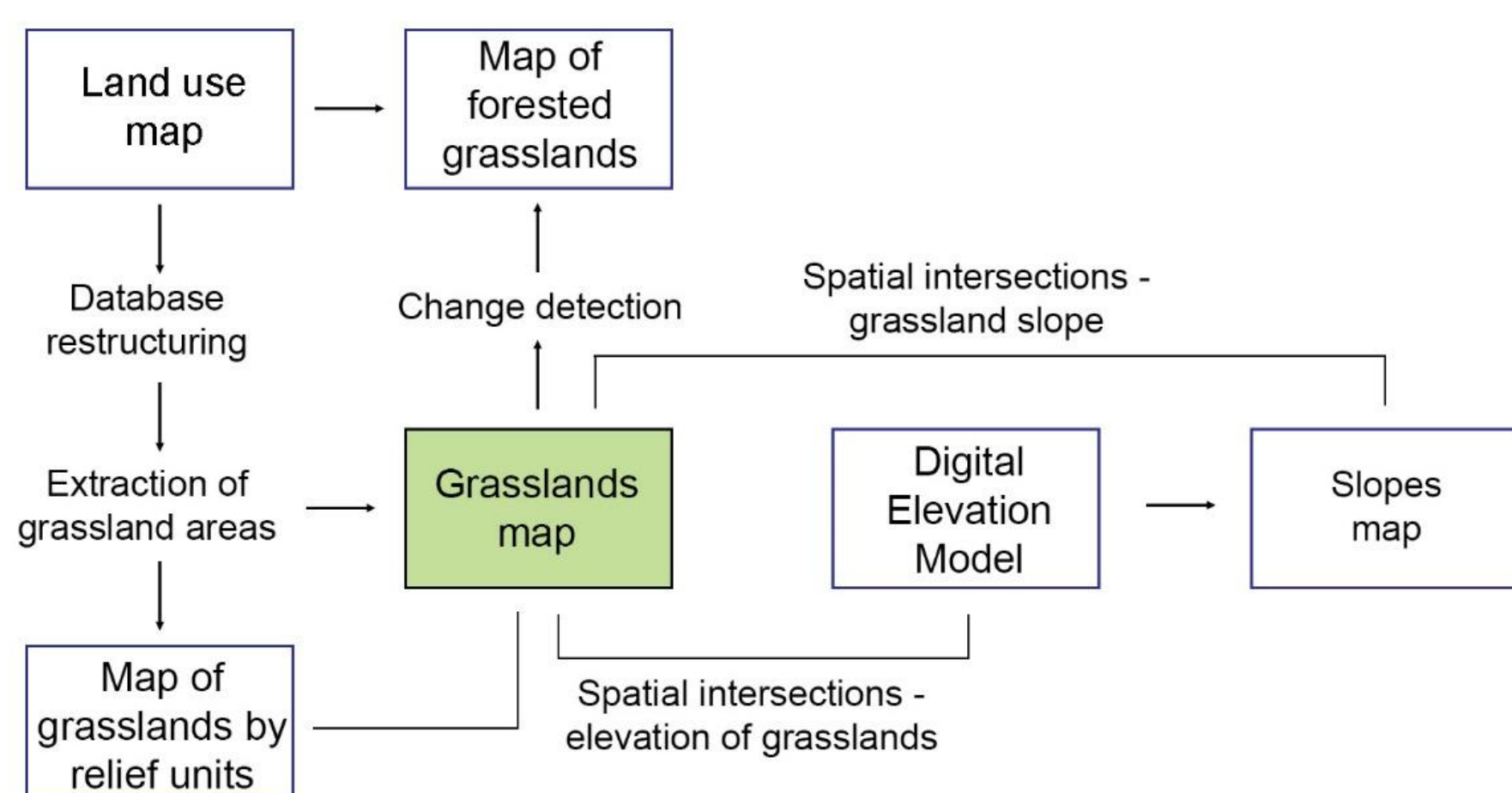


Figure 1 Workflow

Results and discussions

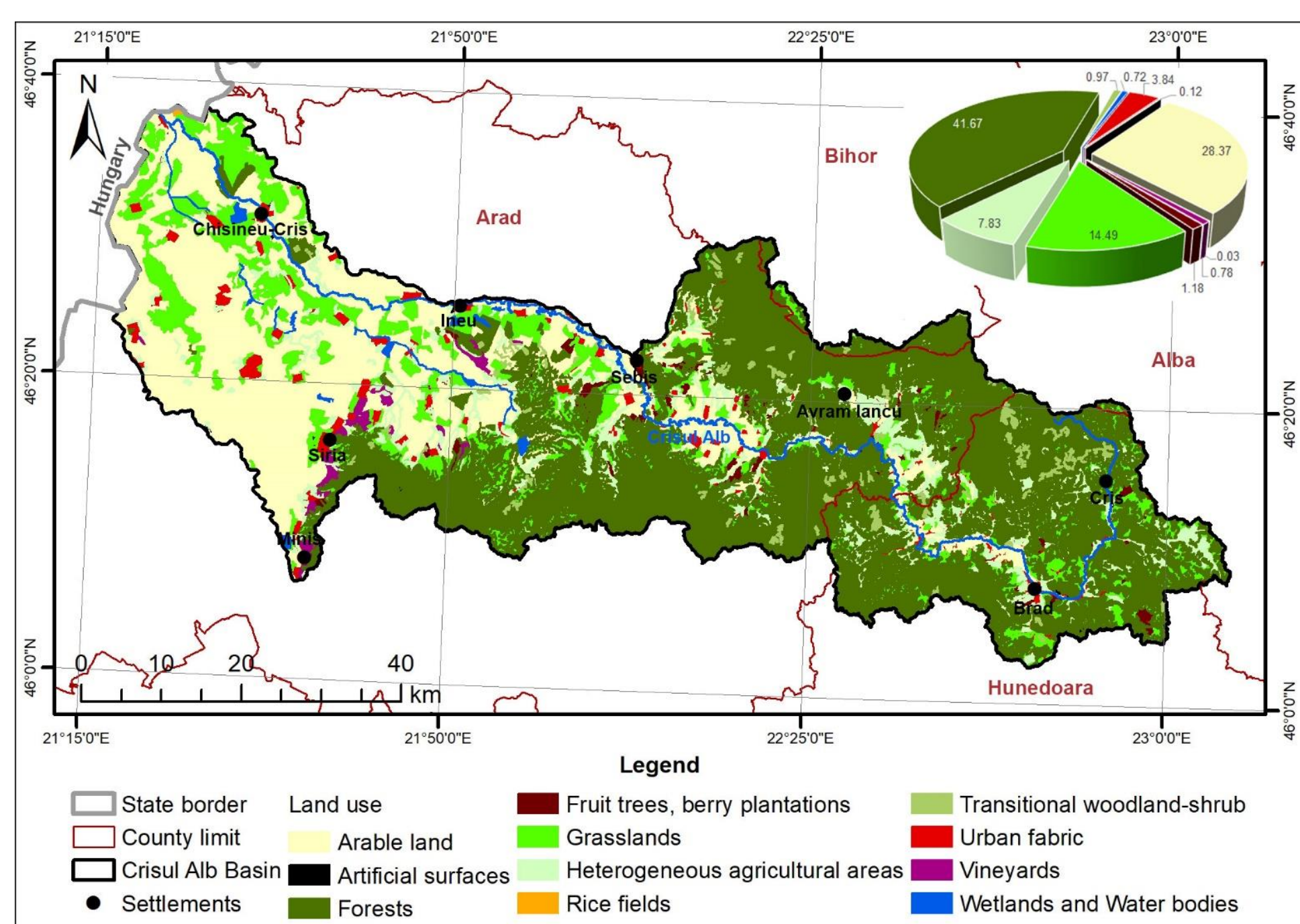


Figure 2 Land Use Map

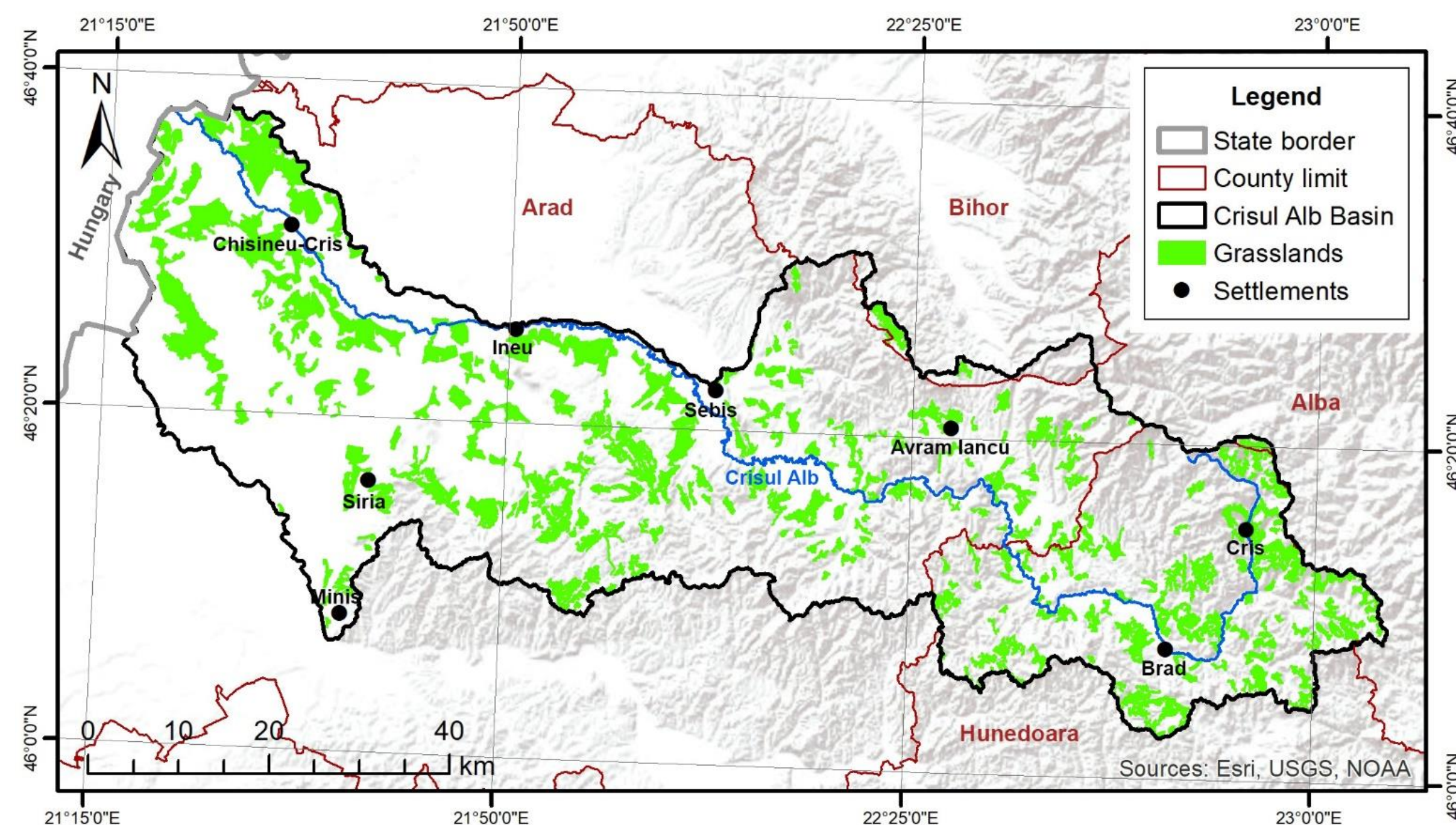


Figure 3 Grasslands map

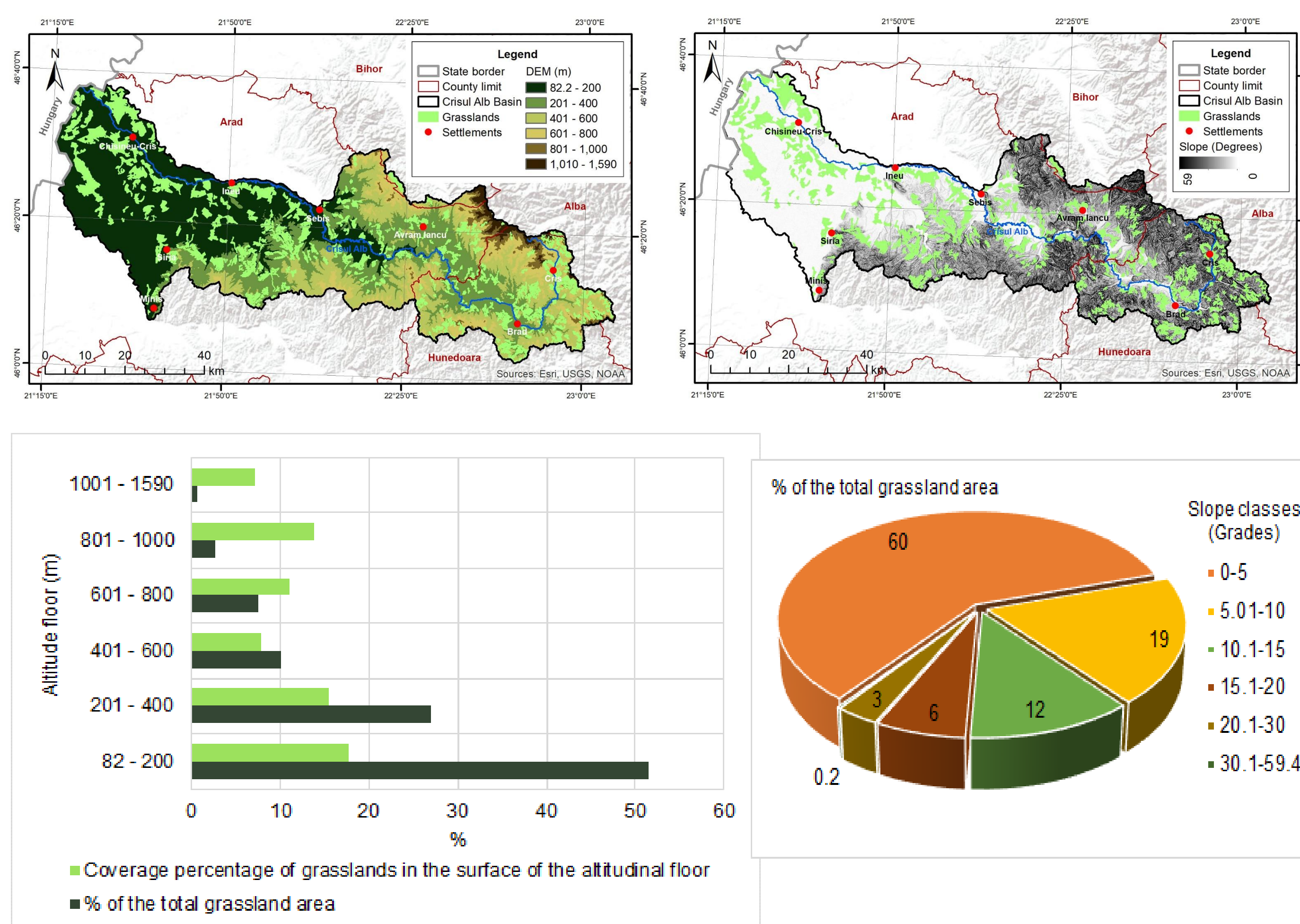


Figure 4 Distribution of grasslands on altitudinal levels and slope classes

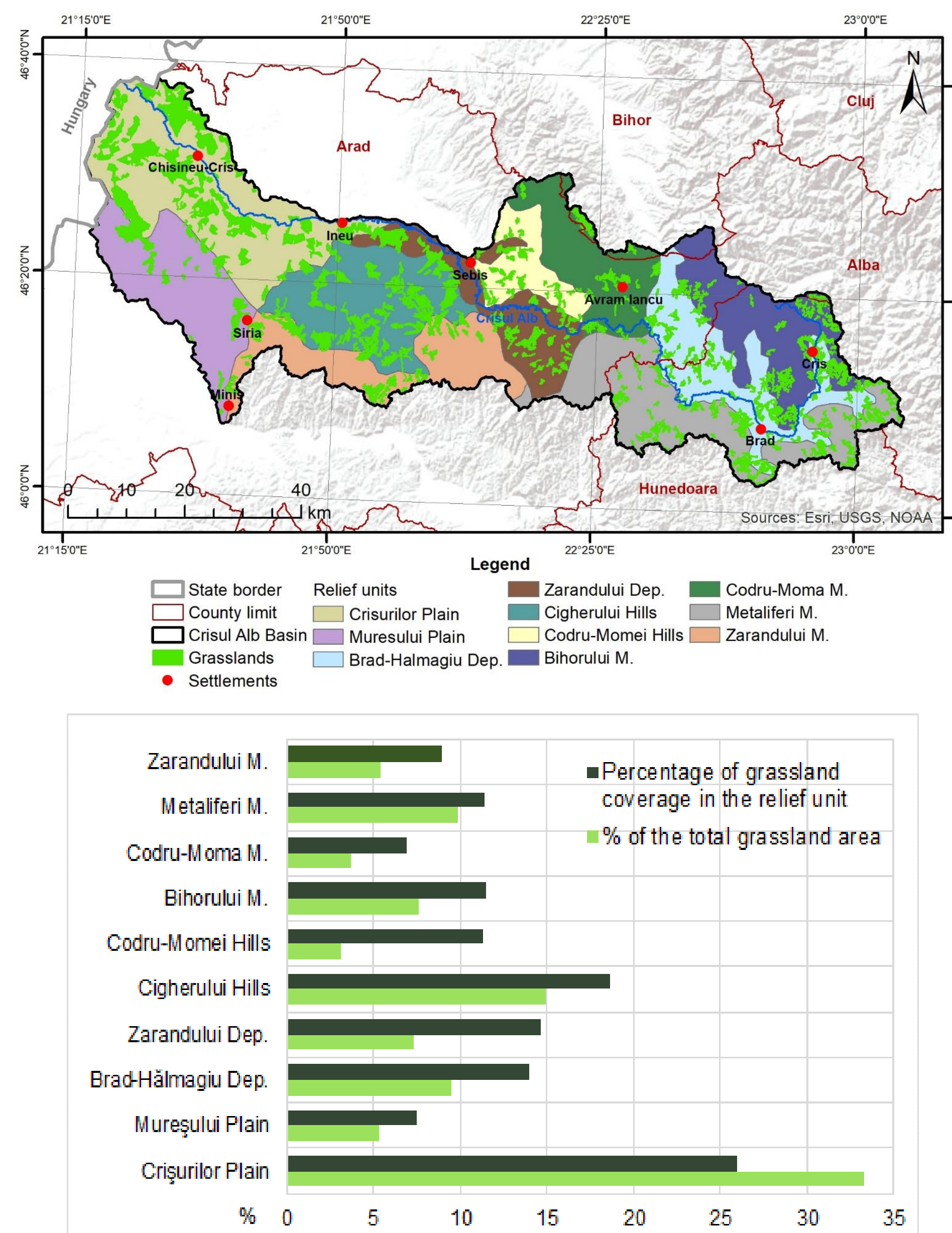


Figure 5 Distribution of meadows by relief units

Conclusions

In terms of territorial distribution, the areas used as grasslands can be found in all relief forms and units, in different proportions, but a greater concentration of them was observed in the Crișurilor Plain, in the Cigherului Hills and in the Zarandului Depression. In terms of altitude, the study area falls between 82 - 1587 m, with significant grassland areas being concentrated, for the most part, in the lower altitudinal levels. In the case of areas used as grasslands, the slope of the land, one of the most important limiting factors, has different values, depending on the sub-area and the relief conditions. Overall, in the study area, grasslands are well "represented", especially in its western half, the eastern half being dominated by forest areas.