



HOLISTIC

SEISMIC AND WILDFIRE RISKS

MANUAL FOR EFFECTIVE UTILISATION OF BIOMASS



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GUIDELINE

MANUAL FOR EFFECTIVE UTILISATION OF BIOMASS

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Manual for Effective Utilisation of Biomass

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1. Introduction

The main focus of this manual is related to the possibilities of biomass use, technical aspect and implementation guide on how to manage biomass heating systems in municipalities and cities. These are the topics that are being analyzed and developed for many years in many Countries but sometimes without significant steps towards project implementation. Looking at the results of dozens and possibly hundreds of district heating systems that are in operation in Austria, Slovenia, Italy and across Europe, it can be concluded that the great opportunity is missed and that some Adriatic countries do not use own potentials enough. It is hard not to draw parallels with other renewable energy sources - wind, solar, hydro power, which all recorded significant growth, new production facilities, but also a bright future in mind and planned projects in the developing world.

Successful use of biomass lies in small projects, in a large number of users and good organisation. Fuel wood is nothing new and it is used today throughout the Adriatic Countries but biomass in aspiration for developed and successful Europe means much more. Speaking of biomass, it includes fully automated boilers and pellet stoves, small, medium and large power plants that will warm entire villages or small towns, and also think of cogeneration plants in the timber industry, co-combustion in a conventional coal power plants and similar.

The wood biomass market for energy purposes in several Adriatic Countries is still in early stages of development except for logwood which has traditionally been used as a source for heating in households. One of the barriers for biomass market development, e.g. in Croatia, is the lack of financial incentives for investing in wood pellet heating and biomass district heating, but in spite of that woodchips and pellets are gaining on its popularity based on accessibility of cheap biomass boilers from domestic production and development of local pellet production.

Biomass production and utilization, bioenergy technologies, their market share, and research interests in these issues vary considerably between different countries and even within different regions of the same country. Nevertheless, in most of the countries socio-economic benefits of bioenergy use can clearly be identified as a significant driving force in increasing the share of bioenergy in the total energy supply. In most countries regional employment created and economic gains are probably the two most important issues regarding biomass use for energy production.

The essence of sustainability of bioenergy projects from a social aspect is how they are perceived by society, and how different societies benefit from this activity. Avoiding carbon emissions, environment protection, security of energy supply on a national level or other 'big issues' are for local communities an added bonus, but the primary driving force are much more likely employment or job creation, contribution to regional economy and income improvement. Consequently, such benefits will result in increased social cohesion and stability that stem from the introduction of an employment and income generating source.

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