

WOOD ENERGY USE IN ROMANIA: PROSPECTS AND CHALLENGES

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BIOMASS

”Social sustainability and acceptability of biomass production and utilization in

Northern Eastern Romania”

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1. INTRODUCTION

WOOD PRODUCTION

2008: 16.7 million m³

From which 3.7 firewood

2015: 18.1 million m³

From which 5.1 firewood

ANNUAL FIREWOOD CONSUMPTION: different figures

- a. **12 million m³ consumed by households** (*3.75 million tones of oil equivalent Romania Energy Strategy, 2016*)
- b. **19 million m³ consumed by households** (*19 million tones in Study INS on energy consumption in households, 2009*)

GREAT POTENTIAL in terms of production of biomass for energy and industrial use

DOMESTIC USE → heating and cooking 95%

INDUSTRIAL USE → 5% (*Roland Bergers, 2010*); 2017: 0.5 million cubic meters with new instalments forecast

AIM AND OBJECTIVES

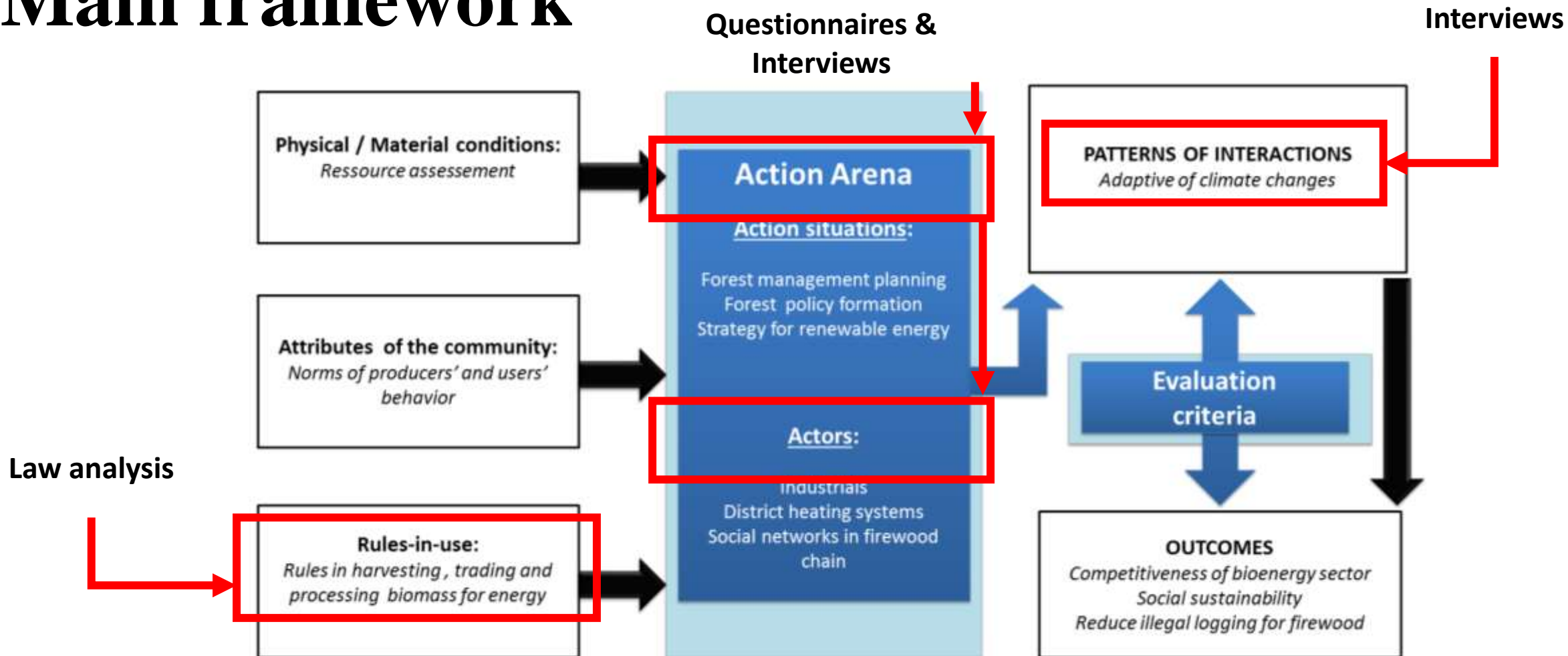
Aim

Gain a deeper understanding of institutional patterns that determine energy wood consumption in Romania

Objectives:

- 1. Analyse who are the main stakeholders interested in wood energy sector*
- 2. To identify characteristics of the current wood energy production*
- 3. To identify challenges of the wood energy sector development*

Main framework



Main stakeholders

- 1. Ministries (of Energy, of Environment and Water) and their agencies in the territory*
- 2. Industrials (private firms using wood biomass for energy production)*
- 3. Raw material providers (forest owners, forest managers)*
- 4. Representatives of industrials in political process (e.g. Romanian Associations of Biomass users - ARBIO, Romania Association of Pellets producers)*
- 5. Representatives of ecologist NGOs (Agent Green, EIA, WWF, Greenpeace)*

2. Registered producers

Table 1 Characteristics of the biomass consumption industries

No	County	Activity	Thermic (MW/h)	Electric (MW/h)
1	A6 IMPEX, Dej	Producer	0	9,73
2	BIOENERGY, Suceava	Producer	0	26
3	EGGER ROMANIA, Suceava	Producer	0	14,5
4	HOLZINDUSTRIE SCHWEIGHOFER Sebes (Bioelectica Transilvania SRL), Alba	Producer	36,1	10,9
5	HOLZINDUSTRIE SCHWEIGHOFER Rădăuți (Bioelectica Transilvania SRL), Suceava	Producer	55,5	15
6	HOLZINDUSTRIE SCHWEIGHOFER Reci (Bioelectica Transilvania SRL), Covasna	Producer	38	15
7	RIG BIOMASS, Neamț	Producer	0	1,25
8	SAUCOLEMN, Suceava	Producer	3,44	0,3
9	SORTILEMN, Cluj	Producer	7	1,23
Total			140,04	93,91

Main challenges

1. *The source of wood and the threat of illegal log timber, it is particularly high buying wood chips*
2. *The demand for raw material is very high: industrial uses, wood for panel and local firewood demand are competing each other. As result the prices of raw material are high*
3. *Wood for energy is not a priority of forest policies (the Forest Code was modified in 2015 to limit the development of large roundwood consumers, to favorize local timber processing and to give priority to furniture producers.*

(“We shall not pay industry to burn wood”)



**e.g. perceptions of the representative of the
Ministry of Forest in the territory (Forest Guards, N=45)**

Perceptions of the Forest Guards illustrating the challenges

Q1 About the demand

the current harvesting rates (legal possibility) is:

Higher than demand	22.03 %
smaller than demand	38.98 %
Much smaller than demand	38.98 %
Total	100%

The forest guards are perceiving an increased pressure on the forest resource and most of them are convinced that there is not enough timber to satisfy the needs.

Perceptions of the Forest Guards illustrating the challenges

Q2 Who should have the priority in accessing wood raw material

Local communities	12
Local Firms	10
Modern plans	2
All interested, according to the law	20
Total	44

FGs perceptions show a concern about satisfying the local needs first

Q3 Where the rule of accessing wood raw material are established?

- 25 Forest Guards out of 46 said that the access is regulated in forest management plans

Rule of accessing biomass energy

TWO main instruments:

1. The forest management plan

2. The Regulation on the evaluation and timber selling from forest

FMP do not forecast bioenergy harvesting and the coppice is almost prohibited, the main target is always industrial round wood

Instead, the rules of selling timber modified in 2015 allow forest contractors to extract whole trees from forest, except stumps

As result, there is a wide spread of extracting branches and top of the trees, transformed as wood chips in the forest, and sold to the panel and energy producers

Serious questions about wood traceability (as resulting from interviews with FGs)

Conclusions

- 1. Not enough timber for everyone*
- 2. The most affected by the high wood demand are the rural households which are traditional fire wood consumers, competing now with industrial demand*
- 3. Wood bioenergy is not a top priority of forest policies*
- 4. In general, the perceptions are negative about the large plants owned by foreign investors*
- 5. Illegal logging remains a main concern in Romania*
- 6. Traceability of wood chips for energy production is questionable*
- 7. Ecological concerns about the whole tree harvesting practice*



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