

## **TASK FORCE 2.**

**NWFP data and models: state of the art, needs and improvements**

### **PARALLEL MEETING**

***Current State & Progress and What to do now?***

***Joint meeting with TF3***

***Zagreb, 20<sup>th</sup> February 2014***



## Main Agenda for the TF2 parallel meeting

14:20 – 14:30. Introduction to the parallel meeting, overview on Krakow meeting minutes and progress from Krakow

14:30 – 14:50. In-depth analysis of TF-2 Common survey. More relevant findings

14:50 – 15:20: How to deal with the feedback from the common survey: expected outputs?

15:20 – 15:40: **The chapter book**

15:40 – 16:05: Proposals for other TF2 outputs and common activities. Discussion and selection

16:05 – 16:25: Coffe break

16:25 – 16:45: Opportunities for within TF2 cooperation activities (STSM?)

16:45 – 18:10: common activity with TF3,



## REMEMBER: Main objective of TF2

**To compile existing data and models on NWFP's identifying gaps in data and devising new protocols for NWFP data and modelling**

Subtask 2.1. Reviewing NWFPs data and models

Subtask 2.2. Reviewing NWFP modelling methodology (inc. protocols for data acquisition)

Subtask 2.3. Identifying data and model needs

### **Mandatory deliverable:**

A review of European NWFP data and models, including identified data needs



# Task Force 2: Progress from Krakow

- A list with all the members of TF2, covering all the participant countries, is demanded (special attention to ESR) : not done, many countries are still missed
- Training School on Modelling NWFP: **done (presented yesterday)**
- Questionnaires should be designed and disseminated: **done, they were included into COST common survey and launched in october 2014, 22 countries responded**
- First results of the questionnaires to be presented in Zagreb: **to be done today**
- **Four STSM on TF2 topics have been completed. Several others are ongoing**



## Demands from Plenary Session (Zagreb)

- Structure for the book chapter: based on common survey?
- Other output
- Contents to be included in the common dataset
- Questionnaire: should we change any question, should we expect more feedbacks?
- Proposals for STSM



## In depth analysis of TF2 – common survey

### Three questionnaires:

- Data sets: refers to a group of data collected with the main aim of forest/product management, national/regional estimates of production, supply to industry...
- Permanent plot: refers to any trial /plot/experiment installed with the main aim of continuous research on NWFP (including abandoned trials)
- Models: refers to any simulation tool developed with aim of forecasting/describing NWFP production and supporting management decision (including yield and expert tables)



**Four Working Groups / Five products per Working Group**

**Structure of the questionnaire (.xls)**

## In depth analysis of TF2 – common survey: preliminary results

Country	Data bases and series				Permanent plots				Models				TOTAL
	WG1	WG2	WG3	WG4	WG1	WG2	WG3	WG4	WG1	WG2	WG3	WG4	
Netherlands													0
Finland	X	X	X	X	X		X	X	X		X	X	10
Lithuania	X	X	X	X	X	X	X	X	X	X	X	X	12
Iceland		X		X (h)									2
Germany						X*							1
Croatia				X									1
FYR Macedonia	X		X										2
Switzerland	X			X	X								3
Austria		X	X	X (b)		X				X***			5
Bulgaria	X	X	X	X (b)									4
Poland	X	X	X	X							X		5
Portugal	X	X		X		X				X			5
United Kingdom				X		X	X					X	4
Greece	X	X		X		X**	X	X		X**		X	8
Romania	X	X	X	X									4
Latvia				X									1
Czech Republic	X		X										2
Italy	X	X	X	X									4
Turkey	X		X						X**				3
Slovakia	X	X	X	X									4
Bosnia&Herzagovina													0
Spain	X	X	X	X (b)	X	X	X	X	X	X	X	X	12
TOTAL	14	12	12	16	4	7	5	4	4	5	4	5	92

- Up to date 22 countries send their feedback (ranging 0-12)
- Remaining countries: France, Estonia, Denmark, Hungary, Serbia, Slovenia, Morocco

## In depth analysis of TF2 – common survey: preliminary results

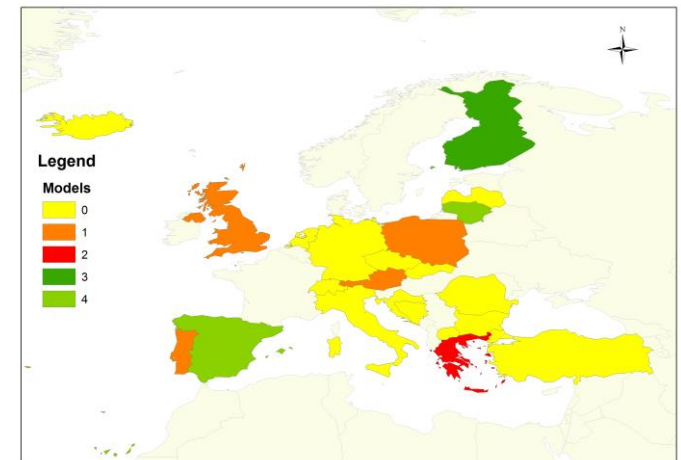
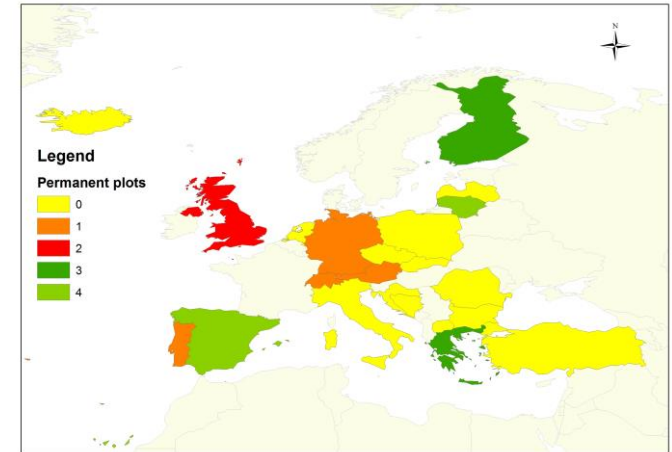
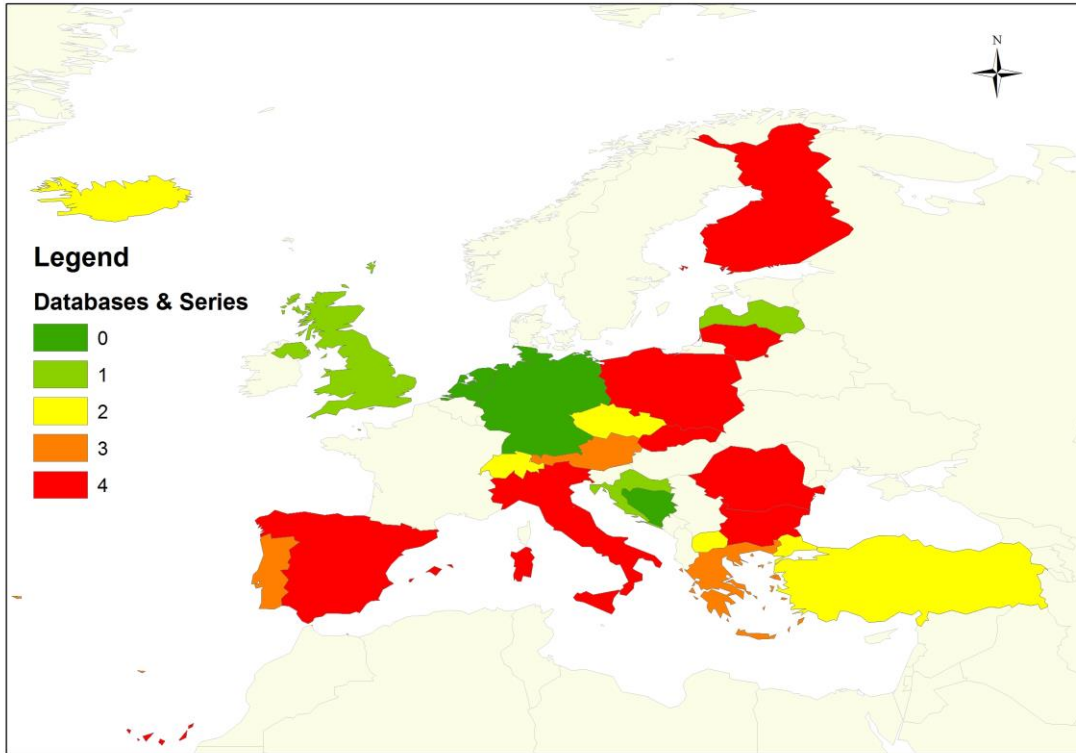
Country	Data bases and series				Permanent plots				Models				TOTAL
	WG1	WG2	WG3	WG4	WG1	WG2	WG3	WG4	WG1	WG2	WG3	WG4	
Netherlands													0
Finland	X	X	X	X	X		X	X	X		X	X	10
Lithuania	X	X	X	X	X	X	X	X	X	X	X	X	12
Iceland		X		X (h)									2
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Switzerland	X			X	X								3
Austria		X	X	X (b)		X				X***			5
Bulgaria	X	X	X	X (b)									4
Poland	X	X	X	X							X		5
Portugal	X	X		X		X				X			5
United Kingdom				X		X	X					X	4
Greece	X	X		X		X**	X	X		X**		X	8
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Bosnia&Herzagovina													0
Spain	X	X	X	X (b)	X	X	X	X	X	X	X	X	12
TOTAL	14	12	12	16	4	7	5	4	4	5	4	5	92

- 19 countries reported information on data sets (54 combinations country x WG)
- 9 countries reported information on permanent plots (20 country x WG)
- 9 countries reported information on models (18 country x WG)
- 2 countries not reported information, 2 countries matched all the topics



# In depth analysis of TF2 – common survey: preliminary results

## A geographical approach



## In depth analysis of TF2 – common survey: preliminary results

Let's take a glimpse over the structure of the data base (.xls file)

WG	Data sets & inventories	Permanent plots	Models
WG1	60	10	9
WG2	45	20	12
WG3	56	15	11
WG4	58	13	17
<b>TOTAL</b>	<b>219</b>	<b>58</b>	<b>49</b>

**326 entries (product within a given category from a given country ) in the data base**



# In depth analysis of TF2 – common survey: preliminary results

First proposal: to reduce the number of type products (>35) within categories (18)

Type of product	Data sets & inventories	Permanent plots	Models
<b>WG1</b>	<b>60</b>	<b>10</b>	<b>8</b>
Truffles	7	1	
Wild mushrooms	53	9	9
<b>WG2</b>	<b>45</b>	<b>20</b>	<b>11</b>
Christmas trees	7	1	
Cork&Barks	4	3	4
Edible fruits & nuts	16	5	5
Medicinal use	3		
Reproductive material	4	6	1
Resins&exudates	4	2	2
Tree sap	3		
Flower & wildgreens	4	3	
<b>WG3</b>	<b>56</b>	<b>15</b>	<b>11</b>
Flower & others	6	2	1
Forest berries & edible fruits	40	6	8
Medicinal, Culinary & Others	10	7	2
<b>WG4</b>	<b>58</b>	<b>13</b>	<b>17</b>
Game birds	6	2	4
Game meat	39	9	12
Honey	5		
Other	4		1
Trophy & recreation	4	2	
<b>Total</b>	<b>219</b>	<b>58</b>	<b>49</b>

## Data sets

- Wild mushrooms (53)
- Forest berries (40)
- Game meat (39)
- Edible fruits & nuts (16)

## Permanent plots

- Wild mushrooms (9)
- Game meat (9)
- Medicinal & others (7)
- Forest berries (6)

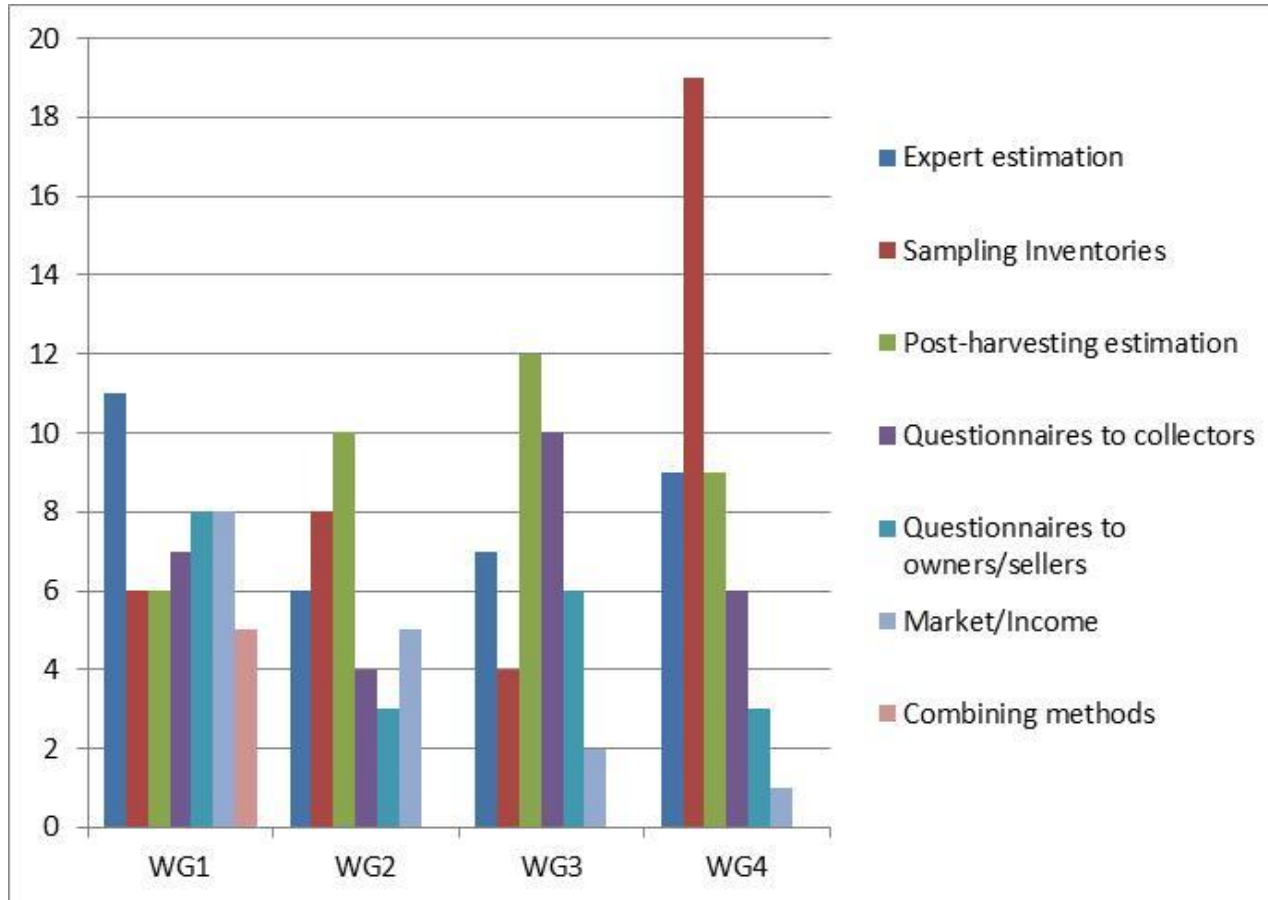
## Models

- Game meat (12)
- Wild mushrooms (9)
- Forest berries (8)
- Edible fruits & nuts (5)



# In depth analysis of TF2 – common survey: preliminary results

## Some findings on datasets and series, how data are collected according to WG?



Animal origin (game) data are collected by sampling techniques

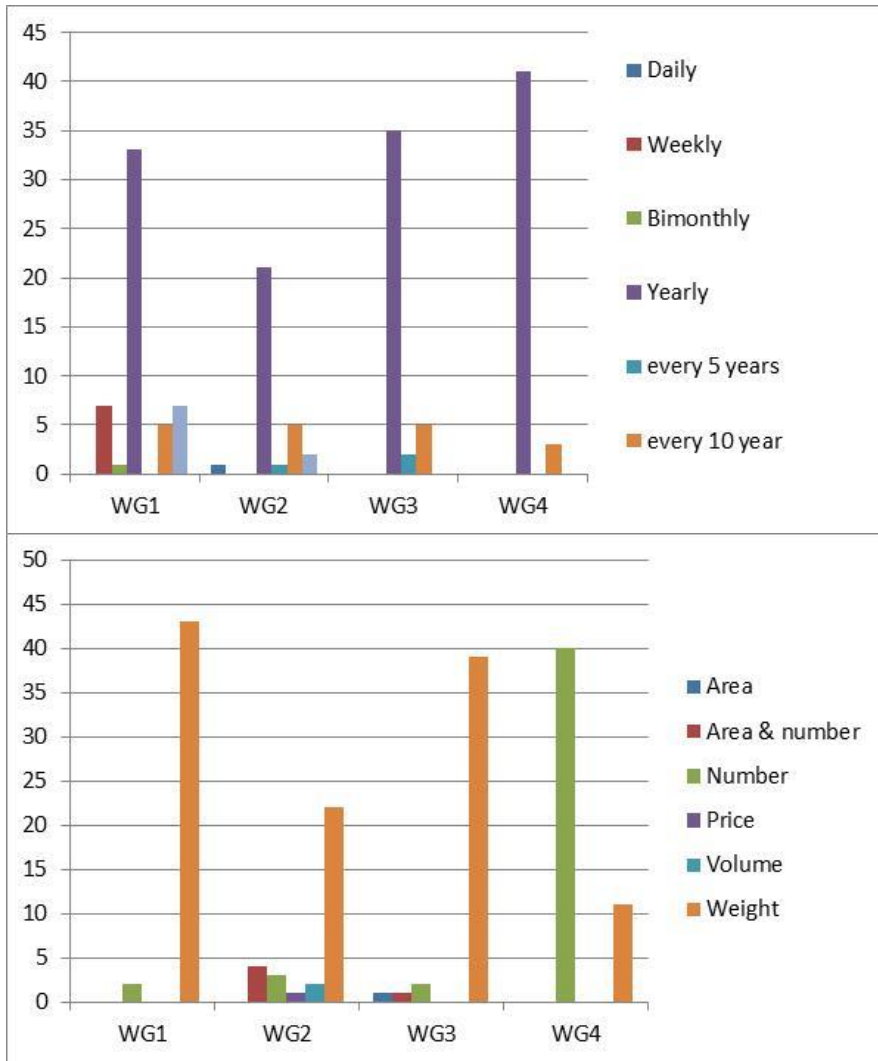
Post harvesting estimation & questionnaires to collectors mainly used for WG3 products

Expert estimation the most common practice for mushrooms

Questionnaires are scarcely used for WG2 & WG4 products

# In depth analysis of TF2 – common survey: preliminary results

## Some findings on datasets and series, frequency and units?



Mainly annual collection,

Higher frequency only in mushrooms and tree sap (birch)

Common unit is weight, except for animals (number of living / hunted pieces)

# In depth analysis of TF2 – common survey: preliminary results

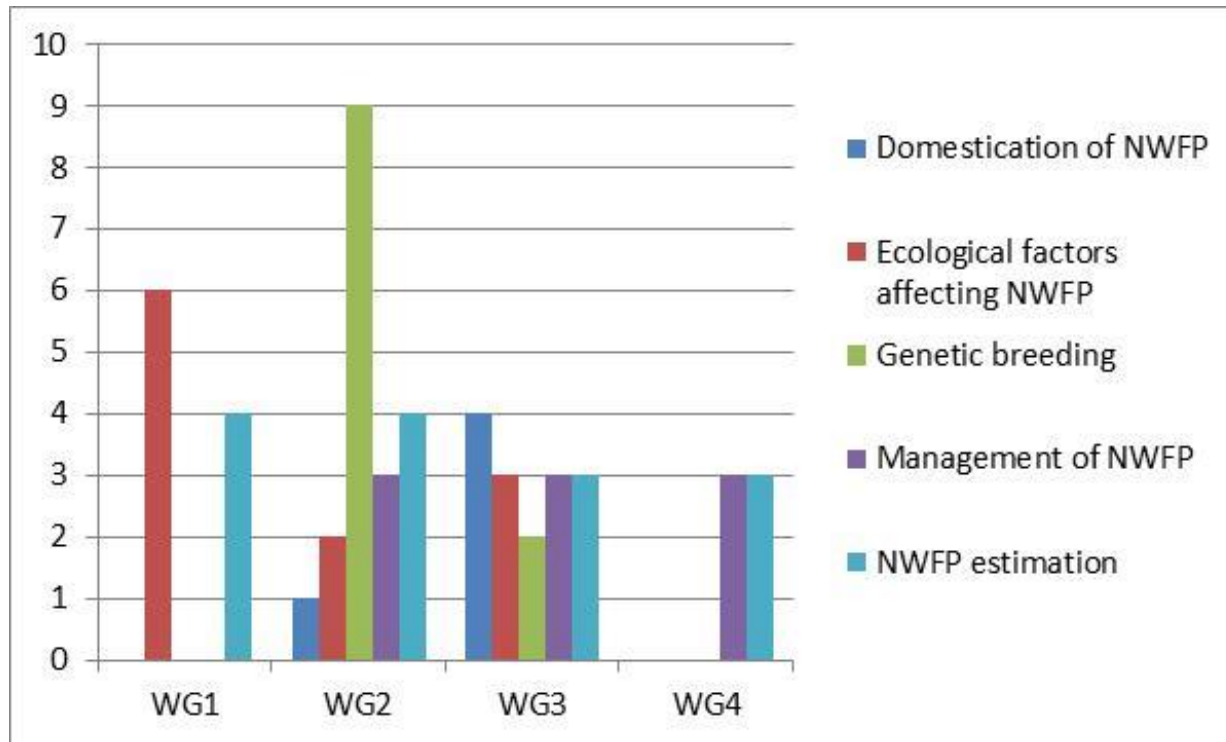
## Or we can enter in deep on some type of product

Country	Q_1_1	Synthesis_type	Q_1_5	Q_1_7	Series_length
Slovakia	hazel nuts	Edible fruits & nuts	Other country-level inventory	survey with face-to-face interviews within a research project financed by Ministry of Agriculture and Rural Development	6
Austria	Chestnut	Edible fruits & nuts	National Forest inventory	Institute of Forest Inventory (at the Federal Research and Training Centre for Forests, Natural Hazards and Landscape) organises and conducts data collection across Austria on a regular basis (currently every 5 years). NFI records forest conditions at a grid of 3.78 km <sup>2</sup> applying a combined approach of a fixed radius sample plot for trees of DBH 50-140 mm and an angle count sampling for DBH larger than 104mm.	49
Austria	Swiss stone pine	Edible fruits & nuts	National Forest inventory	Institute of Forest Inventory (at the Federal Research and Training Centre for Forests, Natural Hazards and Landscape) organises and conducts data collection across Austria on a regular basis (currently every 5 years). NFI records forest conditions at a grid of 3.78 km <sup>2</sup> applying a combined approach of a fixed radius sample plot for trees of DBH 50-140 mm and an angle count sampling for DBH larger than 104mm.	49
Austria	Wild service tree	Edible fruits & nuts	National Forest inventory	Institute of Forest Inventory (at the Federal Research and Training Centre for Forests, Natural Hazards and Landscape) organises and conducts data collection across Austria on a regular basis (currently every 5 years). NFI records forest conditions at a grid of 3.78 km <sup>2</sup> applying a combined approach of a fixed radius sample plot for trees of DBH 50-140 mm and an angle count sampling for DBH larger than 104mm.	49
Bulgaria	Tree nuts	Edible fruits & nuts	Management Inventory	Specialists-foresters estimate resources during collection data for elaborating Forest Management Plans	11
Poland	Mountain ash	Edible fruits & nuts	National/Regional Forest Statistics	Central Statistic Office collect data from purchase centres (companies). Detailed inventory data not available since 1960s	64
Portugal	pine nut	Edible fruits & nuts	Regional Forest inventory		0
Portugal	acorn	Edible fruits & nuts	Other (e.g. specific databases )		0
Romania	resinous cones	Edible fruits & nuts			0
Italy	Chesnuts	Edible fruits & nuts	Regional Forest inventory	National Statistic Agency (ISTAT) collected data till 2010 by fical declaration accountability	61
Italy	Pinenuts	Edible fruits & nuts	Regional Forest inventory	National Statistic Agency (ISTAT) collected data till 2010 by fical declaration accountability	61
Italy	Carob	Edible fruits & nuts	Regional Forest inventory		0
SPAIN	Pine nuts with sl	Edible fruits & nuts	National/Regional Forest Statistics	Minsitry of Agriculture collect data from the regional forest services, which include annual collection from public and private forests	14



# In depth analysis of TF2 – common survey: preliminary results

## Some findings on permanent plots, main objective according to WG?



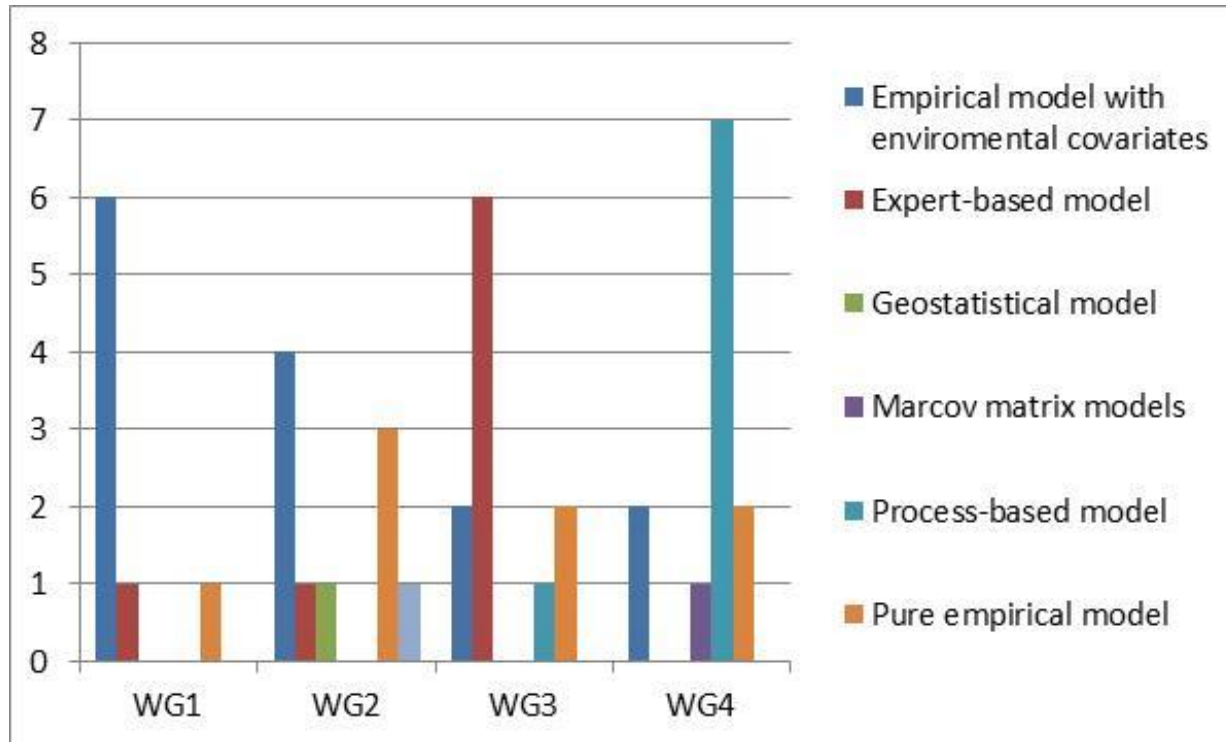
There are no trials devoted to domestication or breeding on mushrooms, while environmental effect on production is evaluated

Plants (WG2 and WG) are experimented for domestication and breeding

Essays on animals are mainly focused on management and estimation

# In depth analysis of TF2 – common survey: preliminary results

## Some findings on model, modelling strategy according to WG?



Mushrooms and tree products are mainly modelled by empirical models with or without environmental covariates

WG3 products are mainly modelled by expert based estimation

WG4 models are mainly included in the category process-based models ¿¿??



# Chapter book : what we have proposed in Zagreb

Title : **Data & models for NWFP in Europe: current state and innovative proposals**

Based on common survey findings and previous existing literature

1. Importance of quantifying and forecasting NWFP
2. Data
  - Description of the survey
  - Geographical – product distribution and balance analysis
  - Description of type of data sets
  - Harmonization and homogenization
  - Description of methods for collection
  - Scale of sampling
  - Potential use
3. Models
  - Re-review of State of art on existing NWFP models
  - Geographical – product distribution and balance analysis
  - Type of models: Expert based tools, Empirical predictive models
  - Scale of the model
  - Include methodological aspects on how these models are designed, constructed and used
4. Identified gaps (geographical, products, users)
5. Case studies on innovative examples
6. Proposals for future (what to do with what we have available)



## Other outputs

- Proposal for using the COST Action networking to put in contact data owners and modellers: STSM
- Proposal for modelling or calibrate existing models for the same products in different countries: STSM
- Articles:
  - NWFP data & models: country and or regional differences (Michal)
  - Evaluation of models in NWFP at a regional scale (existing models predictions against existing datasets)
  - Evaluation of the models for NWFP from the user's point of view
  - Multivariate analysis to identify factors (environmental, social, economical) affecting raw production / marketed production
  - Harmonization and homogenization of data units and collection techniques (TF4?)
- Short brief manual: Guidelines / protocols for NWFP data acquisition (according to the type of product: fruits, berries, mushrooms, barks...): for both management and/or research issues
- Information on permanent plots: interactive map to be included in web page

} WGs?



# Next steps

- Draft including structure of the chapter book
- Distribution of tasks
- Proposal for articles: leaders & selection
- How to carry with the protocols and guidelines (Jenny??)



# Joint meeting with TF3

Main ideas: identify synergies, propose cooperation, transform overlapping into an strength, search for new participants

- **Sergio de Miguel: Integrating pine honeydew honey production into forest management optimization**
- **Jari Miina: Expert based modelling on NWFP**
  
- Present new approaches to forest modelling
- Are data / models currently applied in NWFP management?
- A critical review of what type of data/models/protocols we need for NWFP management depending on the potential user
- Identify most relevant gaps and priorities



**NWFP** Thank you!



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