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Executive summary

This report summarises the findings of the ten in-depth case studies covering both the aspects related to informal institutions (e.g. harvesting norms and practices) as well as expert opinions about the problems and opportunities related to institutional framework.

Among the most remarkable findings we can mention that in most regions there exist informal institutions, either concerning the harvesting rights or the harvesting practices, or both, and their importance vis-à-vis formal institutions (if there are any) typically depends on various factors, such as the resource itself (e.g. perception of scarcity), or the community of its users and relations within this community (e.g. populations of different types of users). Good harvesting practices are typically well known, at least by local population, and followed by some and in many cases, by the majority of pickers, but there are also those who do not follow these good practices. Opinions about those who do not follow good practices and why they do not do it typically depend on the case study.

Regarding broader impacts of institutions on the NWFP sector, both national and EU-level regulations seem to play an important role both in promoting and in hindering the development of the sector (depending on the country, legal and policy framework, and product). Major impeding factors for NWFP sector development are considered to be the seasonality of products, the unprofessional market, and lack of profitability of NWFPs, as well as the lack of coherent institutional support for the operation of the sector.

Moreover, consulted experts claim that the sector is not taken seriously and with few exceptions it still remains at the level of grey or at best niche market. Despite the abundance of research results in some areas, there are still serious gaps on other (e.g. less traditional products), and the existing knowledge does not yet reach practitioners and entrepreneurs, limiting their use potential. There seems to be a general lack of understanding of the opportunities that NWFP represent across the supply chain, and decision-makers are faced with the lack of knowledge regarding NWFP practices. From the ecological point of view, there is little information regarding the ability of the forest resource to cope with an expansion of the market for NWFP, and it is not evident that the push towards forest diversification would be compatible with larger scale harvesting and extraction of NWFP.



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1 Introduction

Institutions are “the conventions, norms and legal rules of a society” that constraint and enable human interactions, “provide expectations, stability and meaning essential to human existence and cooperation” (Hodgson, 2006; North, 1990; Vatn, 2005, 2006). Institutions governing non-wood forest products (NWFP) are extremely complex. Several factors contribute to this complexity (Prokofieva et al., 2014; Wiersum, Ingram, & Ros-Tonen, 2013):

- Scope of NWFP production systems ranging from extraction from natural forests to cultivation;
- Complexity of policy regimes: forestry, agriculture, nature protection, food safety, product labelling and packaging, etc.;
- Complexity of NWFP value chains: harvesting, cleaning, transport, design, processing, production, transformation, packaging, marketing, distribution and support services, trade, disposal;
- Spatial complexity: from local to global level;
- Multiple stakeholders: landowners, harvesters, processors, traders, retailers, and service providers;
- Multiple actors: business, government, policy-makers, certification and development organizations.

The survey of formal institutional framework governing NWFP uncovered a whole plethora of policies, regulations, property right arrangements, agreements, and different policy instruments existing at the EU level and at different levels in the European countries, which frequently lack coherence and seldom constitute a deliberate and consistent “framework” addressing NWFPs (Prokofieva et al., 2014). In addition to formal institutions, there is a multitude of local informal institutional arrangements governing different operational aspects, such as for example, the access and harvesting of wild NWFPs, which also deserve to be analysed, as in many cases their impact on the performance of the NWFP sector is much stronger than that of formal institutions.

The aim of this report is to document the main findings of the Task 4.3 of the StarTree project. Specifically, this task had two main objectives:

1. To identify informal norms, cultural traditions and other forms of informal institutions that shape the values and motivations of the actors related to the NWFP provision and consumption; and
2. To elicit the perceptions of selected stakeholders on the institutions affecting the NWFP related activities, explore their behaviour within these institutions, and identify possible gaps and the causes for these gaps between intended institutional outcomes and actual practices and outcomes.

This task was conducted in a format of in-depth case studies (IDCS) in ten regions: Waldmärker region (Germany), National Park Kopaonik (Serbia), Tayside, Scotland (UK), Osrednjeslovenska region (Slovenia), Val di Fiemme, Trento (Italy), West Wales and The Valley (UK), Poblet, Catalonia (Spain), North Karelia (Finland), Monte de Tabuyo, Castilla y León (Spain) and Styria (Austria).

The rest of the report is structured as follows: Chapter 2 presents the material and methods used for IDCS, chapter 3 summarises the main findings about the informal institutions, whereas chapter 4 focuses on the main results from the analysis of stakeholder’s perceptions. Chapter 5 concludes. The reports from the individual IDCS form part of an extensive Annex.



2 Material and methods

2.1 Definitions and terminology

We define informal institutions as “socially shared rules, usually unwritten, that are created, communicated, and enforced outside of officially sanctioned channels” (Helmke & Levitsky, 2004). In contrast, formal institutions rely for their enforcement, communication and establishment on the official channels – e.g. courts, bureaucracies, constitutions, laws etc. The key concept in the definition of informal institutions is that of shared expectations about the behaviour of other people. We can talk about an informal institution or informal norm¹, whenever one’s behaviour responds to an established rule or guideline, the violation of which generates some sort of external sanction (e.g. social disapproval). On the contrary, if there is no social expectation to behave in a certain way, or there is no sanctioning mechanism in place, then the issue is a mere behavioural pattern, and not an informal institution.

2.2 Data collection and analysis

Data collection for Task 4.3 has been organized in two stages corresponding to the two distinct objectives outlined above. In the first stage, a series of in-depth face-to-face interviews have been conducted by the Case Study Responsible (CSR) partners in each in-depth case study, with the aim to explore:

- (i) Existing informal institutions (e.g. agreements and customary rights);
- (ii) Factors that led to the emergence of these informal institutions;
- (iii) Possible positive or negative interactions of these informal institutions with the value chain of the specific NWFP.

Table 1 presents the main information concerning the in-depth interviews. After a preliminary stakeholder mapping, the selection of interviewees was issue-specific in each case study; and was determined firstly by the specific research question, and secondly, by the selected NWFP. The main categories of the interviewees were private forest owners, NWFP pickers, SME representatives, local policy- and decision-makers, and other relevant actors (e.g. forest guards, local NGOs). More information on the profile of the interviewees is available in the IDCS reports² (see Annex).

The interviews were conducted during the second half of 2014 – first half of 2015. The approach used was deductive-inductive, checking a preliminary theory of evolution of institutions (Brooks, 2010) while keeping space for the emergence of new factors and patterns through the constant comparative method (Glaser & Strauss, 1967; Yin, 2014). A semi-structured interview guideline was designed that included questions on the forest area, NWFP and related practices, procedures, traditions and informal rights, and policy instruments. Interviews were conducted in two stages: after a few interviews, a reflection session between the CSR and WP leader took place, contrasting first findings with the research question, discussing preliminary trends and shaping the strategy for the next interviews. Interviews were recorded, transcribed and analysed using text content analysis techniques – in most case studies using MaxQDA(C) software – for coding respondents’ statements. Deductive codes were developed as keywords of the interview sections based on the theory of evolution of institutions, while inductive codes were developed by each analyst as emerging key aspects related (axial coding, Corbin & Strauss, 1990) to the phenomenon under study (informal and formal norms). A common report template was followed to structure the results in accordance to the inductive codes and cross-country expected aspects, but with space to include new codes. The findings were illustrated by some statements in the native language, purposeful for foreseen scientific publications.

¹ In this report, we treat the term “norm” and “informal institution” as synonyms.

² Some IDCS reports may have no information on the profile of the interviewees due to the anonymity requirement.



The cross-country analysis has been conducted through the reports and bilateral meetings with the analysts, elaborating memos of the findings, followed by highlighting common patterns and differing results, and contrasting with the background theory.

In the second stage, a series of targeted expert interviews have been conducted in each IDCS with the aim to identify:

- (i) Perceptions of the major stakeholders on the institutional constraints and opportunities for NWFP sector, or selected products;
- (ii) Possible solutions for enhancing the institutional framework in the region; and
- (iii) Actors who could drive the process of institutional change in the regions.

The target group for these interviews is stakeholders at regional/national level, and whenever possible, stakeholders covering a variety of NWFP were specifically targeted at. In the selection of the interviewee profiles, the aim was to cover as many NWFP value chain segments as possible:

- Forest management and NWFP production (e.g. representative of forest owners' associations/federation, or Forest Service representative if knowledgeable of NWFPs);
- Extraction of NWFP (e.g. representative of harvesters' associations or Forest Service representative, if knowledgeable);
- Processing and bringing NWFP to the markets (e.g. representatives of enterprises operating in NWFP sector, market analyst).

In addition, we aimed to include also one representative of policy-makers (to represent the views of those in charge of legislating and regulating sectorial activities), and one representative of an organization (public or private) that is involved in supporting SMEs, especially those operating in NWFP sector (e.g. representatives of the regional Chamber of Commerce, LEADER³ groups, or business support agencies). More specific information on the profile of the interviewees is available in the IDCS reports (see Annex).

Expert interviews were conducted during the first semester of 2015 using semi-open questionnaire, which included open and closed questions regarding the problems in the NWFP sector, underlying causes for these problems and changes needed in the institutional framework to overcome these problems; the opportunities that the existing institutional framework presents for the development of the sectors, as well as questions concerning the actors who can drive the institutional change.

Part of the material collected in the course of expert interviews will also be used for the forthcoming Task 4.4. and hence will be reported in more detail in D4.4.

³ LEADER is an initiative financed by EU structural funds and is designed to help rural actors consider the long-term potential of their local region.



Table 1. Focus of the in-depth interviews in the case studies.

| Case study area (abbreviation used) | Research question | NWFP | Number of interviews (average duration, min) |
|---|--|-------------------------------|--|
| Waldmärker region, Germany (GER) | If and how the marketing of venison is affected by formal and informal norms of hunters | Venison | 5 (58) |
| National park Kopaonik, Serbia (SER) | How different actors perceive the collection of NWFPs in the territory of the National Park Kopaonik? What are the good practices for collecting NWFPs? | Blueberries, mushrooms, herbs | 8 (72) |
| Tayside, Scotland , UK (SCO) | What is the real picture of commercial wild berry picking in Tayside and in Scotland? What is the relationship between pickers and landowners? How do these relationships develop? | Wild berries | 9 (54) |
| Osrednjeslovenska region, Slovenia (SLO) | What are the most common problems with mushroom picking? Good harvesting practices and how well are they implemented? Perception of ownership rights linked to commercial harvesting of mushrooms Potential improvements of the institutional framework | Mushrooms | 6 (52) |
| Val di Fiemme, Trento, Italy (IT) | Which informal norms exist related to mushroom picking, identify conflicts between recreational pickers and commercial pickers, and identify if there are any informal agreements regarding the zoning of the territory for different mushroom picking uses. | Mushrooms | 17 (45) |
| West Wales, UK (WAL) | Understanding moss picking operations in West Wales. | Moss | 12 (31) |
| Poblet, Catalonia, Spain (CAT) | Which informal and formal norms exist addressing mushroom picking? | Mushrooms | 8 (88) |
| North Karelia, Finland (FIN) | The extent of everymans' rights and the different berry picking habits | Berries | 8 (44) |
| Monte de Tabuyo, Castilla y León, Spain (CYL) | Which informal norms related to mushroom picking exist and how they impact the value chain? | Mushrooms | 8 (47) |
| Styria, Austria (AUT) | How are the informal rules and circumstances behind mushroom picking in Styria? | Mushrooms | 5 (52) |



3 Informal institutions

3.1 Types of informal norms and interaction between formal and informal institutions

According to the findings, two types of norms have been identified as relevant in the in-depth interviews:

- a) norms concerning **the right to harvest non-wood forest products**, that is, extraction rights (Ostrom & Schlager, 1996)
- b) norms concerning **harvesting practices**, that is, how to collect non-wood forest products.

In some case studies, both of these norms are fully or partially formalized (e.g. formal norms on harvesting, and formal prescription of harvesting practices), whereas in other case studies only one, if any, of the norms is formalized. Formalization of norms, however, does not mean that informal norms concerning the same issue do not exist, in fact, in many cases we observe simultaneous existence of both formal and informal norms, which is especially pronounced in cases where the implementation of formal norms on the ground is not effective. Frequently, informal norms precede formal regulations, and in several in-depth case studies we witness that formal institutions incorporate elements of pre-existing informal rules (e.g. hunting regulations in Waldmärker).

Typically, the issue of who and when can have the right to harvest NWFP is stipulated in formal norms (e.g. harvesting right is a customary right of local inhabitants as in Tabuyo del Monte, or is acquired through the purchase of a picking permit from the public authority, as in Poblet, Val di Fiemme, National Park Kopaonik, West Wales or from the landowner, as in Waldmärker, Styria, West Wales and Tayside), albeit the degree of implementation of these norms vary greatly. Of 10 in-depth case studies, in 9 formal norms concerning harvesting rights have been identified. Harvesting rights are free and uniform for all pickers in North Karelia due to the traditional Everyman's rights.

Formal norms concerning harvesting practices, on the other hand, are far less common, and the degree of formalization of harvesting practices varies greatly across case studies. In Slovenia and Styria, the amount of mushrooms that can be harvested per person per day is limited by law, but in Styria no other considerations concerning good harvesting practices are stipulated in the law, whereas in Slovenia good mushroom practices are defined in the Decree on the protection of wild fungi. In Val di Fiemme and in Poblet, this maximum amount of mushrooms allowed to be harvested by a single person is limited by the formal harvesting regulations existing in these regions. The same regulations prescribe other good harvesting practices in these two regions. On the territory of the National Park Kopaonik, good harvesting practices are prescribed by the laws and by-laws on national level and the rules governing the National Park, and these practices are very detailed. In Germany, hunting law incorporates some principles of traditional norms and hunting codes of ethics, however, the formalization of these aspects is still very low. In Scotland, good practices for wild mushrooms, moss and bulbs are written out in three voluntary codes, and in North Karelia, good practices associated with commercial berry picking are provided as training material to pickers by berry buying enterprises and an association of the NWFP SMEs and pickers.

3.2 Harvesting practices

Our findings demonstrate that good harvesting practices are uniform across regions and across products Table 2. Good harvesting practices include respecting the nature and other pickers, leaving some of the product unpicked (either for other pickers or for the wildlife), knowing the area and the product, avoiding unnecessary damage to the resource, not leaving trash behind, and using adequate collection method (e.g. cleaning the mushrooms in the forest). Other good practices may include parking the car so as not to obstruct the traffic and using tools that are not prohibited for harvesting. All in all, good pickers are usually the ones whose presence one cannot perceive in the forest after they have passed.



Table 2. Common characteristics associated with good harvesting practices.

| Characteristics of good harvesting practice | Case studies in which they have been identified | Notes |
|--|---|--|
| Do not pick everything (e.g. only edible products and in good conditions, no debris) | CAT, FIN, SER, IT, SLO, SCO, CYL, WAL | Leave some for other people and some for wildlife, leave seeds & spores to propagate [SCO] For moss, do not pick other plants, sticks, leaf litter [WAL] |
| Do not pick small size | CAT, SER, IT, SLO, CYL | |
| Do not throw trash | CAT, FIN, IT, CYL | |
| Do not make loud noises, respect nature's silence | CAT, FIN, IT | |
| Do not disturb other pickers or people living nearby | CAT, FIN, CYL | Refer also to other people living nearby [FIN] |
| Do not use plastic bags or cubes for quality reasons and for the spores dissemination | CAT, FIN, IT, SLO, SCO, CYL | |
| Do not park in wrong places, hindering traffic flows | CAT, FIN, SLO | |
| Leave the forest as if you have not been there (e.g. put the solid leaves in its initial location) | CAT, FIN, IT, AUT, WAL | Put the solid leaves in its initial location [CAT] Cover the place where you have picked the mushrooms, with leaves. [AUT] |
| Do not damage the reproduction system of the resource, take care of re-growth | CAT, FIN, IT, CYL, WAL, AUT | No rakes, place back cut mushrooms with worms [CAT] Plant a handful of moss back into picked area to help re-growth ("cultivation") [WAL] Leave the old mushroom there and pick the young ones, as they do not taste good and can help for proliferation [AUT] Pick by hand rather than with rake or other tools. If using a rake, do not rake too deeply into the moss in order to remove it [WAL] |
| Do not intentionally or unintentionally damage the forest or other products | IT, WAL | Double wheels on quad bike to prevent damage to forest floor [WAL] Do not intentionally destroy non edible mushrooms [IT] |



Harvesting practices are typically learned from family members (as part of family traditions), typically in childhood, or from close acquaintances (friends, neighbours), although in some cases they can be learned in adulthood (e.g. in Scotland where “traditions have been lost” and the new generation of pickers is learning picking practices from books and courses; or in Tabuyo del Monte, where mushroom picking, specifically the picking of boletus, has emerged as a completely new tradition that did not exist before). Part of this tradition, is in knowing good picking spots where there are “always” mushrooms/berries and keeping them a secret from other pickers.

Good harvesting practices are typically known by all (or almost by all), but in some cases are not followed. The reasons for not following the norms are somewhat different across case studies, and they typically depend on case specific circumstances (Table 3).

Table 3. Reasons for not following good harvesting practices commonly expressed by the interviewees.

| Case study | Justification | Notes |
|--------------------------------|---|---|
| Waldmärker region (GER) | - | - |
| National park Kopaonik (SER) | Use of combs for collecting berries: not economically efficient to collect by hands, because it is too slow. | The common view is that everybody is aware of what is “wrong” and “good” practice, but they still use the prohibited tools in collecting blueberries. Because of the difficult economic situation and the level of poverty in the area, it seems that some collectors are not too much concerned about the nature conservation. |
| Tayside, Scotland (SCO) | Picking with bag: out rambling or walking the dog, not a planned outing specifically for harvesting. Picking the entire crop: explained only do it with an abundant resource. | |
| Osrednjeslovenska region (SLO) | Being either ignorant unintentionally or simply not bothering to follow good practices (not caring about this). Using PVC bags as they are simple to have them on you (less space needed and lighter to carry). Not using knives: commonly not knowing that this is something important. Picking too much: being greedy. “If I do not pick it someone else will.” Picking species you do not know: trying to pick as much as possible fast. | |



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|---------------------------------------|--|---|
| Val di Fiemme, Trento (IT) | <p>For leaving trash, destroying, disturbing: bad-manners, impoliteness, couldn't-case-less-attitudes, ignorance.</p> <p>For exceeding the quantities: avidity, impoliteness, couldn't-case-less-attitudes connected with business purposes.</p> | |
| West Wales (WAL) | Ignorance. Picking practice are handed down from picker to picker and seemed to be followed. However, some evidence of unpermitted picking going on in research area. | All pickers interviewed were aware that they were having an impact on the moss through picking and also had an awareness of good practice, despite the definition of "good practice" being subject to difference between pickers. |
| Poblet, Catalonia (CAT) | <p>Ignorant (not intentional bad behaviour, but simply lack of knowledge of good practices)</p> <p>Picking with bags: explained as forgetting to bring a basket, or finding mushrooms without having planned it. Seen not a big problem by the interviewees.</p> <p>Picking small mushrooms: specifically for saffron-milk caps are perceived as a delicacy.</p> | Some norms seem to break the way of thinking of pickers, and these are the norms that are not necessarily followed and their violation is justified. |
| North Karelia (FIN) | <p>Coming too close to houses and other pickers: pickers of different cultural backgrounds have different impressions on appropriate distances. Also according to law it is allowed to pick closer than most locals think is appropriate.</p> <p>Picking bad quality berries: some companies give wrong kind of advice on quality and picking tools. Picking in bags is said to be easier.</p> | Some violations happen as a result of lacking advice for pickers who are from different cultural background and therefore not able to know informal norms. |
| Monte de Tabuyo, Castilla y León(CYL) | Lack of awareness: for part of the collectors they do not understand these bad practices as something so negative. | Thanks to the training and social pressure are adopting better practices. |
| Styria (AUT) | Ignorant (interviewed pickers say that no-one damages the resource, as there are enough mushrooms). | There are no "official harvesting rules" in Styria. People rather bemoan the lack of knowledge of which are eatable mushrooms. |

Violation of certain picking practices is not perceived to be a big issue (e.g. picking mushrooms with a bag is sometimes justified by the fact that the person was not specifically looking for mushrooms, or simply forgot it at home), however, this is not the case with venison where there is strong social pressure and social



control over hunting practices (e.g. Wäldmarker). Furthermore, some interviewees were of the opinion that not following good practices is a more serious “violation” than e.g. not having a permit to harvest NWFP in the first place (e.g. Poblet). The most common consequences of not following good harvesting practices are listed in Table 4.

Table 4. Consequences of not following good harvesting practices.

| Consequences of not following good harvesting practices | Case studies in which they have been identified | Notes |
|---|---|--|
| Loss of harvest the following year (bad picking is not sustainable in the long term as the resource will disappear) | CAT, FIN, SER, SLO, SCO, CYL | Refers to mushrooms [CAT, SLO] Refers to berries [SER] Refers to mushrooms and berries [SCO] |
| Exclusion from the social group of hunters | GER | |
| Negative impact on forest ecology, damage to the forest | WAL, IT | Moss [WAL] |
| “By catch” of rare moss species more likely with indiscriminate picking | WAL | Moss [WAL] |
| Loss of business if the product is not of high quality (or if bad quality is not accepted in markets) | WAL, FIN | Moss [WAL] Berries and mushrooms [FIN] |
| Loss of permit | WAL | Moss. Other pickers will report malpractice to land owner/agent [WAL] |
| Conflicts between land owners and pickers | FIN | Results from getting too close to houses, errors in traffic, picking everything |
| Aesthetics of the place suffers from rubbish | FIN | |
| Penalty | IT | If caught |
| Requisition of mushrooms | IT | If caught |
| Bad reputation | IT | |
| Not much impact | CAT | Refers to using baskets instead of bags for mushroom picking [CAT] |

3.3 Profiles of pickers

Profiles of pickers are quite similar across the regions (Table 5), in general, three more or less distinct profiles can be identified:

- **Recreational picker:** Local recreational picker typically comes from the nearby, picks small amounts of product mainly for self-consumption or for giving it as a present to relatives and/or friends.



Product is typically either consumed/stored unprocessed or is preserved in a processed form for later consumption (e.g. berry jams, juices, pickled mushrooms). The picker is typically considered to know the area well, and to practice respectful picking (e.g. not picking everything). Pickers coming from further away tend to have different picking patterns (e.g. come only on weekends), and arguably know the territory far less than local pickers, and hence may be ignorant of local picking practices. Some pickers coming from far away also fall into this category, as their picking is mainly related to recreational experience than with the picking experience as such.

- **Commercial picker:** may come from the area or may be from a further away. The distinctive feature of this picker, is that (s)he picks mainly for sales and is income oriented. Among commercial pickers there are those who pick for living or those who pick as a side income. The latter ones resemble in some way local pickers. Due to high volumes of harvesting amounts, is sometimes believed not always to follow good picking practices, and is believed to harvest everything in sight (including immature berries or small mushrooms). However, there is evidence that in some cases pickers truly care about the sustainability of the resource. Product is typically sold unprocessed to intermediaries or to local restaurants/markets, although in some cases processing indeed takes place to increase the value of the product (e.g. berry jams). Commercial pickers are believed to move around larger areas, and may also pick rare species and operate outside the typical season (beginning or end of the season).
- **External picker:** can be either recreational picker or commercial picker; the distinct feature is that comes from outside the area (or region). For this reason, is considered to have low familiarity with the area and its products, have few or no knowledge of good harvesting practices, and hence, cause damage to the forests of the area or to resources.

Despite the existence of certain commonalities within these different profiles of pickers, regional specifics to a great degree determine whether there are any sub-groups within these profiles and how present/numerous they are. For example, in some regions there may be clear differentiation between recreational and commercial pickers (e.g. North Karelia), whereas in some other regions the major differentiating factor are whether the pickers are coming from the nearby area, or are from some km outside the area (e.g. Poblet). These nuances in pickers profiles and the types of profiles identified in each region are described in case study reports (Annex).



Table 5. Some common features related to profiles of pickers (or hunters, in Waldmärker).

| Profile | Characteristics | Case study | Additional info or supporting statements |
|--------------|--|----------------------------------|---|
| Local picker | Lives nearby | CAT, FIN, SER, IT, SLO, SCO, CYL | |
| | Picks for self-consumption | CAT, FIN, SER, IT, SLO, SCO, CYL | FIN: usually, some for sale as well, but the amounts are rather small and picker profile same |
| | Goes during the week days or after work (in spare time) | CAT, FIN, IT, CYL, AUT | |
| | Picking not intensive (small amounts) | FIN | |
| | Older people | FIN, GER | 50-60 years old [GER, refer to hunters] |
| | Picks alone or in a small group (family member, friend...) | FIN | |
| | Does not use (prohibited) tools | SER, FIN | Because they are not interested in making profit out of berries [SER] |
| | Learns from the family | CAT, FIN, SER, IT, SLO, CYL | |
| | Frequency of picking: varies | CAT, IT, SLO, SCO, CYL | Can be “punctual pickers”, or “true fans” [CAT] They are picking only in high season [SLO] |
| | Frequency of visiting forest: varies | CAT, IT, SCO, CYL | Some go only during the mushroom season, some systematically (bike, running, hiking) [CAT, CYL] |
| | Picking more “commonly known” species | SLO | |
| | Traditional appearance | GER | |
| | Rooted to the soil | GER | |



| | | | |
|-----------------------------|---|--------------------|--|
| Nearby, foreign pickers | From the nearest urban agglomerations and towns in the surroundings | CAT, FIN, IT, CYL | Not from Barcelona [CAT] Same profile as local pickers [FIN] Very little, they are frowned [CYL] Some may be from outside the region [IT] |
| | Picks for self-consumption mainly | CAT, FIN, IT | Some pick for commercial uses [IT] |
| | Go on weekends | CAT, FIN, IT, CYL | Come to the locality since always [CAT] Some mycological tourism [CYL] |
| | Knows less of the territory, species, practices | CAT | |
| City-fellows or new pickers | Come from far away | CAT | |
| | From village | CYL | They know the consequences of bad practices, and have increased awareness to pursue a sustainable harvest |
| | More as a pure recreation activity and not so much about picking | SLO | Follow the mushroom picking fashion since 10 years ago [CAT] |
| | Know less about mushroom picking and forests | CAT, FIN | FIN: spouses from different cultural backgrounds |
| Commercial pickers | Picking is a small side-income (alongside other jobs, or alongside being unemployed or retired) | AUT, WAL, SER, SLO | Have a small forest (around 20 ha), picking is a rather small income, they pick because they like it since childhood like a “leisure activity”. [AUT] Has other jobs (either forester or farmer) and moss picking is an extra income [WAL] Pickers practicing harvesting as a supplementary farm activity [SLO] Usually unemployed or retired [SLO] |



| | | | |
|--|--|------------------------|--|
| | | | They do these activities as addition to their current job. [SER] |
| | Lives in the area and knows the sites well | WAL, AUT, SER, SLO, IT | Have very good knowledge about the area and the products' ecology [SER] Minority comes from the area [IT] The ones interviewed had detailed knowledge of and a great interest in the ecology and sustainability of the species they harvested. [SLO] From village [CYL] |
| | Pickers come from outside the area | IT, SLO | Majority come from outside the valley [IT] Lives either nearby or not [SLO] |
| | Has been picking the same sites for years | WAL | |
| | Has an interest in the land and cares for it | WAL, SLO | The ones interviewed had detailed knowledge of and a great interest in the ecology and sustainability of the species they harvested. [SLO] |
| | Picking practice handed down from family or friends/co-workers | WAL | |
| | Pick for a distributor or intermediary | WAL, SER, SLO, FIN | Leaves bags on roadside for collection [WAL] Sell products to middle-men [SER] Selling to restaurants or middle-men [SLO] |
| | Picks intensively and systematically | FIN, SCO | Foreign Commercial Pickers [FIN] Some collect large amounts of raw material from a wide area [SCO] |
| | In big groups | FIN | Foreign Commercial Pickers |



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| | | | |
|--|---|-----|--|
| | Long-days (full-time) | FIN | Foreign Commercial Pickers |
| | During the week and early in the morning | SLO | |
| | Main focus is on additional income | SER | They do not sell all the collected products – usually certain amounts are left home, for personal use. [SER] |
| | Do not collect only in the area of NP Kopaonik, but also visit other forests | SER | |
| | Some of them use combs and other forbidden tools, which damage the plants (blueberries) | SER | |
| | Some basic processing is sometimes done | SER | Very few of them process NWFPs. If doing so, it is usually “natural” (on sun) drying (they do not have equipment) or brined mushrooms, in order to achieve higher price. [SER] Some produce value-added products from small amounts of locally-gathered material. [SCO] |
| | Picking “commonly known” and other species | SLO | |



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3.4 Attitudes towards pickers

Attitudes towards pickers (expressed by other pickers, landowners, or by local population) are determined by the pickers profiles and their perceived harvesting practices. In this regard, stereotypes are clearly observable – e.g. local recreational pickers are perceived to respect harvesting practices and are thus well perceived; while external commercial pickers are believed not to follow good harvesting practices and are thus negatively perceived. However, apart from stereotypes, certain common factors have emerged that determine the attitudes (Table 6):

- Forest owners and some local population tend to complain that pickers, especially commercial pickers and especially those coming from outside the area, benefit from the resource that is not theirs and do not leave any money in the region.
- Local pickers and some forest owners tend to dislike competition for resources from outside pickers, especially from commercial pickers. This highlights a strong perception by the local population to treat the resources located nearby as “theirs”, even though they may belong to a single private forest owner or be the property of the municipality or the state.
- Damaging resources, leaving trash and disrespectful behaviour towards private property and towards other pickers is perceived badly.

Table 6. Examples of attitudes towards pickers as expressed by the interviewees.

| Attitude | Case study | Supporting statements (CS) | Who expresses this attitude? |
|---|------------|---|---|
| Local pickers are more respectful with the forest, because they return to the same area year after year | CAT | | Local population (as said by forest guards) [CAT] |
| Local pickers know better how to pick mushrooms (from experience). | CAT, FIN | <p>“I’d say that from the people of the territory, 90% have good picking practices. And of those who come from outside, I’d leave it at 50%” [NGO CAT]</p> <p>“people were angry if their berry spots were collected already” [SME FIN]</p> | |
| People from outside do not follow good practices and produce damage (lower knowledge of the area, of the species, of the practices) | CAT, FIN | <p>“Sometimes here in the territory there is this perception... that the people from outside do it badly, and the people who do it well discover that they are prohibited things... but because the others do it badly” [NGO CAT]</p> <p>“These thailandese pickers probably have no knowledge... that they are</p> | Local population (as said by a representative of NGO) |



| | | | |
|---|---------------|---|--|
| | | <p>too close.” (Commercial picker, FIN)</p> <p>“Some throw rubbish in the nature, like snack papers...” (recreational picker, FIN)</p> | |
| <p>City-fellows, new pickers are perceived to know less of the forest, forest ownership and of mushroom picking activity</p> | CAT, SLO | | <p>Locals (according to forest technicians and mayor) [CAT]</p> <p>Private forest owners and agrarian association. [SLO]</p> |
| <p>City-fellows, new pickers are perceived as ignorant of the good practices, not as having bad intention when conducting bad practices</p> | CAT, SLO | <p>They often litter or park their cars wherever. [SLO]</p> | <p>Locals (according to forest technicians and mayor) [CAT]</p> <p>Forest owners and agrarian association. [SLO]</p> |
| <p>No consensus on how locals perceive outsiders: some perceive them badly, others indifferent. Perceptions seems to stem from urban-rural dichotomy, urban fellows are believed to lack forest culture. No animadversion rather a preconceived mistrust.</p> | CAT, SER, SCO | | <p>Locals (according to forest technicians and guard) [CAT]</p> <p>Locals [SCO]</p> <p>NWFPs pickers, NP administration and one forest owner reported that local population do not have good opinion about the commercial pickers. [SER]</p> <p>Two forest owners have different opinion and explain that local population has no problem with external pickers. [SER]</p> |
| <p>Either local people accept moss picking as a livelihood or they do not know that it goes on at all (sites are remote and local people do not see the harvesting happening).</p> | WAL | <p>“It’s something that has gone on for years and years and years, as everybody knows, they used it in the first and second world wars. It’s something that’s gone on locally for years, like Graham’s father has done it</p> | <p>Pickers reporting the views of local population</p> |



| | | | |
|--|-----|--|---|
| | | since 1952, did he say?" [picker] "A lot of local people can't understand that you're making a living out of moss." [picker] | |
| Pickers are very protective of their own patches | WAL | "We keep it simple, by existing forests and existing forest boundaries, and we don't have two moss pickers picking next to each other, or you get moss wars!" [forest agent, WAL] | |
| The locals are afraid that the foreign commercial pickers are emptying their "berry spots". | FIN | " Well, they think that they just come and pick all of our berries. That's what they say [about foreign pickers]." | Recreational picker, SME (2), FO, FO organisation, NWFP Organisation, commercial picker |
| Different people and people outside the area are considered scary or threatening | FIN | "Some locals might be afraid that the foreign commercial picker would steal something. Many of them have commando-hats to repel mosquito bites." (SME) | SME using foreign pickers |
| The presence of external pickers decreases the income and increases the competition | SER | "They make unnecessary competition" [NWFPs picker] "it is bad they are coming here, because they cut of revenues, reduce our earnings". [NWFP picker] | Local pickers |
| There are greedy persons both among locals and non-locals. Probably in terms of the absolute numbers, those that exceed more the quantities are non-locals | IT | | Locals and non-locals |
| Foreign pickers pay the permit and they leave an economic resource | IT | | Locals |
| Many foreign pickers sojourn in the zone they leave an economic resource (hotels, restaurants etc.) | IT | | Locals |
| Pickers can be very disturbing when logging operations are being carried out | SLO | Forestry activities can be dangerous for mushroom pickers – felled trees, which had been trapped in crowns | Private forest owner. |



| | | | |
|--|-----|---|---|
| | | of other, still standing, trees. | |
| Commercial pickers are frequently seen as ones that are doing business out of other's "private" property | SLO | Forest owners also object the fact that someone, who is not a forest owner is making money out of their forest without their consent. | Forest owners' association and private forest owner. |
| External pickers, especially commercial pickers, are more likely to remove a whole crop and put added pressure on a resource | SCO | I'd feel a little bit grieved if I knew someone was picking commercially in the woods that I use I wouldn't feel good about it. I would feel that I don't think these woods can sustain that kind of pressure.(local picker and foraging course leader) | Locals(expressed by local harvester and landowners) |
| Local pickers have bad practices | CYL | "Man I think so, I think in Tabuyo ... are a little ... uff (onomatopoeia) ... I do not know how to tell you ... kinda gross picking mushrooms ... if not even care the forest..." | Others pickers, forest technicians and administrative representatives |
| Local pickers are more conscious about sustainable practices. | CYL | | Others pickers, forest technicians and administrative representatives |
| People from outside are frowned upon | CYL | "... There are people who come to take to sell ... and of course the common people do not see it right ... and I see it logical. Because if you have a hill, and it's yours, and you can use this resource does not have to come other people ... anyone can come, let's see, I understand that someone can come get two mushrooms three mushrooms ... to eat, I ... to me it seems wrong not" (mycological restaurant owner) | Local people |



3.5 Informal norms and the value chain

The relationship between the institutional framework and the value chain has been explored in the case studies:

- Waldmärker region (Germany): The main limiting factors of venison value chain development seem to be food standards, which are considered to put large scale venison marketers at disadvantage. Informal norms – which in this case study refer to traditional hunting norms and hunting codes of ethics do not seem to have implications on the value chain.
- National Park Kopaonik (Serbia): Formal regulations regarding harvesting are complex and very detailed, encompassing both the issue of harvesting rights (allowed with a permit from the national park authority) and harvesting methods (detailed rules on the types of mushrooms that are allowed for harvest, the list of species that can be collected, the tools that can and cannot be utilized for harvesting, etc.). However, the degree of control and enforcement of these rules is rather low, due to the insufficient capacity of the public administration in charge of control and enforcement. At a local level, economic concerns dominate the environmental concerns about the sustainability of resources, and hence, deviance from formal harvesting norms (e.g. usage of prohibited harvesting tools) is a regularity, which is silently tolerated by local population and even by the public administration. Interviewees justify the usage of prohibited harvesting tools (e.g. berry rakes) to be more efficient than manual collection, presumably resulting in a larger quantities of berries of different qualities brought to the market. The market seems to have the capacity to absorb all these different qualities of berries. Formal norms, seemingly, are perceived as a barrier (slowing down) collection. Informal norms do not seem to have an impact on the value chain.
- Tayside, Scotland (UK): Commercial berry harvesting is rather small scale, as pickers focus exclusively on wild berries for which no cultivated alternatives are yet developed. Berry picking activity seems to rather be a niche market activity, than a widely extended commodity trade. Formal norms – especially those related to harvesting regulations – seem to restrict berry harvesting activity (pickers are required to ask for a permit from landowner). Informal norms do not seem to have an impact on the value chain.
- Osrednjeslovenska region (Slovenia): After the introduction of a legal limit on mushroom picking by Rules on the protection of forests, the general perception is that the number of foreign pickers (especially Italian pickers) have decreased dramatically and the sales to Italian buyers, once blooming in border areas, almost disappeared. Moreover, the perception is that the former system of organized purchase of wild mushrooms started vanishing 25 years ago, and thus nowadays mushroom trade is confined to a grey market, with most professional pickers selling mushrooms to restaurants, households, tourist farms and middle men. Informal norms do not seem to have any impact on the value chain.
- Val di Fiemme, Trento (Italy): Harvesting of wild mushrooms is regulated in the area by a mushroom picking permit, and a normative concerning harvesting practices. Informal harvesting practices also exist which complement the formal normative. A barrier to mushroom trade, as emerged from the interviews, is the compulsory certification of mushrooms by a mycologist, which is seen as costly, time consuming and redundant requirement. Informal norms do not seem to have an impact on the value chain.
- West Wales and The Valleys (UK): Harvesting of moss is formally regulated in the region by requiring pickers to acquire annual permits from landowners (both private and public). Apart from that, there is no formal regulation on the moss picking practices. However, informal norms concerning how moss is to be picked were identified, and the majority of pickers are perceived to adhere to these norms. Moss picking value chain relies on a strong component of mutual trust, and hence, informal norms play a crucial role for value chain.



- Poblet, Catalonia (Spain): There is no commercial activity related to mushroom picking in this region. Only a handful of pickers sell mushrooms to local restaurants. Recreational mushroom picking is regulated, and both the extraction rules and harvesting practices are regulated. Informal harvesting practices also exist, and most pickers are perceived to adhere to these norms. Informal norms do not seem to have any impact on value chain (there is no value chain).
- North Karelia (Finland): Berry picking is an activity which can be practiced any person without any restriction. Pickers are expected to follow the good harvesting practices embedded in Everyman's rights. However, the problem with extensive commercial pickers that relies on foreign labour force brought about tensions about the harvesting practices, and served as a trigger for berry-harvesting and -purchasing companies to develop written material and courses for their foreign pickers. The material is partly provided by the association of NWFP pickers and SMEs. Informal norms are the basis for value chain development.
- Monte de Tabuyo, Castilla y León (Spain): Mushroom picking is restricted to local inhabitants, but in practice there is no control over who picks mushrooms. Informal norms concerning good harvesting practices do exist (some pickers completed courses on picking mushrooms, and part of population is aware and follows good harvesting practices). Harvesting practices partially evolved due to the pressure from the market (intermediaries), therefore, they have an important impact on value chain.
- Styria (Austria): A formal regulation establishing a limit on a daily quantity of mushrooms that can be picked (2kg per day) exists in Austria. In addition, some forest owners are allowed to introduce mushroom picking permits in their forests. Some big forest owners implement this type of picking permits. Informal norms mainly concern the harvesting practices. There does not seem to be any impact of these informal norms on the value chain.

4 Stakeholder perceptions on institutional constraints and opportunities

4.1 General considerations

From the expert interviews conducted in 10 in-depth case studies it becomes apparent that the most relevant problems identified in the sector are related to enterprise development, production of NWFP, use and trade of products, and harvesting (in order of importance). We briefly present the most remarkable concerns identified by the interviewed experts. Note that most of these concerns address a variety of NWFP, and are not exclusively focused on the NWFP covered in Section 3.

4.2 Production of NWFP

Experts in most case studies tend to agree that currently forests in their regions are **not managed to produce NWFP** (Wales, Finland, Germany, Castilla y León, Slovenia, Germany, Catalonia, Italy, Scotland), although they are considered to have **sufficient capacity** to support a successful NWFP sector (Finland, Wales, Slovenia, Castilla y León, Italy, Scotland). Experts stress that the compatibility of NWFP production with timber production objectives is not a problem (Slovenia, Austria, Castilla y León, Catalonia, Wales, Finland, Italy, Scotland). However, silviculture focused on co-producing wood and NWFP is not taking place (Finland) and timber remains the main aim of forest management (Castilla y León) despite the fact that production models for some NWFP are already available (WP2). For new raw materials, however, **production models are still not sufficiently developed** to enable business opportunities (Finland).

Moreover, there is a general **lack of knowledge among forest owners and managers** on how to manage forests to produce more NWFPs, or how to combine timber and NWFP production (Styria, Castilla y León,



Wales, Finland, Slovenia, Italy, Scotland). The issue could be that there is a **lack of technical or economic support** to engage in NWFP production (the experts in Finland, Castilla y León, Italy, Wales and Scotland agree that the technical support is lacking and experts in Scotland and Wales perceive the lack of economic support as a problem), but in addition forest owners and managers seem to have **little interest in NWFP-oriented forest management** because they **do not benefit from NWFP economically** (Styria, Germany, Catalonia, Wales, Slovenia, Scotland). As one of the expert said: “There is no clear management system in cases where production of NWFP could be profitable. If the owner had a clear management support, many more would decide to foster production of NWFP” (Slovenia). Yet, most of the consulted experts in the case studies considered **the lack of profitability of NWFP production** in their regions a minor problem at best.

On the other hand, there are also forest owners who are open to exploring different forest management approaches. Experts in Finland claim that some forestry professionals seem to be too attached to old methods and management styles, even though forest owners would be more open to manage their forests in alternative ways to promote NWFP (Finland).

4.3 Harvesting of NWFP

Experts in most case studies coincide that recreational **harvesting of NWFP for own consumption is a widespread activity** in their regions (only the experts from Wales disagree with this statement). Commercial harvesting, however, is much less extended, and the experts from the majority of the regions say that it is not very widespread in their regions. The experts in several case studies expressed concern that **harvesting regulations are unclear** and may give rise to several conflicting interpretations (Wales, Castilla y León, Austria, Scotland). Germany, Finland and Italy (for most of the species, such as mushrooms, berries, chestnuts) were the only case studies where experts considered that harvesting regulations are very clear. Existing harvesting regulations do not seem to impose a heavy burden on recreational pickers, in fact, none of the experts considered picking for own consumption being subject to complex administrative procedures. In Italy experts stated that the law is strict. In contrast, regulation of commercial harvesting is far less clear (with the exception of some products, such as game). Even then, the only case studies that expressed serious concern about the complexity of regulations concerning commercial harvesters are Germany and Slovenia. The rest of the case studies consider the issue of **complex commercial harvesting regulation** a minor problem in their regions.

Even if legal structures governing the harvesting of wild resources might seem adequate, the question arises on whether pickers are aware of these regulations and how well they are actually enforced in practice. Experts in Austria, Germany, Scotland and Castilla y León think that most **NWFP collectors are not familiar with the harvesting regulations**. Furthermore, in the opinion of experts from Austria, Castilla y León and Slovenia, there is **insufficient control over NWFP harvesters**, and the fact that **commercial harvesters of NWFP** in these regions **are unauthorised** (meaning that harvesting regulations are not necessarily followed) is considered a severe problem. Moreover, the same experts see a serious problem that **NWFP harvesters in general do not follow sustainable or good picking practices**. The issue is whether harvesters are actually aware of good practices or not divides the experts. Some are of the opinion that good picking practices are well known (e.g. Germany, Finland, Slovenia, Scotland and Catalonia), while others think that most NWFP collectors are not familiar with sustainable or good picking practices (e.g. Austria, Castilla y León and Wales). Other major concern related to collection of NWFP is the issue of overharvesting. The experts in Slovenia, Catalonia, Austria, Serbia and Italy consider **the risk of overharvesting of some NWFP** in their regions a very severe problem (sometimes this concern is limited only to specific species, or to specific “hot spot” areas).

Other problems that have been identified by the interviewed experts relate to the fact **that harvesting technology** for many NWFP is not very developed (Finland). Picking of many products (e.g. berries, mushrooms, moss, forest fruits and herbs) is a manual work and hence very labour-intensive, and in some



regions there is a serious **lack of domestic commercial pickers** (Finland). There is a big concern about the status of foreign pickers (providing reasonable earnings, and attention), especially when it creates tension with other picker groups (Finland). In Castilla y León, the problem is with the **labour and tax regulation** that is considered inadequate for governing the situation of pickers (it is a seasonal activity), who gain little income from these activities. Normally the activity takes place in a grey market. In Italy, especially for mushrooms, experts think that the harvesting limit of a few kg per day can hinder commercial production. This is the consequence of the shift from the vision in which mushrooms are considered as commodities to the one in which mushrooms are linked to a recreational service, ruled by Public Administrations through permits for collection.

In Slovenia, experts voice concern **that forest owners do not benefit** from the fact that other people harvest NWFP in their forests. They have little to no de facto rights to limit harvesting by other people. In Finland, this is also a raising concern, specifically in semi-cultivated areas that remain subject to everyman's rights. This may hinder the development of semi-cultivation areas, as there is a risk that non-owners harvest the product. Another problem is related to harvesting of NWFP in organic-production areas and the problem with demonstrating this fact in order to get an organic label (Finland).

4.4 Use and trade of NWFP

According to the interviewed experts, there seems to be a healthy interest in locally sourced NWFP, only the experts in Catalonia and Castilla y León expressed a concern that there is insufficient **demand for some locally sourced NWFPs** (e.g. in case of Castilla y León it is the demand of pine kernels that is considered insufficient, whereas there is no such problem with mushrooms). Experts in Finland, Scotland and Catalonia mentioned that an insufficient **supply of locally produced NWFP** is a serious problem in the region. Amongst other factors, this may be caused by seasonal variability of production, the wide spatial distribution of products, or the lack of storage solutions, which hinders raw material procurement especially for small scale entrepreneurs (Finland), or because of loss of habitat affecting amount of raw product available or lack of knowledgeable harvesters and processors (Scotland). In Italy experts believe that, especially for some species, local supply is low, because of restrictions on harvesting quantities, seasonality, and related labour cost of harvesting (which is higher than abroad). They think that the supply is not enough to satisfy a mass market, while it can satisfy a specialized, "local", with short value-chain and added-value, market. In other case studies, the experts consider the supply and demand of local NWFP to be balanced (e.g. Wales, Austria), although surprisingly enough the experts in Austria and Slovenia consider the **lack of raw material** a serious impediment for SMEs operating in NWFP sector.

The **lack of NWFP market channels** is considered a serious problem only by the experts in Castilla y León, although experts in Finland also remark that the entry of new Finnish commercial pickers is difficult as trade is very organized and dominated by foreign pickers. **Trading regulations** seem to be clear, and only some experts in Catalonia, Italy and Finland mentioned that **the burden they impose on NWFP vendors** is excessive and this is considered a severe problem. Experts in Castilla y León, Catalonia and Slovenia mention as a serious problem the fact that **traders are not familiar with trading requirements**. Experts in Slovenia, Austria and Castilla y León see a very severe problem that **most NWFP trade in the region is not authorised**, that is, it is mainly grey market. Another relevant problem that has been mentioned by the experts is the issue of **price competition** among bigger and smaller producers, which is especially critical for small entrepreneurs with high production costs (Finland).

4.5 NWFP enterprise development and operation

Experts in most countries tend to agree that NWFP sector is rather small, even in some cases a niche sector, with actors failing to identify themselves as a cohesive sector (Wales, Austria, Scotland). **Establishment of SME in NWFP sector** is not considered problematic in most case studies, except for



Catalonia (where the **number of procedures** and the **time needed to acquire all necessary licenses** is considered to be excessive by the experts), Castilla y León and Italy (where experts identify the time and the excessive **cost of administrative procedures** as a serious problem for SMEs operating with NWFPs), and Austria, where the problem is the cost of administrative procedures. At the other end of the spectrum, the experts in Slovenia see no problem at all with SME establishment in the region. Experts in Finland and Scotland see the fact that **access to finance for SMEs operating in NWFP sector** is considerably more difficult than for other SMEs a severe problem, whereas this was considered not to be a problem at all in Castilla y León. Finnish experts stress that the enterprises working with NWFP are at a disadvantage, because the value of their product stock cannot be used as a deposit for financial matters, unlike for enterprises working in other fields.

Unclear and complex regulations have been mentioned by several experts as impeding enterprise development (Finland, Serbia). Experts in Serbia also consider that overlapping jurisdictions cause problems for entrepreneurs, who do not know “who to turn to” in certain issues. In general, the prevailing opinion among most interviewed experts is that there is **insufficient information** on the activities promoting NWFP enterprise establishment and operation (Austria, Finland, Castilla y León, Slovenia, Catalonia, Italy, Scotland), and **insufficient amount of business development services** oriented to NWFP enterprises, such as entrepreneurship training, management and planning advice, etc. (Slovenia, Catalonia, Wales, Austria, Finland, Italy, Scotland). Experts in Slovenia, Catalonia and Italy coincide in identifying **insufficient financial support** (from public and private sources) to NWFP enterprise establishment and operation a very severe problem in their regions. The same concern is shared by the experts in Finland, Castilla y León, Scotland and Wales. Austrian experts consider that there are enough opportunities for public support, but **public funding is not coherent**. In Serbia, the issue is that SMEs are not aware of public financial support and enterprises frequently do not know how to access these resources.

Existing **tax policy** and **labour legislation** are not seen to hinder business operation of SMEs in NWFP sector in Wales, but experts in Castilla y León and Italy see tax policy as a very severe problem and experts in Catalonia see labour legislation as an important hindering factor of enterprise development. Perhaps the most unanimous opinion among consulted experts was regarding **EU regulations concerning food and health**, these regulations were considered to hinder business operations (Germany, Austria, Slovenia, Finland, Scotland and Italy), specifically product marketing. In words of one of the experts: “the markets are global, but the rules are unfavourable to EU-originated products” (Finland). The Novel Food regulation is also considered as hindering the use and commercial exploitation of wild herbs (Finland). In Italy experts also believe that there are additional national regulations that strongly hinder the sector.

Other problems identified by the experts include the **lack of cooperation among enterprises** (Finland, Serbia, Castilla y León), and among territorial stakeholders (Italy), **lack of new operation models** for new ways of entrepreneurship (Finland) or **the lack of strategic orientation** of enterprises towards NWFPs (Germany). Experts in Germany consider that the development of new business areas and the marketing of NWFPs are partly constrained by internal organisations and structures existing in public administration, and they remark internal problems in forestry businesses related to the acceptance of new marketing initiatives for NWFPs. Finnish experts stress that **knowledge transfer from research to practice** is not sufficient and this hinders innovation (Finland). Italian experts think that there are cases of **abuses on the traceability of the origin** (in some cases products are sold as local while they come from abroad), and they think there are sometimes problems in understanding whether a product comes from the forest or it is cultivated.

4.6 Opportunities in the NWFP sector

When asked about the opportunities that the existing institutional framework offers for NWFP sector development, experts mentioned a great number of issues: raising awareness of health-promoting benefits of NWFPs (Austria, Finland, Slovenia) and exploring the trends related to organic food, healthy diets, wild



food, raw food, super food and local food (Finland, Serbia), and also traditional and territorial, slow-food (Italy), especially through branding products using research facts (Finland). Increasing and strengthening links with the food and drink sector, a key sector in terms of economic growth in Scotland, and utilising the burgeoning trend for locally sourced food as a platform for raising awareness of the sector (Scotland). The use of NWFP in public kitchens could be increased (Finland). Certified forest products offer a potential to make people aware that markets are there (Wales and Italy), and also the application of territorial brands can help (Italy).

Mixing products and services from different product groups offers an opportunity for the sector, e.g. game tourism (Finland), establishing of links with between tourism and gastronomy (Castilla y León and Italy), or landowners tapping into the tourism market by offering NWFP related harvesting and use related courses on their land (Scotland). New trading methods (such as “pick’n’mix of NWFP”) have been identified as offering potential for enterprises (Finland). In general, niche products related to NWFP are perceived as an opportunity (Slovenia and Italy). Moreover, there is a good potential to go beyond the “traditional” NWFPs and develop e.g. bio-based raw material (Finland), and explore the possibilities offered by the development of technology and machinery (Finland). Introduction of new types of plantations (chestnut, hazelnut) have been mentioned as offering potential for the sector (Slovenia), as well as exploring further export market (Serbia). Expansion into markets such as mushroom cultivation and biofuel from conifers have been identified as potential areas of sector development (Scotland).

These opportunities rest on the good natural potential that forests in some regions offer for NWFP growth (Castilla y León, Slovenia), good existing knowledge on NWFP and of good harvesting practices (Slovenia, Finland, Italy), good recognition of the benefits of locally produced and environment-friendly grown NWFP (Slovenia) and high demand both national and international (Castilla y León, Slovenia, Italy). Experts in Slovenia, for example, remark that businesses can also benefit from good infrastructures, good business environment, well developed market and trade channels, high market potential and promotion of tourism. Stronger involvement of forestry actors in regional management groups of the LEADER have been highlighted as an opportunity by German experts, as well as the use of multiple use forestry by Finnish ones. Encouraging multipurpose woodland management through grants from the Scottish Rural Development programme and exploring the potential of management for NWFPs to become a major component of community woodlands were both identified as opportunities in Scotland.

4.7 Role of institutions

Concerning the role of institutions, most interviewed experts coincide that **existing policy and regulatory framework**, along with the **existing system of property rights** (e.g. land ownership rights, forest management rights, access and harvesting rights) underlie the majority of identified problems with harvesting and use of non-wood forest products, however, their impact (positive or negative) and perceived strength of the impact varies depending on the expert and case study. Common patterns are difficult to identify as even the experts in the same case study tend to view impacts differently. **Insufficient capacity of public administration and of private actors** is also recognised as hindering enterprise development.

Stable legal environment is perceived as positive for NWFP businesses, and political instability are recognised as causing conflicts in public utility forests in some areas of Castilla y León (e.g. in Tabuyo del Monte). Existing regulation renders NWFP production unprofitable in Slovenia and Germany, and in Italy for commercial producers of mushrooms; fiscal and labour legislation are considered inadequate in Italy and Castilla y León – experts in this region consider that NWFP activities must be regulated within the agriculture framework; and excessive EU regulations, especially those regarding food safety, nutrition and health claims, as well as traceability requirements are perceived to hinder the marketing of NWFP by experts in Finland, Austria, Germany and Italy. Experts are also concerned about the **insufficient definition**



of recreational and commercial harvesting in legislation (with the exception of hunting and a few other products, such as cork, resin and pine cones): private forest owners have almost no rights or tools to limit harvesting by others (Slovenia). Numerous experts also stress the **importance of raising awareness** of laws and statuses, as well as their scope (Wales, Austria).

Lack of capacity of public administration has been mentioned by experts in Finland and Scotland along with the **insufficient coordination among agricultural and forest administration** in the issues of control, support and information to SMEs (Castilla y León). **Lack of coordination of policy instruments and measures addressed at NWFPs** is also a relevant issue, stressed by the experts in Austria, Italy and Wales. German experts mention that there is **little participation and usage of LEADER support measures for innovations in NWFPs** by regional forestry actors, and there is a general lack of strategic orientation of forestry actors towards the marketing of NWFPs, a sentiment also expressed by experts in Scotland. Finnish and Serbian experts notice the **insufficient SME networking** (Finland) and **lack of cooperation between SMEs and public administration** (Serbia).

On the positive side, Finnish experts claim that **organizational structures** supporting private (recreational) picking of NWFP are in place and are working well. NWFP sector is mentioned in policy and development programmes, which is also considered a good sign (Finland). In addition, there is **plenty of useful research available**: yield predictions for berries and mushrooms, picking place maps, organic certified picking areas (Finland). Free access is considered an important success factor (Slovenia, Finland). Slovenian experts also remark the good accessibility to forest sites where NWFP are available, good environment for registering enterprises, high level of education courses for forestry students, a good database/inventory of NWFP is an important success factor. Experts in Scotland felt there is a growing recognition for the NWFP sector from enterprise support organisations and that this alongside the increasing willingness for stakeholders to work together to support the sector are promising signs (Scotland).

5 Conclusions

Interviews of the experts in case studies reveal that the NWFP sector is still perceived as minor, rather niche market with a lot of grey market activity. In fact, frequently actors fail to identify themselves as pertaining to a cohesive sector. In the opinion of many experts, NWFP sector is not taken seriously, wood production is still the driving force in forest management, and this is where the priorities of policy makers seem to lie. Moreover, there is no meaningful representation of NWFP sector at national or international arena, and this is something that is perceived to be a big problem, a representative actor could help to promote the interests of the sector.

Despite the fact that NWFP use is extended among population, few species of NWFP are used and there is potential to utilize more products. However, entrepreneurs frequently are not aware of the properties and production possibilities of “less traditional” NWFPs. With a few exceptions, experts seem to coincide that there is insufficient knowledge at all levels about NWFPs – from production to sustainable harvesting levels, to their potential for SMEs and rural development. There seems to be a general lack of understanding of the opportunities that NWFP represent across the supply chain, and decision-makers are faced with the lack of knowledge regarding NWFP practices. Moreover, marketing and branding of NWFP is still in its infancy.

Major hindering factors for NWFP sector development are the seasonality of products, the unprofessional market, and lack of profitability of NWFPs, as well as the lack of institutional support for the operation of the sector. From the ecological point of view, there is little information regarding the ability of the forest resource to cope with an expansion of the market for NWFP, and it is not evident that the push towards forest diversification would be compatible with larger scale harvesting and extraction of NWFP.



6 References

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