

D.T2.2.2 Report on ‘Actors and networks for ecosystem-based risk management for the Alpine Space’

GREEN RISK 4 ALPS



WP T2 ACTINA – Actors Involvement and Network Analysis

Responsibility for Deliverable

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Table of Attachments

Annex 1: Tables of PAR 1st round tables & questionnaire analysis

Annex 2: Tables of Stakeholders and objectives in the PAR´s (Oberammergau-Ettal (D), Parc des Baronnies-Provençales (FRA), Kranjska Gora (SLO), Southern Wipptal (I), Brenner region (AUT), Courmayeur - Val Ferret (ITA)) following the example Oberammergau and Kranjska Gora.

1. Introduction & aims

This report was written within the Activity A.T2.2 “Analysis of local and regional networks of actors”. It lists all involved actors and partially maps the network or the relation of actors (e.g. information exchanges, financial streams, ect.). Questionnaires (which was developed as an important preliminary work within the report D.T2.1.2 “Green Risk 4 Alps Social Network Analysis concept”) and expert interviews have been carried out in order to provide a first rough outline of the actors in the PAR´s (Pilot Action Regions) and the PAR networks. Based on these completed questionnaires & information and notes out of meetings with experts, the aim is to identify the influences of the actors. Further to identify the power, the roles, the long- and short-term interests, as well as the beliefs and the (potential) conflicts in the 6 PAR´s. This goals are to be achieved in the deliverable D.T2.5.2. “Conflicts and influences on acceptance for ecosystem-based risk management in the AS” for which the objective deliverable is an important preparatory work. In addition, the surveys should show the dynamic effects of climatic and social changes.

2. Social network analysis (concept)

2.1. Conclusions of D2.1.2 GR4A SNA concept

Work package T2-ACTINA (Actors Involvement and network analysis of the project) will a) provide the socio-economic foundation of an ecosystem-based risk management in the Alpine Space considering the increase of risks of natural hazards by systematic stocktaking of all relevant actors and by identifying conflicts, awareness of issues and acceptance of action alternatives and b) it will also map the adjacent interests, values and costs.

The obtained information is an important input for the WP 3 DORA (“Decision oriented risk assessment”) and WP 4 ACRI (“Acceptance raising ecosystem-based risk control measures”).

This report was written within the Activity A.T2.1 Report on ‘State-of-the-art social network analysis and adaptation for Alpine risks and actors’. It has to answer the question whether the described method for the Social Network Analysis (SNA) has to be adapted to the requirements of the GR4A project and if so to what extent.

The described approach for the Actors analysis including the initial network analysis using the PAR Oberammergau as an example is understandable and practically oriented. It can be applied in all other pilot action regions independently of existing experiences. It can be stated that no further methodological adjustments are necessary.

This preliminary analysis will be supplemented by the described standardized PAR questionnaire and the foreseen more detailed network analysis (Activities A.T2.2 Analysis of local and regional networks of actors and A.T2.3 Analysis and comparison of decision structures in the network).

3. Stakeholders and objectives in the Pilot Action Regions (synthesis / summary of annex 1 and 2)

3.1. Summary and evaluation of the PAR questionnaire

Between the end of 2018 and June 2019 the 1st round tables were held in the different PAR's (mostly at the respective municipal offices). On the one hand the PAR mentors from the scientific side and on the other hand responsible actors from the practical side (mayors, heads of offices, practitioners from the fields of forestry, natural hazards, civil protection, etc.) were gathered.

The focus of these 1st round tables was the questionnaire elaborated in the deliverable D.T2.1.2 "Report GR4A SNA concept". The questionnaire was used as an efficient and practical tool to gain a first comprehensive insight into the current situation in the respective PAR's. It was possible to gain a first insight into the relevant and expected natural hazards, the resulting and expected damage, the protection status against natural hazards and the handling for the protection forests.

From now on, the completed questionnaires have been used for different objectives, for instance a rough assessment of the general need for action. Based on the results, hotspots could already be identified or the type of the priority natural hazard process could be determined. An initial assessment of the degree of protection in the various PAR's could also be generated by evaluating the questionnaires.

The following diagrams and graphics show a summary evaluation of the questionnaires from all 6 PARs. These already provide information on which regions have (can have) which processes predominate or which regions have to cope with special challenges. Details are given in the description below the respective diagrams. The heading to the diagrams is represented by the corresponding question from the questionnaire.

3.1.1. Assessment of potential hazard processes. How likely do you think it will be in your communities for the next 10 years to be harmed by the natural hazards listed below?

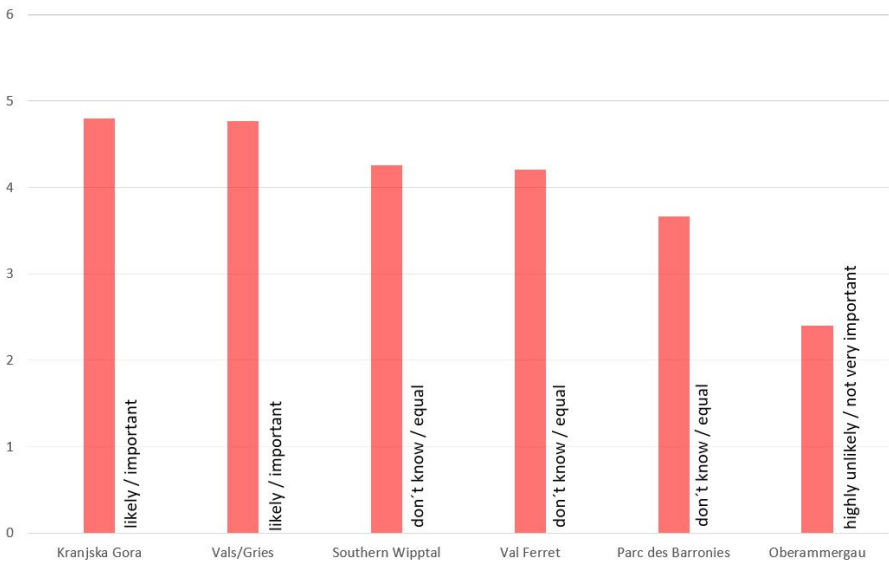


Figure 1: Hazard potential overall average

Figure 1 shows the subjective assessment of potential of hazard processes. In Kranjska Gora (SLO) and Vals/Gries (AUT), natural hazards are expected with a high probability in the next 10 years. In Oberammergau (GER) on the other hand, the probability of occurrence of all natural hazards is estimated to be very low on average.

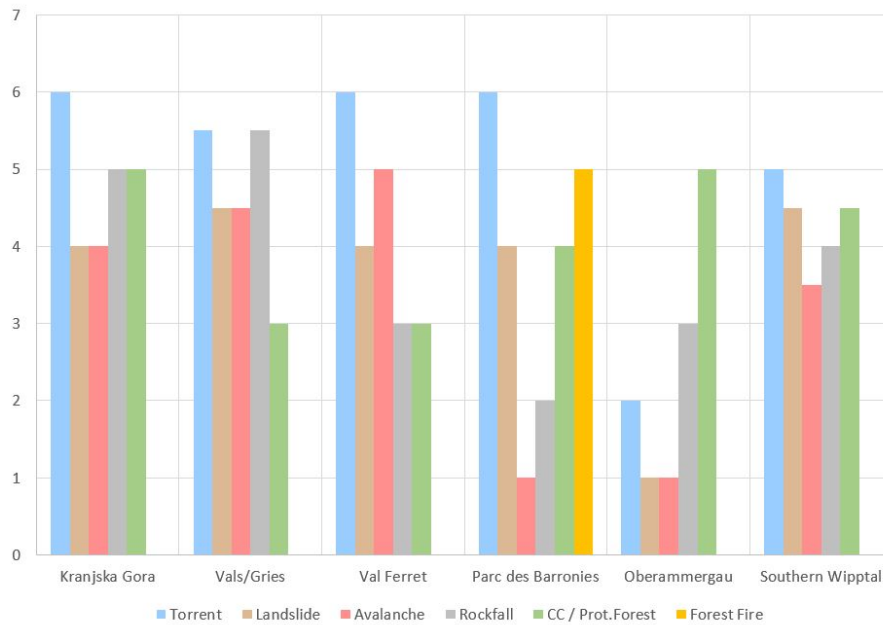


Figure 2: Hazard potential separated by process

Figure 2 shows that the estimated potential for debris flows (torrents) is by far the highest in Kranjska Gora (SLO), Val Ferret (ITA) and Baronnies-Provençales (FRA). In Baronnies-Provençales (FRA) and Oberammergau (GER), the potential danger of avalanches is very low or even non-existent. Rockfall plays a major role in all Pilot Action Regions except Oberammergau (GER). There, the risk potential is seen to be highest due to climate change and the changing protection forest. The greatest general danger of avalanches over the next 10 years is feared in Val Ferret (ITA).

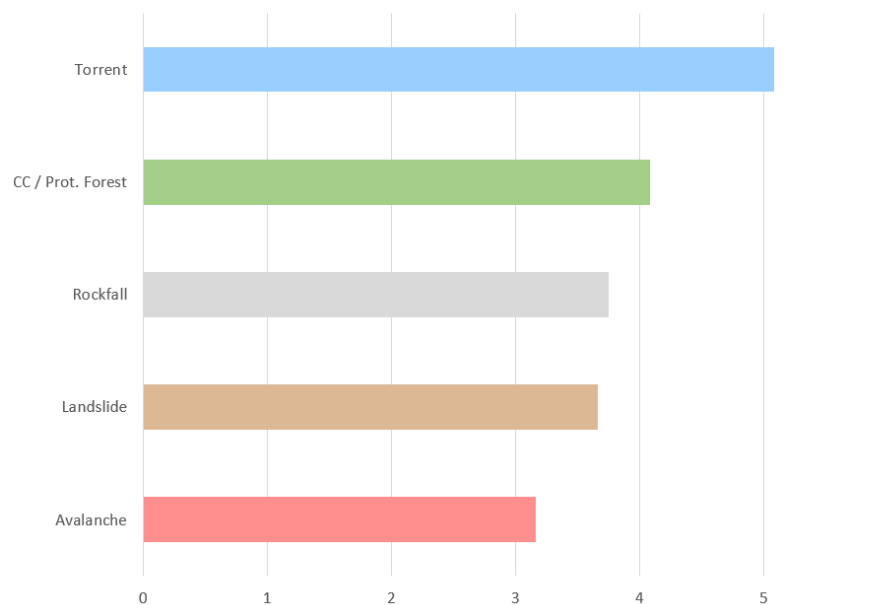


Figure 3: Most assessed natural hazards over all PAR's (forest fire not considered)

According to Figure 3, obviously - seen over all 6 PAR's - debris flows (torrents) were attributed the highest probability of occurrence in the future. Rockfalls, landslides and climate- & protection forest change are roughly in balance. Avalanches represent (only in the overall assessment!) the lowest risk potential in the next 10 years.

3.1.2. How do you estimate the extent of damage caused by this?

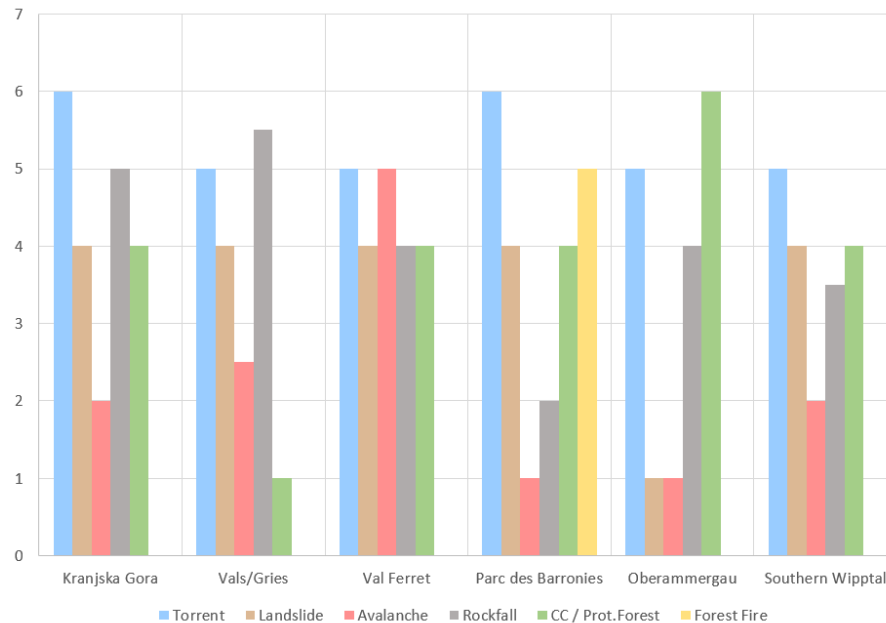


Figure 4: Estimation of damage extent by process type

In Kranjska Gora (SLO), Val Ferret (ITA), Baronnies-Provençales (FRA) and Southern Wipptal (ITA), the greatest damage is expected to be caused by torrents. However, in all PAR's (except Baronnies-Provençales), considerable damage is also suspected due to rock falls. According to the respondents, massive damage caused by avalanches is only expected to occur in Val Ferret (ITA) in the future. Major damage due to climate change or to the protection forest is to be expected above all in Oberammergau, while according to estimates this will cause hardly any damage in Vals / Gries am Brenner (AUT) in particular (see figure 4).

In the following figure 5 we can see that the greatest damage (generally caused by natural hazards) over the next 10 years is feared to occur in the Italian Val Ferret. The situation in Kranjska Gora (SLO) seems to be similarly threatening, according to the surveys. Southern Wipptal (ITA), Baronnies-Provençales (FRA) and Vals / Gries (AUT) expect damage to be of medium magnitude, while Oberammergau is expected to suffer the least damages.

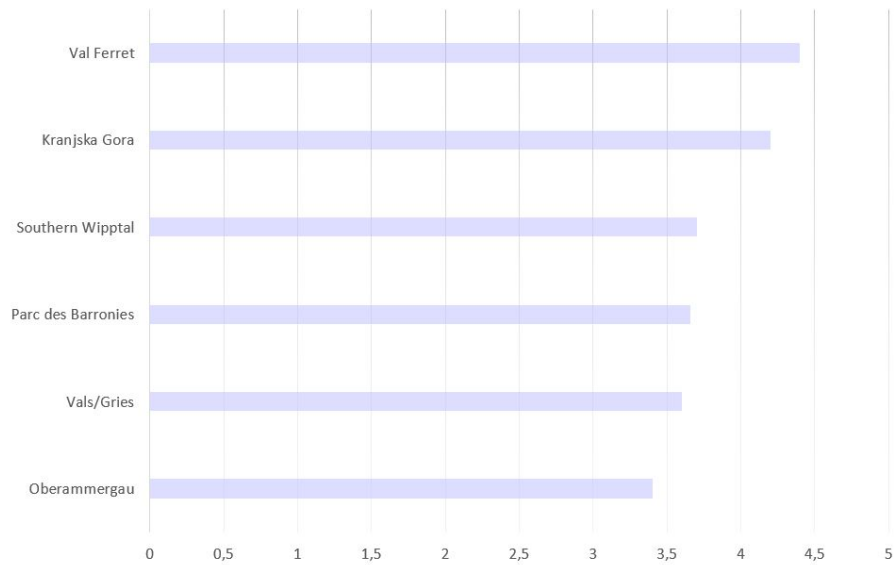


Figure 5: Average estimation of damage extent

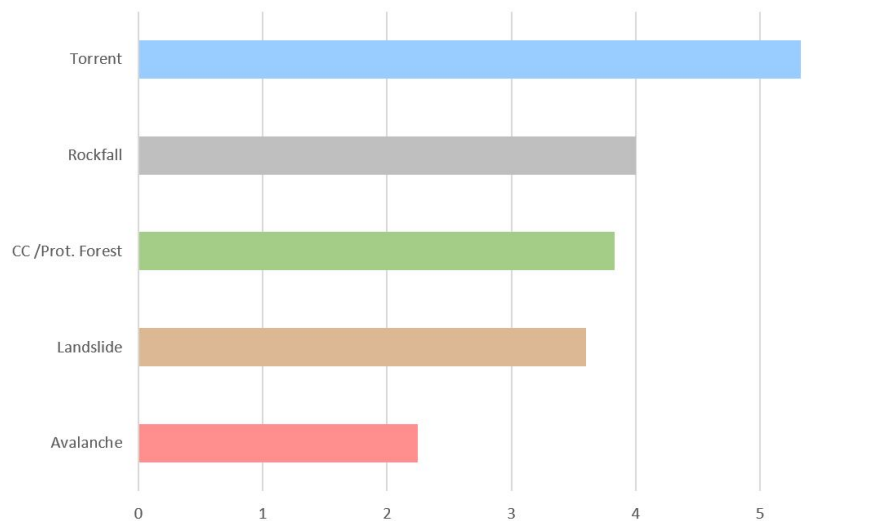


Figure 6: Assumed maximum extent of damage from natural hazards in the PARs given on average in the surveys. (forest fire not considered)

Considered as an average over the entire 6 Pilot Action Regions, it is estimated that the torrents will cause the greatest damages. Followed by rockfalls and damages respectively negative influences as a consequence of climate change (e.g. on the protection forest). Avalanches on average have the least impact in the future, but focused on Val Ferret, they are very relevant.

3.1.3. Which project activity is of high importance in your Pilot Action Region?

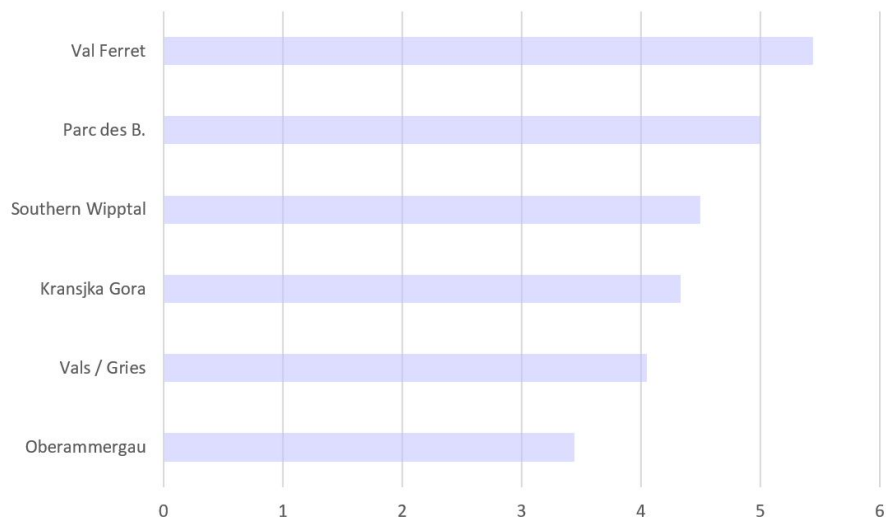


Figure 7: Average importance of project objectives in the PAR's

Figure 7 shows the average importance of the different objectives within the project. The graph only indicates the extent to which the pilot regions consider the outputs of the project to be useful and applicable.

Experts / responsible from Val Ferret (ITA) consider the project outputs of paramount importance. On the one hand, this could be directly related to the highest estimated extent of damage in Figure 5 of Val Ferret, caused by the natural hazard processes. Conversely, the Pilot Action Region Oberammergau considers the importance of the different project outputs to be limited, which may also be reflected in the low estimate of the expected damage (figure 5). On the other hand, this might also be due to who conducted the survey/who responded. Fondazione Montagna Sicura is more involved in natural hazard and risk topics compared to the PAR responsables in Oberammergau who instead focus more on forests. This might have accidentally steered the conversation and consequently the questionnaire results (in Oberammergau, the damage to forest was indeed considered higher compared to Val Ferret).

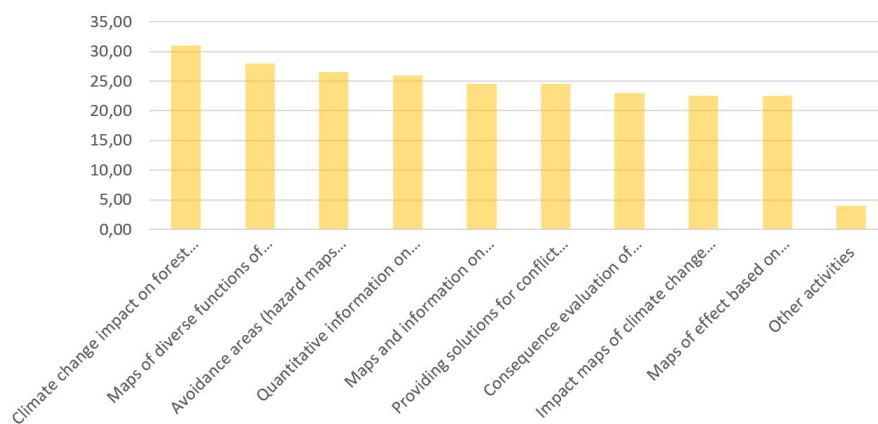


Figure 8: Most important project activities over all PAR's

The evaluation of this question could provide trend-setting impulses for the further procedure of the project. Depending on which contents the PAR's consider most important

for their region, new tools, manuals, maps or guidelines can be adapted accordingly. At this point the three most important project activities (on average) should be highlighted: Climate change impact on forest and natural hazards, maps of diverse functions of protection forest & avoidance areas (hazard maps based on new models).

3.1.4. Which safety measures exist in your Pilot Action Region? Which safety measures are effective and which are not (in terms of economic loss)? (1 = no protection, 6 = excellent protection)

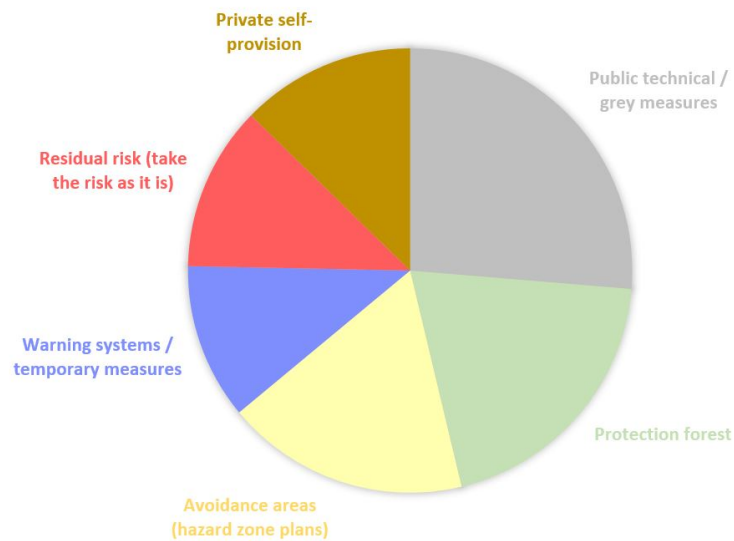


Figure 9: Most common safety measures over all PAR's

Figure 9 shows a pie chart with the proportion of different protective measures in all PAR's. About one quarter is covered by technical (grey) protective structures. Almost one third of the protective actions are represented by avoidance areas and warning systems / temporary measures. The protection forest, which is the focus of the project, currently accounts for about 20% (seen across all PAR's) of the existing protection measures and protection strategies. The figures are based on estimates.

This was a summary of selected questions to evaluate the general hazard situation and the desirable contributions of improvements of the GreenRisk4Alps project answered in the 1st round tables. The questionnaire also included questions on forest management, forest ownership structures, responsibilities in protection forest management, cooperation with other actors in natural hazard management, possible hotspots in the region, existing projects or initiatives or the stakeholders to be involved. The detailed elaboration of the questions and corresponding answers of all 6 Pilot Action Regions is added as Annex 1 to this deliverable.

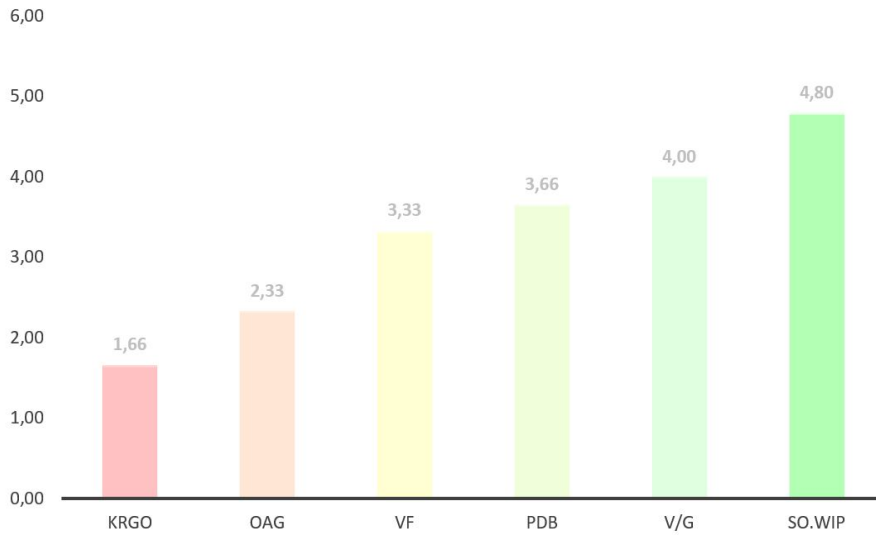


Figure 10: Estimated general grade of protection

Figure 10 shows how the degree of protection in the respective PAR's looks like according to estimations. Remarkable are the regions Kranjska Gora (SLO) and Oberammergau (GER), which, according to the local project partners, have a low coverage with appropriate protection measures. Val Ferret (ITA) and Baronnies-Provençales (FRA) are in the middle range. The regions Vals / Gries (AUT) and Southern Wipptal (ITA) are estimated to have a generally very high degree of protection. This could be due to the lively activity of the responsible services for torrent and avalanche control there.

3.2. Synthesis of the SNA in the PAR´s (annex 2) / summary of the actor structures in the different Pilot Action Regions:

PAR1 - Val Ferret (Italy):

A large block in the list of actors is represented by the Ministries. In addition to the Council of Ministers and the Italian Department of Civil Protection, 6 Ministries (economy, finance, agricultural/food/forestry, territory protection, infrastructure/transport, cultural heritage/tourism) are involved in risk management with regard to natural hazards at the state level.

The regional level is represented by the autonomous region Aosta Valley. At this level, the main stakeholders are the Functional Center (e.g. management of the monitoring and detection networks of the water courses), the Aosta Valley Forestry Corps (e.g. ensuring the multifunctionality of protection forests), Forests and Trails (cooperation with Aosta Valley Forestry Corps), Road Conditions and Road Works (road management), Geological Activities, Hydraulic Works & Hydrogeological Management of Mountain Basins.

As can be seen in the attached table of actors, the structure of the actors from the "governmental sector" is limited to two levels: The state level and the regional level represented by the autonomous region.

The Aosta Valley (AV) Association of Hoteliers and Tourist Business, the AV Committee for Hunting Management (as land use actors), as well as the local avalanche commissions are to be mentioned on a regional level (Autonomous Region). The main recreational users are the Aosta Valley Union of High Mountain Guides, the Cross-country Ski Trails Val Ferret and the Golf Club Courmayeur & Grand Jorasses.

PAR2 - Kranjska Gora (Slovenia):

At the highest national instance (state level), three actors are relevant: The Slovenia Forest Service, the Slovenian Water Agency and the Institute of the Republic of Slovenia for Nature Conservation. All three institutions are organised through regional departments / seats such as the Local unit of SFS Jesenice, upper Sava river section and the Kranj regional office.

These organizations at the highest governmental level cover the core tasks of forest management, protection of infrastructure and settlement areas as well as nature conservation. In relation to nature conservation, the actor Triglav National Park (Public Institution; spatial department) has also to be mentioned.

Local actors are limited to the municipality of Kranjska Gora and the Utility Service of Kranjska Gora.

Important land use stakeholders are the Farmer Association, the Forest Owner Association, other forest owners, the Apus d.o.o- private company (safety from erosion, torrents and landslides) and the RTC Kranjska Gora (operating skilifts).

In comparison to other countries, it is striking that the structure of the actors and their operations happens only on two different administrative levels by a small number of involved actors. The reason could probably be based on the small size of the country and the relative small number of inhabitants.

PAR3 - Oberammergau (Germany):

At the uppermost governmental level there are 4 important departments (forest office, watershed authority, nature conservation authority, hunting authority). This level is administered, governed and organized by the Free State of Bavaria. In the Free State of Bavaria, the responsibilities are allocated only to two ministries: Bavarian state ministry of food, agriculture and forests & Bavarian State ministry of the environment and consumer protection. Interests at community level follow directly below the state level of the Free State of Bavaria. These are the communities of Oberammergau and Ettal.

The list of land use actors in this PAR is long. This ranges for example from private associations such as the Private forest cooperation Oberammergau, the individual forest and hunting right owners as well as the local hunting associations, through the communities themselves, to the local monastery and the Regional Enterprise of the Bavarian State Forests.

Stakeholder groups in PAR3 that are especially highlighted are the farmer organizations ("Alpine grazing association" & "Local board of the Bavarian farmer association") and the hunters.

Finally, the Nature Park Ammergauer Alpen & ENGOs (Bund Naturschutz & Landesbund für Vogelschutz) as well as the recreational users of the Nature Park are two other groups of actors to point out.

The recreational users of the nature park are versatile. These include the cable cars, the mountain bike park, the mountain rescue organization, dog owners, hotels, horse riders, as well as the monastery already mentioned on several levels.

As in PAR2 Kranjska Gora, there are only two governmental levels in PAR3 Oberammergau / Ettal, which have a direct influence on natural hazard, protective forest and risk management. At the Bavarian level, these are the Free State of Bavaria and the municipalities of Oberammergau and Ettal. However, the Federal Republic of Germany does not operate here, which means that in the description of the actors the nationwide level is not considered.

PAR4 - Parc des Baronnies-Provençales (France):

On the very first place listed in the table of governmental actors is the "Regional Natural Park of the Baronnies-Provençales" which preserves the natural heritage and carries out experimental or innovative actions. Further governmental actors are the National Forest Office and different directorates and departments of restoration (mountain areas), territories, environment, development, and housing.

Mentioned as land use actors are the forest managers, while the farmer organizations are represented by the department Drôme and Haute Alpes as well as the farms themselves. An important actor related to hunters is the "Office national de la chasse et de la faune sauvage". Recreational users of importance are the French mountain and climbing foundation and the French cycling federation.

PAR5, Southern Wipptal (Italy):

The most important actors from the uppermost governmental side are several departments at the provincial level (Autonomous Province of Bozen). In addition to important departments (such as the Department of Agriculture, Forestry, Tourism and Civil Protection, the department building, land registry, cadastre and heritage or the Department for Land Development, Landscape and Cultural Heritage), the "Agency for Civil Protection" is also located at provincial level.

On the lower governmental level the municipalities of Sterzing, Brenner and Pfitsch are of great importance.

Non-governmental organizations and associations are represented by the Hunting Association and the Farmers' Association of South Tyrol, the Voluntary firefighters of Wipptal / district of Vipiteno, the groups of owners of agricultural land and forest as well as the Mountain Volunteering Association.

As land-use actors the landowners and the forest owners are primarily mentioned. Tourism and business can be seen as land users (at least indirect) as well, but are separately listed as an own group amongst others including the ski resorts, hotel owners, tourists and the Vipiteno dairy cooperative.

The actor-group of "Transport sector" includes the "Autostrada del Brennero S.p.A. / Brennerautobahn AG" and the RFI - Italian Railway Network.

PAR6, Vals / Gries am Brenner (Austria):

In Austria, the governmental actors in natural hazard and risk management are of utmost importance. The structure is somewhat more complex than in other countries, governmental actors are located at 4 different levels. At the highest we have the federal level. The others are the state of Tyrol, the district of Innsbruck Land and the municipalities of Gries am Brenner and Vals.

Four ministries occupy an important place in management with natural hazards / risk management. The ministries are either donors (disaster funds), or umbrella organisations of important institutions such as the Torrent and Avalanche Control, the Federal Hydraulic Engineering Administration, the police or the Austrian Forces, which provide frontline assistance in the event of disaster and reconstruction.

The State of Tyrol is also of particularly importance: As the roof authority, the state is responsible for the Forestry Directorate, the Geological Survey of the county Tyrol, Department of Transport and Roads & Road Maintenance Office.

The district administration, which is also a sub-organisation of the state, is responsible for the Forest Inspections, the Hunting Authority and the Transport.

Below the district level, the municipalities are important, which have decision-making power and influence by the municipal council or the mayor. Also the local avalanche commission as well as the local forest ranger and the volunteer fire brigade are necessary for a comprehensive hazard- and risk management. Important ENGO's are the Austrian Alpine Association (ÖAV) (inter alia as landowner) and the Protected Landscape "Nösslachjoch-Obernberger See-Tribulaune).

Land use actors - and of enormous importance for sustainable forest management - are the Austrian Federal Forests (the biggest land owner in the state of Austria), private forest and land

owners and mountain railways / ski resorts. Also operating as land use actors but as well as maintainers are the Federal Motorway Association (ASFINAG) and the Austrian Federal Railway AG (ÖBB). These enterprises are powerful in technical protection along their traffic infrastructure facilities (highways and railways) but also land- and forest owner.

The hunters represent an own group of stakeholder. On the one hand, there are private hunts and on the other hand, there are cooperative hunts. Both are supported in different tasks by the Tyrolean Hunting Association (the Tyrolean Hunting Association themselves is commissioned by the state to fulfil specific tasks and objectives in hunting management). The hunters are particularly important because they can exert a direct influence on the condition of the protection forest (game browsing) and thus also an indirect influence on natural hazard and risk management.

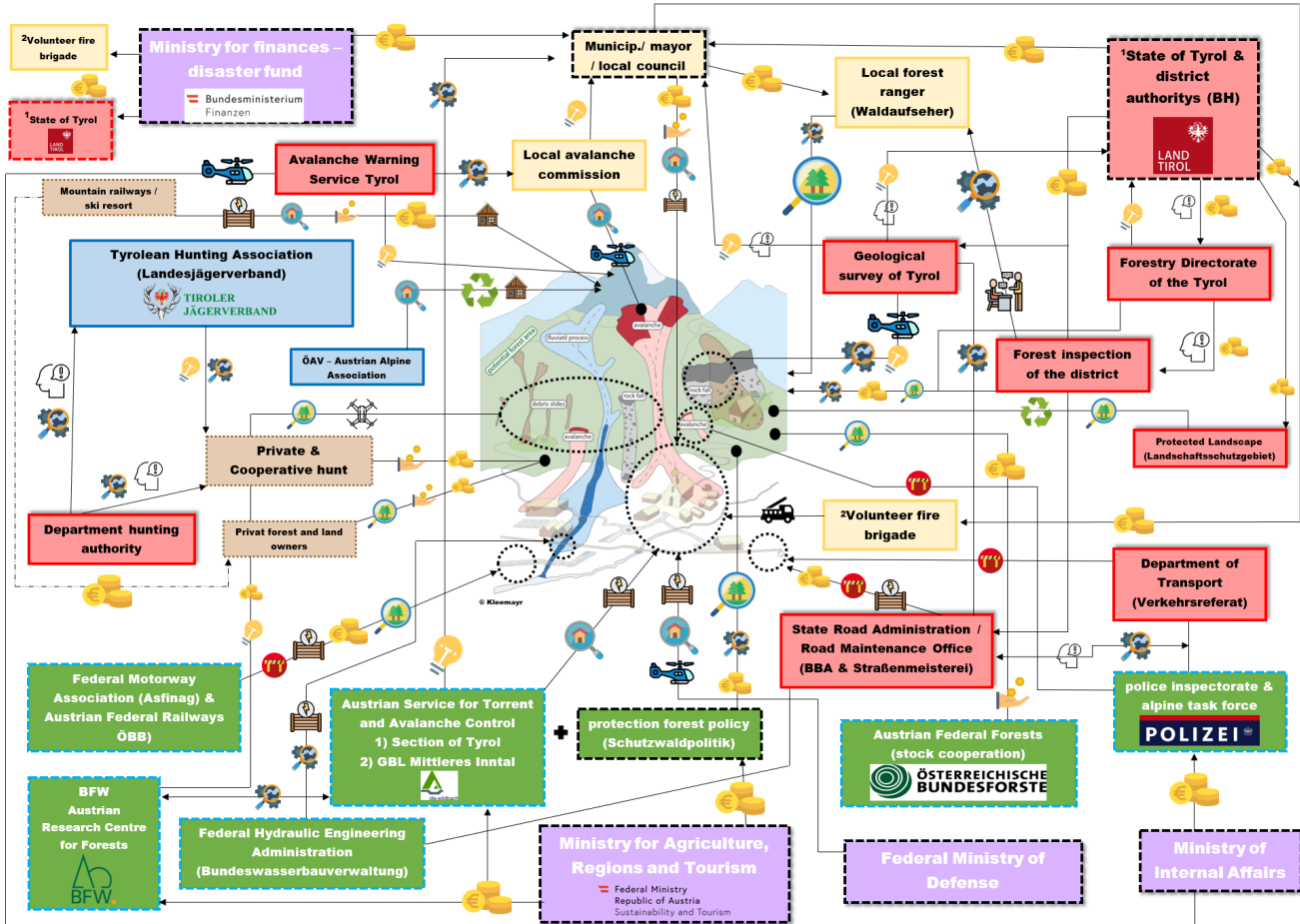
4. Discussion and Conclusions

As we could see in the previous chapter, the composition of the important actors in the different PAR's is quite different. The networks of actors in the different PAR's differ mainly in the number of levels from which especially authorities and other governmental institutions can be identified.

The absolute number of actors intervening in natural hazard and risk management also vary considerably. While e.g. in the PAR's Val Ferret and Baronnies-Provençales only about 10-15 relevant actors are mentioned, in the PAR's Oberammergau or Vals / Gries am Brenner 35 different actors are involved in processes and operations related to the management of natural hazards and protection forests.

It can be said with a high degree of probability that the actors in the PAR's are not completely recorded. However, it is assumed that the most important actors have been named and their interests and key accents are cited. For a transnational harmonisation process and the transfer of new knowledge and new tools to the right actor, a detailed or in-depth network analysis is necessary (D.T2.3.1, D.T2.5.2). A first attempt to depict the network of actors using the example of Vals / Gries am Brenner was made with simple mapping of these actors (Figures 11, 12). Attention was paid to the role the actor plays in the overall system and the possible relationship to other actors. In addition to the tables in the appendix, this map could provide a simplified overview of the stakeholders in the PAR's and their involvement.

Actors and networks for ecosystem-based risk management: Information exchanges, influences and financial streams (example: PAR6)



Note: In principle, it is likely that the network of actors and network of cash flows is much more pronounced than illustrated (cooperation, exchange of knowledge, grants, rents, levies). However, the primary networks and cash flows shown are those that may be relevant in natural hazards and risk management. The graph is therefore not complete in this respect. Icon sources: flaticon.com, bundesforste.at, polizei.gv.at, bmnt.gv.at, bmi.gv.at, bw.ac.at, tjv.at, tirol.gv.at, bmf.gv.at

meaning	sign / icon
money flow, financial support, financing for the implementation of measures	€
financial revenues, from the forest or the alpine catchment area as an economic area	€
expertise, management and maintenance with focus on the (protection) forest / in some cases property of forest	👤
protection with focus on settlement areas and infrastructure	🏠
expertise, consultation and supervision	👤
general cooperation and checkup or interest in functionality	👤
instructions	👤
construction / establishment of mitigation and protective measures	🏗️
road closure, bans, avoidance of danger	🚫
observation and control with traffic and airborne operations	🚗
core interest in landscape and environmental protection	♻️
infrastructure in alpine space & catchment area, tourism	🏠

level / kind of institution	frame
governmental, federal level: Ministry	🏛️
federal company / institution / operation	🏢
governmental, state level	🏛️
authority or company on state level	🏢
governmental, municipal level	🏛️
organization / establishment of the municipality	🏢
private institution / operation	🏠
(ENGO)	🏠

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Figure 11: Network of actors on the example of PAR6 / Vals & Gries am Brenner

Social Network Analysis has become a central point of interest in empirical social research and is supported by various software applications available for the interpretation of data and their visualisation¹. The focus of the Social Network Analysis are the relationships of the actors. In these channels people or organizations gained access (i) to capital or resources; (ii) to knowledge or information, (iii) to social relations like cooperation, regulation and scrutiny² in the field of risk management for natural hazards. With regards to that definition we used the open source software Gephi 0.9.2 to visualise the actors network and its complexity in the PAR 6 Vals / Gries am Brenner. The examined network consist of 35 relevant actors as nodes and 339 occurred edges which represent the relations between the actors. Those actors with more edges are larger than those with less edges due to the applied degree measure from the Gephi statistics tools. Additionally, we clustered the actors into nine different interest groups, represented by different colours in figure 1, with regard to the Social Network analysis concept of the deliverable D.T2.1.3. Therefore, we gained an understanding of the relational connection between actors and are able to localize with whom an actor is linked. This information is important for the whole stakeholder involvement process and the ensuing knowledge transfer process of the results of the GreenRisk4Alps project to practitioners.

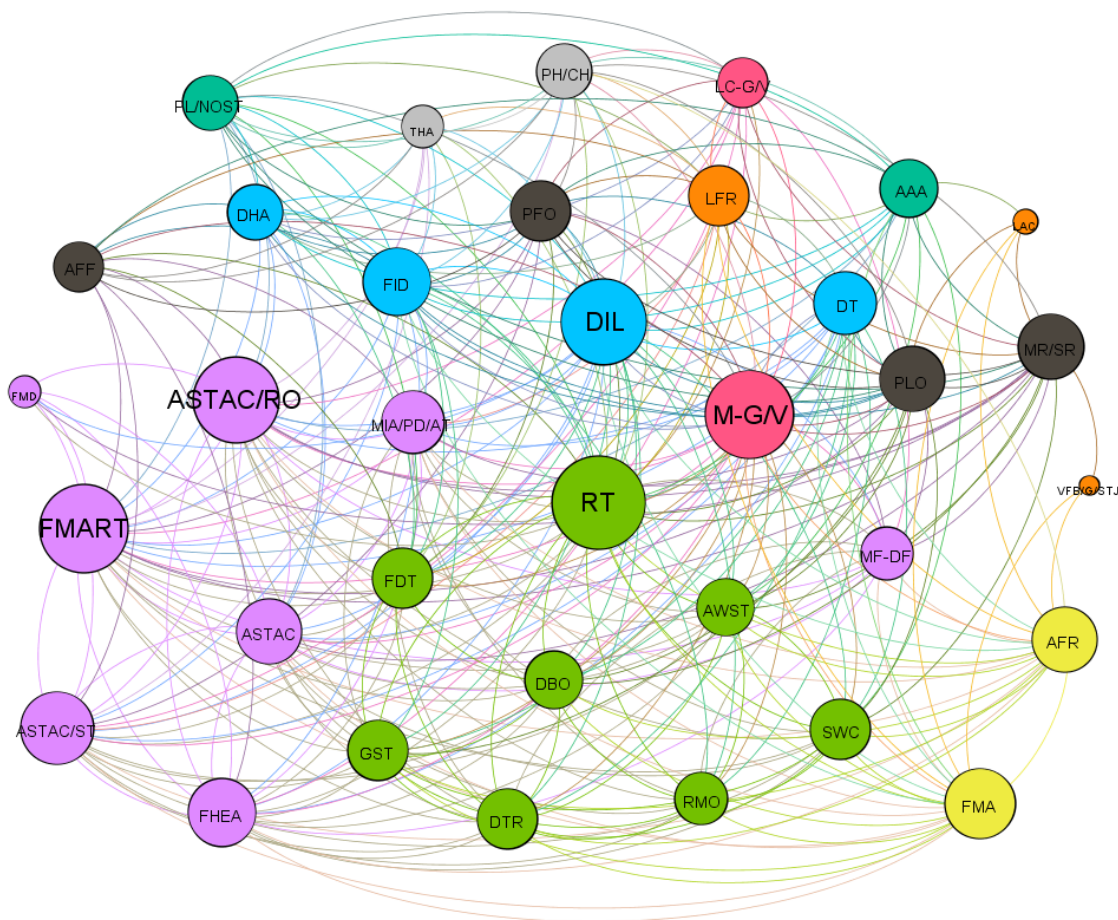


Figure 12: Graphic of actors network in the PAR 6 Vals / Gries am Brenner carried out by Gephi 0.9.2

¹ Stegbauer Christian., Häußling Roger (2010) in das Handbuch Netzwerkforschung. in: Stegbauer Christian., Häußling Roger. In (Ed.), Handbuch Netzwerkforschung. VS Verlag für Sozialwissenschaften.

² Katzmaier Harald, FAS.research, „Die soziale Infrastruktur der Innovation – Die Analyse sozialer Netzwerke im Feld der Technologie- und Innovationspolitik“ in [Broschüre “Exzellente Netzwerke”], [http://static.twoday.net/networking/files/Exzellente_Netzwerke_2005-pdf.pdf, 01 02 2011], S. 12.

As shown above, it is possible to measure and highlight specific key figures of an existing social network and to visualize it. However, since the expected output of a software such as the used software above depends on the quality of the input, individual actors would have to be questioned about specific contents of their actions in a concrete and adapted manner, as required.

Abbreviations for actors

AAA - Austrian Alpine Association

AFF - Austrian Federal Forests

AFR -Austrian Federal Railways AG

ASTAC - Austrian Service for Torrent and avalanche control (WLV) & protection forest policy (Division III/5)

ASTAC/RO MI - Austrian Service for Torrent and avalanche control, regional office

ASTAC/ST - Austrian Service for Torrent and avalanche control, Section of Tyrol

AWST - Avalanche Warning Service Tyrol

DBO - District Building Office

DHA - Department Hunting authority

DIL - District of Innsbruck Land

DT - Department of Transport

DTR - Department of Transport and Roads

FDT - Forestry Directorate of the Tyrol

FHEA - Federal Hydraulic Engineering Administration (Division I/10)

FID - Forest Inspection of the district

FMA - Federal Motorway Association

FMART - Federal Ministry for Agriculture, Regions and Tourism

FMD - Federal Ministry Defense

GST - Geological survey of Tyrol

LAC - Local Avalanche Commission

LC-G/V - Local Council

LFR - Local forest ranger

MF-DF - Ministry of Finances – disaster fund

M-G/V - Municipalities of Gries am Brenner & Vals

MIA/PDSB/ATF - Ministry of Internal Affairs / Police Department / Alpine task force

D.T2.2.2 – Report on ,Actors and networks for ecosystem-based risk management for the AS' 20

MR/SR - Mountain railways / ski resorts

PFO - Private forest owners

PH/CH - Private hunt / Cooperative hunt

PL/NOST - Protected Landscape "Nösslachjoch-Obernberger See-Tribulaune"

PLO - Private land owners

RMO - Road Maintenance Office

RT - Region of the Tyrol

SWC - State Warning Centre

THA - Tyrolean Hunting Association

VFB/G/STJ - Volunteer fire brigade (Gries am Brenner / St. Jodok-Vals)

5. Annex

5.1. Annex 1: Tables of PAR 1st round tables & questionnaire analysis

PAR 1: Val Ferret

General:

- Valley: area of 92 km²; municipality Courmayeur: 210 km²
- Population of ~ 2800 inhabitants

Main challenges (hazard):

- 212 registered avalanche sites in Courmayeur, 80 registered in Val Ferret (27 civil buildings endangered)
- Significant changes of glacial morphology; collapses from the great glaciers of the Mont Blanc massif
- Debris flows

Main challenges (forest):

- The timberline of the northwest exposed valley side is at about 1750 m; many natural risks including avalanches and debris flows originate at higher altitudes than the timberline, sometimes connected with the collapses of the great glaciers above
- These processes flows over stream incision on the mountain side and their frequency do not allow an effective presence of the forest in this area

Main challenges (management):

- To design a road map for strengthening procedures to raise acceptance for risk control measurements
- To strengthen the relationship with the tourist operators of the valley to raising acceptance for risk control measurements
- Promoting integrated risk management in the territory of Courmayeur
- Strong touristical utilization (Mont Blanc area – italian side: ~950.000 presences in 17/18)
- Tourist valley located in a high risk alpine region for all mass movement processes

Expectations:

- To get innovative and integrated risk management procedures
- To combine the new tools from the project into municipalities spatial plans
- To connect the ecosystem services approach in the policy system of Aosta Valley
- Needs of improvement of communication at a territorial scale between decision experts, operators and tourists

Evaluation of questionnaire:

a) Function of the interview partner:

- Valerio Segor (Aosta Valley Region Department of Public Works, Soil Protection and Public Residential Construction - Hydrogeological Management of Mountain Basins)
- Marco Vagliasindi (Courmayeur Municipality).

b) Assessment of potential hazard processes. How likely do you think it will be in your community for the next 10 years to be harmed by the natural hazards listed below?

	1	2	3	4	5	6
Torrents						
Landslides						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 1: Assessment of potential hazard processes in Val Ferret

c) How do you estimate the extent of damage caused by this?

	1	2	3	4	5	6
Torrents						
Landslide						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 2: Estimation of damage extent caused by natural hazards in Val Ferret

d) Which project activity is of high importance in your Pilot Action Region?

	1	2	3	4	5	6
Avoidance areas (hazard maps based on new models)						
Impact maps of climate change on forest (type, density, vermins)						
Maps of diverse functions of protection forest						
Maps and information on potentially affected elements (e.g. buildings, infrastructure)						
Consequence evaluation of identified hazards for economy / settlement						
Quantitative information on values of risk reduction measures						
Maps of effect based on ecosystem-based/protection forest solutions, grey/technical solutions and avoidance strategies as governance guideline						
Climate change impact on forest and natural hazards						
Providing solutions for conflict scenarios (tourism – forestry – hunting – safety)						

Table 3: Importance of project activities in Val Ferret

f) Which safety measures exist in your Pilot Action Region? Which safety measures are effective and which are not (in terms of economic loss)? (1 = no protection, 6 = excellent protection)

	1	2	3	4	5	6
Public technical / grey measures						
Warning systems / temporary measures						
Protection forest						
Avoidance areas (hazard zone plans)						
Private self-provision						
Residual risk (take the risk as it is)						

Table 4: Existence of safety measures in Val Ferret

- e) Are there any existing or past activities / initiatives which the project should be linked to?
- Existence of an artificial avalanche triggering plan for Val Ferret access road
 - Protection forest map at regional scale (Aosta Valley)
 - MONITORING plan on some glacier of Val Ferret (triggering of other natural hazards: avalanches, debris flow)
 - Glacier risk has to be considered in the analysis for PAR Val Ferret, for at least two glacier (Planpincieux glacier and Grandes Jorasses glacier)
 - data and expert reports can be provided
- f) Which stakeholder institutions should be involved in the project? Please list institutions and the associated main contact person for this project.
- Mayor
 - Regional and Local government
 - Civil Protection
 - Forest Regional Department
 - Local Forest representative
 - Forest owners (private/public)
 - Local Avalanche Committee
 - Tourism industry
 - House owners (local and holiday houses)

PAR 2: Kranjska Gora

General:

- Elevation range: 595 m – 2861 meters above sealevel
- ~ 5500 inhabitants
- Area: 256 km²

Main challenges (hazard):

- Tourist centre at high risk for all mass movement processes
- Vršič pass: closure of road due to missing prevention of snow avalanch
- Pišnica torrent: hight bed load transport and large woody debris
- Suhelj torrent: no maintanance of check dams; high erosion intesity
- Belca rockfall: deposited material in river could cause debris flows

Main challenges (forest):

- Large invasion of bark beetle
- Decreasing protection function of forest

Main challanges (management):

- Abandonment of national management of torrents
- Possible solution: establishment of project group (steakholders, experts) and cooperation of ministries / municipalities with regulated financial management
- Lacks of national financial support; temporal solutions; no collaboration (experts-ministries-municipalities)

Expectations:

- Risk management with experts & risk-area mapping
- Implementing knowledge into municipalities (spatial plans)

Evaluation of questionnaire:

a) Function of the interview partner: Counselor of the municipality

b) Assessment of potential hazard processes. How likely do you think it will be in your community for the next 10 years to be harmed by the natural hazards listed below?

	1	2	3	4	5	6
Torrents						
Landslides						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 5: Assessment of potential hazard processes in Kranjska Gora

c) How do you estimate the extent of damage caused by this?

	1	2	3	4	5	6
Torrents						
Landslide						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 6: Estimation of damage extent caused by natural hazards in Kranjska Gora

d) MAJOR DAMAGE caused by natural hazard: Belca **torrent** → extreme sediment bedload

e) Which project activity is of high importance in your Pilot Action Region?

	1	2	3	4	5	6
Avoidance areas (hazard maps based on new models)						
Impact maps of climate change on forest (type, density, vermins)						
Maps of diverse functions of protection forest						
Maps and information on potentially affected elements (e.g. buildings, infrastructure)						
Consequence evaluation of identified hazards for economy / settlement						
Quantitative information on values of risk reduction measures						
Maps of effect based on ecosystem-based/protection forest solutions, grey/technical solutions and avoidance strategies as governance guideline						
Climate change impact on forest and natural hazards						
Providing solutions for conflict scenarios (tourism – forestry – hunting – safety)						

Table 7: Importance of project activities in Kranjska Gora

f) Which safety measures exist in your Pilot Action Region? Which safety measures are effective and which are not (in terms of economic loss)? (1 = no protection, 6 = excellent protection)

	1	2	3	4	5	6
Public technical / grey measures						
Warning systems / temporary measures						
Protection forest						
Avoidance areas (hazard zone plans)						
Private self-provision						
Residual risk (take the risk as it is)						

Table 8: Existence of safety measures in Kranjska Gora

- g) Please provide some details if your safety measures are based on potential consequences (damage potential, value of endangered infrastructure, who performs such analyses for which hazards):

Safety measures are present in the PAR, however there is no cadastre of different safety measures and no regular monitoring and analysis for different hazards.

- h) Please provide insights into your site-specific forest management strategy (e.g. owner structure, responsibilities/procedures for managing protection forest, collaboration with other “natural hazard actors”):

The forest management strategies are regulated by the Slovenia Forest Service.

- i) Define the geographic area that the GreenRisk4Alps project should focus on in your Pilot Action Region:

No geographic area on which the project should focus was specified.

- j) Which stakeholder institutions should be involved in the project? Please list institutions and the associated main contact person for this project.

- The major (Janez Hrovat)
- The tourist organization (Blaž Veber)
- Agricultural communities
- Private companies (Tadej Jeršič)

- k) What role should these stakeholder institutions have in the process?

- No active participation in analysis and evaluation of results
- Want to be constantly informed about progress and results

PAR 3: Oberammergau / Ettal

General:

- area of municipality Oberammergau and Ettal: 45 km²
- population: ~ 5500 inhabitants

Main challenges (hazard):

- „Große Laine“ torrent with large catchment and high risk/damage potential for the city Oberammergau; flood peaks cannot be drained; 332 flood control constructions
- rockfall and debris flow potential at the „Schaffelberg“ and Graswang valley
- sites are to a large extent geologically unstable and sensitive to erosion

Main challenges (forest):

- high share of pure spruce
- overaged stands
- overstocked deer / roe deer population
- calamity areas (bark stripping damages by red deer)
- mountain forests fulfil an important protective function, but loss of forests lead to a substantial worsening of the situation

Main challenges (management):

- high efforts / costs for flood control constructions
- for the improvement of the flood control it is important to not only expand technical measures, but also maintain sustainable protective forest management

Expectations:

- close local knowledge gaps concerning risk management
- improve available risk mitigation programmes
- foster the involvement of and exchange between local stakeholders
- integration of the Mountain Forest Panel into the participatory development process of the Nature Park „Ammergauer Alpen“

Evaluation of questionnaire:

a) Function of the interview partner:

- Representation of interests (e.g., Tourism Association, Chamber of Agriculture, Environmental Protection Organization)

b) Assessment of potential hazard processes. How likely do you think it will be in your community for the next 10 years to be harmed by the natural hazards listed below?

	1	2	3	4	5	6
Torrents						
Landslides						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 9: Assessment of potential hazard processes in Oberammergau / Ettal

c) How do you estimate the extent of damage caused by this?

	1	2	3	4	5	6
Torrents						
Landslide						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 10: Estimation of damage extent caused by natural hazards in Oberammergau / Ettal

d) MAJOR DAMAGE caused by natural hazard:

- The last major damage (mostly damage on agricultural fields – now there would be many houses) by the torrent „Große Laine (Wildbachlaine)“ in 1915
- The forests (>90 % pure spruce) are highly prone to windthrows... nevertheless there have been only minor damage during Vivian/Wiebke 1990 & Lothar 1990
- The „Bundesstraße B23“ has experienced smaller rockfalls in the area of the „Bärenhöhle“ – a hiking trail was closed due to the rockfall danger

e) Which project activity is of high importance in your Pilot Action Region?

	1	2	3	4	5	6
Avoidance areas (hazard maps based on new models)						
Impact maps of climate change on forest (type, density, vermins)						
Maps of diverse functions of protection forest						
Maps and information on potentially affected elements (e.g. buildings, infrastructure)						
Consequence evaluation of identified hazards for economy / settlement						
Quantitative information on values of risk reduction measures						
Maps of effect based on ecosystem-based/protection forest solutions, grey/technical solutions and avoidance strategies as governance guideline						
Climate change impact on forest and natural hazards						
Providing solutions for conflict scenarios (tourism – forestry – hunting – safety)						
Other activities, please specify → improvment “hot spot” map						

Table 11: Importance of project activities in Oberammergau / Ettal

- f) Which safety measures exist in your Pilot Action Region? Which safety measures are effective and which are not (in terms of economic loss)? (1 = no protection, 6 = excellent protection)

	1	2	3	4	5	6
Public technical / grey measures				*		
Warning systems / temporary measures						
Protection forest						
Avoidance areas (hazard zone plans)						
Private self-provision						
Residual risk (take the risk as it is)						

* there is an ongoing project to improve the security standard of the torrent control works (additional channel to the existing channel which cannot be enlarged).

Table 12: Existence of safety measures in Oberammergau / Ettal

- g) Please provide some details if your safety measures are based on potential consequences (damage potential, value of endangered infrastructure, who performs such analyses for which hazards):

- Watershed Authority has the duty to provide security against the 100-year event (including a 15% surplus for climate change adaptation). Cost-Benefit-Analysis are used within the administration to prioritize different projects.
- Protection forest management (subsidized or planned by the forest service) focus on the stand structure and stand dynamics. Damage potential is not considered systematically.
- The geological bureau (within the Landesamt für Umwelt) has created a hazard map (Gefahrenhinweiskarte) – active measures are erected by the road administration, the municipality or the land owner based on individual assessments.

- h) Please provide insights into your site-specific forest management strategy (e.g. owner structure, responsibilities/procedures for managing protection forest, collaboration with other “natural hazard actors”)

We have 4 major forest owners:

- Privatwaldgemeinschaft Oberammergau (1800 ha) – cooperative with over 200 members – organized like a modern forest enterprise (employees: forester + professional hunter)
- Community of Oberammergau (ca. 120 ha)
- Wald-Weide-Streugenossenschaft Oberammergau (ca. 150 ha) – cooperative – forest management organized by the board of the community, work is done by members of the cooperative
- Cloister Ettal (ca. 200 ha) – forest is managed by the forester of the Privatwaldgemeinschaft Oberammergau
- State forests and small private forests are not important

Protection forest management is subsidized (within the normal forest funding system and especially within the Mountain Forest Offensive) or planned (within the protection forest restoration program) by the forest service. Here exists a close collaboration with the watershed authority.

- i) Define the geographic area that the GreenRisk4Alps project should focus on in your Pilot Action Region:

The main area is the Laber/Aufacker region. The Graswang-Valley is of minor concern.

- j) Are there any existing or past activities / initiatives which the project should be linked to?

- Bergwaldoffensive „Laber-Aufacker“; natural regeneration of beech and fir; stabilisation of spruce stands / conversion of spruce stands into mixed mountain forests; thinning to stabilise stands; plantations; etc.
- The region is a project region of the mountain forest offensive (which has started its work in 2009) – the project is used to refine the actions of the mountain forest offensive

k) Which stakeholder institutions should be involved in the project? Please list institutions and the associated main contact person for this project.

- Governmental actors
- Nature park Ammergauer Alpen
- ENGOs
- Actors of the community of Oberammergau
- Community of Ettal

l) What has been done to solve existing conflicts? Successfully – not successfully?

- Active participation in the analyses

m) What has been done to solve existing conflicts? Successfully – not successfully?

During the first mountain forest offensive phase 2009-2011, a participatory approach was used to solve conflicts about hunting and forest pasture issues. The process was successful.

To coordinate the long-term management of the **protection forest** in your community, a round table could be set up. Who should attend this round table?

- Mayor
- Local government
- Landowner
- National Forest Service
- WLV
- Emergency services
- Tourism associations
- Chamber of Agriculture
- Commerce
- Environmental organizations
- Alpine club
- Specialists from engineering offices
- Specialists in scientific research
- Other (please specify below):

n) Who should invite to this round table?

Nature Park + regional office of the forestry service

PAR 4: Parc des Baronnies-Provençales

General:

- area: 27 km²
- 330 (in the communities Montreal Les-Sources & Trescleoux)
- elevation range: 427-1375 meters above sealevel

Main challenges (hazard):

- Better understanding and displaying of danger potentialities of natural risks

Main challenges (forest):

- Needs of displaying and explanation on the protective service of forest ecosystems
- Forest management compromise

Main challenges (management):

- Promoting integrated risk management in the territory
- improvement of communication at a territorial scale between decision experts, municipalities, users

Expectations:

- Risks prioritization process and governance, hazard risk mapping
- Methodologies, models, practice examples
- Upscaling process from the municipality to the territory

Evaluation of questionnaire:

a) Function of the interview partner:
Administration at state or federal level & representation of interests

b) Assessment of potential hazard processes. How likely do you think it will be in your community for the next 10 years to be harmed by the natural hazards listed below?

	1	2	3	4	5	6
Torrents						
Landslides						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						
Forest fire						

Table 13: Assessment of potential hazard processes in Parc des Baronnies-Provençales

c) How do you estimate the extent of damage caused by this?

	1	2	3	4	5	6
Torrents						
Landslide						
Avalanche						
Rockfall						
Damage on protection forest due to climate change (b. beetle, windthrow)						
Forrest fire						

Table 14: Estimation of damage extent caused by natural hazards in Parc des Baronnies-Provençales

d) Which project activity is of high importance in your Pilot Action Region?

	1	2	3	4	5	6
Avoidance areas (hazard maps based on new models)						
Impact maps of climate change on forest (type, density, vermins)						
Maps of diverse functions of protection forest						
Maps and information on potentially affected elements (e.g. buildings, infrastructure)						
Consequence evaluation of identified hazards for economy / settlement						
Quantitative information on values of risk reduction measures						
Maps of effect based on ecosystem-based/protection forest solutions, grey/technical solutions and avoidance strategies as governance guideline						
Climate change impact on forest and natural hazards						
Providing solutions for conflict scenarios (tourism – forestry – hunting – safety)						
Other activities, please specify → improvment “hot spot” map						

Table 15: Importance of project activities in Parc des Baronnies-Provençales

e) Which safety measures exist in your Pilot Action Region? Which safety measures are effective and which are not (in terms of economic loss)? (1 = no protection, 6 = excellent protection)

	1	2	3	4	5	6
Public technical / grey measures						
Warning systems / temporary measures						
Protection forest						
Avoidance areas (hazard zone plans)						
Private self-provision						
Residual risk (take the risk as it is)						

Table 16: Existence of safety measures in Parc des Baronnies-Provençales

- f) Please provide some details if your safety measures are based on potential consequences (damage potential, value of endangered infrastructure, who performs such analyses for which hazards):
- Torrent, fire, erosion & rockfall. S
 - solutions and measures are carried out by: 1. DDT; 2. RTM, 3. road service
- g) Please provide insights into your site-specific forest management strategy (e.g. owner structure, responsibilities/procedures for managing protection forest, collaboration with other “natural hazard actors”)
- 80 % is private forest, 20 % is in possession of the state forestry, ONR or municipality
 - Three associations (societe civil immobilier,...)
 - forests larger 10 ha are checked by the „privat property center“
- h) Define the geographic area that the GreenRisk4Alps project should focus on in your Pilot Action Region:
- Montreal Les-Sources (forest fire, torrent, erosion)
 - Trescloux (Landslides)
- i) Are there any existing or past activities / initiatives which the project should be linked to?
- VERTICAL
 - VULNER
 - RockThe Alps
 - DFCI (forest fire defence)
 - SMIGIB
- j) Which stakeholder institutions should be involved in the project? Please list institutions and the associated main contact person for this project.
- ELECTED: Major; president des communes de Parc
 - EXPERTS: Commission; scientists (IRSTEA); ONF; water: RTM;
 - ACTORS: private association; hunting association - president; tourism head; assoc. of hikers;
- k) What has been done to solve existing conflicts? Successfully – not successfully?
- forest subsidies - administration conflict
 - pasture - forest
 - leisure tourism / land use management
 - beaver problem

comments: Parc de Barronie has up to now a mediation role

PAR 5: Southern Wipptal

General:

- Municipalities Sterzing, Brenner & Pfitsch: ~ 290 km²
- Municipalities Sterzing, Brenner & Pfitsch: population of ~ 12.000

Main challenges (hazard):

- Flooding (Sterzing); + landslides, avalanches, rockfall in surrounding side-valleys (Pfitsch, Brenner)
- Riesenbachl in Sterzing (heavy rain events in 2012); extensive bedload transportation; damage to infrastructures, buildings and vehicles

Main challenges (forest):

- In general, municipalities have not much influence on forest development, most decisions are taken at province level
- in South Tyrol: Tendency of an “up-ward” (i.e. higher altitudes) expansion of forest (due to the abandonment of meadows)

Main challenges (management):

- Different responsibilities for different types of natural hazards (i.e. experts for flooding, experts for mass movements,..)
- Assessing the interaction of processes and process chains
- The (official) hazard zoning plan was already created, but is not yet approved (status: under technical review)
- Civil protection is currently working on the creation of a spatially explicit cadastre of technical avalanche protection measures (measures from the forestry are still missing)

Expectations:

- Further information on climate related forest changes
- Information on exposed assets of high interest
- The development of a methodology that allows to gain a quick overview on the risk situation (“rapid risk appraisal”) and how well a municipality is prepared for specific situations is of high interest, also at province level (and for Civil protection)

Evaluation of questionnaire:

- a) Function of the interview partner:

Mayor of the local municipality, city councilor, head of city planning office, forest inspectorate

- b) Assessment of potential hazard processes. How likely do you think it will be in your communities for the next 10 years to be harmed by the natural hazards listed below?

	1	2	3	4	5	6
Torrents					B	
Landslides				S	B	
Avalanche	S					B
Rockfall				S		
Damage on protection forest due to climate change (b. beetle, windthrow)				S	B	

Table 17: Assessment of potential hazard processes in Southern Wipptal

- c) How do you estimate the extent of damage caused by this?

	1	2	3	4	5	6
Torrents					B	
Landslide				S		
Avalanche	S		B			
Rockfall			B	S		
Damage on protection forest due to climate change (b. beetle, windthrow)			B		S	

Table 18: Estimation of damage extent caused by natural hazards in Southern Wipptal

- d) Which project activity is of high importance in your Pilot Action Region?

	1	2	3	4	5	6
Avoidance areas (hazard maps based on new models)		S			B	
Impact maps of climate change on forest (type, density, vermins)						
Maps of diverse functions of protection forest				B	S	
Maps and information on potentially affected elements (e.g. buildings, infrastructure)		S		B		
Consequence evaluation of identified hazards for economy / settlement						
Quantitative information on values of risk reduction measures					B	
Maps of effect based on ecosystem-based/protection forest solutions, grey/technical solutions and avoidance strategies as governance guideline						
Climate change impact on forest and natural hazards					B	S
Providing solutions for conflict scenarios (tourism – forestry – hunting – safety)					B	S
Other activities, please specify → improvment “hot spot” map						

Table 19: Importance of project activities in Southern Wipptal

- e) Which safety measures exist in your Pilot Action Region? Which safety measures are effective and which are not (in terms of economic loss)? (1 = no protection, 6 = excellent protection)

	1	2	3	4	5	6
Public technical / grey measures					B	
Warning systems / temporary measures					B	S
Protection forest				S	B	
Avoidance areas (hazard zone plans)				S	B	
Private self-provision				B	S	
Residual risk (take the risk as it is)						

Table 20: Existence of safety measures in Southern Wipptal

- f) Please provide some details if your safety measures are based on potential consequences (damage potential, value of endangered infrastructure, who performs such analyses for which hazards):

- Sterzing: A consortium was commissioned to draw up a hazard zone plan in accordance with the guidelines of the Autonomous Province of Bolzano.
- g) Please provide insights into your site-specific forest management strategy (e.g. owner structure, responsibilities/procedures for managing protection forest, collaboration with other “natural hazard actors”)
- in general, municipalities have not much influence on forest development, most decisions are taken at province level
 - in South Tyrol: Tendency of an “up-ward” (i.e. higher altitudes) expansion of forest (due to the abandonment of meadows)
 - Sterzing: The forests are owned by private individuals or interest groups. The owners are also responsible for the use of the protection forest. The use is regulated by the forest register (private person) or the forest management plan (interest groups), which is valid for 10 years.
 - Brenner: The community does not manage forests, this is done by private individuals and interested parties. The cooperation with the forestry authority is good. Protection forests are classified as such by the forestry authority.
- h) Define the geographic area that the GreenRisk4Alps project should focus on in your Pilot Action Region:
- in order to tackle the described project activities (see Handout attached), especially those related to the assessment of gravitational natural hazards, an expansion of the study area to the North (Brenner, Pfitsch) might be required
- i) Are there any existing or past activities / initiatives which the project should be linked to?
- Flussraumagenda (Flooding), deregulation of the Mareiterbach: During construction strong criticism from public, thus the project responsables invested in awareness-raising measures.
 - project IREK 2009 (torrent control North; study area: Pfitsch); Anreas Zischg together with the engineering office Abenis → delineation of protection forest (indication map) → Civil protection can provide reports and data on this project)
- j) Which stakeholder institutions should be involved in the project? Please list institutions and the associated main contact person for this project.
- Sterzing: All participants of the meeting of 30.04.2019. Possibly also interested parties, factions, forest owners or representatives of tourism, trade, Hoteliers, and Innkeepers Association (HGV) South Tyrol, or lift operator (Neue Rosskopf) could be heard.
 - Brenner: In addition to the already invited institutions and their representatives, I would invite representatives of the interest groups who own the forests.
- k) What has been done to solve existing conflicts? Successfully – not successfully?
-

PAR 6: Vals / Gries am Brenner

General:

- Municipalities Vals & Gries am Brenner: ~ 105 km²
- About 1850 inhabitants

Main challenges (hazard):

- Vals: High frequency of rockfall in the southwest exposed slopes in the Valsertal north side; lithology show weak geotechnical conditions – that can cause large rock avalanches (e.g. 24.12.2017); torrents and avalanches (26 registered avalanche sites) also form problems
- Gries am Brenner: Landslides can be seen in every hamlet within Gries am Brenner
- Gries am Brenner: Torrents and rockfall are also very present problems

Main challenges (forest):

- Vals: Significant bark beetle events
- Vals: The aim is to replace the spruce more by fir to avoid bark beetle problems
- Gries am Brenner: Effects of the climate change noticeable (integration of fir into the mainly spruce containing forests)

Main challenges (management):

- Vals: Although there is existing an official hazard map from the Austrian service for torrents and avalanche control, somehow there is underestimation and missing acceptance in special case of rockfall (that was maybe until 24.12.2017 and changed since this event); so there are still builders who wants to build their home in zones with increased risk of rockfall
- Vals: Understanding of the forest farmers is basically given, even if the limited usage is accepted
- Vals: Disturbed forest harvesting caused by installation of rockfall fences
- Gries am Brenner: In Planken (district of Gries) the B182 (public state street) is often endangered in case of high risk of avalanche. The necessary roadblock lasts up to 48 hours and causes heavy traffic impairments.
- Gries am Brenner: Handling of red deer crossing from South-Tirol to tirol (in particular to Gries am Brenner). Deers cross because of missing food offer in South-Tirol. If there is no feeding in Tirol, deers tend to damage protection forests.
- Gries am Brenner: There is a considerable potential of conflicts between the forestry district inspection and the local hunters (Wolf, Stecher). Helmut Gassebner can be involved as a intermediary.

Expectations:

- Vals: The south exposed part of the valley shows a significant number of impact marks on trees. The important status of the protection function of the local forest should be preserved.

Evaluation of questionnaire:

a) Function of the interview partners:

Majors of the municipalities.

b) Assessment of potential hazard processes. How likely do you think it will be in your community for the next 10 years to be harmed by the natural hazards listed below?

	1	2	3	4	5	6
Torrents					v	G
Landslides			v			G
Avalanche				G	v	
Rockfall					v	G
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 21: Assessment of potential hazard processes in Vals / Gries am Brenner

c) How do you estimate the extent of damage caused by this?

	1	2	3	4	5	6
Torrents				v		G
Landslide		v				G
Avalanche		G	v			
Rockfall					G	v
Damage on protection forest due to climate change (b. beetle, windthrow)						

Table 22: Estimation of damage extent caused by natural hazards in Vals / Gries am Brenner

d) Which project activity is of high importance in your Pilot Action Region?

	1	2	3	4	5	6
Avoidance areas (hazard maps based on new models)			G			
Impact maps of climate change on forest (type, density, vermins)				v	G	
Maps of diverse functions of protection forest				v	G	
Maps and information on potentially affected elements (e.g. buildings, infrastructure)		v	G			
Consequence evaluation of identified hazards for economy / settlement						
Quantitative information on values of risk reduction measures						
Maps of effect based on ecosystem-based/protection forest solutions, grey/technical solutions and avoidance strategies as governance guideline				v	G	
Climate change impact on forest and natural hazards			G	v		
Providing solutions for conflict scenarios (tourism – forestry – hunting – safety)				v		G
Other activities, please specify → improvement “hot spot” map	-	-	-	-	-	-

Table 23: Importance of project activities in Vals / Gries am Brenner

e) Which safety measures exist in your Pilot Action Region? Which safety measures are effective and which are not (in terms of economic loss)? (1 = no protection, 6 = excellent protection)

	1	2	3	4	5	6
Public technical / grey measures						
Warning systems / temporary measures						
Protection forest				v	G	
Avoidance areas (hazard zone plans)						
Private self-provision				v	G	
Residual risk (take the risk as it is)		v				

Table 24: Existence of safety measures in Vals / Gries am Brenner

- f) Please provide some details if your safety measures are based on potential consequences (damage potential, value of endangered infrastructure, who performs such analyses for which hazards):

Vals:

- On the basis of the rock avalanche in 2017, a tunnel and the alteration of the street line was planned
- Currently, there are 3 dams existing for rockfall protection and 2 dams avoiding torrent and avalanche damages
- Currently, there are a few hundred meters of rockfall nets and avalanche control fences
- After flooding, in 2013 foodbanks were built in the centre of the village St. Jodok

Gries am Brenner:

- After flood events and landslides in 2002, 2007, 2008 and 2012 buildings were badly damaged; the Austrian service for torrents and avalanche control settled measures e.g. in the river zones
- technical safety measures in the Venntal are (because of the extreme relief) not possible
- The touristic usage of one of the gastronomic companies has been adjusted

- g) Please provide insights into your site-specific forest management strategy (e.g. owner structure, responsibilities/procedures for managing protection forest, collaboration with other “natural hazard actors”)

Vals:

- Basically, a large part (about 50%) of the forest area is in a rather small private ownership (mainly cooperatives); this mainly affects the southwest-exposed sun side of the valley
- Few private forest owners are in possession of (relatively) large forest areas
- About 40-45% of the forest land is owned by the communal agricultural communities
- Some forest areas in the Valsertal don't have a protection function

Gries am Brenner:

- All forest areas belong to the municipality or individuals (especially in the Venntal);
- The basic manual for the management of the protection forest is the Austrian „forest development program“ (WEP)
- The professional support in the forest management (municipality-forest) is given by Walter Vötter (forester)
- The proceeds of the annual forest cut (4000 solid metres) attain into reforestation, improvement of protection forest and maintenance of forest roads

- h) Define the geographic area that the GreenRisk4Alps project should focus on in your Pilot Action Region:

Vals:

- all areas within the municipality Vals are of interest

Gries am Brenner:

- Klammerberg: Outdated forest structures; decreasing protection function
- Lueg: Highway-bridge

- i) Are there any existing or past activities / initiatives which the project should be linked to?

Gries am Brenner:

- currently, there is a bigger project in the municipality area; a „forest-experience-centre“ is planned
- in terms of past activities, information can be given by the former mayor Helmut Gassebner
- in the future, there is sought a Natura-2000 area by virtue of existing swamps, moors and fields of larches

- j) Which stakeholder institutions should be involved in the project? Please list institutions and the associated main contact person for this project.

Vals:

- The major (Klaus Ungerank) & committee of the municipality
- State of Tirol (especially Klaus Auffinger from the Natura2000 territory)
- Local hunting tenants
- Austrian federal forestry (ÖBF)
- Cooperative hunting communities
- Tourist board (Helga Beermeister)

Gries am Brenner:

- Municipality, hunting association (Walter Wolf, Günter Stecher), district forestry inspection (Helmut Gassebner)
- Tourist board (Klaus Kirchmair)
- Hut operators (Sattelberg, Nösslachalm)
- Operator of the landscape protection area
- Operator of state infrastructure: Asfinag, ÖBB
- Operator of public state streets (Robert Müller)

1.1. Annex 2: Tables of Stakeholders and objectives in the PAR´s (Oberammergau-Ettal (D), Parc des Baronnies-Provençales (FRA), Kranjska Gora (SLO), Southern Wipptal (I), Brenner region (AUT), Courmayeur - Val Ferret (ITA)) following the example Oberammergau and Kranjska Gora.

PAR 1: Val Ferret

Stakeholder	Objectives
Governmental actor: State Level (Italy)	
Council of Ministers of the Italian Republic (CoM)	<p>Being the main body of executive power, the CoM has as its main purpose the implementation of a specific national policy. The instruments provided by the Constitution with which this is carried out are:</p> <ul style="list-style-type: none"> - The legislative initiative: The CoM has the power to present bills to the two Houses of Parliament. - The power of decree The CdM can adopt two different types of decrees with the force of law (i.e. with a hierarchical regulatory value equal to the law): the law decree (in case of urgency) and the legislative decree (in case of express delegation received by Parliament). A wide use of the decree translates the legislative power from Parliament to the CdM. - Regulatory power: Ministers can be understood in two different and coexisting ways. They are politically the supreme figures of executive power supported by the parliamentary majority, but they are also the heads of the administration of the state, of that activity, that is, which concretely implements a political direction. As an administration, the CdM and individual ministers can issue regulations.
Italian Department of Civil Protection	<p>The Department of Civil Protection is the structure of the government of the Italian Republic responsible for coordinating defense policies and activities in the field of defense and civil protection, headed by the Prime Minister's Office. At national level it deals with the forecasting, prevention, management and overcoming of disasters, calamities, human and natural, of emergency situations also it also deals with sectors such as forest fire and hydrogeological risk.</p> <p>The whole organization of the state, central and peripheral, the entire system of local authorities, and also private individuals, is involved in the organization and functioning, through voluntary organizations; in fact, the bodies with competence in the matter can enter into agreements with public and private subjects.</p> <p>This allows to guarantee a level of central coordination combined with a strong operational flexibility in the area, as well as allowing an explicit involvement of local authorities. The emphasis on the voluntary component also makes it possible to redirect many professional and human resources from civil society in the civil protection sector, if necessary. In fact, Italian legislation now configures the civil protection service as a "system" which makes use of both the existing armed forces and police forces, both in peacetime and in emergencies, as well as on a component of civilian volunteers.</p> <p>The organization is therefore, on the whole, oriented on principles of territorial decentralization and "systemic" functioning, factors that increase its operational flexibility, the fluid scalability of the interventions and the adaptability to the various possible scenarios. The body that coordinates the activities and operations at national level is the Department of Civil Protection, reporting directly to the Prime Minister's Office. It is therefore in a superior position compared to the departments directly dependent on a simple Ministry, thus facilitating the coordination of the resources of the State - and of all the other Ministries - in the event of an emergency. According to law 225/1992, the operational structures that make up the civil protection system are:</p> <ul style="list-style-type: none"> - the Italian armed forces - the Italian police force - the National Fire Brigade

	<ul style="list-style-type: none"> - the Italian Red Cross (CRI) - the National Health Service (SSN) - scientific research groups - voluntary associations <p>At the local level, each Region, in compliance with its competences, promotes in the appropriate ways and forms the organization of municipal civil protection structures. They arrange the offices and prepare the structures and means necessary for carrying out civil protection activities. The provinces, on the basis of the competences attributed to them, participate in the organization and implementation of civil protection activities. For this purpose, a provincial civil protection committee is established in each province, chaired by the president of the province, or by his delegate, and by a representative of the prefect. The latter prepares a plan to deal with the emergency throughout the province and takes care of its implementation, exercising the functions attributed to it by law. Each Italian municipality can have a civil protection structure. The mayor is a civil protection authority, he takes over the direction and coordination of relief and assistance interventions for the population. Finally, citizens and associated groups of civil volunteering, as well as professional orders and colleges contribute to the civil protection activity.</p>
Italian Ministry of Economy and Finance (MEF)	The Ministry of Economy and Finance has the task of controlling public expenditure, state revenues, as well as overseeing economic and financial policy, as well as processes and budgetary policy fulfilments on the public budget.
Italian Ministry of Economic Development (MiSE)	<p>The Ministry has responsibilities relating to four major areas of the Italian economy:</p> <ul style="list-style-type: none"> - Industrial policy: competitiveness, industrial research and innovation, technology transfer, patents and brands, fight against counterfeiting, funds and facilities for businesses, conversion and production reorganization, management of corporate crises, support for small and medium-sized enterprises, promotion of competition, liberalization, consumer protection, simplification for businesses, price monitoring (through the Observatory for price and tariff surveillance, better known as the Mister prices), legal metrology and precious metals, product and plant safety, register of companies and chambers of commerce, supervision of the cooperative system, agricultural consortia, commissioner management and extraordinary administration procedures of large companies, trust companies and auditors; - Internationalization policy: exports, facilitation of foreign trade, trade strategies within the European Union, multilateral and bilateral trade agreements, promotion of Italian investments abroad, attraction of foreign investments in Italy, trade defense, promotion of Made in Italy; - Energy policy: national budget and energy strategy, transport networks, energy infrastructure, security of supply, single electricity market, promotion of renewable energies and energy efficiency, reduction of greenhouse gas emissions, dismantling of plants disused nuclear power plants, national gas market, oil market and plants, minerals, extraction of hydrocarbons on land and in the sea, storage of natural gas and methanization in the South; - Communications policy: regulation of electronic communications, sound and television broadcasting and the postal sector, service contract with RAI and Poste Italiane, frequency allocation for sound and television broadcasting services, mobile telephony and emergency services, monitoring and control of the national radio spectrum, infrastructure program for broadband.
Italian Ministry of Agricultural, Food and Forestry Policies (MIPAAF)	The Ministry of Agricultural, Food and Forestry Policies deals with agricultural policy, without prejudice to the competences of the Regions and autonomous Provinces, of the agri-food sector, of fishing and aquaculture, of forests, with particular regard to food fraud, food safety, functions and tasks government agencies in the fields of agriculture and forests, hunting, feeding, fishing, production and first processing of agricultural products

Italian Ministry of the Environment and the Protection of the Territory and the Sea (MATTM)	The Ministry of the Environment has functions relating to the environment, ecosystem, protection of the marine and atmospheric heritage, as well as environmental impact assessment (VIA), strategic environmental assessment (VAS) and integrated environmental authorization (IPPC). He has expertise in soil protection from desertification and hydrogeological heritage. Coordinates and supervises the functions of the so-called Environmental Code, the Legislative Decree April 3, 2006 n. 152, containing Environmental Regulations, which merged the previous regulations.
Italian Ministry of Infrastructure and Transport (MIT)	The Ministry of Infrastructure and Transport deals with all infrastructures and public works of national competence, without prejudice to the competences of the Regions and the autonomous Provinces, of the road, motorway, railway, lake, air and airport, maritime and communication networks. It also deals with residential construction, public and private, and superintendent to the planning of public procurement under the jurisdiction of the Code of public contracts for works, services and supplies.
Italian Ministry of Cultural Heritage and Activities and Tourism (MiBACT)	The Ministry of Cultural Heritage and Activities and Tourism is the dicastery of the Government of the Italian Republic in charge of the protection of culture, entertainment, and the conservation of the artistic and cultural heritage and landscape.

Governmental actor: Regional Level (Aosta Valley) – Autonomous Region

<p>Functional Center</p>	<p>Carries out all the technical and administrative activities necessary for:</p> <ul style="list-style-type: none"> - the realization, management and maintenance of the monitoring and detection networks of the water courses and of the meteorological and nivological parameters - contributes as far as it is competent to the interpretation of territorial data for the purposes of characterizing the regional territory with respect to hydrogeological risks - the fulfillment of the requirements, studies and products necessary to elaborate the forecast of ground effects of adverse weather conditions in collaboration with the competent regional structures and with ARPA Valle d´Aosta - the management of the databases related to landslides and the hydrological characterization of the regional territory, the preparation and daily publication of the meteorological bulletin, with the collaboration of the Department for planning, soil protection and water resources, the weather surveillance bulletin and the criticality bulletin hydrogeological and hydraulic the alerting of the civil protection system in case of need
<p>Aosta Valley Forestry Corps</p>	<p>Carries out the technical operations for the preparation and control of:</p> <ul style="list-style-type: none"> - the enhancement, conservation and protection of forests in order to ensure their multi-functionality - provides phytosanitary monitoring of both public and private forest stands - issues the opinions and authorizations related to the application of the hydrogeological constraint - manages the construction and maintenance of the buildings assigned to the Aosta Valley Forestry Corps - carries out forest fire prevention activities and takes care of the operations for their extinction, taking over the direction
<p>Forests and Trails</p>	<ul style="list-style-type: none"> - guarantees and manages the activities aimed at the conservation, improvement, enhancement and protection of forests, including the construction and maintenance of forest roads and forest fire protection infrastructures, in collaboration with the Aosta Valley Forestry Corps - guarantees and manages the activities aimed at the conservation, improvement and enhancement of the trail network and regional hiking itineraries, in collaboration with the Tourism, Sport, Trade, Agriculture and Cultural Heritage Department - issues the opinions and authorizations related to the protection of the forest cover in collaboration with the Aosta Valley Forestry Corps - provides aid in the forestry and forestry sectors - handles the phytosanitary problems of both public and private forest populations, in collaboration with the Regional Phytosanitary Service and the Aosta Valley Forestry Corps - provides for the promotion, development and support of the forest-wood-energy supply chain - provides for the management of the forestry and forestry employees of its own structure - provides for the monitoring, updating of data and related processing of forests and the trail network with particular reference to the cadastre of trails - ensures the maintenance of the operational offices of the Department in collaboration with the competent structure of the Public Works, territory and public residential building
<p>Road Conditions and Road Works</p>	<ul style="list-style-type: none"> - prepares the annual and multi-year plan for interventions for the construction, adaptation, reconstruction and maintenance of road works on the regional or regional interest network - provides for the implementation of interventions for the construction, adaptation and reconstruction of road works, as well as ordinary and extraordinary maintenance work on the regional classified road network, and monitors its monitoring

	<ul style="list-style-type: none"> - guarantees the planning, organization and control of the activities of the regional personnel in charge of monitoring the road network and operating the vehicles - manages the winter maintenance service relating to the regional classified road network and the regional or regional parking areas
Geological Activities	<ul style="list-style-type: none"> - provides specialized support for activities aimed at the characterization of the risk deriving from landslides and its reduction through forecasting and prevention actions - carries out all the technical-specialist activities necessary for the study and monitoring of landslides for the activation of the necessary risk reduction actions and for the management of landslide monitoring networks for the purpose also of activating civil protection measures - carries out all the technical-administrative activities for the definition of structural and non-structural intervention requirements for the reduction of landslide risks and for their design, execution, management and testing, including their maintenance - provides specialized technical support in procedures that require geological assessments and in emergency situations and/or natural disasters for hydrogeological instability, also taking care of the emergency actions necessary in particular for slope disruptions - carries out all the technical-specialist activities aimed at the characterization of the seismic risk - carries out all the technical-administrative activities necessary for the granting of contributions to the municipalities provided for by current legislation for hydrogeological risk prevention activities - carries out all the administrative activities necessary for the application of the regional legislation on the relocation of buildings and infrastructures in hydrogeological risk areas and the provision of the contributions envisaged by it - collaborates in the definition and implementation of structural intervention programs related to defense against hillside instability - ensures the management of the data of competence in the field of the territorial knowledge system - proposes the creation of specific training and information initiatives, taking care of their subsequent implementation, for the dissemination of data relating to the areas of competence
Hydraulic Works	<ul style="list-style-type: none"> - provides specialized support for activities aimed at the characterization of hydraulic risk (floods and debris flows) and for its reduction through forecasting and prevention actions - carries out all the technical-administrative activities for the definition of the structural and non-structural intervention needs for the reduction of risks from the floods of water courses and debris flows, as well as the interventions for the protection, safeguarding and requalification of the same, of their appurtenances and their fluvial strips and for the maintenance of the defense works on the main hydraulic grid and for their planning, execution, direction and testing - carries out all the technical-administrative activities related to the authorization, control and supervision procedures for the management and / or construction of dams and dams - carries out all the technical-administrative activities related to the management of the financing, to the planning, execution, management and assistance of the works and the testing of the aqueduct, sanitation and waste water purification works - provides specialist support in procedures relating to hydraulic issues (floods, debris flows, dams, dams) and in emergency situations and / or natural disasters for hydrogeological disasters, also taking care of the necessary emergency actions in particular on the lattice main plumber - collaborates in the definition and implementation of structural intervention programs related to the integrated water service and the defense against floods and debris flows - ensures the management of the data of competence within the territorial knowledge system - proposes the implementation of specific training and information initiatives, taking care of their subsequent implementation, for the dissemination of data relating to the areas of competence

Hydrogeological Management of Mountain Basins	<ul style="list-style-type: none"> - provides specialized support for activities aimed at the characterization of avalanche risk and in the glacial and periglacial and torrential environments and for its reduction through forecasting and prevention actions - carries out all the technical-administrative activities for the definition of the needs of structural and non-structural intervention for the reduction of avalanche and glacial, periglacial and torrential risks and for their design, execution, management and testing, including maintenance of existing defense works, also in collaboration with the natural resources department - carries out, in collaboration with civil protection, all the technical activities aimed at managing urgent hydrogeological risk situations through the structural and non-structural interventions necessary for overcoming the first emergency phase, taking care of the necessary emergency actions and providing technical support necessary specialist - ensures, in the context of the avalanche risk alert system, the preparation and issuing of the avalanche bulletin, the monitoring during the event according to what is defined by the relevant directives, as well as the fulfillment of the requirements, studies and products necessary for elaborate the forecast of the effects of snowfall and manage all technical-administrative activities in support of local avalanche commissions - provides specialist support in proceedings relating to the issues of snow and avalanches - manages the activities of regional relevance in the context of the activity of the AINEVA interregional association - chairs the CRGV for the purpose of coordinating glacial study activities - ensures the management of the data of competence within the territorial knowledge system - proposes and takes care of the implementation of specific training and information initiatives for the dissemination of data on nivology, avalanche risk and glaciology
Governmental actor: Municipality Level (Courmayeur)	
Courmayeur Municipality (Mayor)	<p>In the municipal area, the civil protection planning and emergency management activities, with reference to the structures to which they belong, is a fundamental function of the Municipalities.</p> <p>The Municipalities, also in associated form, ensure the implementation of civil protection activities in the respective territories, as established by the planning, in compliance with the provisions contained in the decree n. 2/2018, of the regional laws on civil protection, and in accordance with the provisions of the legislative decree 18 August 2000, n. 267, and, in particular, continuously provide:</p> <ul style="list-style-type: none"> - the implementation, in the municipal area, of risk prevention activities;
Land use actors: Regional Level (Aosta Valley) – Autonomous Region	
Aosta Valley Association of Hoteliers and Tourist Businesses	<p>ADAVA has been committed to defending the trade union, welfare, tax and commercial interests of its members, taking care of a dense and articulated network of relations with institutions, bodies and organizations, both public and private, directly and indirectly involved in the tourism sector.</p> <p>A constant and vigilant presence to ensure, on the one hand, the targeted protection and growth of the entire category, on the other, the highly qualified training of personnel and operators involved in the field, kept up to date through the ADAVA News, a traditional magazine monthly information for hoteliers in the Aosta Valley, information circulars, as well as through the organization, in collaboration with the bodies in charge, of courses and seminars on specific subjects in the tourism-hotel sector (safety, hygiene, quality of service, etc.).</p>

Aosta Valley Committee for Hunting Management	<p>The Regional Committee for Hunting Management is the governing body for the hunting organization in the Aosta Valley. The tasks of the Regional Hunting Management Committee are:</p> <ul style="list-style-type: none"> - provide for the annual registration of hunters, by issuing the regional card (carnet de chasse); - regulate the activity of the municipal hunting sections and the procedures for the election of the representatives of the hunting districts; - to provide for the administration and management of its own funds and assets already registered in the Regional Hunting Committee, established by the regional law of 23 May 1973, n. 28 (Provisions for the protection of game and hunting in the Aosta Valley Autonomous Region); - formulate an opinion on the access and eventual destination of non-resident hunters in the regional territory on the basis of the density indexes and the criteria provided by the Law. 64/1994 and the Regional Wildlife Hunting Plan; - identify the hunters to be allocated in the alpine hunting areas on the basis of the criteria of the L.r. 64/1994 and the Regional Wildlife Hunting Plan; - ensure the participation of hunters in the census and wildlife management operations, promoted and organized by the Department of Agriculture, Forestry and Natural Resources; - perform other functions and tasks that may be entrusted to it by the Region with regard to wildlife-hunting
Local Commissions Avalanches	<p>Born to support decision-making in the area of avalanche risk management in the municipal area, they have the task of carrying out activities of “forecasting and assessing the snow and meteorological conditions and the state of stability of the snow masses, of vigilance, alert and intervention in situations of risk and emergency management, in order to ensure at local level the control of dangerous situations in the area of competence and to provide a technical consultative opinion of civil protection to the Mayor called to issue, if necessary, the measures of urgent protection of the public safety”.</p>

Recreational users	
Aosta Valley Union of High Mountain Guides	<p>Its main aims are to contribute to the best organization of the profession of guide and aspiring mountain guide in the Valle d'Aosta and to promote the technical-professional qualification of guides and aspirants, favoring collaboration and solidarity.</p> <p>In detail: through its President, he participates in the National College of Guides, organizes training courses and examinations for ascertaining the technical suitability of the profession of guide and aspiring guide on behalf of and with the Region, as well as refresher and advanced courses for guides and aspiring guides. He formulates opinions and proposals, ex officio and whenever required by the Region on matters relating to the discipline and organization of the profession of guide and aspiring mountain guide, as well as on other issues concerning alpine activities and tourism, including those concerning work on shelters and other alpine works. It promotes studies and disseminates information on issues of interest to the driving profession and aspiring mountain guide.</p> <p>It maintains relations with other Italian and foreign associations of mountain guides and with other Italian and foreign organizations operating in the fields that interest the profession of mountain guide, promotes and organizes events and initiatives aimed at encouraging and developing the practice of mountaineering and knowledge of the mountain, in particular that of the Valle d'Aosta, carrying out any other task entrusted to it by the Region of Aosta Valley and taking on any other useful initiative for the achievement of its purposes.</p>
Cross-country Ski Trails Val Ferret	<p>For cross-country skiing fans Courmayeur offers a lively mountain ambiance along with its wonderful pistes, amidst the wonderful forests and magnificent stretches of snow from November until May. The first area is Val Ferret, one of the two large valleys which run along the Mont Blanc chain. You can get to Planpincieux (1580 mt.) by bus or car. The pistes start from the town of Planpincieux, and wind along the entire valley, up to the village of Lavachey. The pistes which are always tracked and groomed, have many detours where you can lengthen or shorten the main itineraries, thus 22 kilometres of slopes on terrain that is particularly suitable for this sport. There are cafes, restaurants, services for skiers with ski rental and waxing, a ski school in Planpincieux and a baby park for children.</p>
Golf Club Courmayeur and Grandes Jorasses	<p>The path was born in the thirties based on a project by the Englishman Peter Gannon, and was revised in the forties by Henry Cotton, thanks to the farsighted merit of the Gilberti family.</p>

Table 25: Table of actors and their interests / objectives / expectations or key accents in PAR 1 – Val Ferret

PAR 2: Kranjska Gora

Stakeholder	Interests	Objectives	Role	Expectations
Governmental actors (state level)				
Slovenia forest service (SFS) (representatives of the central and local offices and districts)	Proper evaluation of forestry in a narrower and wider environment, professional and responsible work with forest	Sustainable and close- to- nature forest management, with special regard to the state and health of the forests	SFS carries out a public forestry service throughout the country (provides individual advice to forest owners, group training of forest owners, informs the public, gives access to information of public character...)	Influence of the project on local and state policies, reenactment of the field of torrential management on a national scale, raising public awareness on the role of protection forests
Slovenian water agency, upper Sava river section	Management of watercourses, water and coastal land, torrential protection, ...	Protecting settlements and infrastructure from water-related hazards	Professional, administrative and development tasks in the field of water management in accordance with the regulations governing waters at the state level	Multidisciplinary approach to forest and natural hazards management
Institute of the Republic of Slovenia for Nature Conservation, regional office Kranj	Provision of expert opinions on interventions in nature	Nature preservation in a way to find a common bond between nature and man	Taking care in nature preservation	Alternative forms of protection against natural disasters (instead of technical facilities, they prefer to restrict the visits of the affected areas, for example: the closure of the road)

Triglav National Park Public Institution (TNP)				
Triglav National Park Public Institution; Spatial department	Achieving the goals and purposes of a national park (water and spatial planning in various protective zones ...)	The management of the part of the park, which is in the area of the municipality of Kranjska Gora, in accordance with the regulations of the TNP	Conservation of nature and cultural heritage, sustainable development and communication with the general public (importance of the protection of nature and cultural heritage and sustainable development in the Alps)	
Local actors (municipal level)				
Municipality of Kranjska Gora, service for public utilities and investment	Spatial management in the direction of ensuring the safety of citizens and the development of economic and non-economic activities	Study of the eligibility of construction, resolution of conflicts at the municipal level	Transfer of strategies to the local level, involvement of interested public	Definition of protection areas, restrictions of construction in areas of protective measures
Utility service Kranjska Gora	Managing utility infrastructure, drinking water supply, maintenance of public traffic areas, permits for spatial interventions	Ensuring drinking water supply, road transportability and safety of utility infrastructure.	Drinking water supply, drainage and treatment of municipal wastewater and stormwater, municipal waste management.	Definition of protection areas, restrictions of construction in areas of protective measures

Land use actors				
Farmer association Dovje- Mojstrana	Ensuring the economic viability of forest management	Preserving the forest ecosystem, and the forest as the guard of nature	It represents and coordinates the interests of its members, takes care of the protection of nature and a healthy human environment	Applicable and implementable outputs of the project
Strojni krožek Bled-forest owner association	Unifying forest owners	Preserving the landscape	Provides support services with forest works for their owners, ensures coordination between providers and users of services, expert advising and purchase and sale of timber	Guidelines for landscape preservation
Forest owner	Forest cultivation, logging, harvesting	Nature and forest preservation for generations to come	Forest and farm land management	Contribution to a better forest management
Apus d.o.o- private company	Safety from erosion, torrents and landslides	Keeping natural threats under supervision and reducing the damage they cause to the minimum, using close-to-nature and sustainable methods	Regulation of watercourses, especially torrents; rehabilitation of erosion sites and landslides, protection against rockfall, avalanche protection planning, construction and reconstruction of roads in the forest landscape	Integrating forest as a safety measure from natural threats in their activities
RTC Kranjska Gora	Operating skilifts	Reducing erosion on skislopes and damages on skilifts	Keeping their users and visitors safe	

Table 26: Table of actors and their interests / objectives / expectations or key accents in PAR 2 – Kranjska Gora

PAR 3: Oberammergau / Ettal

Stakeholder	Background interests	Objectives	Key accents	Veto players
Governmental actors (state level, Freistaat Bayern)				
Regional forest office (government)	Support & advice private forest owners; Develop the BWO project Permanent staff for BWO	Arrange new projects Implement projects	State funds for the BWO	
Regional watershed authority	Protection of society against (torrential) floods and avalanches	Implement recently planned technical protection project for the main torrents in Oberammergau		
Regional nature conservation authority	Good management of meadows, bogs and fens in cooperation with local farmers	Solve recreational misuse in two fens		Critical to protection forest restoration on Natura2000 sites and certain habitats
Regional hunting authority	Implement the hunting regulations	Main problems have been solved in the project area during the BWO project		
Nature park Ammergauer Alpen and ENGOS				
Nature park manager	Main focus on environmental education and ecotourism, establish the nature park in the region	See Chapter 3.2.1	Responsible for the participation process	
Tourism manager	Development of the tourism destination in collaboration with municipalities and touristic enterprises	Increase quality of recreational use of the forests		
ENGOS (Bund Naturschutz, Landesbund für Vogelschutz)	Central goal: National park	Reduction of negative impact of tourists on nature		

Actors of the communities of Oberammergau & Ettal				
Municipality of Oberammergau	Good development for inhabitants and central economic actors (tourism)	Solve conflicts between farmers, hunters and recreational; increase protection function of the forests	Central actor for community involvement and policy integration on the local level	Municipal council disunited, forestry management could be used for power games
Municipality of Ettal	Protection function of the forest	increase protection function of the forests	Less powerful than Oberammergau	
Land use actors				
Forest and hunting right owners				
Private forest cooperation Oberammergau	Good economic result for the ca. 200 members of the cooperation	New forest management plan	Ca. 1800 ha of own land	
Forest-, Grazing- and Straw cooperation Oberammergau	Focus on grazing, income from the forests of minor relevance (ca.50% of the land)	Reduce impact of recreational use (especially dogs)	200 ha of land	
Municipality Oberammergau	Protection function of the forest	increase protection function of the forests		
Local hunting association (Oberammergau)	Only very few private forest owners, dominated by the private forest cooperation Oberammergau which is the member with far the most property; forestry goals are more important than hunter goals	Reduce impact of recreation on hunting and deer		
Regional enterprise of the Bavarian State Forests	Multifunctional forest management according to the law and the goals of the enterprise	Improve network quality	Very big forest owner (Graswang valley)	
Monastery of Ettal	Multifunctional use of the own forests; forest managed by the forester of 3.2.1.1	Secure the extensive level of management	Central economic actor in Ettal	

2 local hunting association (Ettal)	1. dominated by the Monastery, focus on forestry goals 2. private forest owners of the community of Graswang: Enforcement of own goals (although they are part of the hunting ground of the private forest cooperation Oberammergau)	1. Reduce impact of recreation on hunting and deer 2. Reduce negative impact of deer coming from other hunting grounds		2. Representative of the land users of the community of Graswang
Farmer organizations				
Alpine grazing association	Secure the quality of the alpine pasture with small input from the local farmers (which are mostly part-time farmers with an focus on their own farm land)	Main problems solved during the first period of the BWO		
Local board of the Bavarian farmer association	Secure the small scale farms in the region, increase esteem for the multifold services provided by the farmers	Solve conflicts with dog owners		As central land-users for the open land with a high veto potential (e.g. influence on the planned torrent control works)
Hunters				
Professional Hunter (responsible for all hunting grounds in the municipality of Oberammergau & Ettal)	Implement owner goals on the basis of high ethical standards, minor influence of hunting regulation (hunting bags)	Reduce recreational influence in certain areas		
Recreational users of the nature park				
Tourism actors				
Cable car Labor GmbH	Maintain the quality	No expectations		

Cable car Kolbensattel GmbH	Development of summer and winter offers; create income and work for the owners (Ettal Monastery, local farmers)	Secure development opportunities for the enterprise	Due to its network position	
Mountain bike Park Kolbensattel	?	?		
Hotel Wolf (specialized on tourists with dogs)	?	?		
Organized recreational users				
Mountain rescue organization	As active mountaineers: Secure free access for local rock climbers			
Unorganized recreational users				
Dog owners (integration with the help of interviews)	Diverse	No obligation to keep dogs on a leash		
Mountain bikers (integration with the help of interviews, partly represented by MB Park Kolbensattel)	Diverse	Improve offers (especially single trails)		
Horse riders (partly represented by a farmer specialized on horse riders)	Diverse	No further regulations		
Monastery of Ettal	Economic development of the monastery	Improve the ecological offers of the monastery	central economic actor in Ettal	

Table 27: Table of actors and their interests / objectives / expectations or key accents in PAR 3 – Oberammergau / Ettal

PAR 4: Parc des Baronnies-Provençales

Stakeholder	Background interests	Objectives
Governmental actors: State level		
Regional Natural Park of the Baronnies-Provençales	Preserve and enhance the natural and cultural heritage, Promote economic development and the quality of the living environment, Planning the territory, Inform and raise awareness among residents and visitors, Carry out experimental or innovative actions.	
National Forests Office	manages public forests owned by the State and local authorities.	
RTM (restoration of mountain areas)	diagnostic study for the implementation of protective measures and concern the phenomena of torrential floods and lava, block falls, landslides and avalanches	
DDT (Departmental Directorate of the Territories)	implement policies for sustainable spatial planning and development	implement policies in the forest and urbanism sectors
DREAL (Regional Directorate of Environment, Development and Housing)	implementation and coordination of the State's public policies in the field of: development and sustainable development, ecological transition, fight against climate change, preservation of the quality of environments (water, air, soil), biodiversity and landscapes, prevention of pollution, risks and nuisances housing, construction and urban renewal transport and infrastructure	

Land use actors

forest managers

assists private forest owners in the management of their timber and forests in accordance with a management document.

promote sustainable management techniques that take into account the risk mitigation service provided by the forest.

Farmer organizations		
Agriculture chambers: departments Drôme and Haute Alpes	Contribute to the sustainable development of rural areas and agricultural businesses, as well as to the preservation and enhancement of natural resources, the reduction of the use of plant protection products and the fight against climate change.	
Farmers	the park counts numerous arborists that produce olive, fruits, truffles	
Hunters		
ONCFS (Office national de la chasse et de la faune sauvage)	knowledge of wildlife and its habitats through studies and research, the hunting and environmental police, technical support for policy makers, planners and managers of rural areas and the organisation and issue of hunting permits.	
Recreational users of the nature park		
tourist office of the Baronnies	Welcome and manage information, Coordinate the socio-professionals and all local tourism stakeholders, Promote and enhance the assets of territories and destinations	
FFME BUIS BARONNIES (french mountain and climbing federation)	to promote, develop, coordinate and organise the practice of its disciplines in their aspects of leisure, high-level and high-performance sport	actions oriented towards climbing, hiking and canyoning in the Baronnies Park
FFC(French Cycling Federation)	to develop and organise cycling sport in all its forms throughout France and to defend the interests of cyclists.	propose safe bicycle/mountain bike tours in the Park
FFE - Equestrian Tourism	promotion of equestrian activities: the publication and publication of any document, the development and approval of establishments, installations, equipment used by equestrian activities, participation in any organization by affiliation or agreement in order to promote equestrian activities.	development of equestrian tours

Table 28 Table of actors and their interests / objectives / expectations or key accents in PAR 4 – Parc des Baronnies

PAR 5: Southern Wipptal

Stakeholder	Key actors	Objectives/Role	Interests / expectations
Governmental actor: Municipal level			
Municipalities: Sterzing, Brenner, Pfitsch	<ul style="list-style-type: none"> - City planning office Municipal Operations Centre for Civil Protection 	-In the context of the project the municipality is responsible for the development of municipal hazard zone plans	<ul style="list-style-type: none"> - Avoid contradiction of hazard zone plans (“Gefahrenzonenpläne”, when available) and GreenRisk4Alps spatial results mainly to avoid higher costs due to “new information” on landslides, avalanches, forest fires. - Important is “sensibilization” of people and transfer of information to civil protection and forest institutions (the implementation of risk-management-strategies has proved to be a challenge) - Moreover, a possible connection of GR4A to another project (IREK) was suggested by the Mayor of Brenner <p>Particular interest in climate change scenarios (Mayor of Brenner)</p>
Governmental actor: Provincial level			
Department of Agriculture, Forestry, Tourism and Civil Protection	Forestry division <ul style="list-style-type: none"> - Forestry Planning/ management Office - Hunting and Fishing Office - Vipiteno Forestry Inspectorate 	Forestry division <ul style="list-style-type: none"> - protection of forest and prevention of forest fires (police and surveillance) - forestry planning and analysis of forest functions - regulations and advice in the field of hunting and fishing - information and dissemination to population 	

	Tourism functional area	<p>Tourism</p> <ul style="list-style-type: none"> - Management, regulation and classification of tourism professions, mountain and ski guides, ski slopes, alpine refuges. Etc 	
Agency for Civil Protection (part of the Department above)	<ul style="list-style-type: none"> • Office for Torrent and Avalanche Control North (Sistemazione Bacini Montani) • Meteorology and avalanche prevention office 	<p>Protection of population from fires, natural and technological hazards through forecast, prevention and coordination activities</p> <ul style="list-style-type: none"> ○ Monitoring and prevention of natural hazards (torrent and avalanche) ○ Planning, supervision of works, testing and maintenance of avalanche, torrents and rivers protection structures through conventional interventions and naturalistic engineering (on the basis of municipal level hazard zone plans) ○ Organisation of emergency response and restoration work following natural events <p>Competent office for the determination of avalanches and hydraulic hazards)</p>	<p>Since the Gefahrenzonenplan does not include scenarios regarding forests and climate change, their development is considered interesting.</p>
Department of Building, Land Registry, Cadastre and Heritage	Geology Office	<ul style="list-style-type: none"> ○ testing of building materials ○ geological surveys ○ maps of risk areas ○ research and development in the fields of geology and building materials <p>Competent office for the determination of landslides/rockfalls</p>	

<p>Department of Land Development, Landscape and Cultural Heritage</p>	<ul style="list-style-type: none"> - Town planning office - Regional planning office Landscape protection/ ecology office 	<p>To assure a coherent and uniform management of the territory of the Province through:</p> <ul style="list-style-type: none"> - Consultancy in municipal planning and construction; examination of town and regeneration plans - Intermunicipal strategic planning - Landscape Consultancy / Nature Conservation 	
<p>Department of Infrastructure and Mobility</p>		<ul style="list-style-type: none"> - Monitoring and maintenance of the road network in the Isarco Valley - Interventions for damage caused by disasters - Technical advice to municipalities 	
<p>River Adige basin authority</p>		<ul style="list-style-type: none"> - Hydrogeological and hydrographic network defence; - Protection of the quality of water bodies; - Rationalisation of the use of water resources; Regulation of land use. 	

Organisations/Associations			
Voluntary firefighters of Wiptall / Vipiteno district		<ul style="list-style-type: none"> - Preventive and defensive fire protection - Provision of technical assistance (rescue and assistance measures for people, animals, the environment and property, for the prevention and containment of hazards and damage of all kinds) Disaster relief and response	
Hunting Association of South Tyrol		<ul style="list-style-type: none"> - Represents the interests of hunters in the area Official functions such as administration of reserves, issuing of hunting permits and developing guidelines for hunting	
Farmers' Association of South Tyrol-Vipiteno		Representing farmers' interests of the area	
Agricultural and forest owners groups (Agrargemeinschaften-Interessenschaften)		Organisation, administration and collective use of agricultural land	
Associazione Volontariato in Montagna		Helping South Tyrolean mountain farmers in the cultivation of land in disadvantaged areas, thus ensuring that the land is not abandoned.	
Land use actors			
Land owners		Private interest: Land value/ possibility to build	
Forest owners		Private interest: Maintaining and protecting property	

Tourism and businesses			
Sky Resorts: Monte Cavallo/Roskopf and Ladurns		Maintain or increase the number of tourists	
Hotel owners		Not losing clients due to natural hazards	
Hoteliers and Innkeepers Association (HGV) South Tyrol			
Tourists and local population	- Hikers - Skiers Mountain bikers	Spend a nice time in the area Avoid risks/damages To have safe, maintained and signalled hiking/skiing trails present in the area	
Vipiteno Dairy Cooperative			
Transport sector			
Autostrada del Brennero S.p.A. / Brennerautobahn AG		- Maintain a good transport connection between Austria and Italy	
RFI- Italian Railway Network		- Avoid damages and costs due to natural hazards	

*An empty box in the column regarding "Interests/expectations related to project" means that the stakeholder was not directly involved/consulted

Table 29: Table of actors and their interests / objectives / expectations or key accents in PAR 5 – Southern Wipptal

PAR 6: Vals & Gries am Brenner

Stakeholder	Background interests	Objectives	Key accents
Governmental actor: Federal level (Austria)			
Federal Ministry for Agriculture, Regions and Tourism		“roof”-ministry of the WLV (Austrian Service for Torrent and avalanche control & protection forest policy (Division III/5) and the BWBV (Federal Hydraulic Engineering Administration)	Distribution of competencies, tasks and funds
Austrian Service for Torrent and avalanche control (WLV) & protection forest policy (Division III/5)	research, international collaboration	natural hazard information, expertise activities, hazard zone planning, measure planning, measure implementation, funding management	Protection of settlement areas against natural hazards
Austrian Service for Torrent and avalanche control (WLV), Section of Tyrol		management and execution of all WLV concerns within the state Tyrol	
Austrian Service for Torrent and avalanche control (WLV), Gebietsbauleitung Mittleres Inntal		management and execution of all WLV concerns within the districts of Innsbruck Land & Schwaz	
Federal Hydraulic Engineering Administration (Division I/10) (Bundeswasserbauverwaltung)		handling of subsidies, hazard zone planning, superordinate planning, expert activity for hydraulic and river engineering, flood protection and flood retention, flood documentation, handling of EU projects, hydropower issues, water and river engineering, technical affairs of the EU Flood Directive, technical matters of water supervision, dam supervision	Protection against flooding
Ministry of Internal Affairs / Police Department of Steinach am Brenner & Alpine task force (Innsbruck)	research into the causes of (avalanche) accidents.	<u>Alpine police</u> : documentation of accidents in alpine terrain, reporting to courts and public prosecutors as well as administrative authorities; in particular accidents in winter in organised and non-	responsible ministry of the police as a traffic actor in natural hazard management and the Alpine Police as a documenter of avalanche accidents

		organised ski areas (collisions, lift accidents, avalanche accidents); Police: maintenance of traffic safety and traffic flow even in exposed natural hazard situations	traffic actor in natural hazard management (road closure) and documenter of avalanche accidents
Ministry of Finances – disaster fund	co-financing of emergency equipment for fire brigades, the warning and alarm system and crop insurance premiums	additional funding for measures to prevent future damage and to repair damage caused by disasters	provision of financial resources
Federal Ministry Defense	Assistance missions in case of disaster; pioneer companies for rapid reconstruction	national defense	
Governmental actor : State level (Tyrol)			
Region of the Tyrol (Land Tirol)		“roof”-office of the relevant groups and departments	
Forestry Directorate of the Tyrol Forest group - Department Forest Organisation - Department Forest Planning Department Forest Protection		detailed protective function planning, protection forest improvement, site and forest biotope mapping, silviculture and Forest Ecology, forest database, wild influence surveys, forest supervisor course, forest control, Forestry expert opinions, Forest spatial planning, Forest soil protection, Forest protection and forest damage survey	silviculture- and forestmanagement and administration
Geological survey of Tyrol	research	expert activity, consulting activity, disaster operation, conceptual activity	authority for geological hazards
Department of Transport and Roads / District Building Office (Baubezirksamt) / Road Maintenance Office (Straßenmeisterei)	commissioning of projects for technical protection measures commissioning of projects for technical protection measures	construction of state roads, road administration, road maintenance Construction and maintenance of national roads B and L in cooperation with the Construction and Engineering Group. The maintenance service is carried out by four road maintenance offices. site management and implementation of small construction measures, official expert in administrative proceedings, road maintenance, winter road maintenance	planning, construction, management and maintenance of the state road network

State Warning Centre (LZW)		triggering civil protection signals and informing the population as a core task; coordination, support and preparation of civil protection plans; monitoring of alarm systems	
Avalanche Warning Service Tyrol		avalanche warning; accident analysis	
Governmental actor : District level (Innsbruck Land)			
District of Innsbruck Land		“roof” office of the inspections, department and district authorities	authority
Forest Inspection of the district		afforestations, grants, biomass heating plants, recreation in the forest, felling (wood felling), forest control, forest operating equipment, forestry affairs, general forest training for forest supervisors, forest workers and forest owners, forestry advice, forest subsidies, forest plants, forest protection/forest damage, forest roads, communal forest ranger lumbering, wood sales, nature conservation in the forest, deforestations, protection and “Bannwald”, protection forest improvement, forest management, forest management plans, damage caused by game	inspection and authority in in the matter of forest and silviculture
Department Hunting authority		Final planning / final lists / final notifications, permits, hunting cooperatives, hunting permit, hunting ladder, hunting leases, hunting examination, Hunting protection/Hunting protection devices	authority in in the matter of hunting
Department of Transport		road patrol, roadworks, road law, road traffic regulations, traffic police, road safety, Traffic accidents/insurance enquiries	authority in in the matter traffic, responsible authority for road closures

Governmental actor: Municipal level (Vals & Gries am Brenner)			
Municipalities of Gries am Brenner & Vals		Building authority, Transport and Safety Committee, agricultural communities as municipal property, Forestry Statutes Commission, Avalanche Commission, forest/land owner, timber	project partner, direct stakeholder, administrative authority at municipal level
Local Council		members of the committees, decision-makers entitled to vote	decision making for the community
Other organizations or institutions on municipal level			
Local Avalanche Commission		municipal operations management in relation to avalanche disasters; assessment of the avalanche situation on behalf of the respective road police authority, at the request of the operators of sports facilities, the Avalanche Commission has to assess the avalanche situation in relation to these facilities in the same way as ski slopes.	assessment of the current avalanche danger
Local forest ranger	early identification of sources of danger for man and forest, preservation and improvement of the protection of mountain forests, contribution to the achievement of a climate-friendly forest	management of the community forest, advices for private forest owners	forest management for the concerns of the community
Volunteer fire brigade (Gries am Brenner)		civil protection and disaster control, technical support in case of natural hazard events, reconditioning of forest damage in the vicinity of infrastructure	civil protection and disaster control
Volunteer fire brigade (St.Jodok-Vals)			

ENGO's			
Austrian Alpine Association (ÖAV): Departments Spatial Planning and Nature Conservation & Huts, paths and cartography		Nature and environmental protection, cartography, maintenance of hiking trails, alpine hut conservation, research	nature conservation organisation
Protected Landscape (Landschaftsschutzgebiet) "Nösslachjoch-Obernberger See-Tribulaune"		Preservation of the Tyrolean natural heritage, provision of space for living creatures and nature, preservation and promotion of health, well-being and quality of life; sustainable use	nature conservation organisation
Land use actors			
Austrian Federal Forests (ÖBF)		responsibility for protection forest areas, support and management of state land, forest management, funting land owners, fishing waters owners, safeguarding drinking water resources	profitable forestry operation
Private forest owners		Timber for sale and self-sufficiency	profitable forestry operation
Private land owners (in general farmers)		Private interest: Land value/ possibility to build	
mountain railways / ski resorts	construction of mitigation measures which primarily protect resort infrastructure but also effect the forest area	using alpine terrain and forests as an economic area	profitable usage of landscape and alpine region

Federal enterprises			
Federal Motorway Association (Asfinag)		Operator and maintainer of the motorway network, tunneling, installation of technical mitigation measures in the catchment area of motorways	highway maintainer
Austrian Federal Railways AG	forest and biological measures as an important role in preventing erosion (near traffic lines)	Operator and maintainer of the railnetworks; business unit route management (SAE), railway technology, geotechnology and natural hazard management	railway maintainer
Hunters			
Tyrolean Hunting Association	interest in as natural forests as possible; promotion of modern forest functions (protective effect, beneficial effect, recreational effect, welfare effect)	hunting protection, hunting law, forest as an economic area, protection of the habitats of native wild animals, participation in forestry research projects, wildlife biology projects	representation of the hunters
Private hunt (Eigenjagd) Cooperative hunt (Genossenschaftsjagd)		Rental revenues, wildlife care and maintenance	profitable usage of wildlife in forests

Table 30: Table of actors and their interests / objectives / expectations or key accents in PAR 6 – Vals / Gries am Brenner