

D.T4.1.1 Report on 'Adapted RIU model'

GREEN RISK 4 ALPS



WP T4 - ACRI: Acceptance raising for Ecosystem-based risk control

Responsibility for Deliverable

Michael Kirchner and Max Krott (UGOE)

Contributing

Ameni Hasnaoui (UGOE)

Internal Review

Jurij Begus (SFS)

Göttingen, June 2020

GreenRisk4Alps Partnership

BFW - Austrian Forest Research Center (AT)

DISAFA - Department of Agricultural, Forest and Food Sciences, University of Turin (ITA)

EURAC - European Academy of Bozen-Bolzano – EURAC Research (ITA)

INRAE - French national research institute for agriculture, food and the environment, Grenoble regional centre (FRA)

LWF - Bavarian State Institute of Forestry (GER)

MFM - Forestry company Franz-Mayr-Melnhof-Saurau (AT)

SFM - Safe Mountain Foundation (ITA)

UL - University of Ljubljana, Biotechnical Faculty, Department of Forestry and Renewable Resources (SLO)

UGOE - University of Göttingen, Department of Forest and Nature Conservation Policy (GER)

WLS - Swiss Federal Institute for Forest, Snow and Landscape Research (CH)

WLV - Austrian Service for Torrent and Avalanche Control (AT)

SFS - Slovenia Forest Service (SLO)

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1. Introduction

Natural hazard risk management science and institutions are intended to unfold a substantial part of problem-solving capability for occurring practical issues like the protective forest maintenance (Wehrli et al., 2007). Therefore, practical relevance of research is given due to science-based actions carried out by users. For this reason, research funding follows different concepts where practical actors and scientists are supposed to pursue the aim to produce new knowledge (European Commission, 2020, pp. 6-7) where different types of knowledge sources have to be considered for seeking problem solving solutions (Weinberg, 1972). For that, we would like to implement a new innovative approach which defines an additional phase between the utilization of scientific information and research to ensure that research is oriented toward practical demands and practitioners are able to select needed scientific information. In regard to the project aim of achieving practical relevance of scientific information produced by an interdisciplinary research consortium for ecosystem-based risk mitigation strategies in natural hazard management, we are applying the Research-Integration-Utilization (RIU) model (Böcher and Krott, 2016). Implementing efficient and proactive risk reduction measures for gravitational mass movements, especially landslides, rock falls and snow avalanches (GreenRisk4Alps Project Report, 2020a, p.7), will be supported and advised by using the innovative RIU model for knowledge transfer.

For that task, the theory of the RIU model has to be expanded to feasible methods and tools for its application in GreenRisk4Alps as advisory. These urgently required recommendations concern mainly the organization of stakeholders' involvement processes and the development of related tailored strategies to address the most relevant actors for implementing scientific solutions. The adaptation of the RIU model has to lead strongly to an ex-ante application of the RIU-model as a tool for currently needed support and consulting in advance for successful knowledge transfer processes. Such practical recommendations within a research project, behind the conceptual and analytical ex-post character of the model, are widely missing (Juerges and Krott, 2018). Our report seeks to broaden the perspective of integration efforts which leads to more practical relevance of research by addressing relevant actors exactly in a given setting where the main assumptions of the RIU model of interest-driven actors with different power capabilities are the crucial driving forces in regard to knowledge transfer.

Our aim is to reveal in a theoretical perspective how an integration strategy is able to contribute to knowledge transfer goals and might be linked to actors. Therefore, we refer in chapter two to the already presented RIU model for knowledge transfer (GreenRisk4Alps Projekt Report, 2019) and highlight its core element of integration. In chapter three we address the success factors for integration of the RIU model for gaining practical relevance which serves as frame for all knowledge transfer activities and then we refer to the bi-directional selection which explains what will happen during the integration phase. The needed pre-analysis for describing actors and actors' networks will be explained in a brief summary in this chapter as well. The latter is taking the focus to the needed actor perspective. Thus, in chapter four we will make the RIU model more applicable as a supporting and consulting tool for research projects based on knowledge transfer procedures by explaining three different types of selection fora. This directly implies to find possibilities to address relevant actors more precisely, for instance decision makers or powerful stakeholders within the integration phase, to accomplish knowledge transfer aims by establishing practical relevance. Selection fora concretize stakeholder involvement processes and refer to actors' interests, power, their social networks and conflicts between them.

2. The RIU-model and its Integration as core element of knowledge transfer

The RIU-model consequently follows these theoretical assumptions of interest-driven actors with different power capabilities to enforce their own interests. It additionally takes the crucial social interactions of actors' different perceptions into account by emphasizing an independent process of integration between science and practice to increase effective knowledge transfer processes (Böcher and Krott, 2016, p.23; Juerges and Krott, 2018, p.53). As an analytical-conceptual approach the RIU-model is applied to explain the interactions between science, practice and the related political processes (Nagasaka et al., 2016b; Juerges and Krott, 2018) within a broader context of scientific knowledge transfer (Heim et al., 2018). Additionally, it provides specific success factors for the professional organization of the knowledge transfer process. In difference to linear, co-productive or transdisciplinary knowledge transfer models, which either deny it or fade out the exact details of the otherwise acknowledged differences (Böcher and Krott, 2016, p.160). The RIU-model bridges the two different worlds by initiating an additional phase of integration between research and utilization which all have to be seen as independent from each other (Do et al., 2020). Activities in integration and research typically alternate between both phases and can be visualized by “production lines” for the process and for the time dimension (Böcher and Krott, 2016, p.32).

Research produces empirically verifiable facts by using scientific principles, methods and standards. The research process should guarantee the state-of-the-art of scientific theories, methods and procedures. As the foundation for successful knowledge transfer, research's main tasks are to identify the research questions, to define the subject of research, to develop methods, to gather data and to draw theory-based scientific conclusions (Böcher and Krott, 2016) which leads to scientific information (figure 1 - I in blue circle) about a certain issue (Böcher and Krott, 2016). This high quality research process increases the credibility and legitimacy of political solutions (Böcher and Krott, 2010) and is represented by the GreenRisk4Alps project partnership consortium of research-focused institutions (GreenRisk4Alps, 2020).

Utilization means the active use of scientific knowledge by actors in practice carried out in a certain action (Figure 1 - A in circle) as a solution (Figure 1 – S in circle) for a practical problem in conjunction with scientific information. Science no longer has an influence on what the practical sphere will do with the scientific information. Science itself can use the findings within the scientific community for publications and scientific discourses (Böcher and Krott, 2016). The utilization phase is characterized by existing and well established relations and information channels between actors (Figure 1 – utilization). Normally, such typical networks of actors have been existing for a long time, for instance in natural hazard management in Austria (Weiss, 2003). Based on these existing interrelations, the interests of actors will be enforced by power-driven processes due to the individual capabilities of actors (Figure 1 - science based solutions) (Böcher and Krott, 2016). But we should be aware that most of the actions (Figure 1 – A in circle) of practitioners were carried out without any scientific information (Böcher and Krott, 2016, p.31) (Figure 1 – non-science-based solutions). Nevertheless, actors often claim to have a science-based solution for a practical problem (Figure 1 – S in circle).

Integration is the critical step between research and utilization where successful knowledge transfer is an active process of different selection steps, determined by success factors (Böcher and Krott, 2016, p.29). Integration is the orientation of research toward practical and / or political problems. This phase is bi-directional with two main questions: What is the demand of the practice in terms of science-based

research solutions and which research results could be selected according to their relevance to the practical solution (Böcher and Krott, 2016, p.34)? Therefore, integration is oriented towards practical issues and needs and is only a hypothetical process in the two directions of the main questions (Böcher and Krott, 2016, p.24) by taking a glance view to utilization and research (Figure 1 – red ellipse) to think about suitable solutions for practical problems (Figure 1 – S in circle). Within the integration process the two different rationalities of science and practice encounter in different exchange formats. The chances to have a successful scientific knowledge transfer can be increased through support of powerful allies which act according to their interests and power. People who are acting in the sphere of integration for successful knowledge transfer require expert knowledge in research as well as in practice with a strong focus on actor's needs, demands and capabilities to act in the real world. This role can be assigned to integrators with the tasks of building a close and trustful relationship with scientists and practical actors (Böcher and Krott, 2016, pp. 38-39). They translate selected scientific information and reiterate them using an understandable language for the target groups (Nagasaka et al., 2016a, p.150).

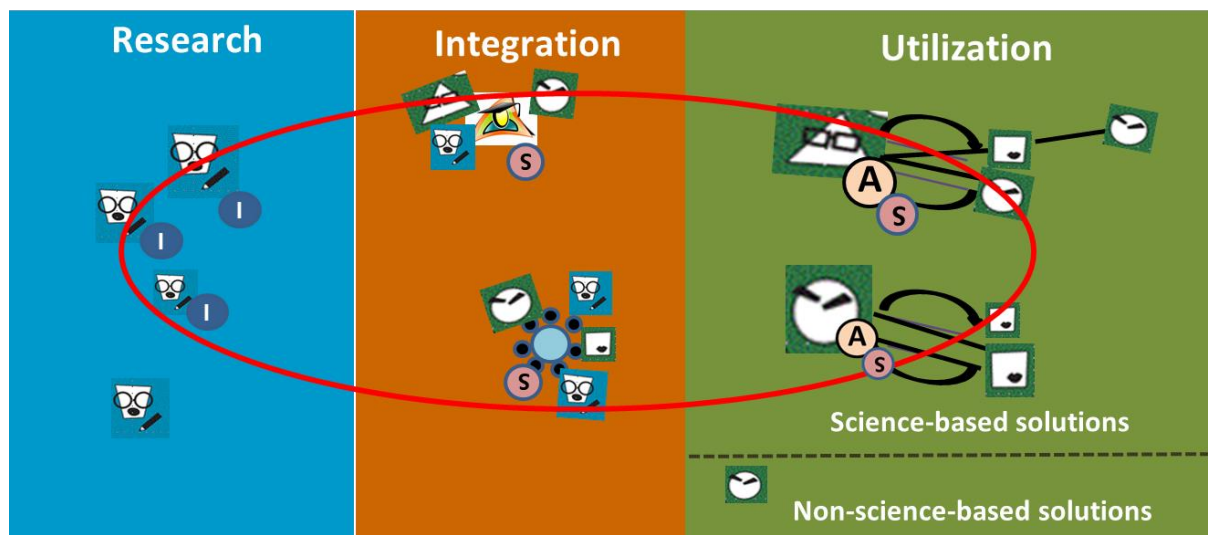


Figure 1: RIU process

Symbols represent in: blue – scientists; green - market actors, governmental actors, societal actors; black line – information channels between research and use

3. Adaptations of the RIU model

3.1 Pre-analysis

To apply the RIU model, it is required to carry out a set of sound pre-analysis which are needed to develop a tailored knowledge transfer strategy based on its assumptions. The Actors' analysis is the first step to systematically identify and list multiple stakeholders which are involved in a policy field or sectoral policy. Based on that identification the lists and maps of actors were analysed in regard to their specific interests and power capabilities. In GreenRisk4Alps we measured the interests in a relational scale of selected interests in Ecosystem Services (ES). Conflicts were conceptualized as interests in ES which cannot be fulfilled simultaneously. Actors regulate conflicts and enforce their own interests by using different power sources. The power source analysis was conducted by adapting the Actor-centred power approach (Krott et al., 2014) to the particularities of natural hazard risk mitigation and its specific features which operates in the ecosystem (D.T2.5.1). To sum up, actors' analysis classifies the different actors based on their interests, examine conflicts between actors and assess power sources of actors. The result is a basic social network survey. A more detailed and advanced

social network analysis might help to describe and visualize the social relationships between the actors based on selected datasets. A broad set of software applications for the interpretation of data and their visualisation is available as well as statistical application tools. We only applied this advanced social network analysis for one dataset and the PAR Brenner region. Here, we used the open source software Gephi 0.9.2 to visualise the actors network and its complexity in the PAR Brenner region (D.T2.2.2).

3.2 Subtasks as success factors

The RIU-model links science and practice by implementing an additional phase of integration in between. It is hereby attempted to connect the scientific knowledge to actors needs and expectations in the practical sphere (Böcher and Krott, 2016, p.34). In order to achieve this, the RIU model names four subtasks that will enable a pluralistically foresighted integration from the scientific findings into practical actions (Böcher and Krott, 2016, p.24). These are to understand as frame of all integration activities which has to be obeyed for successful knowledge transfer and lead to more practical relevance in general. In GreenRisks4Alps we operationalized the subtasks with natural hazard risk specific implementation tasks for each criterion (Table 1).

Success factors	Implementation in GreenRisk4Alps
Orientation toward public goals	<ul style="list-style-type: none"> • Public goals in social and economic aspects: <ul style="list-style-type: none"> ○ Reduce risks caused by natural hazards ○ Reduce costs for the protection of settlements ○ Secure limited settlement space ○ Economic prosperity of regions • Public goals defined by EU Interreg programme • Public goals defined in regard to competing public interests
Relevance in regard to political process	<ul style="list-style-type: none"> • Linking with current issues in the PAR's • Giving impact scenarios for presumed prospective developments (climate change, forest changes which is indirectly implemented by hazard changes)
Relevance of alternative risk strategies in regard to allies	<ul style="list-style-type: none"> • Providing alternative risk mitigation strategies for different interests • Monetary assessment of alternatives • Considering different natural hazards and identifying hot spots for different interests • Take potentials of actors into account to influence decisions and actions • Tries to find different allies to certain assigned and relevant power sources • Involving state research institutions
Target-group oriented intermediation	<ul style="list-style-type: none"> • Has to be adapted to the requirements of the recipient • Choice of appropriate communication types as well as media • Avoid the academic language • The needed time to present research results has to be restricted • Selection of small groups of actors or a single actor • Only research results selected with regards to actors' interests ought to be presented • Practitioners organize means of knowledge transfer by themselves

Table 1: Success factors for integration and its application in the GreenRisk4Alps project

3.3 Bi-directional and first application in GR4A

In chapter 2, we basically described the bi-directional process of mutual adaptation of the practice and of research. Bi-directional refers to a selection process from two sides which are normally separate and independent by using different forms of reasoning (Böcher and Krott, 2014, p.3645). Both sides exchange information as long as needed to fulfil the demands of practice to successfully describe and solve practical problems (Böcher and Krott, 2010, p.37). To do this politicians and practitioners are selecting individual "bricks of knowledge" which are produced by "state-of-the-art" research as well as scientific methods and standards to establish practical relevance in view of the own expectations and interests (Böcher and Krott, 2014, p.3646). Whereas scientists will be enabled to adjust research

efforts towards practical demands, due to the information of practitioners within the mutual exchange process of integration (Böcher and Krott, 2010, p.37). This might result in formulating or adapting new research questions, establishing new interdisciplinary research groups or research projects.

The bi-directional process already starts when a research project will be established because of the compilation of the research consortium which consists also of practical actors or departmental research. Additionally, stakeholders have to be involved into the research project. Selected local and regional stakeholders should be informed about the GreenRisk4Alps project and its aims and expected results. In so far, stakeholder involvement is a mutual exchange of expectations and information from both sides in a personal contact by key persons, like mayors, the regional head for forestry, head of natural park and regional torrent and avalanche control organizations. Such actors have excellent knowledge about the local problems of risk management, natural hazard occurrence, actual risk mitigation strategies or hot spots of risks. They should be involved from the very beginning and especially for data gaining issues. The aforementioned steps have to be seen as a bi-directional step, from practice to science, where the demand of the practice in terms of science-based research solutions should be explored. Here, integration is oriented towards practical issues and needs. After successful modelling in the GreenRisk4Alps project, research results are selected according to their practical relevance for conceivable solutions for practitioners and politicians. This does not change anything in nature nor in actors' awareness. Nevertheless, it is only a hypothetical process of the adaptation for both sides. From scholars' perspective regarding practical problems, like the identification of particularly endangered areas and hot spots of natural hazards. But for scientists perspective, it is a crucial step to adapt the planned modelling or application tools and to have an idea which data are immediately available or which data is additionally needed (e.g. object protection forest with a direct protective function, assets in risk or existing protection measures...etc.) (GreenRisk4Alps Project Report, 2020c). Undoubtedly, bi-directional selection might be a time consuming exchange process with several switchovers between the different activities and mutual adaptations to establish practical relevance before a finished product is released to utilization.

4. Extension of RIU for addressing relevant actors

In the previous chapter we presented the adaptations of the RIU-model for achieving practical relevance and its execution steps within the integration phase of the GreenRisk4Alps project. Indeed, there is a strong actor focus on the success factors, on the bi-directional selection process which is based on the pre-analysis. The RIU model in general assumes that only actors are able to implement innovative scientific solutions by carrying out a certain action. Therefore, there is a strong need for practical recommendations to address the relevant actors in order to adhere the aforementioned adaptations of the RIU model to gain practical relevance. This practical advice has direct connectivity to the components of the pre-analysis - comprising interest analysis, conflict analysis, power source analysis and social network analysis (GreenRisk4Alps Project Report, 2020b; GreenRisk4Alps Projekt Report, 2019; GreenRisk4Alps Project Report, 2019). Such advice also includes observed and executed bi-directional processes as well as the experiences about success factors in this project because they are linked and based on actors too. Success factors are the framework for the whole integration process of bi-directional selection. We extend the RIU model based on the idea that practical relevant actors might encounter scientists systematically on a specific location. All described integration activities should be executed there and identified, promising actors identified of the preliminary conducted analyses could be addressed within this place. This selection of places promises more

practical relevance of research because it is based on the reliable data of the pre-analysis. Here, practical relevance is and enables the user to increase it.

4.1 Selection fora within the RIU model

Originating from an initial reflection and based on our conducted research, we define a selection forum as a formal or informal, hypothetical or real setting where scientists (Figure 2 - blue symbol, practitioners (Figure 2 – green symbol market and societal actors) and political actors (Figure 2 – green symbol governmental actors) can meet to exchange scientific-based information. The link to research could be established through the forum itself where scientists either be an internal part of the forum or where they will be integrated by the key actor as external part. Here, key-actors take up the role as a gate-keeper for the forum. The Bi-directional selection take place within the selection forum and its actors composition. The forum might be linked to a single actor or to various actors and either is an existing, hybrid or new one. An existing forum has a link to science and is known by the project. A forum which might exist and a link to science exists or might be established but is not known by the project yet defines a hybrid forum. Here, it is the choice of the key actor in which forum he will bring in the scientific information. If the existence of a specific forum is completely unknown or unlikely and relevant promising actors as well as relevant scientific information are available, establishing a new selection forum by the project and developing a link to research of the project might be the only way to realize practical relevance. For the GreenRisk4Alps project, for instance, the decision about the selection of a specific forum might be a result of the previously held coordination process of all involved research partners from the different fields.

By this definition it has to be clear that relevant actors can choose from a broad set of selection fora. The so opened information channels between science and practice are biased by dominant actors and guided by their own interests. A successful integration process overcomes this issue by:

- (i) Matched choice of selection forum
- (ii) Selecting scientific information for specific selection forum

within a professionally organized knowledge transfer strategy. New knowledge meets competitive actors in existing integration processes. Here, the relations between actors are normally well known and characterized by diverse relations and developed power structures of specific actors. These well-established interrelation settings of actors enable specific actors to force other actors to follow them (Figure 2 –utilization) (Böcher and Krott, 2016, pp. 163-164). Actors' own interests generally drive their participation in the selection forum. Participation promises advantages in the form of new information about an existing practical problem, more effective solutions, connection to “state of the art” scientific information and information about opponent actors. Seldom it happens that new actors will join the policy-network and might cause fundamental changes In the policy-arena of natural hazard risk mitigation (Weiss, 1999, pp. 61-64). Often it takes several years or an external event for any changes (Sabatier and Weible, 2014, p.202). We have to consider these circumstances for implementing new fora as well as for existing ones. We argue that changes in the general actors' composition will occur, for the most cases, slightly. In this view new selection fora appear weaker than existing ones if the actors' composition has not been changed somehow. Indeed, new selection fora bypass typical dominated existing fora and facilitate a trustful mutual exchange of scientific information but if the results will be applied in the utilization, actors meet again and power processes will arise soon by pushing resistance and competition.

To sum up, practical relevance in integration will be achieved through the connectivity of bi-directional activities within selection fora. The success factors have to be in compliance and all activities have to be carried out based on the pre-analyses, especially interest and power analysis of actors. The production lines in Figure 2 (dashed line) represents a typical process flow example of scientific information (Figure 2 – I symbol) from an integration processes back to research and once again to the integration process to a final product which is applied in utilization (Figure 2). Scientists bring the scientific information to the integration process. The latter is determined either by practitioners, scientists or specific integrators.

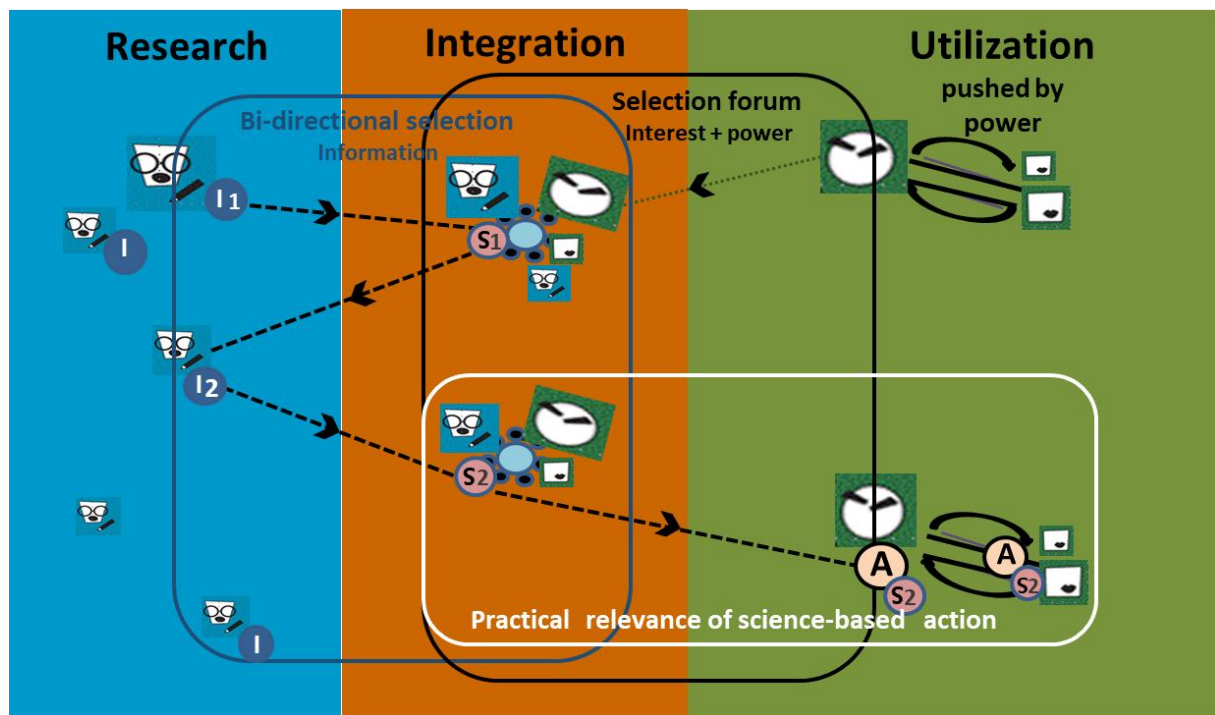


Figure 2: RIU model with bi-directional selection steps within a selection forum

4.2 Existing selection fora

The data about existing selection fora might be collected by expert interviews and targeted questions about the issue, by observations and already known processes from other research projects or formal procedures by law. Building on the conducted pre-analyses promising actors could be selected with regards to their potential to implement ecosystem based solutions for natural hazard mitigation and to the projects first research results of modelling, e.g. the forest effect as the degree to which the surrounding (“uphill”) forest offers natural hazard protection in a certain area (GreenRisk4Alps Project Report, p.9). The main advantage of existing selection fora is that they are known by the project and a link to science exists. They developed practical relevance in the past and make use of the current present information channels of a long time established actor composition. Detected existing fora enables knowledge transfer by addressing actors selectively in a given actors’ constellation. The latter could normally not be changed easily and fundamentally in a short term view by one actor. This does not exclude internal or external shocks, in particular natural hazards and their unknown risk potential. Analytically, the perspective which is based on existing selection fora also seeks the “windows of opportunity” (Kingdon and Thurber, 2003, p.6). Here, politicians or decision makers agree that there is a problem and a suitable policy exist which is linked to an existing forum. Additionally, politicians need a reason to choose the problem. These are “focusing events” (Lodge et al., 2016, p.6), like natural

disasters or recurring forest planning routines with deadlines. If the conditions are fulfilled, the window of opportunity is open and could be considered for successful knowledge transfer tasks within an existing forum.

4.3 Hybrid and new selection fora

Often, selection fora are unknown and seem to not be anticipatable for researchers or even practitioners, despite they do exist. Only the key-actor has access to the selection forum and the knowledge about it. In this case the presumable existent selection forum could only be addressed through this actor and he take up the role as the gate-keeper for the project. If the existence of a specific forum is completely unknown or unlikely and relevant promising actors as well as relevant scientific information are available, establishing a new selection forum might be the only way to realize knowledge transfer. It is often criticized that participation in knowledge transfer leads to dominated discourses of powerful stakeholders (Toomey et al., 2015) and therefore, they systematically suppress the minority's interests (Hubacek et al., 2006). Leeuwis (2000) argues that participation has to be understood as an arena of negotiations about interest conflicts of not equal stakeholders by strategic rationality. This assumption is in the same way valid for existing selection fora. Both eventualities, the state of not knowing about existing fora and strongly dominated existing selection fora could be overcome by establishing new forum to target relevant actors.

In GreenRisk4Alps, the produced research results consist of different “bricks” of scientific information following the conceptual plan of the project and build upon each other (GreenRisk4Alps Project Report, 2020c, p.12) to a general applicable optimization model for ecosystem based risk mitigation measures. Often, only parts that build on one another are in the interest sphere of actors. Starting from the pre-analysis and guided by the RIU's criteria, interested actors might be addressed directly with selected scientific information. We suggest, in a first step, to initiate bilateral discussion with relevant actors. For forest owners, ENGO's and associations, land use actors like farmers or hunters as well as traffic providers, we know their strong partial interests. Tailored scientific information could be offered in bilateral discussions and is to be seen as a new selection forum. Besides that, well-organized workshops or round tables may be used as fora too. Here, we have to carefully avoid to raise conflicts inside the actors' composition due to the selection of actors with contradictory interests. In those considerations that such a new established selection forum will normally have a very limited number of selected participants. Workshop and round table concepts are especially conceivable in less conflicting issues between actors or with actors with shared interests. Here, the needed financial, human, informational and organizational resources to conduct a certain number of workshops are manageable for a research project and might also apply for other common natural hazards. However, it is doubtful that scientific-stakeholder workshops or round tables could be organized for a large number of municipalities in Austria or even in Tyrol which might be affected by gravitational hazards. Löschner et.al. (2016) see the implementation or the institutionalization of scientific-stakeholder workshops to all areas of potential significant flood risk in Austria as impossible. If these formats are applied with considering analysis of the current actor-, interest-, conflict and power sources by organizing separate round tables or workshops for common interests they will avoid difficulties and conflicts inside the actors' composition. In doing so, these formats support common solution finding well by the usage of innovative information. In so far, workshops and round tables with experts' participants must be carefully distinguished from existing expert rounds with well-defined function. With the concept of selection fora, a directed choice of actors could take place, based on the pre-analysis and the scientific information, and workshop or round table formats can develop impact driven by interested and powerful allies. The ally themselves should organize means for integration by establishing and organizing new selection fora (Juerges and Krott, 2018, p.10).

4.4 Selection fora concept

The new concept of selection fora (Table 2) specifies starting points to establish practical relevance by addressing actors selectively in regard to the RIU models' main assumptions of targeted scientific information to powerful key actors which have a gate-keeper function to the forum. For knowledge transfer aims, the "science plus power" concept (Böcher and Krott, 2016, p.164) is extended due to the application-oriented and reliable facts targeting actors with research results by linking mechanisms. "Science plus power" argument that politics support science, but science does not support politics (Böcher and Krott, 2016, p.164). Within a selection forum the aforementioned argument becomes visible, firstly, by the respective key-actor and its power sources (to push scientific information against resistance) which is evaluated in the pre-analysis. Secondly, it becomes visible by the selection forum itself and its range of impact, for instance, in time aspects to carry out a science based-action. Here, an educational selection forum takes much more time to unfold impact than a new funding program of the forest administration. Thirdly, the science plus power argument becomes obvious in the link to research which is an important prerequisite that makes scientific information available for knowledge transfer tasks. We know that the phases of RIU are independent and that weak science, or in our case no access to state-of-the-art research, could be integrated well in the case of existent power (Do et al., 2020). The Link to research give a qualitative evaluation of the science perspective within the science plus power connection and explains which access the key-actor or selection forum has to the specific research activities or to the state-of-the-art research in general. As internal link to research we understood that the key-actor is part of the research project or he has his own research unit. External links to research means that the key actor is not part of the research project and has no research unit. Therefore, practical relevance of scientific information will be achieved with the connection to power and access to research. In case of selection fora, the "science plus power" concept gives plausible explanations about which form would be more efficient and effective for knowledge transfer than others.

<i>Type of selection forum</i>	<i>Definition</i>	<i>Selection forum</i>	<i>Key actors</i>	<i>Target actors</i>	<i>Link from forum to research</i>
Existing	Forum which exists and has a link to science and is known by the project	<ul style="list-style-type: none"> • Advisory boards • Jurisprudence 	<ul style="list-style-type: none"> • Departmental research • Expertise 	Selected actors by forum or key actor	Internal/ External
Hybrid	Forum which might exist and a link to science exists or might be established but is not known by the project yet	<ul style="list-style-type: none"> • Bilateral discussion 	<ul style="list-style-type: none"> • Professional authorities • Decision maker 	Selected actors by key actor	Internal/ External
		<ul style="list-style-type: none"> • Expert rounds • Ad-hoc task forces 	<ul style="list-style-type: none"> • Internal/external experts 	Selected actors by key actor	
New	Forum which does not exist but might be established by the project and might develop a link to research of the project	<ul style="list-style-type: none"> • Workshops • Round tables 	<ul style="list-style-type: none"> • Researcher 	Selected actors by researcher or unspecific	External

Table 2: Summary of selection fora

5. Conclusions

Our report revealed a theoretical and practical extension of the RIU model. The established concept about the integration process and the related interactions of the two components of bi-directional selection and selection fora might broaden the application of the RIU model as a promising practical consulting tool for integration needs in the knowledge transfer tasks of the GreenRisk4Alps project. This concept gives clear answers how to address relevant actors and how they could be involved by

adherence of the RIU assumptions and limitations. Therefore, practical relevance will be achieved with the RIU model, in comparison to transdisciplinary research models, by integrating practitioners only into the integration phase. Here, they are involved in bi-directional activities inside a specific selection forum and can be considered as the missing link for guided and targeted stakeholder involvement inside the GreenRisk4Alps project and also other applied research projects. Undoubtedly, the development of a tailored knowledge transfer strategy will be facilitated and can make practical relevance of research results more realistic if the new concept of the presented selection fora is applied, because it is based on a set of pre-analysis. The “science plus power” approach for knowledge transfer gives advice based on which selection forum for more practical relevance is possible and explains why workshops and roundtables organized by researchers have a weaker impact than other fora. Here, the needed connection to power is missing. Nevertheless, sound pre-analysis are time and money consuming efforts with a need of personal involvement and interviewer training (Marques et al., 2020, p.12). The GreenRisks4Alps project offered a great opportunity to specify the components of effective integration fora. These results can substantially facilitate the link to strong and relevant integration for applied research projects in the future.

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