DELPHI REPORT

> HOW TO ENHANCE ADAPTIVE AND REFLEXIVE FORMS OF GOVERNANCE?

2015
As part of the European Research Area Network project REGARDS we conducted an expert consultation in the form of a Delphi inquiry with participants from Austria, France and Norway. The selection aimed at ensuring that competencies were equally distributed over different sectors.

The project set out to identify institutional factors that enable or constrain the ability of farmers to adapt their grassland management practices to socio-economic and climate changes. Results of previous inquiries within local case studies in each of the three countries formed the basis for the content of the questionnaire. Experts were asked to evaluate our findings and complement them with their own observations. The consultation took three consecutive rounds: In the first round we wanted to know their assessment of current trends. In the second round we consulted them about possible adaption strategies. In the third round we asked them about possible political scopes for action.

The WP4 TEAM thanks the following people for their support:
STAKEHOLDERS
FROM AUSTRIA, FRANCE, NORWAY AND ON EU-LEVEL

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[The] Delphi [inquiry] is considered a reliable qualitative research method with potential for use in problem solving, decision making, and group consensus reaching in a wide variety of areas. (MURRY UND HAMMONS 1995)

Round one was conceptualised to get an overview of the attitudes, beliefs, evaluation and opinion of experts on the influencing factors and changes of the current farm system and their possible impact on environmental issues. The research question for this round was:

In round two we presented partial results from round one and the participating stakeholders were asked - in a mix of quantitative and qualitative forms -
- to comment on their perceived changes and influence factors of farm systems,
- to comment on possible reasons for country specific differences and
- to evaluate possible political intervention strategies.

With the questions of the second round we aimed to answer the following question:

In round three we tried to gather ideas for improving governance tools. The participants were asked to fill out a few standardised questions and give answers in an open comments field. The research question of this third round was:

What is the problem awareness of stakeholders?  Which strategies do they see for improving the situation?  Which measures would encourage adaptation to changing socio-economic and climatic conditions?
1. INFLUENCING FACTORS ON THE PERSISTENCE OF FARMS IN MOUNTAIN AREAS

LOCAL DIRECT MARKETING AND AGRI-TOURISM ARE VIEWED POSITIVELY IN ALL THREE COUNTRIES FOR THE PERSISTENCE OF FARMS IN MOUNTAIN REGIONS

The answers from the first round revealed that experts see two economic factors as particularly helpful for the persistence of farms in mountain regions across all three countries: local direct marketing and agri-tourism. In addition experts assessed off-farm opportunities as a positive influencing factor. Globalised markets, however, influence the persistence of farms in mountain areas in a negative way. The experts identified following influencing parameters:

- Local direct marketing
- Interaction of tourism and farming
- Payments for agro-environmental measures
- Off-farm job opportunities

LOCAL DIRECT MARKETING

Experts also evaluated diversification opportunities (crafts, guided nature tours, social agriculture, ...) as crucial for the maintenance of the mountain farming system. French experts mentioned the necessity to retain local infrastructure, i.e. slaughter facilities, in this respect. An economically vibrant rural area, combined with a professional network of organised farmers (solidarity, social link) was crucial to be competitive in globalised markets.

The majority of experts also identified quality labels for products as an opportunity to preserve the agricultural structure. Sometimes, however, there are competing requirements for quality, as a French expert pointed out:

“Curiously, in high mountain areas, few farmers take a quality approach because it is difficult for them to comply with the specifications in terms of building space and/or cost of organic feed.” (Agricultural advisor, regional scale)

GLOBALISED MARKETS

The majority of participants regarded globalised markets as exerting a negative influence on the persistence of farms in mountain areas. Globalised markets challenge mountain farmers and the purchase of their locally produced products. Farmers could not compete with big food retailers.

However, general food globalization trends may also be beneficial, as one expert said: “The more global (= anonymous) foods are, the more a small farm can emphasise its advantages.” New direct marketing concepts (e.g. CSA) would benefit from the general alienation with food and would open up new possibilities for farmers in mountain areas. A French expert recognized a return of graduates to agriculture and saw this as a positive trend. The recent trends in societal appreciation of food in general, and the attitudes of the wider society toward food production and decentralised settlement were assessed as a relevant factor for agricultural development.

International experts consulted from outside the project areas noted a societal trend towards re-agrarisation in southern Europe in the wake of the economic crisis. This trend could be used in a positive way to recover and maintain livestock farming in mountain areas.

In general experts regarded a basic cost-benefit calculation as fundamental for managing permanent grassland. Farms suffered, inter alia, from cheaper competing products (lamb from New Zealand), high farm investment (mechanisation for steep slopes) and maintenance costs and the low efficiency of grass production.
AGRI-TOURISM

The interaction between tourism and agriculture was quantitatively and qualitatively assessed as necessary for the maintenance of the agricultural system in mountainous areas.

PROPERTY

More than the half of the experts, especially those from France, were of the opinion that agricultural land was increasingly turning into a resource for speculation. Norwegian participants commented that cabin building and second homes were becoming more of an issue. Selling land to cabin developers was a way of generating extra funds, especially when the farm needed larger investments like a new barn.

A policy advisor at international level mentioned the danger of sealing agricultural land. Most valuable areas close to the farm were affected by urban development without respect for agricultural land.

Direct financial support from tourism associations was viewed with scepticism, especially in Norway. Austrian experts, however, saw these payments as important for the preservation of permanent grasslands.

RURAL EXODUS

A vibrant countryside combined with a range of cultural options on offer could reduce the rural exodus. The emigration from rural areas endangers the upkeep of land management in mountain areas. The state should provide the best possible regional infrastructure and service: roads and paths, information technology, infrastructure, public transport, schools, childcare facilities, shops, leisure facilities, social meeting places etc... In Norway one expert identified poor education options as a reason for young women moving away for education and not moving back. Both living conditions and working conditions must be taken into account.

“And hopefully high-mountain farmers also have a point of view on the traditional management of grasslands that goes beyond the economic aspect”

(French agricultural advisor, regional scale)

WORKING CONDITIONS

In this context several experts mentioned the challenging earning situation for farmers and their families: low hourly wages and few external job opportunities. In addition to the farm situation, poor job prospects for the young generation was a hampering factor that made farm succession more difficult.

Low revenues made it necessary to take on a job outside the farm. One expert from Norway warned that off-farm job opportunities would have negative consequences for the agricultural structure. In Austria, however, off-farm employment opportunities close to farms were seen as the main factor for continuing agricultural activities. These two opinions are, however, not reflected in the quantified results. More Norwegian than Austrian experts estimated off-farm job opportunities as a preserving factor for agricultural structures.

In addition, experts described the availability of an agricultural labour force as a big issue. Fewer people were doing more and more of the work.

The situation and fluctuation of herders and animal pasturing in summer were points of discussion for French experts. They stressed the importance and consistency of the shepherds. The mobility of shepherds was introducing experiences and new knowledge from different regions, but led to a loss of site-specific knowledge.

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ENVIRONMENTAL CONDITIONS

A few experts identified natural conditions, including geographical and weather conditions, as well as predators (bears, wolves, lynx) and animal diseases as influencing the agricultural system. In France climate-related issues were already seen as a problem, whereas for Austrian farmers and institutions climate change had no significance as yet for mountain regions.

AGRI-ENVIRONMENTAL SCHEME

A French agricultural advisor saw the importance of first pillar subsidies as even more important than environmental subsidies. In Austria, however, farmers in mountain areas receive the greater part of the public financial support from the second pillar of the CAP financial system. Most financial support is given by the natural handicap payments and the agri-environmental payments (ÖPUL).

When we asked the experts about their opinion on the influence of specific sectoral regulations on management practices, the majority of the participants did not share the opinion that the current regulatory framework demotivated farmers.

In their comments there was strong agreement that agri-environmental payments increased farmers'...
REPUTATION

As an identity-related and non-structural factor, the image of the profession also contributed to an active agricultural scene. An Austrian agricultural advisor at national level suggested that the majority of the non-farming population was not aware of the importance of the work of farmers for the (often commercialised) tourist landscape in mountain areas. A researcher on grasslands (Austria, national scale) pointed out the farmers’ struggle for a concept of themselves within society and insisted that they would not like to be degraded to landscape conservers or to ‘nursing the flora’.

In the second round we wanted to know the reasons for these country specific perceptions and asked:

“Do you have an idea why there are large differences in opinions between these countries on animal welfare regulations, protected area regulations and regulatory framework conditions?”

For the general regulatory framework, experts pointed out that similarities between Norway and Austria were greater than between Austria and France. In Austria and Norway rules and regulations motivated rather than demotivated framers. Many of the experts recognised differences in administrative and investment burdens of regulations and restrictions. In the French case the more centralised way of designing regulations was criticised. Experts also highlighted the complexity and a lack of communication and information on the measures and on the regulatory framework implemented (“confusing”, “not sufficiently explicit”, “badly explained”, inadequately pedagogic”, “incomprehensiveness”). Norwegian experts saw the annual agricultural negotiations between the government/ ministry and the farmers’ organisations as relevant. Through this system the weighting between different agri-environmental measures and other support mechanism could be adjusted according to feedback from the farming community.

French experts also observed differences in the perception of regulations. In the dominant (Jacobin, Latin and administrative) French culture “complaining is a national sport”. One French expert saw a strong trade union tradition within the agricultural sector in France that increased the awareness of regulatory frameworks and their negative perception.

On animal welfare some experts identified country-specific differences in the conflicts between societal demands, articulated through regulations, and everyday agricultural management practices. In Austria animal welfare regulations are implemented by restrictions that are not in line with current farming practices (tethering and breeding). Among experts from the NGO sector there is a different point of view. “Animal husbandry is not really [at all] animal friendly” — said an expert from Austria.

In Norway the regulations were more compatible with societal demands. There was a strong belief in good animal welfare, which meant a positive correlation of arrangements that contribute to use of pastures and animal welfare (emphasis on grazing in outer fields and other widely accepted arrangements).

An expert from an international NGO revealed a close relation between animal welfare acceptance and product price and gave a possible explanation: Better animal welfare resulted in higher prices, so the perception was positive. If higher costs due to regulations were not compensated in the market prices, the regulation was seen as a problem.

COUNTRY-SPECIFIC DIFFERENCES

For three influencing factors, there were fairly large differences in opinion between the three countries. These were animal welfare regulations, protected area regulations and regulatory framework conditions.

The majority of French participants were highly critical of regulatory frameworks and regulations on animal welfare and protected areas.

Norwegian experts, however, exhibited a more positive disposition towards animal welfare than experts from other countries. The most critical answers regarding animal welfare regulations came from Austrian participants.

In the last part of the first round we wanted to know in which way farms contributed to rural communities. Experts were asked to rank the function of farms.

In Norwegian experts ranked the identity of the rural community (cultural landscape features) in top position and local food supply in second place.

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In this context the majority of institutional experts clearly rejected the fear that, by paying them for landscape maintenance, farmers would be degraded to landscape gardeners.

There were controversial comments on the role of environment protection (regulation) in France. On the one hand, a stakeholder from an environmental protection NGO stated that the role of permanent grassland for biodiversity, water and landscape quality, carbon storage was widely recognised. On the other hand, a researcher with a focus on pastoralism argued that nature protection regulations hindered the development of farms. Farmers would often consider these measures as ridiculous and did not feel accepted by technicians, park wardens and scientists.

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In the French case experts put the importance for the rural economy in second place, adding the impact of farms on (online) food distributors, land consumption, soil sealing and rural depopulation.

On the future institutional development the response was generally rather diverse. In all three countries an emphasis was put on achieving a good balance between the multiple interests and points of views. Experts wanted to promote grasslands as a collective good, overriding private interests but reinforcing the role of farmers in the negotiations.

There is clear agreement among the respondents: Actors at regional level, especially producer cooperatives and agricultural associations, should be strengthened most. Producer cooperatives, being important market actors, especially on alpine grasslands, ensured competitiveness, which assisted good management. On the involvement of institutions the general feedback was a desire for more participatory processes, including non-agricultural stakeholders like science, tourism, regional development agencies, etc., in the decision making about programmes and measures.

Farmers’ organizations should be involved as they represented producers directly and were essential for the implementation. Science was to be involved because it was independent and trustworthy. Participants also suggested a mixture of competences at different levels and across sectors.

**COUNTRY-SPECIFIC DIFFERENCES**

In France and Austria the EU was ranked as having an important influence. Interestingly, respondents from France and Austria also called on the EU for a strong position on environmental aspects and second pillar measures (regional development). Experts from these two countries insisted on the role of multilateral negotiations and the involvement of farmers’ organisations together with other stakeholders.

In Norway the national government, farmers’ organisations and producer cooperatives were top-rated as influencing factors. Respondents from Norway wanted to strengthen the interests of the
The attitudes of Norwegian respondents probably reflect an argument that farming needs to be seen as a societal interest for its multifunctional aspects/common goods (agriculture as an upholder of cultural heritage, cultural landscapes, rural settlements, etc.). The experts emphasized the importance of agriculture remaining a national responsibility/national affair. Agriculture needed the “protection” of the state/national authorities in order to survive, it needed to be seen as a national concern and responsibility. It was also important to recognize the broader societal values of agriculture, not only for food production. At the same time, several of the experts stated that the farmers’ associations should be strengthened as they had industry-specific knowledge, and that local/regional understanding and insight was important.

SUMMARY

Overall experts attributed the highest importance of mountain farming communities for sustaining settlements, local food production and local identity. They identified local direct marketing and agri-tourism as main economic factors supporting mountain farming, while globalised markets and the rural exodus were mentioned as major threats. National differences emerged in the evaluation of the current regulative framework, especially of agri-environmental regulations, animal welfare and farming in protected areas. These were attributed to cultural and societal factors. In general mountain grasslands were perceived as a public good where a proper mix of societal institutions had to be involved in participatory forms of governance.

To improve the social, market and political framework for farm persistence the participants suggested:

- Prioritising local direct marketing strategies to counteract globalised products and markets,
- Ensuring constructive interaction between tourism and agriculture
- Focusing on regional development to create and maintain vibrant rural areas
- Encouraging farmers with adequate financial support measures, including payments for public goods, for social services and/or fair product prices.
- Promoting well-balanced representation of the multiple stakeholder interests within the governance system.

Two divergent opinions appeared. On the one hand there is the perception that the land is still managed in an extensive way. On the other hand “there is an increasing concentration trend in dairy farming.” This trend would also cause the abandonment of mountain pastures. Overall experts identify a trend towards a higher intensity.
Experts explained the ongoing intensification trend in Norway:

“With regard to the increase in the number of dairy cows and sheep per farm, this is caused by some farms closing down while others increase the number of livestock on their farms and lease near fields and pastures from the farms that have closed down. As for dairy production, some farmers have gathered together in joint operations and bought milk quotas when others closed down. We can see a trend that the number of suckler cows in the fields out is increasing strongly. This is positive for the effect of co-grazing [of sheep and cattle].”

The Norwegian experts also pointed out that livestock and land management differ regionally and predators play an important role. Some areas would suffer extremely, causing the end of sheep grazing, while in other areas of the country the size of the herds was increasing.

Another participant highlighted the influence of weather conditions on land management. Bad conditions for hay drying in wet summers would cause preferences for silage rather than for hay.

Experts at international level added new insights and recognised simultaneously a “trend towards ‘hay milk/Heumilch’ (milk produced without silage) and an “increase of maize silage in mountain territories”.

Higher stocking rates of livestock are expected in the near fields. No (or significantly fewer) dairy cows will be kept at the summer farms. Farmers will keep some suckler cows, but mostly sheep.

A dramatic change in land use is projected for the further away fields. The use of pastures in the mountains will decrease sharply. No decrease in the use of fertilizer in the near fields, even some increase in some areas. The change from hay to silage production will continue.

Livestock density will remain rather constant, esp. on alpine pastures (but stocking densities might increase at farm level). Past changes in alpine grassland systems have been stronger than future changes will be. Land management will change somewhat, as mowing will concentrate on favourable areas in valleys. However, no intensification towards silage is expected, and fertilizer use will be reduced. Overall, no pronounced change in the use of alpine pastures is expected.

The general perception was that no big changes have occurred during the last 10 years.

Similar to the situation in Norway, French experts explained that the closing down of farms induced the growth of other farms and their livestock base in the area. On the one hand they recognised a strong demand for (transhumant) summer pastures. It increased with climate change, but would not lead to a general increase of herd density as it was counterbalanced by a decrease in the overall number of animals. On the other hand some experts perceived a trend towards a higher rate of intensification and concentration of land management only in favourable areas, which caused the abandonment of agricultural land in other parts.

One expert gave concrete numbers: “In the southern Alps all livestock is decreasing. For dairy cows, at a rate of about -25% in ten years. Sheep have decreased by 6% and suckler cows by 3%.”

According to one expert the use of silage would be minimal because of the requirements of quality labels. “French Savoie department: wrapping and silage feeding is forbidden by the specifications of the quality label (controlled designation of origin and protected geographical indication). Not widely practised in the sheep and goat sectors.”

Once again predators were seen as influencing land management. According to an expert from the mountain area development, half a dozen small summer pastures would be abandoned because of wolves.
In all three countries the experts observed an ongoing trend of farms closing down in parallel with an increase in size for the remaining farms. Farmers concentrated land management on favourable and easily manageable areas and abandoned marginal alpine grasslands or used them only extensively. They preferred the use of silage for practical reasons of labour efficiency, except if quality labels required different practices.

In Austria some experts still asserted that in general extensive practices prevailed. In France the general perception was that there has not been much change in the last 10 years and that the demand for transhumant pastures in particular has increased as a result of climate change. In Norway the rate of leased land around the farms (on infields) increased with the concentration of dairy farms, while on semi-natural pastures (the outfields) the number of sheep and suckler cows increased. In France and in Norway the threat of predators for pastured animals has been raised as an issue.

3. IMPACT OF AGRICULTURAL ACTIVITIES ON THE NATURAL ENVIRONMENT

In the first round of the Delphi survey we wanted to know if experts already perceived changes in the natural environment.

Experts from the three study areas assessed landscape-related environmental services as most influenced by the change in farm management. In France and Austria experts identified protection against natural hazards and in Norway local food production on third position to be influenced by management changes.

In addition to the list of environmental services provided, some experts mentioned the decrease of biodiversity in an area - (grasslands) and at regional level (mosaic).
4. **POLITICAL INTERVENTION**

In a second step, we asked the experts, *where they thought action was necessary given current trends in Alpine regions*. As with the perceived changes the experts saw the necessity for political action on maintaining an open landscape with cultural landscape features.

### TO KEEP LANDSCAPE OPEN

Although this measure was a top priority in all three countries, participants from Norway in particular saw a necessity for governmental intervention to keep the landscape open. Experts explained that inaccessible and steep slopes, which are difficult to cultivate, are in danger of abandonment or shrub encroachment. The participants identified the following reasons for this trend:

- cultivation conditions (mechanisation not feasible),
- concentration of livestock rate in favourable areas,
- missing institutional support and
- forest encroachment as a natural consequence of climate change.

Some of the participants listed possible measures to counteract these trends. The solutions ranged from a fundamental approach such as providing a financial base for the existence and motivation for farmers to continue farming (including animal husbandry and motivation for ‘cleaning’ the pastures) and institutional/legislative approaches. The former also related to agri-tourism, while the latter included stricter regulation on shrub encroachment, combined with penalties.

Most experts think that measures should be:

- designed at regional level
- financed at national level
- implemented at regional level
- controlled and monitored at national level

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### TO PRESERVE CULTURAL LANDSCAPE FEATURES

The preservation of cultural landscape features was ranked second where political action was required.

The consequence of changes were loss of diversity, small-scale traditional land use and therefore the loss of biodiversity. Policy should offer measures to maintain specific agricultural activity, subsidize landscape elements or limit construction expansion. Most experts were of the opinion that maintaining landscape (features) management should be supported by (financial) incentives similar to those for food production. These would encourage motivation and provide a financial compensation to farmers.

Most experts who assessed this aspect as the second most important after keeping the landscape open thought that political measures for cultural landscape features should be:

- designed at local level
- financed at international level
- implemented at regional level
- controlled and monitored at national level

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- designed at local level
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by environmental authorities
by environmental authorities
by farmers
by environmental authorities
26 participants prioritized political action against natural hazards. Climate change, change of land-management and the settlement in zones would cause natural disasters.

They saw possible measures in continuing livestock farming, especially in France, and in afforestation. Others postulated the need for flood control and the support of robust ecosystems. They also emphasised that we know very little about what were short-term effects and what worked in the long run.

Most of the experts agreed that restrictions were the best way to control maintenance. In this case “incentives would only contribute to raising awareness for natural hazards and water quality.” (Exp. Austria)

As reasons they mentioned
1) the macro-economic situation: cheaply produced imported goods weakened the competitiveness of small farms and local products and
2) farmers’ personal business management: an overemphasis on (milk) production and little willingness to diversify.

Experts suggested the implementation of higher international environmental standards for food production and the support of marketing planning and education. Experts also suggested concrete political measures: a higher linkage/bonding between producer and consumer (also through labels) and strengthening regional value chains as solutions to stemming rural exodus. Agriculture should maintain its first vocation: to feed people, also with a view to possible times of crisis.

Most experts also agreed that local provision of agricultural goods was best ensured by incentives. Financial incentives provided additional income for farmers. Social incentives motivated them to continue agricultural activities. And indirect marketing incentives (assistance for marketing) supported the production side. Even so, another expert doubted the benefit of forced small-scale food production through restrictions. To counteract cheap imported goods, an Austrian expert suggested the long-term limitation of cheap imported goods.

7 experts listed protection against natural hazards as the second most needed area for political interventions through measures. These experts saw a necessity for
- designing at national level by environmental authorities
- financing at national level by environmental authorities
- implementing at regional level by environmental and agricultural authorities
- controlling and monitoring at national level by environmental authorities

20 experts thought that provision of local food was the second most needed area for immediate political action. Measures should be:
- designed at regional level by agricultural authorities
- financed at national level by agricultural authorities
- implemented at regional level by agricultural authorities
- controlled and monitored at national level by agricultural authorities
...TO SECURE WATER QUALITY

One third of the survey participants thought that action was needed to ensure water quality.

One participant claimed that in general the protection of water quality was an important aim, which had been underestimated because of the hitherto favourable situation in Alpine regions. Impacts on regions beyond the Alps needed to be also taken into account. They identified the reasons why action was necessary in the cultivation of land. Concentrated production in some areas led to pollution on these areas (especially nitrate pollution). Worsening water quality would make a region less attractive to live in or run a business there. Suggested measures included afforestation and wetland preservation.

Experts from all three participating countries preferred incentives wherever possible and restrictions where necessary. The provision of cultural and production services (openness of landscape, preservation of cultural landscape features and local food production) was to be encouraged through political incentives. For the protection of water quality (provisioning service) and against natural hazards (regulating services), however, restrictions were deemed most appropriate. Restrictions were crucial to make farmers adopt measures that were more important for the society in general than for themselves (e.g. improving water quality). Financial support was perceived as motivational and could raise awareness for some measures (e.g. protection against natural hazards).

6 experts put water quality in second place for necessary political measures. For them measures should be:

- designed at regional and local level
- financed at local and national level
- implemented at regional level
- controlled and monitored at local and national level

by environmental authorities
by environmental authorities
by farmers
by NGOs
5. DESIGN AND IMPLEMENTATION OF MEASURES – THE CASE OF KEEPING LANDSCAPE OPEN

In the first round, the highest priority was given to measures that ensure the openness of the landscape. We went on to tease out possible mechanisms of designing and implementing measures taking measures for openness of the landscape as a case in point.

**SCALE OF INTERVENTION**

First we wanted to know at what level of governance measures for the openness of landscapes should be designed: as part of a national programme or a programme for specific problem regions only.

Most of Austrian and Norwegian experts favoured measures as part of a national programme. In Norway experts massively preferred measures to be designed as a common national programme. The experts also wanted funding at national level and, to a degree, control and monitoring of the measures, but implementation at local/regional levels. These responses reflect a view that measures must be embedded in a national scheme/priority. The state has great influence through subsidies, the annual agricultural negotiations and the state budget. If the powers that be do not recognise the goal (in this case openness of landscape) as a national priority, regional or local initiatives will not have enough clout to succeed. However, that does not necessarily prevent regional or local authorities from exerting some influence on the design or adjusting measures to fit local conditions or challenges.

At the other extreme, French experts thought that measures should be mainly designed to respond to specific problem regions.

Austrian experts took up a position between the Norwegian and French points of view.

In the comments French and Austrian experts underline the need for a common national basis with local adaptation to fit local stakes and needs. However this 'local' scale does not seem to be clearly defined: respondents understood this in various ways: as regional, intercommunal, mountain range scale, local initiatives, one or two municipalities. It also appeared that experts were not satisfied with the local implementation of the regulatory framework, thus not achieving its aim of decentralising from a centralised common framework.

French experts saw a national besides regional and local responsibility, while Norwegian respondents put almost exclusively local and regional institutions in charge. In this respect the group of researchers shared the opinion of the Norwegians, while NGOs were more in favour of national institutions. For monitoring and controlling all respondents saw an equally shared responsibility between local/regional and national/international institutions.

**SCALE OF RESPONSIBILITY**

Pretty much everybody favoured measures to be designed at local to regional level, while funding the incentives should be mainly a national and/or international (EU) responsibility. Only actors from France wanted to share the responsibility for financing incentives equally between regional and international plus national institutions. Respondents from regional/local level wanted measures to be designed at local/regional level, but controlled at national level, while national stakeholders preferred it the other way round. It shows that each level would prefer to design the measures to monitoring and controlling their implementation.

The respondents were divided on the responsibility for the implementation of regulations. Austrian and French experts saw a national besides regional and local responsibility, while Norwegian respondents put almost exclusively local and regional institutions in charge. In this respect the group of researchers shared the opinion of the Norwegians, while NGOs were more in favour of national institutions. For monitoring and controlling all respondents saw an equally shared responsibility between local/regional and national/international institutions.

**ACTORS**

Regarding the involvement of different groups in the design of measures, actors from agricultural authorities, farmers and environmental authorities were generally seen as important, with less importance attached to NGOs and tourism actors. In terms of funding, however, not only agricultural and environmental authorities were mentioned but also tourism actors (especially by government respondents). Controlling and monitoring again was mainly assigned to agricultural and environmental authorities, but in Austria NGOs also received significant attention.

We also asked about personal involvement and if the experts had the feeling that their own field of expertise was currently included in the process of designing measures targeting the openness of the landscape.

Most of the French respondents felt that their expertise was taken into account in the process of designing measures targeted at keeping the landscape open.

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landscape open. Respondents from the agriculture and development sectors mostly felt that their expertise was taken into account adequately, experts from the environmental sector less so. Out of their personal involvement, some French respondents added that they were more involved in combining measures than in taking part in their design (especially in the design of the specifications...). Nevertheless respondents felt included in the design of a variety of measures targeted at keeping the landscape open (besides agri-environmental schemes), such as: pastoral landowners association, rural law, pastoral territorial diagnosis, territory planning intervention and farms installation, highlighting the diverse ways used to support open landscapes. This may explain the positive feeling of French respondents towards their inclusion.

In Austria most of the respondent thought their expertise was rarely taken into account; only three respondents out of 12 felt they were often included in the process of designing measures. These three experts were from advisory institutions and from the government. Experts from the environmental sector also complained that their expertise was too rarely taken into account. Respondents from the regional development sector felt they had no part in the process at all.

In Norway most of the respondents thought that their expertise was rarely taken into account. The only respondent who often felt included worked within the agri-food chain. Overall, research institutes were rarely included in the process of designing measures. In contrast respondents from advisory institutions felt included in all three countries.

BUILDING ON EXPERIENCE

We also asked the experts if they had the impression that the process of designing measures targeted at keeping the landscape open in their country took experiences with previously implemented measures and programmes into account.

In Austria most of the respondents confirmed that experiences of previously implemented measures were often headed in the process of designing measures. They specified that at the same time this resulted into more complex bureaucracy and that what was finally implemented depended on financial scopes and priorities.

In France respondents were less satisfied. A large part of the respondents thought that previous experiences were rarely or not at all taken into account. They commented on specific examples of what had been finally included in the design of the measures: two respondents referred to local feedback, which had had little influence on the final design of the measures, one respondent recounted the consultation of a national park, whose proposals had not been taken up in the end, one respondent commented on the lack of evaluation protocols. Only one expert reported a positive example of a network created to allow better adaptation to changing measures.

In Norway we obtained mixed and not very elaborate results. One respondent commented on the lack of continuity between programmes and another one on the often narrow focus on aesthetics at the expense of nature quality.
We also consulted the experts to present some best-practice examples (existing or imagined), where all (or most) relevant stakeholders were included.

In Austria respondents mainly referred to good practice examples of already existing measures. At this point several experts highlighted the participation and operationalisation of the agri-environmental scheme (ÖPUL) as a model concept. In contrast, in France respondents mainly proposed improvements to the design process, advocating for diverse organisational options (partnership work, steering committee, consultative local committee) to include all relevant actors in the process, highlighting current thinking about how to locally reconcile the multiple stakes of pastoral areas.

Overall the best-practice examples referred mainly to agri-environmental schemes, but in Austria and France also the following examples were given:

Norwegian and Austrian experts were of the opinion that measures for keeping the landscape open should be designed as part of a national programme and applied nationwide, while French respondents voted for programmes in specific problem areas. However, there was consensus on the need for a national framework with adaptation to local conditions. The process of designing measures should be conducted at local or regional level, while funding the incentives should be mainly a national and/or international (EU) responsibility. The implementation of regulations was evaluated differently. Austrian and French experts saw national besides regional and local responsibility, while in Norway respondents would put almost exclusively local and regional institutions in charge. For monitoring and controlling all respondents agreed that responsibility should be shared equally between local/ regional and national/international institutions.

Generally farmers and actors from agricultural and environmental authorities should be involved in the design of measures, while NGOs and tourism actors were accorded less importance. Best-practice examples referred mainly to agri-environmental programmes (esp. in Austria) and participatory activities like territorial pastoral plans in France.

On the issue of experiences with previous programmes being heeded when designing new ones, Austrian experts were quite positive, French experts rather sceptical, while Norwegian experts had less pronounced views.
7. FARMERS RESPONSIBILITY

In our last Delphi round we went deeper into this issue and asked the experts if all stakeholders who should be involved were currently participating in the process of designing measures targeted at keeping the landscape open.

IMPLEMENTING MEASURES

In general experts saw farmers mainly responsible for implementing measures. Experts from the advisory sector found that the agricultural authorities should take on responsibility. We took up these results from the second Delphi round and asked the experts in more detail what they thought about the responsibility of farmers for implementing measures.

First of all we wanted to know if they thought it was a good idea to give farmers more flexibility in implementing measures adapted to their specific local conditions for keeping the landscape open.

Most of the respondents thought a shift of responsibility to farmers would only be feasible in specific situations. However, most respondents from the agricultural sector supported the idea that flexibility should always be given to farmers. An Austrian respondent complained about the limited room for manoeuvre accorded to farmers.

The experts also referred to the way farmers currently found flexibility in illegal practices, at the margin of the specification or in uncontrollable practices. In this context one respondent (from Austria) warned again of the risk that the farmer might violate the environmental obligation because of other economic aims and called for the implementation/design of a legal framework.

CONSTRAINTS

Overall, several respondents expressed their doubts on how farmers might use a higher degree of flexibility, highlighting the divide that might exist between farmers' objectives and environmental ones. Respondents also referred to:

- administrative constraints, such as the rigidity of the control system that was not adapted to flexible practices, the lack of indicators that could help to evaluate the effect of practices on ecosystems, the impossibility of translating the measures to local specificities.
- farmers constraints, such as their lack of knowledge about the effect of their practices on ecosystem dynamics (need for ecological indicators) or their lack of time in implementing environmental practices
- the cost of training around the implementation of flexible measures

OPTIONS

Within existing measures respondents referred to result-oriented approaches and to specific management plans as a way of giving more flexibility to farmers. However, these two measures carry diverging concepts of who should be in charge of adapting measures to local conditions.

To improve existing measures and to give more flexibility to farmers, respondents from the EU, from France and Norway insisted on the role of technical support and training as a necessary precondition for farmers to achieve environmental objectives. In contrast, several Austrian respondents referred to the need for rules (regulation, reliable procedure, framework conditions and pre-selection of farmers) to define a framework within which farmers would be free to apply their practices and as a way of ensuring that objectives were achieved. In addition, two respondents emphasised administrative issues by calling for not too strict and bureaucratic procedures and for the possibility to allow progressive change of practice during the period under contract.

Respondents pointed out that both, management prescription and result-oriented approaches, would be necessary to give more flexibility to farmers. Two respondents from France mentioned management prescriptions based on ecological indicators, e.g. list of species. Experts also evaluated result-oriented approaches as promising or already effective sources of positive experiences (such as pastoral commitments to protect forests against fire or agreements on multiple uses of the summer pastures (France)).

MONITORING AND CONTROL

If measures were designed to allow more flexibility and adaptation to local conditions, local stakeholders and farmers might get involved in monitoring and controlling to avoid overburdening the authorities. However, in round two of this Delphi survey the majority of experts was critical/negative about involving farmers in monitoring and controlling the implementation of measures.

In Austria the expert opinion was divided between those who wanted farmers always to be included and those who thought it depended on the situation. Experts suggested creating a space for discussions on land management to involve farmers into the monitoring process. There was concern that control by farmers could lead to distrust within their community. Moreover farmers were already embedded in a process of social control (Austria).

In France, however a greater proportion of respondents thought that farmers should always
be involved in control and monitoring. Many of the experts proposed the involvement of farmers in monitoring but not in controlling the measures. A closer look at the French responses by sector revealed that respondents from the agricultural sectors were rather in favour while those from the environmental sector were not. Positive examples were given: control by cheese cooperatives and, like in Austria, social control. The latter was induced by the local contribution to the financial support of farmers which explains good local control. Experts suggested a bigger involvement of farmers in the monitoring process by carrying out joint visits and assessments of certain plots with relevant stakeholders. Critics doubted the power of judgement and independence of farmers and feared the additional administrative burden.

In Norway the response was sceptical of farmers’ involvement in control and monitoring. One respondent proposed to take inspiration from group certification in organic farming with coupled internal and local participatory controls. It could have an underlying positive impact on farmers’ adherence to environmental objectives. Another respondent explained that farmers should only be involved in control and monitoring if they were also involved in the adaptation of the measure and thus integrating the measure into their own practice.

Most of the respondents thought a shift of responsibility to farmers would only be feasible in specific situations. There were reservations about the involvement of farmers in designing, implementing and monitoring measures because of concerns about administrative obstacles and lack of relevant knowledge which could only be overcome with intensive training. However, the experts gave some best-practice examples of farmers included in the process. They suggested a shift from prescription of management practices to result-oriented approaches, general framework allowing more individual adaptation, more training of farmers on ecological indicators and the installation of specific management plans. The involvement of farmers in monitoring procedures was perceived as necessary to limit administrative burdens.
“Establish ‘meeting points’ between different stakeholders where experiences with measures and arrangements targeted at farmers and grassland management are discussed and evaluated. This can take place at national, regional and local level. I say this with two examples from Norway in mind: The annual national negotiations between the agricultural authorities and farmers’ organisations, and the ‘state-of-the-art’ meetings arranged by the municipal administration at Oppdal, where farmers meet the bureaucrats.”

“Bearing in mind the socioeconomic and climatic factors influencing farm persistence in mountain areas, experts identified priorities and associated key actors to avoid tipping points. Their overview of the governance system enabled them to reflect on the conception of measures to foster farming system adaptation to current socioeconomic and climatic trends. However, there seems to be little experience with experimental governance tools promoting adaptive and reflexive forms of governance. The issue is one of encouraging flexibility in farming practices to achieve ecological objectives. Creating spaces for testing innovative governance tools would probably help to go a step further and promote dialogue and concrete experiences to build on.”

“Three theses emerge from best-practice examples and the experience from the other study regions: Presence of stakeholders from different levels and sectors in the decision making process. Creation of measures on a common national basis with local adaptation possibilities. Involvement of farmers in the decision-making process by integrating them into regional monitoring platforms.”

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