La Cañada

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La Cañada 23

Contents

Les événements du Forum pour 2009

The first of the Forum's conferences in 2009, to consider the concepts behind the definition of HNV farmland and farming, will be held in Paris.

En 2009, deux événements sont programmés en France pour mieux faire connaître les enjeux associés aux systèmes agricoles à Haute Valeur Naturelle. Malgré la perspective d'évaluation dès 2010 de la contribution du programme de développement rural au maintien ou au développement de l'agriculture HVN, force est de constater que le concept reste mal connu au plan national.

La conférence à Paris

Dans ce contexte, une première conférence à portée généraliste est prévue à Paris dans le courant de l'année 2009. Elle sera co-organisée par l'EFNCP et l'AgroParisTech-ENGREF, avec le soutien du MEEDDAT. Elle portera sur une présentation d'ensemble des concepts de l'agriculture à HVN et des démarches de caractérisation entreprises jusqu'à présent par l'Agence Européenne de l'Environnement et le Centre Commun de Recherche d'Ispra. Cette conférence (en Français) s'adressera à l'ensemble des acteurs nationaux concernés par les enjeux de conservation de la biodiversité en lien avec l'agriculture : administrations, acteurs professionnels agricoles, associations de protection de la nature, chercheurs. Sa visée sera d'engager le débat, au-delà de l'exigence formelle d'évaluation des PDR, sur les opportunités offertes par les cadres d'analyse politique sur lesquels débouche l'agriculture HVN, pour inciter les acteurs nationaux à se saisir d'un objectif ambitieux de protection de la nature. On peut replacer cet objectif dans un contexte national particulier : les conclusions récentes d'une expertise scientifique collective de l'INRA mettant la proportion de végétation semi-naturelle comme critère de première importance pour la biodiversité d'une part, et le« Grenelle de l'environnement » (conférence ambitieuse initiée par le gouvernement impliquant l'ensemble des acteurs civils et gouvernementaux français autour du développement durable et de l'environnement). Cette conférence sera l'occasion de rappeler l'urgence de l'objectif de « plus de perte nette de biodiversité » pris lors de la résolution de Kiev et la place centrale reconnue à l'agriculture à HVN dans ce cadre , débouchant sur la nécessité de changer d'échelle dans la prise en charge de la biodiversité.

La conférence Rhône-alpine

La deuxième conférence portera sur un aspect plus spécifique de l'agriculture HVN : le rôle des acteurs régionaux dans sa caractérisation et son portage politique. Elle s'inscrit dans la lignée des conférences biannuelles du Forum, après Uppsala (Suède) en 2007 et Pamporovo (Bulgarie) en 2005. L'objet est de faire ressortir le rôle des différents acteurs régionaux, à mi-parcours des enjeux « macro » qui se posent au plan national et des enjeux locaux, qui seuls permettent de refléter la complexité du terrain. La Région Rhône-Alpes, avec le MEEDDAT, est partenaire de cette conférence qui se déroulera au mois de juin, permettant de coupler débats en salle et sorties de terrain. Le Parc Naturel Régional de Chartreuse accueillera les participants, d'horizons thématiques et géographiques variés. La variété des situations agro-écologiques présentes dans cette région, depuis les alpages des Alpes du Nord aux systèmes mixtes des collines en passant par les formes d'agriculture sèche de la Drôme et de l'Ardèche permettra d'illustrer les débats par des situations concrètes. La qualité de l'implication des acteurs agricoles, environnementaux et territoriaux Rhône-alpins laisse également présager d'une riche matière.

Xavier Poux

EFNCP events for 2009

In 2009, two events are scheduled in France in order to raise awareness about HNV farming. Indeed, despite the mandatory mid-term evaluation of the RDR in 2010 which introduces the necessity to assess its impact on preserving or developing HVN farmland, it is clear that the concept itself is still largely unknown at a national level.

Paris conference

In this context, the first event, to be held in Paris, is a conference dealing with general issues. It will be co-organised by EFNCP and ENGREF-AgroParisTech (Graduate Institutes in Science and Engineering in the field of agriculture and environment), with support from the Ministry of Environment (MEEDDAT). It will encompass an overview of the concepts behind the definition of HNV farmland and farming, including the characterisations by the EEA and the JRC-Ispra.

This conference (to be held in French) is aimed at national participants involved in the field of nature conservation and agriculture: civil servants, farmers, NGOs and researchers. Beyond the formal evaluation commitment of the RDR, its aim is to initiate a debate on how HNV farming concepts and analyses can lead to a stronger policy that will favour nature conservation on the ground.

The timing of the meeting, as well as the content, is particularly important in a French context because of two recent events. Firstly, the conclusions of an official research study looking at agriculture and biodiversity, emphasising the crucial role of semi-natural vegetation for biodiversity; and secondly, the 'Grenelle de l'environnement', an ambitious conference involving all the social and governmental bodies in France working on sustainable development and environment.

The Paris conference will be an opportunity to remind delegates of the importance of the objectives of the Kiev conference of 'no net loss' on biodiversity, and the necessity to change gear in terms of actions for biodiversity conservation and HVN farming in Europe.

Conference in Rhône-Alpes

The second conference will deal with a more specific issue: the role of regional participants in characterising and supporting HNV farming. This meeting will be the 11th biennial conference of the Forum, following Uppsala (Sweden) in 2007 and Pamporovo (Bulgaria) in 2005. Its aim is to highlight the role of regional participants — seen as mid-way between 'macro' issues viewed from a national and EU perspective and local 'on the ground' issues. EFNCP believes that this is the most appropriate level to address HNV issues and to reflect the complexity on the ground. Région Rhône-Alpes, alongside the MEEDDAT, is supporting this conference (including field visits) which will take place in June. The Parc Naturel Régional de Chartreuse will host the delegates who, we hope, will bring a wide range of expertise from many geographic origins. This region has been chosen because of its natural variety, from the high mountain pastures of the Northern Alps through the hill mixed systems to the dry Mediterranean farming in Drôme and Ardèche.

More details of both meetings will be available on the website.

Xavier Poux

Quelle place pour l'agriculture extensive en Europe au XXIème siècle ? Réinvestir le débat

Les défenseurs de la biodiversité au rang desquels le Forum se trouvent aujourd'hui dans une situation inédite, et disons-le d'emblée difficile, quant à leur argumentaire d'ensemble. Pour simplifier, la promotion des systèmes extensifs — et plus particulièrement des systèmes pastoraux extensifs à faible productivité et à faible niveau d'intrants — trouvait un réel écho dans les milieux de la recherche et des politiques publiques dans la mesure où les préoccupations écologiques rencontraient des préoccupations socio-économiques. On peut interpréter la montée en puissance des thèses en faveur du maintien de formes d'agriculture extensive dans les années 1980 et 1990 dans le contexte plus général de surproduction agricole en Europe. À l'heure où les quotas laitiers furent instaurés (en 1984) pour maîtriser la production, il était cohérent de maintenir des systèmes extensifs peu productifs. Le fait que l'article 19 — soit la consécration politique de cet objectif d'ensemble — fut instauré en 1985 illustre ce mouvement intellectuel d'ensemble. Dans un contexte de baisse tendancielle des prix des produits agricoles, le principe d'utiliser des fonds publics pour obtenir des bénéfices environnementaux en limitant la production apparaissait « gagnant-gagnant » et porteur d'avenir.

Le contexte des decennies 1980-2000

On peut au total considérer que le dispositif agri-environnemental d'ensemble des années 1990 procède de ce contexte intellectuel, politique et économique. Certes, il n'est pas question d'idéaliser dans la mesure où la protection des systèmes agricoles extensifs n'était qu'une composante d'une PAC globalement favorable à l'intensification, mais la thèse avait sa place légitime et un certain « partage du territoire » entre agriculture intensive et extensive pouvait être pensé. Ce partage se traduisait dans le monde de la recherche par l'existence d'équipes travaillant sur une meilleure connaissance des systèmes extensifs et leur bénéfices environnementaux en termes de biodiversité. En France, on citera ainsi les travaux de l'INRA Systèmes Agraires et Développement au long des années 1980 et 1990. Si l'on considère l'importance d'une justification scientifique des politiques publiques, ce rapport de force scientifique est important en lui-même.

Les changements des annees 2000

La fin des années 1990 et le début des années 2000 ont marqué un premier changement de perspective dans la manière de poser les enjeux de biodiversité, sous l'impulsion des travaux de l'IPCC et d'autres équipes de recherche travaillant sur les écobilans énergétiques. La montée en puissance du changement climatique a affaibli les promoteurs d'une agriculture extensive, et plus encore des pastoralistes. Les zones humides et l'élevage sont devenus sources d'émission de méthane et sont considérés comme plus polluants que les transports aériens. L'efficacité énergétique est devenu un impératif qui semble justifier un élevage intensif sédentaire, maîtrisant les flux de polluants. Les biocarburants ont pu être justifiés dans ce contexte. Certes les débats se sont développés pour justifier le rôle des prairies dans le stockage du carbone, par exemple, mais la place allouée à la protection de la biodiversité s'est trouvée réduite. Si Natura 2000 n'est pas remise en question sur la période — au contraire, la politique se renforce — elle devient

davantage une politique zonée dont la vocation n'est pas d'influencer un modèle de développement agricole. L'agriculture à Haute Valeur Naturelle devient les surfaces à HVN, confortant le glissement conceptuel vers une approche zonée de la protection de la biodiversité. L'approche systèmes agraires des années 1990 a fait place à des approches analytiques qui se concentrent sur les services écologiques d'éléments du paysage de plus en plus déconnectés de leur contexte technique et socio-économique.

À ces changements dans les paradigmes scientifiques environnementaux se sont ajoutés les bouleversements économiques des dernières années, marqués par la flambée des prix des produits alimentaires et les émeutes de la faim en particulier. Ces événements ont remis au centre du débat l'obligation pour l'agriculture mondiale de produire davantage, avec comme objectif la satisfaction des besoins alimentaires des neuf milliards d'êtres humains à l'horizon 2050.

Au total, la doctrine d'une agriculture extensive peu productive se trouve aujourd'hui mise à mal et ne semble plus justifiée, ni sur les plans environnementaux, ni sur les plans socio-économiques. Dans le contexte du bilan à mi-parcours de la PAC elle devient de plus en plus inaudible, y compris au sein d'organisations non gouvernementales, comme en témoignent les prise de position récentes du WWF ou du BEE qui laissent les systèmes extensifs et peu productifs dans l'ombre.

L'emergence de l'agriculture « ecologiquement intensive »

L'agriculture extensive se trouve en fait face à un concurrent conceptuel en passe de devenir un référence principale en voie de l'effacer : « l'agriculture écologiquement intensive », défendue notamment par les agronomes du développement et qui rencontre un fort écho dans les milieux environnementaux et de la recherche en Europe. Cette agriculture a comme principe la recherche d'une production élevée via la maximisation des services écologiques rendus par les auxiliaires des cultures, et en particulier ceux du sol. Ses formes en sont variées et vont d'une agriculture sans intrants de synthèse (qui s'apparentent à l'agriculture biologique) à des agricultures les limitant au maximum (qui s'apparentent à la lutte biologique). Le fait marquant est sans doute la place centrale donnée à la parcelle cultivée, qui fait l'objet de toutes les attentions agronomiques pour être productive. Ce modèle présente des similitudes avec le type 2 des systèmes à Haute Valeur Naturelle, mais il s'en distingue à nos yeux sur un point clé : la biodiversité sauvage, qui est l'attribut des systèmes HVN, n'a pas de place logique dans l'agriculture écologique intensive qui ne met l'accent que sur les auxiliaires. La végétation semi-naturelle, associée au saltus (cf. LC 19), ne rentre pas aisément dans son cadre conceptuel. Si l'on rajoute à ce modèle le fait qu'il a une vocation universelle, à l'échelle mondiale, il devient de plus en plus associé à des formes d'agriculture essentiellement végétales, présentées à juste titre comme plus durables dans des pays en développement à forte densité de population, où la protéine animale coûte cher en terre cultivable. Au total, le risque est grand de considérer que l'élevage extensif appartient au passé et doit être remplacé par des formes plus efficaces et adaptées aux enjeux du XXI^{ème} siècle.

En simplifiant à peine, en Europe, les formes d'utilisation du sol qui deviennent optimales sont une agriculture écologiquement intensive essentiellement productrice de produits végétaux, quelques zones d'élevage efficace (c'est à dire sédentaire et productif), des terres boisées pour lutter contre le changement climatique, le tout en ménageant des zones dévolues à la biodiversité (N2000 et corridors écologiques). On peut dans ce contexte continuer de plaider pour le maintien de systèmes à Haute Valeur Naturelle extensifs, leur place semble relictuelle et, en tout état de cause, s'apparente à un zoo dont l'avenir est directement lié aux crédits du deuxième pilier de la PAC, dont le moins que l'on puisse dire est qu'ils sont incertains, quoique les discours politiques puissent en dire.

Notre propos n'est pas ici de faire un faux procès à l'agriculture écologiquement intensive, qui a toute sa place dans le débat d'idées. Notamment, si le terme « intensif » a ouvert une brèche dans laquelle les tenants du productivisme se sont engouffrés pour défendre le retour en force de la production conventionnelle, ce n'est pas l'intention de ses concepteurs.

Nous voudrions au contraire en clarifier les termes pour mieux justifier la place d'une agriculture et d'un pastoralisme écologiquement extensifs en Europe, dont la justification, nous semble-t-il, n'a pas été balayée en seulement 10 ans par des phénomènes comme le changement global et la croissance démographique, dont la temporalité s'installe sur plusieurs décennies et qui ont été discutés depuis au moins les années 1970. Les enjeux de protection de la biodiversité sauvage à large échelle ne sont pas une mode, mais bien une nécessité dont il convient de rappeler l'urgence.

Pour une vision globale

Au total, notre visée est bien de prendre en considération les enjeux globaux soulevés et de voir dans quelle mesure ils appellent un renouvellement des cadres d'analyse pour justifier de l'agriculture extensive en Europe aujourd'hui et demain.

Commençons par les deux aspects relatifs au contexte de l'agriculture extensive européenne : le changement climatique et la faim dans le monde.

Considérons maintenant le premier considérant relatif au changement climatique. Dans cette perspective, l'argument apparaît radical. L'élevage, et en particulier celui à base de ruminants, est responsable à lui seul d'un cinquième des émissions de gaz à effet de serre. Dans tous les cas, son remplacement par des cultures ou, mieux, par des forêts productives ou des biocarburants de seconde ou troisième génération apparaît justifié. Il est clair que la forêt amazonienne primaire est préférable à la culture de soja pour l'élevage intensif ou à un pâturage plus ou moins intensif. Que le surpâturage existe dans de nombreuses régions du globe, avec des conséquences néfastes sur la dynamique de végétation et des sols est à considérer sérieusement. Mais les arguments ne sont sans doute pas toujours aussi tranchés et les jugements globaux doivent être pensés et pesés plus finement. On citera ici le bilan plus nuancé de l'élevage si l'on intègre le stockage de carbone permis par les prairies permanentes. Dans la contribution d'ensemble de l'élevage à 1/5 des GES mondiaux, quelle est la part de l'élevage extensif, pour combien d'hectares gérés ? Dans les dernières décennies, l'augmentation mondiale de l'élevage s'explique davantage par des processus d'intensification que d'extensification, dès lors l'élevage extensif est-il la cible pertinente en dynamique ? Le fait que l'élevage contribue davantage à l'effet de serre que l'avion est-il un argument recevable si l'on considère d'un côté le nombre de bénéficiaires associés à l'existence de systèmes d'élevage, des paysages et de l'alimentation protéique qui en découlent et, de l'autre le nombre d'usagers des transports aériens ?

Mais plus globalement, même à considérer un écobilan énergétique et en GES défavorable, il faut assurément affiner l'évaluation environnementale des options pour éviter que le remède ne soit pire que le mal. Si l'on considère que la lutte contre le changement climatique se justifie en grande partie pour conserver les équilibres environnementaux et la biodiversité, il apparaît discutable de sacrifier à court terme des surfaces pastorales riches en espèces naturelles bien identifiées au nom d'une protection plus abstraite de la biodiversité ! Entre perdre sûrement et dès aujourd'hui une prairie permanente extensive inondable pour la remplacer par un taillis à courte révolution dont les effets sont dilués et potentiellement visibles à long terme, c'est se tromper d'ordre de

grandeur de temps dans l'adéquation des solutions aux problèmes. Qui plus est, c'est se priver du rôle tampon d'une prairie pour se prémunir des conséquences du changement climatique. Dans les zones pastorales sèches, le recul de l'élevage coïnciderait avec une aggravation des incendies de forêt dont il n'est pas sûr qu'ils soient la meilleure voie pour prévenir des effets du changement climatique.

Au total, la vision selon laquelle l'élevage extensif — peu efficace au regard de son écobilan — doit être au cœur de la lutte contre le changement climatique mérite largement d'être discutée. Il faut en particulier affiner l'analyse environnementale en intégrant la gestion de l'espace et les services rendus par l'élevage pastoral extensif et en ramenant les indicateurs d'émission à leur utilité écologique et sociale. Au total, là encore non seulement il n'est pas aussi évident qu'il y paraît que le changement climatique disqualifie d'emblée l'élevage extensif, mais on peut même concevoir que ce dernier soit amené à jouer un rôle accru dans la gestion de ses conséquences, en considérant un bilan « bénéfices environnementaux » sur « coût marginal en GES » qui reste largement à faire.

La faim dans le monde

Concernant la faim dans le monde, il convient de ne pas se tromper d'échelle de problème et de solution. Deux thèses s'affrontent classiquement dans ce domaine : la première défend une satisfaction des besoins par une ouverture des marchés mondiaux ; la seconde prône, au contraire, une recherche d'autonomie à l'échelle des grandes zones de consommation et de production. En résumé et dans les grandes lignes, la Chine doit nourrir la Chine (ce qu'elle fait d'ailleurs à 90%) ; l'Europe doit nourrir l'Europe ; etc. On considérera aisément que les produits comme le café, le cacao ou les épices ne constituent les enjeux alimentaires mondiaux.

Dans la vision d'une ouverture des marchés, l'agriculture extensive est logiquement « à côté » des enjeux : soit elle doit s'intensifier pour contribuer au marché mondial ; elle ne peut le faire et doit être préservée en tant que telle dans le meilleur des cas ou céder la place à d'autres formes d'utilisation du territoire.

La vision alternative recherchant l'autonomie, largement défendue par les tenants de l'agriculture écologiquement intensive, interdit alors de prôner un modèle agricole unique à travers le monde. Chaque grande aire doit adapter ses types d'agriculture à la satisfaction de ses besoins alimentaires, sur les plans quantitatifs (en Calories) et qualitatifs (gustatifs et culturels) en fonction de son contexte géographique et écologique propre. Qu'en Inde, il faille sans doute manger moins de viande (comme le prône le président indien de l'IPCC Rajendra Pachauri) paraît relever du bon sens ; que les bases techniques des systèmes agricoles indiens qui s'engagent dans l'agriculture écologiquement intensive tiennent compte de la ration indienne également. Qu'il faille en déduire qu'il n'y a plus de place pour l'élevage en Inde, comme le suggère fortement R.Pachauri, devient sans doute plus discutable au regard des surfaces pastorales existantes et qu'il faudra valoriser . En tout état de cause, il n'est pas *a priori* pertinent d'exporter la problématique indienne en Europe, et on ne voit pas en quoi le recul de l'élevage extensif dans les zones de montagne, par exemple, réglera les problèmes nutritionnels indiens. Sur le plan alimentaire, le problème n'est donc pas le niveau global du pastoralisme et de l'élevage, mais sa répartition. Autrement dit qu'il ne faut pas confondre réduction et disparition de l'élevage ; tout est ici dans une mesure plus fine que les modèles trop généraux.

La specificite Europeenne

En Europe, la question se pose alors sur la meilleure allocation des terres, cultivables ou non, entre la production agricole et la forêt. On peut défendre l'idée de la économique d'un maintien de la production extensive, notamment d'élevage, dans de nombreuses zones plus ou moins « marginales », moyennant des aides adaptées. On peut même défendre l'idée d'une possible désintensification des cultures et des formes d'élevage à base de cultures en Europe sans déstabiliser le système alimentaire mondial. Il n'est pas *a priori* besoin de produire plus en Europe et, pour revenir aux émeutes de la faim, elles sont essentiellement dues à une flambée des prix des céréales rendues plus rares par leur recours accru en élevage et pour les agrocarburants. En tout état de cause, alors que la cause semble entendue que pour des raisons économiques, l'élevage extensif est amené à s'effacer devant l'élevage intensif, on peut tout aussi bien défendre la thèse inverse. Il est tout aussi justifiable de baisser la pression exercée par l'élevage intensif sur sur les zones agronomiquement favorables (en en diminuant la part dans l'absolu) au profit de l'élevage extensif dans les zones difficiles, où il était encore présent jusqu'à récemment tout en conservant un patrimoine écologique intéressant. Autrement dit : non seulement il y a encore une place pour l'élevage extensif en Europe, mais cette place est potentiellement plus grande qu'elle n'est aujourd'hui, y compris en prenant en compte les enjeux alimentaires mondiaux.

Adapter les strategies

Précisons alors notre propos : il y a assurément une place pour des formes d'agricultures écologiquement intensives en Europe, qui doivent remplacer les formes d'agriculture conventionnelle intensives. L'essentiel de l'alimentation européenne a toujours été produite sur ses meilleurs terres et les marges de manœuvre agronomiques, dans la conception et la conduite de systèmes de cultures écologiquement intensifs sont sans doute bien plus grandes qu'on ne l'imagine. Ces formes écologiquement intensives doivent mettre l'élevage au cœur et jouer, comme M.Griffon le suggère, sur des formes d'intensification fourragère. Mais à la différence de l'impératif de n'avoir que des surfaces hautement productives, même dans les zones les plus favorables on doit aussi envisager que des surfaces délibérément plus extensives trouvent pleinement leur place dans des systèmes de production pour garantir une place pour une biodiversité sauvage et, plus fonctionnellement, des formes d'adaptation aux conséquences du changement climatique. On retrouverait ici des systèmes à HVN de type 2.

Mais il n'y a aucune raison de considérer que ces zones productives soient les seules qui puissent et doivent produire des produits alimentaires. Il y a aussi une utilité sociale à ce que des zones plus difficiles conservent un équilibre, pastoral ou agro-pastoral selon les cas. Or ces zones apparaissent peu adaptées pour mettre en œuvre les bases techniques de l'agriculture écologiquement intensive à large échelle. Dans les zones de landes, de montagne sèche ou humide, la stratégie réellement extensive peut être la plus adaptée, valorisant et entretenant de larges fractions de végétation semi-naturelle . On aura reconnu dans ces conduites les traits caractéristiques des systèmes à HVN de type 1.

Notre propos ne prétend pas fixer la limite entre les formes d'agriculture intensives et extensives. Il soulève plus de questions qu'il n'apporte de réponse. De ce fait, il vise essentiellement à rouvrir un débat qui, en étant posé à un niveau trop global, conduirait à enterrer conceptuellement l'agriculture et l'élevage extensifs. Il s'attache à faire ressortir en quoi ces derniers ne doivent pas être assimilés à des systèmes de production certes sympathiques, mais fondamentalement dépassés. Au contraire, on peut considérer que non seulement ils sont la voie centrale pour conserver un potentiel de biodiversité en Europe, mais qu'ils peuvent aussi jouer un rôle central dans les deux thèmes qui semblent les menacer le plus : le changement climatique et l'alimentation mondiale.

Xavier Poux, EFNCP

Is extensive agriculture still defendable?

Bob Gibbons

Sheep grazing extensively in the Credos Mountains of Crete.

Ideas matter. And though they are far from being the only driving force for what eventually happens on the ground, they are a necessary first input to policy design and implementation. This general statement is the *raison d'être* of the Forum, namely to propose ideas in both the academic and political arena. To be more specific, the ideas defended by us relate to the importance and role of extensive farming for biodiversity – particularly extensive livestock (pastoral) systems – with the particular mantra of the Forum being to emphasise the role of farming as a legitimate economic activity, and not merely 'zoo-keeping'.

Such ideas evolved out of the late 1980s and 1990s, when it became widely recognised that intensive agriculture in Europe had been a major cause of habitat destruction and, at the same time, had led to overproduction. Much of the present philosophy of biodiversity conservation comes from this period.

We do not pretend here to re-write the whole history of the development of agri-environmental measures, but we will just mention two outcomes: the 'extensification direction' given to Less Favoured Areas (LFA) and beef support schemes in 1985 and 1992 respectively, and the emergence of the term High Nature Value (HNV) farming in 1994. These schemes and this concept gave a visibility and legitimacy for extensive farming systems in Europe. It would be excessive to say that extensive farming had won the central place in the agriculture policy agenda, but it had its seats and defenders across the academic, professional and policy worlds. This legitimacy is built on a number of arguments: (1) extensive farming systems are essential and irreplaceable for some aspects of biodiversity in Europe; (2) payments should help to sustain them since they are not as economically viable as mainstream farming systems; (3) such payments are doubly legitimate because they recognise 'public services' in the form of biodiversity and nature conservation, and that it is not necessary to intensify whilst European agriculture over-produces.

Events at the turn of the century can be interpreted paradoxically. In a way, the CAP reforms of 1999 and 2003 might appear as a success for the thinking about extensive farming. Notably, decoupled payments associated with cross-compliance had been advocated as the signal for an extensification of farming, and the second pillar had strengthened the instruments for extensive farming systems. Also, the HNV farmland concept had become a mandatory indicator for all Member States. Yet on the other hand, decoupling was at the same time a market-oriented measure that clearly was not specific enough to support extensive farming systems, and cross-compliance had not really been designed to encourage extensification.

But even putting to one side these policy assessments, more worrying are some of the ideas presently dominant in the academic and NGO think tanks. Two major issues have deeply influenced the European debate by questioning livestock farming and extensive agriculture at a global level: climate change, on the one hand, and feeding the world, on the other.

A global perspective

Livestock's long shadow; environmental issues and options, issued by FAO (Steinfeld *et al.*

BOX 1 Extensive grazing and global warming

1. Grazing animals have been receiving a bad press recently over their alleged contribution to global warming. Worldwide, livestock production has been calculated to account for 18% of the greenhouse gases produced by human activity. This exceeds the total impact from all forms of transport.
2. Much of this comes directly from intensive systems using large amounts of fossil fuels for manufacturing and deploying the infrastructure, machinery, chemicals, drugs and feedstuffs that drive these systems.
3. However, some aspects are specifically associated with extensive systems. Methane heads the list and, as a greenhouse gas, is 23 times more powerful than carbon dioxide. It is released by bacteria in the stomachs of ruminants as they convert the cellulose in plant fibres to digestible sugars.
4. The concentration of methane in the atmosphere has tripled since 1800. Ruminants generate 86 million tons annually (this is a third of that deriving from human activity), and about a quarter of this comes from extensive grazing systems.
5. Western Europe accounts for 6.6% of global methane production, with around half of this coming from sheep and cattle.
6. Methane is a short-lived greenhouse gas, remaining in the atmosphere for between 7-13 years, so mitigation measures would produce beneficial results rapidly.
7. Ruminants grazing semi-natural vegetation at lower stocking densities release larger quantities of methane because such pasture soon becomes mature, developing higher concentrations of cellulose. This contrasts with animals on rotationally grazed grasslands, where the higher grazing pressure slows pasture senescence and limits the accumulation of the fibre that provides the essential substrate for methane production.
8. Although, individually, extensively grazed sheep and cattle generate greater amounts of methane than their intensively reared counterparts, this is mitigated by the lower densities at which they are stocked.
9. Methane from today's extensive livestock systems originates from the same natural resources that have been used by wild herbivores and traditional pastoralists for centuries and should not, therefore, be implicated in the recent climatic trends associated with industrialisation. This means that methane from extensive grazing systems represents carbon that is being recycled naturally, in stark contrast to the emissions from intensive systems that are driven, ultimately, by fossil sources of energy in which the carbon would have otherwise remained sequestered.
10. There is good evidence to suggest that herb-rich natural vegetation is better than grass-dominated vegetation at sequestering atmospheric carbon dioxide back into the soil.

Bill Grayson

2006), can be quoted as a reference publication pointing to the problems raised by livestock farming at a global level, specifically with reference to ruminants. These are reported to contribute to one fifth of the world's greenhouse gas (GHG) emissions. With this perspective, it is proposed that the best way to minimise the impact is to increase the efficiency of the livestock sector as a whole, thus promoting more intensive livestock systems for which the annual balance in terms of GHG emissions is more favourable (see box). From a purely global change perspective, it is preferable to have one cow producing 10,000kg per year and kept indoors (with recycling of emissions for heating, for instance) rather than three grazing cows producing 3,300kg per year and producing more or less three times of GHG for the same 'social utility' as measured by the milk produced.

Food riots in 2007 exacerbated the criticism of extensive agriculture in general, and of the livestock sector in particular, although such events simply drew attention to analyses and positions being established by various think tanks. Livestock is seen as too demanding in its use of land – it is from three to ten times less efficient than cropped land in terms of food produced per ha (in terms of calories). Put simply, meeting the food challenge at a global level is seen as having less livestock and more productive crops.

The integration of these two issues in the policy debate – i.e. addressing climate change and world food shortages – leaves extensive farming systems in an uncomfortable position, especially livestock systems. The concept of intensive ecology, raised under the influence of authors such as Gordon Conway or Michel Griffon, advocates the 'Doubly Green Revolution' (DGR) in order to feed the world. In brief, such a revolution implies the mobilisation of biodiversity for highly productive low-input farms, relying on diversified crop systems. Many examples of successful small farms in the developing countries strongly support this concept. The recent International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), supported by the major UN bodies, has endorsed this idea.

Biodiversity definitions

It seems important to clarify that, in this context, the word 'biodiversity' has two different meanings. At the very beginning of this article it is used in its biological context in relation to nature conservation, as defended in the Biodiversity Convention, with emphasis on those wild species able to take advantage of agri-ecosystems. In the DGR, it is understood mostly as a set of micro-species (e.g. mycorrhiza and useful bugs) playing the role of agricultural auxiliaries in the functioning of agri-ecosystems. The two are not necessarily opposed in principle, but in terms of nature conservation strategies they clearly do not imply the same approaches. Notably, the core areas where the biodiversity 'services' will take place will not be the same in the two approaches: the 'nature conservation' biodiversity will frequently take place in low-productivity farming areas, while the DGR biodiversity is typically mobilised in intrinsically productive areas, with favourable soil conditions for cultivation (although soils might be fragile and require specially adapted tillage).

Our purpose is not to challenge either of the two approaches, but to point out the fact that in many of the arenas in which we have had the opportunity to participate, notably in France, the 'useful biodiversity' has been mixed up with the 'wild biodiversity'. As a result, many observers believe that protecting biodiversity can be achieved by promoting integrated and ecologically intensive farming systems. In France, the author has frequently experienced major NGOs being uncomfortable with the defence of extensive systems. After the 1990s situation, the coming years appear to be those in which extensive farming (i.e. low input and low output) has become politically incorrect for most think tanks and researchers – the main issues being investigated are those dominated by the ecologically intensive systems.

This being the case, it more or less leaves extensive farming systems on the 'mental map' of the European stakeholders at an arbitrary point between nowhere (in the sense that they are not thought or studied in themselves) and clearly delineated biodiversity-rich areas worthy of public support, e.g. Natura2000 or LFA areas.

HNV farmland is regarded by old-fashioned 'deep-ecologists' as little more than zoos, defendable for political commitments, but seen as an odd exception in the context of a growing demand for more efficient agriculture. In this view, true extensive livestock systems are limited to a minimum in order to limit GHG emissions: NGOs do defend HNV systems, but often only as a box to tick on their policy shopping list, and consider them less important than the issues surrounding the reform of intensive and suburban agriculture. Ironically, at the same time, intensive indoor systems find themselves in a better position with regards to climate change.

It is clear that the global issues discussed above are changing the context of the argument for extensive systems. Nevertheless, we would like to suggest a vision that demonstrates that extensive farming still has a role in the European landscape, while also embracing new issues of cross-compliance and world food supply.

Climate change

Let us discuss the climate change issue first. The biofuels strategy has underlined that, sometimes, this could be viewed as being more urgent than all other issues. We have experienced civil servants and researchers explaining that, in order to preserve biodiversity, it is urgent to maximise rape fuel, even if it leads to the ploughing up of permanent grasslands. Such extreme lines of argument have made clear just how inconsistent is an approach that, in order to contribute to the preservation of 'biodiversity' in the long term, actually destroys habitats now. This wider view of the fight as being against global change, rather than carbon emissions, has actually led to a richer scientific debate in which biodiversity can be legitimately defended *per se*, and not simply *against* climate change. More specifically, extensive HNV farming systems can be seen as essential for preserving certain open landscapes, for reducing the risk of forest fires or reducing the flow of water and nutrients in areas with extreme climatic conditions.

On another level, the species richness of the semi-natural vegetation of extensive farming areas is, more than ever, necessary to keep the widest range of (development) options for the future. In addition, keeping uncultivated land allows high carbon storage in the soils. But besides such classical and actual *services* associated with biodiversity, as discussed in the Millennium Ecosystem Assessment, for example, one can even use a more fundamental and ethical reason to defend extensive agricultural and livestock systems. They are often seen as less efficient than other management systems, and might appear to waste carbon and/or methane (although they are certainly not the only ones), but they are irreplaceable for European citizens' cultural heritage. Our discussions with young researchers, a key category to take into account in relation to the future of Europe, have convinced us that most of them do not believe in a fully 'optimised' world, where an industrial approach to cliamte change can be seen to destroy visible nature.

In the end, the tons of carbon that might be saved by replacing HNV farming systems with (maybe) more efficient farming or exploited forest resource and/or second- or third-generation biofuels would simply not justify the loss of irreplaceable habitats. Extensively reared European cows or sheep are an inappropriate target in this context. But extensive farming systems do have an important role to play in a comprehensive strategy against global change: not only in existing areas – which must be urgently preserved – but even in newly populated areas where their services might be more than welcomed.

World food supply

The food criticism might appear more radical. Is it acceptable to give space to extensive HNV farming while the developing countries are experiencing food riots? Is it not morally unacceptable, whatever one might think about biodiversity? In order to discuss this, let us first clarify a point: some claim that it is possible to produce more while harming the environment less. HNV farming is extensive, and thus less productive than other types of farming. But it is no less *efficient* for being low input-low output. Is it still defendable then? Our answer is an unequivocal, yes, taking into account what many analysts now point to: the food crisis can be solved only by increasing the production in developing countries. Not only *can* Europe reduce its level of production, it *must* do it. So long as European – and US – agriculture is based on cereal and livestock product exports and, consequently, protein (soya) imports, it will have a double impact on most developing countries, by increasing competition between local agriculture with cereals subject to high variation in prices on the one hand, and by mobilising land for livestock and biofuels on the other. Thinking at the European level, as we have done up until now, is not being selfish; on the contrary, it involves taking global issues into consideration. Losing an HNV habitat will not help the Indian farmer to produce more for his family; replacing it with a more intensive system will actually compete against him.

Thus, the real sector to be reconsidered in this more global perspective is intensive livestock production, the 'long shadow' of which should now be clear. Indeed, the sustainable use of European farmland stands on less meat and milk intensively produced and, therefore, a higher *share* of extensive farming. It calls for fewer animals, less European cereals for animals (and less protein imported) and, at the same time, the maintenance of the number of animals farmed in a sustainable way on pastoral farmland. The room to manœuvre appears to be much greater by reducing intensive livestock production than that which can be achieved by intensifying extensive livestock systems.

A new vision

Ten years after Colin Tubbs's (1997) vision for European agriculture, we advocate a new look at the role of extensive agriculture in Europe, especially in the light of the increasing debate on food and climate change. Our vision is not, simplistically, to defend extensive agriculture everywhere in Europe. The soil and climate conditions are so diverse that the same strategies cannot be applied everywhere, but we do believe in a 'doubly green revolution' for European agriculture in many productive regions, one based on less intensive livestock and more adaptive crop systems. We also defend the idea that extensive livestock should not be seen as a supplement to this project, but an intrinsic component of European agriculture. There is not one simple answer, and we are aware that such a vision raises many questions, addressing the forms and limits of the different types of agriculture that meet various needs (food markets, health, environment…) and the strategies to reach such developments. We regard such questions as an opportunity to develop a green revolution, one able to combine in time and space ecologically intensive with ecologically extensive agriculture. Our purpose here is to widen the vision and to inject into the NGO and research agenda a more comprehensive land-use strategy, in which extensive farming is not a thing of the past, but a key component of a sustainable and desirable future.

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Landscape-scale conservation of hay meadows by Romanian smallholders

Sally Hubband

A mosaic of meadows in Romania. The idiosyncratic management of meadows by smallholders introduces heterogeneity into the composition of the hay meadow landscape.

The Romanian mountain village of Moeciu de Sus has 700ha of hay meadows interspersed with small pockets of more natural unmanaged calcareous grasslands. Over 4,000 individuals of 46 butterfly species were recorded on eight transects running through these hay meadows during the summers of 2005 and 2006. These are impressive figures, considering that the combined total area of the transect sampling corridors amounted to only 1.7ha of semi-natural and more natural grassland habitat (70% hay meadows, 7% lightly grazed pasture and 23% unmanaged grassland, including recently abandoned hay meadows and rocky calcareous scrub).

Three of the butterfly species recorded, purple-shot copper (*Lycaena alciphron*), mountain alcon blue (*Maculinea rebeli*) and dingy skipper (*Erynnis tages*), are listed as vulnerable on the Red List for Romanian butterflies (see Schmitt & Rákosy 2007). The mountain alcon blue is the only species recorded with a global threat status ('vulnerable'). A further five of the recorded species are listed in the *Red Data Book of European Butterflies (Rhopalocera)* (Van Swaay & Warren 1999): scarce copper (*Lycaena vigaureae*), Duke of Burgundy (*Hamearis lucina*) and Scotch argus (*Erebia aethiops*) (all 'near threatened'), woodland ringlet *(Erebia medusa)* ('vulnerable') and the large blue (*Maculinea arion*) ('endangered').

The presence of so many butterfly species reflects the high incidence of their larval host plants. The larval host plants of many butterfly species thrive only in nutrient poor conditions, and also benefit from low frequencies of mowing as this encourages a more diverse sward by preventing competitive species from becoming dominant. The meadows in Moeciu de Sus are lightly fertilised with dung and are mown by hand once or, at the most, twice per

Sally Hubbard

Scarce copper on masterwort.

summer. Yet, although the low-intensity management of the meadows favours the presence of larval host plants, the mowing leads to the removal of butterfly breeding and feeding resources, and results in the mortality of immature stages. So why do butterflies thrive in the hay-meadow habitats?

The answer to this question lies in the sheer extent of the hay-meadow habitat and the structure of land tenure. In Moeciu de Sus, there are 700ha of hay meadows interspersed with small pockets of more natural unmanaged calcareous grasslands (where the ground is too rocky to cut hay). The structure of land tenure is characterised by several hundred small parcels of meadow (often less than a hectare in size) belonging to the 230 or so smallholdings in the village. All these parcels are managed at a low intensity, but in subtly different ways (e.g. the date when they are cut, amount of dung applied to the land and whether livestock graze the meadow in early spring and/or the autumn, or not at all).

For example, analysis of the 2005 and 2006 butterfly transect data confirmed the adverse impact of mowing on butterfly species on the wing at this time. The only species regularly recorded in freshly mown meadows was the meadow brown (*Maniola jurtina*). Species such as the marbled white (*Melanargia galathea*), however, which emerge in late July in this location, continue to be recorded in unmown habitat. The data illustrates the importance of late-mown meadows, recently abandoned meadows and unmanaged rocky calcareous grasslands in providing habitat for butterflies in mid to late summer. On a note of caution, the data also suggest that butterflies do not use 'islands' of long vegetation when these are surrounded by mown habitat. Nonetheless, the presence of late-mown meadows is important.

The majority of meadows in the village are mown from mid-July onwards, reflecting their location at an altitude of between 1,000m and 1,300m. Early-flying species are therefore less affected by the mowing. Adults of the small blue (*Cupido minimus*) emerge in late May in the village meadows and more or less disappear in early July, shadowing the occurrence of flowering kidney vetch (*Anthyllis vulneraria*), the butterfly's sole host plant. The distribution of the small blue is primarily determined by the presence of suitable conditions in the natural environment. The species is largely limited to meadows and unmown grasslands occurring on thin calcareous soil where kidney vetch seedlings are able to establish. However, a few small blue individuals were also recorded in meadows characterised by more acidic soils and dense vegetation swards. Here, kidney vetch seedlings were able to establish near meadow gateways where there was a higher incidence of bare earth created by cattle hooves.

Importance of variation in meadow management

Interviews with smallholders, in combination with the ethnographic technique of 'participant observation' (whereby the researcher joins in with the daily activities of the researched), enabled an examination of the factors that cause the subtle variations in meadow management. The land of each smallholding is exclusively dedicated to the production of hay for winter fodder, although livestock may graze hay meadow aftermaths in the autumn. In Moeciu de Sus, the absence of pasture land in the immediate confines of the village means that livestock are taken on short-distance transhumance (Romanian academics use the term *pendulation* to describe these movements) to summer pastures, where they are communally herded by shepherds hired specifically for this purpose. Over 80% of all agricultural holdings in Romania keep more than 50% of their produce for home consumption. Livestock production in Moeciu de Sus is also typified by production by the household for the household. The production system is effectively closed, with high inputs of human labour and few, if any, external inputs. The production of hay for the winter months (the mountain areas are often covered in snow from November or December until March) is therefore critical.

Each household's smallholding is comprised of at least two different parcels of meadow, and sometimes as many as five or more, depending on the labour capacity of the household. These parcels are rarely contiguous in their location because of inheritance, marriage or straight sale. The lowest smallholding meadow is the most productive and is cut first, the rest following in sequence with increasing altitude. Anomalies in this sequence occur when a household owns meadows of a similar altitude in different locations. In this situation, it is possible for meadows that could be cut earlier to remain uncut on a section of hill slope on which hay has already been made. A low labour capacity (e.g. a widow with few relatives able to assist her) may also delay the date that a meadow is mown, because each parcel may only be cut after the hay-making on lower meadows has been completed. In combination with variations in the natural environment, the idiosyncratic management of meadows by smallholders introduces heterogeneity into the vegetation height and composition of the hay meadow landscape.

The heterogeneity in vegetation composition caused by differences in management is often visible at the fence lines that demarcate changes of ownership. For example, a relatively well dunged meadow may contain the Romanian Red Listed globeflower (*Trollius europeaus*). In an adjacent and more lightly dunged meadow globeflower may be absent, but the sward may contain mountain arnica (*Arnica montana*), which thrives in conditions of low fertility and is also a Romanian Red Listed species.

Differences in management can also cause stark contrasts in vegetation composition within a meadow. The area around the hay barn often receives more dung, reflecting the greater effort needed to manually carry heavy loads to the furthest areas of the meadow. In one meadow sampled for butterflies, the owners managed the two halves (divided by a path traversing the slope) separately. They thoroughly dunged

the half below the path, in which the barn and dung heap was located. This lower half was mown twice per summer. The area above the path, and furthest from the barn, received far less dung and was only mown once per summer. The upper section was densely carpeted with yellow kidney vetch, but this species was absent from the lower half of the meadow. When the lower section was mown in mid-July, the vegetation remained long in the upper section until it also was mown a few weeks later.

These examples illustrate how subtle differences in low-intensity management practices create variations in vegetation composition and height both between meadows and within the same meadow. Coupled with the variations in the soils, slope and aspect, this creates a highly heterogeneous habitat that can support the needs of numerous species, many of which have different ecological requirements.

Butterfly metapopulations

Further research is needed to investigate the functioning of butterfly metapopulations in the hay meadows of the village. Metapopulations can be described as spatially separated populations of the same species from which individuals can disperse and colonise patches of suitable habitat. Hay meadows are relatively ephemeral habitats. Mowing or changes in fertility levels can potentially cause the extinction of a local population, and it is probable that metapopulations play an important role in ensuring the overall survival of specific species in the locality. Patches of recently abandoned meadows and pockets of calcareous scrub may be providing relatively stable habitat from which source populations can disperse and colonise suitable patches of habitat in the hay meadows when these become available.

The conservation management of protected sites in many areas of Europe is often hampered by processes of fragmentation and isolation which disrupts the functioning of metapopulations. In these cases, it is difficult to conserve species even when the exact management requirements are known and applied. In Moeciu de Sus, the management practices of 230 households are achieving landscape-scale conservation of semi-natural grasslands and their associated species. It is improbable that conservation management would be able to replicate the heterogeneity introduced into the environment by so many households over an equivalent spatial extent (in this case 700ha), even if sufficient financial resources were available.

Agri-environment schemes

Information on the exact total area of upland hay meadows in Romania is difficult to ascertain, but the fact that there are over 800,000 holdings with 'agricultural land' in the mountains suggests that the area of both hay meadow and pasture in these areas is significant. At first glance, this would seem to provide a firm basis from which to conserve semi-natural grassland habitats and the species that they harbour. But the fact remains that the conservation of these habitats is very often a by-product of subsistence livestock production. Smallholdings have long provided a livelihood safety-net, keeping the household going at times when incomes have been low or have disappeared completely. The economic rationale underpinning this type of production will therefore lessen as the economy of the country develops and as opportunities for more secure and financially rewarding livelihoods increase.

Sally Huband

Small blue butterfly laying eggs on kidney vetch.

In the short term, the newly-implemented agri-environment scheme which targets the conservation of semi-natural grasslands may provide some welcome income for the smallholders that are able to access this rural development measure. However, the resources available for this measure are relatively low in comparison to the 2.4 million hectares of this habitat that occur in the country. Furthermore, the agri-environment scheme does not provide the facility to support the communal herding element common to subsistence livestock production in many mountain villages. In Moeciu de Sus, head shepherds are already finding it difficult to hire sufficiently skilled shepherds, who are attracted into other jobs that pay similar wages for better working conditions. In many respects, the high nature value of the hay meadows in Moeciu de Sus is dependent on the communal herding on summer pastures. Finding ways to support shepherding livelihoods is as important as developing specific meadow and grassland management prescriptions.

Many of the semi-natural grassland agri-environment management prescriptions are designed to limit the intensification of land management practices. In this research, each meadow sampled for butterflies was assigned a management score based on the level of dunging, frequency of mowing and level of grazing. These management scores were used to investigate the relationship between the intensity of meadow use and the number of butterfly species recorded in a meadow. A significant negative correlation was found between meadow management intensity and the 37 species recorded. This relationship provides the rationale for limiting the intensification of meadows in agri-environment agreements or those falling within the boundaries of Natura 2000 sites.

At present, the level of fertilisation of the meadows in Moeciu de Sus is limited by the amount of dung available. The number of cattle and sheep kept is in turn limited by the amount of hay that can be produced for the winter months, which itself is limited by the labour capacity of the household. There is neither the means nor the motivation to intensify production on the smallholding. The subsistence nature of the production system therefore makes the intensification of management a less likely scenario than abandonment in the mountain regions where land is relatively unproductive. There are already signs in Moeciu de Sus that the area of abandoned meadows is increasing each year. It seems that this trend will continue, unless the means to support the social viability of smallholding-based production and herding are found. An important step towards this will be to provide further case studies of the ecological relationships between land management practices and the biodiversity of semi-natural grasslands in relation to the organisation and functioning of traditional livestock production.

Sally Huband

*Further information on this work can be accessed at the EFNCP website: http://www.efncp.org/hnv-showcases/romanian-carpathian-mountains/

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Semi-natural grassland workshop in Konstanz

Eric Bignal

Delegates discussing semi-natural grassland, on one of the field visits at Konstanz.

For such a big country, Sweden does not have much semi-natural grassland left. Perhaps this partly explains why Swedish nature conservationists pay a lot of attention to the subject. The country seems to have a wealth of experience in projects aimed at the conservation of semi-natural grasslands. One such project is the HagmarksMISTRA research programme, 'Management of semi-natural grasslands – economy and biodiversity', which comes to the end of its seven-year timetable at the end of 2008. To mark the end of this project, the Swedish Biodiversity Centre (CBM) teamed up with EFNCP to organise a European workshop considering 'Where next for semi-natural grasslands research?'.

To avoid the rigours of late October in Sweden, the workshop was arranged in the warmer latitudes of Konstanz (Baden-Würtemberg, Germany). This was possible thanks to our genial host and tireless organiser, Rainer Luick (EFNCP and University of Rottenburg). The workshop began not with welcoming speeches and presentations, but with a very informative field visit to the local landscape and grasslands, and to a farmer who is directly committed to their maintenance. Mr Müller generously gave up his Sunday afternoon to show us his farm and the grasslands he manages, as well as feeding us with cheese, cider and other delicacies.

The hard work began on Monday morning (20th October), when some 60 participants gathered on the island of Mainau, a few kilometres from Konstanz on the Boden See. We were introduced to the HagmarksMISTRA project by Åke Berg and J O Helldin. The background material for the workshop told us that the main goal had been 'to find the best solutions for different types of meadows and semi-natural grasslands to preserve and enhance biodiversity together with other values, while showing respect and consideration for the local land-use history and acknowledging farmers' experiences and perceptions, reaching stability by means of an ecologically sound management of the grasslands and sustainability by means of profitable production and business models'.

Åke's tantalising glimpses left some of us hungry for more specific information about the content of the programme and its findings, especially as the idea of the workshop was to consider possible research cooperation at the European level. One crucial point about the HagmarksMISTRA project is that it has successfully influenced Swedish agricultural policy concerning semi-natural grasslands. So a key concern for many participants was how to replicate Swedish success in influencing policy, particularly EU policies affecting semi-natural grasslands.

There was great enthusiasm and a wide range of knowledge amongst the participants, with a diversity of perspectives on semi-natural grasslands, including biodiversity, landscape, livestock production and biomass for energy. There were natural scientists, social scientists, farm advisors and others involved directly or indirectly with farming on semi-natural grasslands. Many countries were represented, especially from the north-west, centre and east of the EU. The absence of participants from southern Europe was noticeable and disappointing, given the vast extent of semi-natural grazing in the Mediterranean countries and its crucial importance for European biodiversity.

The workshop set out to harness this enthusiasm and knowledge by means of the Open Space Technique. Rather than a series of conference-style presentations, this approach responds to the perception that coffee breaks are often the most interesting part of more traditional conferences. In some ways, the two-day workshop was more of a 'very long coffee break'. This allowed us to get to know each other and to enjoy very fluid discussions, with plenty of participation from everybody, although, being parallel workshops, we could not all take part in all of the discussions. Perhaps a weakness of the Open Space Technique was that it shifted the balance too far away from the more typical succession of Powerpoint presentations. The workshop included only one structured presentation, where Gwyn Jones (EFNCP) set out a range of EU policy issues affecting semi-natural grasslands. This presentation raised numerous questions and concerns of critical importance for the overall objectives of the workshop. We touched on many of these in our discussions but most were left largely unanswered.

The themes discussed in the workshop were wide ranging, but the outline below attempts to summarise them according to three subject groups.

Definition and identification of semi-natural grasslands

What is semi-natural grassland? Surprisingly, given the extent of research that has been undertaken, there are basic issues of definition that need to be clarified. Ironically, there is no common understanding of what we mean by 'semi-natural', or by 'grassland'. Interpretations apparently vary from country to country. Some types of semi-natural vegetation that are grazed or browsed by livestock on a large scale are not strictly *grass*land (heaths, scrub, grazed woodland…). Terms used in EU agricultural policy such as 'permanent pasture' and 'rough grazing' certainly include semi-natural grassland, but they also focus on herbaceous pasture and thus can exclude some types of grazed vegetation, such as wood pastures. Permanent pasture, according to the CAP, can also include grassland that has been reseeded and heavily fertilised. Is there a need for a new terminology? Does the term 'High Nature Value forage land' cover it? Where does 'saltus' fit in?

Conservation values and objectives

In targeting policy, how do we identify 'semi-natural'? Or perhaps the important

distinction is between 'valuable' and 'less valuable' grazing land for nature conservation? If some types of semi-natural grassland (or forage) and some management regimes are more valued than others, then how should we compare and distinguish between them? Can we identify the more valuable land or farming systems without elaborate species inventories and vegetation atlases?

Several issues were discussed in relation to setting objectives. For example, how should conservation objectives be defined – at EU level, at the landscape scale, for individual species, etc.? What is the appropriate balance of extensive and intensive grasslands on an individual farm or within a region?

Policies

What are the most effective methods of persuading politicians and policymakers to take the decisions that will help farmers and others to manage semi-natural grasslands for biodiversity? Plenty of discussion focused on the CAP and the eternal questions about how to make it support HNV farming (through Pillar 1, Pillar 2, agri-environment, etc.). What can or would motivate farmers to continue to manage and conserve semi-natural grasslands? What are the key factors for creating this motivation? It was stressed that many semi-subsistence farmers 'fall through the net' of agricultural support payments. Does this matter for semi-natural grasslands, and for the farmers that use them?

Other economic and environmental issues

Can semi-natural grassland be maintained without public subsidy, by adding value through the market? How can we increase the monetary (economic) value to the farmer of the products and services from semi-natural grasslands? There may be a need for more research on whether meat/milk from HNV grassland has different qualities (texture, fats etc.) from more intensively produced meat/milk. Or is energy production from semi-natural grassland (biomass) an alternative use? How do we evaluate wider environmental and cultural-heritage benefits (and disadvantages) of semi-natural grasslands and their farming systems?

In addition to the wide-ranging debates on these issues of European interest, for me there were also some interesting insights into things happening in this part of southern Germany. The biomass theme seems especially prominent here, partly from the point of view of policies that strongly encourage farmers to install biodigesters for biogas, but also because there seems to be an issue particular to the area. As a result of agri-environment measures, there is quite a lot of mowing taking place on meadows, but the resulting biomass does not have an outlet in the livestock sector. Biogas plants are therefore seen as a practical way of exploiting this cut grass.

We also heard how some of the issues about CAP rules raised by EFNCP, mainly from experience in Bulgaria, Romania and Estonia, are very much alive in this part of Germany. In particular, the failure of the CAP rules (or their interpretation at national and regional levels) to recognise that scrubby grazing land is just as much farmland, in reality, as an exclusively grass pasture. As a result of this failure, the CAP often does not support the grazing of such land, and farmers are discouraged from trying to maintain it in farming use. This situation is directly contrary to the aim of maintaining HNV farmland, now enshrined in both the CAP and EU biodiversity policies.

Drawing conclusions

So where does this all take us, as a community of people interested in the future of semi-natural grasslands? One possibility is to put together more research projects. There clearly are things that need researching and issues that need clarifying, not least most of those referred to above. However, during the workshop there were several comments to the effect that, if we want to halt the decline of semi-natural grasslands, undertaking more research probably is not the priority. Rather, the urgent need is for existing knowledge to be brought together in a more integrated manner, and to have a far greater input into the policy-making process. Enough is known already to enable far more effective policies for supporting the conservation of semi-natural grasslands, through the maintenance of low-intensity farming. We know that much of the reason for this not happening at the EU level is that decision-makers choose other priorities, especially where the CAP is concerned. However, this may be not entirely due to a lack of willingness to act in favour of semi-natural grasslands, but also to a lack of understanding of the issues on the part of policymakers. Perhaps a more effective presentation of the issues and possible solutions from our side could lead to some improvement in the policies.

Finally, the workshop emphasised the need to improve effective communication across the community of individuals and organisations involved in semi-natural grassland conservation. The Forum has long recognised this need, and our website www.efncp.org has evolved considerably in recent months, with the addition of new 'Showcases of HNV farming', which illustrate, using local examples, the practical connections between low-intensity livestock farming and biodiversity conservation. The Swedish Biodiversity Centre (CBM) has established a new website called BioHeritage http://bioheritage.slu.se/, which includes a discussion forum on the subjects raised at the Konstanz conference.

Guy Beaufoy, EFNCP

Noticeboard

CAP2020: the future development of the CAP

CAP2020 is a new website (http://cap2020.ieep.eu/) set up by the Institute for European Environmental Policy (IEEP) to help share commentary and analysis on the future development of the Common Agricultural Policy (CAP). The site aims to be the centre of the reform debate, providing an outlet for vision statements and research outputs, as well as summaries of relevant workshops, seminars and conferences. Contributions are sought on all issues shaping the reform agenda. Those with an interest in High Nature Value (HNV) farming are especially encouraged to offer short articles on the subject of public goods, which IEEP considers is the most relevant part of the website to discuss implementing the HNV concept (see http://cap2020.ieep.eu/2008/11/7/public-goods).

Enormous effort required to halt biodiversity loss by 2010

The EU will fail to meet its target of halting the loss of biodiversity by 2010 unless there is significant additional effort over the next two years. This is the key conclusion of the first comprehensive assessment of progress in implementing a Biodiversity Action Plan to halt biodiversity loss in the EU. Despite some encouraging results, notably with the further extension of the Natura 2000 network of protected areas and important investments in biodiversity, the integration of biodiversity and ecosystem concerns into other sectoral policies remains an important challenge. A new Communication from the Commission identifies priorities for further action. High Nature Value farmland does feature (within the indicator concerned with *Agriculture: area under management practices potentially supporting biodiversity*) as part of one of the 26 indicators being used to assess progress towards the 2010 target. For further information see the Commission press release at: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1988&format=HTML&aged=0&language=EN&guiLanguage=en and download a copy of the full report from: http://ec.europa.eu/environment/nature/biodiversity/comm2006/bap_2008.htm.

Mapping High Nature Value areas in Sweden

The Swedish Agriculture Agency (Jordbruksverket) has recently published the results of a project mapping HNV areas in Sweden. The full report

(*Kartering av jordbruksmark med höga naturvärden (HNV) i Sverige*, rapport 2008:9) is available in Swedish only. However, further information can be obtained from Martin Sjödahl at Jordbruksverket (martin.sjodahl@sjv.se). The full report can be downloaded at http://www2.sjv.se/webdav/files/SJV/trycksaker/Pdf_rapporter/ra08_9.pdf.

LIFE brochure on grassland ecosystems

Grassland ecosystems hold an important part of Europe's biodiversity. They offer ideal conditions for a vast diversity of habitats and species, are the source of a wide range of public goods and services, and also act as carbon 'sinks'. Changes in agricultural practices and land-use pressures mean that grasslands are disappearing at an alarming rate. A new 56-page brochure entitled *LIFE and Europe's grasslands: restoring a forgotten habitat* highlights a selection of LIFE co-funded projects targeting grassland ecosystems within the Natura 2000 network. The report can be downloaded at http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/grassland.pdf.

Farming for conservation: supporting the future

Generations of farming activity have shaped, enriched and sustained many of Europe's most important HNV landscapes. The conservation of these depends on the continuation of sustainable farming practices. The Burren region of Ireland provides an interesting example of how farming interacts with the landscape. The work of the BurrenLIFE project offers a useful case study of how the issues affecting such landscapes may be tackled in a meaningful way.

To explore these themes, a three-day international conference entitled *Farming for conservation: supporting the future* took place in Ennistymon, Co. Clare, Ireland, in 2008. The report of this conference can be downloaded from: http://www.burrenlife.com/reports-publications.php.

Forum for the Future of Agriculture

The second *Forum for the Future of Agriculture* (FFA) one-day conference will take place in Brussels on 18th March 2009. The conference will again be chaired by Franz Fischler, and will include high-level speakers representing, among others, the European Commission, European Parliament, FAO, Member States and the private sector. FFA 2009 will put a particular focus on how we govern and provide finance for food and environmental security against the backdrop of the global economic crisis. Questions which will be addressed include: Do we need new structures to better govern and provide finance for food and environmental security?; How has the financial crisis affected global trends and prospects for agriculture and the environment?; Is Europe doing enough to build its own capacity for food and environmental security?; What should be Europe's role in reforming the structures for governing and financing food and environmental security?; Has the world responded effectively to the challenge of food and environmental security, and what should it do next? Further details will be posted soon on the European Landowner Organisation website at: http://www.elo.org.

Irish landscape conference: looking around, looking ahead

This Heritage Council conference will be take place in Tullamore, Ireland, on 13th-16th October 2009. The conference aims to assess how effective current strategic and legislative provisions are in securing the sustainable development of Irish landscapes and in providing for effective landscape planning, landscape management and landscape conservation. The conference will be firmly bedded in the approach advocated in the European Landscape Convention. Cultural and natural landscapes will be considered in an integrated manner, using a multidisciplinary approach. The intent is to seek to identify the most appropriate mechanisms to secure long-term benefits for communities and their landscapes alike. Examination of the relevance of Irish landscapes to the lives of the communities and individuals who live in, work in and visit all these landscapes on a daily basis will be a central theme for discussion. Anyone interested in attending can register interest by contacting Anne Barcoe by e-mail at abarcoe@heritagecouncil.ie. Those expressing an interest now will receive details of the booking arrangements prior to general publicity of the conference. Booking will be essential as places are limited. A final programme for the conference will be circulated in spring 2009.

Major French conference on biodiversity and agriculture

The conference on *Biodiversity and agriculture: today's challenges, tomorrow's research for more sustainable farming* was held on 4th and 5th November 2008 in Montpellier, France. The event targeted European and International decision-makers and stakeholders. The programme focused on an area of research that is currently seeing considerable growth: exploring the enhancement of biodiversity through agriculture, as well as considering the impact of agriculture on biodiversity. Four principal topics were discussed: the services provided by ecosystems and agricultural landscapes, impacts and driving forces in northern and southern countries, the role of landscape structures and the international organisation of research and knowledge. Videos of the conference, including speeches by the French Minister for Higher Education and Research and the French Minister for Agriculture and Fisheries, together with the conclusions of the conference, can be downloaded from www.inra.fr/biodiversity_agriculture_pfue/news__1/videos_and_conclusions.

Call for proposals for Nature Protection projects in Romania

On 28th November 2008, the Romanian Ministry of Environment & Sustainable Development launched a call for proposals for Nature Protection projects, financed under the EU Structural Funds. Proposals should highlight how they will help bolster the implementation of the EU Birds and Habitats Directives, and the related Natura 2000 network in Romania. Projects may be submitted for one or more of the following types of activities: preparation of protected area management plans or conservation strategies (principally for Natura 2000 sites); installation of nature protection infrastructure for public use (e.g. visitor centres, trails, etc); conservation and/or restoration of species and habitats protected under EU Directives; raising public awareness about nature protection; improving capacity to manage sites, habitats and species. The overall budget available for the period 2007-2013 is some €215 million. There is no upper limit on project costs, but applicants may be required to contribute 20% co-financing and pay VAT according to their legal status and project expenditures. Proposals must be submitted by 30th April 2009, using the official application form, and following the guidelines available for download at: http://www.mmediu.ro/proiecte_europene/axa4.htm.

Erratum

On page 10 of *La Cañada 22* Gwyn Jones wrote that no livestock grazing is permitted on Bulgarian State forest land. While this used to be the case, the law was amended in the light of the findings of the SAPARD agri-environment pilot programme. At present, only the pasturing of goats remains prohibited. We apologise for any confusion.

The European Forum on Nature Conservation and Pastoralism brings together ecologists, nature conservationists, farmers and policy-makers. This non-profit-making network exists to increase understanding of the high nature-conservation and cultural value of certain farming systems and to inform work on their maintenance.
www.efncp.org

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