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Follow-up of farmers in Basse-Normandie:
Qualitative information
(technical organisation of the follow-up)

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Introduction

The follow-up, the methodology proposed for the analysis of private transaction costs, is based on a regular contact between the farmers and the researchers. The aim of this follow-up is to get quantitative information on costs, labour needed for the implementation of AES and the yields foregone due to AESs. Yet, because of this relationship with the farmer, more than only quantitative information has been obtained. A farmer can discuss problems concerning the contact with the administrations, or give an overview on how his farm strategy has changed since implementing AESs etc.

This qualitative information highlights the scope of the collected quantitative data. But next to this it can also help to understand the general strategy and management of farmers regarding AESs. Furthermore, interesting information, “through farmers’ eyes”, is collected about the way AES measures and contracts are implemented by the administration or the agency in charge.

This document can be used as a grid for structuring the qualitative information and for indicating which information is wanted. A first part describes the technical organisation of the follow-up, a second part handles the qualitative information where useful grouped by agri-environmental scheme. The deadline for the first part is 17th of February 2006. The second part should be submitted before the end of April 2006.

1 Technical organisation of the follow-up.

This part describes shortly how the follow-up has been organized in our case-study.

1.1 In preparation of the follow-up

1.1.1 The studied measures

Four types of measures have been chosen. Two measures to be applied on grasslands; one measure on arable land and one related to hedges:

- 2001: Extensive management of grasslands through cutting (or grazing);
- 1601: Late mowing.
- 301A: Winter covering of arable land (intercropping);
- 602A: Maintenance of hedges;

Three of these measures have been chosen because their high level of participation (measures 2001; 301A; and 602A). Moreover, measure 1601 has been studied because its potential high impact on the environment.

Although 4 types of measure are being studied within the present follow-up, it should be kept in mind that those are part of a scheme (i.e. CTE) that can integrate simultaneously 10 to 15 different measures. In the considered sample of farms, the studied measures are always coming (and thus implemented by the farmer) with other non-studied measures.

Therefore, it has not always been easy to precisely allocated such-and-such costs (or benefits) to a specific measures as some costs (or benefits) may be share among different measures and/or may be strongly related to other measure(s).

In case of overlapping of measures on a same plot, all the subsidies coming out from the whole set of measures were allocated to the studied concerned measure.

In order to better understand the French follow-up; it is important to describe each type of measure.

1.1.1.1 Measure 301A: Winter covering of arable land

This measure seeks to:

- limit leaching of nitrogen in order to preserve the water quality;
- limit the soil erosion.

First, this measure was implemented within the framework of the CTEs (*i.e. Contrats Territoriaux d'Exploitation*) in 1999 and then, was renewed within the CADs (*i.e. Contrats Agriculture Durable*) in 2003.

Nevertheless, the winter covering of arable land has become compulsory in the CTE/CAD in some specific areas (*Zone d'Action Complémentaire*¹) defined within the framework of the water policy.

With regards to Reg.EC 676/91, all farmers located in Nitrate Vulnerable Zones have some obligations in terms of limiting fertilisation, implantation of cover crops fixing nitrate surplus in winter, book-keeping, etc... Basically these obligations are the same as those committed within the measure 301A.

This measure consists in planting an intercrop on arable land that soil would be bare in winter. Operations to implement are defined at the NUTS 2 level and then adapted at the NUTS 3 (CTE/CAD standards).

The prescriptions of this rotational measure are described as follow (Box 1)

Box 1: Prescriptions of the measure 301A

Eligibility rules: the winter intercropping has to cover at least 5% of the UAA, with a minimum of 2 ha.

Technical prescriptions:

- Intercrops should belong to the following families: Graminae (rye, rye grass, ...), Brassiceae (rapeseed, ...), Leguminosae and Hydrophyllaceae.
- Sowing within maximum 15 days after harvest and by October 31st at the latest.
- No use of chemicals except for rye grass destruction.
- Organic fertilisation allowed if intercrop sown before October 1st (maximum doses; manure: 25t./ha ; slurry: 30m³./ha).
- Intercrop destruction not allowed before February 15th

Amount of annual premium:

Two sub-measures can be chosen by farmers:

- 301A01 in case of less than 40% of the bare-soil is concerned. The annual premium is **91.47€/ha/year**
- 301A02 in case of more than 40% of the bare-soil is concerned. The annual premium is **137.20€/ha/year**

¹ Areas located in catchment basins; uphill from a capture of superficial water intended to consuming

Measure 301A01 is represented 3 times in our sample, while 20 farmers have contracted the measure 301A02.

1.1.1.2 Measure 2001: Extensive management of grasslands through cutting (or grazing)

The measure 2001 contributes to maintain some farming practices preserving environment. It seeks to:

- limit the mineral fertilisation on grasslands in order to preserve water quality;
- avoid land abandonment and to promote extensive farming management to maintain biodiversity.

In Manche, 5 sub-measures were offered to farmers within the framework of the CTEs. In the same way, farmers contracting a CAD have the possibility to chose one or two varieties of this measure according to their localisation “Bocage Normand” or Cotentin marshes.

In order to simplify the follow-up exercise, we chose to study only the two sub-measures related to the suppression of organic fertilisation (2001B01 and 2001C02). The prescriptions are described in Box 2.

Box 2: Prescriptions of the measure 2001

Technical prescriptions valid for all sub-measures 2001:

- Bans: levelling, afforestation, burn-off, slashing and burning, underground draining, silage, direct foddering in case of exclusive cutting management.
- Tillage forbidden.
- Localised chemical weeding (on thistles, nettles, etc...) allowed upon approval of the technical committee.
- Liming input allowed if soil pH < 5,8 in case of marshland and 6,2 in other cases.
- Respect of the cutting dates (annually given by the technical committee).
- Maximum 1,8 LU/ha in case of grazing.

Specific prescriptions to 2001B01:

- Organic fertilisation forbidden
- Mineral fertilisation limited to 60-60-60 / ha / year.

Specific prescriptions to 2001C02:

- Organic fertilisation forbidden
- Mineral fertilisation limited to 30-20-20 / ha / year.

Administrative tasks:

- Regular book-keeping of grazing and cutting activities.
- To keep up to date a registration book recording all mineral fertilisation activities undertaken within the whole farm.

Amount of annual premium:

- 2001B01: **180.65€/ha/year**
- 2001C02: **214.95€/ha/year**

Number of farmers having contracted those measures within the sample:

2001B01: 19 farmers

2001C02: 15 farmers

1.1.1.3 Measure 602A: Maintenance of hedges

The measure 602A contributes to maintain hedges in order to improve the multiple functions of Bocage pattern:

- Animal habitats;
- Improvement of cropping yield;
- Conservation of soil fertility;
- Water purification and regulation;
- Diversity of fauna and flora;
- Wood production;
- Participation in landscape.

Three sub-measures are studied in the follow-up:

- the 602A01 is related to the maintenance of low hedgerows (to be done every year)
- the 602A02 and 602A03 are related to high hedgerows (to be done twice every 5 years). Only one side is maintained in the case of the 602A02 whereas the 602A03 deals with the two sides of hedgerows. These two sub-measures are very similar and that is why we decided to study them jointly.

Box 3: Prescriptions of the measure 602A

Technical prescriptions valid for all sub-measures 602A:

- Removing dead branches and trees. Nevertheless, in the presence of dead trees, keeping one dead tree for 100m.
- Maintenance before March 31st and after July 15th.
- Clearing foot of hedgerows
- Gathering and burning the left-over wood after pruning.

Specific prescriptions to 602A01(Low hedgerows):

- Crushing or cutting once or twice a year;

Specific prescriptions to 602A02 and 602A03 (High hedgerows):

- Cutting hedgerows twice in five years with adapted materials;
- Replace missing trees to obtain a minimal density of one tree for 20 meters of hedgerows.

Amount of annual premium:

- 602A01: **0.11€/m/year**
- 602A02: **0.21€/m/year**
- 602A03: **0.42€/m/year**

Number of farmers involved in these measures within the sample:

- 602A01: 20 farmers
- 602A02: 21 farmers
- 602A03: 7 farmers

1.1.1.4 Measure 1601: Late mowing

The objective of this measure is to promote the nesting of water birds which is an important environmental issue in Manche and in particular in Cotentin marshes (RAMSAR area). This measure mainly consists in delaying the use of meadows to allow the birds to reproduce.

Two sub-measures are studied in the follow-up. The 1601A02 was implemented within the CTE framework in 1999 and the 1601Z01 which is quite similar, has been implemented by farmers since 2003 within CAD framework.

Box 4: Prescriptions of the measure 1601Eligibility rules

- Only the grasslands located on the Cotentin marshes are eligible to this measure
- The measure has to cover at least 4% of the farmed marshlands

Technical prescriptions:

- Bans: levelling, afforestation, burn-off, slashing and burning, underground draining, silage, direct foddering in case of exclusive cutting management.
- Tillage forbidden.
- Mineral and organic fertilisation forbidden
- Grasslands cannot be mowed or pastured before July 25th.
- Obligatory maintenance of meadows by mowing or pasturing after July 25th.

Specific to the 1601Z01

- Maximum 1,8 LU/ha on average in the farm

Administrative tasks:

- Regular book-keeping of grazing and mowing activities.
- To keep up to date a registration book recording all input applications.

Amount of annual premium:

- 1601A02: **152.44€/ha/year**
- 1601Z01 (addition of the measures 1601A02 and 2001A01): **292.70€/ha/year**

Number of farmers involved in these measures within the sample:

1601A02: 5 farmers

1601Z01: 1 farmer

1.1.2 Sampling method

Regarding the way the sample was done, it was firstly decided to select farmers not from all the case study region of Basse-Normandie (NUTS 2 level area) in order to limit transportation costs. Thus, Manche (NUTS 3 level area) was chosen because we had already relevant data about farming particularly in the Regional Nature Park (RNP) of Cotentin marshes area. Moreover, the agricultural sector was quite homogenous, predominated by cattle farms mainly oriented towards dairy farming systems.

Moreover, it was set up that half-interviewees should have been farmers located into the RNP of Cotentin marshes area. Indeed, this procedure allowed us to check the hypothesis that farmers located in this territory managed by a specific governance structure have benefited of additional information and training, thus decreasing their private transaction costs to implement AESs.

In the meantime, a pilot interview was conducted in December 2004 with an organic farmer located within the RNP area. The aim of this interview was to test the first phase of the questionnaire (i.e. general information + 2004 data) as well as to get a farmer's opinion on the follow-up, its further feasibility and implementation.

Second, information about farmers participating in AESs were obtained from the ADASEA of Manche (i.e. *Association Départementale d'Aménagement des Structures et des Exploitations Agricoles*)². vegetable farms as well as off-soil farms were deleted from the data set.

Besides, only farmers participating in two or more of the studied measures were selected. An introduction letter was sent in January 2005 to all of them in which the intended research project was presented, as well as the follow-up objectives and expectations (cf. Annex 1).

Third, in order to cover the whole Manche area, we divided the area into three zones from South to North of Manche. Ten farmers were randomly selected in each zone. (cf. map in Annex 2)

One or two ITAES staff members were in charge of each zone. Farmers were contacted by phone on February 2005. The ITAES objectives were explained in order to underline the relevance of the follow-up. Only a few farmers refused to participate; either they did not correspond to our criteria (end of agro-environmental contract; change or abandonment of measures...) or they put forward the lack of time. The study was globally pretty well perceived by the responding farmers as all of them were interested by the process and the tackled issue. It was decided to give a compensation payment of 150€ by farmer but this point was not mention in the first phone call.

A first visit, was done at each farmer's in February 2005 in order to present the follow-up in deepest details, to confirm the farmer's commitment and to proceed with the completion of the "General information" as well as "2004 data" questionnaire.

Then, those thirty farmers began the follow-up on March 1st, 2005.

² ADASEA is a non-profit associative body, acting at the NUTS 3 level on behalf of the CNASEA, which is the payment agency, after approval of the MoA.

The ADASEA is in charge of administrating and pre-instructing the AES application file.

1.2 Implementation of the follow-up

1.2.1 Needed information to interpret the results

From the first face-to-face interview with farmers, it was decided to collect data on a monthly basis in accordance with the UGENT team. However, it is important to notice that farmers hardly sent back their datasheets regularly. Thus, farmers are visited every two months to complete datasheets and regular contacts are kept through mailings and/or phone calls.

Moreover, the specificities of the French AESs led to adaptations to the methodology:

1) Given that agro-environmental contracts are made up of several measures (some being interconnected or overlapped), it was quite difficult for farmers to separate time and costs spent to implement each of them; in particular regarding administrative costs. So we asked the farmers to fill in only one table for all the studied measures. Nevertheless farmers had to indicate, for each task, what measure(s) it was connected to, whenever possible (cf. Annex 3). In case it was not possible to identify a specific measure, we chose to allocate the related time and costs to the most important contracted concerned measure in term of amount of payments.

2) As field pattern is very divided up in Manche, we chose, for each farmer, to study all the plots concerned by the same measure and not only one plot in particular. Thus, tables were filled in with data related to one virtual parcel whose surface is equal to the total engaged area within the concerned measure.

3) As the follow-up was very time consuming for farmers, we decided to ask them to report only the tasks related to AESs. For instance, in the case of winter covering on arable land, it was asked to farmers to report time and costs related to sowing activities, maintenance of the cover and then, crushing of the winter cover. Tasks related to the main crop (maize for most of them) have not been reported. Nevertheless, in order to correspond to instructions given in the follow-up methodology, we will most probably complete the data provided by the farmers by regional technical references recorded by agronomists of farm management centres (*i.e.* *Centre d'Economie Rurale, CER*³).

4) To solve the problem of relevance of the reference, we defined the reference as an hypothetical situation where no AES would be applied on the considered area. As this reference was difficult to estimate task by task (and much more difficult in case of overlaps) by farmers, we designed a questionnaire adapted to each studied measure to reveal what farming practices would have been applied if no AES would be contracted by farmers. This questionnaire led to construct a scenario of reference for each farmer used as a basis to fill in the datasheets.

1.2.2 Practical information

The follow-up approach is very time consuming.

Between February 2005 and March 2006, five face-to-face visits of one hour long (sometimes more) were needed so far. The first two visits aimed at explaining to farmers the follow-up approach and the way to fill in datasheets and the third one intended to set up the scenario of

³ Farm management centres are independent and private companies aiming at supporting, at the NUTS 3 level, the farmers in their farm management, development and accountancy.

reference “without AESs”. Moreover, each visit gave rise to complete and precise data recorded by farmers. In addition to these face-to-face interviews, several mails and phone calls have been exchanged.

Regarding transportation costs, although they are difficult to estimate, 10 farmers are located between 45 minutes and 1 hour by car from Rennes, 10 are located between 1h30 and 1h45 far, and the remaining 10 farmers are from 2h to 2h45 far from Rennes. Visits were mainly organised on 2 to 3-day sessions.

It has finally to be reported that 3 farmers give up the follow-up so far (black spots in the Annex 2).

- The farm "EARL de la Lodinière" gave up because of personal reasons leading to a lack of available time. For this one, "General information" as well as "2004 data" and the first 3 months of the follow-up are nonetheless available.
- The farmer Denis Massue gave up, obviously because of a lack of motivation, but "General information", "2004 data" as well as 2 months of the follow-up are nonetheless available.
- The farm "GAEC du Fresne Buisson" gave up also because of lack of motivation. In addition, the farmer did not sound a quite trustable person. Only "General information" and "2004 data" are available for this farm.

Those renunciations therefore led to changes in the occurrences of studied measures. Thus, the following table presents the data as they are now:

Studied measures	Number of farmers involved
0301A01	2
0301A02	19
0602A01	18
0602A02	19
0602A03	6
1601A02	4
1601Z01	1
2001B01	17
2001C02	14

Annex 1: Letter sent to farmers

REPUBLIQUE FRANCAISE



**UNITE D'ECONOMIE
ET SOCIOLOGIE RURALES**



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Objet : enquête ITAES Manche
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GAEC DU RIVAGE
Le Rivage
50500 AUVERS

Rennes, 27 janvier 2005

Madame, Monsieur,

L'INRA Economie et Sociologie de Rennes vous sollicite afin de participer à une enquête dans le cadre d'un projet de recherche européen sur les mesures agri-environnementales.

Votre adresse a été tirée aléatoirement dans une liste d'exploitations agricoles que l'ADASEA de la Manche a gracieusement mis à notre disposition. Vous pouvez bien sûr refuser de participer à cette enquête : le plus simple est alors d'attendre notre appel téléphonique pour nous le dire.

Présentation de l'opération :

L'INRA Economie et Sociologie de Rennes organise au cours des mois de février et mars 2005 le lancement d'une enquête dans le but de suivre, puis d'évaluer le surplus de travail des exploitants qui est occasionné par la mise en place des MAE d'un CTE ou d'un CAD sur leur exploitation. Le déroulement de ces enquêtes se réalisera sur l'année en cours, les exploitants devront remplir des fiches d'informations qui, à terme nous permettront de calculer les coûts engendrés par le contrat.

Une attention particulière sera portée au supplément de travail administratif engendré par ces contrats, qui est supporté par les exploitants agricoles concernés. Pour l'instant ces coûts d'administration sont mal pris en compte ou simplement ignorés, notamment dans le calcul des compensations (montant des aides par contrat) tant localement qu'au niveau européen, car ils sont difficiles à mesurer et donc très mal connus. Une mesure fiable de ces coûts d'administration nécessite donc votre collaboration.

L'objectif de ces entretiens :

Le but du premier entretien, lors de la phase de lancement de l'enquête est de donner aux agriculteurs toute l'information nécessaire pour remplir les fiches d'informations.

Notre objectif est de collecter un ensemble de données chiffrées qui nous permettront au terme de l'année de chiffrer le surplus de travail et les surcoûts des MAE. Deux types de fiches seront à remplir, l'une concerne les investissements relatifs aux MAE, l'autre s'intéresse aux coûts, revenus et temps passé relatifs aux MAE. Nous optimiserons avec vous un calendrier de travail, ce dernier dépendra de votre calendrier cultural et de vos disponibilités.

En pratique :

La durée prévue de l'entretien lors du lancement de l'enquête est de deux heures.

L'exploitation de ces enquêtes sera réalisée en conformité avec la réglementation et les règles habituelles de déontologie de l'INRA, garantissant notamment l'anonymat des personnes interrogées et la confidentialité des données individuelles.

Les résultats agrégés de ce travail seront communiqués à l'ADASEA. Si vous le souhaitez vous pourrez également en être personnellement destinataire.

Toutes les personnes destinataires de ce courrier ne seront pas automatiquement sollicitées. A des fins pratiques nous opérerons une ultime sélection qui nous permettra de grouper géographiquement les exploitations que nous enquêterons.

Nous nous permettrons de vous contacter dès réception de ce courrier, pour nous assurer de votre participation et pour répondre à vos questions.

Veillez agréer, Madame, Monsieur, l'expression de nos sentiments distingués, ainsi que nos meilleurs vœux pour l'année 2005.

Pierre Dupraz

INRA-ESR Rennes

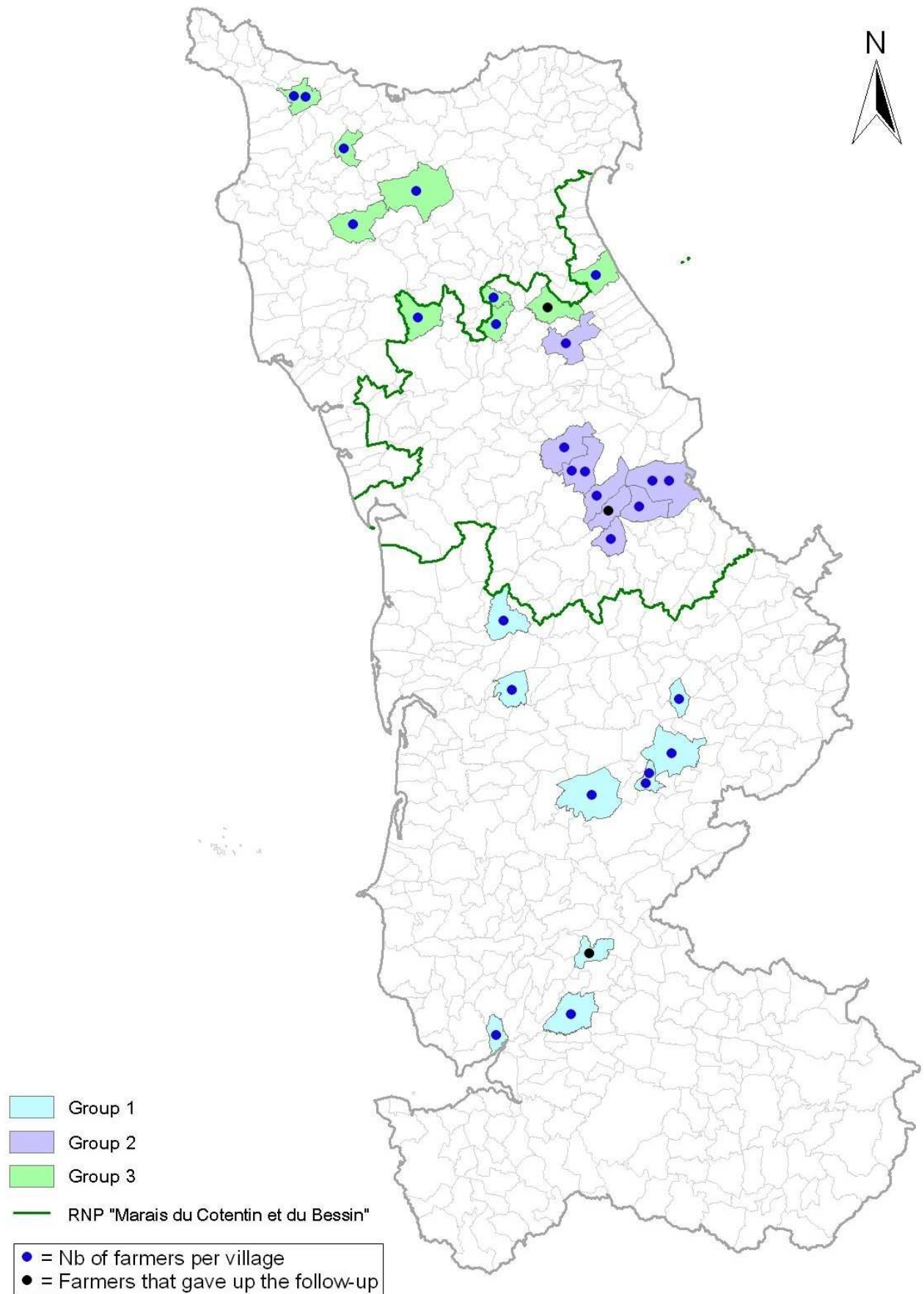


Alain Eudes

ADASEA de la Manche



Annex 2: Location map of the followed farmers



Annex 3: datasheets proposed to farmers

Labour time regarding AESs

From to.....	Area on which AES applied								Reference area without AES								Area concerned (ha)	Related AES
	non-paid labour					paid labour			non-paid labour					paid labour				
	farmer	partner	children	family	other	family	employees	outside farm	farmer	partner	children	family	other	family	employees	outside farm		
Tasks																		
Administrative																		
info gathering																		
contact																		
filling in registration																		
.....																		
Operational																		
sowing winter cover																		
maintenance hedges																		
placing nest markers																		
mechanical weeding																		
Sowing																		
Mowing																		
Ploughing																		
Weeding																		
Applying manure																		
Applying PPP																		
.....																		
.....																		

Costs related to AESs

From To Cost description	Area on which AES applied			Reference area without AES			Area concerned (ha)	Related AES
	physical amount	price/unit	value (€)	physical amount	price/unit	value (€)		
-administrative cost (phone, ..)								
-contract work for the maintenance of hedges								
-wages employees								
-soil sample analysis								
-sowing seed								
-insurance (buildings, machinery, people...)								
-fuel cost.....								
-manure cost								
-plant protection products								
-animal fodder								
-fuel cost.....								
.....								