COUNCIL

COUNCIL DECISION

of 26 September 1988

adopting a pilot project on remote sensing applied to agricultural statistics

(88/503/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 43 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament (1),

Whereas, in order to meet the needs of the common agricultural policy, action is needed to identify and measure as accurately and rapidly as possible the areas under main crops, and in particular those for which production aid is granted on an area basis;

Whereas, for the management of the agricultural markets, reliable regionally-based estimates of production must be available in good time;

Whereas the availability of forecasts for the production of crops which have the greatest impact on world markets, in third countries, is also relevant to the management of agricultural markets and for the independence of Community decision-making;

Whereas remote sensing could be likely to offer a response to these needs, which have not been met to date by the existing agricultural statistics and forecasting systems; whereas it could enhance the accuracy, objectivity, speed and frequency with which observations are made when statistical data are collected; whereas it could help perfect agricultural forecasting models, and in particular establish regionally-based agricultural forecasting models;

Whereas remote sensing must be incorporated into the existing statistical systems to make good sepcific deficiencies or weaknesses and to replace to better advantage certain aspects of the work currently being carried out;

Whereas remote sensing could have applications — in its own right or as an adjunct — in the establishment and collection of agricultural statistics;

Whereas a consultation procedure setting up close co-operation between the Member States and the Commission on the basis of past and present experience gained by the Member States in incorporating remote sensing in existing statistical systems, in particular through the medium of the Standing Committee on Agricultural Statistics set up by Decision 72/279/EEC (2);

Whereas remote sensing could help align the Member States' various agricultural statistical systems, by establishing a common means of collecting and transmitting information;

Whereas remote sensing could enable savings to be planned in the future, either directly in the cost of drawing up sampling plans and of collecting statistical data, or indirectly in expenditure of the European Agricultural Guidance and Guarantee Fund (EAGGF);

Whereas steps should be taken to develop the operational applications of remote sensing to agricultural statistics in the short, medium and long term, and to continue the measures embarked upon;

Whereas these operational applications of remote sensing to agricultural statistics must be conducted in a manner which is compatible with the programme adopted by Decision 85/318/EEC (3) on the establishment of an information system on the state of the environment and natural resources in the Community,

HAS DECIDED AS FOLLOWS:

Article 1

1. The pilot project on remote sensing applied to agricultural statistics, set out in the Annex, is hereby adopted for a period of five years from 1 January 1989.

(1) Opinion delivered on 16 September 1988 (not yet published in the Official Journal)

(2) OJ No L 179, 7. 8. 1972, p. 1.
(3) OJ No L 176, 6. 7. 1985, p. 14.

2. It shall be carried out by the Joint Research Centre in close collaboration with national laboratories and bodies, including statistical departments.

3. The amount of financing estimated as necessary for the total duration of the project amounts to 35,5 million ECU, divided into annual tranches as shown in the Annex.

4. The Council shall review the project, including its financial aspects, on the basis of the first report referred to in Article 3, before 30 April 1991.

Article 2

The Commission shall be responsible for the execution of the project and shall annually inform the Member States of the state of progress of the work, in accordance with the procedure set out in Article 4.

Article 3

1. The Commission shall submit to the European Parliament and to the Council by 31 December 1990 a report on the state of progress of the work and, where necessary, proposals on the review of the project as provided for in Article 1 (4),

2. On completion of the project, and in any case not later than 31 July 1994, the Commission shall report to the European Parliament and to the Council on the overall results of the activities provided for in this Decision and on the use of the financial resources allocated to these measures.

Article 4

1. Where the procedure laid down in this Article is to be followed, the chairman shall refer the matter to the Standing Committee on Agricultural Statistics, hereinafter referred to as the 'committee' either on his own initiative or at the request of the representative of a Member State.

2. The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft, within a time limit which the chairman may lay down according to the urgency of the matter, if necessary by taking a vote.

3. The opinion shall be recorded in the minutes. In addition, each Member State shall have the right to ask to have its position recorded in the minutes.

4. The Commission shall take the utmost account of the opinion delivered by the committee. It shall inform the committee of the manner in which its opinion has been taken into account.

Article 5

This Decision shall take effect on 1 January 1989.

Done at Brussels, 26 September 1988.

For the Council

The President

Y. POTTAKIS

ANNEX

PILOT PROJECT FOR THE APPLICATION OF REMOTE SENSING IN COMMUNITY AGRICULTURE STATISTICS

Remote sensing seems to be the most promising technique to upgrade the agriculture statistical system.

The primary necessity is to distinguish, identify and measure the area of crops of significant importance. The second is to estimate production in time for making decisions. Only when such basis statistics are available, can forecasting be considered.

The results of this plan should fit into a framework which can be called an 'Advanced Agriculture information System'. In the pilot projects, emphasis will be placed upon remote sensing, but in operational use, this technique is seen as complementary to more conventional data. The semi-operational projects within the pilot project will test this kind of complementarity.

While the development effort is planned to be extended over 10 years, this Decision considers in some detail only the first five years. During this period, the pilot project should already lead to an integration of new methods in the Community agricultural information system. Cereals and oil seeds, which are generally grown on flat terrain and large fields, will be considered first. When feasible, vineyards and olive trees will also be dealt with because of their economic importance.

Taking into account priorities, methodologies to be developed and the requirements of satellite data, the plan has been organized in seven actions (Table 1). Actions 1 to 5 each correspond to a given operational objective Action 6 is support (ground surveys) necessary for all the actions. Action 7 consists of several long term studies, not connected with one particular operational objective.

For each action, specific methodology will be developed and development work will be undertaken in support of the semi-operational objective (Actions 1, 2, 4 and 5) or as the very core of the action (Actions 3 and 7): see Table 2.

In respect to the shift towards operational applications, the actions concern three different time schedules :

— *short-term* (three to five years): Actions 1, 2 and 4,

— *medium-term* (five to ten years): Actions 3 and 5

— *long-term* (more than ten years): Action 7.

The costs of the project are summarized, for the next five years, in Table 3.

TABLE 1

Outline of the pilot project

Action	Main orientation	Geographic localization	Input	Output
1. Regional inventories (acreage)	Semi-operational	Three or four selected administrative regions	High resolution satellite data	Precise regional inventories (plus localized statistics)
2. Vegetation conditions and yield indicators	Semi-operational plus development work	Selected regions and sampling of sites, then all of Europe	Low resolution satellite data (mainly AVHRR)	Vegetation monitoring, alarm for main crops
3. Models of yield prediction	Development work	—	Low resolution satellite data, high resolution satellite data, meteorological data	Yield prediction
4. European rapid estimates of acreages and potential yield	Semi-operational	Sampling of some 40 or 50 sites throughout Europe	High resolution satellite data	Estimates of surface prediction of yield at European level for main crops
5. Advanced agriculture information system	Semi-operational and development work	Sampling of some 40 or 50 sites throughout Europe	All data available	Integration of preceding methods with conventional ones
6. Area frame sampling associated surveys	Support for other actions	Whenever it is needed, mainly on three or four regions and 40 to 50 sites	Satellite imagery to build area frame	Support documents data for other actions
7. Long term studies	Development work	—	— New satellite data (microwaves ...) — New analysis methods (expert systems, GIC ...)	Improved inventories and yield prediction

TABLE 2

Methodologies and specific studies

Action	Methodology	Accuracy statements	Specific studies
1. Regional inventories	Regression estimate		Improved classification and sampling strategies
2. Vegetation conditions and yield indicators	Spatial or temporal comparison of VI and I_s (integrated indices. . .)	Comparison with conventional methods	— Radiometric and geometric correction — Resolution needed — Modelling of curves — Evapotranspiration
3. Models of yield prediction	— Improvement of actual agrometeorological models — better representativity of stations — improving the data — Integration of satellite data in agrometeorological models — Deriving agronomic parameters (ETR) — Direct relationship	Comparison with conventional methods	— Special emphasis on wine and olive production for conventional models
4. European rapid estimates of acreages and potential yield	Computer-assisted photo interpretation	Assessment by specific sampling surveys	
5. Advanced agriculture information system	Integration of all available results	Economic comparisons between methods	
6. Area frame sampling associated surveys	Stratification-segmentation sample-surveys on site surveys with farmers	Accuracy statements of inventories	— Automatized procedures — Sampling scheme — Type of surveys
7. Long-term studies	— Using new sensors with the precoding methods — GIS-expert systems	Comparison of results or timeliness	

TABLE 3

Cost of the project

Actions	1987		1988		1989		1990		1991		1992		1993	
	Staff	Specific funds (1 000 ECU)	Staff	Specific funds (1 000 ECU)	Staff	Specific funds (1 000 ECU)	Staff	Specific funds (1 000 ECU)	Staff	Specific funds (1 000 ECU)	Staff	Specific funds (1 000 ECU)	Staff	Specific funds (1 000 ECU)
No 1	0,5	1 665	3	1 275	3	975	3	975	3	975	3	975	3	900
No 2	0,5	800	2	700	2	1 200	2	1 200	2	1 200	2	1 200	2	1 200
No 3	—	—	1	300	1	600	1	900	1	900	1	900	1	900
No 4	—	—	1	750	1	950	1	1 150	1	1 350	1	1 550	1	1 350
No 5	—	—	2	400	2	500	2	600	2	700	2	800	2	1 050
No 6	—	—	1		1		1		1		1		1	
No 7	—	300	—	600	—	600	—	600	—	600	—	600	—	600
Coordination and support	1		2		2		2		2		2		2	
Specific funds	2	2 765	12	4 025	12	4 825	12	5 425	12	5 725	12	6 025	12	6 000
Cost of staff		250		1 500		1 500		1 500		1 500		1 500		1 500
Total cost		3 015		5 525		6 325		6 925		7 225		7 525		7 500

Observations : (1) In 1988 the staff cost will figure in item B 730 (new nomenclature).