

**Appendix 2:
Drivers of Countryside Change
(Work package 3.1)**

**Incorporation of data from Processes Study into CS2000
Database**

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Drivers of Countryside Change

Phase 1 Study

Incorporation of data from Processes Study into CS2000 Database

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Summary and overview

The 'Processes' data were collected through face to face interviews with 504 occupiers of land in 169 ITE sample squares during 1993. The interviews were conducted using professional interviewers employed by Produce Studies Ltd and were of good quality throughout. We can therefore be confident of the quality of the data although difficult questions and those open to interpretation are noted below. A wide range of data was collected relating to:

- Land in the sample square
- The farm & land use
- The farmer & farm family
- The farm business
- Future plans

The data table (below) provides full information for each variable. It will be seen that some of the variables represent responses to questions where farmers were asked to make informed but subjective assessments such as PRESENT (current economic situation of the business) and FUTURE (expectation of economic change over next five years). While there are obvious health warnings attached to such data, they nevertheless capture a respondent's overall perceptions and exceptions and it is these that influence future plans and decision making. In other cases, for example financial data, there is of course scope for obsfication on the part of the respondent. This is true for all questionnaire surveys and we have no reason to expect our data to be any more inaccurate than others. In fact, we have very reason to believe it is more accurate as the interviews were conducted face to face (it is easier to 'lie' on a postal questionnaire) and interviewers were fully briefed before hand and instructed to probe fully for complete and accurate answers. One other point to note is the section on land within the square. The idea behind these questions was to establish the 'typicality' of land within the square compared to the rest of the farm as many of the other questions necessarily relate to the whole farm. Each respondent was shown a photocopy of the relevant sample square (taken from the 1:25,000 OS sheet and asked to conform their land holding and then answer a

series of questions relating just to that land. In the majority of cases, respondents felt that their ‘square land’ was broadly typical of the whole farm.

Coverage of squares

As part of the Wye College Processes study a total of 833 potential respondents were identified in 204 squares subject to field survey in 1978, 1984 and 1990. Of these, 50 names were eliminated for reasons of double counting or ineligibility (chiefly because they were not agricultural holdings or because both landlord and tenant were listed), leaving an effective sample of 783 occupiers. The overall response rate was 64% although varied slightly by landscape type (61% in the combined marginal & upland category, 64.1% in pastoral landscapes and 66.3% in arable landscapes). Overall, the survey covered 42% of the total land area of 169 squares with a mean coverage (by area) of 62%. Actual coverage ranged from less than 1% to 100% coverage by area. Thirty-two per cent of squares had less than 50% coverage, whereas 34% had 80% or more of their surface area covered by the survey.

Linking Processes and CS data

Four variables can be used to link the *Processes* data with CS data:

LANDCLAS – ITE land class

LANDTYPE - Landscape type (note: the marginal upland and upland landscape have been merged due to low responses in the Upland group)

SQNO – ITE sample square number

OCCID – ITE ownership/occupancy boundary unit

Using the latter two together allows the *Processes* data to be linked to CS databases. In 32 cases the farm survey identified an occupier of land within a square not previously identified by CS (where NEWOCC = 1) i.e. 472 cases can be matched with CS1990 data

The variable SQOW gives each case a unique code derived by multiplying the ITE square number by 100 and adding OCCID.

Data Format

The *processes* data has been supplied in two formats. The file DETR1 is in SPSS format (version 9.0.0). Ideally, this is the most useful format as it includes all the variable and value labels (see table below). In addition, the same data has been supplied as an Excel 97 file (DETR2). In this case the first row of the spreadsheet contains all variable names but the associated variable and value labels are missing. Cells reading ‘#Null!’ contain the SPSS default system missing character “.”.

The Data

Most of the variables in the table below are self explanatory. The series of GOAL and GOALBAR variables however, require some explanation. Farmers were presented with a list of 8 farming ‘goals’ and asked for each one to state if it was not important, fairly important

or very important to them. They were then presented with a list of possible constraints (e.g. GOALBAR1 – the size of the holding) and asked if these were a minor or major constraint, or irrelevant.

Data table

No of Cases: 504

No. of variables: 141

The Square

Variable name	Variable label/meaning	Values	Value labels
LANDCLAS	ITE Land Class	1....32	
SQNO	ITE Square number		
OCCID	Occupier Identification number		
SQOW	Sqno*100+occid		
LANDTYPE	Landscape Type	1 2 3 4	Arable Pastoral Marginal & Upland Upland
COUNTRY	Location	1 2 3	England Scotland Wales
NEWOCC	New occupier, not previously identified	1 2	Yes No
STATUS	Respondents status	1 2 3 4 5	Sole operator Partner Director Manager Other
SQTYP	Is square land typical?	1 2	Yes No
SQLAND1	Change in square land holding post 1990	1 2	Yes No
SQCHANG1	Bought land since 1990	1 2	Yes No
SQCHANG2	Sold land since 1990	1 2	Yes No
SQCHANG3	Rented land since 1990	1 2	Yes No
SQCHANG4	Let land since 1990	1 2	Yes No
SQPER	Square land performance	1 2 3 999	Better Worse Average N/A
SQREA1	Better/worse soil type	1 2 999	Yes No N/A

SQREA2	Better/worse drainage	1 2 999	Yes No N/A
SQREA3	Better/worse topography	1 2 999	Yes No N/A
SQREA4	More/less difficult access	1 2 999	Yes No N/A
SQREA5	Other reason	1 2 999	Yes No N/A
SQCHANGA	New agricultural building since 1978	1 2	Yes No
SQCHANGB	New non-ag building since 1978	1 2	Yes No
SQCHANGC	Field boundary removal since 1978	1 2	Yes No
SQCHANGD	Underdrainage since 1978	1 2	Yes No
SQCHANGE	Drained marshy ground since 1978	1 2	Yes No
SQCHANGF	Reclaimed rough grazing	1 2	Yes No
SQCHANGG	Converted grass to arable since 1978	1 2	Yes No
SQCHANGH	Converted arable to grass (not SA) since 1978	1 2	Yes No
SQCHANGI	Increased fertiliser on grass since 1978	1 2	Yes No
SQCHANGJ	Reduced fertiliser on grass since 1978	1 2	Yes No
SQCHANGK	Increased fertiliser on arable since 1978	1 2	Yes No
SQCHANGL	Reduced fertiliser on arable since 1978	1 2	Yes No
SQCHANGM	Increased stocking density since 1978	1 2	Yes No
SQCHANGN	Reduced stocking density since 1978	1 2	Yes No
SQCHANGO	Changed cropping patterns since 1978	1 2	Yes No
SQCHANGP	Increased pesticide/herbicide since 1978	1 2	Yes No
SQCHANGQ	Reduced pesticide/herbicide since 1978	1 2	Yes No
SQCHANGR	New tree planting	1 2	Yes No

SQCHANGS	Replanting trees	1	Yes
		2	No
SQCHANGT	Entered conservation scheme since 1978	1	Yes
		2	No
SQCHANGU	Entered Set Aside since 1978	1	Yes
		2	No

The farm & land use

FMSTYPE	Farm type classification	1.0	Dairy
		2.0	Cattle and Sheep
		3.0	Arable
		4.0	Mixed
		4.1	other
		5.0	Pigs and poultry
		6.0	Horticulture
FARMAREA	ha size group	7.0	other (e.g. all set aside)
		1	very small (<20ha)
		2	small (20<50ha)
		3	medium (50<200ha)
		4	large (200<700ha)
TENURE	Farm tenure	5	very large (>=700ha)
		1	wholly owned
		2	wholly rented
		3	mixed
		HOLCHAN1	Change in holding area since 1978
2	No		
NUCHAN1	Changes on newly acquired land: New ag building	1	Yes
		2	No
NUCHAN2	New non-ag building	1	Yes
		2	No
NUCHAN3	Field boundary removal	1	Yes
		2	No
NUCHAN4	Underdrainage	1	Yes
		2	No
NUCHAN5	Drained marshy ground	1	Yes
		2	No
NUCHAN6	Reclaimed rough grazing	1	Yes
		2	No
NUCHAN7	Converted grass to arable	1	Yes
		2	No
NUCHAN8	Converted arable to grass (other than sa)	1	Yes
		2	No
NUCHAN9	Increased fertiliser on grass	1	Yes
		2	No
NUCHAN10	Reduced fertiliser on grass	1	Yes
		2	No

NUCHAN11	Increased fertiliser on arable	1	Yes
		2	No
NUCHAN12	Reduced fertiliser on arable	1	Yes
		2	No
NUCHAN13	Increased stocking density	1	Yes
		2	No
NUCHAN14	Reduced stocking density	1	Yes
		2	No
NUCHAN15	Changed cropping patterns	1	Yes
		2	No
NUCHAN16	Increased pest/herbicide use	1	Yes
		2	No
NUCHAN17	Reduced pest/herbicide use	1	Yes
		2	No
NUCHAN18	New tree planting	1	Yes
		2	No
NUCHAN19	Replanting trees	1	Yes
		2	No
NUCHAN20	Entered conservation scheme	1	Yes
		2	No
NUCHAN21	Entered set aside	1	Yes
		2	No
NLANUS1	Arable area		Area (ha)
NLANUS2	Area under fodder crops		Area (ha)
NLANUS3	Area under other crops (ex grass)		Area (ha)
NLANUS4	Area of temporary grass		Area (ha)
NLANUS5	Area of permanent grass		Area (ha)
NLANUS6	Area of rough grazing		Area (ha)
NLANUS7	Area of woodland		Area (ha)
NLANUS8	Area of set aside		Area (ha)
NLANUS9	Area of roads, buildings, etc		Area (ha)
NLANUS10	Other non-ag land		Area (ha)
ENTCHAN1	Set up new enterprise since 1978	1	Yes
		2	No
ENTCHAN2	Closed down enterprise since 1978	1	Yes
		2	No
ENTCHAN3	Expanded enterprise since 1978	1	Yes
		2	No
ENTCHAN4	Reduced enterprise since 1978	1	Yes
		2	No
ENTCHAN5	Unchanged since 1978	1	Yes
		2	No
ENTPREV	Significant enterprise change before 1978	1	Yes
		2	No

The farmer and farm family

AGRIED	Formal agricultural education	1 2	Yes no
SUCCESS1	Expectation of succession	1 2 3 4 999	definitely yes definitely no don't know/too early to say hopefully/probably N/A
MARRIED	Whether married	1 2	Yes No
CHILD	Any children?	1 2 999	Yes No N/A
FARMAGE	Age of farmer (respondent)	1 2 3 4 5	Under 35 35-44 45-54 55-64 65 and over
LABOUR1	% of total labour met by family	1 2 3 4 5 6	less than 25% 25-50% over 50 but less than 75% Over 75 but less than 100% 100% N/A
LABOUR2	Change in family labour since 1978	1 2 3 999	More less same N/A

The farm business

DEBT1	Any debts or loans	1 2 999	Yes No N/A
DEBT2	% of income needed to service debt	1 2 3 4 5 6 999	none less than 25% 25-50% over 50-75% over 75% Don't know D/K, refused etc
DEBT3	Change in debt level over last 5 years	1 2 3 4 5 6 999	increased a lot increased slightly no change fallen slightly fallen a lot other D/K

ECONSTIT	Current economic situation of farm business	1 2 3 4 5 999	very good good fair poor very bad D/K, refused, etc
OFFJOB1	Regular off farm work (respondent)	1 2	Yes No
OFFJOB2	Gross off farm income	1 2 3 4 5 6 999	less than £1, 000 £1-4, 999 £5-9,999 £10-14, 999 £15-19, 999 over £20, 000 N/A, d/k etc
FUTPART	Ever considered future part time farming	1 2 999	yes no N/A
DIVERSE1	Existence of farm based non-ag enterprises	1 2	Yes no
DIVERSE2	Ever considered diversifying	1 2 999	yes no N/A
INPROP1	Any change in relative importance of income sources in recent years?	1 2	Yes No
DEPEND	Dependence on agricultural income	1 2 3 4	<40% 40<75% 75<95% =>95%
FUTINCOM	Contribution of non-farm income expected to change in future?	1 2	Yes no
HIREWOK1	Any hired labour employed	1 2	Yes No
HIREWOK5	Change in hired labour over last 10 yrs	1 2 3 999	more less same N/A
HIREWOK6	Any future labour reduction	1 2 3 999	yes no undecided N/A
YEARS	Years on farm		
ORIGAREA	Area at time of takeover		

INVEST1	Does rate of investment = depreciation?	1 2	Yes no
INVEST2	Any significant new capital investment since 1978	1 2	Yes no

INVEST3	Type of investment: Buildings	1 2 3	Yes No N/A
INVEST4	Type of investment: Machinery	1 2 3	Yes No N/A
INVEST5	Type of investment: Equipment	1 2 3	Yes No N/A
INVEST6	Type of investment: Other	1 2 3	Yes No N/A
INVEST7	Investment linked to general restructuring	1 2 3	Yes No N/A
TURNOVER	Farm business turnover	1 2 3 4 999	less than £20, 000 £20-49, 999 £50-99, 999 over £100, 000 D/K, refused, etc
INCHANGE	Change in NFI over last 5 years	1 2 3 4 5 6 999	increased a lot increased slightly same fallen slightly fallen a lot other N/A

CONINV	Any conservation management or investment since 1978	1 2	Yes No
LANDIN	any land in schemes	1 2	Yes No
CONFUT	Any future conservation plans	1 2	Yes No
CONSIDR2	Ever considered joining scheme in future	1 2 3 999	yes no d/k N/A

The Future

FUTFARM	Still farming in 10 years time?	1 2 3	yes no d/k
FUTINV	Plans for future investment	1 2 3	yes no undecided
LANDPLAN	Plan to acquire more land	1 2	Yes No

POSITION	Expectation of economic change over next 5 years	1 2 3 4 5	become much better become better stay the same become worse become much worse
FUTURE	Expectation of economic change over next 5 years	1 2 3 4 5	become better become better stay the same become worse become worse
PRESENT	Current economic situation of farm business	1 2 3 4 5 999	good good fair poor very bad D/K, refused, etc
FUTPLAN	Future work plans	1 2 3 4 5 999	never retire will retire at some stage semi-retire at some stage already semi-retired & will remain so already semi-retired & will retire completely N/A
GOAL1	Making reasonable living	1 2 3	Not important fairly important very important
GOAL2	Maximising profits	1 2 3	Not important fairly important very important
GOAL3	maintaining value of holding	1 2 3	Not important fairly important very important
GOAL4	Maintain involvement as hobby	1 2 3	Not important fairly important very important
GOAL5	Carry on family tradition	1 2 3	Not important fairly important very important
GOAL6	Enjoying farm life	1 2 3	Not important fairly important very important
GOAL7	Being progressive and up to date	1 2 3	Not important fairly important very important
GOAL8	Looking after countryside	1 2 3	Not important fairly important very important

GOALBAR1	Size of holding	1 2 3	Minor constraint Major constraint Irrelevant
GOALBAR2	Cost & availability of capital	1 2 3	Minor constraint Major constraint Irrelevant
GOALBAR3	Level of income from holding	1 2 3	Minor constraint Major constraint Irrelevant
GOALBAR4	Availability of family labour	1 2 3	Minor constraint Major constraint Irrelevant
GOALBAR5	Cost of hired labour	1 2 3	Minor constraint Major constraint Irrelevant
GOALBAR6	Health reasons	1 2 3	Minor constraint Major constraint Irrelevant
GOALBAR7	Other reasons	1 2 3	Minor constraint Major constraint Irrelevant
GOODFARM	Attributes of good farmer	1 2 3	Stick to tried & tested practices Follow new practices where well tested Keen to experiment with new methods