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TRENDS IN COMMUNITY SUPPORT FOR SOIL CONSERVATION

1985-1994

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ABSTRACT

In the past soil conservation may have been perceived primarily as a problem for the rural landholder. It is now generally accepted that both the causes and mitigation of land degradation involve the whole community, both urban and rural.

The importance that all sectors of the community place on the issue, will strongly influence both the availability of funds and the urgency with which the problems are addressed.

This paper describes a study undertaken between September and November 1994 which obtained views from 1200 households across New South Wales. Households were selected by stratified random sampling methods from high, medium and low income suburbs of Sydney, country towns across NSW, and rural villages. Additionally, a broad sample of primary producers were surveyed, as were sample households from an area regarded as being a source of considerable onsite and offsite land degradation.

The paper reports on the community's priorities for different kinds of resource and environmental management, and their relative willingness to pay for land conservation.

These 1994 results are then compared with results obtained in similar research reported by Sinden (1985) and Yapp, Young and Sinden (1990).

KEY WORDS. Community surveys, Soil conservation policy, Trends in attitudes towards environmental issues, Willingness to pay.

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INTRODUCTION

Community perceptions of problems such as land degradation, and the value placed on them, are important considerations in making policy decisions. This is not only because public opinion is a powerful motivator of political action (or inaction). The degree to which the public is aware that land degradation must ultimately be paid for, directly or indirectly, influences both the availability of funds and the urgency with which the problems are addressed.

In 1985, a survey undertaken amongst a widespread sample of socioeconomic groups in NSW indicated that support for soil conservation was higher than expected relative to the observed level of media and political interest in a wide range of conservation issues. (Sinden 1987)

Over the subsequent 10 years the level of media interest in environmental issues in NSW has possibly increased. Issues as diverse as world heritage, old growth forests, ocean outfalls, wilderness areas, bushfires, drought and pollution obtain wide media focus. In the political arena, especially in Federal budgets, land degradation has retained interest over the period with major initiatives announced such as the Land and Water Resources Research Corporation, the declaration of the years 1990 to 2000 as the "Decade of Land Care", and in NSW the Government initiating Catchment Management Committees covering the whole of the State.

A subsequent survey by Yapp, Young and Sinden (1990) found that, between 1985 and 1990, there had been shifts in community perceptions of the value of soil conservation in relation to other issues.

The objectives of the study reported here were:

- * To ascertain current preferences for expenditure on soil conservation in relation to some other expenditure options.
- * To analyse trends in preferences over the 10 year period.
- * To ascertain community perceptions as to how the problems of soil erosion and land conservation could best be addressed given an allocation of extra funds.
- * To ascertain whether differing socioeconomic or demographic groups respond in a different manner on these issues.

METHODOLOGY

The survey was designed to allow results to be contrasted with those obtained by Sinden 1985 and Yapp et al 1990. Like the earlier surveys, this survey was conducted by telephone interview. The suburbs of Hunters Hill, Manly and Mosman (representative of high income suburbs), Baulkham Hills, Cronulla and Strathfield (for middle incomes) and Bankstown, Blacktown and Leichardt (for low incomes) were the same suburbs represented in the previous surveys. Telephone numbers were selected at random from the Sydney telephone directory until fifty successful calls were made to each suburb. A further 75 interviews were undertaken in each of the two other suburbs surveyed by Sinden - Marrickville and Fairfield. These "test" suburbs had been selected as likely to be in need of Government assistance in their own localities and politically anti-rural. Sinden (1987).

In addition to the demographic areas sampled in the previous surveys, this survey interviewed 150 residents of Tamworth, Dubbo and Goulburn (representing country towns), 150 households in country villages (Bingara, Manilla and Barrabara) and a further 150 owners of rural properties.

To complete the survey a further 150 interviews were undertaken in an area where land degradation in the forms of soil erosion, salinity, rising water tables, blue-green algae or soil structure decline has been identified as being at a critical stage.

The total of 1200 interviews were completed by 3 trained telephone interviewers in the period September to November 1994. The survey was coordinated from, and introduced as being under the auspices of, the University of New England, so distancing the project from any specific government agency or interest group.

Two of the interviewers had also been involved in the 1985 survey, which enabled useful comparison of anecdotal comments to be obtained. (For example, interviewers commented that especially in rural areas, female members of the household were now noticeably more willing to provide the survey answers. In the prior survey the response was more often as a result of the call being transferred to a male member.)

One well recognised disadvantage of the telephone interview technique is that the number and scope of questions must be limited relative to other interview methods, but during this survey a new problem occurred in obtaining successful telephone interviews -- the telephone answering machine. This was a major obstacle in the high income areas of Sydney where machines appear to be left operating at all times, even when residents could be available. Not only does this raise the cost of each successful call, but it might make this survey method less practical in the future as the technology is more widely adopted.

THE QUESTIONNAIRE

The complete interview form is at Appendix 1. The four questions were constructed as follows.

[1]. Questions 1 and 4 were duplicates of the 1990 study, which was modelled on the 1985 study. Further information on the rationale for the construction of these two questions can be found in the referenced studies. Whereas the 1990 study indexed the 1985 monetary amounts to allow for inflation, this was not done in 1994. A review of the price of a loaf of bread in three NSW towns indicated that the purchase price had not significantly changed in the past four years and it was considered the more identical the questions the more statistically comparable the responses would be.

[2]. Question 2 was designed to ascertain which of three current major conservation issues, -- Native Forests, or the Land, or Beaches and ocean -- were considered more important by the population.

While this does not enable strict statistical comparison with the previous studies, it was considered important to establish a comparison between broad resource conservation issues in contrast to a comparison between specific environmental degradation issues. The current response on specific issues would, presumably, be more influenced by a very current event and the publicity it is receiving at the time of the interview than would the response on broader issues.

[3]. The third question was designed to obtain community perceptions as to how problems of soil erosion and land conservation could best be addressed given an allocation of extra funds. The question offered the choice of four major alternatives available to agencies in NSW: education and awareness; research; direct assistance to landholders; and enforcement of regulations.

RESULTS.

1. RESPONSES TO QUESTION ONE.

The objective in this question was to ascertain whether individuals rated a selection of environmental issues of sufficient importance that they would be prepared to forgo a tax rebate.

1(a) General Results.

The weighted response is outlined in Table 1.

Suppose an extra \$45 million of Government money could be spent in 1995. This is about \$20 for every family in New South Wales.

Would you prefer the money to be spent:

	Percentage
a) Preserving rainforest species?	38
b) Giving a \$20 tax rebate?	15
c) Stopping soil erosion?	41
d) Preserving rare kangaroo species ?	6
	100

Table 1. Preferences for Tax Rebate vs Environmental Issues: 1994

Quite clearly prevention of soil erosion and preservation of rainforests are the preferred options. Equally clearly, the preservation of rare kangaroos is not a preferred option, and only a minority opted for a rebate rather than to see the money redistributed. Similar numbers would like this extra expenditure allocated to rainforest preservation and to soil conservation.

1(b) Place of Residence

The preference for a rebate was not strongly related to place of residence, however the preference for rainforest expenditure or stopping soil erosion did vary across the subsamples. Statistical analysis (Chi squared tests) indicated that the strength of support for soil conservation (compared to the rainforest option) was significantly higher in rural areas and declined progressively through country towns and villages, high and middle income suburbs in Sydney, to the point where support for rainforests was significantly higher than support for soil conservation in low income Sydney suburbs.

This is illustrated in Figure 1.

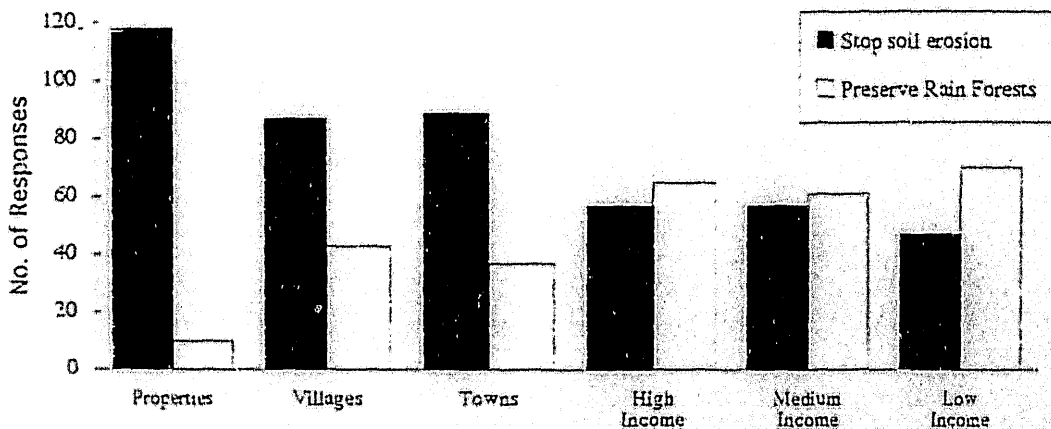


Figure 1. Preferred Options - Rainforest Preservation & Soil Erosion Control

1(c) Ten Year Trend.

Interesting changes have occurred over the 10 year period. The 1990 study indicated that since 1985 there had been a major swing to the rainforest preservation option (43% 1990, 27% 1985) at the expense of all other options.

In 1994 the preference for a tax rebate or preserving rare kangaroos has continued to decline, and the preference for rainforest expenditure has fallen from its 1990 high. The net result is that support for stopping soil erosion has risen substantially, so that it is higher than in 1985, and is the most preferred option once more.

Suppose an extra \$45 million of Government money could be spent in 1995. This is about \$20 for every family in New South Wales.

Would you prefer the money to be spent:

	1994	1990	1985
a) to preserve rainforest species?	38	43	27
b) to get \$20 back on tax?	15	17	25
c) to stop soil erosion?	41	32	38
d) to preserve rare kangaroo species?	6	8	10
	100	100	100

Table 2. Ten Year Trends in Preferences

An analysis was undertaken to ascertain whether these changes were consistent across sample areas. The results are appended in Appendix 2. Major findings were:

- * In the low income areas of Sydney, support for rainforest preservation has continued to rise steadily over the period, to be the preferred option of 47% of households (from 27% 1985). In this income area, support for soil conservation declined by 10% in the period 1985-90 before rising slightly such that 31% of households cited soil conservation as the preferred option in 1994.
- * In the medium income areas of Sydney, support for both rainforests and soil conservation has risen over the period from 26 to 41% and from 32 to 38% respectively.
- * In the high income suburbs support for expenditure on rainforest preservation has fallen back from a high in 1990 of 52% to 43%. Interestingly, this preference has only slightly shifted to soil erosion, most of the movement from rainforests between 1990 and 1994 went to a preference for a tax rebate.

In the country areas, comparisons were only possible between subsamples of the 1985 and 1994 studies. In the Manilla subsample (a country village), support for both rainforests and soil conservation grew (similar to the Sydney medium income sample). However in the Tamworth and Gunnedah samples (country towns), while

the support for soil conservation increased, support for rainforests fell, mainly as a result of an increased preference for a tax rebate (similar to the high income Sydney results).

2. RESPONSES TO QUESTION 2.

The objective of this question was to ascertain in 1994 which of the major conservation issues focused on by the media -- land, beaches and oceans, and native forests -- were considered more important by the population. The results are tabulated in Table 3.

2(a) General Results.

The overall result indicated that if funds were to be spent exclusively either on conservation activities on the land, or ocean and beaches, or native forests, then most would prefer the money spent on land conservation.

Question 2. Consider this set of alternatives. Would you prefer the \$20 per family in NSW to be spent on:

	%
a) Land conservation?	40
b) Ocean and beach conservation?	30
c) Native forest conservation?	<u>30</u>
	100

Table 3. Preferences for Types of Conservation

2(a) Contrasting Questions 1 and 2.

The options in Question 2 were worded so that all options were clearly conservation issues. Compared with Question 1, the options of a tax rebate and preserving kangaroos were deleted, options related to land and forests retained (but in a more general form), and the option of ocean/beach conservation added.

- * The support for stopping soil erosion (land conservation) remained a constant 40% whilst the support for preserving rainforests (native forest conservation) declined further. (see discussion)
- * An analysis of the response to Question 2 was undertaken for those respondents who indicated a preference for a rebate in Question 1. Twenty five percent indicated a preference for native forests, 25% for beach and ocean conservation, and 50% chose land conservation. This clearly indicates that amongst those that consider a rebate preferable, if that is not an option, then land conservation is the preferred first choice.

2(b) Place of Residence

As in Question 1, the responses to Question 2 reveal a marked difference in preferences according to place of residence. This is illustrated in Figure 2. In the non metropolitan areas, there is a very large majority of respondents who would prefer the expenditure to be on land conservation, amongst the property owners it was the option chosen by over 90% of those interviewed. However in Sydney suburbs the preferences were more equally distributed between the three options.

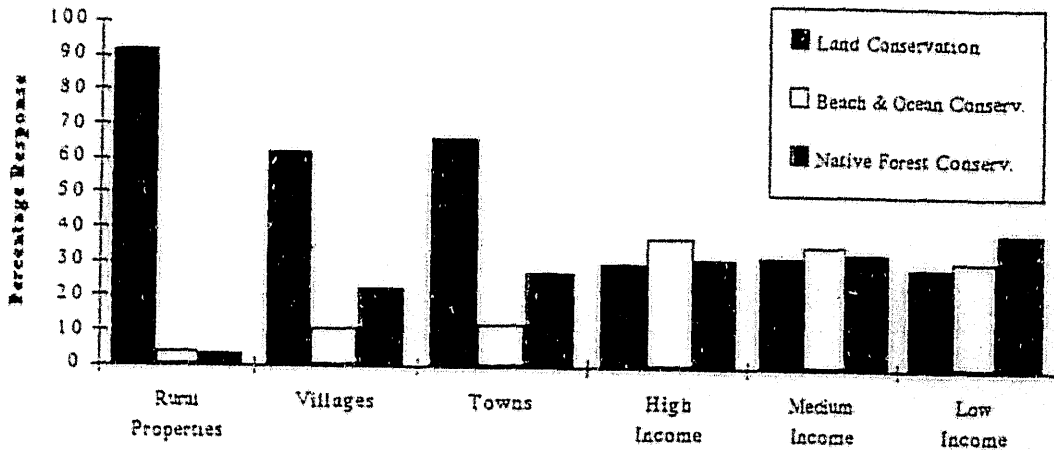


Figure 2. Preferences for Conservation Expenditure.

2(c) Trends 1990 - 1994

No comparable question was asked in 1985, but a roughly similar question was asked in Sydney suburbs in 1990, comparing preferences for expenditure on soil erosion, beach pollution, and forest plantations. The results are contrasted in Table 4.

	1994	1990
Land Conservation	40	17 (soil erosion)
Ocean & Beach Conservation	30	62 (beach pollution)
Native Forest Conservation	30	21 (establish plantation forests)
	100%	100%

Table 4. Comparative Conservation Preferences. (Sydney only)

3. RESPONSES TO QUESTION 3.

The objective in asking this question was to obtain community perceptions of how the problems of soil erosion and land conservation could best be addressed given an allocation of extra funds. The question offered the choice of four major alternatives available to agencies, namely;

- Education and Awareness
- Research
- Direct Assistance to Landholders
- Enforcement of Regulations.

3(a) General Results

Whilst the overall population did not indicate a strong preference for any one option, two options - assistance to landholders and education - were chosen more often than the other two "harder" alternatives - research and enforcement. (Table 5)

Question 3. If the extra money were to be spent on land conservation, which of the following would you like to see:	
	Percent
a) educate and make aware of problems?	33
b) discover new ways to combat problems?	16
c) help landholders to carry out conservation works?	35
d) enforce landholders to adopt better conservation practices?	16
	100

Table 5. Preferences for Options to address Land Conservation.

3(b) Place of Residence

When the residential locations were compared, the differences became more marked. Sydney-residents as a whole indicated education and awareness as a priority followed by helping landholders, rather than enforcement or research. In the non metropolitan population more than twice the number of respondents placed assistance to landholders as more important than education and awareness, whilst 11% placed research as a priority, and regulation was substantially lower than in the overall result.

Disaggregating the sample further, only 3% of landholders considered enforcement a preferred option, but this rose to 11% in rural villages and towns. Support for enforcement was highest in the middle and high income suburbs of Sydney (23%), where the support for direct assistance to farmers was lowest.

Unfortunately the 1985 and 1990 surveys provide no comparable data, but an unrelated survey in Northern NSW (Pitt and Yapp, 1992) revealed an analogous pattern. In that survey, rural graziers felt they had a major role in land management but politicians had no role. However, the more urbanised the population, the more they saw an increasingly important role for politicians. Given that over 70% of NSW population is based in the metropolitan area, and possibly over 85% may be considered as "urban", a mix of

options seems more realistic than simply assistance with funds and education as suggested by some 87% of rural landholders.

4. RESPONSE TO QUESTION 4.

The objective in this question was to obtain a financial measure of the level of support for soil conservation. To improve the chance of reliable answers, the interviews linked the environmental issue to a familiar everyday household item, the price of a loaf of bread. Respondents were asked how much extra they would be prepared to pay for each loaf of bread, if the extra money went to control soil erosion.

4(a) General Results

Ninety six percent of respondents indicated they would be willing to pay at least 5 cents more on each purchase. Over two thirds were willing to pay an extra 10 cents, whilst a third would be prepared to pay 20 cents or more on their bread. The weighted average for the whole population was 18.9 cents per loaf.

Results are show in Table 6.

Question 4. The bread we eat is made from wheat, much of which is grown on eroding soils. Suppose a loaf of bread produced from this land costs \$1.40.

Are you willing to pay an extra 5 cents per loaf if all of this 5 cents goes to control soil erosion?

Are you willing to pay an extra 10 cents per loaf if all of this 10 cents goes to control soil erosion?

Are you willing to pay an extra 15 cents per loaf if all of this 15 cents goes to control soil erosion?

What is the maximum you are willing to pay per loaf if all of this goes to control soil erosion?

Will Pay 5 cents	94%
Will Pay 10 cents	71%
Will Pay 15 cents	44%
Will Pay 20 cents	33%
Will Pay 20-100 cents	21%

Table 6. NSW Population's Willingness to Pay for Soil Conservation

If, as assumed for the comparable 1985 and 1990 surveys, the average household consumes three loaves of bread a week, an average willingness to pay of 18.9 cents per loaf represents an extra \$29.50 per household per annum. There were some 1,92 million households in NSW (1991 census), so the extra willingness to pay totals \$57 million per annum over the State.

4(b) Willingness to Pay in Relation to Place of Residence.

When the willingness to pay (WTP) was analysed by whether the respondent was in a metropolitan area or not, results showed that the WTP for soil conservation was over 16% higher in the metropolitan area. Analysis of metropolitan area responses indicated that the willingness to pay was highest in the low income suburbs, closely followed by the WTP in the high income suburbs.

In the non metropolitan samples, the willingness to pay did not vary substantially between town, village and rural property. However, in the sample from an area where it was known land degradation was a problem, where respondents indicated earlier in the interview they were aware soil erosion was a priority, the willingness to pay was 20% below the responses of other non Sydney samples.

4(c) Trends 1985 - 1994.

The results of the 1994 survey are illustrated in Fig 3. as are the results of three previous comparable surveys.

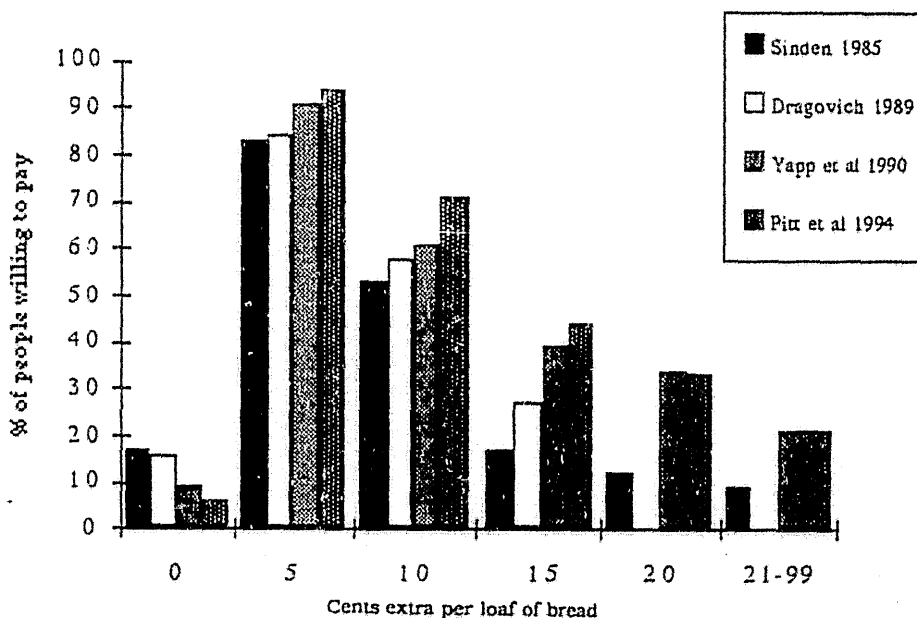


Fig.3 Trends in Community Support for Soil Conservation

Quite clearly, over the past 10 years the number of people expressing an unwillingness to contribute has decreased, and the level at which the public are prepared to support activities that mitigate soil erosion has risen.

Analysis suggests that the shift in support over the period is statistically significant, especially the decrease in the number not willing to pay and the increase in numbers now willing to pay 15 and 20 cents, (representing between 10 and 15%) more on their annual cost of bread.

DISCUSSION

In addition to the major findings highlighted above, the following results may be of significance and warrant discussion.

[1]. The results for Question 2 indicate that when the option "preserve rainforests" was changed to "native forest conservation", 20% fewer respondents chose the forest conservation option. Support for land conservation remained the same as that for the soil erosion option. [In this question the option of "beach and ocean conservation" was added and the options for a tax rebate and "preserving rare kangaroos" were deleted].

These results may suggest that the public support for forest preservation is more oriented to rainforests than native forests generally and /or that it becomes a less preferred option for many supporters if the alternative is beach and ocean conservation.

[2]. When the results in Question 2 are compared to the 1990 survey, it could be concluded that there has been a dramatic shift away from a preference for expenditure on beaches towards expenditure on land or native forest conservation.

However the wording of the beach option in the 1990 survey was beach pollution, whilst the current survey was beach and ocean conservation. A more likely conclusion therefore is that while beach pollution is perceived as a major problem it is thought of less as a resource conservation issue than as a public health issue.

This would indicate a priority for the use of measures such as planning for retention/disposal of pollutants at source. This is the more likely scenario and is supported by another report suggesting pollution *per se* is considered a major issue, be it beach, fresh water or air (EPA 1994).

Following this argument, conservation of oceans and beaches -- in the sense of the need for action to preserve their physical attributes -- is regarded as having a similar priority to the conservation of native forests, but not as high a priority as conservation of land resources.

[3]. In analysing the willingness to pay it was noted that the results from rural areas, and especially the degraded area sample, showed a strong preference for land conservation compared to the metropolitan areas, but the average willingness to pay was considerably lower (over 16%).

The scope of the questions limited the information available for explanation of the differences. However many unsolicited comments were made and recorded, giving some insight into the reasons for particular replies.

From the area in which degradation was considered a problem, comments tended to indicate that the willingness to support conservation was hampered by inability to pay extra on household items: (average household income in the degraded area is 16% lower than the average low income Sydney suburb). Also there was a lack of confidence that any additional funding would reach the "real problems" or assist landholders carry out conservation. Many others suggested the land conservation problems were related to product price and drought, rather than to education or lack of enforcement of good practise. However, even despite the willingness to pay being

lower in this sample, where figures from rural centres are comparable, the level of willingness to pay has been still been sustained in real terms.

[4]. Another observation is that respondents from the middle income suburbs of Sydney expressed an unexpected, substantially lower willingness to pay extra on their loaf of bread than those in low income suburbs (12 cents compared to 26 cents). The results for the 3 surveys are in Table 7.

	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Average</i>
1985	115	105	84	100(base)
1990	284	157	200	216
1994	242	126	273	199

TABLE 7. Trends in Willingness to Pay 1985 -1994 in High, Medium and Low Income Sydney Suburbs (Indexed to 1985 average)

It is more difficult to make conclusions about the differences in the Sydney suburbs than the rural areas.

- * Do people in the lower income suburbs have a greater concern for conservation and express it despite an apparent lower ability to pay more for bread? Or is it that bread is regarded more as a "staple" food in these suburbs than in those with middle or higher incomes?
- * Is the current economic climate having a greater effect on the lifestyle of middle income Sydney. (This middle income sample was an area which opted most often for a tax rebate). Has this created less real income to meet lifestyle demands creating more caution as to willingness to pay? Or is there simply less concern for land and soil conservation in these middle income suburbs?

The overall results indicate that while the metropolitan areas might only perceive land conservation as a problem similar in dimension to native forest or beach and ocean conservation, they exhibit a strong willingness to outlay funds on soil erosion mitigation if they are confident it is being properly utilised. Such confidence would be enhanced, apparently, if the funds were expended on a balanced program emphasising education/awareness and direct assistance, with smaller but still significant elements of regulatory enforcement and research.

[5]. The survey results raise some interesting contrasts between metropolitan and other responses that were not apparent in the earlier studies. The generally lower willingness to pay in rural areas may simply reflect lower average disposable incomes in these households (ie capacity to pay), but it may also reflect the perception of a smaller role for government or a difference in the way rural and metropolitan residents perceive land degradation problems.

[6]. It should be noted that the 1990 study surveyed the population of Sydney and extrapolated the result to the NSW population, whereas the current survey surveyed statewide and weighed the results according to census statistics. Overall WTP in the two studies were 20.6 cents and 18.9 respectively. However from the current study, the WTP of the Sydney population only was 20.3, not as significant a decline as might have first been supposed.

CONCLUSIONS

The major highlights of the study are;

- * From Question 1, when individuals are asked to indicate their support for certain environmental issues or a tax rebate, prevention of soil erosion and preservation of rainforests are quite clearly the preferred options. Equally clearly, the preservation of rare kangaroos is not a preferred option, and only a minority elected to have the rebate rather than to see the money redistributed.
- * In 1994, the preference for rebates or preserving rare kangaroos has continued to decline, and the preference for rainforest expenditure has fallen from its 1990 high. The net result is that support for stopping soil erosion has risen substantially, so that it is higher than in 1985, and is the most preferred option once more.
- * Between Question 1 and Question 2 the options were amended and worded so that all options were clearly broad conservation issues. (Basically the options of a tax rebate and preserving kangaroos in Question 1 were deleted, the land and forest related options were retained, and the option of beach conservation added).

The support for stopping land conservation remained the same as that for soil erosion (40%) but the support for native forest conservation declined relative to that for preserving rainforests.

- * With regard to possible broad policy approaches to land conservation the overall sample did not indicate a strong preference for any one option in Question 3. However, education/awareness and assistance to landholders were chosen more often than the other alternatives offered, which were research and enforcement.
- * In Question 4, ninety six percent of respondents indicated they would be willing to pay at least 5 cents more on each loaf of bread purchased. Over two thirds were willing to pay an extra 10 cents, whilst a third would be prepared to pay 20 cents or more. The weighted average for the whole population was 18.9 cents per loaf. (Average 1990- 20.9 cents; Average 1985- 9.5 cents)

This represents an extra \$29.50 per household per annum, or a total of \$57 million per annum.

- * A major trend over the past 10 years is that the number of people expressing an unwillingness to contribute to mitigation of soil erosion has decreased, and the level at which the public are prepared to support activities that mitigate soil erosion has risen.

- * Throughout the survey interesting differences were observed between groups when analysed by place of residence in NSW. While considerable differences were evident between metropolitan and non-metropolitan areas, there also were substantially different responses between high, middle and low income Sydney suburbs as well as between rural property owners, residents of country villages and those in major towns.

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APPENDIX 1 - TRENDS 1985-1994 QUESTIONNAIRE

Hello my name is _____. I am doing a survey for the University of New England.

May I ask you four quick questions?

1. Suppose an extra \$45 million of government money could be spent in 1995. This is about \$20 for every family in New South Wales.

Would you prefer the money to be spent (tick one):

- (a) to preserve rainforest species? _____
- (b) to get \$20 back on your tax? _____
- (c) to stop soil erosion? _____
- (d) to preserve rare kangaroo species? _____

2. Now let's consider another set of alternatives.

Would you prefer this \$20 per family to be spent (tick one):

- (a) on land conservation? _____
- (b) on ocean and beach conservation? _____
- (c) on native forest conservation? _____

3. If the extra money were to be spent on land conservation, which of the following would you like to see (tick one):

- (a) educate and make aware of problems? _____
- (b) discover new ways to combat problems? _____
- (c) help landholders to carry out conservation works? _____
- (d) enforce landholders to adopt better conservation practices? _____

4. The bread we eat is made from wheat, much of which is grown on eroding soils.

Suppose a loaf of bread produced from this land costs \$1.40

- (a) Are you willing to pay an extra 5 cents per loaf if all of this 5c goes to control soil erosion? Yes/No
- (b) Are you willing to pay an extra 10 cents per loaf if all of this 10c goes to control soil erosion? Yes/No
- (c) Are you willing to pay an extra 15 cents per loaf if all of this 15c goes to control soil erosion? Yes/No
- (d) What is the maximum you are willing to pay extra per loaf if all of this goes to control soil erosion? _____ cents

TRENDS IN COMMUNITY SUPPORT FOR SOIL CONSERVATION

APPENDIX 2 RESPONSES TO QUESTION 1.
(All Figures expressed as Percentage of Sample)

1994 Study

	Villages	Towns	Rural Properties	Degraded Area	Sydney High	Sydney Medium	Sydney low	Sydney Test	Weighted Response
Preserve Rainforests	29	25	7	9	43	41	47	45	38
Tax Rebate	12	11	13	9	13	17	16	17	15
Prevent Soil Erosion	58	59	79	81	38	38	31	27	41
Preserve Rare Kangaroos	1	5	2	1	5	4	5	8	6

1990 Study (Yapp et al)

	Sydney high	Sydney Medium	Sydney Low	Total Sample
Preserve Rainforests	52	38	40	43
Tax Rebate	6	22	24	17
Prevent Soil Erosion	36	32	28	32
Preserve Rare Kangaroos	6	8	8	7

1985 Study (Sinden)

	Sydney High	Sydney Medium	Sydney Low	Average Response	Sydney Test	Country Sample
Preserve Rainforests	28	26	27	27	18	26
Tax Rebate	16	34	26	25	50	23
Prevent Soil Erosion	43	32	38	38	23	44
Preserve Rare Kangaroos	13	8	9	10	9	3