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ABSTRACT

Information concerning Slovene rural development was presented in the form of 5 study reports from which statistical notation was deleted for readability. The purpose of these reports was to provide an accurate opinion reading concerning extension program dimensions and target audiences, and to provide information for agronoms (extension agents with specialized agricultural training) employed by local agricultural organizations on the farmer audiences they are servicing. The sample consisted of 543 farmers who were interviewed, and 279 agronoms and 14 legislators who responded to mailed questionnaires. The areas covered in the reports were (1) the program and audience dimensions for the new Slovene Extension Service, (2) the future of agriculture for Slovene farmers, (3) the improvement of Slovene village life, (4) the information-use patterns among Slovene farmers, and (5) a 2-dimensional communication infrastructure-interaction view of the shaping of individual behavior patterns. A list of the social and economic indicator variables and data included in the study was presented along with some of the data in tabular and graphic form. (PS)

Slovene Rural Development: Five Study Reports

With Appendix Materials

Report 1. Program and Audience Dimensions For The New Slovene Extension Service

Report 2. Does Agriculture Hold A Future For Slovene Farmers?

Report 3. Improving Slovene Village Life

Report 4. Information-Use Patterns Among Slovene Farmers

Report 5. A Two Dimensional Communication Infrastructure-Interaction View to the Shaping of Individual Behavior Patterns: A Progress Report Based On Slovene Research Data

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Southern Illinois University
March, 1973

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Slovene Rural Development: Five Study Reports

Introduction

By way of prefacing the research findings in this report the following comments on procedure are offered. It should be noted that the research findings and procedures sketch represent only a selection of material contained in the original Slovene work which the author directed titled "Izboljsanje Nacina Dela Solvenske Kmetijske Pospesevlane Sluzbe: Studija v Treh Delih"*.

In terms of style, the five reports were written for popular Slovene consumption. Notations of statistical significance have been deleted for readability. (All findings discussed were significant at either the 1 percent or 5 percent level.) Any comments concerning the study itself or discussion are welcomed.

1. What was the reasoning behind this particular research?

   Answer: There were essentially two reasons. First, Slovenia is currently engaged in the final stages of deliberations concerning the foundation of the first Slovene agricultural extension service. An accurate up-to-date opinion reading concerning extension program dimensions and target audiences, as perceived by farmers, agronoms, legislators, would be valuable input during organizational meetings. Since this information was not available, it made good planning sense to provide it. Secondly, agronoms employed by local agricultural

*The English title, Dular, Matjasec, Senegacnik, and Buila, The Improvement of Slovene Agricultural Extension Type Activities: A Three Part Study, diploma dissertation, Biotechnical Faculty, University of Ljubljana, 1973.

cooperatives (KZ's) and agricultural kombinats (KIK's) do not have much in the way of solid documentation on the farmer audiences they are servicing. For example, virtually nothing is known about information-use patterns among farmers. Similarly, little in the way of empirical documentation exists on cogent questions concerning the improvement of village living standards or input from private farmers on the improvement of Slovene agriculture.

In effect, we wanted to provide some of this "intelligence" that could help local specialists improve their effectiveness in servicing rural Slovenia. Additionally, we felt we could, at the same time, further explore the impact of farmer isolation on various forms of social participation and attitude changes.

2. Who was involved in the research work?

Answer: Responsibility for carrying-out the field portions of the research study belonged to three diploma-level students enrolled at the Biotechnical Faculty of the University of Ljubljana: Aloiz Senegacnik, Joze Dular, and Joze Matjasec. Senegacnik served as the informal team leader. The designing of the research work was carried out under the direction of Dr. Theodore Buila with the close collaboration of Dip. Ing. Joze Spanring, Dr. Tanja Stupica and Dr. Rudolf Turk. In addition, eight students of the Biotechnical Faculty assisted in gathering a portion of the field data*.

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*Dr. Theodore Buila was a Fulbright Scholar at the Biotechnical Faculty, during 1966/67, while completing his Ph. D. dissertation from Cornell University. During 1971/72, he served as a Fulbright Lecturer at the Biotechnical Faculty while on leave of absense from Southern Illinois University, Carbondale, Illinois.

3. When was the research completed?

Answer: Interviews with farmers were completed between February 1 and April 1, 1972. Mailed questionnaires to agronoms and legislators were collected between February 15 and May 15, 1972.

4. What kind of population is the research based upon?

Answer: Three different groups: 543 farmers, 279 agronoms, and 14 legislators. The farmer population represents a one-quarter to three-quarter sampling of households in 28 villages located in four major geographic regions of Slovenia: Primorska (Italian border area), Dolenska-Bela Krajina (Novo Mesto-Crnomelj), Stajerska (Sl. Gradec-Celje), and Prekmurje (Murska Subota-Lendava). Additionally, 111 farmers returned a portion of the questionnaire which was printed in two weekly newspapers ("Kmecki glas" and "Vestnik"). The 279 agronoms and 414 legislators represent a 43 percent and 54 percent mailed questionnaire return rate on a full sampling of their respective populations.

5. What about the study populations . . . do they appear to be representative?

Answer: In so far as we can tell, yes. After ten months of looking at the data, coupled with a follow-up of non-respondents to the mailed questionnaires, we fell confident that the legislator, agronom, and farmer populations are fairly representative for Slovenia during the time period in question.

However, three things should be kept in mind when reading the data:

First, we would caution making hard generalizations about data reported on a regional basis. While, for example, there appears to be substantial differences of opinion between Primorska

and Prekmurje farmers concerning the future of Slovene agriculture, we would not want to make hard statements based on data from only 9 villages for the two regions combined. Nevertheless, we do feel that the regional differences noted are an expression (empirical) of a unique "mentality" or electricity that is fair game for conjecture.

Second, given the resources, we would have liked to have a larger sample of farmers. We feel a bit more comfortable about our farmer sample due to the "agreement" between personal interviews and mailed questionnaires returned by farmers on a voluntary basis. That is to say, both the face and statistical differences on the program dimensions and audience opinions between the two groups of farmers were negligible.

Third, if we were to run the study today, knowing what we now know, we would use an updated/corrected listing of Slovene agronoms. The Biotechnical Faculty listing apparently excluded a "random" portion of graduates from the agricultural junior college in Maribor. Our listing contained some 600 names. We suspect we were 75 to 100 names short. Also, we would have liked to see the republic-level legislator questionnaire return rate of 30 percent (N = 27) come close to or equal the 56 percent (N = 414) return rate of county-level legislators.

6. Is there anything particularly unique about the sampling procedures or data gathering that might bias the results in a way not normally expected?

Answer: Let's talk to the data gathering question first. There is always the possibility of interviewer bias. We attempted to guard against this by conducting pre-test interviews together. That is, the three prime interviewers were present while one of them did the interviewing. The interview was critiqued almost immediately afterward. After four pre-testing interview sessions we felt comfortable with each other's "data." Where Biotechnical Faculty students participated in village surveys, the three interviewers conducted a role playing situation with the students on two occasions to standardize the interview format. Of the 28 villages surveyed, 20 were completed by the three diploma students and the remaining 8 by Biotechnical Faculty students enrolled in an Extension Methods class. One other note, the data for Kapca, a Hungarian speaking Slovene village, was collected by the local priest after being detailed by the researcher in charge of interviews in the Prekmurje region.

On the question concerning possible sample bias, the basic unit for farmer sampling was the village. In selecting villages, we grouped them on the basis of their relative physical isolation since we wanted to study the differential effects of physical isolation on the farm family. As we noted in Item 5, personal interview data and data contained in the mailed questionnaires (representing virtually every corner of Slovenia) were very comparable. As such, we don't think the sampling of villages based on the physical isolation criteria yielded biased data. But just in case it did, here is the way the villages were selected.

In each of the four regions (Primorska, Dolenska, Stajerska, Prekmurje) the central city and principal secondary cities were noted on a map. Two circles were drawn around each. The first at 10 kilometers and the second at 15 kilometers. All villages located within the area between the two circles were listed. Villages were further categorized into three groups based on their relative physical isolation from the central or secondary city. The groups were as follows: Group I, villages serviced with five or more daily bus departures to the city, Group II, villages serviced from 1 to 4 daily bus departures to the city, Group III, villages located a 1/2 hour or more walk from the closest bus stop. Once the groupings were completed and verified one village was randomly sampled from each group for both the central and secondary city in each region. One last note on the number of interviews per village. In villages with less than 30 households, every effort was made to interview in each household. In villages with between 30 and approximately 75 households every other household was sampled on a random basis. Villages with over 75 households had every third or fourth household sampled on a random basis.

Report I

Program and Audience Dimensions For The New Slovene Extension Service

-- Opinions of 1375 Slovene Farmers, Legislators, and Agronoms

Program Priorities

All groups (legislators, agronoms, farmers) were in high agreement that agricultural marketing and production advice should be among the top program priorities of the new extension service.

Additionally, we found all groups pretty much agreed that extension programs to assist rural youth should be a first priority program consideration. The composite first priority rankings of programs appear in Table 1.

Table 1. Extension Program Dimensions, First Priorities

Program	Percent Considering the Program A First Priority Item
1. Agricultural Marketing	87%
2. Agricultural Production	85
3. Rural Youth	69
4. Farm Management	63
5. Rural Leadership	48
6. Community Development	46
7. Home and Family	39
8. Natural Resources Conservation	33
Respondents	1375

Farmers tended to see the extension service serving a much broader range of needs than did agronoms or legislators. For example, approximately 60 percent of the farmers felt the areas of community and home improvement coupled with more effective rural political leadership should be first priority programs of the new extension service. Less than one out of three agronoms and legislators felt the same way. These differences are underscored in Table 2.

Table 2. Extension Program Dimensions, First Priorities of Legislators, Agronoms and Farmers

Program	Percent Considering the Program A First Priority Item			
	Legislators			
	Republic	County	Agronoms	Farmers
1. Agricultural Marketing	75%	82%	82%	91%
2. Agricultural Production	86	90	89	80
3. Farm Management	75	87	67	73
4. Rural Youth	65	69	63	72
5. Rural Leadership	43	39	32	64
6. Community Development	17	35	29	61
7. Home and Family	24	23	21	55
8. Natural Resource Conservation	31	31	31	40
Respondents	29	414	279	650

The fact that Slovene farmers perceive extension program assistance in the broad areas of home, family, and community is further underscored in a regional comparison of program priority opinions. While the pattern of regional program priorities differs, particularly in the case of Primorska,

this in itself does not obscure the simple fact that agriculture isn't the only thing in a Slovene farmer's life. By way of postscript, 48 percent of the farmers interviewed considered all programs in the first priority category.

Table 3. Extension Service Program Dimensions, First Priorities of Slovene Farmers by Regions

Program	Percent Considering the Program Item a First Priority			
	Prek-murje	Stajer-ska	Dolenj-ska	Primor-ska
1. Agricultural Marketing	92%	85%	96%	79%
2. Agricultural Production	92	58	92	50
3. Farm Management	60	44	74	38
4. Rural Youth	78	78	63	63
5. Rural Leadership	70	54	68	33
6. Community Development	80	61	69	27
7. Home and Family	82	36	80	2
8. Natural Resource Conservation	65	39	28	6
Respondents*	178	138	115	52

*Data based on 483 individual interviews in the regions listed.

If indeed a single reason exists that explains the rather sizable regional differences in terms of program priorities, or the relative exclusion of certain programs such as natural resource conservation, we are not aware of it. The Primorska data is a good point in question. How is one to interpret the relatively cool program responses of Primorska farmers? Are Primorska farmers apathetic as some suggest? Or are they simply being "realistic" about any assistance they might receive from a new extension service?

The specific resulting causes for regional differences in program priorities, village-level differences for that matter, will have to wait for further study. However, based on our conversations with well over 500 farmers during the Spring of 1972 we feel the mixed reading in program priorities stems from a combination of factors possibly unique to each region and village. Among these were:

1. A personal re-ordering of priorities to improve living standards, that is, simply producing more pigs or milking more cows no longer is the answer. Programs to equalize rural-urban standards of living and bring about equitable farm prices are emerging in importance.

2. On-going and past relationships with various types program assistance from KZ and KIK cadre, in terms of shaping a farmer's confidence and expectations, had a great deal to do with individual and village level expectations. For example, Prekmurje villages where Hungarian is spoken, for some reason, are not serviced as well (presumably because of the language/cultural differences) Slovene speaking villages. Understandably, the expectations of Hungarian speaking farmers are different in both priority and intensity of expectation.

3. A simple lack of farmer and farm wife knowledge concerning program assistance possibilities resulted in limited program expectations.

4. Unique physical, economic, and/or social characteristics of the region, sub-region, or village (e.g., poor soil, physical isolation, lack of youngsters, etc.)

The extremely low program priority given natural resources conservation by farmers, agronoms, and legislators alike (only one out of three considered it a first priority program), puzzles us. Who, if not the extension service, is to be responsible for education and action in rural Slovenia in taking the leadership to preserve her natural landscape?

There was one encouraging note with respect to natural resource conservation in our findings. Approximately 60 percent of the farmers under 30 years of age felt natural resource conservation should be a first priority program. The fact that young rural Slovenes care enough about their environment to assign a key role to the extension service (only 28 percent of farmers over 60 years of age did) suggests to us that elementary and secondary schools are making an impact in environmental education.

Just a note relative to Prekmurje's farmers concern for programs in natural resource conservation. The best explanation for 65 percent of Prekmurje's farmers assigning a first priority to natural resource conservation programs appears to stem from the serious flooding that occurs during wet years in the Mura River lowlands. In effect, many farmers interpret natural resource conservation as a flood control program.

In comparing individual farmer profile characteristics that appeared related to differences in program priorities we found several "natural" patterns. For example, women (80 percent) were a bit more concerned than men (69 percent) over the first priority status of programs for rural youth. Similarly, those farmers living in relatively isolated villages and who were isolated themselves were more concerned with the importance of community and home improvement programs.

Actually, we found very little difference in the relative importance attached to agriculturally related programs based on individual farmer profile differences. A farmer's age and farm size provided the greatest areas of differentiation but nothing unexpected:

1) Age. Expectedly, younger farmers tended to show more relative concern than older farmers for extension programs geared to: home and family improvement, community development, and natural resource conservation. See Table 4. Interestingly, all farmer age groups were equally concerned in that rural youth programs be given a high priority. Similarly, age did not appear to have an effect on the relative importance of the agricultural program inclusion.

Table 4. Percent of Farmers by Age Group Considering Program Items as First Priority Inclusions

Program	Age Group			
	<30	31-45	45-60	>60
Home and Family	78%	63%	55%	60%
Community Development	81	73	61	56
Natural Resources	59	39	44	28
Rural Youth	68	74	68	73

2) Farm Size. We found larger farmers more concerned with farm management programs and programs dealing with improved rural leadership. Relatively speaking, they were a bit higher on programs to bring new production technology their way as is seen in Table 5.

Table 5. Percent of Farmers By Farm Size Considering Program Items First Priority Inclusion

Program	Farm Size		
	under 3 ha.	4-7 ha.	over 7 ha.
Farm Management	46%	48%	64%
Rural Leadership	48	61	64
Agricultural Production	69	77	81

Audience Priorities

All groups agreed that the farmers should be the prime audience for any new extension-type assistance activity. Cooperatives (KZ's) and Kombinats (KIK's) constituted a clear "second" clientele group coupled with stores that handled agricultural items. Rural non-farm and city residents were considered equally low on the audience priority listing. See Table 6.

In addition, legislators, agronoms and farmers singled-out farmers working 4 or more hectars of land as the prime audience within the farmer category. What is not clear is why part-time farmers are not considered just as much a part of the target audience as let's say, small farmers? After all, it can be argued that it is the part-time farmer who has access to necessary capital for the purchase of machinery and other production investments.

Another question the results raise is to what extent are smaller holdings to be ignored in terms of service? Certainly the case can be made that it is often the older citizen that resides on a small holding. This being the situation, are they to be penalized for not being able to farm as much land as they could when they were younger? Similarly, we find many young farmers trying to get established in farming working small holdings, many times while holding down a part-time job.

It seems relatively clear from the figures in Table 7 that while small

Table 6. Extension Service Audience, First Priorities of Legislators, Agronoms and Farmers

Audience To Be Served	Percent considering the Audience to be Served as a First Pricrity			
	Legislators		Agronoms	Farmers
	Republic	County		
1. Small farmers (0-3 ha.)	17%	14%	14%	43%
2. Middle-sized farmers (4-7 ha.)	79	70	65	74
3. Larger farmers (7+ ha.)	82	78	86	73
4. Part-time farmers	31	9	10	31
5. Agricultural co-ops (KZ)	62	67	54	40
6. Agri.-Businesses/ Kombinats (KIK)	31	43	44	38
7. Non-agri. rural households	--	1	1	8
8. City residents	--	2	1	7
9. Stores, general	--	5	3	29
10. Stores, agricultural	48	49	44	58
Respondents	29	414	279	650

Table 7. First Priority Audience Considerations of Farmers by the Size of Farm

Percent

Audience	Size of Farm		
	Less than 3 ha.	4-7 ha.	Over 7 ha.
Small farmers (0-3 ha.)	58%	43%	45%
Middle-size farmers (4-7 ha.)	73	82	73
Larger farmers (over 7 ha.)	65	73	71

farmers do not consider themselves top priority in terms of extension service assistance, they feel they should not be excluded.

Comparing farmer responses by region, see Table 8, there is little doubt that farmers feel that they should be focus of any new agricultural program activity. We suspect that the relative closer farmer relationship of KIK's and KZ's in Prekmurje, particularly with KIK Pomurka, explains the huge differences between Prekmurje and Primorska farmers in considering existing organizations as part of program activity for assistance.

Table 8. Extension Service Audience, First Priorities of Slovene Farmers in Different Regions

Percent

Audience to be Served	Regions			
	Prek-murje	Stajer-ska	Dolenj-ska	Primor-ska
1. Small farmers (0-3 ha.)	44%	46%	63%	25%
2. Middle-sized farmers (4-7 ha.)	85	78	62	77
3. Larger farmers (7+ ha.)	88	54	61	79
4. Part-time farmers	45	25	44	15
5. Agricultural co-ops (KZ)	53	44	34	6
6. Agri.-Businesses/Kombinats (KIK)	66	38	24	2
7. Non-agri. rural house-holds	6	12	20	--
8. City residents	4	9	16	--
9. Stores, general	23	26	23	--
10. Stores, agricultural	85	64	54	17
Respondents*	178	138	115	52

*Data based on 483 individual interviews in the regions listed.

The relative importance Prekmurje and Štajerska farmers attach to program assistance for farm stores, equal to or more important than middle-sized farmers, suggests that some activities will by their very nature have to be channeled through KZ's and KIK's. Further study to clarify and specify explicit types of program services to be provided farm stores is obviously suggested by this strong farmer interest.

Concluding Remarks

We feel the study findings suggest a rather considerable difference of opinion between farmers and agronoms/legislators regarding what the program priorities of the new extension service should be. Farmers see program priorities across the board: agriculture, home and family, communtiy development, etc. Agronoms and legislators tend to confine program priorities to agriculture: production, marketing, and management.

As a necessary first step, we urge that this apparent difference of opinion be resolved before a new extension service is organized. We say "apparent difference" because we are convinced that both groups are really after the same goals of an improved quality of life for rural Slovenes. There is no doubt that agronoms and legislators would like to see KZ's and KIK's strengthened. On the other hand, it also makes common sense to realize that farmers live each day with more than just agriculture on their minds.

Here's what we think is important, that is, if we read farmers correctly. They were telling us that they are anxious to support and participate in any number of programs that perhaps existing organizations could provide, given a bit of time and financial needed resources.

What we are most worried about is not the exclusion of farmer priority

programs from the portfolio of the new extension service. We are worried over the very real possibility that the new extension service will be given the full responsibility but not the financial means to undertake or sustain action programs at the village level. What then? What will this do to the credibility and participation levels between farmers and the existing organizations?

It is our impression that the existing Slovene agricultural organizations have or could readily develop the capacity to provide both the needed leadership and local level staff in the non-agricultural program areas. We would urge agronoms and legislators to reconsider their thinking with respect to program priorities. The identification of specific program actions in agriculture, home and family and community development will yield a full portfolio of program services sensitive to individual and village needs. These programs will serve to strengthen existing organizations (assuming that they will play a prime role in the new extension service) through increased support generated by committed participation by the entire farm family.

Report II.

Does Agriculture Hold a Future For Slovene Farmers?

-- Farmer opinions in the Spring of 1972

Approximately one-half of the 542 farmers we interviewed in 23 different villages indicated they felt agriculture held a future for them. Likewise, the remaining half were not too optimistic.

There was considerable variation among the regions on the future of farming question as can be seen in Table 1. For example, while 78 percent of Prekmurje's farmers were optimistic, only 67 percent of those interviewed in Primorska felt the same way. Actually, 3 out of the 4 regions included in the survey did not hold optimistic opinions when it came to the future of Slovene agriculture:

Table 1. Future In Farming, Opinions of Slovene Farmers by Region

Region	See a Future in Agriculture
Prekmurje	78%
Stajerska	38%
Dolenska	33%
Primorska	17%

Keeping in mind that the findings vary among the regions, we found the following farmer profile characteristics related to situations where farmers tended to hold optimistic views towards the future of agriculture:

(1) Optimistic farmers tended to own farms with more arable land:

Farm Size: Arable Land	See a Future in Agriculture
0-3 hectars	31%
4-7 hectars	64%
7 or more hectars	71%

(2) Optimistic farmers were visited by agronoms more frequently than those holding negative views. Similarly, they attended demonstrations and short courses/classes more frequently:

Home Visit By Agronom	See a Future in Agriculture
Yes	61%
No	39%

(3) Proportionately, fewer optimistic farmers held off-farm jobs:

Farmers Hold an Off-Farm Job	See a Future in Agriculture
Yes	24%
No	76%

(4) Optimistic farmers tended to live in villages that had a higher percentage of agricultural households. We also found that the percentage of optimistic farmers tended to increase as the village became more physically isolated.

(5) Villages that provided more community services, e.g., water, asphalt roads, bus service, schools, stores, etc., had greater proportion of optimistic farmers than those with relatively few local village services available.

As we noted, one-half of the farmers interviewed were rather negative on the future of agriculture for them and their family. When asked why then didn't see a future in agriculture, three key reasons emerged:

(1) Their particular farm was too small to be economically viable (24%)

(2) They had no one left at home to assist with farming operations (24%)

(3) Low agricultural prices (22%)

Other major reasons given were the farm was located on poor land and high taxes.

When asked what types of programs or actions farmers felt were needed to improve the "perspective" of Slovene agriculture, virtually all farmers had positive suggestions. As can be seen in Table 2, farmers in all regions tend to agree on five or six first priority actions that would serve to improve the future of Slovene agriculture:

(1) Stabilize agricultural prices

(2) Continued effort to mechanize production

(3) Expand private farmer access to farm and home credit

(4) Reduce taxes

(5) Include private farmers in social insurance coverage at comparable levels with workers in the social sector (approved in a Slovene referendum in November, 1972)

(6) Design and implement programs for rural youth

Table 2. Suggested Action Program Areas to Improve the Future of Slovene Agriculture, Farmer Opinions

Program Suggestions	First Program Priority by Percent			
	Primor-ska	Dolen-ska	Stajer-ska	Prek-murje
Agricultural Marketing (e.g., stabilize prices, equalize subsidy payment)	30%	28%	21%	37%
Agricultural Mechanization (e.g., additional types, cost, credit)	4	23	31	9
Farm and Home Credit	26	6	12	9
Tax Reduction	6	19	18	15
Social Security Coverage (e.g., pensions, health care)	6	6	8	15
Rural Youth	14	5	2	2
Government-Farmer Relationships	2	5	4	9
Other	12	8	4	4
Totals	100%	100%	100%	100%

Just as important in the question concerning the future that agriculture holds for Slovene families were the disturbed feelings many farmers expressed relative to (1) the declining self-sufficiency of Slovenia agriculturally, (2) young children growing up in today's villages, and (3) older people living out their lives on farms.

In talking with Slovene farmers, we found a deep concern expressed for the present trend that sees Slovenia becoming increasingly dependent on other regions/countries for her food supplies. Just what degree of self-sufficiency in food production Slovenia should strive to maintian is

not clear, that is, in what commodities and at what levels. The question of self-sufficiency in food production has the makings of a highly charged issue in the Slovene countryside. It is sufficient to say that Slovene farmers seem more concerned than their urban brothers that Slovene bread and butter comes to their plate with a passport.

With respect to children, many parents were visably disturbed that a generation of children were growing up in economically dying households. This situation was neither in the best interests of the children nor the country they felt. Several felt that one place to start was with a more active effort to extend equal educational opportunities to rural youth (compared to urban children). High teacher turnover rates, the unavailability of teachers, school closings, limited vocational program offerings in rural areas, poorly equipped schools, and a lack of stipends for rural youth were specific issues parents mentioned as possible starting places to improve the rural educational situation.

Just what can be done to brighten the promise of a better tomorrow for older men and women was a subject more often "felt" than talked about. in any length. When the issue how to improve the living conditions for older people was talked about, extending "complete" social insurance and pension benefits were most frequently mentioned. Free public transportation, more extensive home visits by nursing staff, and assistance with household chores were other possibilities mentioned as ways to improve the future of aged Slovenes living out their lives on small parcels of land.

In conclusion, it was our feeling that things appear reasonably positive in approximately on-half of Slovenia's 178,000 farm households. This, we felt, was a solid and positive finding. However, we clearly noted on unhealthy frustration, sometimes apathy, in far too many households to remain content with the existing situation.

The key to brining a new positivism to the Slovene countryside in large measure appears to rest in legislative policy considerations that will visably improve and equalize the social/economic goods and services at the grassroots village level.

Report III.

Improving Slovene Village Life

-- Program priority opinions of legislators agronoms, and farmers in the Spring of 1972.

Rural people and their paid public representatives, whether they be in government or on the staff of an area cooperative, are not always in agreement on the specific actions necessary to improve village living standards.

The information that follows is directed at the task of improving awareness among legislators, agronoms, and farmer groups of one another's opinions on the question of program priorities for improving village life in rural Slovenia. Hopefully, this information will reach the parties before hard extension program decisions are made that could potentially slow the pace of equalizing urban-rural living standards

We asked a combined group of over 1370 legislators, agronoms, and farmers their opinion as to what was the first priority in their estimation to improve village life.*

From Tables 1 and 2, it is fairly clear that farmers see the improving of village living standards in terms of projects that would improve road surfaces, bring stores and public services to the village. The legislator-agronom group, on the other hand, placed their program priorities on first improving agriculture as opposed to doing something specific in the village. Increasing production and stabilizing price fluctuations of agricultural commodities were the key program priorities according to legislators and agronoms.

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*Additionally, farmers were asked several questions after giving their priority responses to improve village life, to give their opinion as to improving their agricultural situation(s). These responses appear in the article titled "Does Agriculture Hold a Future for Slovene Farmers?"

Table 1. Summary of First Program Priorities to Improve Slovene Village Life, A Comparison of Legislator, Agronom and Farmer Opinions

First Program Priority	Percent			
	Legislators			
	Republic	County	Agronoms	Farmers
Village services and buildings	14%	24%	11%	68%
Agricultural Problems	86	76	89	32

Table 2. First Priority Suggestions to Improve Slovene Life, A Comparison of Legislator, Agronom and Farmer Opinions

Program Priority	Percent			
	Legislators			
	Republic	County	Agronoms	Farmers
Roads and Transportation	--	10%	6%	41%
Water Service	9	10	6	12
Stores, Schools, Post Office, etc.	5	9	4	10
Farm and Home Credit	--	11	13	6
Land Consolidation	5	7	6	5
Social Insurance/pensions	--	10	8	3
Agricultural Politics	9	11	15	6
Increasing Agricultural Production	38	15	19	5
Price Stabilization	29	18	22	4
Agricultural Mechanization	5	3	5	4
Other*	2	4	1	4
Total	100%	100%	100%	100%

*Among the other priorities mentioned were: improving electric service, agricultural pick-up and delivery stations, industrial development, rural youth, rural tourism, extension service expansion, agricultural maximums, taxes, inheritance laws, and improved farmer associations.

From Tables 1 and 2, it appears a major difference of opinion exists between farmers and the legislator-agronom group as to what specific actions would serve to improve the quality of Slovene village life. Legislators and agronoms seem to be saying, "An improved standard of village living will follow on the heels of increased production and actions to ease the cost-price squeeze."

The assumption here is that legislators and agronoms appear to place their highest priority on actions directed at generating increased rural income (means) that at a later date can be used for specific village improvement projects.

Farmers seem to be countering with something like, "What you (legislators and agronoms) say may be true. Nevertheless, we would like to see more of the money that we are giving to the cities (taxes) return back to the village to improve roads, bring water into our houses and standardize rural electrical service so we too can use new motors and appliances."

Projects that will get rid of mud and dust once and for all (ends) carry considerably more appeal with 68 percent of the Slovene farmers we interviewed than income generating programs. If we read the farmers correctly, they seem to be saying that they (farmers) didn't feel that by sending more money to the cities would in itself help grow wings on it for a return trip to the village, i.e., sending more tax money to the city from the farm might make good planning sense . . . but clearly lacks a common sense appeal to farmers.

It is our impression that the means versus ends differences of opinion among the two groups (farmers and legislators-agronoms) can in part be explained by the different professional orientation of the two groups.

The legislator-agronom group, by profession, is planning oriented. Coupled with this, for the most part, legislators and agronoms are not permanent village residents, that is, they and their families don't have to cope daily with lower levels of public services than they enjoy in towns and cities. The net result of this is that the "natural" concern of legislators and agronoms is not going to be so much in terms of social services as it is going to be towards income producing programs. In effect, a 500,000 ton increase in wheat carries a dinar figure that can be entered in the national balance sheet which is quite visable and accountable. A road made less muddy is obscure by comparison . . . except for the farm families who use the road.

The point that needs emphasizing because it directly relates to farmer commitment to new extension programs, is that farmers are of the mind that what they needed was more visable development activity in the village rather than continued promises of something to come. This being the case, energetic farmer commitment to new extension program actions is not assured if the new programs are narrowly focused on the economic aspects of agricultural production.

Perhaps the most significant study finding in terms of extension program priorities was the "re-discovery" that just because a man or woman is a farmer doesn't mean that they eat, sleep, and talk agriculture 24 hours a day . . . a reminder for extension staff and planners the world over.

From the range of "normally expected" concerns listed in Table 2, it's rather obvious that the things farmers think important for improved village living standards basically aren't all that different than we

would expect from agronoms or legislators if they took up permanent residence in a village. For example, how would urban Slovenes react to the following situations we found:

Idrija Area:

A five hectar farm holding. The family unit consists of a man, wife, and five young children. The husband gets up at 4:00 a.m. each day, breakfasts, walks over an hour to the nearest bus stop; rides on a bus for 1 1/2 hours to work arriving at 7:00 a.m. Wife is home with farm work and young children. The husband returns home between 6 and 7 p.m. from work. Action Program: Extend bus service.

Pohorje Area:

Young farm girl, older parents, closest water to house is 500 meters over hilly terrain. Water for house, cattle and stock is hand carried. During dry weather and during hard freezes water must be carried over 1 kilometer. Action Program: Home credit and/or teams for well drilling or cistern systems.

In examining Table 3 to get a better reading on just what types of services of projects the new extension service might include in this village action program priorities, we found that:

1) Daily Food Items, were available in 11 of the 28 villages. In another 11 villages farmers purchased food items in neighboring villages. Residents in the remaining 6 villages traveled to larger cities to purchase daily food items (e.g., bread, sugar, etc.).

2) Agricultural Sales or Pick-up Stations, were spaced so that farmers in 13 of the 28 villages regularly used local or neighboring village facilities for the sale of farm commodities such as livestock, milk, fruit, and wine grapes. Farmers in the remaining 14 villages were oriented to larger towns and regional centers for their commodity sales.

3) Agricultural Supplies, items such as seed, fertilizers, and feed concentrates, were available in 6 of the villages. KZ and KIK stores in neighboring villages provided supplies for another 11 of the villages. In the remaining 10 villages farmers traveled to larger towns and regional centers for their reproductory supplies.

4) Clothes/Textiles and Furniture, in most instances, farm families shopped in smaller towns (e.g., Sezana, Crnomelj, Sl. Gradec, Lendava) or larger cities (e.g., Trst, Novo Mesto, Celje, Murska Sobota) for clothing, textiles and home furnishing needs.

Table 3. Average Distance Traveled by Slovene Farmers for Various Farm Related Purchases and Sales, A Comparison by Region

Prupose of Trip	Average Kilometers Traveled			
	Prekmurje	Stajerska	Dolenska	Primorska
Household food items	1.1	3.2	3.7	3.7
Agricultural products	1.1	5.8	5.2	7.8
Agricultural supplies	3.3	5.2	4.2	8.0
Furniture	10.1	10.1	7.2	12.2
Clothing textiles	13.2	10.2	12.2	13.0

Important is the finding that daily food items were not available in 17 of the 28 villages. And that, on the average, Stajerska, Dolenska, and Primorska farm wives had to travel almost 7 kilometers (round trip) for food items. A fact that certainly must work a hardship on older farmers and young mothers - particularly during bad weather. The extension service

(KZ and KIK organizations for that matter) stand to receive instant support for program action that would bring a mobile grocery store or stock a local building/home with food items for local sale.

The fact that most Slovene farm families will generally travel a few extra kilometers for wider selection and perhaps better prices for clothing and furniture is not surprising. What was interesting was the finding that due to a mixture of competitive prices, customer credit, and in some cases, a wider selection, well over half of the farmers voiced a preference to do their shopping in smaller town centers rather than travel to Ljubljana, Celje, or Maribor.

Quantifying the impact of farmer marketing and purchasing patterns on the efficiency of Slovene agricultural production is conjecture at best. We don't know, for example, if the marketing and purchasing patterns reflect the result of "farmer intelligence" concerning competitive prices (which is no doubt the case in many instances) or the reflection of traditional marketing patterns that may or may not make "economic sense."

However, it is our opinion that the current marketing and purchasing patterns contain rather explicit situations wherein changes would benefit both the farmer and lower the consumer costs of Slovene agricultural production. Further study of the following types of situations we encountered would, we feel, benefit both sides of the market:

1) Local fresh milk pick-up unavailable in several instances with next villages far enough away to "cost" in terms of farmer time and milk quality.

2) Less than fully competitive local agricultural price policies (unwritten territorial agreements among KZ and KIK organizations) in comparison to other Slovene or Yugoslav areas.

3) Insufficient commodity and farm supply price information was available to farmers, e.g., differences between potentially competitive KZ's and KIK's daily or weekly market commodity prices for different Slovene and Yugoslav cities, etc.

4) Limited farmer knowledge concerning the variation in production contracts and agreements for solid farmer comparitive analysis (e.g., prices, benefits, conditions, etc.) available from KZ's and KIK's located in other regions of Slovenia or Yugoslavia.

5) Limited programming and distribution capacities of KZ and KIK organizations with respect to local availability of reproductory items when farmers need them: seed, feed, fertilizer, machinery and spray materials.

In summary, we felt that Slovene farmers were not really in disagreement with their legislator-agronom colleagues over the importance of continuing extension programs aimed at production. What they were saying is that they stood fully ready to participate even more so than in the past, in new action programs under the leadership of the extension service that made their village a better place to live for them and their children.

Report IV.

Information-Use Patterns Among Slovene Farmers

-- An analysis of personal and mass media sources of information related to new machinery and agricultural credit.

A key factor in the adoption of improved farming practices is the availability and farmer-consumption of information pertaining to new technology.

It was our feeling that if Slovene agronoms knew which information sources farmers were using on a daily basis (e.g., newspapers, radio, agronoms) they could, with this knowledge, more effectively channel the best available information directly to farmers for the combined tasks of improving agriculture and village life.

In an attempt to gather current information intelligence, we sought answers in the following three areas*:

1) What sources of information did farmers turn to for their first knowledge of new developments in agricultural credit programs. Secondly, once farmers were "aware" of a new development, which information source would they turn to for the best decision-making information concerning the new practice.

2) What effect does the type of farming practice have on the source of information farmers anticipated using? For example,

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*Farmers were asked two open-ended questions: (1) "Where would you most likely hear about a new development in (machinery/credit)?" (2) "Where would you seek the best information for (machinery/credit)?" Each question was asked for two improved farming practices: new agricultural machinery and new credit programs. Note, questions were phrased to find out which information sources farmers anticipated they would turn to or use.

do farmers key on the same information sources for relatively "visible" new developments in farm machinery such as a plow, mower, sprayer, tractor, etc., as they were for more complex farming practices such as in the case of farm credit?

3) Are there any farmer characteristics that seem to be related to information-use patterns? For example, do any regional information-use patterns or patterns related to the size of farm, or the age of farmers exist that have immediate information programming use?

One note before going into findings. Of the 542 farmers interviewed, 92 percent owned radios and 86 percent subscribed to newspapers. Unfortunately we didn't get a solid reading on T. V. ownership. Media information access we found was readily available in virtually all Slovene farm homes.

1. "First" and "Best" Information Sources

Slovene farmers told us they depend primarily on (1) radio broadcasts (most frequently mentioned were the noon-time and Sunday programs), (2) conversations with KZ and KIK staff, (3) newspaper articles, and (4) local neighbors for their first information concerning new developments in agriculture. When it comes to a final best source of information farmers overwhelmingly, 84 percent, singled out KZ and KIK agronoms as the source they would seek out. See Table 1.

We feel it is fair to conclude from the data in Table 1 that (1) Slovene farmers use a mixture of mass media and interpersonal channels to secure their first knowledge of new agricultural technology, (2) when

Table 1. Information Sources by Stages for New Agricultural Technology

Information Source	Percent by Source: First Information	Final Information
Neighbors	12%	12%
Agronoms	29	84
Demonstrations/Classes	2	--
Radio	31	2
Newspapers	20	2
T. V.	6	--
	100%	100%

seeking out the "best" final type information, Slovene farmers are almost exclusively oriented to interpersonal information sources, i.e., agronoms, and neighbors, (3) the agronom cadre appears as the single most important information channel, particularly so when one considers that broadcasts and newspaper articles are generally produced by agronoms.

In general, the Slovene findings mirror farmer information use patterns in other developed countries. That is to say, most farmers use a mixture of personal and mass media sources for their first information while "final" information generally comes from interpersonal sources, namely extension workers and neighbors.

In comparing the information use patterns of Slovene farmers with those of U. S. farmers, one extremely important difference crops up. This concerns the relative importance of extension (agronom) cadre in the communication network. Table 2 indicates that the Slovene agronom is

Table 2. Information Sources for New Agricultural Technology: A Comparison of First and Final Sources for Slovene and U. S. (Iowa) Farmers*

	Percent by Source			
	First Information		Final Information	
Information Source	Slovene Farmers	Iowa Farmers	Slovene Farmers	Iowa Farmers
Neighbors/Local	12%	22%	12%	54%
Agronoms	31	27	84	31
Mass Media	57	51	4	15
	100%	100%	100%	100%

considerably more important as a direct information source (84 percent) than the U.S. extension advisor is to American farmers, (31 percent). Our data suggest that 2 1/2 times as many Slovene farmers as Iowa farmers key on agronom cadre in the decision making stages of the adoption process. Similarly, Iowa farmers (54 percent) appear to rely more heavily on local farmers for final types of information/advice (54 percent) than do extension staff (agronoms) (31 percent).

2. Type of New Farm Practice and Information Sources

Data reported by Slovene farmers in Table 3 suggests that as the complexity of a new farming prace increases (credit vs. machinery) farmers tend to rely more heavily on direct contact with people to get their first news.

The source of Iowa information is Everett M. Rogers and George M. Beal, "The Importance of Personal Influence in the Adoption of Technological Changes," Social Forces, Vol. 36, pp. 329-335.

Table 3. Information Sources by Stages and Type of Improved Farming Practice

Information Source	Percent by Source			
	First Information		Final Information	
	Machinery	Credit	Machinery	Credit
Friends	12%	12%	13%	12%
Agronoms	21 } 35%	37 } 50%	84	85
Demonstrations/Classes	2	1	--	--
Radio	33	30	2	1
Newspapers	23 } 65%	16 } 50%	1	2
T.V.	8	4	--	--
	100%	100%	100%	100%

The practical significance in the finding that Slovene farmers (65 percent) are oriented towards media sources of information for new machinery technology, coupled with the "equal" importance of media and interpersonal information in the case of new credit programs, suggests two communications programming considerations:

1) Broadcast (radio and T.V.) and print media, as currently being utilized, appears to be effective in communicating news about relatively uncomplicated new farming practices--farm machinery in particular. Taking this into consideration, manufacturers and agricultural communications specialists can expect to get high return for their information dinar utilizing the media. This return can be further increased with local media information consumption data (e.g., newspapers vs. radio) such as that provided in the next section.

2) The information credibility of agronoms is quite high particular in the area of credit. This is a piece of information "intelligence" that banking

institutions should use in any concerted effort to expand farm credit use and/or improve the effectiveness of farm credit.

3. Farmer Profile Characteristics and Information-Use Patterns.

A combined total of over 50 regional, community-level and individual farmer characteristics were analyzed to identify information-use relationships that might have practical use in improving the flow of information to farmers. While the analysis is not complete, the differences associated with five characteristics appear to have value in terms of re-channeling current information resources to make maximum use of the identified differences in information consumption patterns.

1. Regional Variations

Table 4. A Regional Comparison of First Information Sources for New Agricultural Machinery, Farmers by Regions

Region	Percentage Distribution		
	Neighbor	Agronom	Media
Prekmurje	1%	12%	87%
Štajerska	20	20	60
Dolenska	14	46	40
Primorska	37	17	46

Table 5. Mass Media Information Sources Regional Data, First Information for Agricultural Machinery, Farmers by Region

Region	Total % Media (Table 4)	Percentage Distribution		
		Newspaper	Radio	T. V.
Prekmurje	(87)	16%	74%	10%
Štajerska	(60)	53	40	7
Dolenska	(40)	61	25	14
Primorska	(46)	48	9	43

From the data in Table 4 and Table 5 dealing with machinery information sources, it is clear that Prekmurje farmers (87 percent) are almost exclusively media oriented for their first new information. Further, local radio is in pretty much control of the Prekmurje media market (74 percent) when it comes to new farm machine technology.

Farmers in the remaining regions are more or less equally divided between personal and media information sources. However, the information-use mix reveals several interesting patterns:

-- Primorska farmers key heavily on neighbors (37 percent) which is twice the figure for agronoms, also,

-- Primorska farmers rely almost entirely on Slovene and Italian T.V. (43 percent) and newspapers (48 percent) for their media information, that is, radio emissions don't seem to enter the media picture.

-- Dolenska farmers key heavily on agronoms (46 percent) for their first information--a situation which is quite remarkable when you consider that Dolenska and Stajerska farmers had been visited less frequently (only 22 percent of the farms) than farmers in other regions, Primorska (38 percent) and Prekmurje (55 percent), see Table 6.

-- Agronoms were identified as the single best source of final-type information in all regions.

Summarizing the media market, it appears that local and republic newspapers more than hold their own (48-61 percent of the market) in Dolenska, Štajerska, and Primorska. The radio has pretty much control of the Prekmurje market and is fairly strong in Štajerska. Lastly, T. V. program-

ming is a strong competitor among Primorska farmers but remains relatively unused in other regions of Slovenia.

Table 6. Selected Isolation Characteristics of Slovene Farmers by Region

Selected Isolations Characteristics	Percent			
	Prekmurje	Štajerska	Dolenska	Primorska
Home farm visit by agronom	55%	22%	22%	38%
Farmer attended Demonstration	42	25	39	46
Off-farm Job, farmer	24	32	37	50
Off-farm Job, wife	9	17	21	31
Off-farm Job, either	31	45	52	56
Trips/month out of village*	14*	10*	11*	20*

(*Average Number)

2. Isolation

Utilizing individual farmer data in either index form (e.g., combining several characteristics together) or comparing single characteristics such as numbers of trips or kilometers traveled, one consistant information-use pattern emerged: the less physically isolated a farmer is, the greater his use of mass media becomes. In effect, the "closer" a farmer is to urban Slovenia, the greater his media consumption at the awareness stage when it comes to new farm technology.

Table 7. A Comparison of First Information Sources by Farmer Isolation

	Isolation Index* (most)				(least)
Information Source	1	2	3	4 . . .	10
Personal	54	39	30	20 —Stable→	22%
Mass Media	46	61	70	80	78%

* Each percentile number (1-10) represents 10% of the farmers interviewed on the farm machinery question.

An interesting finding was that Slovene farmers have their highest orientation towards agronoms (75 percent - 50 percent) as first sources of information during the initial stages of becoming less isolated. That is, after an "isolation threshold" is crossed, see Table 8, the relative importance of agronoms tends to stabilize at around 60-65 percent of the interpersonal information source category.

Table 8. A Comparison of Personal Sources of First Information by Farmer Isolation

	Isolation Index* (most)				(least)
Information Source	1	2	3	4 . . .	10
Neighbor/friend	36	25	19	35 —Stable→	38%
Agronom/technician	64	75	81	65	62%

*Each percentile number (1-10) represents 10% of the farmers interviewed responding in the personal information category.

We are convinced that a blush exists in the relative importance of agronoms in the development or de-isolation process. The reason for the pattern and if the pattern extends beyond the individual to the village or region is not totally clear. We suspect, however, that agronoms may be naturally attracted to people/villages undergoing a major renaissance, i.e., a renaissance attraction factor may exist.

In any case, agronoms appear to have a peak effectiveness period at the village level that can be maximized.

3. Size of Farm

Before discussing the information-use patterns based on differences in farm size, it is well to note that regional variations in farm sizes and arable land was considerable. This is to say that 0 - 3 ha and 4 - 7 ha categories have proportionally greater percentages of Prekmurje and Primorska farms included (based on farmers interviewed):

	Average Farm Size in Hectars	
Region	Total Land	Arable Land
Prekmurje	5.9	4.6
Štajerska	8.5	4.1
Dolenska	10.6	3.5
Primorska	7.4	1.8

While the trends appear to be relatively minor, Tables 9 and 10 indicate that:

1) Agronoms become more important as first sources of information as farm sizes increase,

2) Newspapers share a greater portion of the media market as farm size increases,

3) As farm size increases, farmers tend to rely relatively less on mass media. Nevertheless, the mass media percentage of the total first information market remains a solid 62 percent among larger farmers.

Table 9. A Comparison of First Information Sources for New Agricultural Machinery by Size of Farm

	Percentage Distribution		
Farm Size	Neighbor	Agronom	Media
0 - 3 ha	13%	12%	75%
4 - 7 ha	13	20	67
over 7 ha.	11	27	62

Table 10. Mass Media Information Sources, First Information for Farm Machinery By Size of Farm

		Percentage Distribution		
Farm Size	% Media (see Table 9)	Newspaper	Radio	T. V.
0 - 3 ha	(75)	27%	53%	20%
4 - 7 ha	(67)	25	68	7
over 7 ha	(62)	46	41	13

4) Age

Aside from the mildly surprising finding in Table 11 that age apparently did not affect the information-use pattern of Slovene farmers, the remaining findings were more or less expected:

1. The radio is relatively more important to older farmers than younger ones,
2. Likewise, newsprint as a first source of information tends to decrease with age. Whether total newsprint, perhaps read "late" decreases with age is not known,
3. Younger people tend to be more oriented to T.V. than older farmers.

Table 11. Mass Media Information Sources, Information for Farm Machinery by Age of Farmer

Age	Total Percent Media	Percentage Distribution		
		Newspaper	Radio	T.V.
under 30	(73)	43%	37%	20%
31 - 45	(67)	42	35	13
46 - 60	(70)	30	57	13
over 60	(64)	30	62	8

5) Sex

Approximately 20 percent of the 543 farmers interviewed were women. Based on this sample, the following differences in information-use patterns were noted with respect to farm machinery first information sources:

1. Men (69 percent) tended to be more oriented to mass media sources of information than women (54 percent).
2. Women were oriented relatively stronger towards neighbors (22 percent) than men (10 percent) for first information.

1. Specific to mass media, men (54 percent) are more oriented to the radio than women (43 percent). Likewise, women (41 percent) tend to be oriented a bit more to the newspaper as a source of first information than men (33 percent).

Concluding Remarks

Several cogent policy considerations are suggested in the study findings. Slovene farmers have identified the agronom as today's most inportant link in the communication and implementation of new agricultural technology. The differential use pattern of radio, newspapers, and T.V. as first sources of information was expected. These findings should and can be made use of immediately.

The identification of differential information-use patterns among Slovene farmers should suggest to local KZ's and KIK's that they have an economic stake in identifying village-level differences in their respective geographic service areas.

It is our impression that the very key role that Slovene agronoms are playing in improving the rural standard of living should not be obscured by the apparent growing use of media sources of information by Slovene farmers. The personal "electricity" between the farmer and agronom is real. With over 8 out of 10 Slovene farmers identifying KZ and KIK agronoms as their key source of decision-making quality agricultural information, the importance of agronoms cannot be overstressed in rural Slovenia today.

Report V.

A Two Dimensional Communication Infrastructure-Interaction View to the Shaping of Individual Behavior Patterns: A Progress Report Based on Slovene Research Data

One of the underlying objectives of the Slovene research activity was to document the physical movement of farmers for various farm and home activities. The reasoning behind this was that we felt by quantifying personal interaction we could get a more reliable estimate of changes in "agricultural behavior" than by relying on predictions based on the standard social and economic indicator types of data.

Actually, we had nor have any argument with the importance of social and economic indicators in exerting their particular influences on the shaping of behavior. At best, however, we felt the influence was inferential, a potential resource. Conceptually we felt we were on firm ground. That is, the mere existence of business or level of income does not in itself shape behavior. Changes, we felt, stemmed from man using (interacting) what he had access to or what he had accumulated.

What we wanted was the capacity to get a "basal metabolism" reading that measured the electricity generated by farmers as they met with different people, in different places for different reasons. The reading we wanted

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*Economists in particular use what they call "secondary indicators" such as income, capital reserves, location, etc. to estimate future or in some cases to predict the success or failure of firms and even people. To their credit, rural sociologists, e.g., Young, Eberts, Wakeley, Swedner, have recently c. 1960 started at the task of translating social infrastructure and social service types of data into "numbers" so that infrastructure too can be plugged into the prediction equasion. It is to be seen if indeed the nuances of indexing and translating infrastructure data into "machinable" numbers (that have intrinsic meanings) will permit sociologists to pull even with their economist colleagues in sand boxing with secondary variables in an attempt to predict behavior patterns of individuals let alone cultures or firms.

would translate into hard numbers the frequency of a farmer's interaction and, perhaps most important, qualify the interaction in terms of its relative importance in the shaping of behavior (e.g., changes social participation patterns and attitude changes).

We felt that by looking personal interaction close in the eye would bring us closer to understanding behavior changes than by relying on speculating about actual levels of interaction brought about by the existence or non-existence of secondary variables such as income, schools, and banks.

In constructing a basal metabolism reading of interaction as we indicated earlier, we didn't ignore the fact that the forces contained in social and economic indicators exerted a shaping influence on behavior. We did, however, modify the concept. We felt it made sense to assume, that in terms of producing behavior changes, threshold levels exist for the indicators, beyond which, they become relatively passive (less important) when compared to personal interaction. That is to say, when access is "available," conceptually anyway, infrastructure resources cease to be limiting factors in the shaping of behavior. In other words, it is the individual "mixing and matching" of his infrastructural resources that is the most direct cause of behavior change.

To get a reading on farmer interaction we made a common sense judgement as to types of interaction that might shape agricultural attitudes. We included the following types of personal interaction for our reading: off-farm employment for husband and wife, the place of purchase for five different farm and home items, visiting patterns, home farm visits by agronoms, attendance at agricultural classes/demonstrations, and trips per

month out of the village. In the analyses variables were treated independently and were aggregated into an index which we called an "individual isolation index." See Table 1. This composite of qualitative and quantitative measures was our first attempt at an interaction reading.

Table 1. Individual Isolation Index

Interpersonal Communications Indicators		Weight
1. Home farm visit by agronom	yes	3
	no	0
2. Attend demonstration/class	yes	7
	no	0
3. Employed off-farm	yes	9
	no	0
4. Wife employed off-farm	yes	9
	no	0
5. Farmer regularly visits relatives	yes	7
	no	0
6. Relatives regularly visit farmer	yes	3
	no	0
7. Trips per month out of village	0	0
	1-5	10
(number)	6-10	15
	over 15	30

8. Purpose of trips

	(Weights) Same Village	Next Village	Small Center	Center
a. Farm supplies, buy	1	2	6	7
b. Farm produce, sell	1	2	6	7
c. Home furnishings, buy	1	2	3	4
d. Textiles/clothes, buy	1	2	3	4
e. Daily food items, buy	1	3	8	10

Weight Total Possible 100*

*The lower the index score the greater the individual isolation. Mean 49.9, Standard deviation 15.5, range 11-94.

In approximating which villages might be close to the infrastructure threshold levels we mentioned earlier, we felt that physical isolation would be a strong contributing factor. This was our reasoning in grouping the villages into three groups on their relative physical isolation from nearby towns and cities. We were hopeful that we selected a wide enough range of physically isolated villages that would reflect infrastructure differences that in turn would yield readings that were different enough to compare.

While it sounds easy enough to group villages as we did based on access to public bus or train transportation, we were working with the knowledge that earlier work indicated that physical isolation very well might act to stimulate the preservation (accumulation) of infrastructure components (Buila RSJ: 1967). That is, what the Turks and Germans couldn't steal or burn remained. Hence, we were not at all sure that the groupings we selected would have a practical meaning.

The spring of 1973 sees us in the process of interpreting the first and second computor runs. As of now, we've found the following things of interest:

1. Regression and tabular analyses tend to confirm the existence of threshold levels for the standard types of economic and social indicator variables, e.g., size of farm (particularly arable hectares), percent agricultural population, income figures, and infrastructure indexes. We are still in the process of drawing the cutting lines at which residual increment increases appear to have relatively little impact on specific changes in behavior such as extension program priorities (empathy) or on the future in farming question.

2. While the interaction index data looks promising, in terms of its relationship to particular types of behavior/attitudes (e.g., future in farming), the accepted types of economic and social indicator variables look better yet. For example, indicators such as farm size and off-farm employment appear to be solid predictors (statistically and practically) of whether or not Slovene farmers see a future in agriculture. Interestingly, the social indicators such as visits by agronoms and holding an off-farm job, a mixed social and economic indicator, are every bit as solid as economic variables (e.g., size of farm or arable land) for predicting purposes on the future in farming question.

   On the question of indexing the interaction data, we clearly don't have the aggregation techniques worked out. We suspect our difficulty rests with two problems: (1) Scaling problems, i.e., assigning the "right" qualitative weights between types of movement (e.g., purchases, demonstration attendance, visits, etc.) and actual physical movement (e.g., number of trips out of the village) and (2) Variable instability. Obviously, this is predicted on the assumption, and that's all it is, that we have the right mix of personal interaction indicators for the basal interaction reading.

3. In the process of analysis we submitted the 90 plus variables to a series of factor analyses to see if the infrastructure and interaction variables loaded cleanly (grouped themselves separately)

Table 2. Communications Infrastructure-Interaction Dimension in the Individual Change Process

(Principle axis orthogonal rotation: 30 variables; R analysis of 543 Slovene farmers in 28 villages and 12 counties.)

Factor 1. Communication Infrastructure Resources, County Level

Percent of total variance explained = 14.5

.93	Population density, county
.82	Income, per capita, county
.82	Roads, all types, density, county
.49	Roads, Class I - cement/asphalt, density, county
-.73	Population, percent agricultural, county
-.59	Population, percent agricultural, village

Factor 2. Communication Infrastructure Resources, Village Level

Percent of total variance explained = 11.2

.91	Services available, sum, village
.90	Services available, index, village
.71	Physical/Geographic isolation, index, village
.48	Population, village

Factor 3. Interaction with Communication Resources, County Levels

Percent of total variance explained = 9.6

.91	Trips per month out of village
.87	Physical isolation, index, personal
.81	Employed off-farm

Factor 4. Communication Infrastructure Resources, Unclassified

Percent of total variance explained = 7.6

.79	Roads, Class I - cement/asphalt, density, county
.53	Population, village
-.45	Soil Quality Index, village

Factor 5. Interaction with Communication Resources, Village Level

Percent of total variance explained = 7.1

.64	Demonstration or class attendance
.61	Home/Farm visitation by agronom

Factor 6. Interaction with Communication Resources, Impersonal-Audio Media

Percent of total variance explained = 5.1

.68	First information source, farm machinery
.52	First information source, credit

or aggregated themselves into a series vague factor pot pourri's. We used a principle axis orthogonal rotation to maximize shared variance and make interpretation as easy as possible.*

The factor loadings in Table 2 indicate that:

(1) Communication infrastructure variables load separately (together) as do interaction measures.

(2) Infrastructure factors appear "cleanly" differentiated (grouped), i.e., county-level variables group together in Factor 1, as do village-level variables in Factor 2.

(3) Interaction variables group themselves rather naturally, i.e., quantitative measures, Factor 3, group separately from qualitative measures, Factors 5 and 6.

(4) Infrastructure factors appear to account for larger portions of variation in the "Infrastructure Matrix" than do interaction factors (a 3:2 ratio).

About all we would want to say at this point is that we were pleasantly surprised that the infrastructure and interaction data loaded as cleanly as it apparently has. Relative differences between infrastructure and interaction in terms of explaining variance accounted for, clearly exist. Just how much more important infrastructure is than interaction in framing attitude/behavior changes among rural populations in different villages and regions has yet to be determined.

---

*As opposed to oblique rotations that do not maintain the independence between factor structures, which while perhaps more "life like" are intrinsically more difficult to interpret than orthogonal rotations. We are still at sea on the interpretation of the statistical variations represented in the factors, i.e., can one rightly call statistical variations "real" since they already are based on phenomena once "numericalized" out of nature.

At the very least, we feel on firm ground in making a statement social indicator variables appear to be every bit as related, more so in several instances, to attitude formation (e.g., farmers future in farming or the breadth of new extension programs) than do the economic indicators (e.g., size of farm). This being the case, social indicator variables have every bit as much to tell the extension worker about the "whys" of given farmer's behavior than do his financial statements.

Admittedly, the two-dimensional view of individual change may be too simplistic for some. Just what the relative importance of infrastructure and farmer interaction have under varying village and regional situations has yet to be fully worked-out. Nevertheless, we suspect that there is plenty of field worker appeal in the infrastructure-interaction rule of thumb. Success in terms of putting it together will rest in a simple formula without a host of attitudinal scales on a backdrop of leadership sociograms.

Appendix A.

Social and Economic Indicator Variables and Data
Included for Study, Slovenia, 1972

I. General Structural Data

Village
County location/village
Employment category/respondents

II. Extension Program Dimension Priority Opinions*

Agricultural production
Marketing
Farm Management
Home and Family
Youth
Environment and Natural Resources
Community Development
Social-Political Leadership Issues
Index/Program Dimensions

III. Extension Client Audience Priority Opinions*

Small farmers (0-3 ha.)
Middle-sized farmers (3-7 ha.)
Larger farms (over 7 ha.)
Part-time or "Mixed" farms
Agricultural Cooperatives (KZ's)
Agricultural Business (KIK's)
Non-farm village households
City Residents
General Stores
Agricultural Stores
Index/Client Audience Opinion

IV. Individual Farmer Profile Data

Size of farm
Arable land
Forest holdings
Age
Sex
Radio ownership
Newspaper subscription

---

*Priority opinions were grouped into first, second, and third priority categories - category data is available for farmers, agronoms, county and republic-level legislators.

Home visit(s) by agronoms
Attendance at agricultural classes or demonstrations
Distance and class of purchase or sale:
- agricultural supplies
- sale of agricultural products
- furniture
- clothes and textiles
- food items, daily types

Off-farm employment, farmer
Off-farm employment, farm wife
Visiting frequency, to friends/relatives
Visiting frequency, from friends/relatives
Trips per month out of the village
Physical isolation index
Opinion as to whether or not the farmer saw a future in agriculture for himself/family
If opinion (future/agriculture) "no," why?
"First priority" suggestion to improve agricultural situation

V. Information Source-Use Data

Source of anticipated "first" (awareness) information, agricultural machinery

Source of anticipated "first" (awareness) information, agricultural credit

Source of anticipated "final" (best source before a personal decision) information, agricultural machinery

Source of anticipated "final" (best source before a personal decision) information, agricultural credit

VI. Village-Level Characteristics

"First priority" suggestions to improve village life
Population 1961
Population changes, index 1961/1933
Median age, 1961
Percent over 50 years/gu, 1961
Active male, percent, 1961
Active female, percent, 1961
Agricultural population, percent, 1961
Dwelling increases, index, 1961/66/1933
Households, percent, with automobiles
Soil type/productive capacity index
Physical isolation category/village

VII. Village-Level Infrastructure Characteristics

Electrical service
Road, any type
Road, all-weather gravel or asphalt
Road, asphalt
Bus Service, any
Bus Service, more than once daily
Bus Service more than five times per day
Organizations, any type
Agricultural marketing outlet (farmer sales or delivery station)
General Store
Agricultural Store
School, any
School, Secondary level
Church, active (monthly or weekly mass)
Church, weekly mass
Firehouse
Cultural/Recreational Hall
Government Office
Post Office
Inn
Cinema
Clinic Health Service Facility
Doctor
Industrial Firm
Infrastructure, sum
Infrastructure, index

VIII. County-Regional Characteristics

Population, county, 1961
Agricultural population, percent, county, 1961
1971 National Income, per person, county
Roads, highways, km/km^2, county, 1970
Roads, regional first class all weather, km/km^2, county, 1972
Roads, local, km/km^2, county, 1970
Roads, all type, km/km^2, county, 1970
Population density, km^2, county, 1961

Appendix B. Agricultural Production Characteristics of Selected Slovene Villages

Village (Population) 1961	Primary Production	Variety	Percent of Production For Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
ežovica (38)	Dairy	Sivorjava Montafonka	90	Tractor/ Team				Mower	BCS Alpina
rešnjevec (123)	Wheat	Sanpastore Libelula	--	Tractor & Team/ horses-ox	Ferguson Pasquali	Team		Combine Mower Hand	Zmaj
	Wine Grapes	Kraljevina Belina Modra Frankinja	30	Tractor/ Hand		Tractor/ Hand		Hand	
	Apples	Bobovec Canada	--	Hand		Hand		Hand	
lenji harovec (141)	Potatoes	Igor	25	Team/ Horse		Hand/ Team		Hand/ Team	
	Wine Grapes	Žametovka Kraljevina Smarnica	10	Hand		Hand		Hand	
	Dairy	Sivorjava	75						
	Swine	Krškopoljec	100						
	Horse Breeding	Lipicanecx Mrzlokrvni Hrvaški	75						

Village (Population) 1961	Primary Production	Variety	Percent of Production For Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Dramlje (195)	Wheat	Sanpastore	--	Tractor	Zetor Ferguson	Tractor	Zetor Ferguson	Tractor/ Hand	Zmaj
	Potatoes	Igor Dvetnik	--	Tractor	Ferguson Zetor Tornado	Tractor		Hand	
	Wine Grapes	Laško Rizling Silvanec Modra Frankinja	--	Tractor/ Hand	Zetor Ferguson	Hand		Hand	
Graška Gora (57)	Breeding Cattle	Sivorjava Merijadvorska	--					Mower	Alpina Laverda Reform Rapid, BCS
	Mixed		--						
Hotiza (889)	Wheat	Leonardo Libelula Domača	5	Tractor/ Team	IMT 533 Zetor Steyer	Tractor/ Team	Ferguson Metalna	Tractor/ Hand	Zmaj 780 Laverda BCS
	Potatoes	Merkur Igor Desire Vesna	--	Tractor/ Team	IMT 533	Tractor/ Team/ Hand	Technostroj	Hand	
	Cattle	Svetlo Lisasta	100						
	Dairy	Svetlo Lisasta	10						

Village (Population) 1961	Primary Production	Variety	Percent of Production For Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Hrenova (161)	Wheat	Italian Varieties	--	Tractor	Ferguson Carrara	Hand		Tractor/ Hand	Zmaj
	Potatoes	Igor Cvetnik	--	Tractor	Ferguson Carrara	Oxen/ Hand		Hand	
	Corn			Tractor	Ferguson Carrara	Hand		Hand	
	Dairy	Sivorjava Belorjava	90						
Jereka (182)	Wheat	Bezostaja	5	Horse		Horse		Hand	
	Corn	Bohinjska - rumena - rdeca	15	Horse		Horse		Hand	
	Potatoes	Igor Cvetnik	10	Horse		Horse		Hand	
	Dairy	Bohinjska cika	65						
Kobje glava (261)	Wine Grapes	--	--	Tractor	Ferguson Small Tractor (15 h.p.)	Tractor	Ferguson	Hand/ Tractor	Ferguson

Village (Population) 1961	Primary Production	Variety	Percent of Production for Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Kapca (566)	Wheat	Leonardo Libelula Domače	5	Tractor/ Team	IMT 533 Zetor Steyer	Tractor/ Team/ Hand	Bizerba English Sejalnica	Mower Combine	BCS Laverda Zmaj 780
	Fat Cattle		100			Tractor/ Team/ Hand			
	Dairy Cattle		10						
Kuštanovci (316)	Wheat	Leonardc Libelula Bavarska Kraljica	70	Tractor/ Team	Steyer IMT 533 Zetor Ferari	Hand		Combine/ Mower/ Hand	Zmaj 780 Laverda BCS Alpina
	Potatoes	Igor Domače	--	Tractor/ Team	Steyer IMT 533 Zetor Ferari	Hand/ Team		Hand/ Team	
	Fat Cattle		100						
	Dairy Cattle		15						
Lipa (776)	Wheat	Leonardo Libelula	5	Tractor/ Team	IMT 533 Zetor Steyer	Tractor/ Team/ Hand	OLI	Combine/ Mower/ Hand	Zmaj 780 Laverda BCS
	Potatoes	Igor Desire Viktorija	60	Tractor/ Team	IMT 533 Zetor Steyer	Tractor/ Hand/ Team	RAU-Kombi	Hand/ Tractor	RAU-Kombi Pdjski Izorac
	Fat Cattle	Svetlo Lisasta	100						
	Dairy Cattle	Svetlo L.	20						

Village (Population) 1961	Primary Production	Variety	Percent of Production for Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Nedelica (740)	Wheat	Leonardo Libelula Sanpastore Dubrava	10	Team/ Tractor	IMT 533 Zetor Steyer	Team/ Tractor	Metalna Ferguson	Mower Hand Combine	BCS Laverda Zmaj
	Potatoes	Merkur Ella Igor	5	Tractor/ Team	IMT 533 Zetor Steyer	Hand		Hand	
	Fat Cattle	Svetlo Lisasta	100						
	Dairy	Svelto Lisasta	3						
Nova Lipa (176)	Potatoes	Tolminec Kočevar Igor	25	Team/ Oxen		Hand/ Oxen		Hand/ Oxen	
	Dairy	Sivorjava Rdečebela	50	Hand					
	Swine	Krškopoljec	25						
	Forest		60						
Omota (66)	Potatoes	Igor Cvetnik	25	Team/ Horses		Hand/ Oxen		Hand/ Oxen	
	Wine Grapes	Modra Frankinja Žametna Črnina Kraljevina	50	Hand		Hand		Hand	

Village (Population) 1961	Primary Production	Variety	Percent of Production for Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Omota (Continued)	Dairy	Sivorjava	10						
	Swine	Krškopoljec	50						
Otemna (90)	Wheat	Italian Varieties	--	Hand Team/ Horses		Hand Team/ Horses		Hand	
	Potatoes	Igor Cvetnik	--	Team/ Oxen		Hand Team/ Horses		Hand	
	Corn	Bela Koroška Hitrica	--	Team/ Horses		Hand		Hand	
	Grapes	Izabela	60	Hand		Hand		Hand	
	Dairy	Sivorjava Šeka	90						
Razgor (118)	Dairy	Sivorjava Montafonka	90	Tractor/ Team				Mower	BCS Alpina
Razgorca (174)	Wheat		--	Tractor/ Team	Steyer Carara	Team/ Oxen		Team Hand	
	Potatoes	Igor Cvetnik	--	Team/ Tractor	Steyer Carrara	Hand Team		Hand Team	
	Wine Grapes	Izabela	60	Hand		Hand		Hand	
	Forest		90						

Village (Population) 1961	Primary Production	Variety	Percent of Production for Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Ručetna Vas (82)	Potatoes	Igor Cvetnik Vesna	75	Team/ Horses		Hand/ Team		Hand/ Team	
	Wine Grapes	Kraljevina Modra Frankinja	75	Hand		Hand		Hand	
	Dairy	Sivorjava Rdeče Bela	75						
	Swine	Krškopoljec	25						
Šv. Miklavž (128)	Dairy		90					Milking Machine	
	Fat Cattle		100						
	Mixed								
Tešanovci (564)	Wheat	Libelula Leonardo Domače	15	Tractor/ Team	IMT 533	Tractor/ Team/ Hand	IMT 533	Combine/ Mower	Zmaj 780 Laverda BCS
	Fat Cattle	Svetlo Lisasta	100						
	Dairy	Svetlo Lisasta	10						
	Corn	BL 360 ZP 346 W 355 A	--	Tractor/ Team	IMT 533 Zetor Steyer Deutz	Tractor/ Team Hand	Panonija	Hand/ Tractor	Tam

Village (Population) 1961	Primary Production	Variety	Percent of Production for Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Tešanovci (cont.)	Potatoes	Igor Merkur	--	Tractor/ Team	IMT 533 Zetor Steyer Deutz	Hand/ Tractor	Harrow/Culti- pak Brane by Tehnostroj	Hand	
Turiška Vas (168)	Potatoes	Igor Cvetnik	50	Tractor Zetor Ferguson	Steyer Zetor Ferguson	Tractor/ Hand		Tractor/ Hand	Zetor Steyer
	Dairy	Sivorjava Simentalka	75	Hand					
Velike Žablje (379)	Wine Grapes	Malvazija	50	Oxen		Hand		Hand	
	Corn			Tractor	Fiat	Team		Hand	
	Potatoes	Early Dutch	100 10	Tractor	Fiat	Team		Hand	
	Peaches	Early Var.	100	Tractor	Fiat	Hand		Hand	
	Fat Cattle	Sivorjava	100						
Vodice (796)	Wheat	Marinka Leonardo Et. Dechoi		Tractor	Ferguson Steyer	Tractor	RAU-Kombi	Tractor	Combine
	Corn	WC 270 Austria		Tractor	Ferguson RAU-Kombi	Tractor	Vogel-NOOT RAU-Kombi	Tractor	Mengele
	Potatoes	Igor Desire Cvetnik	85	Tractor	Ferguson RAU-Kombi	Tractor	Vogel-NOOT RAU-Kombi	Tractor	Ferguson RAU-Kombi

Village (Population) 1961	Primary Production	Variety	Percent of Production for Market	Mechanization Level					
				Plowing		Cultivation		Harvest	
				Power Type	Firm	Power Type	Firm	Power Type	Firm
Vodice (Continued)	Fat Cattle	Simental Sivorjava	100						
	Dairy	Pintzgau Križanke	95						
Vrhpeč	Swine	Krškopoljec	80						
(84)	Dairy	Sivorjava	50						

Appendix C. Physical Communication Characteristics of Selected Slovene Villages

Village	Automobiles Percent Households	Motorcycles* Percent Households	General Communication Means by Type of Trip			
			Job (Off-Farm)	School	Grocery Store	Farm Supplies and Sales
Bezovica	25	80	Personal**	Walk	Walk	Walk
Črešnjevec	20	40	Personal**	Walk/Car/ Motorbike	Walk/Car/ Motorbike	Walk
Dolenji Maharovec	10	23	Personal**/ Bus	Bus	Personal**	Car/Wagon
Graška Gora	--	40	Personal**	Walk	Walk	Walk
Hotiza	11	44	Bus/Personal**	Walk/Bus	Walk	Walk/Personal**
Hrenova	7	80	Bus	Bus	Bus/Car/ Motorcycle	Personal**/Bus
Kapca	9	38	Personal**/ Bus/Walk	Bus	Walk	Personal**/ Walk
Kobje Glava	63	80	Personal**/ Bus	Walk/Car	Walk	Mixed
Kuštanovci	7	26	Bus/Personal**	Bus/Walk	Walk/Personal**	Walk/Personal**
Lipa	13	100	Personal**	Walk/Bus	Walk/Personal**	Walk/Personal** Bus
Mihovec	9	--	Walk	Walk	Walk	Walk/Wagon
Nedelica	4	30	Bus/Personal**	Walk/Bus	Walk/Personal**	Walk/Personal**
Nova Lipa	3	9	Bus	Bus/Walk	Bus/Car	Bus/Car

*Percentages computed on the basis of house counts reported in the 1961 census.

**Personal means other than walking, generally by car (self or neighbor/friend), motorcycle and occasionally by "coach," i.e., team and farm wagon.

Village	Automobiles Percent Households	Motorcycles Percent Households	General Communication Means by Type of Trip			
			Job (Off-Farm)	School	Grocery Store	Farm Supplies and Sales
Omota	20	10	Walk/Personal**	Walk/Bus	Walk	Walk
Otemna	15	70	Bus/Personal**	Walk/Bus	Walk	Walk/Personal**
Razgor	13	80	Bus	Walk	Walk	Walk/Personal**
Razgorca	50	60	Personal**	Walk	Walk	Walk
Ručetna Vas	19	19	Train/ Personal**	Bus	Car/Train/ Wagon	Car/Train/ Wagon
Šepulje	90	100	Personal**/ Bus	Bus	Walk	Mixed
Sv. Miklavz	9	80	Personal**	Walk/Bus	Bus	Bus/Personal**
Tešanovci	7	36	Personal**/ Bus	Walk/Bus	Walk/Personal**/ Bus	Walk/Personal**/ Bus
Turiška Vas	30	80	Personal**/ Bus	Bus/Walk	Bus	Bus/Personal**
Velike Žablje	21	18	Bus	Bus	Walk	Car/Motorbike/ Walk
Vodice	68	16	Bus/Personal**	Bus	Walk	Personal**/Bus
Vrhpeč	--	17	Personal**	Walk	Walk	Walk/Wagon

*Percentages computed on the basis of house counts reported in the 1961 census.

**Personal means other than walking, generally by car (self or neighbor/friend), motorcycle and occasionally by "coach," i.e., team or farm wagon.

Appendix D. Scalogram of Village Infrastructure By Kinds of Service Institutions, Slovene Villages, 1972

Village	Kind of Service Institutions[1]																							Number of kinds of service establishments
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Vodica	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23
Tešanovci	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X	18
Dramlje	X	X	X	X	X	X	X	X	X	X		X			X	X	X	X			X	X		17
Hotiza	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X					17
Kapca	X	X	X	X	X	X	X	X	X	X	X		X	X										13
Šepulje	X	X	X	X	X	X	X	X			X	X	X	X										12
Šv. Miklavz	X	X	X	X	X	X	X	X		X			X		X	X								12
Lipa	X	X	X	X	X		X	X	X	X		X			X	X								12
Kobjeglava	X	X	X	X	X	X	X			X	X		X	X										12
Turiška Vas	X	X	X	X	X	X		X	X	X	X	X												11
Jerka	X	X	X	X	X	X	X	X		X	X			X										11
Dol. Maharovec	X	X	X	X	X	X		X	X		X													9
Nova Lipa	X	X	X	X	X	X	X				X		X											9
Črešnjevec	X	X	X		X			X	X	X		X			X									9
Nedeljica	X	X	X	X	X	X		X	X															8
Hrenova	X	X	X	X		X					X			X										7
Vel Žablje	X	X	X	X			X			X			X											7
Trojica	X	X	X		X		X	X	X															7
Kuštanovci	X	X			X		X	X	X			X												7
Razgor	X	X	X	X		X																		5
Otemna	X	X	X	X		X																		5
Vrpeč	X	X	X	X			X																	5
Ručetna Vas	X	X	X	X																				4
Razgorca	X	X	X																					3
Bežovica	X	X	X																					3
Mihovec	X	X																						2
Omota	X	X																						2
Graška Gora	X	X																						2
Number of villages with this kind of service establishment	28	28	24	20	17	16	15	15	12	12	11	9	8	7	7	6	3	3	3	2	2	2	1	

[1]Notes to Appendix

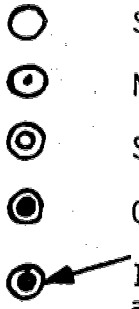
Kind of Service Institutions

1. Electric Service
2. Road, any surface type
3. Road, all-weather surface
4. Bus Stop, within 1/2 hour walk
5. Organization or store, any type
6. Bus stop, 1-4 times per day
7. Church, 1 or more services per month
8. Farm sales pick-up station
9. Firehouse
10. General Store
11. Bus stop, 5 or more times per day
12. Farm Supply Store
13. Church, 1 or more services per week
14. Road, asphalt or cement
15. School, elementary or secondary
16. Cultural Hall
17. School, secondary
18. Post Office
19. County Offices, any
20. Inn
21. Child Day Care Center
22. Doctor
23. Industrial Firm

Appendix E. Market Center Orientations by Purpose of Trip for 28 Slovene Villages, June 1972

Sketch maps indicating market center orientations by purpose of trip have been prepared for 28 villages in which farm families were interviewed. Legends with appropriate translations from Slovene have been prepared, appearing below, an explanatory example follows on the next page. Computed average distances traveled by villagers, in kilometers, appear in the Village Data Appendix. A comparison between geographic regions based on the distances traveled appears as Table 3 in the write-up of "Improving Village Life."

Legend 1. Market Center Location (Kraj)



Same village (Ista vas)

Neighboring village (Osrednji Kraj)

Small Center, 3,000-5,000 (Manjsi center)

Center, 5,000 or more (Center)

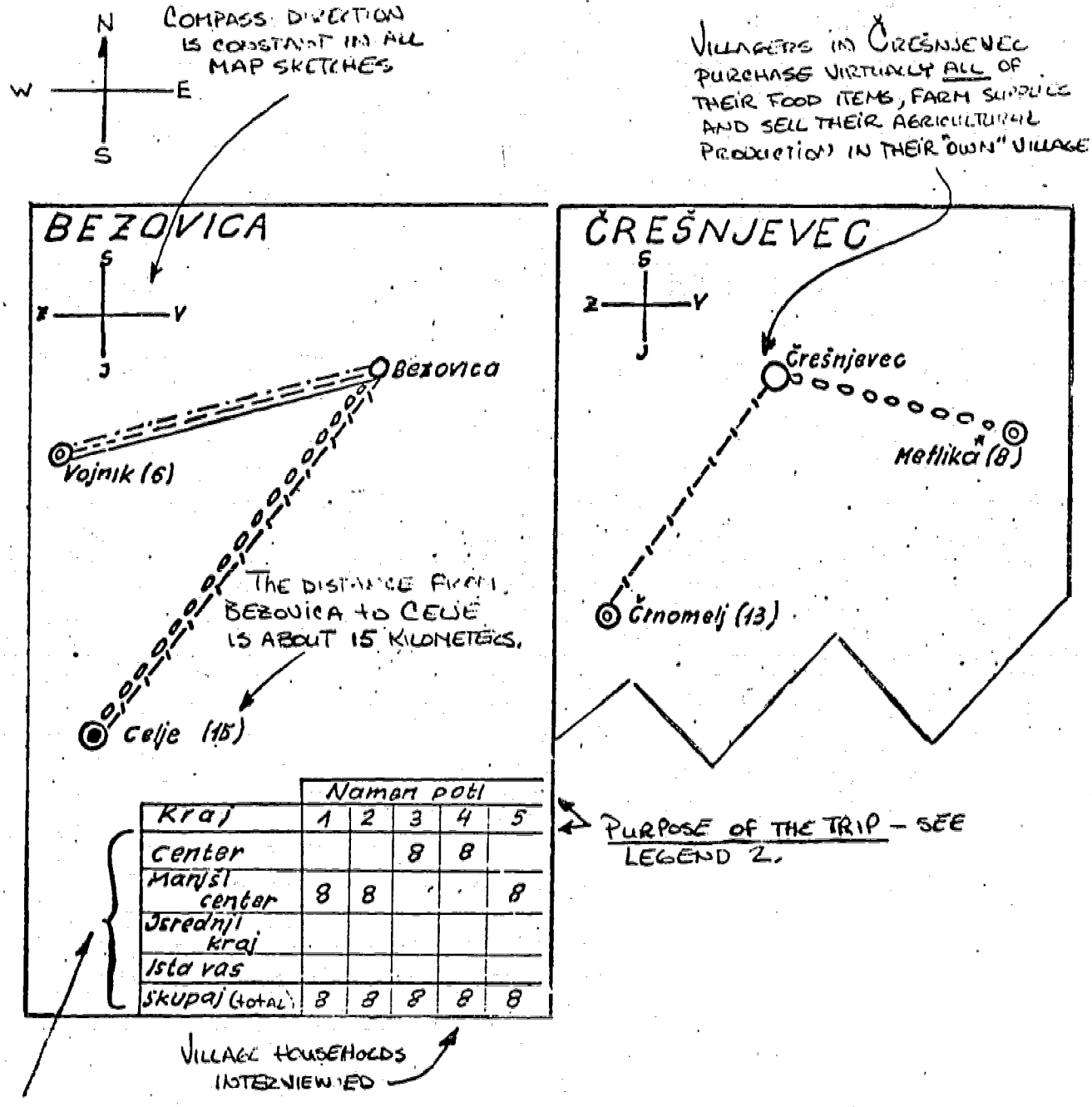
In cases, where two or more centers are mentioned, an arrow is used to designate the second location.

Legend 2. Purpose of Trip (Namen poti)*

1. Agricultural supplies, purchase
2. Farm commodities produced, sell
3. Household furniture, purchase
4. Clothing, purchase
5. Food items, purchase

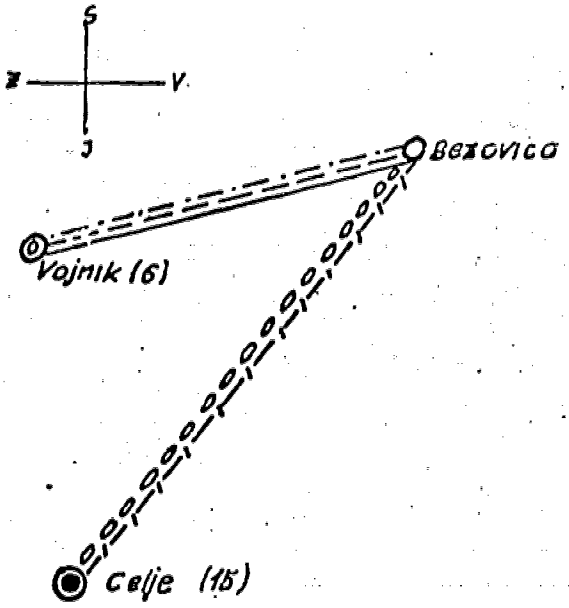
*When virtually all farmers use their own village for a given trip, such as food pruchases, no symbol(s) —•—•—•—• are noted on the sketch map for the village.

EXPLANATION



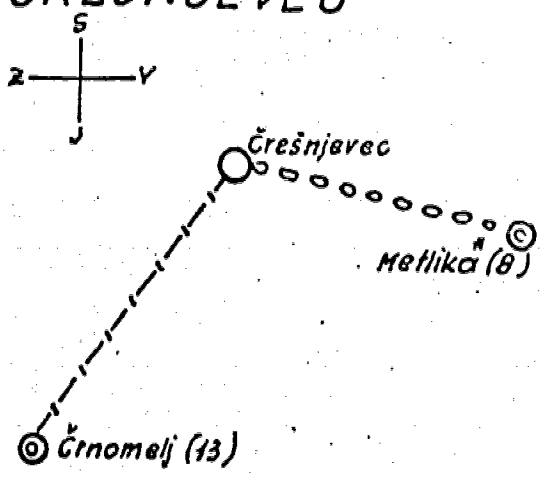
	Namen poti				
Kraj	1	2	3	4	5
center			8	8	
Manjši center	8	8			8
Osrednji kraj					
Ista vas					
skupaj (TOTAL)	8	8	8	8	8

BEZOVICA



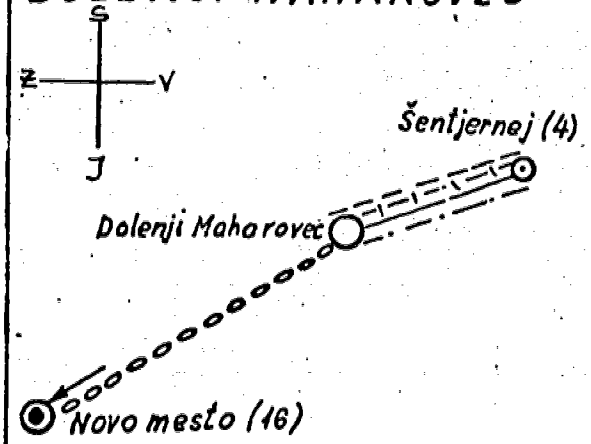
Kraj	Namen poti 1	2	3	4	5
Center			8	8	
Manjši center	8	8			8
Osrednji kraj					
Isto vas					
Skupaj	8	8	8	8	8

ČREŠNJEVEC



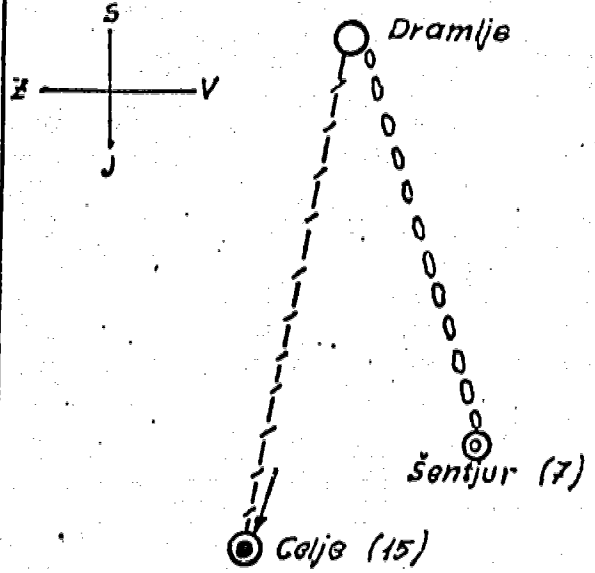
Kraj	Namen poti 1	2	3	4	5
Center					
Manjši center			21	21	
Osrednji kraj					
Isto vas	21	21			21
Skupaj	21	21	21	21	21

DOLENJI MAHAROVEC



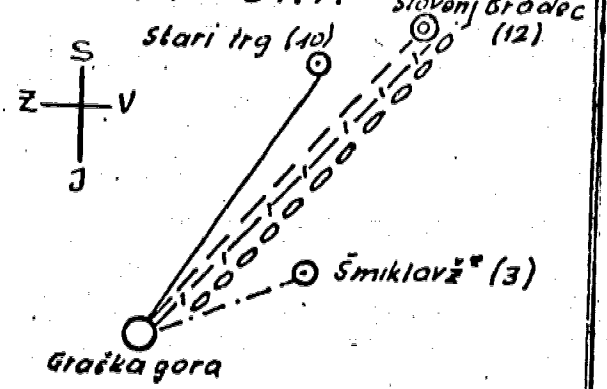
Kraj	Namen poti 1	2	3	4	5
Center		12		17	
Manjši center					
Osrednji kraj	28	16	28	11	28
Isto vas					
Skupaj	28	28	28	28	28

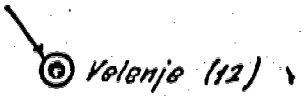
DRAMLJE



Kraj	Namen poti 1	2	3	4	5
Center	3	6	12	7	
Manjši center	2	3	11	14	
Osrednji kraj					
Isto vas	19	15	1	3	24
Skupaj	24	24	24	24	24

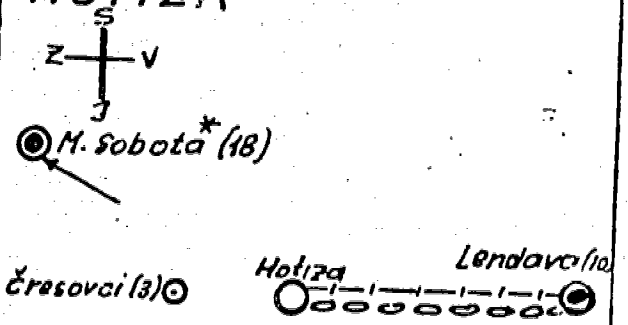
GRAŠKA GORA





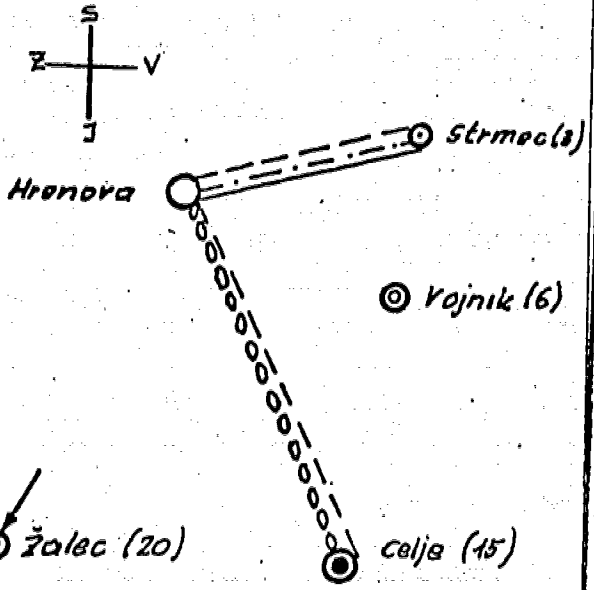
	Namen poti				
Kraj	1	2	3	4	5
Center	1	1	2	1	1
Manjši center	2	4	4	4	
Osrednji kraj	4	2	1	2	6*
Ista vas					
Skupaj	7	7	7	7	7

HOTIZA



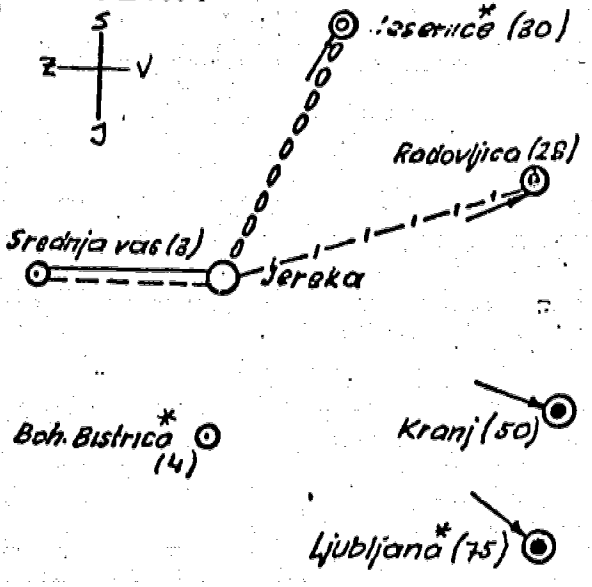
	Namen poti				
Kraj	1	2	3	4	5
Center			18+1+2+18*		
Manjši center			1+1*		
Osrednji kraj		1	2		1
Ista vas	30	29	6		29
Skupaj	30	30	30	30	30

HRENOVA



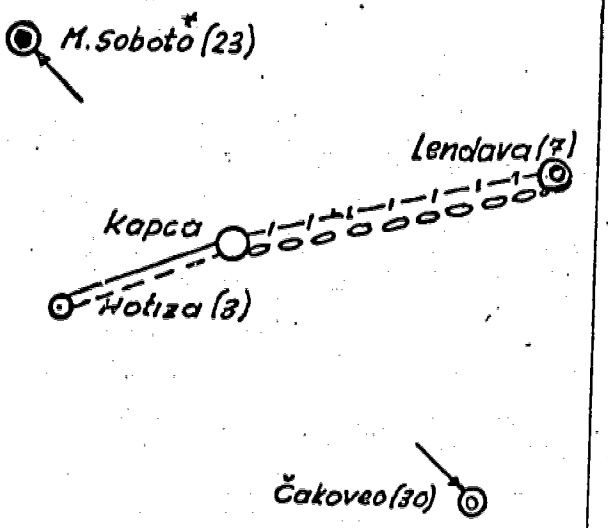
	Namen poti				
Kraj	1	2	3	4	5
Center	6	1	23	23	
Manjši center	1	5	1	2	1
Osrednji kraj	18	19	1		24
Ista vas					
Skupaj	25	25	25	25	25

JEREKA



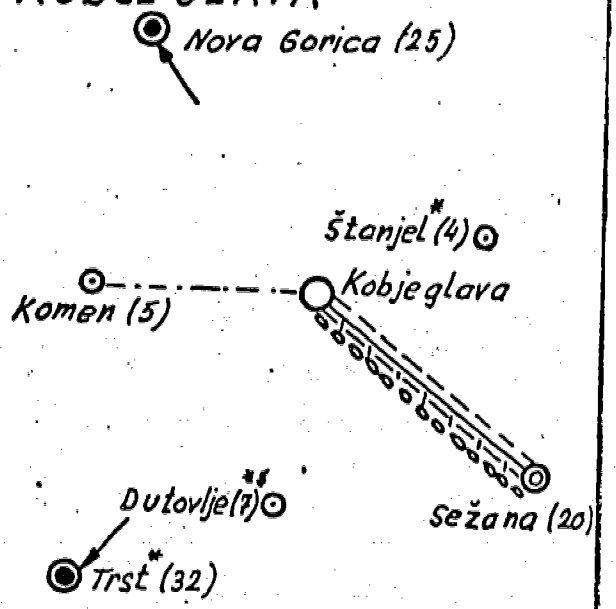
	Namen poti				
Kraj	1	2	3	4	5
Center				1+1*	
Manjši center			12	1+1*	
Osrednji kraj	18	18	4*	4	1
Ista vas			2		17
Skupaj					

KAPCA



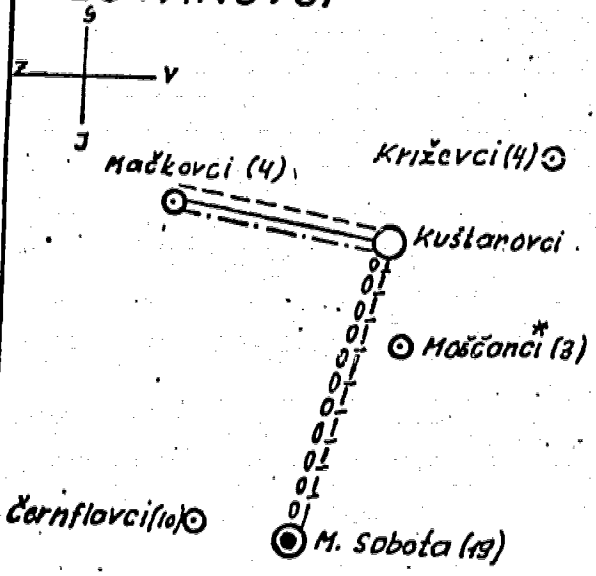
Kraj	Namen poti				
	1	2	3	4	5
Center			29+1	30	
Manjši center					
Osrednji kraj	30	30			
Isto vas					30
Skupaj	30	30	30	30	30

KOBJE GLAVA



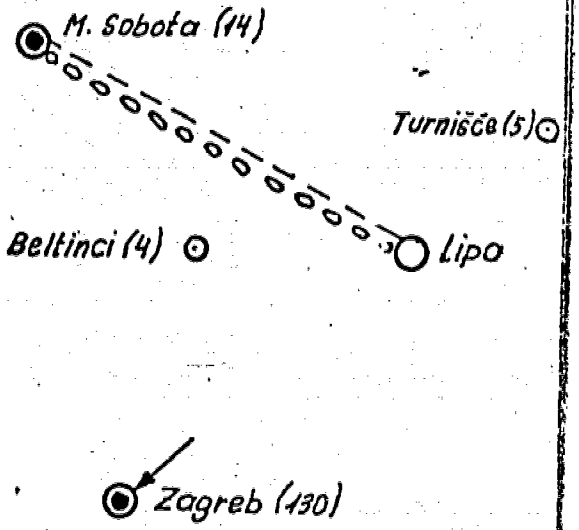
Kraj	Namen poti				
	1	2	3	4	5
Center	1		4+1	3	
Manjši center	8	15	10	9	3
Osrednji kraj	5+1			2+1	6+3
Isto vas					3
Skupaj	15	15	15	15	15

KUŠTANOVCI



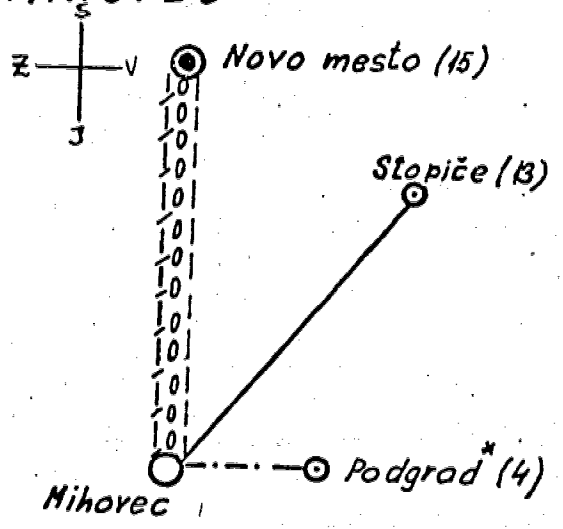
Kraj	Namen poti				
	1	2	3	4	5
Center			26	26	
Manjši center					
Osrednji kraj	26	26			22+4
Isto vas					
Skupaj	26	26	26	26	26

LIPA



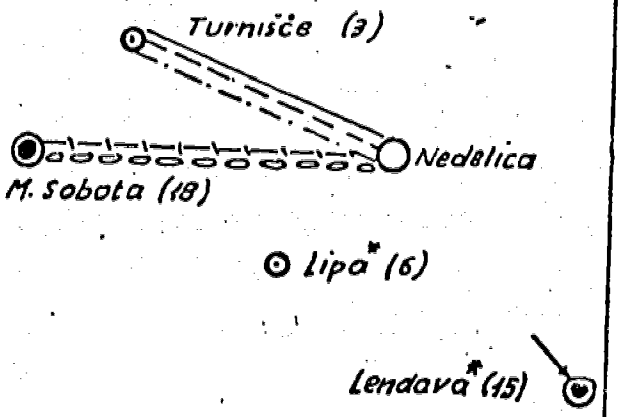
Kraj	Namen poti				
	1	2	3	4	5
Center			22	30	
Manjši center					
Osrednji kraj			5		
Isto vas	31	31	4	1	31
Skupaj	31	31	31	31	31

MIHOVEC



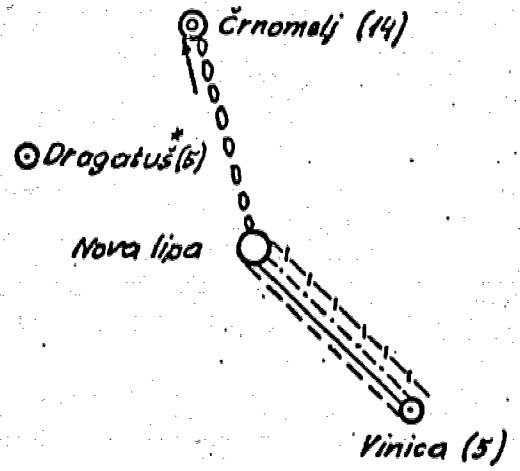
Kraj	Namen poti 1	2	3	4	5
Center	2	6	4	7	
Manjši center					
Osrednji kraj	5	1	3*		7*
Isla vas					
Skupaj	7	7	7	7	7

NEDELICA



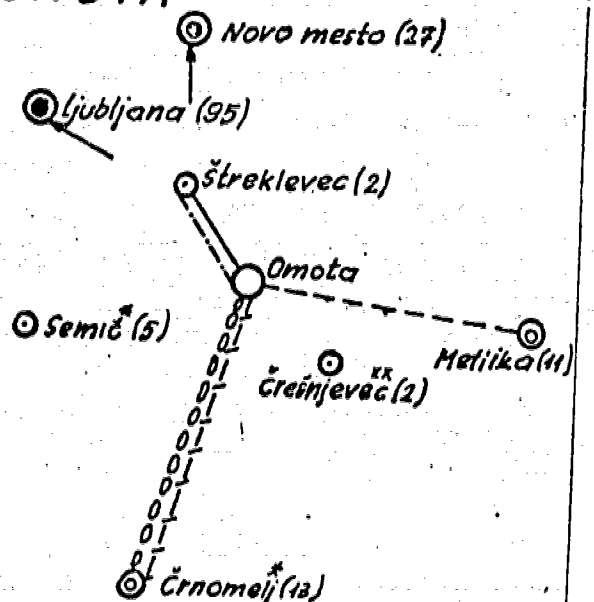
Kraj	Namen poti 1	2	3	4	5
Center			16+6*	21+9*	
Manjši center					
Osrednji kraj	30	29+1*			30
Isla vas					
Skupaj	30	30	30	30	30

NOVA LIPA



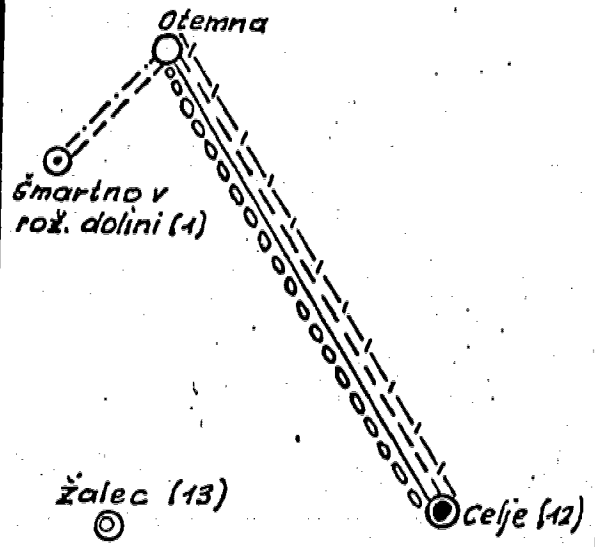
Kraj	Namen poti 1	2	3	4	5
Center					
Manjši center			3	26	
Osrednji kraj	25+1*	24+2*	17		26
Isla vas					
Skupaj	26	26	26	26	26

OMOTA



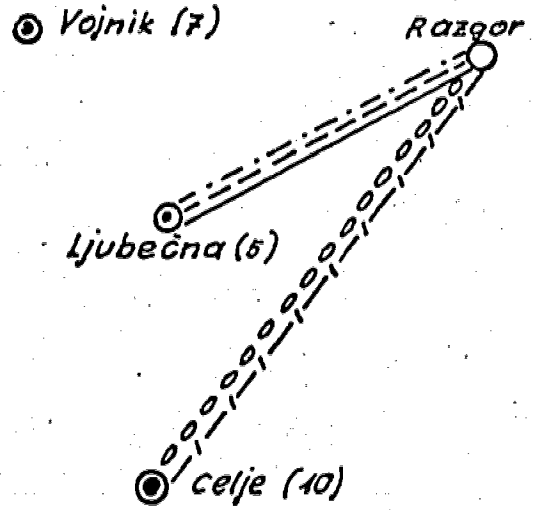
Kraj	Namen poti 1	2	3	4	5
center				2	
Manjši center		4	4+1*	11+5*	
Osrednji kraj	8+1*	4+1*	4	1*	9
Isla vas					
Skupaj	9	9	9	9	9

OTEMNA



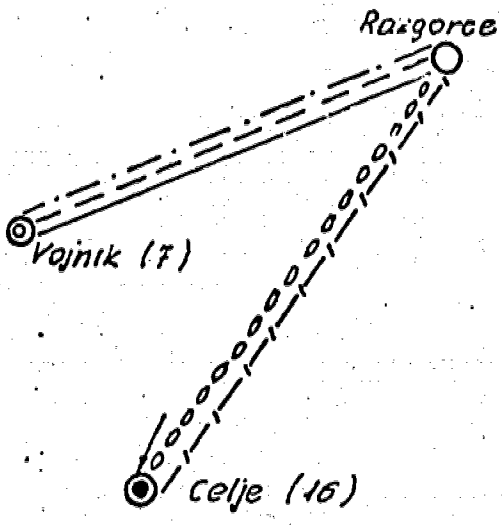
	Namen poti				
Kraj	1	2	3	4	5
Center	8	6	13	13	2
Manjši center		1			
Osrednji kraj	5	6			11
Ista vas					
Skupaj	13	13	13	13	13

RAZGOR



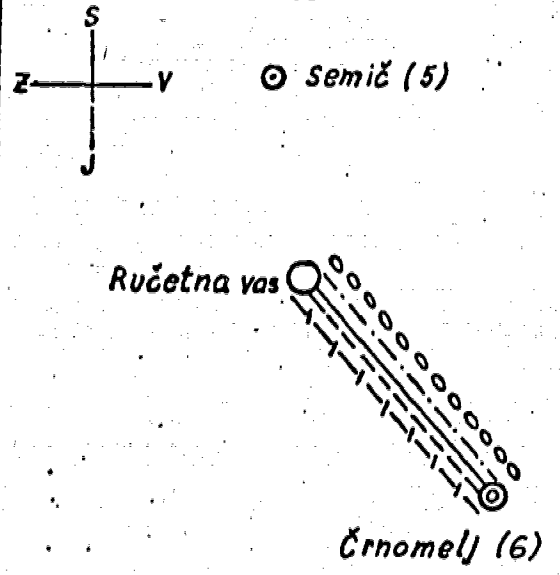
	Namen poti				
Kraj	1	2	3	4	5
Center	1	1	15	15	
Manjši center			1		
Osrednji kraj	15	15			16
Ista vas					
Skupaj	16	16	16	16	16

RAZGORCE



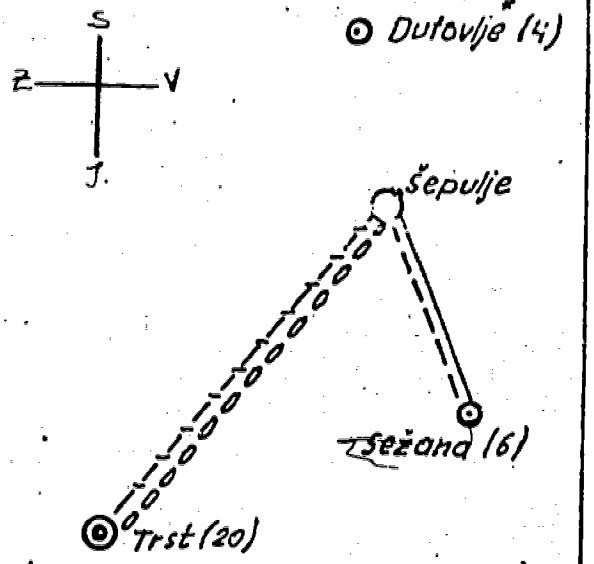
	Namen poti				
Kraj	1	2	3	4	5
Center			4	4	
Manjši center	4	4			4
Osrednji kraj					
Ista vas					
Skupaj	4	4	4	4	4

RUČETNA VAS



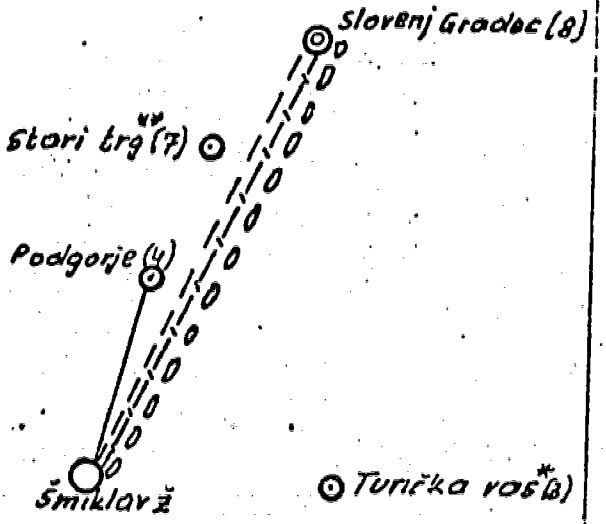
	Namen poti				
Kraj	1	2	3	4	5
Center					
Manjši center	12	14	13	14	13
Osrednji kraj	2		1		1
Ista vas					
Skupaj					

ŠEPULJE



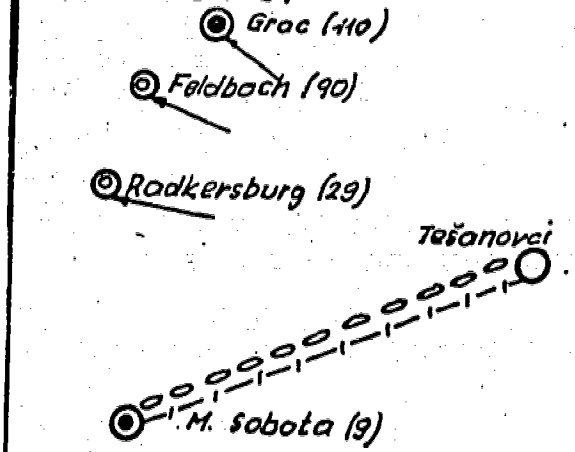
Kraj	Namen poti 1	2	3	4	5
center			11	17	
Manjši center					
Osrednji kraj	10+7*	17	6		
Ista vas					17
Skupaj	17	17	17	17	17

ŠMIKLAVŽ



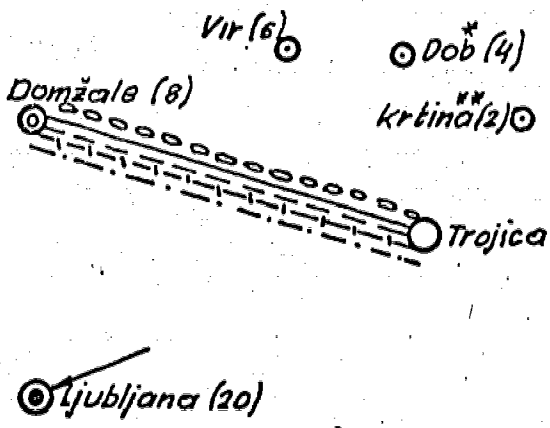
Kraj	Namen poti 1	2	3	4	5
center					
Manjši center	3	14	19	19	2
Osrednji kraj	11+3* 12**	5			
Ista vas					17
Skupaj	19	19	19	19	19

TEŠANOVCI



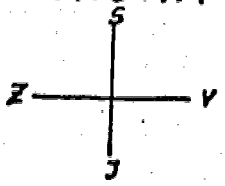
Kraj	Namen poti 1	2	3	4	5
Center			32	32	
Manjši center	1				
Osrednji kraj					
Ista vas	31	32			82
Skupaj	32	32	32	32	32

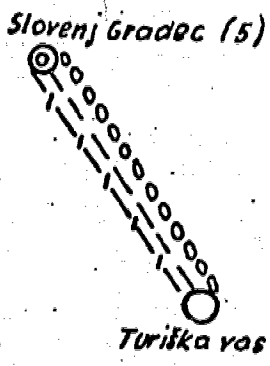
TROJICA



Kraj	Namen poti 1	2	3	4	5
Center			1	2	
Manjši center	20	21	20	19	8
Osrednji kraj	1				6+4 12**
Ista vas					
Skupaj	21	21	21	21	21

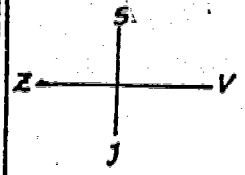
TURIŠKA VAS

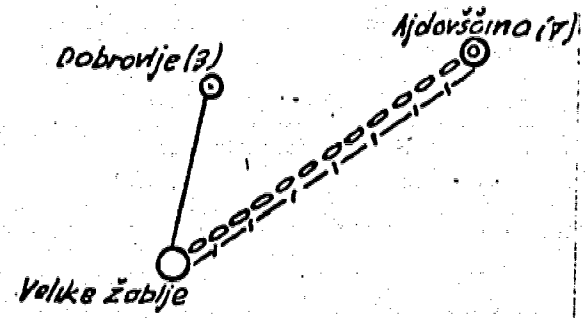




	Namen poti				
Kraj	1	2	3	4	5
Center					
Manjši center	1	16	23	23	
Osrednji kraj					
Ista vas	22	7			23
Skupaj	23	23	23	23	23

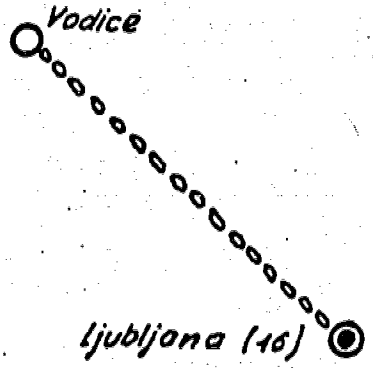
VELIKE ŽABLJE





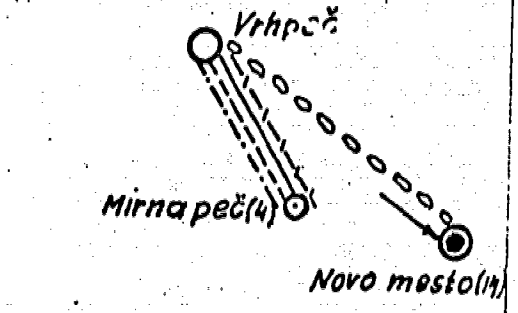
	Namen poti				
Kraj	1	2	3	4	5
Center					
Manjši center	7	3	20	20	8
Osrednji kraj	13	3			
Ista vas		14			12
skupaj	20	20	20	20	20

VODICE



	Namen poti				
Kraj	1	2	3	4	5
Center				16	
Manjši center					
Osrednji kraj					
Ista vas	20	20	20	4	20
Skupaj	20	20	20	20	20

VRHPEČ



	Namen poti				
Kraj	1	2	3	4	5
Center			4	14	
Manjši center				1	
Osrednji kraj	17	17	13	2	17
Ista vas					
Skupaj	17	17	17	17	17

Appendix F. Selected Village-Level Characteristics for Primorska Villages, 1972

Characteristics	Data Form	Kobjeglava	Šepulje	Vel Žablje
Extension program opinion, index (1-15)	$\bar{x}$	12.5	6.1	1.8
Extension client opinion, index (1-15)	$\bar{x}$	1.0	3.7	1.0
Size of farm	$\bar{x}$ha	9.8	9.8	3.6
Arable land	$\bar{x}$ha	1.5	1.8	2.2
Forest holding	$\bar{x}$ha	8.3	.9	1.4
Age	$\bar{x}$	45	48	56
Radio owned	yes %	100	100	90
Newspaper subscriber	yes %	80	100	85
Agronom home farm visit	yes %	20	41	50
Attended agriculture class/demonstration	yes %	13	59	60
Purchase agriculture supplies	$\bar{x}$km	14.3	6.6	4.4
Sale, agriculture commodities	$\bar{x}$km	18.7	5.3	1.7
Purchase, furniture	$\bar{x}$km	23.5	9.3	7.0
Purchase, clothes/textiles	$\bar{x}$km	19.5	14.2	7.0
Purchase, daily food items	$\bar{x}$km	7.0	1.0	3.5
See future in farming	yes %	33	24	0
Employed off-farm, farmer	yes %	80	47	30
Trips/mo. out of village	$\bar{x}$	26	23	12
Isolation, index (1-100)	$\bar{x}$	65	65	52
Infrastructure, index (1-10)		7	7	5
Village population growth, index 1933-1961		97	89	102
Age, 1961 village median	age	32	30	29
% village residents over age 50	%	29	23	25
Agricultural households, % 1961	%	44	49	59
Automobiles, % village households	%	98	90	25
Soil Type (1-9)		4	4	3
Population, 1961		261	123	379
Number of Respondents		15	17	20

Appendix A. Selected Village-Level Characteristics for Dolenska Villages, 1972

stic	Data Form	Mihovec	Vrhpeč	Dol. Maharovec	Omota	Ručetna Vas	Nova Lipa	Črešnjevec
rogram opinion, 5)	$\bar{x}$	8.3	12.8	11.7	9.5	11.2	9.0	13.3
ient opinion, 5)	$\bar{x}$	7.0	6.2	7.6	6.5	8.1	6.9	1.1
	$\bar{x}$ha	20.1	7.3	6.5	14.8	11.7	13.1	13.6
	$\bar{x}$ha	8.1	2.5	3.9	5.0	3.8	2.5	4.3
ng	$\bar{x}$ha	10.9	4.8	2.6	9.8	7.9	10.5	9.3
	$\bar{x}$	41	43	50	44	50	47	49
	yes %	100	94	93	88	100	77	100
bscriber	yes %	100	100	89	88	92	68	100
farm visit	yes %	29	12	22	25	31	0	52
iculture								
nstration	yes %	29	24	30	88	23	31	71
iculture								
	$\bar{x}$km	11.1	4.0	3.7	2.4	5.5	5.0	1.0
lture								
s	$\bar{x}$km	11.9	3.3	7.1	7.6	5.5	4.8	1.0
rniture	$\bar{x}$km	11.7	6.9	4.0	7.3	6.0	8.7	9.4
othes/textiles	$\bar{x}$km	12.0	12.3	11.1	23.8	6.0	14.0	9.9
ily food items	$\bar{x}$km	5.0	4.0	4.0	2.0	6.0	5.0	1.0
n farming	yes %	43	53	44	13	31	23	33
-farm, farmer	yes %	14	53	11	13	46	55	33
t of village	$\bar{x}$	6	14	7	6	10	13	9
ndex (1-100)	$\bar{x}$	45	51	39	44	55	42	48
re, index (1-10)		1	3	6	1	3	6	6
lation growth, 3-1961		158	76	67	93	68	108	79
llage median sidents over	age	24	31	31	26	30	25	30
households,	%	21	35	25	27	30	25	29
% village	%	72	63	71	61	55	89	91
-9)	%	0	0	10	20	19	3	0
		4	3	3	7	7	4	4
lation, 1961		127	84	141	66	82	176	123
spondents		7	17	27	8	13	22	21

Village
Bezovica
Črešnjeve
Dolenji Maharove
Graška Go
Hotiza
Hrenova
Kapca
Kobje Gla
Kuštanovc
Lipa
Mihovec
Nedelica
Nova Lipa

*Percentag

**Personal i.e., team

Appendix H. Selected Village-Level Characteristics for Stajerska Villages, 1972

Characteristics	Data Form	Hrenova	Otemna	Razgor	Bežovica	Razgorca	Turiška Vas	Šv. Miklavž	Gr. Gora
Extension program opinion, index (1-15	$\bar{x}$	11	13	7	10	11	11	11	13
Extension client opinion, index (1-15)	$\bar{x}$	7	7	6	5	7	7	6	6
Size of farm	$\bar{x}$ha	4.8	4.5	5.3	12.6	12.8	5.7	15	11.7
Arable land	$\bar{x}$ha	3.0	2.9	2.8	4.1	7	3.2	6.6	2.7
Forest holding	$\bar{x}$ha	1.8	1.5	2.5	8.5	5.8	2.4	8.4	9
Age	$\bar{x}$	48	57	48	50	44	47	53	39
Radio owned	yes %	88	85	81	100	75	91	84	71
Newspaper subscriber	yes %	80	85	94	75	100	94	89	71
Agronom home farm visit	yes %	4	15	13	25	0	36	42	0
Attended agriculture class/demonstration	yes %	16	23	13	13	50	27	47	14
Purchase agriculture supplies	$\bar{x}$km	5.6	7.2	5.4	7.4	7	1.2	4.9	13.6
Sale, agriculture commodities	$\bar{x}$km	4.5	6.4	5.4	7.4	7	3.7	6.6	12.6
Purchase, furniture	$\bar{x}$km	13.2	11.2	10.0	14.8	14.8	5.0	7.9	10.3
Purchase, clothes/textiles	$\bar{x}$km	13.6	11.2	10.0	14.8	14.8	5.0	7.9	15
Purchase, daily food items	$\bar{x}$km	3.3	2.4	4.9	7.4	7	1.0	1.7	4
See future in farming	yes %	40	31	19	38	75	23	53	0
Employed off-farm, farmer	yes %	52	8	44	13	0	45	21	57
Trips/mo. out of village	$\bar{x}$	14	6	11	5	4	16	9	12
Isolation, index (1-100)	$\bar{x}$	48	43	47	54	53	52	45	55
Infrastructure, index (1-10)		5	4	4	2	2	7	7	1
Village population growth, index 1933-1961		112	88	115	120	76	124	42	93
Age, 1961 village median	age	27	31	27	--	43	27	29	20
% village residents over age 50	%	22	26	21	17	42	23	26	19
Agricultural households, % 1961	%	52	60	38	83	74	39	75	89
Automobiles, % village households	%	7	15	13	25	50	30	9	9
Soil Type (1-9)		5	5	4	4	5	8	5	7
Village Population, 1961		161	90	118	38	174	128	128	57
Number of Respondents		25	13	16	8	4	22	19	7

Appendix I. Selected Village-Level Characteristics for Prekmurje Villages, 1972

Characteristics	Data Form	Lipa	Tešanovci	Kuštanovci	Kapca	Hotiza	Nedeljica
Extension program opinion, index (1-15)	$\bar{x}$	14.6	12.2	12.2	10.9	10.5	10.7
Extension client opinion, index (1-15)	$\bar{x}$	7.0	9.2	7.1	2.4	7.0	6.6
Size of farm	$\bar{x}$ha	5.3	7.4	10.2	4.1	4.2	4.6
Arable land	$\bar{x}$ha	4.9	5.6	5.8	4.0	3.7	3.9
Forest holding	$\bar{x}$ha	.5	1.7	4.5	.2	.5	.5
Age	$\bar{x}$	52	49	43	52	46	46
Radio owned	yes %	94	97	100	77	93	93
Newspaper subscriber	yes %	71	81	100	61	73	83
Agronom home farm visit	yes %	94	74	31	55	33	38
Attended agriculture class/demonstration	yes %	77	81	38	3	30	21
Purchase agriculture supplies	$\bar{x}$km	0	7.8	4.5	2.9	.4	4.6
Sale, agriculture commodities	$\bar{x}$km	0	.3	1.1	2.9	.3	2.1
Purchase, furniture	$\bar{x}$km	8.1	9.0	19	7.5	7.6	10.8
Purchase, clothes/textiles	$\bar{x}$km	13.4	9.0	19	7.0	14.9	17.0
Purchase, daily food items	$\bar{x}$km	0	0	3.8	0	.4	3.0
See future in farming	yes %	97	65	73	65	80	90
Employed off-farm, farmer	yes %	29	19	4	23	40	28
Trips/mo. out of village	$\bar{x}$	15	7	13	15	14	18
Isolation, index (1-100)	$\bar{x}$	55	48	49	51	48	55
Infrastructure, index (1-10)		7	8	5	7	8	5
Village population growth, index 1933-1961		88	66	76	73	99	97
Age, 1961 village median	age	32	34	39	36	28	32
% village residents over age 50	%	26	34	34	32	26	29
Agricultural households, % 1961	%	87	83	88	73	83	85
Automobiles, % village households	%	13	7	7	9	11	4
Soil Type (1-9)		9	3	4	3	3	4
Village Population, 1961		776	564	316	566	889	740
Number of Respondents		31	31	26	31	30	29

Appendix J. Selected Village-Level Characteristics for Miscellaneous Areas, 1972

Characteristics	Data Form	Jereka	Vodice	Trojica	Dramlje
Extension program opinion, index (1-15)	$\bar{x}$	7.3	8.4	8.9	7.5
Extension client opinion, index (1-15)	$\bar{x}$	2.9	5.6	3.5	3.7
Size of farm	$\bar{x}$ha	12	13.7	12.0	10.5
Arable land	$\bar{x}$ha	2.5	5.5	6.6	5.6
Forest holding	$\bar{x}$ha	8.8	7.8	5.1	4.6
Age	$\bar{x}$	56	56	59	51
Radio owned	yes %	100	100	95	96
Newspaper subscriber	yes %	94	100	95	100
Agronom home farm visit	yes %	28	45	45	83
Attended agriculture class/demonstration	yes %	33	75	36	29
Purchase agriculture supplies	$\bar{x}$km	2.7	1.0	8.9	3.4
Sale, agriculture commodities	$\bar{x}$km	2.7	1.0	9	5.3
Purchase, furniture	$\bar{x}$km	19.8	16.0	9.5	10.1
Purchase, clothes/textiles	$\bar{x}$km	27.7	16.0	9.5	8.4
Purchase, daily food items	$\bar{x}$km	1.1	1.0	7.1	1.2
See future in farming	yes %	28	85	55	46
Employed off-farm, farmer	yes %	22	10	50	50
Trips/mo. out of village	$\bar{x}$	7	7	16	15
Isolation, index (1-100)	$\bar{x}$	38	40	69	50
Infrastructure, index (1-10)		7	9	5	8
Village population growth, index 1933-1961		98	129	168	98
Age, 1961 village median	age	34	27	31	34
% village residents over age 50	%	26	20	30	30
Agricultural households, % 1961	%	40	25	78	57
Automobiles, % village households	%	--	68	--	--
Soil type, (1-9)		7	6	7	5
Village Population, 1961		182	796	49	195
Number of Respondents		18	20	22	24

Appendix K. Future in Farming, Self-Opinions of Slovene Farmers by Individual, Village and Regional Characteristics, 1972

Characteristics	Data Form	Primorska		Štajerska		Dolenska		Prekmurje	
		Future in Farming?		Future in Farming?		Future in Farming?		Future in Farming?	
		Yes	No	Yes	No	Yes	No	Yes	No
Size of farm	$\bar{x}$ha	13	6.2	12.8	6.0	11.9	10.0	6.1	5.2
Arable land	$\bar{x}$ha	1.6	11.9	6.1	3.0	4.2	3.1	4.9	3.7
Forest holding	$\bar{x}$ha	6.2	2.6	6.6	2.9	7.7	6.9	1.1	1.5
Age	$\bar{x}$yr	47	50	49	49	48	47	48	48
Radio owned	yes %	100	95	90	86	97	87	91	97
Newspaper subscriber	yes %	89	88	88	89	92	86	77	80
Soil index (1-9)	$\bar{x}$	4	3.5	5.1	5.4	5.0	5.1	4.4	3.3
Agronom home farm visit	yes %	56	35	37	14	32	17	58	46
Attended agriculture class/demonstration	yes %	56	44	46	14	53	33	44	36
See future in farming	yes %	100	0	100	0	100	0	100	0
Employed off-farm, farmer	yes %	56	49	22	38	26	42	22	31
Employed off-farm, wife	yes %	22	33	5	23	21	21	6	21
Trips/mo. out of village	$\bar{x}$	23	19	9	12	9	10	14	13
Isolation, index (1-100)	$\bar{x}$	64	59	47	49	46	47	51	50
Infrastructure, index (1-10)	$\bar{x}$	7	6.1	4.8	4.9	4.8	4.4	6.7	6.9
Population, village 1961		200	274	132	121	121	118	665	589
Number of Respondents		9	43	41	73	38	77	139	39

Appendix L.

Regional Comparison of Farmer and Village Characteristics[a]

Characteristic	Data Form	Region: Prekmurje	Štajerska	Dolenska	Primorska	Total
Size of farm	$\bar{X}$ha	5.9	8.5	10.6	7.4	7.9
Arable land	$\bar{X}$ha	4.6	4.1	3.5	1.8	3.9
Forest holding	$\bar{X}$ha	1.2	4.2	7.1	3.3	3.7
Age	$\bar{X}$	48	49	47	50	48
Radio owned	Yes %	92	88	90	96	48
Newspaper	" %	78	89	88	88	84
Agronom home farm visit	" %	55	22	22	38	37
Attended agri. class/demo	" %	42	25	39	46	38
Purchase agri. supplies	$\bar{X}$km	3.3	5.2	4.2	8.0	4.6
Sale, agri. commodities	$\bar{X}$km	1.1	5.8	5.2	7.8	4.0
Purchase, furniture	$\bar{X}$km	10.1	10.1	7.2	12.5	9.6
Purchase, clothes/textiles	$\bar{X}$km	13.2	10.2	12.2	13.0	12.2
Pruchase, daily food items	$\bar{X}$km	1.1	3.2	3.7	3.7	2.6
See future in farming	Yes %					
Employed off-farm, farmer	" %	24	32	37	50	32
Trips/mo. out of village	$\bar{X}$	14	11	10	20	13
Isolation, index (1-100)	$\bar{X}$	51	48	46	60	50
Infrastructure, index(1-10)		6.7	4.9	4.6	6.2	5.7
Village pop. growth index $\frac{1961}{1933}$	$\bar{X}$	83	102	82	96	89
Age, 1961 Village median	Age	33	27	29	30	30
% village residents over 50	%	30	23	28	26	27
Agricultural households, %1961	%	83	56	76	51	71
Number of Respondents		178	114	115	52	459

[a] Villages included:

(1) Prekmurje: Lipa, Tešanovci, Kuštanovci, Kapca, Hotiza, Nedeljica

(2) Štajerska: Hrenova, Otemna, Razgor, Bežovica, Razgorca, Turiška vas, Šmiklavž, Graška gora

(3) Dolenska: Mihovec, Vrhpeč, Dolenji Maharovec, Omota, Ručetna vas, Nova Lipa, Črešnjevec

(4) Primorska: Kobjeglava, Šepulje, Velike Žablje