

Basic Information Document

Kosovo Living Standards Measurement Study Survey 2000

Poverty and Human Resources
Development Research Group
The World Bank

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ACRONYMS

AR	Area of Responsibility
DU	Dwelling Unit
EA	Enumeration Area
FAO	Food and Agriculture Organization
FRY	Former Republic of Yugoslavia
HDAS	Housing Damage Assessment Survey
HU	Housing Unit
IMG	International Management Group
IOM	International Organization for Migration
LSMS	Living Standards Measurement Study
NATO	North Atlantic Treaty Organization
OSCE	Organization for Security and Cooperation in Europe
PSU	Primary Sample Unit
SOK	Statistical Office of Kosovo
UNDP	United Nations Development Program
UNHCR	United Nations High Commissioner for Refugees
UNMIK	United Nations Interim Administration Mission in Kosovo
WFP	World Food Program

This document is part of an expanded program of documentation and further development of the Living Standards Measurement Study (LSMS), managed by Kinnon Scott, in the Poverty Team of the Development Research Group (DECRG). It was prepared by Bénédicte de la Brière and Diane Steele (DECRG), with the assistance of the field team from SOK and Valerie Evans (field director), Armando Levinson (sample), Besfort Azizi and Julio Ortuzar (data entry), Edmundo Murrugara and Pierella Paci (ECSHD).

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I. Introduction

Starting June 1999, after the intervention of NATO in the conflict between Kosovo and Serbia (FRY), the United Nations provided interim administration for the province. The consequences of the conflict on the living standards of the population were severe, with the collapse of the industrial sector, the paralysis of agriculture, and extensive damage to private housing, education and health facilities and other infrastructure. In addition, the conflict brought massive population displacement both within Kosovo and abroad.

A year later, Kosovo was in a process of transition from emergency relief to long-term economic development. The purpose of the survey was to provide crucial information for policy and program design for use by the United Nations Interim Administration Mission in Kosovo (UNMIK), international donors, non-governmental organizations (NGOs), and the Kosovar community at large for poverty alleviation and inequality reduction.

During the same period, the Food and Agriculture Organization (FAO) was planning an agriculture and livestock survey. It was decided to join both surveys, in order to pool resources and provide better assistance to the newly re-formed Statistical Office of Kosovo (SOK) and to take into account the extensive Kosovar peasant household economy. Therefore the agriculture and food aid modules are more developed than those of a standard LSMS survey.

The International Organization for Migration (IOM) also was interested in information related to labor force and employment. They had run a socio-demographic and reproductive health survey with the United Nations Population Fund, covering approximately 10,000 households at the end of 1999. IOM provided the urban sampling frame for the present survey.

The purpose of this document is to provide detailed information on the Kosovo LSMS 2000. Section II contains a detailed outline of the questionnaires used in the administration of the survey. Section III provides information on the sample design used. Section IV provides a description of the pilot testing of the questionnaires. Section V describes the fieldwork procedures. Mechanisms for data entry are described in Section VI. Section VII provides notes about the data for potential users, and Section VII provides details of the situation in Kosovo that could influence the results of analyses.

II. Survey Instruments

Two questionnaires were used to collect the information: a household questionnaire and a community questionnaire. No anthropometric information was collected as malnutrition problems, facing Kosovar children and women, would not be detected by these procedures. Since FAO and SOK were conducting a price survey in 7 cities of Kosovo, on a monthly basis, it was decided to not include a separate price questionnaire but use the data from the FAO-SOK price survey.

The Kosovo LSMS 2000 collected information using a household questionnaire, which was based in part on the standard LSMS questionnaire developed in Grosh and Glewwe (2000).

The standard questionnaire was adapted to the specifics of the Kosovar environment and special modules about displacement, food aid and social protection were added. Individual modules were administered as much as possible to most informed respondents. Box 1 contains a summary of the content of the questionnaire. See Appendix A for details on how to obtain copies of the questionnaire¹.

Box 1. Contents of the Kosovo 2000 Household Questionnaire

Section	Description
1. Characteristics and Composition of the Household	This module contains the roster of individuals living in the household, their age, gender, marital status, and information that identifies spouses and parents. In addition, the module contains questions about new members after the conflict, members' movement during the conflict and spouses/children away from the household.
2. Education	The module starts with basic literacy and educational attainment questions for all members 5 years and older. It then proceeds with school attendance and expenditures for all members enrolled.
3. Economic activity and employment	This module is administered to all individuals 10 years and older and is divided into five sections: A. Determination of current work status (past 7 days), B. Overview of work in the last 7 days, last 12 months C. Primary and secondary occupation in the past 7 days, 12 months D. For the Kosovar Albanian households, employment status and occupation prior to 1991 E. Main activity in 1991
4. Household enterprises	This module collects information on households which operate household enterprises. It is divided into four sections: A. Establish existence of enterprise B. General characteristics of the business, C. Labor (household and hired), D. Earnings and expenditures, E. Capital equipment F. Business assets
5. Information and networks	This module collects information on group memberships, responses to crisis and household security issues

¹ Copies of the questionnaire can be obtained by mail (see Appendix A) or can be downloaded from the LSMS Website at: <http://www.worldbank.org/lsm/lsmshome.html>.

6. Agricultural activities	This module collects information on farming operations, with a special focus on access to aid for inputs and animals. It is divided into 6 sections: A. Land ownership and operations, B. Crops production C. Input use (seeds, fertilizers, pesticides, labor, equipment) D. Post-harvest processing E. Agricultural equipment inventory F. Livestock ownership and operations.
7. Consumption and expenditures	The module is divided into sections: A. Non-food and food away from home in the past 7 days, B. Food expenditures in the past 30 days and patterns of consumption in the past 12 months; stored food C. Non-food expenditures in the past 30 days and 12 months D. Transfers given in the past 12 months E. Durable goods inventory
8. Health	The health module is divided into two sections: A. Health expenditures on all individuals in the past 4 weeks, B. Self-reported health status for individuals 15 years and older
9. Miscellaneous Income	This module collects information on other sources of income A. Income from private inter-household transfers B. Social protection C. Other non-labor income
10. Characteristics of the dwelling	This module contains questions relative to the quality of the dwelling and services (water, electricity, heating, sanitation) available in the household.

The community² questionnaire was designed to collect information on community-level infrastructure, with a special emphasis on school and health facilities as well as displaced persons issues. Box 2 contains a summary of the content of the community questionnaire.

The rural community questionnaire was administered by the team supervisor during the time that the team was in the village doing the household enumeration. The supervisor contacted the mayor of the village, or failing that, a local leader such as the school principal. If there is more than one name on the list of respondents in the community questionnaire, the respondents were interviewed together.

The rural community questionnaire was fairly straight forward to administer because the boundaries of the village are clear in everyone's mind and there was no ambiguity about: (a) a facility existing or not in the community; or (b) the distance to the facility. In the Serbian areas

² Community is defined as the Primary Sampling Unit (PSU) of the survey. In rural areas, it generally encompasses villages unless these are less than 50 households (in which case, they were grouped with a neighboring village) or more than 200 households (in which case, they were broken-up in PSUs of 50-200 households). In urban areas, community is defined as the Enumeration Area but includes the larger city when referring to secondary school and university, hospitals and factories.

in the south, the community questionnaires were mainly administered by the Serb team coordinator, with several done by the team supervisors. There were political tensions in the enclaves, and they had to be mindful of this when trying to find someone in authority to interview since there were no clear cut leaders. Several times they were unable to identify someone on the days they were in the village for enumeration and had to return to the village in the following days. The Serb villages in the north were much like the Albanian villages, with an identifiable leader available. The supervisor of the northern team did all the community questionnaire interviews.

The urban community questionnaire was more difficult to administer. There was no time during the urban enumeration for the supervisors to find the proper respondents, and it was difficult to determine the best way to obtain the data. The education facilities, health facilities and industry portions of the questionnaire were done on a city-wide basis with subject matter specialists for each module. For example, in Gjacova the supervisor went to the Department of Education for the school location and enrollment information, to the Department of Health for the hospital information, and to the government official who had information on the industries in the city for that portion of the questionnaire. This means that each community questionnaire for Gjacova will have the same information for these three modules. The rest of the modules were administered to a leader, or group of leaders, in the enumeration area.³

The data from community questionnaire are not a representative sample of communities in Kosovo. These data are intended to provide information on the context in which the households are located for the analyses of the household data.

Box 2. Contents of the Kosovo 2000 Community Questionnaire

1. Respondent characteristics	Description of the respondents to the questionnaire
2. Community structure	This module collects information on population and movements since March 1998
3. Institutions and infrastructure	This module contains questions about services and infrastructure available in the community.
4. Economy	This module collects information on economic activities and employment sources
5. Agriculture	This module collects information on main crops and agricultural wages and services
6. Organization and displacement	This module collects information on community organization and displacement issues
7. Health	This module collects information on all health providers used by residents
10. School	This module contains questions about all educational facilities used by residents. (The module was numbered 10 in anticipation of the additional modules that were not included.)

³ There is actually a bit of blurring in the education module because although the high schools are available to families city-wide and the information was collected from the education authorities for the whole urban areas, the supervisors did ask about pre-schools and kindergartens in the enumeration area if it applied when they were interviewing the local leader with the enumeration area.

III. Sample Design

The sample design used in the Kosovo LSMS 2000 had to contend with the fact that the last census, conducted in 1991, was rendered obsolete by the boycott of the Albanian population and by the massive displacements since March 1998.

A Housing Damage Assessment Survey (HDAS) was conducted in February 1999 and updated in June 1999 by the International Management Group (IMG) and the United Nations High Commissioner for Refugees (UNHCR) in the rural areas. The survey covered 95 percent of the Albanian rural areas and provided the basis for the rural sampling frame, after updating. The updating and household listings in selected villages were conducted by FAO.

Since the HDAS did not cover Serbian villages, a quick counting⁴ of housing units was performed in these villages, following a procedure similar to the one in the urban areas.

In urban areas, the original plan was to use the information from the on-going individual voters' registration conducted by the Organization for Security and Cooperation in Europe (OSCE). Since the registration was limited to individuals above 16 years old, it was then decided to conduct a quick counting of households in the 22 urban areas. The quick counting and subsequent listing of households was performed by IOM, under the supervision of the sampling expert hired by the World Bank. The complete description of the sample methodology is provided in Appendix F.

Framework

UNMIK divided Kosovo into 5 areas of responsibility (AR), roughly equivalent to the former regions (American – Southeast, British – East including Pristina, French – North, German-South, Italian – West). The five AR and the municipalities they encompass are described in Appendix E.

The rural frame used the IMG/UNHCR Housing Damage Assessment Survey. It was updated with the collaboration of FAO and provided much better information on which to build the sample for the survey. Aerial pictures of the villages selected in the survey were used to help identifying housing units. Only one household was interviewed in each housing unit.

For the Serbian villages, counting households and making listings had to be elaborated by the survey team.

In urban areas, IOM contracted the quick counting to SOK in the Albanian cities and to firms in the Serb areas. These firms updated existing lists, or performed some quick counting. Using the updated information IOM created enumeration areas of size 150-200 housing units. Based on this quick counting, a full listing took place in all the selected EAs and 12 households were randomly selected. Given safety issues and quality problems discovered at the enumeration

⁴ For an explanation of quick counting, see Appendix F, Section H “Splitting of Large Villages”.

stage, the Serb urban listings were revised after the end of the survey, by the Serb survey team, who had performed the rural listings.

The sample was preset at 2,880 households in order to allow analyses in the following breakdowns: (a) Kosovo as a whole; (b) by area of responsibility, (c) by urban/rural locations. In addition, the survey data can be used to derive separate estimates for the Serbian minority.

Table 1. Domains for the Sample And Number of Respondent Households

Location	Ethnicity	Area of Responsibility
Rural	Serb (240)	not applicable
	Albanian and others	American (240)
		British (240)
		French (240)
		German (240)
		Italian (240)
Urban	Serb (240)	not applicable
	Albanian and others	American (240)
		British (240)
		French (240)
		German (240)
		Italian (240)

In the rural area, 30 Albanian villages were randomly selected in each AR and a listing of all households in the village was established.⁵ In each village, 12 households were then randomly selected (8 for interviewing and 4 reserve households). Similarly, 30 urban enumeration areas (between 150 and 200 households lie in each urban EA) were randomly selected in the Albanian part of each AR. Twelve households were then selected in each EA.

In the rural area, 30 Serb villages were selected from the three municipalities in the northern part of Kosovo, the enclaves and the municipality of Strepce. Thirty urban EA were selected in the same region. In each village and urban area, 12 households were then randomly selected.

Stratification

In addition to the explicit stratification of the areas of responsibility and the ethnic composition in each rural and urban category, an implicit stratification of geographic ordering in a serpentine method in the villages and urban enumeration areas was followed.

In order to be able to provide estimates for the separate domains described above, it was recommended that 240 households be interviewed in each domain. We had very little prior knowledge of response rates. In the rural villages, it was decided to select 12 households and identify 4 of them as “reserve households”. These reserve households were to be used only in specific cases, described at length to the logistics person/driver of the interviewing team.

⁵ Based on the dwelling unit, households were then assigned a number so that only one household per dwelling be interviewed (see Appendix F).

The final sample size was 1,200 rural and urban Albanian households and 240 rural and urban Serb households, for a total sample size of 2,880 households.

Households from the original sample selection which could not be interviewed were replaced by reserve households to reach the final sample size. The non-response rate among households originally selected for inclusion in the sample in rural Albanian areas was 11.8 percent and 20.8 percent in urban Albanian areas. These rates in the Serbian areas were 14.2 percent among rural households and 39.2 percent among urban households (see Table 2).

In the rural Albanian areas, non-response came mostly from households having moved outside of the village. A few refusals were due to the fact that households were in mourning or celebrating other religious occasions (wedding, baptisms, circumcisions, etc...), or the household head was a women alone. There were only 20 actual refusals of the originally selected households, only 2 percent of the 1,200 households originally contacted.

In the Serbian rural areas, half of the non-responses were due to households having traveled to Serbia for visits (holidays, health care issues, indefinite travel...). Other reasons included: interviewer's safety (houses too isolated) and households refusing to respond in the absence of the head. There were only 5 such cases, again only 2 percent of the 240 households originally contacted. In the urban areas, 10 percent of the non-responses were linked to listings problems (non-existent addresses). Another 75 percent came from households having moved (temporarily or indefinitely) and/or renting their dwelling to KFOR and international staff. The remaining reasons included refusals for security and illness reasons. There were only 6 such cases, again close to 2 percent of the 240 households originally contacted.

Table 2. Reasons for Non-Response

	Rural		Urban		Total
	Albanian	Serbian	Albanian	Serbian	
Refused	20	5	22	7	54
Living Abroad	33		42		75
Household Moved	75	2	39	29	145
House Empty	4		64	4	72
Cannot Find			51	10	61
Temporarily Absent	2	22	19	35	78
Family in Mourning	5		2		7
Occupied by Internationals			6	4	10
Other	2	5	5	5	17
Total Refusals	141	34	250	94	519

Note: All households from the original selection that did not participate for whatever reason were replaced by reserve households.

IV. Pilot Test

The pilot test of the household survey was performed in rural areas around Pristina (Albanian British rural) and in an apartment complex of Pristina (Albanian British urban) in the last week of August 2000. For the pilot, all questionnaires had random starting modules so as to ensure that all modules were tested during the limited time available for this exercise. The total number of interviews was approximately 50 completed interviews.

Given the severe logistic constraints (see section VIII), it was not possible to perform a pilot test in the Serbian areas. Required changes to adapt the questionnaire to Serb specificity were done during the field practices of the Serbian field team training.

The Albanian pilot was administered by 12 members of the SOK team, with previous experience in interviewing. The experience of the pilot led us to changes in the questionnaires and was crucial in assessing the time needed for the interviews as well as the relative difficulty of specific modules.

V. Organization and Fieldwork Procedures

The household questionnaire was administered by teams consisting of one supervisor, five interviewers, and a driver/logistic agent in the Albanian areas. Of the five interviewers, one was specialized in the agriculture and consumption modules, or used as a additional interviewer when the household size was too large to enable one interviewer to complete an interview in a reasonable amount of time. There were a total of 8 teams for the Albanian interviews.

The supervisors were responsible for making sure that the interviewers had all the materials they needed and for solving all minor problems that came up in the field. In addition, the supervisor was in charge of administering the community questionnaire in each village/urban EA. The driver/logistics person was in charge of explaining the survey to the households selected to participate and setting up interviews⁶ with the respondent households. They were also responsible for selecting the reserve households in the cases specifically assigned by the field manager.

In the Serbian areas, a total of fourteen interviewers were recruited and trained, with six from the northern part of Kosovo and eight from the enclaves. One Kosovar Serb coordinator was in charge of the field operations. A Macedonian Albanian driver and a British field assistant were contracted to ensure the safe transportation of one of the Southern interviewing teams between Serbian settlements, and to address potential safety issues. The other team used local transportation to the villages which could be safely reached from Gracenica. One international French staff member supervised the teams in the South and another French staff member supervised the team in the North, going to Mitrovica on a daily basis.

The household questionnaire for the Kosovo LSMS was generally administered in one visit to the household. On average, it took two to three hours to administer the questionnaire in

⁶ This included asking about the number of household members and the size of landholdings so that the supervisor could assign extra interviewer (the 5th team member) to the most difficult cases.

Albanian rural areas, an hour and a half to two hours in the Albanian urban areas. For the Serbian areas, the respective times were one hour and a half in the rural areas and one hour in urban areas. The difference in timing seems to be mainly due to the much larger household size and variety of income activities among the Kosovar Albanians.

The training for the administration of the questionnaire for the Albanian team was held between September 6 and 23, 2000 in SOK in Pristina, with field practices September 18-23. The training was conducted by an Albanian demographer, assisted by a UNDP staff member seconded to the survey and a FAO staff member in charge of the agricultural module. The survey itself was administered from September 25 through November 4, 2000 in the rural areas and from November 10 through December 4, 2000 in the urban areas.

The training for the Serbian team was held between October 8 and 24, in Gracenica, with field practices on October 23 and 24. The training was conducted by an international consultant and the Serbian Kosovar supervisor. The survey itself was administered from October 25 to November 22, 2000 in the rural areas and through December 18 in the urban areas.

The first questionnaires were administered by teams in Prizren and Peja.

VI. Data Entry and Data Management

Three Albanian and one Serb office editors received the questionnaires each day, did the required office coding (industry codes) and checked for completion errors and obvious mistakes. If corrections were necessary, the questionnaires were returned to the enumerators, for revisions and/or return to the household.

The data entry program was designed using CSPro, a data entry package developed by the US Census Bureau. This software allows programs to be developed to perform three types of data checks: (a) range checks, (b) intra-record checks to verify inconsistencies inside a module, and (c) inter-records checks to determine inconsistencies between different modules of the questionnaire. The data entry program was designed by a consultant and field checked and translated into Albanian, with the help of the local data entry supervisor.

The data were key entered at SOK headquarters, in a semi-concurrent fashion, by eight data entry operators. In addition, nine SOK staff performed a double-data entry of a part of the data. This was designed as an additional quality check as well as on-the-job training for the SOK data entry operators.

Data entry for the household survey was completed by December 31, 2000. A 3-day delay was caught-up with during the week break, preceding the October 28 elections. Data from the Serbian questionnaires were also key entered at SOK headquarters since all but one data entry staff could read Serbian and the format of the questionnaire stayed identical. At the end of the data entry, some errors were found in the CS-Pro program and some sections were re-entered. Data entry for the community questionnaire was completed on January 17.

VII. Notes to Users of the Data

Individual households can be identified by the variable HHID. This variable contains a unique identifier for each household. The household identifier is used to merge data from different files at the household level.

Individuals are identified by different variables in each data set, but the variable name is similar in all of the data sets. In each data set is a variable which has “_Q00” as the last 4 digits of the variable name. For example, S1A_Q00 in data set POP, S04_Q00 in data set EDUC. This is the variable that indicates which individual’s information is included in the record. In some cases, the actual respondent is not the same as the individual, for example when a parent responds for a child. In that case, the respondent’s identification code is found in the variable with “_Q0A” as the last 4 digits of the variable name. In order to merge data sets at the individual level, both HHID and the “_Q00” variables should be used.

Individual communities are identified by the municipality variable, S00_Q00, found in the General Information data set. The community files can be merged using the CASE\$ID variable that is found in all of the data sets.

The community data and the household data can be merged using the municipality variable. In the community data, this variable is called S00_Q00 and is found in the General Information data set. In the household level data, this variable is called S0I_Q07 and is found in the ID data set.

Weights (expansion factors) have been calculated that should be used in analyses of the data in order to have estimates that are valid at the national and urban/rural levels. The weight variable, WEIGHT, is found in data set ID.

VIII. Post-conflict Issues

The survey took place during a period of political transition in the former Yugoslavia region, with tensions in Montenegro in August-September, ousting of President Milosevic in Serbia on October 5, and municipal elections in Kosovo on October 28. The political context influenced the logistics of interviews in the Serbian areas and the post-conflict patterns of behavior of respondent households.

1. Access to ethnic minorities

Enumeration of the Serbs as a separate frame required counting households in all Serbian villages and urban zones. The rural Serb population in Kosovo numbers about 80,000, of which 20,000 live in the Northern part of Kosovo (3 municipalities) and the rest is scattered in the “enclaves” of Southern and Central Kosovo and in the southern municipality of Strepce (Evans, 2000). Of the 30 selected villages, 8 are in Northern Kosovo. Twenty-four of the urban EAs are also located there, because of the larger urban areas of Mitrovica and Zvecan.

Access to communities for counting and listing required securing the agreement of local political leaders, in the enclaves as well as in the North. Training had to be organized separately for the field teams as their safety would have been put into question in SOK facilities.

Recruiting of Serb field staff was relatively more difficult in the enclaves, due to the aging of the population, which chose to remain there (Salama *et al.* 2000). The trainees from the North were all university students.

Training took place in Gracenica, which required the interviewers from the North to travel daily, from Mitrovica North to Pristina on UN transportation, with no guarantees that their safety could be ensured in the event of a mechanical problem of the UN bus. Transportation between Pristina and Gracenica, and also between enclaves for the field work, in a project jeep required contracting a Macedonian driver and a British field assistant to be at all times with the driver. The driver, the Serb team and the field assistant were in radio contact at all times.

Security for the field workers was a primary concern during the field work. Because some of the quick counting and household listings were contracted out, safety related information was not always relayed to the team planning the logistics of the field work. Some supposedly Serb houses in southern enclaves were in fact occupied by Albanian households which were not pleased when the Serb interviewers appeared. This required double-checking before fieldwork could proceed. Some zones in North Mirovica were deemed too dangerous to be listed systematically and the names were taken from a dweller. This information was not relayed to the interviewing team, when the EA was selected into the sample. As a result, the team was pulled out of the field and alternative EAs had to be selected. These examples show the importance of good communication between the different components of the survey team.

2. Household characteristics

a. Household size

In the rural Albanian areas, housing destruction was still pervasive, despite rapid reconstruction efforts from the private sector and the international aid. Multi-family households were relatively frequent: 27.5 percent of interviewed households included 10 or more members. These large households greatly increased the interview time.

b. Food storage

Reflecting the past conflict and the traditions of storing for the harsh winter months, many households maintain food stocks for up to a year of flour, sugar, honey, onions, potatoes and other non-perishable staple foods. This is not a very common feature in the typical LSMS consumption module but is likely to be found in most of the Balkans and in other post-conflict societies.

c. Informal sector employment and transition economy

The very high levels of internal and external displacement in the recent history of Kosovo, together with the crumbling of the planned economy led to extreme labor mobility in the 12 months before the survey. While the employment modules sought to capture this, it ran against cultural notions of work and employment, generally associated with the holding of a former “public” employment.

In addition, the running of the parallel system in the years preceding the conflict, funded with remittances from abroad and a system of “voluntary taxation” renders the evaluation of income and transfers difficult.

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APPENDIX A:
HOW TO OBTAIN COPIES OF THE DOCUMENTATION AND DATA

Copies of the documentation (Basic Information Document and questionnaires) for the Kosovo LSMS 2000 can be downloaded from the LSMS Web Site:

<http://www.worldbank.org/lsms/lsms.html>

or obtained by mail through the LSMS office (see address below). It is recommended that individuals who are interested in the data for analyses read the documentation prior to using the data for their analyses. Users who are interested in receiving copies of the data can also contact:

Hashim Rexhepi, Director
Statistical Office of Kosovo
Statistical Building
Zenel Salihu N. 4
Pristina, Kosovo
Tel: 381 38 549 094 ext. 111
Fax: 381 38 548 1887
UNMIK tel: 381 38 504 604
ext. 6572

OR

LSMS Database Manager
Development Research Group - Poverty
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1818 H Street NW
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Tel: 202 473 4379
Fax: 202 522 1153
e-mail: lsms@worldbank.org

Ronnie Andersson
UNMIK
Tel: 381 38 504 604 ext. 6573
Tel: 39 0831 444000 ext 6573

The following information should be included in the request: (a) a brief description of the research that will be done with the data, (b) an indication of the format in which the user prefers to receive the data (ASCII, or STATA), and (c) if requested from the World Bank, a check made out to the World Bank for the processing fee. Data and documentation will be provided on CD.

The data and documentation are available without fee from the World Bank web site. For requests sent through the LSMS office, however, the World Bank charges a processing fee for providing the data. For the most current information on the processing fee, contact the LSMS office at the address above, send an e-mail or check the web site.

Individuals who receive copies of the data agree to: (a) cite the Statistical Office of Kosovo as the collector of the data in all reports, publications and presentations; (b) provide copies of the report, publications and presentations to the Statistical Office of Kosovo (see address above) and the Poverty Team of the Development Research Group at The World Bank (see address above); and (c) not pass the data to any third parties for any reasons. Researchers found in violation of these agreements will not be able to receive copies of other data sets from the LSMS office in the future.

APPENDIX B
DATA AVAILABLE FOR THE KOSOVO LSMS 2000

HOUSEHOLD AND INDIVIDUAL LEVEL DATA SETS	
File	Description
HOUSEHOLD AND INDIVIDUAL	
amenities	Household amenities
dwelling	Housing conditions
educ	Education Module
health	Health Module
id	Identification information
networks	Networks Module
pop	Household roster, Displacement, New household members, Spouses and children of household members living elsewhere
AGRICULTURE	
agrilab	Agriculture Module: Part C, Labor
crop	Agriculture Module: Part B1, Crops and production; Part D, Disposition of crops
feed	Agriculture Module: Part F2, Livestock feed
fert	Agriculture Module: Part C, Fertilizers
inventory	Agriculture Module: Part E, Farm capital inventory
landrent	Agriculture Module: Part A2, Land rented out or lent out
livestk	Agriculture Module: Part F, Livestock
mach	Agriculture Module: Part C, Labor
manure	Agriculture Module: Part C, Manure
opland	Agriculture Module: Part A1, Operated Land; Part B2, Forests
pest	Agriculture Module: Part C, Pesticides
seedling	Agriculture Module: Part C, Seedlings
seeds	Agriculture Module: Part C, Seeds
CONSUMPTION	
cnsvars	Constructed variables
dailyexp	Consumption Module: Part A, Daily Expenses
durgoods	Consumption Module: Part E, Durable goods
food	Consumption Module: Part B, Food, stored food
nonfood	Consumption Module: Part C, Non-food
remit	Consumption Module: Part D, Expenditures on private inter-household remittances
stor_food	Stored food
LABOR	
business	Household Enterprise Module: Part F, Business assets
labor	Labor Module: Part A1, Labor force participation; Part B1, Overview of work in last 7 days; Part C1, Main and secondary job in the last 7 days; Part A2, Labor force participation, Part B2, Overview of work in last 12 months; Part C2, Main and secondary job in the last 12 months; Part D, Labor force participation in 1991; Part E, Main activity in 1991
nonfarm	Household Enterprise Module: Part A, Establishing the existence of non-farm enterprises; Part B, General information; Part C, Employment; Part D, Revenues and Operation Schedule; Part E, Expenditures on inputs
MISCELLANEOUS INCOME	
misc_a	Miscellaneous Income Module: Part A, Income from private inter-household transfers
misc_b	Miscellaneous Income Module: Part B, Social protection
misc_c	Miscellaneous Income Module: Part C, Other non-labor household income

COMMUNITY LEVEL DATA SETS	
File Name	Description
ALBANIAN RURAL	
r_agriculture_1	Section 5: Agriculture, questions 1, 6-10
r_agriculture_2	Section 5: Agriculture, questions 2-5
r_agriculture_3	Section 5: Agriculture, questions 11-14
r_basic_community_characteristics	Section 2: Basic characteristics of the community
r_economy_1	Section 4A: Economy, questions 1-4, 11-14
r_economy_2	Section 4A: Economy, questions 5-10
r_general_information	Information from the cover of the questionnaire
r_health_facilities_1	Section 7: Health facilities, questions 1-9
r_health_facilities_2	Section 7: Health facilities, questions 10-11
r_industry_1	Section 4B: Industry, questions 1-5
r_industry_2	Section 4B: Industry, questions 6-13
r_institutions_and_infrastructure_1	Section 3: Institutions and infrastructure, questions 1-5
r_institutions_and_infrastructure_2	Section 3: Institutions and infrastructure, questions 6-9
r_institutions_and_infrastructure_3	Section 3: Institutions and infrastructure, questions 10-11
r_institutions_and_infrastructure_4	Section 3: Institutions and infrastructure, questions 12-19
r_organization_and_displacement	Section 6: Community organization and displacement
r_respondent_characteristics	Section 1: Respondent characteristics
r_school_facilities	Section 10: School facilities
ALBANIAN URBAN	
u_agriculture_1	Section 5: Agriculture, questions 1, 6-10
u_agriculture_2	Section 5: Agriculture, questions 2-5
u_agriculture_3	Section 5: Agriculture, questions 11-14
u_basic_community_characteristics	Section 2: Basic characteristics of the community
u_economy_1	Section 4A: Economy, questions 1-4, 11-14
u_economy_2	Section 4A: Economy, questions 5-10
u_general_information	Information from the cover of the questionnaire
u_health_facilities_1	Section 7: Health facilities, questions 1-9
u_health_facilities_2	Section 7: Health facilities, questions 10-11
u_industry_1	Section 4B: Industry, questions 1-5
u_industry_2	Section 4B: Industry, questions 6-13
u_institutions_and_infrastructure_1	Section 3: Institutions and infrastructure, questions 1-5
u_institutions_and_infrastructure_2	Section 3: Institutions and infrastructure, questions 6-9
u_institutions_and_infrastructure_3	Section 3: Institutions and infrastructure, questions 10-11
u_institutions_and_infrastructure_4	Section 3: Institutions and infrastructure, questions 12-19
u_organization_and_displacement	Section 6: Community organization and displacement
u_respondent_characteristics	Section 1: Respondent characteristics
u_school_facilities	Section 10: School facilities
SERBIAN RURAL AND URBAN	
serb_agriculture_1	Section 5: Agriculture, questions 1, 6-10
serb_agriculture_2	Section 5: Agriculture, questions 2-5
serb_agriculture_3	Section 5: Agriculture, questions 11-14
serb_basic_community_characteristics	Section 2: Basic characteristics of the community
serb_economy_1	Section 4A: Economy, questions 1-4, 11-14
serb_economy_2	Section 4A: Economy, questions 5-10
serb_general_information	Information from the cover of the questionnaire

serb_health_facilities_1	Section 7: Health facilities, questions 1-9
serb_health_facilities_2	Section 7: Health facilities, questions 10-11
serb_industry_1	Section 4B: Industry, questions 1-5
serb_industry_2	Section 4B: Industry, questions 6-13
serb_institutions_and_infrastructure_1	Section 3: Institutions and infrastructure, questions 1-5
serb_institutions_and_infrastructure_2	Section 3: Institutions and infrastructure, questions 6-9
serb_institutions_and_infrastructure_3	Section 3: Institutions and infrastructure, questions 10-11
serb_institutions_and_infrastructure_4	Section 3: Institutions and infrastructure, questions 12-19
serb_organization_and_displacement	Section 6: Community organization and displacement
serb_respondent_characteristics	Section 1: Respondent characteristics
serb_school_facilities	Section 10: School facilities

Notes:

All data file names will have extensions which indicate their format, for example.dta for STATA files.

APPENDIX C: DOCUMENTS AVAILABLE FOR THE KOSOVO LSMS 2000

The following documentation is available for the Kosovo LSMS 2000. Potential users are strongly recommended to read through the documentation in order to determine if the information available will fulfill the needs of their analyses. The documents can be downloaded from the web site:

<http://www.worldbank.org/lsms/lsms.html>

or obtained by mail through the LSMS office (see Appendix A).

1. Household Questionnaire (Albanian, Serbian and English versions)
2. Community Questionnaire (Albanian, Serbian and English versions)
3. Basic Information Document (English only)
4. Interviewers Manual (Serbian, incomplete English)
5. Household File Data Dictionary (English only)
6. Community File Data Dictionary (English only)
7. Data Entry Manual (English only)

Changes to Serbian version of LSMS:

?? Took out “Any Political Party” and replaced with blank cell in:

<i>Section</i>	<i>Page #</i>	<i>Part</i>	<i>Question</i>
1-Family Roster...	34	Social Networks	2

?? Added “State of Serbia” to “Socially Owned Enterprises” for answer code 5 in:

<i>Section</i>	<i>Page #</i>	<i>Part</i>	<i>Question</i>
2-Agriculture	7	C-Inputs/Seeds	9
2-Agriculture	8	C-Inputs/Fertilizers	9
2-Agriculture	9	C-Inputs/Manure	9
2-Agriculture	10	C-Inputs/Pesticides	9
2-Agriculture	13	C-Inputs/Seedlings	9
2-Agriculture	17	E-Farm Capital Inventory	15
2-Agriculture	19	F1-Livestock	20
2-Agriculture	20	F2-Livestock	12
2-Agriculture	20	F2-Livestock	16
4-Health...	11	B-Social Protection	CODE BOX

?? Added “Serbian Social System” to “Other” for answer code 5 in:

<i>Section</i>	<i>Page #</i>	<i>Part</i>	<i>Question</i>
4-Health...	4	A-Health Care Use	28
4-Health...	5	A-Health Care Use	39

?? Substituted “Serbia” for “Albania” for answer code 55 in:

Section	Page #	Part	Question
1-Family Roster...	3	Displacement	1
1-Family Roster...	3	Displacement	3
1-Family Roster...	3	Displacement	5
1-Family Roster...	4	New Household Members	4
1-Family Roster...	5	Spouses and Children...	5
1-Family Roster...	5	Spouses and Children...	8
4-Health...	8	A-Miscellaneous Income	4

The English questionnaire file has been updated with comments (in yellow text boxes) to reflect all these above changes (January 20, 2001).

?? Other Notes:

In the Serbian questionnaire, page 7 of Health Section, Q14, the question asks how many PACKS of cigarettes are smoked daily, rather than how many CIGARETTES as in the Albanian and English versions. This was corrected in the data editing stage in the Office by multiplying the answers by 20 to get number of cigarettes.

In Section 2, page 19, row 15, the original question in both Albanian and Serbian asked how many bees, and then the price per bee, which was, of course, far too small. So the question was changed to how many beehives, and the price quoted is for price of a beehive.

Section 2, page 5, Question 34: Question 34: Discrepancies between the Serbian and Albanian surveys re what is included or not: The English version says "Include any medicines prescribed during these stays, even if purchased elsewhere", then says below "EXCLUDE MEDICINES", which is contradictory. The Serbian version does not have the "Include any medicines" sentence and just says "EXCLUDE MEDICATIONS, so there is no contradiction in the Serbian. The Albanian version says ""Include any medicines prescribed during these stays, even if purchased elsewhere", and does not say "EXCLUDE MEDICINES" below. However, all previous questions like this (Questions 3, 9,15,22) are the same in all 3 versions and did say "EXCLUDE MEDICINES", so the Albanian enumerators may have excluded the medicines here and asked the total medicine amount in Question 36.

Section 2, Health. Page 6 and 7: Please note that the English version of this module said in the header to ask people 15 and over, and it was translated this way in Serbian. However the Albanian questionnaire said to ask people OVER 15, and the filtering data entry program filtered for over 15, ie from 16 and up. So although the Serbian enumerators may have taken data from 15 year olds, the data entry program did not allow it to be entered. So all data is from people 16 years and over. (The header has thus been changed to say "over 16" in this English version.)

Section 1, page 23, Title of section D: In Serbian Questionnaire the title of this section is "Before 1991" instead of "Before abolishment of autonomy (1991)"

APPENDIX E
CODES NOT FOUND IN THE QUESTIONNAIRE

CODES FOR MUNICIPALITIES

NATO Area of Responsibility	Municipality Name (Serb)	Municipality Name (Albanian)
United States of America (Southeast)	04 Gnjilane 07 Kacanik 10 KosovskaKamenica 14 NovoBrdo 23 Strpce 25 Urosevac	04 Gjilani 07 Kacaniku 10 Kamenica 14 Novo Berde 23 Shterpce 25 Ferizaj
England (East, includes Pristina City)	03 Glogovac 09 KosovoPolje 13 Lipljan 15 Obilic 18 Podujevo 19 Pristina 22 Stimlje	03 Gllogoc 09 Fushe Kosove 13 Lipjan 15 Obiliq 18 Podujeve 19 Prishtina 22 Shtime
France (North)	11 KosovskaMitrovica 12 Leposavic 21 Srbica 26 Vitina 27 Vucitrn 28 Zubin Potok 29 Zvecane	11 Mitrovice 12 Leposaviq 21 Skenderaj 26 Viti 27 Vushtrri 28 Zubin Potok 29 Zvecan
Italy (West)	01 Decani 02 Djakovica 06 Istok 08 Klina 17 Pec	01 Decan 02 Gjakove 06 Istog 08 Kline 17 Peje
Germany (South)	05 Gora 30 Malisevo 16 Orahovac 20 Prizren 24 Suva Reka	05 Dragashi 30 Malisheve 16 Rahovec 20 Prizren 24 Suhareke

Source: HCIC, UNHCR and OCHA. Kosovo Atlas, Pristina. 2000.

CODES FOR INDUSTRIES

(Translated from SOK Nace Rev. Nomenclature)

Section A – Agriculture, Hunting and Forestry

- 01.11 Growing of cereals and other crops nec.
- 01.12 Growing of vegetables a, horticultural specialties and nursery products
- 01.13 Growing of fruits, nuts, beverage and spice crops

- 01.21 Farming of cattle, dairy farming
- 01.22 Farming of sheep, goats, horses, Asses, mules and hinnies
- 01.23 Farming of swine
- 01.24 Farming of poultry
- 01.25 Other farming of animals

- 01.30 Growing of crops combined with farming of animals (mixed farming)

- 01.41 Agricultural service activities
- 01.42 Animal husbandry services, except veterinary activities

- 01.50 Hunting trapping and game propagation including related service activities

- 02.01 Forestry and logging
- 02.02 Forestry and logging related service activities

Section B - Fishing

- 05.01 Fishing
- 05.02 Operation of fish hatcheries and fish farms

Section C – Extractive Industries

- 10.10 Mining and agglomeration of hard coal
- 10.20 Mining and agglomeration of lignite
- 10.30 Extraction and agglomeration of peat

- 11.10 Extraction of crude petroleum and natural gas
- 11.20 Service activities incidental to oil and gas extraction excluding surveying
- 12.0 Mining of uranium and thorium ores

- 13.10 Mining of iron ores
- 13.20 Mining of non-ferrous metal ores, except uranium and thorium ores

- 14.11 Quarrying of stone for construction
- 14.12 Quarrying of limestone, gypsum and chalk
- 14.13 Quarrying of slate

- 14.21 Operation of gravel and sand pits
- 14.22 Mining of clays and kaolin
- 14.30 Mining of chemical and fertilizer minerals
- 14.40 Production of salt
- 14.50 Other mining and quarrying nec.

Section D – Manufacturing Industries

- 15.11 Production and preserving of meat
- 15.12 Production and preserving of poultry meat
- 15.13 Production meat and poultry meat product
- 15.20 Processing and preserving of fish and fish products
- 15.31 Processing and preserving of potatoes
- 15.32 Manufacture of fruit and vegetable juice
- 15.33 Processing and preserving of fruit and vegetables nec.
- 15.41 Manufacture of crude oils and fats
- 15.42 Manufacture of refined oils and fats
- 15.43 Manufacture of margarine and similar addible fats
- 15.51 Operation of dairies and cheese making
- 15.52 Manufacture of ice cream
- 15.61 Manufacture of grain mill products
- 15.62 Manufacture of starches and starch products
- 15.71 Manufacture of prepared feeds for farm animals
- 15.72 Manufacture of prepared pet foods
- 15.81 Manufacture of bread; manufacture of fresh pastry goods and cakes
- 15.82 Manufacture of crusts and biscuits; manufacture of preserved pastry goods and cakes
- 15.83 Manufacture of sugar
- 15.84 Manufacture of cocoa; chocolate and sugar confectionery
- 15.85 Manufacture of macaroni, noodles, couscous, and similar farinaceous products
- 15.86 Processing of tea and coffee
- 15.87 Manufacture of condiments and seasonings
- 15.88 Manufacture of homogenized food preparations and dietetic food
- 15.89 Manufacture of other food products nec.
- 15.91 Manufacture of distilled potable alcoholic beverages

- 15.92 Production of ethyl alcohol from fermented materials
- 15.93 Manufacture of wines
- 15.94 Manufacture of cider and other fruit wines
- 15.95 Manufacture of other non-distilled fermented beverages
- 15.96 Manufacture of beer
- 15.97 Manufacture of mineral water and soft drinks

- 16.0 Manufacture of tobacco products

- 17.11 Preparation and spinning of cotton-type fibers
- 17.12 Preparation and spinning of woolen-type fibers
- 17.13 Preparation and spinning of worsted-type fibers
- 17.14 Preparation and spinning of flax-type fibers
- 17.15 Throwing and preparation of silk including from noils and throwing and texturing of synthetic or artificial filament yarns.
- 17.16 Manufacture of sewing threads
- 17.17 Preparation and spinning of other textile fibers

- 17.21 Cotton-type weaving
- 17.22 Woolen-type weaving
- 17.23 Worsted-type weaving
- 17.24 Silk-type weaving
- 17.25 Other textile weaving

- 17.30 Finishing of textiles

- 17.40 Manufacture of made-up textile articles, except apparel

- 17.51 Manufacture of carpets and rugs
- 17.52 Manufacture of cordage, rope, twine and netting
- 17.53 Manufacture of non-woven and articles made from non-woven, except apparel
- 17.54 Manufacture of other textiles nec.

- 17.60 Manufacture of knitted and crocheted fabrics

- 17.71 Manufacture of knitted and crocheted hosiery
- 17.72 Manufacture of knitted and crocheted pullovers, cardigans and similar articles

- 18.10 Manufacture of leather clothes

- 18.21 Manufacture of workwear
- 18.22 Manufacture of other outerwear
- 18.23 Manufacture of underwear
- 18.24 Manufacture of other wearing apparel and accessories nec.
- 18.30 Dressing and dyeing of fur; manufacture of articles of fur

- 19.10 Tanning and dressing of leather
- 19.20 Manufacture of luggage, handbags and the like, saddlery and harness
- 19.30 Manufacture of footwear
- 20.10 Sawmilling and planing of wood, impregnation of wood
- 20.20 Manufacture of veneer sheets: manufacture plywood, laminboard, particle board, fibre board and other panels and boards
- 20.30 Manufacture of builder's carpentry and joinery
- 20.40 Manufacture of wooden containers
- 20.51 Manufacture of other products of wood
- 20.52 Manufacture of articles of cork, straw and plaiting materials
- 21.11 Manufacture of pulp
- 21.12 Manufacture of paper and paperboard
- 21.21 Manufacture of corrugated and paperboard and of containers of paper and paperboard
- 21.22 Manufacture of household and sanitary goods and of toilet requisites
- 21.23 Manufacture of paper stationery
- 21.24 Manufacture of wallpaper
- 21.25 Manufacture of other articles of paper and paperboard use
- 22.11 Publishing of books
- 22.12 Publishing of newspaper
- 22.13 Publishing of journals and periodicals
- 22.14 Publishing of sound recordings
- 22.15 Other publishing
- 22.21 Reproduction of sound recording
- 22.22 Reproduction of video recording
- 22.23 Reproduction of computer media
- 23.10 Manufacture of coke oven products
- 23.20 Manufacture of refined petroleum products
- 23.30 Processing of nuclear fuel
- 24.11 Manufacture of industrial gases
- 24.12 Manufacture of dyes and pigments
- 24.13 Manufacture of other inorganic basic chemicals

- 24.14 Manufacture of other organic basic chemicals
- 24.15 Manufacture of fertilizers and nitrogen compounds
- 24.16 Manufacture of plastics in primary forms
- 24.17 Manufacture of synthetic rubber in primary forms

- 24.20 Manufacture of pesticides and other agro-chemical products

- 24.30 Manufacture of paints, varnishes and similar coatings, printing ink and mastics

- 24.41 Manufacture of basic pharmaceutical products
- 24.42 Manufacture of pharmaceutical preparations

- 24.51 Manufacture of soap and detergents, cleaning and polishing preparations
- 24.52 Manufacture of perfumes and toilet preparations

- 24.61 Manufacture of explosives
- 24.62 Manufacture of glues and gelatine
- 24.63 Manufacture of essential oils
- 24.64 Manufacture of photographic chemical material
- 24.65 Manufacture of prepared unrecorded media
- 24.66 Manufacture of other chemical products nec.

- 24.70 Manufacture of man-made fibers

- 25.11 Manufacture of rubber tires and tubes
- 25.12 Retreading and rebuilding of rubber tires
- 25.13 Manufacture of other rubber products

- 25.21 Manufacture of plastic plates, sheets, tubes and profiles
- 25.22 Manufacture of plastic packing goods
- 25.23 Manufacture of builders' ware of plastic
- 25.24 Manufacture of other plastic products

- 26.11 Manufacture of flat glass
- 26.12 Shaping and processing of flat glass
- 26.13 Manufacture of hollow glass
- 26.14 Manufacture and processing of other glass including, technical glassware

- 26.21 Manufacture of ceramic household and ornamental articles
- 26.22 Manufacture of ceramic sanitary fixtures
- 26.23 Manufacture of ceramic insulators and insulation fitting
- 26.24 Manufacture of other technical ceramic products
- 26.25 Manufacture of other ceramic products
- 26.26 Manufacture of refractory ceramic products

- 26.30 Manufacture of ceramic tiles and flags

- 26.40 Manufacture of bricks, tiles and construction products, in baked clay
- 26.51 Manufacture of cement
- 26.52 Manufacture of lime
- 26.53 Manufacture of plaster
- 26.61 Manufacture of concrete products for construction purposes
- 26.62 Manufacture of plaster products for construction purposes
- 26.63 Manufacture of ready-mixed concrete
- 26.64 Manufacture of mortars
- 26.65 Manufacture of fibro-cement
- 26.66 Manufacture of other articles of concrete, plaster and cement
- 26.70 Cutting, shaping and finishing of stone
- 26.81 Production of abrasive products
- 26.82 Manufacture of other non-metallic mineral products nec.
- 27.10 Manufacture of basic iron and steel and of ferro-alloys (ECSC)
- 27.21 Manufacture of cast iron tubes
- 27.22 Manufacture of steel tubes
- 27.31 Cold drawing
- 27.32 Cold rolling of narrow strip
- 27.33 Cold forming or folding
- 27.34 Wire drawing
- 27.35 Other first processing of iron and steel nec.;; production of non ECSC ferro-alloys
- 27.41 Precious metals production
- 27.42 Aluminium production
- 27.43 Lead, zinc and tin production
- 27.44 Copper production
- 27.45 Other non-ferrous metal production
- 27.51 Casting of iron
- 27.52 Casting of steel
- 27.53 Casting of light metals
- 27.54 Casting of other non-ferrous metals
- 28.11 Manufacture of metal structures and parts of structures
- 28.12 Manufacture of builders' carpentry and joinery of metal
- 28.21 Manufacture of tanks, reservoirs and containers of metal
- 28.22 Manufacture of central heating radiators and boilers

- 28.30 Manufacture of steam generators except central heating hot water boilers
- 28.40 Forging, pressing, stamping and roll-forming of metal; powder metallurgy
- 28.51 Treatment and coating of metals
- 28.52 General mechanical engineering
- 28.61 Manufacture of cutlery
- 28.62 Manufacture of tools
- 28.63 Manufacture of locks and hinges
- 28.71 Manufacture of steel drums and similar containers
- 28.72 Manufacture of light metal packaging
- 28.73 Manufacture of wire products
- 28.74 Manufacture of fasteners, Screw machine products, chain and springs
- 28.75 Manufacture of other fabricated metal products nec.
- 29.11 Manufacture of engines and turbines except aircraft, vehicle and cycle engines
- 29.12 Manufacture of pump and compressors
- 29.13 Manufacture of taps and valves
- 29.14 Manufacture of bearing, gears, gearing and driving elements
- 29.21 Manufacture of furnaces and furnace burners
- 29.22 Manufacture of lifting and handling equipment
- 29.23 Manufacture of non-domestic cooling and ventilation equipment
- 29.24 Manufacture of other general purpose machinery nec.
- 29.31 Manufacture of agricultural tractors
- 29.32 Manufacture of other agricultural and forestry machinery
- 29.40 Manufacture of machine-tools
- 29.51 Manufacture of machinery for metallurgy
- 29.52 Manufactory of machinery for mining, quarrying and construction
- 29.53 Manufacture of machinery for food, beverage and tobacco processing
- 29.54 Manufacture of machinery for textile, apparel and leather production
- 29.55 Manufacture of machinery for paper and paperboard production
- 29.56 Manufacture of other special purpose machinery nec.
- 29.60 Manufacture of weapons and ammunition
- 29.71 Manufacture of electric domestic appliances
- 29.72 Manufacture of non-electric domestic appliances
- 30.01 Manufacture of office machinery

- 30.02 Manufacture of computers and other information processing equipment
- 31.10 Manufacture of electric motors, generators and transformers
- 31.20 Manufacture of electricity distribution and control apparatus
- 31.30 Manufacture of insulated wire and cable
- 31.40 Manufacture of accumulators, primary cells and primary batteries
- 31.50 Manufacture of lighting equipment and electric lamps
- 31.61 Manufacture of electrical equipment for engines and vehicles nec.
- 31.62 Manufacture of other electrical equipment nec.
- 32.10 Manufacture of electronic valves and tubes and other electronic components
- 32.20 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy
- 32.30 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods
- 33.10 Manufacture of medical and surgical equipment and orthopedic appliances
- 33.20 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
- 33.30 Manufacture of industrial process control equipment
- 33.40 Manufacture of optical instruments and photographic equipment
- 33.50 Manufacture of watches and clocks
- 34.10 Manufacture of motor vehicles
- 34.20 Manufacture of bodies for motor vehicles; manufacture of trailers and semi-trailers
- 34.30 Manufacture of parts and accessories for motor vehicles and their engines
- 35.11 Building and repairing of ships
- 35.12 Building and repairing and sporting boats
- 35.20 Manufacture of railway and tramway locomotives and rolling stock
- 35.30 Manufacture of aircraft and spacecraft

- 35.41 Manufacture of motorcycles
- 35.42 Manufacture of bicycles
- 35.43 Manufacture of invalid carriages

- 35.50 Manufacture of other transport equipment nec.

- 36.11 Manufacture of chairs and seats
- 36.12 Manufacture of other office and shop furniture
- 36.13 Manufacture of other kitchen furniture
- 36.14 Manufacture of other furniture
- 36.15 Manufacture of mattresses

- 36.21 Striking of coins and medals
- 36.22 Manufacture of jewelry and related articles nec.

- 36.30 Manufacture of musical instrument

- 36.40 Manufacture of sports goods

- 36.50 Manufacture of games and toys

- 36.61 Manufacture of imitation jewelry
- 36.62 Manufacture of brooms and brushes
- 36.63 Other manufacturing nec.

- 37.10 Recycling of metal waste and scrap

- 37.20 Recycling of non-metal waste and scrap

Section E-Production of electricity, gas and water

- 40.10 Production and distribution of electricity

- 40.20 Manufacture of gas; distribution of gaseous fuels through mains

- 40.30 Steam and hot water supply

- 41.0 Collection, purification and distribution of water

Section F - Construction

- 45.11 Demolition and wrecking of buildings; earth moving
- 45.12 Test drilling and boring

- 45.21 General construction of buildings and civil engineering works
- 45.22 Erection of roof and frames
- 45.23 Construction of highways, roads, airfields and sport facilities
- 45.24 Construction of water projects

45.25 Other construction work involving special trades

45.31 Installation of electrical wiring and fitting

45.32 Insulation work activities

45.33 Plumbing

45.34 Other building installation

45.41 Plastering

45.42 Joinery installation

45.43 Floor and wall covering

45.44 Painting and glazing

45.45 Other building completion

45.50 Renting of construction or demolition equipment with operator

Section G - Wholesale and Retail Trades; repairs to motor vehicles and domestic appliances

50.10 Sale of motor vehicles

50.20 Maintenance and repair of motor vehicles

50.30 Sale of motor vehicle parts and accessories

50.40 Sale, maintenance and repair of motorcycles and related parts and accessories

50.50 Retail sale of automotive fuel

51.11 Agents involved in the sale of agricultural raw materials, live animals, textile raw
Materials and semi-finished goods

51.12 Agents involved in sale of fuels, ores, metals and industrial chemicals

51.13 Agents involved in the sale of timber and building materials

51.14 Agents involved in the sale of machinery, industrial equipment, ships and aircraft

51.15 Agents involved in the sale of furniture, household goods, hardware and iron mongery

51.16 Agents involved in the sale of textiles, clothing, footwear and leather goods

51.17 Agents involved in the sale of food, beverages and tobacco

51.18 Agents specializing in the sale of particular products or ranges of products nec.

51.19 Agents involved in the sale of a variety of goods

51.20 Wholesale of grain, seeds and animal feeds

51.21 Wholesale of flowers and plants

51.22 Wholesale of live animals

51.23 Wholesale of hides, skin and leather

51.24 Wholesale of manufactures tobacco

51.31 Wholesale of fruit and vegetables

51.32 Wholesale of meat and meat products

51.33 Wholesale of dairy produce, eggs and edible oils fats

- 51.34 Wholesale of alcoholic and other beverages
- 51.35 Wholesale of tobacco products
- 51.36 Wholesale of sugar and chocolate and sugar confectionery
- 51.37 Wholesale of coffee, tea, cocoa and spices
- 51.38 Wholesale of other food including fish, crustaceans and molluscs
- 51.39 Non-specialized wholesale of food, beverages and tobacco

- 51.41 Wholesale of textiles
- 51.42 Wholesale of clothing and footwear
- 51.43 Wholesale of electrical household appliances and radio and television goods
- 51.44 Wholesale of china and glassware, wallpaper and cleaning materials
- 51.45 Wholesale of perfume and cosmetics
- 51.46 Wholesale of pharmaceutical goods
- 51.47 Wholesale of other household goods

- 51.51 Wholesale of solid, liquid and gaseous fuels and related products
- 51.52 Wholesale of metals and metal ores
- 51.53 Wholesale of wood, construction materials and sanitary equipment supplies
- 51.54 Wholesale of hardware, plumbing and heating equipment and supplies
- 51.55 Wholesale of chemical products
- 51.56 Wholesale of other intermediate products
- 51.57 Wholesale of waste and scrap

- 51.61 Wholesale of machine tools
- 51.62 Wholesale of construction machinery
- 51.63 Wholesale of machinery for the textile industry, and of sewing and knitting machines
- 51.64 Wholesale of office machinery and equipment
- 51.65 Wholesale of other machinery for use in industry, trade and navigation
- 51.66 Wholesale of agricultural machinery and accessories and implements, including tractors

- 51.70 Other wholesale

- 52.11 Retail sale in non-specialized stores with food, beverages or tobacco predominating
- 52.12 Other retail sale in non-specialized stores

- 52.21 Retail sale of fruit and vegetables
- 52.22 Retail sale of meat and meat products
- 52.23 Retail sale of fish, crustaceans and shells
- 52.24 Retail sale of bread, cakes, flour confectionery and sugar confectionery
- 52.25 Retail sale of alcoholic and other beverages
- 52.26 Retail sale of tobacco products
- 52.27 Other retail sale of food, beverages and tobacco in specialized stores

- 52.31 Dispensing chemists
- 52.32 Retail sale of medical and orthopedic goods
- 52.33 Retail sale of cosmetics and toilet articles

- 52.41 Retail sale of textiles
- 52.42 Retail sale of clothing
- 52.43 Retail sale of footwear and leather goods
- 52.44 Retail sale of furniture, lighting equipment and household articles nec.
- 52.45 Retail sale of electrical household appliances and radio and television goods
- 52.46 Retail sale of hardware, paints and glass
- 52.47 Retail sale of books, newspapers and stationery
- 52.48 Other retail sale in specialized stores

52.49 Retail sale of second-hand goods in stores

- 52.61 Retail sale via mail order houses
- 52.62 Retail sale via stalls and markets
- 52.63 Other non-store retail sale

- 52.71 Repair of boots, shoes and other articles
- 52.72 Repair of electrical household goods
- 52.73 Repair of watches, clocks and jewelry
- 52.74 Repair nec.

Section H-Hotels and restaurants

- 55.11 Hotel and motels, with restaurant
- 55.12 Hotels and motels, without restaurants

- 55.21 Youth hotels and mountain refuges
- 55.22 Camp sites, including caravan sites
- 55.23 Other provision of lodgings nec.

- 55.30 Restaurants
- 55.40 Bars

- 55.51 Canteens
- 55.52 Catering

Section I - Transport, storage and warehousing and communications

- 60.10 Transport via railways
- 60.21 Other scheduled passenger land transport
- 60.22 Taxi operation
- 60.23 Other land passenger transport
- 60.24 Freight transport by road
- 60.30 Transport via pipelines

- 61.10 Sea and coastal water transport
- 61.20 Inland water transport
- 62.10 Scheduled air transport
- 62.20 Non-scheduled air transport
- 62.30 Space transport
- 63.11 Cargo handling
- 63.12 Storage and warehousing
- 63.21 Other supporting land transport activities
- 63.22 Other supporting water transport activities
- 63.23 Other supporting air transport activities
- 63.30 Activities of travel agencies and tour operators; tourist assistance activities nec.
- 63.40 Activities of other transport agencies
- 64.11 National post activities
- 64.12 Courier activities other than national post activities
- 64.20 Telecommunications

Section J-Financial intermediation

- 65.11 Central banking
- 65.12 Other monetary intermediation
- 65.21 Financial leasing
- 65.22 Other credit granting
- 65.23 Other financial intermediation nec.
- 66.01 Life insurance
- 66.02 Pension funding
- 66.03 Non-life insurance
- 67.11 Administration of financial markets
- 67.12 Security broking and fund management
- 67.13 Activities auxiliary to financial intermediation nec.
- 67.20 Activities auxiliary to insurance and pension funding

Section K - Real estate, renting and business activities

70.11 Development and selling of real estate

70.12 Buying and selling of own real estate

70.20 Letting of own property

70.31 Real estate agencies

70.32 Management of real estate on fee or contract basis

71.10 Renting of automobiles

71.21 Renting of other land transport equipment

71.22 Renting of water transport equipment

71.23 Renting of air transport equipment

71.31 Renting of agricultural machinery and equipment

71.32 Renting of construction and civil engineering machinery and equipment

71.33 Renting of office machinery and equipment, including computers

71.34 Renting of other machinery and equipment nec.

71.40 Renting of personal and household goods nec.

72.10 Hardware consultancy

72.20 Software of consultancy and supply

72.30 Data processing

72.40 Data base activities

72.50 Maintenance and repair of office, accounting and computing machinery

72.60 Other computer related activities

73.10 Research and experimental development on natural and engineering

73.20 Research and experimental development on social sciences and humanities

74.11 Legal activities

74.12 Accounting, book-keeping and auditing activities; tax consultancy

74.13 Market research and public opinion polling

74.14 Business and management consultancy activities

74.15 Management activities of holding companies

74.20 Architectural and engineering activities and related technical consultancy

74.30 Technical testing and analysis

- 74.40 Advertising
- 74.50 Labour recruitment and provision of personnel
- 74.60 Investigation and security activities
- 74.70 Industrial cleaning
- 74.81 Photographic activities
- 74.82 Packaging activities
- 74.83 Secretarial and translation activities
- 74.84 Other business activities nec.

Section L- Public administration and defence; compulsory social insurance

- 75.11 General (overall) public service activities
- 75.12 Regulation of the activities of agencies that provide health care, education, cultural services and other social services excluding social security
- 75.13 Regulation of and contribution to more efficient operation of business
- 75.14 Supporting service activities for the government as a whole
- 75.21 Foreign affairs
- 75.22 Defence activities
- 75.23 Justice and judicial activities
- 75.24 Public security, law and order activities
- 75.25 Fire service activities
- 75.30 Compulsory social security activities

Section M – Education

- 80.11 Primary education
- 80.21 General secondary education
- 80.22 Technical and vocational secondary education
- 80.30 Higher education
- 80.41 Driving school activities
- 80.42 Adult and other education nec.

Section N - Health and social work

- 85.11 Hospital activities
- 85.12 Medical practice activities
- 85.13 Dental practice activities
- 85.14 Other human health activities

85.20 Veterinary activities

85.31 Social work activities with accommodation

85.32 Social work activities without accommodation

Section O – Other community, social and personal service activities

90.0 Sewage and refuse disposal, sanitation and similar activities

91.11 Activities of business and employers' organizations

91.12 Activities of professional organizations

91.20 Activities of trade unions

91.31 Activities of religious organization

91.32 Activities of political organizations

91.33 Activities of other membership organizations nec.

92.11 Motion picture and video production

92.12 Motion picture and video distribution

92.13 Motion picture projection

92.20 Radio and television activities

92.31 Artistic and literary creation and interpretation

92.32 Operation of arts facilities

92.33 Fair and amusement park activities

92.34 Other entertainment activities nec.

92.40 News agencies activities

92.51 Library and archives activities

92.52 Museum activities and preservation of historical sites and buildings

92.53 Botanical and ecological gardens and nature reserves activities

92.61 Operation of sports arenas and stadiums

92.62 Other sporting activities nec.

92.71 Gambling and betting activities

92.72 Other recreational activities nec.

93.01 Washing and dry cleaning of textile and fur products

93.02 Hairdressing and other beauty treatment

93.03 Funeral and related activities

93.04 Physical well-being activities

93.05 Other service activities nec.

Section P – Private household with employed persons
95.0 Private household with employed person

Section Q – Extra-territorial organizations and bodies
99.00 Extra-territorial organization and bodies

CODES FOR OCCUPATIONS

Adapted from ILO (http://www.ilo.org/public/english/standards/ipecc/publ/phil/doc_head.htm)

MAJOR GROUP 0/1 PROFESSIONAL TECHNICAL AND RELATED WORKERS

01 Physical Scientists and Related Technicians

Chemist, Physicists, Geologists, Meteorologists, Physical scientists not elsewhere classified
Physical science technicians

02 Architects, Engineers

Architects and physical planners, Civil engineers
Engineers in electricity and electronics engineers, Mining and metallurgical engineers
Mechanical engineers, Chemical engineers, Industrial engineers, Geodetic engineers
Engineers not elsewhere specified

03 Architecture and Engineering Related Technicians

Draftsmen, Civil engineering technicians
Electrical and electronics engineering technicians, Mining and metallurgical engineering technicians
Mechanical engineering technicians, Chemical engineering technicians
Engineering technicians not elsewhere classified

04 Aircraft and Ships' Officers

Aircraft pilots, navigators and flight engineers, Ships' deck officers and pilots, Ships' engineers

05 Life Scientists and Related Technicians

Biologists, zoologists, Bacteriologists, pharmacologists, Agronomists and related scientists
Life sciences technicians

06 Medical, Dental, Veterinary and Related Professionals

Medical doctors, Dentists, Veterinarians, Pharmacists
Dietitians and nutritionists, Professional Nurses, Professional midwives
Optometrists and opticians

07 Medical, Dental, Veterinary and Related Workers

Physiotherapists and occupational therapists, Osteopaths and chiropractors
Medical, dental and veterinary, x-ray technicians and workers

08 Mathematicians, Statisticians, System Analysis and Related workers

Mathematicians and actuaries, Statisticians, System analysts
Statistical and mathematical technicians

09 Social Scientists and Related Workers

Economists, Sociologists, Psychologists
Historians, Political scientists; Anthropologists
Social scientists and related workers, n.e.c.

11 Accountants and Auditors

12 Justices, Judges and Lawyers

including legal workers not elsewhere classified

13 Teachers (Including Supervisors and Principals)

Supervisors, Principals
University and higher education teachers, Secondary education teachers
Elementary education teachers, Pre-elementary education teachers

Community college and vocational school teachers
Special education teachers

14 Workers in religion

Ministers on religion and related members on religious orders

15 Authors, Journalists and Related Workers

Authors and critics, Writers and editors, publications
Writers and editors, radio, television, theater and motion pictures

16 Sculptors, Painters, Photographers and Related Creative Artists, Composers and Performing Artists

Sculptors, painters and related artists, Commercial artists and designers
Photographers and cameraman
Composers, musicians and singers, Choreographers and dancers
Actors and stage directors, Producers, performing arts
Workers in performing and audio-visual arts not elsewhere classified

18 Athletes, Sportsmen and Related Workers

Athletes, Coaches, trainers, instructors and managers, Referees and related officials, Other athletes.

19 Professional, Technical and Related Workers Not Elsewhere Classified

Librarians, archivists and curators, Social Workers
Personnel and occupational specialists, Philologists, translators and interpreters
Other professional, technical and related workers

MAJOR GROUP 2 ADMINISTRATIVE EXECUTIVE AND MANAGERIAL WORKERS

20 Legislative Officials, Government Administrators and Government Executives

Legislative Officials, Government Administrators, Government executives other than government administrators

21 Managers

General Managers, Production managers (Except Farm)
Educational managers, Sales managers (Except Wholesale and Retail Trade)
Budgeting and accounting managers Managers not elsewhere classified

MAJOR GROUP 3 CLERICAL AND RELATED WORKERS

30 Clerical Supervisors

31 Secretaries Stenographers Typists and Card and Tape-Punching Machine Operators

32 Bookkeepers Cashiers and Related Workers

Bookkeepers, Accounting clerks, Office cashiers, Bank tellers, Cash desk cashiers and change makers, Bill collectors, Bookkeepers, cashiers and related workers not elsewhere classified

33 Computing Machine Operators

Bookkeeping and calculating machine operators, Automatic data-processing machine operators

34 Transport and Communications Supervisors

Railway station masters, Road transport service supervisors, Air transport service supervisors
Postal service supervisors, Postal inspectors, Postmasters
Transport and communications supervisors not elsewhere classified

35 Transport Conductors

Conductors, railway, Conductors, road transport

36 Mail Distribution Clerks and Messengers

Mail carriers, Messengers, Other mail distribution clerks

37 Telephone and Telegraph Operators

38 Clerical and Related Workers Not Elsewhere Classified

40 Managers (Wholesale and Retail Trade)

41 Working Proprietors (Wholesale and Retail Trade)

42 Sales Supervisors and Buyers

Wholesale Trade and Retail Trade, Other sales supervisors
Buyers, Traders (Buy and Sell)

43 Technical Salesmen, Travelling Salesman and Manufacturers' Agents

44 Insurance, Real Estate, Securities, and Business services Salesmen and Auctioneers

45 Salesmen, Shop Assistants and Related Workers

Salesmen, shop assistants and demonstrators
Street vendors, canvassers and newsvendors

49 Sales Workers Not Elsewhere Classified

MAJOR GROUP 5 SERVICE WORKERS

50 Managers (Catering and Lodging Services)

51 Working Proprietors (Catering and Lodging Services)

52 Housekeeping and Related Services

53 Cooks, Waiters, Bartenders and Related Workers

54 Helpers and Related Housekeeping Service Workers Not Elsewhere Classified

Household Helpers, Hotel and restaurant helpers and related workers

55 Building caretakers, Cleaners and Related Workers

56 Launderers, Dry-Cleaners and pressers

57 Hairdressers, Barbers, Beauticians and related workers

58 Protective Service Workers

Fire-fighters, Policemen and detectives
Protective service workers not elsewhere classified

59 Service Workers Not Elsewhere Classified

Guides, Undertakers, Medical Aides, Hospitality Girls and related workers
Ushers, Other service workers

MAJOR GROUP 6 AGRICULTURAL, ANIMALHUSBANDRY AND FORESTRY WORKERS, FISHERMEN AND HUNTERS

60 Farm Managers and Overseers

61 Farmers

62 Agricultural and Animal Husbandry Workers

Corn farm workers, Other crop farm workers, Fruit tree and other tree farm workers

Livestock farm workers including dairy farm workers, Poultry farm workers

Farm machinery operators, Agricultural and animal husbandry workers not elsewhere classified

63 Forestry Workers

Foresters, Loggers, Forest guards

Forest products gatherers

64 Fishermen, Hunters and Related Workers**70 Production Supervisors and General Foremen****71 Miners, Quarrymen, Well Drillers and Related Workers****72 Metal Processors****73 Wood Preparation Workers and Paper Makers**

Wood treaters, Sawyers, plywood makers and related wood processing workers

74 Chemical Processors and Related Workers**75 Spinners, Weavers, Knitters, Dryers and Related Workers****76 Tanners and Pelt Dressers****77 Food and Beverages Processors****78 Tobacco Preparers and Tobacco Product Makers****79 Tailors, Dressmakers, Sewers, Upholsterers and Related Workers****80 Footwear and Leather Goods Makers****81 Furniture makers and Related Workers****82 Stone cutters and carvers****83 Blacksmiths, Toolmakers and Machine-Tool Operators****84 Machinery Fitters, Machine Assemblers and Precision-Instrument Makers (Except Electrical)****85 Electrical Fitters and Related Electrical and Electronics Workers****86 Broadcasting Station and Sound-equipment Operators and Cinema Projectionists****87 Plumbers, Welders, Sheet-Metal and Structural Metal Preparers and Erectors****88 Jewelry and Precious Stones Workers****89 Glass Formers, Potters and Related Workers****90 Rubber and Plastics Product Makers****91 Paper and Paperboard Products Makers**

92 Printers and Related Workers

93 Painters (construction)

94 Production and Related Workers Not Elsewhere classified

Musical instrument makers and tuners

Basketry weavers, brush makers and related workers, Rattan, Bamboo and other wicker furniture makers

Footwear makers other than leather, rubber and plastic, Non-metallic mineral product makers

Quality inspectors, testers, granders and related workers not elsewhere classified

Other production and related workers

95 Bricklayers, Carpenters and other Construction Workers

96 Stationary Engine and Related Equipment Operators

Power generating machinery operators, Water treatment plant operator

Refrigeration system operator, Stationary engines and related equipment Operators

97 Material Handling and Related equipment operators

Dockers and freight handlers, Riggers and cable splicers

Crane and hoist operators, Earth-moving and related machinery operators

Material handling equipment operators not elsewhere classified

98 Transport Equipment Operators

Ship' deck ratings, barge crew and boatmen, Ship's engine-room ratings

Railway engine-drivers and firemen

Railway brakemen, signalmen and shunters

Motor-vehicle drivers, Animal and animal-drawn vehicle drivers

Transport equipment operators not elsewhere classified

99 Laborers Not Elsewhere Classified

MAJOR GROUP XY WORKERS NOT CLASSIFIABLE BY OCCUPATION_

**New Workers Seeking Employment, Workers Reporting Occupations Unidentifiable or Inadequately Described, Workers Not Reporting Any Occupation
Officers, Enlisted Personnel**

MAJOR GROUP Z NON-GAINFUL ACTIVITIES

Volunteers, Community, Civic, Social, Charitable Workers (Without Pay)

Housekeepers (Own House)

Students, Pensioners, Other Retired Persons

Disabled, Other Non-Gainful Activity or No Activity Reported

APPENDIX F

RECOMMENDATIONS AND IMPLEMENTATION OF THE SAMPLE DESIGN FOR THE KOSOVO LSMS SURVEY, 2000⁷

The unit of analysis and the unit of observation is the household. The universe under study consists of all the households in Kosovo, except those inhabited by members of the international community.

Kosovo is divided geographically into five regions called UNMIK and NATO Areas of Responsibility. Each region is in turn divided into Municipalities. The Municipalities are divided into Districts and the latter into villages in the rural areas and cities in the urban areas.

A. Sampling Frame and Sampling Units

1. Rural Sampling Frame and Sampling Units

At the present time, there are no complete lists of housing units or households from which a sample can be drawn. A list containing the number of housing units in every village in the rural areas of Kosovo is available. The list of villages that was available in April 2000 was updated and many new names appear in it with no housing or population information. However, upon careful study of this list, it was discovered that many settlements were not included in the original list. Some of the new names present in the updated list may be either villages that were missed or subvillages that are an integral part of a larger village and should not be listed separately in the list. For instance, in the U. S. area of responsibility (AR), 74 percent of the entries have no corresponding housing unit information. The lowest percentage (38 percent) is found in the Italian AR. For the other three ARs, the numbers fluctuate between 38 percent and 74 percent. Since Levinson is not familiar with the names or the geography of the country, it is necessary for local people to review the list and make it usable.

Once the list of villages is updated and in usable form, it can be used as a sampling frame to obtain a sample of villages in the first stage of selection and subsequently a sample of housing units within the sample villages in the second stage of selection. The sample villages constitute the Primary Sampling Units (PSUs) and the sample dwelling units within the sample villages are the Secondary Sampling Units (SSUs). A listing operation will be carried out in the field in order to obtain updated lists of dwelling units (Dus) in the selected villages.

The above-mentioned village classification is advantageous because The World Bank is interested in obtaining separate estimates for the five Areas of Responsibility. The sampling frame also contains the number of DUs by village. This information can be used as a measure of size for the selection of the first-stage units (villages). However, villages that contain less than 50 dwelling units will have to be collapsed with another village closest to it in order to obtain Primary Sampling Units that have at least 50 housing units. Villages that are very large (more than 200 dwelling units) will have to be split into smaller units in order to save time and money during the listing operation.

⁷ Adapted from trip reports written by Armando Levinson, U.S. Census Bureau, April, May and October 2000.

The villages will be selected from a list of villages and the DUs will be selected from lists that will be prepared in the field after a listing operation is undertaken within the sample villages.

The listing operation will identify all the dwelling units in the sample villages. In addition, it is very important to identify within the housing units all the individual dwelling units. The dwelling unit (DU) is defined as the space occupied by one household. Therefore, it is important to define a household in the Albanian context. For instance, in the United States, a household is defined in terms of having a separate entrance to the unit and separate kitchen facilities. This definition becomes even more critical for the LSMS because separate households have separate incomes, separate expenditures patterns, and therefore different socioeconomic characteristics. In addition, since it is believed that 18 percent of the housing units in Kosovo contain at least one household, the listing operation will identify individual households which will be used as the sampling frame for the second stage of selection.⁸

To control coverage errors, which make the sample less representative, the sampling frame must be of an optimum quality during all the stages of selection. In the first stage, the villages in the rural areas of Kosovo must cover all the areas inhabited by the population under study, without omission or duplication. The boundaries of the villages must be clearly defined and subject to easy identification in the field. If new areas that belong to the sampling frame are identified, such as new settlements or areas that have been omitted by mistake, they must be included in the frame so they have a positive probability of selection.

In the second stage, the listing operation must be carried out so that the final results produce a sampling frame that:

- ? is up-to-date, complete and accurate with respect to the coverage of the population under study;
- ? contains sufficient elements so as to allow for the identification of the selected DUs; and
- ? allows for the calculation of the probability of selection of each DU, a fundamental requirement of probabilistic sampling.

The maps and the listing sheets must provide a complete and accurate count of the DUs within the sample Village. Whereas the maps must provide a visual identification of the boundaries of the Villages and of the DUs within the selected Villages, the listing sheets must provide the following information:

- a. Name of household head.
- b. Household address.
- c. Brief description of the DU.

⁸ In countries where this phenomenon has an incidence of less than 2 percent, it is customary to interview every household found living in the sample housing unit, because it is operationally easier

The occupancy status of the housing unit (HU) must be known in order to determine the HUs that are occupied permanently, since these are the valid ones under the coverage requirements. For that purpose, and to control coverage errors, the enumerator will have to list all the HUs within the Village and register the occupancy status of each HU, as follows:

1. Occupied permanently.
2. Under construction (occupied)
3. Under construction (not occupied).
4. Vacant.
5. Seasonally occupied
6. Demolished or being demolished.

The identification of the valid units will take place at the office, after having finished the listing operation. The listing sheets provide the frame for the second-stage sample selection: the dwelling units.

CAVEAT: Given the present housing situation in Kosovo, it is very likely or possible that a house that looks under construction or repair during the day may be occupied at night by one or more households. The lister should make every possible effort to try to determine the occupancy status of every housing unit.

2. Urban Sampling Frame and Sampling Units

The urban sampling frame was constructed from the list of urban places. Place Codes (P-codes) were developed for every village in the rural area and for every settlement in urban areas. In essence, the settlements in urban areas represent well-delimited chunks of land in the cities, much like wards. The old P-code system has been replaced by a new one. The enumerators divided each ward into enumeration areas (EAs) of more or less 150-200 housing units. It is of extreme importance that these EAs do not cross ward boundaries.

- a. For each AR, five separate files were created.
- b. Each one of these files was further stratified by Albanian and Serbian ethnic composition.
- c. The EAs corresponding to other minorities (Roma, for example) were included in the Albanian data file.
- d. Prior to the selection of enumeration areas, some cities were included in sample with probability one because of their importance and/or ethnic and socioeconomic differences. The rest of the cities were put into separate strata and a sample of cities was selected from each stratum.
- e. For all the cities in sample, the appropriate number of EAs were allocated proportional to their respective sizes.

- f. Once the files were stratified geographically and sorted, a systematic sample of 30 EAs was selected in each domain of estimation using the following procedure:
- (1) For each one of the five ARs in the Albanian stratum and for the Serbian stratum separately, obtain a complete list of all EAs, ordered by geographical code. The EAs are numbered serially in a serpentine manner within each hierarchical level. For each EA, the list includes the geographical identification numbers and the approximate number of households per EA from the quick count operation.
 - (2) Obtain the cumulated measure of size by adding the number of households down the list of EAs within the stratum.
 - (3) Determine the sampling interval for the stratum (I_h) by dividing the total number of households (final cumulated measure of size), M_h , by the number of sample EAs allocated to the stratum, n_h .
 - (4) Select a random number between 0 and I_h , which will be the random start (R_h) for the systematic PPS selection of EAs.
 - (5) Determine the selected EAs from the selection numbers, calculated as follows:

$$S_{hi} = R_h + [I_h * (i-1)]$$

(rounded up to the next integer, where $i = 1, 2, \dots, n_h$)

The i -th sample EA in the h -th stratum is the one with the cumulated measure of size closest to S_{hi} without exceeding it.

Table 1 below presents the cities in sample in the Serbian stratum, as well as the number of EAs that were selected in each sample city.

Table F.1**Serbian Stratum: Cities in Sample and Number of EAs Selected**

AR Code	AR	Municipality Code	Place Code	Cities in Sample	# of EAs in the Frame	# of Housing Units in the Frame	# of EAs Selected in Sample
2	FR	11	60391	Mitrovica	23	4076	13
2	FR	12	60487	Leposavic	7	1062	4
2	FR	28	62189	Zubin Potok	6	885	3
2	FR	12	60488	Lesak	4	630	2
2	FR	29	62190	Zvecan	3	505	2
4	UK	15	62176	Obilic	3	540	2
1	USA	04	62172	Gnjilane	2	332	1
1	USA	10	62177	Kamenica	2	361	1
4	UK	09	62175	Kosovo Polje	2	370	1
5	GER	16	62179	Orahovac	1	120	1
					53	8881	30

As can be seen in Table F.1, 13 EAs were selected to be in sample in the city of Mitrovica, 4 in the city of Leposavic, and so forth. This constitutes the sample of EAs from the Serb stratum.

Table F.2 below presents the number of EAs that were allocated and chosen in the five ARs in the stratum made up of Kosovars of Albanian extraction and other ethnic minorities (excluding Serbs).

Table F.2

Albanian Kosovar Stratum: Cities in Sample and Number of EAs Selected

AR Code	AR	Municipality Code	Place Code	Cities in Sample	# of EAs in the Frame	# of Housing Units in the Frame	# of EAs Selected in Sample
1	USA	04	62172	Gjilani	39	7203	10
1	USA	25	62184	Ferizaj	46	7318	10
1	USA	07	60165	Kacaniku	12	1745	6
1	USA	10	62177	Kamenica	6	1051	4
Sub-total					103	17317	30
2	FR	11	60391	Mitrovice	40	7255	20
2	FR	27	62188	Vushtrri	24	4170	7
2	FR	21	62182	Skenderaj	9	1410	3
Sub-total					73	12835	30
3	I	02	62170	Gjakove	51	4479	13
3	I	06	62173	Istog	8	1450	2
3	I	17	60794	Peje	63	10553	15
Sub-total					122	16482	30
4	UK	19	62180	Prishtina	200	35570	20
4	UK	18	60892	Podujeve	22	4177	4
4	UK	09	62175	Fushe Kosovo	17	3015	6
Sub-total					239	42762	30
5	D	20	62181	Prizren	150	13239	20
5	D	16	62179	Rahovec	35	4080	5
5	D	24	62185	Suhareke	24	1624	4
5	D	05	62168	Dragas	4	420	1
					213	19363	30
Grand Total					750	108759	150

The sample size for the urban areas of Kosovo will be 1,440 households. This sample size is the same as will be used for the rural areas of the province. The same sample size was chosen for both areas (urban and rural) to provide data users with estimates that have more or less the same reliability.

E. Stratification

The sampling frame will be divided into more or less homogeneous strata to improve the efficiency of the sample design. The first level of stratification will be used to provide reliable estimates for each one of the domains of estimation. The domains of estimation (or first-level strata) are the five areas of responsibility. No attempt should be made to obtain separate estimates for the municipalities inside the areas of responsibility.

To improve even further the estimates in each domain, we can define substrata which are homogenous with respect to certain key characteristics, such as village size. For instance, for illustrative purposes, village size classes can be created as follows:

Village Size	Class
50 - 200	1
201 - 400	2
401 - 600	3
601 - 800	4
800 - 1001	5

The actual classification can be obtained once the rural sampling frame becomes available.

An even further level of stratification could have been done to improve the efficiency of the sample design if socioeconomic information about individual villages were available. No such information exists at the present time.

In addition to the creation of socioeconomic strata, the efficiency of the design can be further improved by using an implicit stratification during the systematic selection of Villages. This implicit stratification is obtained by ordering the Villages in the sampling frame, and separately for every AR, in a geographically serpentine fashion.

F. Distribution of Villages in the Domains and Sample Size in Each Domain

The sample size is determined by taking into consideration various factors. The three most important factors are: (1) the degree of precision (reliability) desired in the estimates; (2) the cost and the operational limitations; and (3) the efficiency of the design.

In the case of the LSMS, the costs and operational limitations allow for a sample size of about 1,200 rural DUs. Even though larger sample sizes produce smaller sampling error, they also produce higher nonsampling errors if the resources allotted to maintain a high level of quality are insufficient. However, the accuracy of the estimates depends upon the control of both, the sampling and the nonsampling errors. In addition, one must bear in mind that the available resources should not be stretched beyond a certain point, because the timeliness of the data can be jeopardized.

The precision of the estimates in a given domain of estimation (AR) is a function of the sample size in the domain and of the variability among the population units in the domain. Considering that the WB is interested in obtaining estimates with similar reliability within each AR, the distribution of villages to the different domains of estimation is presented in Table F.2. Bear in mind that the sample sizes in Table 2 below are based on assumptions that are considered pertinent in this case and, therefore, the efficiency of the distribution of the sample to the different domains will be higher or lower, depending on whether the assumptions are closer or farther from reality. For Kosovo, it is very realistic to assume that the variability among the population units in every domain is, in general, not very large.

It is important to note that the estimates produced at levels lower than the domain level (disaggregation) will have a lower precision, but for the higher levels of aggregation all the precision requirements will be satisfied. However, it is very common in household surveys to have to produce estimates for subpopulations (for instance, by age group and sex) for which one cannot assign a specific sample size beforehand. Therefore, one cannot guarantee a high level of precision for these subpopulations. It is for this reason that one must be very cautious before starting disaggregating the data to a level lower than the domain level, because one runs the risk of producing low-precision estimates or, in other words, estimates with a very large sampling error.

Under ideal conditions, the number of villages and of HUs in the sample must be assigned in an optimum manner in order to obtain a minimum variance given a fixed cost or obtain a minimum cost given a fixed variance. The optimum values can be obtained from mathematical formulas based on (1) the relative contribution of the variance among the Villages and the variance within each Village to the total variance of the estimate, and (2) the relative contribution of the Villages and the DUs to the total cost.

Unfortunately, we don't have an estimate of the separate contributions of the "between-village" variance and the "within-village" variance and, therefore, it is necessary to use practical experience. In similar surveys in other countries, the variance component between villages is generally higher than the variance within the villages. Therefore, to minimize the variance of the estimate, the number of villages in the sample must be relatively high. At the same time, the number of DUs in the sample within the village must be relatively low, since this number affects the value of the design effect (deff). The deff is defined as the ratio between the variance of the complex design and the one obtained using simple random sampling. In cluster sampling, the variance of the estimates tends to increase as the homogeneity within the village increases. From a mathematical point of view, the deff increases as the internal homogeneity of the village increases. The deff is directly related to the intraclass correlation (?) and the number of DUs selected within the village. If the DUs within a village are very much alike with respect to the characteristic that is being measured (that is, if there exists little variation among the units within the cluster), the intraclass correlation coefficient will be close to 1.

Therefore, to reduce the deff when the homogeneity within the village is high, the number of DUs in the sample within each village must be as low as possible. Experience in this type of surveys in other countries shows that the optimum number of sample DUs within a village lies

between 8 and 14. In the LSMS we will use clusters of about 150-200 DUs and we will select in the first stage 30 villages in each AR and subsequently, in the second stage of selection, 8 DUs within each village. This combination produces a total sample size for the rural area of Kosovo of 1,200 households. We believe this is the best allocation in order to maintain the number of villages as large as possible, but not large enough and still remain within the budgetary and logistical boundaries.

G. Procedure for the Selection of Sample Villages

The selection of the sample Villages will be done independently within each domain of estimation and by village size and percentage of damaged housing in Category 4 of the Housing Damage Assessment Survey (HDAS). The villages will be selected with probability proportional to size (PPS), using a systematic selection procedure, since it is very convenient and efficient. The selection will be carried out as follows:

1. Within each domain of estimation and socioeconomic substratum order the Villages geographically to obtain an implicit stratification within the substratum. The substratum is defined as the one containing within every AR, the villages classified by size.
2. Register the number of DUs M_{hi} obtained from the rural sampling from for each village, where h represents the substratum and i represents the village. This number will be used as a measure of size.
3. Cumulate the measure of size throughout the substratum. The last cumulative number (M_h) will equal the total number of DUs in the substratum h of the domain of estimation.
4. The number of villages (n_h) to be chosen in the corresponding substrata will be determined once the rural sampling frame is completed.
5. Determine the sampling interval (I_h) dividing the cumulative number of DUs in the substratum (M_h) by the number of Villages to be chosen (n_h).

$$I_h = M_h / n_h$$

6. Use a random number generator to obtain a random start (A_h) between 1 and (I_h), inclusive. It is necessary to keep two decimal places if the sampling interval is not an integer.
7. Determine the villages that are in sample using the following formula:

$$\begin{aligned} &A_h + (k-1) \times I_h \\ &k = 1, \dots, n_h \\ &\text{rounded above} \end{aligned}$$

The k^{th} selected village will be the one that has the cumulative measure of size closer to this number, without exceeding it.

8. Since some Villages contain a number of DUs larger than the average number of DUs (150-200), it may happen that some villages might fall in sample more than once. Since large villages cannot be split in the office, if one of them were to be selected, it would have to be divided into segments of about 150-200 DUs each in order to control the enumerator load and the variances. The procedures to be followed to divide a large village are given below.

H. Splitting of Large Villages

A count of the number of DUs will take place within each selected village. This operation is called "quick count" since the enumerator counts in a systematic manner the number of DUs in the village to update the sampling frame. After the quick count, a listing operation will take place in order to list all the households in the sample Village. From the list of households, the sample of households will be chosen for the 2000 LSMS. However, the further in time we are from the July 1999 HDAS date, the more susceptible are the villages to undergo changes and, therefore, the villages no longer reflect the reality at the time of the July 1999 HDAS.

Since the sampling frame contains some large villages, it is very likely that some of these villages may fall in sample more than once. If this were the case, a quick count of the village will have to be done in order to split it into segments according to Table 3 below. The following instructions should be followed to split a large sample village:

1. Identify in the field each sample village with a minimum of 200 DUs.
2. Carry out a quick count of the number of DUs in the village using detailed maps to carry out the segmentation. It is extremely important that the segments have fixed and identifiable boundaries.

Table F.3

Segmentation of Large Sample Villages

Number of DUs from the Quick Count	Number of Segments to be Created
200-399	2
400-599	3
600-799	4
800-999	5
1000-1199	6
and so on

Again, it is very important for each segment to have clear and identifiable boundaries in the field so that the interviewer can locate the segment and the DUs. Now, if a village had, say, 300 DUs, it is not strictly necessary to try to obtain two segments of exactly 150 DUs each if the boundaries of the segments are not clear and identifiable. For instance, a

segment could have 120 DUs and the other 180, as long as the boundaries are clear and identifiable on the maps.

3. Assign a sequential number from 1 to k, where k represents the number of segments derived from the quick count in the village. If the village falls in sample twice, segment the village and select two segments at random. If the village fell in sample 3 times, segment the village and select 3 segments at random, and so forth.
4. It may happen that a sample village which has less than 200 DUs in the sampling frame might have more DUs during the quick count or listing operation. If this were the case, the same instructions mentioned above for the large villages will have to be followed.

I. Areas that are Difficult to Enumerate

Sometimes it happens that for a reason outside our control (war, flooding, etc.) a Village cannot be enumerated. If such were the case, it is recommended to have available procedures that might allow us to replace one sample village with another. If this needs to be done, follow the following recommendations:

1. Within the domain of estimation and substratum to which the village that has to be replaced belongs, select a random number between 1 and the cumulative measure of size within the domain and substratum.
2. Locate the interval within which the selected random number fell. If the selected village is already in sample, don't use it.
3. Repeat step 1 again. Locate the interval within which the selected random number fell. If the village was not previously selected, this village will be now in sample and it will replace the village that could not be initially utilized.
4. All the procedures mentioned in this report must be followed for the new village selected to replace another Village. That is, if the number of DUs is very large, the village must be segmented. One or more segments must be chosen at random if the circumstances so require it. The new Village must be listed, just as the village that was replaced was listed.

J. Listing of DUs within Sample Villages

An updating operation of the number of DUs and the maps within each village will take place. The listing sheets prepared during the listing operation will become the sampling frame for the final stage of selection. The updating is necessary in order to avoid coverage errors, since the weighting factors must reflect the universe in its entirety. The listing operation must be independent from any other updating done in the past.

The listing operation will allow, during the weighting of the sample, to reflect the universe more accurately. The probabilities of selection of the villages do not reflect the actual number of households for two reasons:

-the frame of villages dates back to July 1999 and, more than likely, the distribution of households has changed since then; and

-there is not always a one-to-one correspondence between the DU and the household. Therefore, the number of DUs underestimates the true number of households.

However, in the case of Kosovo, where the definition of HU allows for the existence of more than one household, it will be necessary to write down, in addition to the HU, the number of households (or DU) in each housing unit. Each line in the listing sheet will correspond with one and only one household, so that every household can have the same probability of being selected as any other household. This is why the term “dwelling unit” was previously defined as the space occupied by one household. That is, the space of the dwelling that corresponds to only one household. In the case of a vacant dwelling, it would have to be considered as the "space to be occupied by only one household". Therefore, the listing operation will list "dwelling units".

Also, taking into account the need to control coverage errors (omissions and duplications), it would be worthwhile for the enumerator to register all the places where people live or might live; that is, every dwelling unit, whether or not it is occupied, vacant, being built, etc. At the same time, the enumerator will register the occupancy status of every unit:

1. Occupied permanently.
2. Under construction (occupied)
3. Under construction (not occupied).
4. Vacant.
5. Seasonally occupied
6. Demolished or being demolished.

Afterwards, in the office, a determination of the "valid" dwelling units will be carried out, that is, those units that are occupied permanently (the first and fourth categories mentioned above) and these are the only ones that will be used during the selection process.

The Instruction Manual for the Listing and the Selection of Dwelling Units will include, in addition to the listing form or sheet titled "Listing Form", the instruction for the cartographer as well as the cartography supervisor.

Annex 5 presents the "Instructions to Follow When Listing Enumeration Areas or Segments."

K. Procedure for the Selection of Dwelling Units

Whatever the distribution of sample villages in the different substrata might be, the selection of HUs (or dwelling units, as was defined above), will follow the same procedure in all substrata. A fixed number of households (8) will be selected in every sample village. In addition, 4 additional households will be selected from every sample village and kept as reserve units. A maximum effort must be made to keep in the sample the original units, because substitution of

original units with reserve units causes bias. Therefore, during the field work, the replacement of original units with reserve units must be kept to a minimum, using replacement as a last recourse.

Separately for each domain of estimation (area of responsibility), and within each sample village i , we must identify and number the valid DUs, that is, the DUs that are occupied by one household on a permanent basis. They must have a correlative number between 1 and M'_{hi} , the total number of valid HUs in the Village i of domain of estimation h , after having listed the Village. The value M'_{hi} will then be inserted in a spreadsheet (or data base program, such as Foxpro or Access, if so desired) from where a systematic sample of 12 units will be selected, identifying as well the reserve units. Figure 1 on page 15 shows an example of a spreadsheet to select HUs.

The j th HU to be selected within the Village i of domain of estimation h is obtained using the following expression:

$$[A_{hi} + (j-1) * I_{hi}] + 1$$

$$\text{for } j = 1, \dots, m_{hi}$$

omitting the decimals in the results, without rounding (truncation process).

where,

$I_{hi} = M'_{hi}/m_{hi}$ = sampling interval within the i -th Village inside domain h .

$M'_{hi} =$ number of valid DUs in the i -th Village of domain h .

$m_{hi} =$ m = fixed number of DUs to be selected within the i -th Village of domain h .

$A_{hi} =$ a random number between 0 and I_{hi} , including 0 but excluding I_{hi}

Note: when we omit the decimals, we must include 0 and exclude I_{hi} in order to preserve the probabilities of selection uniform.

Within the i -th Village of domain h , the probabilities of selection are uniform and equal to the reciprocal of the sampling interval.

It is appropriate to mention that the probabilities of selection of the 8 DUs are the same whether they are selected directly from the valid DUs or whether they are selected from the 12 HUs.

Figure F.1

Spreadsheet for the Selection of HUs

Questionnaire LSMS		I IDENTIFICATION OF THE SAMPLE VILLAGE	
SPREADSHEET FOR THE SELECTION OF HOUSING UNITS IN THE VILLAGES AND URBAN AREAS		a. Domain of Estimation (Area of Responsibility) b. Village or Urban Enumeration Area	
II. DATA TO ENTER IN THE SPREADSHEET			
a. Number of Valid DUs	M'_{hi}	=	273
b. Number of DUs to be Selected	m_{hi}	=	12
c. Sampling Interval	I_{hi}	=	22.75
d. Random Start	A_{hi}	=	11.90
III. SELECTION OF HUs			
(1) Line Number (j)	(2) Cumulative Number [A+(j-1)*I]	(3) No. of Valid HUs	(4) Relative Number of HU Selected
1	11.90	12	<u> 1 </u>
2	34.65	35	<u> R1 </u>
3	57.40	58	<u> 2 </u>
4	80.15	81	<u> 3 </u>
5	102.90	103	<u> R2 </u>
6	125.65	126	<u> 4 </u>
7	148.40	149	<u> 5 </u>
8	171.15	172	<u> R3 </u>
9	193.90	194	<u> 6 </u>
10	216.65	217	<u> 7 </u>
11	239.40	240	<u> R4 </u>
12	262.15	263	<u> 8 </u>
IV. RESERVE SAMPLE		V. OBSERVATIONS	
<p>Select 4 of the 12 selected HHs using systematic selection. Choose a random number between 1 and 3. Let's suppose that it is equal to 2. Select as first reserve unit that which has number 2 in Column (1) of Section III. Add 3 to 2 to obtain the second reserve unit and so forth. Then, we obtain:</p> <p>R1 = 2 R2 = 5 R3 = 8 R4 = 11</p>		<p>In column (4) of Section III, we write down the correlative selection number of the 8 selected HHs, after having selected the 4 reserve units. See column (4) of Section III. That is,</p> <p>R1 = 9 R2 = 10 R3 = 11 R4 = 12</p>	

Once the 12 DUs have been selected, 4 of them will be chosen at random. These 4 will be kept as reserve units. The selected DUs will be numbered within the Village and identified with a circle around the number in the listing form, as well as a circle in the maps. The reserve sample will be identified from R1 to R4 during data collection to emphasize the fact that they are reserve units. Section IV of Figure 1 above, "Reserve Sample", indicates how to select the 4 reserve units.

L. Control of Changes in the Occupancy Status of the HU

An important verification is the control in the occupancy status of the sample DUs and the interview status in order to adjust the weighting factors during the estimation process. Since the listing will take place several weeks before data collection, it is possible to have changes during that period. Three types of changes must be kept in mind.

- ? the HU may become invalid, that is, vacant, nonresidential, demolished, seasonally occupied, etc.
- ? two or more HUs (write down how many) which at the time of the listing were separate households are now consolidated in one dwelling unit, that is, one household.
- ? one DU which appears in the listing as the space occupied by one household is now divided into two or more households (write down how many).

Spaces will be made available in the questionnaire to write down these changes, but some of these changes will require to have the weighting factors adjusted. These adjustments will be further discussed in a separate report titled "LSMS Estimation Process", under the heading "Adjustments to the Weighting Factors".

M. Interview Status

Before identifying the invalid DUs, the interviewer will write, for the valid units, the interview status of each visit for all the units for which an interview was attempted, whether these are original units or reserve units. This is done to determine the interview status: interview completed, nonresponse, refusal, etc. In other words, this will allow to identify (during the edits): the completed interviews (responses obtained), the incomplete but usable ones (responses obtained), the incomplete ones but not usable (nonresponse), the refusals (nonresponse) and the "not at home" (nonresponse).

After having identified the nonresponses, response rates will be calculated and weighting factors properly adjusted. The denominator of the response rate includes all the valid units attempted, whether original or reserve, irrespective of the response status of the interview. The numerator includes all the valid units, original or reserve, that have provided responses. But the nonresponse adjustment will only be applied to the original sample of 8 DUs. Nonresponse is also known in the statistical literature as one type of error of non-observation.

The other important one is called non-coverage and it denotes the failure to include some units or a group of units from the target population, which arises due to various problems related to the sampling frame: incomplete, outdated, rapid changes in the population, etc. Generally, non-coverage refers to an error which is negative in nature. Similarly, there may be positive error of over-coverage which may arise due to the inclusion of some units which do not belong to the target population. Thus, the gross non-coverage refers to the sum of the absolute values of non-coverage and over-coverage errors. Defective sampling frames are the source of these errors. In

many populations, frames become outdated on account of continuous changes. For instance, a list of persons or households, based on a census, becomes outdated quickly in time. In many cases, frames are defective because they were compiled from inexact materials. Construction of a good frame is often one of the major practical problems. There is hardly a situation in practice where the frame is available in the desired shape. In almost all the populations, there is one common deficiency of incompleteness of frames and it is inevitable since most of the populations undergo changes with the passage of time.

APPENDIX G

THE CONSUMPTION AGGREGATE FOR THE KOSOVO LSMS 2000

Measures of welfare vary across countries depending on the characteristics of the region, consumption patterns and actual individuals and household needs. A common measure of welfare is household consumption as opposed to household income, particularly if it is agreed that households are likely to smooth consumption over time.

The Kosovo LSMS included several modules on consumption from different sources and expenditures on a number of items. The Kosovo LSMS was used to construct a measure of total consumption, which in principle could include consumption of food (from different sources such as purchased, received as gift, humanitarian aid, or produced at home), housing (imputing some rent value for those who own their house), durable goods, spending on consumer goods and services, basic services (gas, water, electricity) and expenditures on health and education. This section describes first the different components included in the consumption aggregate and the criteria imposed to include or not such expenditures.

The report uses German Marks throughout the analysis and refers to US Dollars for referential purposes only. The lack of PPP adjustment indexes for the province of Kosovo does not allow precise international comparisons in US Dollars. The survey reported monetary values in three possible currencies: US Dollars (USD), German Marks (DM) or Dinars. All currency conversions used the rates corresponding to the month of the survey (or relevant transaction). The average DM/USD rate is 2.28 and corresponds to the weighted average of exchange rates faced by households interviewed in different months (most of them in October and November). Given the lack of exchange rate information for the province of Kosovo, all monetary values were converted into German Marks using the unofficial exchange rates prevalent in the Former Republic of Yugoslavia shown in the table below. This report used unofficial rates because (i) the most of the transactions reported in the survey were not processed through formal mechanism, (ii) there was no identifiable monetary authority, and (iii) unofficial rates may capture better the market conditions in Kosovo.

Table A1.1: Monthly Exchange Rates
(prevalent during the survey period)

	September	October	November	December	Average 2000
Dinar/DEM	33	30	30	30	25.75
DEM/USD	2.24	2.28	2.29	2.19	2.12
Din/USD	73.92	68.4	68.7	65.7	55.01

Note: The exchange rates presented here correspond to the unofficial exchange rates observed in the Former Republic of Yugoslavia during the survey period.

Sources: Din/DEM: W.E.B., December 28, 2000. DEM/USD: IBRD internal database.

Din/USD: Din/DEM x DEM/USD. These rates correspond to the unofficial exchange rate

To minimize measurement problems due to different price levels across regions and urban/rural locations, the price indexes were used to adjusted local consumption into values comparable at the national level. This stage is also described here.

Purchased food. The LSMS Questionnaire collected information on the amount and expenditure of 46 food items. The data collected vary across items. Food items were separated into *Food* and *Stored food*. There are 39 items under Food and 7 additional under Stored Food. Stored food items are flour, oil, sugar, potatoes, honey, onions and salt. Information for the *Food* items included quantity (Q_m^f) and value (V_m^f) of purchases during the *last 30 days* and the number of months during the last year that purchases actually happened (F^f). To estimate *annual* consumption of Food items (V_a^f) the value of monthly purchases was multiplied by the annual frequency of purchases: $V_a^f = V_m^f \times F^f$. Some households, however, showed positive quantities consumed but missing information for the value of such consumption. Using prices estimated from the data (see below), the value of consumption was imputed.

Stored food consumption. For these items survey information included only quantity (Q_a^{sf}) and value (V_a^{sf}) of purchases during *last year* and the quantity purchased during the last month (Q_m^{sf}). For those households showing positive quantities consumed but missing information for the value of such consumption, the value of consumption was imputed using estimated prices (see below). Total *purchased* food consumption, V^f , was estimated as the sum of annual Food consumption plus the Stored Food consumption:

$$V^f = V_a^f + V_a^{sf}.$$

Prices and Unit values. For each item j and each household i unit values (uv_{ij}) were estimated by the ratio of values over quantities: $uv_{ij} = V_{ij} / Q_{ij}$. These unit values are referred as *prices* in this report.⁹ Local prices (e.g. rural North) were estimated as the mean unit prices excluding those unit values that exceeded two standard deviations from the median (in logarithms). These estimated prices are also used to construct price indexes (see below).

Non-purchased food. Besides purchasing food items, households also reported the value of consumption from *home production* (V^h) or as *gifts or humanitarian aid* (V^g). Estimated prices from *home production* were found not significantly different from those estimated from purchases, and were included to estimate “prices” for all available goods.

Other daily expenditures on food. An additional item corresponds to those food expenditures made by the household outside the household (V^o) such as restaurants, fast-food, etc.

Total value of food consumption is the sum of food purchased, home produced, received as gift or aid, and consumption out of home: $V^{FOOD} = V^f + V^h + V^g + V^o$.

Housing expenditures and rent. Housing improvements and rents were excluded from the consumption aggregate to avoid the effects of lumpy components that could affect the poverty profile.¹⁰ Housing expenditures are typically included to capture improvements in household welfare but are extremely difficult to interpret in Kosovo due to the significant destruction during the war. The posterior reconstruction efforts were occurring in parallel to the data

⁹ We refer to unit values as simply prices, despite the systematic differences that could arise across households due to, for example, differences in quality of the items (Deaton, 1997).

¹⁰ A consumption aggregate including housing expenditures showed a socioeconomic ranking significantly different.

collection process, representing a large amount of budget, most of it coming from international aid and donors. Housing expenditures were measured including house improvements, repairs and insurance. These components showed extremely large variation and size. A very low number of households (about 50) reported paying any rent, making it unrealistic to estimate an imputed rent from the value of improvements.

Non food expenditures. Non-food expenditures include *personal items* and *household services*. Personal items include expenditures on clothing, personal care and entertainment (including music and toys), and basic materials (stationary). Other housing expenditures that represent household welfare are also included, such as expenditures on energy (fuel and electricity), other households services and supplies (laundry, cleaning) and the rent value of small items (linens, dishes, small appliances and tools). In addition, a number of households received some of these items or services from aid or gift. The reported value of such transfers was included in this aggregate. Some daily expenses as cigarettes and newspapers are also included.

Durable goods. The rental value of durables is included in the consumption aggregate. The value of annual use of durable goods was estimated for each of the listed 22 items. These items range from refrigerator, parabolic antenna to jewelry. Jewelry is the only item excluded from the exercise since it does not provide a direct welfare improving effect on households. The questionnaire reported the value and age of each item. The self-reported value of each durable for different vintages was used to estimate the rental annual value using a quadratic depreciation pattern and imposing a zero interest rate.

Education. All expenditures on education included all expenses on those attending school or university. Following Hentschel and Lanjouw (1996), the inclusion of these expenses did not alter the poverty profile, and the socioeconomic ranking was not significantly affected by the inclusion of this component.

Health. Health expenditures were divided into hospitalization expenditures during the last year, and ambulatory and medication expenditures during the last 30 days. Both measures were converted into monthly expenses and implied significant changes in the consumption ranking. In addition, as some households face rationed health care services due to isolation or mobility barriers due to the conflict, including health expenditures would distort the socioeconomic ranking since some households do not have access to these services and consequentially are not able to actually spend on them. Health expenditures were excluded from the analysis.

Other excluded items. There is a number of household expenses do not represent an effective improvement in welfare. First, taxes and other legal fees are not included since these do not represent a direct benefit from local governments. Deaton and Zaidi (1999) point that unless it is clear that taxes are locally managed and are proportionally used within the community -- that is direct welfare improvement -- it might be advisable not to include these expenses. Expenses in family ceremonies like marriage, births and funerals are not included since these are low probability events and represent a significant budget.

Total Consumption. The consumption aggregate (TC) is estimated by summing the food consumption, non-food items (including housing services), rental value of durables and expenditures in education.

Price adjustments. The differences in consumption patterns and relative prices across regions in Kosovo motivate adjustments for price and preferences differences. Following the discussion in Deaton and Fantozzi (1999), the study estimated price indexes to convert household consumption aggregates into comparable national-level composites. Using the estimated prices and consumption structures (expenditure shares) for different sub-samples, price indexes were estimated for each Area of Responsibility (5), each Urban and Rural locations (2) and, each Albanian and Serb (2) samples. The estimation was restricted to 20 price indexes given the sample design (representative at these 20 levels). Following Deaton and Zaidi (1999) we used a Paasche price index to convert consumption at local prices into consumption at national prices.

Equivalence scales and economies of scale. The present report imposed equivalence scales and scale economies parameters comparable to other studies. The living arrangements observed in Kosovo during the survey pose serious difficulties in empirically analyzing these issues. The recent changes in demographic composition due to displacement patterns and the inflow of returning refugees affect this analysis substantially. Moreover, the existing living arrangements (clusters of families living together) are not considered to be an equilibrium but a temporary condition that might change in the short run. To measure the effects of economies of scale and the different consumption needs by different household members, household size is converted into *equivalent-adults (EA)* using the following formula for the household i :

$$EA_i = (A_i + ? C_i)^2$$

where A_i is the number of adults in the household, C_i is the number of children and $?$ is the scale parameter. Children are those individuals of age 14 and below. In this report a value of $?=0.75$ was adopted to ensure comparability with other regional results (World Bank, 2000).

Per adult-equivalent Consumption. Total consumption (TC) was divided by the number of adult equivalents per household (EA) to obtain the per adult-equivalent consumption measure. However, as pointed by Deaton and Zaidi (1999), this adjustment would overestimate the total consumption unless all households were single-adult households. They suggest using an adjusted per-equivalent consumption where the money metric utility (consumption) for the “typical household” is not affected by changes in the parameters. Hence, the per-equivalent consumption for household i (PEC_i) is defined as

$$PEC_i = \frac{TC_i}{(A_i + ? C_i)^2} \cdot \frac{(A_0 + ? C_0)^2}{A_0 + C_0}$$

where A_0 and C_0 are the number of adults and children in the “pivotal” household respectively, and A_i and C_i are the number of adults and children in the i^{th} household.

The modal or pivotal household in Kosovo is a 6 member household with 4 adults and 2 children ($A_0=4$ and $C_0=2$). We use PEC as the welfare measure at the household level.