

**Asian Development Bank**  
**People's Republic of China**

TA 4454 – Developing a Poverty Monitoring System at the County Level

**Poverty Monitoring Systems in Pakistan  
and Moldova**

Report ©

Ludovico Carraro

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## Background

During my mission in China I was asked to write a short report on experiences of other countries in poverty monitoring. It was agreed that the cases of Pakistan and Moldova could be summarised in a short report highlighting the main features of both systems. These two countries were chosen because I have a direct knowledge of both countries where I provided technical assistance to the respective national statistical departments for their main national household poverty monitoring survey. The Chinese National Bureau of Statistics and in particular the Rural Survey Organization are interested in knowing the experience of other countries in monitoring poverty to see whether there are any positive lessons that could be learned or conversely problems that should be avoided. Looking at the experience of other countries might not only have relevance for the current Chinese poverty monitoring system, but also for future reforms that will need to take into account the changing reality of China.

A poverty monitoring system identifies, updates and monitors a set of poverty related indicators and targets with the main goal of informing policy and decision making and assessing the effectiveness of policies of poverty reduction. Therefore it aims at improving policy making and accountability. The identification of indicators and the methodologies used to collect them are based on the knowledge of the specific characteristics of poverty as well as the policies of poverty reduction. Furthermore, a poverty monitoring system needs to clearly define the institutional arrangements among the main actors involved in the monitoring system (data collection agencies, analysts and policy makers).

Separately for Moldova and Pakistan this report firstly makes a brief introduction to the country and its poverty profile. Secondly it presents the poverty monitoring system looking at: 1) targets and indicators, 2) the instruments of poverty monitoring, and 3) the institutional arrangement. Finally it summarises potential interesting lessons and weaknesses.

## Republic of Moldova

The republic of Moldova is situated in Eastern Europe and borders with Romania and Ukraine. It gained independence from the Soviet Union only 15 years ago and during the 1990s. In its transition to a market economy, it faced serious economic and social challenges: living standards deteriorated and inequality increased. Moldova has a mainly agricultural economy and during the 1990s a combination of various natural disasters (severe droughts, early frosts and torrential rains) contributed to a decline in agricultural output and separatist movements, especially in Transnistria, brought considerable loss of human life, and destruction of assets and economic resources. The economy started to recover since 2000 achieving again positive economic growth.

The total population is estimated to be about 4.3 million<sup>1</sup>, and it is made up of many different ethnic groups, the majority of the population (about two thirds) is ethnically Moldovan, but other important ethnic minorities are Russians, Ukrainians, Poles, Jews, Gagauz and Gypsies. The majority of the population lives in rural areas (more than 60%), another 20% lives in relatively small cities, and only the remaining 20% lives in big cities.

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<sup>1</sup> The republic is effectively separated in two: Bessarabia with a population of about 3.6 million and Transnistria with 0.7 million people and to some extent they also have a different poverty monitoring system. I concentrate mainly on the poverty monitoring system in Bessarabia. Moreover, there are some uncertainties in the exact population numbers because of large migration flows abroad (part of which is illegal emigration) and the dated census information (1989).

Moldova is said to be the poorest country in Europe. Poverty is mainly a rural phenomenon, although it is of some relevance also in urban areas. For a significant share of the population poverty in Moldova means hunger, bad housing conditions, cold in the rigid winters, and bad health. Access to higher education is also unequally distributed among the population.

The main policies of poverty reduction aim at achieving sustainable and inclusive economic growth, increasing the participation of the poor in the economic development, improving access to education above primary level and improving more generally the conditions of human development, and finally better target social assistance benefits to the very poor households.

## **The Poverty Monitoring System**

### ***Targets and indicators***

The main targets and indicators in Moldova are defined within three groups: MDGs indicators with special emphasis to those particularly relevant for the situation of Moldova, key sector indicators (rural development, environmental protection, labour market, etc.), and 10 indicators adopted from the EU. Whenever possible, indicators are disaggregated by sex, age, ethnicity, socio-economic status and geographic location.

The main poverty related targets are those included within the MDGs framework and consist of reducing by half the proportion of people below the poverty line of 2.15 USD (evaluated at Purchasing Power Parity), ensure by 2015 equal opportunities for all children to study in gymnasiums, gradually increasing the net enrolment rate in secondary education (roughly the equivalent of the Chinese higher middle school), reduce considerably the under 5 mortality rate and increase the proportion of the population with sustainable access to improved water sources as well as those with access to improved sanitation (access to improved water sources and improved sanitation in 2002 was about 40%).

Consequently the main indicators are the population below the international 1 dollar and 2 dollars PPP poverty line, population below the national absolute poverty line, share of population consuming less than 2280 calories per day (some EU indicators: relative poverty defined as the proportion of population below 60% of the median national income, ratio of top on bottom income quintile, proportion of people living in poverty for at least 2 years in a period of four years), net and gross enrolment rates in primary and secondary education, infant mortality rate and under 5 mortality rate, the proportion of population with access to improved water sources and the proportion with improved sanitation.

### ***Instruments of poverty monitoring***

The main instruments for poverty monitoring are: 1) A nationally representative household survey, 2) Poverty mapping exercises, and 3) Territorial poverty and policy impact monitoring systems.

#### **1) The Household Budget Survey**

The household budget survey is the main quantitative survey used for poverty estimates and poverty analysis. The questionnaire and sample design, originally defined in 1997, is changing in order to improve its ability to monitor poverty as well as to address an increasing problem of non-response.

The sample size is of almost 8000 households, and the sample was designed to be representative of three geographic areas of the country: big cities, small cities/towns and the rural areas. Half of the sample is part of a panel in which the same household is interviewed for 4 consecutive years. The survey is conducted in fixed stations and since 1998 it is a permanent exercise, with a fix number of households interviewed each month. The period of observation of each household used to be limited to one month in which household expenditures and incomes were recorded on a daily basis. In each month of the year an equal number of households is interviewed in the same primary sampling units.

The original design of the sample aimed mainly at estimating average income and expenditure levels, provide other information for the National Accounts, and weights for the calculation of price indexes. However, the survey was also increasingly used for poverty monitoring, but the limitations of the design posed serious doubts on the accuracy both of poverty and inequality estimates.

Since 2003 I helped the Department of Sociology and Statistics to gradually reform the questionnaire so that it can better capture living standards and serve the purpose of poverty measurement, without compromising the use of the survey data for other purposes.

Although the diary method was maintained another section was also included in order to collect some infrequent expenditure (non-food items) on a recall basis, and differentiating the period of recall according to the frequency of purchase. The experiment was quite successful and extended to a comprehensive list of non-food items. The final stage aims at limiting the diary to food items only and record non-food expenditure exclusively with recall methods.

Changes are also taking place in the sample design to increase the representativeness of the sample as well as in trying to address the problem of non-response rate that in big cities is above 20%, and likely to be higher among self-employed and relatively better-off households.

Finally, the analysis of poverty data is also improving because price differences across regions and over time have been more explicitly taken into account (using a Paasche price index at the PSU level), and estimates are generated more precisely taking into account the sample design effect.

## 2) Poverty mapping

Poverty mapping has been piloted only in some areas of the country, but it has serious limitations. The latest Census was conducted last October, but its data are not yet fully available, while the previous census took place in 1989. An experiment of poverty mapping was conducted combining HBS data and administrative data (the rural household registry), but the administrative data were not always of the required quality. Nevertheless the experiment was a possibility to train staff of local governments on indicators and data collection techniques. One of the results of this training and activities has been the preparation of tables ("passports") of socio-economic and infrastructure indicators at the community level, the data of which has to be checked at the higher level, and then analyzed by the DSS.

## 3) Territorial poverty and policy impact monitoring systems

This activity mainly consists of the establishment of a data warehouse storage facility and sentinel community surveillance. The data warehouse aims at increasing the use of data, making them more easily available and aggregating various sources of information. Such system although not yet finalised was somehow established for each of the main administrative regions in the country (which in terms of population roughly correspond to the Chinese counties), but such process was complicated by the recent change of administrative regions, which have now more than doubled.

The sentinel community surveillance uses mainly a participatory approach to monitor project implementation and their impact, but I do not know much about their actual activities, and whether they represent only good intentions or they actually took place.

### ***The institutional arrangement***

The main actors in the poverty monitoring system are the Poverty and Policy Monitoring Unit (PPMU) within the Ministry of Economy and Reform, the Department of Sociology and Statistics (DSS), the Monitoring Units within each line ministry, and the local public administrative bodies (mayoralities and district economic sections/directions).

The PPMU has the main institutional roles of 1) monitoring poverty and policies impact, and 2) disseminating poverty relevant findings to other units. The PPMU has also the fundamental role of an active dialogue and exchange with the DSS and other Monitoring Units. Finally the PPMU maintains an integrated database of strategic economic and social development indicators and acts as a main point of contact (“one-stop shop”) for the development of data.

The DSS has the main role of data collection that can be used to track the list of targets and indicators of the poverty monitoring system and needs to respond to the requirements of the PPMU.

The Monitoring Units in the line ministries are made up from personnel of respective divisions from ministries and departments and should monitor the implementation of sectoral policies, and of the final and intermediate progress of policies and actions implementation.

The coordination of the monitoring and evaluation process at local levels is performed by the economic directorates/sections of the mayoralities and district councils. The involvement of local communities is ensured through representatives of public authorities, community organizations, non-governmental organization networks etc.

### **Weaknesses and lessons**

The monitoring system described above is evolving and far from perfect, but a positive characteristic of the system has been its gradual improvement seeking the consensus of all the stakeholders involved in poverty monitoring, poverty analysis, policy design and decision making.

Although the experiment of poverty mapping was not successful it provided an opportunity to review the available administrative data sources and developed specific training activities that will have the ultimate effect of increasing the quality of such data. On the other hand such experience is also a warning on using inconsistent data for the estimation of poverty. Common variables between household survey and other data (Census or administrative data) must be carefully assessed, not only in their definition, but also in the possible impact of different methodologies used in their collection.

The experience of the calculation of “local deprivation indexes” based on community variables is of possible interest also for our current project of “Developing a poverty monitoring system at the county level”.

## **Pakistan**

Pakistan has a population of about 140 million people, and its territory is divided in four provinces (Punjab, Sindh, NWFP and Balochistan) and three administrative areas (AJK, Northern Areas and

Federally Administrative Tribal Areas). 67% of the population lives in rural areas and almost 50% of its workforce is still employed in agriculture. Economic growth in the 1990s was relatively low, especially in the second half of the 1990s and at the turn of the new millennium, though higher growth in most recent years (since 2003) seems to have resumed.

Poverty in Pakistan is mainly a rural phenomenon, but it is also relevant in urban areas. The country has a bad record in many social development indicators, and the poor have very low education and lack physical assets (land is unequally distributed among the rural population), and gender inequalities especially in education are particularly high. Policies of poverty reduction mainly aimed at addressing the human development gap, and the government with the help of various donors tried to address the serious funding gap in education, health, family planning and water and sanitation. The most recent comprehensive policy document is the Poverty Reduction Strategy Paper (PRSP), which puts emphasis on 1) achieving a sustained economic growth through a set of macroeconomic policies, 2) improving governance and consolidate devolution, 3) investing in human capital, and 4) reducing vulnerability to shocks.

## **The Poverty Monitoring System**

### ***Targets and indicators***

The main targets and indicators aim at tracking the policies advocated by the PRSP. The main impact indicators are the canonical poverty measures (head-count, poverty gap and severity of poverty) and intermediate and outcome indicators in the education, health, family planning, water supply and sanitation sectors. Specific emphasis is also put on gender indicators and indicators of outreach of specific programs aimed at reducing vulnerability (number of beneficiaries of food for work projects, micro-credit loans, etc.).

### ***Instruments of poverty monitoring***

The main tools used for poverty monitoring are 1) household surveys, 2) administrative data, and 3) the participatory poverty assessments. Communities are also asked to play a role in monitoring public services, but their role up to now has been relatively weak, and with the greater devolution it is hoped they will increasingly play a greater role.

#### **1) Household surveys**

The main household survey used for poverty monitoring is the Pakistan Integrated Household Survey (PIHS). The sample size is of more than 16,000 households and the sample is designed to produce reliable estimates in urban and rural areas of each of the 4 provinces and 3 administrative areas. The first round of this sample was in 1995-96 and it was repeated in 1996-97, 1998-1999 and in 2001-02. Each round is a standing alone cross-section. The survey was originally designed to monitor the social action programme (basic education and health services, family planning, water and sanitation), but in 1998-99 it also became the main instrument for poverty monitoring (it merged with the Household Income and Expenditure Survey). Expenditure and income are measured using recall methods.

Although the survey provided high quality data and covered a number of key indicators related to the policies adopted by the government, the collection of such survey stopped after the fourth round of 2001-02. After devolution and the rising importance of districts the government decided it was necessary to conduct a survey with a much larger sample size to provide estimates for each of the districts (there are about 120 districts in Pakistan). The sample size of the new survey was

increased to 69000 households and in order to collect such survey the Federal Bureau of Statistics planned to use the so called Core Welfare Indicators Questionnaire (CWIQ). This is a tool designed by the WB for the Africa region to overcome the frequent delays of data entry and analysis, which often occur in many African countries. This is achieved through a questionnaire that can be optically scanned by appropriate machines and that produces immediately a package of already programmed elaborations<sup>2</sup>. Such easy computation comes at the cost of a relatively simple questionnaire that cannot capture expenditures and incomes, but it can only calculate relatively simple indicators of standards of living and of access, utilization and satisfaction of key social and economic services.

Unfortunately the transition from the PIHS to the CWIQ was not smooth: personnel of the Federal Bureau of Statistics had to be trained to use different techniques, and the big leap of increasing the sample size from 16 to 69 thousand households also proved to pose considerable logistic problems. The plan would be to alternate CWIQ surveys with the old PIHS sample, but up to now the CWIQ did not produce any results with the clear drawback of a considerable time lag from the 2001-02 poverty estimates and the new results which would probably be available only for the year 2005-06.

Oxford Policy Management and in particular myself provided technical assistance to the PIHS in the second half of the 1990s and the beginning of 2000, and warned against the risks associated to the transition from the PIHS to the CWIQ.

Other relevant household surveys that provide important information for poverty monitoring are the Fertility and Family Planning survey conducted every 3-4 years by the National Institute of Population Studies, and the survey conducted by the Pakistan Institute of Development Economics (PIDE) (the Pakistan Socio Economic Survey covers topics similar to the PIHS, it has only a relatively small sample size, but it is a panel data).

## 2) Administrative data

The main administrative data are the Education Management Information System (EMIS) and the Health Management Information System (HMIS). These systems are managed respectively by the Ministry of Education and the Ministry of Health. The quality of these data is mixed, and there are significant differences in some key indicators (net enrolment rate and gross enrolment rate) between EMIS and PIHS.

## 3) Participatory poverty assessment

A participatory poverty assessment was conducted in 2001 conducting interviews in 51 different sites of Pakistan. Such exercise enabled a better understanding of poverty issues listening to the views of the poor and providing in some cases complementary information to the quantitative information that comes from the PIHS, and in other reinforcing the findings of the quantitative surveys.

## ***The institutional arrangement***

The main actors in the poverty monitoring system of Pakistan are data collection agencies (Federal Bureau of Statistics, Ministry of Health and Education, National Institute of Population Studies and the Pakistan Institute of Development Economics), Agencies in charge of data analysis and

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<sup>2</sup> Questions need to be all pre-coded and forms must be carefully filled in and printed with great accuracy in order to minimize misreading during the scanning process.

dissemination (the Centre for Research on Poverty Reduction and Income Distribution – CRPRID), data users for policy and decision making mainly within the government, but also donors, research institutes, universities and non-governmental organizations.

The main agency with the institutional role of generating poverty estimates is the CRPRID within the Planning Commission. However, this is a relatively new institution whose mandate often clashes with the roles played also by other agencies and institutes, in particular FBS and PIDE.

### **Weaknesses and lessons**

In the last five years the most positive outcome of the process of generating a poverty monitoring system has been the determination of an official poverty line, together with some documents that also define the process used to determine such poverty line and the methodology that should be used to update it. This had the main advantage of assessing more consistently poverty trends as well as a poverty profile.

However, in recent years the poverty monitoring system in Pakistan also had some setback. In particular the use of inappropriate questionnaire methods not only encountered new technical difficulties that were not properly resolved by the FBS, thus halting and delaying the monitoring of key indicators, but also because the attempt of generating district level data did not take into account the actual demand of data and the capability of using such data.

Overall, data demands and the ability of using them are still relatively weak within policy and decision makers. Use of such data is mainly done at the federal level, but already at the province level there are considerable difficulties. It is therefore likely that districts have an even lower capability to make use of data that the government envisioned to provide through the CWIQ.

Finally, the creation of an entirely new institution, the CRPRID, did not take into account completely the capacities in other government institutions, in particular the FBS, and this generated some institutional conflict between FBS and CRPRID.



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