



Improved measurement and monitoring of MDGs in Moldova: targets, indicators, definitions, data sources, progress analysis

Results of technical support missions by specialized statistician experts



Advisory mission to review and help improve the MDG labour and gender indicators in the Republic of Moldova

MISSION REPORT
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PURPOSE

- 1. The objective of this mission was to help the National Bureau of Statistics (NBS) of the Republic of Moldova mainly in:
- (a) Review and assessment of the current method of calculating the national MDG3 indicator on the "Share of average salary of women in the average salary of men" by NBS, giving recommendations on any alternative ways of estimation of gender pay gap as a check of the correctness of the currently used method, giving an overall evaluation of the situation regarding the MDG 3 indicators on disparity in women's and men's salaries and formulate conclusions and recommendations for improvement of the indicators and their methodologies;
- (b) briefing on EU Structure of Earnings Survey (SES) methodology and design features and assess the relevance and feasibility of such a survey for Moldova in the near or mediumterm future;
- (c) the use of data from the Time Use Survey (TUS) currently being carried out in Moldova, as a source of additional information for the un-paid work undertaken by women for monitoring of living standards by gender;
- (d) the measurement of volunteer work in a module attached to the labour force survey;
- (e) give an expert opinion on the 2nd country report as of 2010 on MDG progress and make recommendations on its improvement.
- 2. This report is organized around the above four areas. Three (3) sets of recommendations have been made, in paragraphs 5, 21 and 23.

THE MDG GENDER INDICATORS

3. Moldova developed a "harmonized set of development indicators in a gender sensitive manner", in the context of the Millennium Development Goals. All ministries and national institutions concerned were involved in this process, which was coordinated by a joint UNIFEM, UNFPA and UNDP project. The objective of these indicators was to serve policies in the area of gender equality promotion. In total, 213 indicators were identified in all MDG areas. Of these, 102 were based on statistics that are currently available; 74

indicators for which data collection needed to be modified to produce them; and 37 for which new data collection was required. In the area of work, there are at least 34 indicators, distributed between the MDG 1 and MDG 3. The set of indicators was approved in December 2008 at the NBS board/Collegium, but has never properly functioned as a basis for policy formulation, monitoring or evaluation being poorly used by the relevant units in the line ministries.

- 4. There may be a number of reasons for this. One may be related to a lack of clarity in the division of tasks, as gender focal points in each ministry are expecting the National Bureau of Statistics not only to calculate the indicators but to interpret and analyze them as well. Another related reason may be a lack of capacity to analyse and interpret the indicators for policy making. A major reason concerns the number of indicators, which is not only very high but a significant amount may be overlapping, by pointing in the same direction and indicating different aspects of the same issue. Also, while the indicators are generally linked to a policy concern as mentioned in official documents, they are not organised according to national "sectors" of work. As an example, "work" related indicators can be found under MDG1 and MDG3.
- 5. In order to increase the use of these indicators it may be advisable to:
 - b) reorganise the indicators according to "sectors";
 - c) spell out the division of tasks between NBS and ministries;
 - c) reduce the number of indicators;
 - d) make clear the meaning and interpretation of the indicators.
- 6. The indicators can be reorganised by using the "National Programme on Ensuring Gender Equality 2010-2015" as a model. This strategy is organised around 8 priority areas or sectors, and each has identified a number of indicators. For example, there are 12 indicators in the area of work, most of which are already included in the above set of gender indicators. This work should be done by each Ministry concerned by the topic/sector of their competence.
- 7. In order to reduce the number of indicators and clarify the meaning and interpretation of the indicators, it would be advisable to rethink each indicator by answering the following questions:
 - a) What does it indicate?
 - b) What does it mean if the indicator increases? And if it decreases?
 - c) What other factors can be affecting the indicator? (measurement, legal, etc.)
 - d) What other indicators can be used to complement this indicator?

It would be useful also to look at the behaviour of the indicators through time, to see whether there are "groups of indicators" that are behaving in the same way or not; such exercise will also permit to evaluate whether the behaviour is "normal", or can be explained.

8. For example, the global MDG 3 indicator (on the share of women in paid non-agricultural employment) relates, in Moldova, to the share of women in total employment, disaggregated by broad economic activities, including agriculture. The last includes both paid and own account workers and/or contributing family workers. The evolution of this indicator from 2007 to 2009 can be viewed in Chart 1.

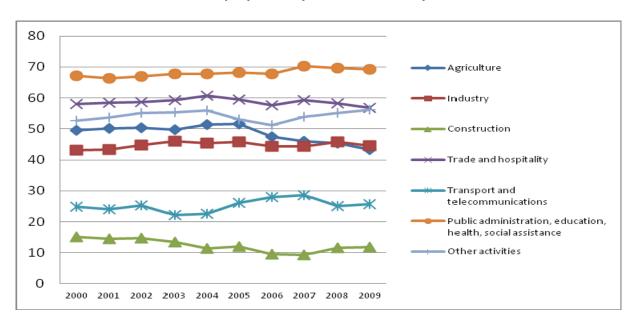


Chart 1. Share of women in employment by economic activity, Moldova, 2000-2009

Source: UN, 2010. The second millennium development goals report. Moldova.

- 9. This indicator provides more information than the global MDG 3 indicator does. It is meaningful for Moldova because it includes agriculture a very important sector in Moldova and disaggregates the share by industries, thus allowing a more refined analysis of the indicator. For example, from Chart 1 it can be seen that women are the majority of workers in public administration and public services, such as education, health and social services; they are also most of workers in trade and hospitality. However, they are less common in construction, industry and transport. Regarding trends, the indicator shows very small changes, given the high level of overall women participation in employment: it is increasing slightly in the public administration, in industry and in other activities, and decreasing slightly in the other industries.
- 10. While this indicator provides useful additional information, it also hides important information that was at the root of the global MDG 3 indicator. The idea behind the global indicator was to monitor the behaviour of the share of women among paid employees, which would indicate the increased access of women to jobs that allowed them to have economic independence. The idea was that this indicator should increase, while the share of women among contributing family workers should decrease. In Moldova, most workers are employees (64% of men and 70 % of women are paid employees). Still, contributing family workers are not insignificant in agriculture and their importance is greater among women than among men (of all women workers in agriculture, 11% are contributing family

workers, while 3% of men are in the same situation.) Therefore, a more refined analysis would need to break down the indicator by status in employment, in order to distinguish "desirable" paid employment from other forms of work, especially in agriculture, where most workers are either own account workers or contributing family workers; and for construction and trade (where the importance of self employment is important).

11. Another example relates to the calculation of the Gender Pay Ratio (GPR) in Moldova. The formula is:

Where:

Ww relates to the average wages of women, and Wm relates to the average wages of men.

The source to calculate this indicator is an establishment survey that has been carried out annually since 2003, as a module to the monthly statistical report. It requests data on the average number of workers and the total earnings, by sex. Moldova does not calculate a Gender Pay Gap (GPG), whose formula is:

$$GPG = (Wm - Ww)/Wm$$

However, the two indicators are related, as:

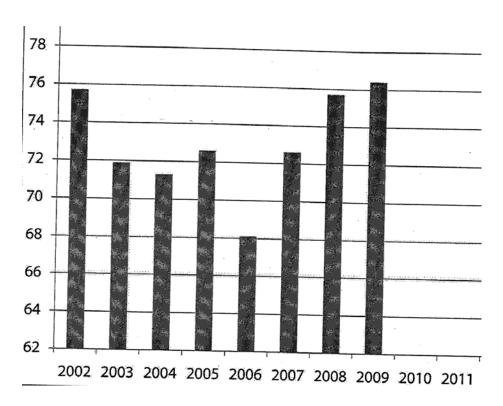
$$GPG = 1 - GPR$$
.

Based on this source, they have produced a series, which is shown in Chart 2 below.

Chart 2. Gender pay ratio in Moldova¹, %, 2002-2009

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¹ Or "Average salary of women in relation to average salary of men" as called in the second RM MDG report.



Source: Government of the Republic of Moldova, 2010. The second millennium development goals report.

12. As can be seen in Chart 2 the GPR decreased in 2003² and hit a lowest point in 2006, only to increase significantly afterwards. It would be advisable to find an explanation to why this indicator decreased during the period 2003-2006. One way to do this would be to calculate the GPR using the Labour Force Survey (LFS). An initial calculation was done during the expert mission, where the GPG was calculated for 2010 using LFS data. This LFS-based GPG was substantially lower than the GPG calculated using the establishment survey, even when only formal employment in the formal sector was considered (18% on the basis of LFS versus 24% resulted from the establishment survey).

Table 1. Gender Pay Gap for employees by type of unit and job, 2010

	Formal	Informal	
Sectors	employment	employment	Total
Formal sector	18%	16%	20%
Informal sector		17%	17%
Households		16%	16%
Total	18%	17%	20%

Note: GPG computed based on median values

Source: Labour Force Survey

Table 2. Gender Pay Gap for employees by type of unit and job, 2010

Sectors	Formal	Informal	Total

² As the establishment survey was started only in 2003, it may be that data for 2002 come from another survey.

	employment	employment	
Formal sector	16%	15%	16%
Informal sector		20%	20%
Households		12%	12%
Total	16%	13%	15%

Note: GPG computed based on mean values

Source: Labour Force Survey

In addition, the GPG was lower when using the average value than when using the median (against what would normally be expected) (see Table 1 and 2). In part this could be explained by the high kurtosis of the wage distribution in Moldova, as measured in the Labour Force Survey. Other unexpected results, when calculating the GPG by employees' occupations, included a negative GPG among skilled farmers, and in the fishery, mining and education branches of economic activity.

Table 3. Gender Pay Gap for employees by occupations, 2010

Occupation	GPG based on median values	GPG based on mean values
Logislators, conjugaticials and managers	•	
Legislators, senior officials and managers	17%	13%
Professionals	12%	9%
Technicians and associate professionals	24%	23%
Clerks	25%	28%
Service workers and shop and market sales workers	35%	30%
Skilled agricultural and fishery workers	-11%	-5%
Craft and related trades workers	17%	20%
Plant and machine operators and assemblers	3%	11%
Elementary occupations	16%	13%
Total	20%	15%

Source: Additional calculations of NBS on the basis of Labour Force Survey

Table 4. Gender Pay Gap for employees by level of education, 2010

Level of education	GPG based on median values	GPG based on mean values
Higher education	15%	15%
Secondary specialized education	19%	16%
Secondary professional education	24%	21%
Secondary school education	27%	24%
Gymnasium education	27%	23%
Primary or no education	13%	16%
Total	20%	15%

Source: Additional calculations of NBS on the basis of Labour Force Survey

Table 5. Gender Pay Gap for employees by economic activities, 2010

Economic activity	GPG based on median values	GPG based on mean values
Agriculture, hunting and forestry	0%	2%
Fishing	-15%	-15%
Mining and quarrying	-27%	-16%
Manufacturing industry	10%	14%

Electric and thermal energy, gas and water	13%	-1%
Construction	20%	7%
Wholesale and retail trade; repairing of motor vehicles, motorcycles, personal and household goods	20%	18%
Hotels and restaurants	32%	28%
Transport and communications	13%	16%
Financial activities	0%	2%
Real estate activities	0%	2%
Public administration	28%	20%
Education	-26%	-7%
Health and social work	25%	24%
Other public, social and personal		
services	0%	17%
Households	16%	12%
Total	20%	15%

Source: Additional calculations of NBS on the basis of Labour Force Survey

It may be useful to repeat the same exercise for all years since 2002, in order to assess whether these results are replicated for other years, as well as to evaluate whether overall the trend in the GPR is similar in both surveys.

Another way to validate the behaviour of the GPR can be to analyze the relationship between this indicator and other labour market indicators, such as employment, unemployment and underemployment, and other social and economic indicators, such as GDP growth, migration rates, etc. While the first type of evaluation should be the responsibility of the NBS, the second type of analysis should be carried out by data users, in this case, the Ministry of Labour.

13. The establishment survey of course, does not allow more detailed analysis of wage disparities between men and women, as it can only disaggregate the GPR by industry and size of economic unit. Table 1 shows the GPR by industry for September 2010.

Table 6. Gender pay ratio by industry in Moldova, September 2010

	Salariul total	Salariul femei	Salariul barbati	Salar. femei in %
	. :			fata de sal.
				barbati
Total	2993,2	2619,0	3439,5	76,1
Agricultura,	1839,0	1612,6	1954,2	82,5
Pescuitul	1793,0	1794,2	1792,8	100,14
Industrie:	3537,1	3003,7	4034,6	74,4
Construcții	3533,7	2916,6	3633,4	80,3.
Comerţ	2834,8	2445,4	3187,9	76,7
Hoteluri	2468,1	2223,0	2995,1	74,2
Transporturi	3884,8	3584,6	4035,1	88,84
Activități Finauc	5610,7	4576,3	7618,0	60,1
Tranzacții	3989,0	3627,0	4263,0	85,1
Administrație	3149,2	2739,9	3417,7	80,2
Învățămînt	2371,1	2235,5	2807,4	79,6
Sănătate	2721,9	2601,6	3225,9	80,6
Alte activități	2398,9	2071,5	2787,9	74,3
activități				
recreative,				
culturale și				
sportive	2094,8	1825,1	2470,7	73,9

Source: calculations by NBS

As can be seen, the GPR is lowest in the financial sector, and highest in transport and fishing industries. This is a common occurrence in industries where men tend to be in less skilled occupation than women: for example, in the transport industry, men will be driving buses and trucks, and women will be carrying out clerical activities. However, in the financial sector men will be in higher skilled occupations, and women will be mostly carrying out the clerical occupations.

- 14. More useful disaggregations involve calculations of the GPR by level of education, age group, occupation and seniority. For that, a survey that requests information for individual workers would be needed. This issue is discussed in the next section.
- 15. One of the problems faced by the NBS related to this indicator is that in January 2011 the establishment survey was revised to better produce short term indicators that fulfilled EU requirements. Now this survey requests data on average number of employees, earnings and hours actually worked on a monthly basis, but data are not requested by sex. As a consequence, as of 2012 they will not be able to calculate the GPR using this survey.
- 16. On the other hand, they have also started in 2011 an annual labour cost survey. This survey requests very detailed information of labour cost components by sex (for wage components) and for the whole year. NBS is planning to use this survey to calculate the GPR as of 2012. Evidently, there will be a break in the series and they should be prepared to provide explanations to users regarding the meaning of the changed figure.

17. A similar process should be followed for each of the remaining indicators, in order to come up with a reduced set of indicators that are manageable and that will be used to monitor the situation of men and women in the labour market.

THE EU STRUCTURE OF EARNINGS SURVEY

BACKGROUND

- 18. As described above, the NBS carries out a number of establishment based surveys, but they have never carried out a survey that obtains information for individual workers, like the EU Structure of Earnings surveys requires. For this reason, they are interested in exploring the possibility of carrying out such a survey, allowing them to produce statistics on the distribution of earnings as well as to calculate the Gender Pay Gap according to EU regulations.
- 19. This type of survey, instead of inquiring on the total wages and hours worked in the economic unit during a specified reference period, obtains information on the wages and earnings of all or a sample of workers. The result is a data file where the unit of observation is the worker and not the economic unit. It is possible therefore to produce statistics disaggregated not only by workers' sex, but also by their age and their occupation.
- 20. The greatest difficulty that the NBS saw with this type of survey is the sample selection, which in most countries is in two stages: the first stage is the selection of economic units, and the second stage is the selection of workers within units. It is of course possible to request information about all workers within a selected unit (as Jordan does) or to select workers directly (as the UK does). For the latter, the social security register could be used, which in Moldova is linked to employment status. The requirement is that such a register should be complete, up to date, and cover a reasonable share of employees in a country. As this register is not kept by the NBS, however, it is not possible to be certain about any of these requirements. The statistical business register, on the other hand, is kept by the NBS and is updated on annual basis and includes mainly active enterprises. It was not within the mandate of this mission to explore quality issues of this or any register. However, it would be advisable to be informed not only the characteristics of these registers but also of the processes used to maintain and update them, in order to assess their quality.
- 21. As a follow-up activity, the Labour statistics Division of the NBS may want to inquire on the characteristics of the business register and the social security register, including on the processes used to maintain and update them.

THE TIME USE SURVEY

22. Moldova has launched its first Time use survey in June 2011, following EU regulations. This means that it is a survey that is carried continuously over a year. They will therefore be able to produce statistics as illustrated in Table 7:

Table 7. Average number of hours spent per week in selected activities, by sex

Number of hours (with minutes)	All persons	Persons employed	Persons unemployed	Persons not in the labour
				force
In paid work				
In volunteer work				
In subsistence work				
In unpaid services for own final use				
Taking care of dwelling				
Taking care of own children				
Gardening				
Shopping				
Taking care of clothes				
Other unpaid services				
Studying				
Other non-productive activities				

23. On the basis of such a table, gender indicators could be produced, including for example, the following:

- a) Number of hours spent by women in all work activities/number of hours spent by men in all work activities;
- b) Number of hours spent by women in paid work/number of hours spent by men in paid work;
- c) Number of hours spent by women in unpaid work/number of hours spent by men in unpaid work.

Time spent in unpaid work is the sum of time spent in subsistence, volunteer and unpaid services for own final use. These indicators could be calculated by type of paid or unpaid work activity, and by status in employment (e.g., number of hours spent by employed women in unpaid work/number of hours spent by employed men in unpaid work).

VOLUNTEER WORK STATISTICS

24. A final issue which was briefly discussed relates to the possibility of measuring volunteer work in Moldova, using the Labour Force Survey. A law on volunteering³ was passed last year in Moldova which requires the NBS to organize statistical surveys on volunteer activity, produce statistics on the number of volunteer workers and an estimation of their contribution to the economy. Unfortunately, this law was not coordinated with NBS, but now they are in the position that they need to carry out this measurement in the near future. The ILO can of course assist the NBS in implementing the recently published Manual on the measurement of volunteer work.

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³ Law no. 121 as of 18.06.2010 on volunteer activity, published on 24.09.2010 in Official Monitor no. 179-181 art Nr: 608