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Characteristics and patterns in employment opportunities in regions of Tajikistan: evidence from municipal-level data

Analytical brief

February, 2017

Expanding employment opportunities and creating new jobs is an important priority for national development programs in Tajikistan. Both the Mid-Term Development Strategy 2016-2020 and the National Development Strategy 2016-2030 highlight the need to intensify efforts to generate new jobs across different sectors of the economy and regions of the country. Provision of employment opportunities and new jobs is also part of the global 2030 Agenda on Sustainable Development. At the United Nations Summit in 2015, the Republic of Tajikistan endorsed this Agenda and its list of Sustainable Development Goals (SDGs), including Goal 8, "Decent Work and Economic Growth."

The efforts to achieve the ambitious targets in the area of employment and job creation envisioned by these documents can be informed by an analysis of trends and patterns in job creation in the country's recent past. This brief provides one type of such analysis based on an examination of municipal records of newly employed people. In cooperation with the Ministry of Economic Development and Trade (MEDT), UNDP constructed a Jamoat Basic Indicators (JAMBI) dataset, which contains information on the number of newly employed people across different economic sectors and other relevant indicators of local development. The analysis below is based on annual numbers of newly employed people and other annual statistics as of 1st January, 2015 for all 427 rural and township jamoats of the country. *

The brief also provides the opportunity to reflect more broadly on the utility of the rich data available at the jamoat level, and how it might be strengthened and better mobilized to support the achievement of sustainable development goals. The approach to data analysis and presentation that is used in the brief to discuss the patterns in employment opportunities can be extended to other social, economic, and governance issue areas where evidence-based analysis can greatly assist policy planning and implementation.

NEWLY EMPLOYED WORKERS: A SNAPSHOT

Table 1 provides general statistics on the number of newly employed people in all of the rural and township jamoats of the country between 1st January 2014 and 1st January 2015. The data is disaggregated by economic sector and geographic region. For the purposes of comparison, the table also lists information on the size of population residing in rural and township jamoats across different geographic regions.

Table 1. Number of newly employed in rural and township jamoats (in one year, as of 1st January, 2015)

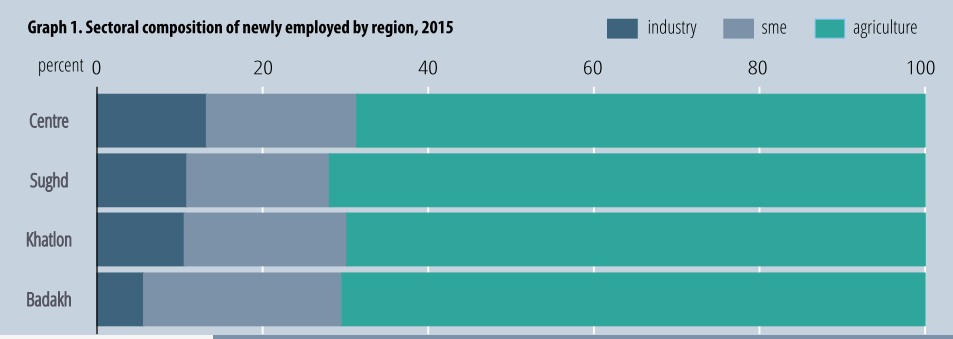
Region	Population*	Newly employed, different economic sectors			
		Total	Industry	Agriculture	SME
Badakh	192,136	5,067	286	3,569	1,212
Center	1,842,453	46,907	6,200	32,201	8,506
Khatlon	2,723,180	67,164	7,034	46,913	13,217
Sughd	1,977,271	47,826	5,186	34,397	8,243
Total	6,735,040	166,964	18,706	117,080	31,178

Source: JAMBI dataset, based on jamoat book of household records, form N.1
Note: *Population of 427 rural and township jamoats, city population is not included

As the table indicates, the total number of newly employed people reported by jamoats amounts to 166,964. Agriculture had the largest share of newly employed people. Around 71% of all newly employed found jobs in this sector. Approximately 19% were employed in Small and Medium Enterprises (SME) and around 11% in industry. A total of 69,705 or 42% out of all newly employed were reported to be women, which constitutes a relatively high percent given the growing concerns about the particular difficulties women face in entering the country's job market. Women accounted for about half of the newly employed in agriculture and slightly less than one third in SME and industry.

Information on newly employed persons is from Form N1 of the municipal book of household records which requires jamoats to collect the information on newly employed people in industry, agriculture, and small and medium-sized enterprises (SME). The current analysis does not include new employment or other data for cities.

Graph 1 summarizes the distribution of newly emplyed across economic sectors for the country's regions.

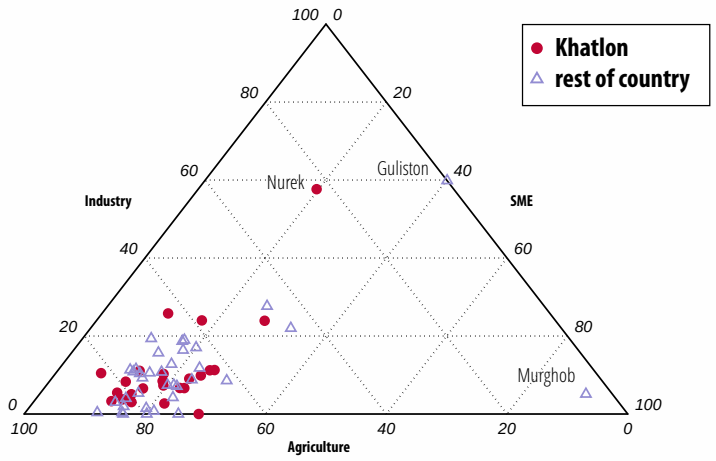


As Graph 1 illustrates, the distribution of the newly employed across economic sectors in regions was rather similar to the distribution at the national level, as discussed above related to table 1. About 70% of newly employed were occupied in agriculture. The share of agriculture was slightly lower in the Center, which has the highest share of newly employed in industry among all regions and a significant share of SME jobs. The share of SME jobs was the highest in Gorno-Badakhshan, where almost 20% of all newly employed were occupied in this sector.
A further analysis of the geography of new employment for each economic sector indicates that SME and agriculture jobs were widely spread across the country. The largest number of jamoats, 411 out of 427, reported creating new SME jobs. Four hundred jamoats reported having newly employed in agriculture. New industry jobs were reported by about half of the jamoats.

NEWLY EMPLOYED AT DISTRICT LEVEL

Aggregating data on the newly employed from individual jamoats to the district level allows for an analysis of the sectoral composition of new jobs, as well as similarities and differences in creating new employment opprtunities at this administrative level. The results presented in this section refer to 60 rural and township districts of the country. The sectoral composition of new jobs that is reported in the local administrative statistics can be represented as a constant sum of three proportions (industry, agriculture, and SME). Given this feature of data on new jobs, it can be useful to map the country's districts on a triplot graph, as shown in Graph 2.

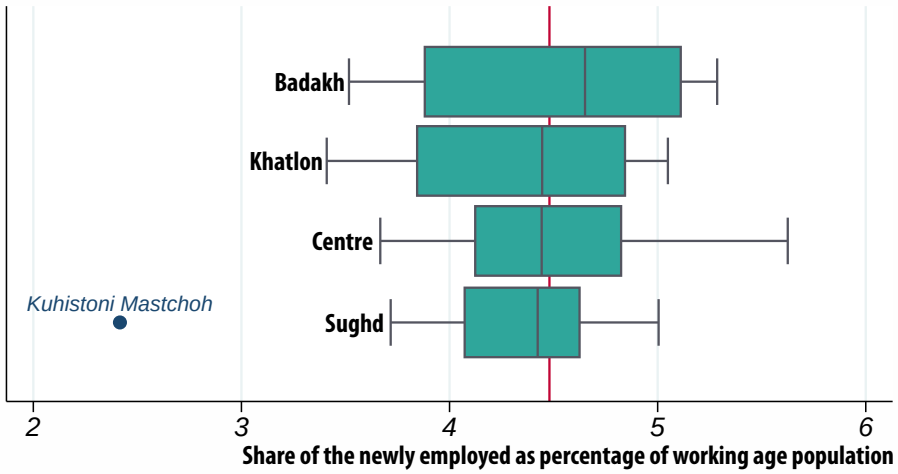
Graph 2. Sectoral composition of new jobs in districts (units are %), 2015



Source: JAMBI dataset, aggregation by rayons based on jamoat book of household records, form N.1

Graph 2 shows non-urban districts (rayons) of the country, with those of the largest region, Khatlon, shown in red. As the graph indicates, agriculture jobs were the main form of new employment for the vast majority of districts. Yet, for none of the districts was agriculture the only sector were for which employment opportunities were created – the share of agriculture jobs was between 60% and 80% for most of the districts. Industry jobs were the primary form of new employment in the case of two districts, Guliston in Sughd region and Nurek in Khatlon. SME sector job creation dominated in the case of Murgob district in Gorno-Badakhshan, where 89% of all newly employed were in this sector. Nurek district can be cited as a rare case of new jobs being somewhat more equally distributed across sectors – 57% of newly employed were in industry, 23% in agriculture, and 20% in the SME sector.

Graph 3. Job creation rate in districts across four regions, 2015



Source: JAMBI dataset, aggregation by rayons based on jamoat book of household records, form N.1

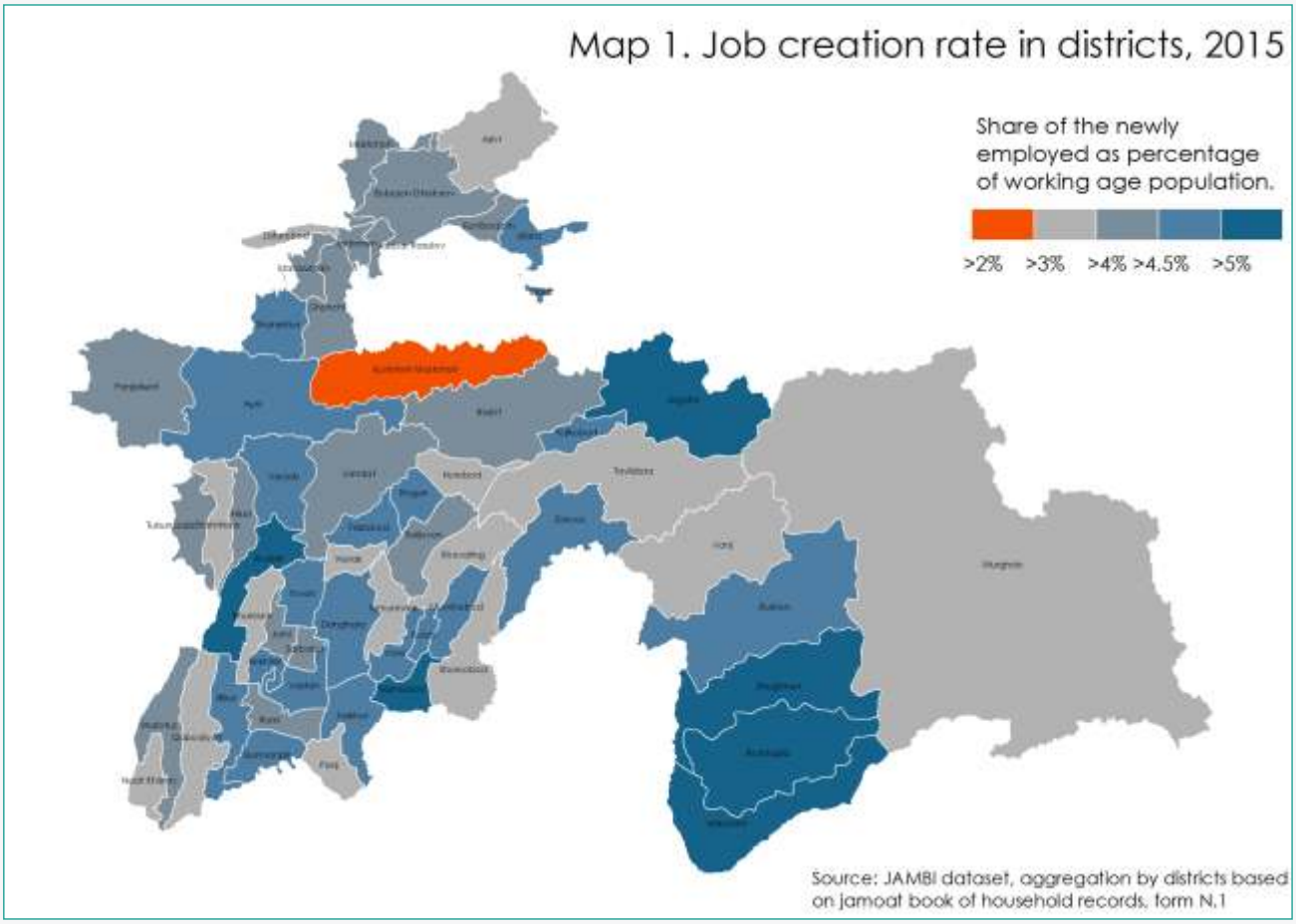
One way to analyze district performance with regards to job creation is to compare the ratio of the newly employed to the total working aged population of the district. The latter information was also obtained from jamoats' administative records and aggregated at the district level. Expressing this ratio as a percentage of the newly employed to the total working population of a district can be labeled for the purposes of this analysis as the job creation rate*. Graph 3 summarizes district job creation rates for four regions.

The red line in the graph indicates the median value of job creation rate for all districts – it stands at 4.48%. The median value of job creation rate for districts in each region is represented by a line subdividing the box. The graph uses a classical box plot display where the length of the box represents the interquartile range (IQR) which acounts for the middle fifty percent of observations. Lines, often called whiskers, are drawn to span all data points within 1.5 IQR of the nearer quartile. Any data points beyond the whiskers – Kuhistoni Mastchoh district in our case – are shown individudally.

Graph 3 indicates that median values of district job creation rates for individual regions were very close to the national median. Gorno-Badakhshan region was the only one with a somewhat higher median value but also the one with the largest interquartile range. The latter means that districts in the middle of the distribution for Gorno-Badakhshan region differed somewhat more in terms of their job creation rates than districts in other regions. Districts in the middle of the distribution for Sughd region, on the other hand, were most alike in terms of their job creation rates. At the same time, Sughd region had a distinct outlier – Kuhistoni Mastchoh – with a job creation rate of 2.42%, the lowest for the country.

The share of working age population, which was used for calculating job creation rate, varied across the districts in the range between 49% and 63% of the total district population. The average share was 55%.

Related to this, Map 1 below shows job creation perfomance at the individual district level.



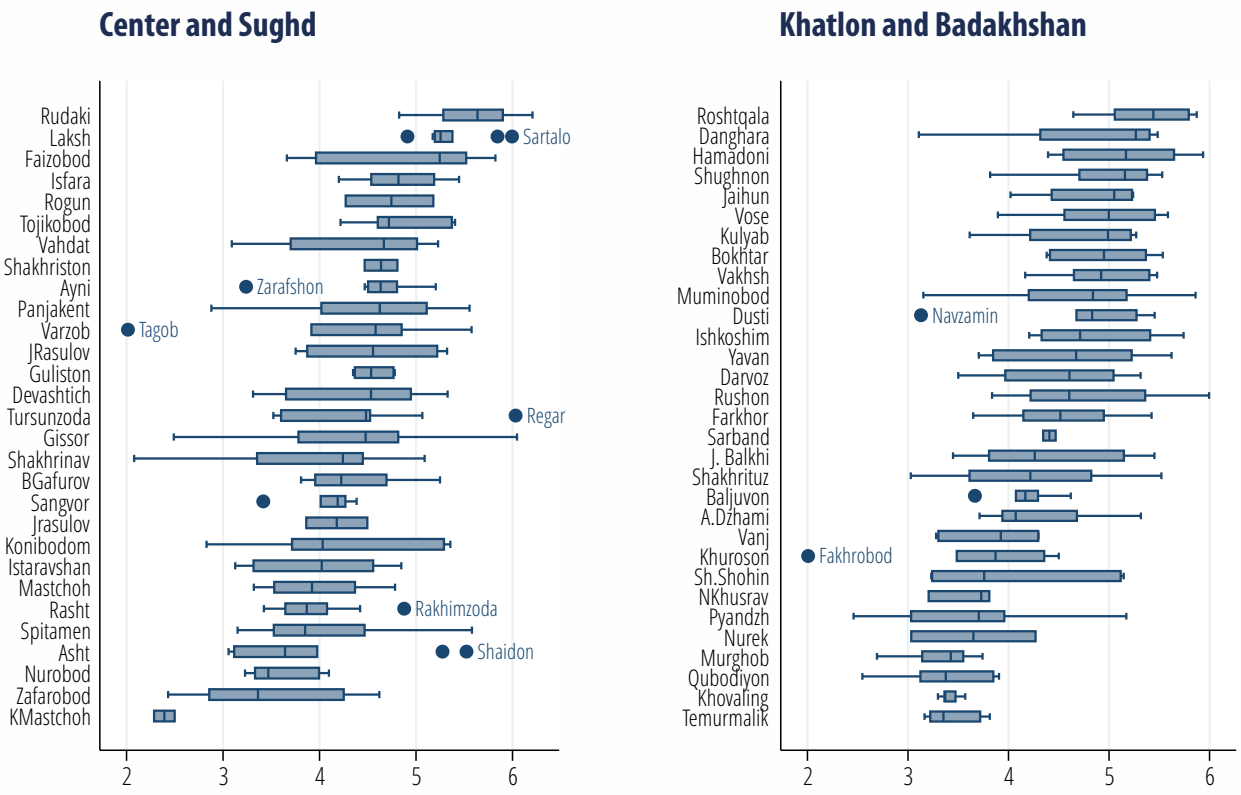
As the map indicates, the most frequent job creation rate for the country's districts was >4.5 % - 22 disticts had job creation rates in the range between 4.5% and 5%. Only six districts, which represent different regions of the country, had the higher value for this indicator: Rudaki (5.6%), Laksh (5.4%), Roshtqala(5.3%), Shugnon (5.1%), Hamadoni (5.1%), Vaksh(5%), Buston(5%). In the bottom 10% of districts there were also different regions represented. The bottom performers in terms of job creation rate were: Khuhistoni Mastchoh (2.4%), Khovaling(3.4%), Temurmalik (3.4%), Murghoh (3.5%), Qubodiyon (3.5%), N.Khusrav(3.6%).

JOB CREATION AT MUNICIPAL LEVEL

This section provides some details on the newly employed at the jamoat level to complement what has been discussed in the previous two sections of the brief. The above analysis examined district-level data on the sectoal composition of new jobs and job creation rates without taking into consideration adminstrative-territorial divisions inside districts: the data was drawn from jamoats, added at a district level, and then this aggregated data was used for calculations of inidicators such as district job creation rates. The jamoat level is brought back into the analysis in the graphs and discussion below.

Graph 4 summarizes information on job creation rates for individual jamoats in the box plot format. For presentation purposes, each plot of the graph combines information for two regions. Districts are listed in descending order for the median value of job creation rates for all municipalities that fall under each district's jurisdiction.

Graph 4. Job creation rate in jamoats by districts, 2015



Share of newly employed as percentage of working age population

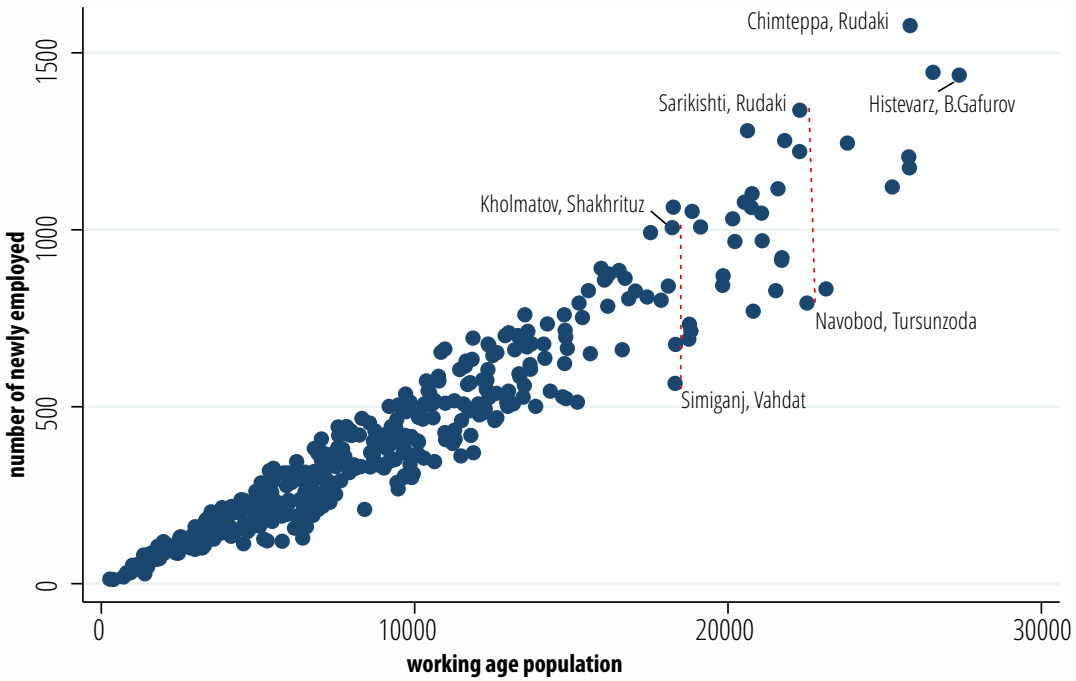
Source: JAMBI dataset, based on jamoat book of household records, form N.1

As the graph indicates, the spread of job creation rates for jamoats was considerably larger than for districts – the values of this indicator varied from 2% to 6.2% in the case of jamoats. In some districts, the jamoats's perfomance in terms of creation of new employment opportunities was rather similar – see, for example, Isfara district with its 12 jamoats in the top part of the left plot. In others – such as the district of Gissor, which also happens to have 12 jamoats (see the middle part of the left plot) – jamoats differed from each other much more. A number of districts had jamoats that were clear outliers in terms of their perfomance, both at the low and high ends of the distribution.

All jamoats in the top one percent of jamoats in terms of job creation rate were found in Centre region. The top performers among 427 jamoats were: Guliston, Rudaki (6.2%); Chimteppa, Rudaki (6.1%); Almosi, Gissor (6.1%); Regar, Tursunzoda (6 %). The bottom one percent was more diverse in terms of regional representation. The bottom percent included jamoats from three regions: Fakhrobod, Khuroson (2%);Tagob, Varzob (2%); Shakhrinav, Shakhrinav (2.1%); Langar, Kuhistoni Mastchoh (2.3%).

Another way to demostrate differences in jamoats' performance is provided in the next graph, which plots the absolute numbers of newly employed in each jamoat against the size of the working age population in that jamoat*. As expected, Graph 5 reveals a high degree of correlation between the size of the working age population and the number of newly employed. The larger the working size population, the more newly employed people a jamoat tends to have.

Graph 5. Working age population and number of newly employed in jamoats, 2015



Note: Red dotted lines are to illustrate a variation in job numbers for jamoats with a similar size of workforce
Source: JAMBI dataset, based on jamoat book of household records, form N.1

At the same time, the graph shows large differences in the ability of similar size jamoats to create new employment opportunities. The red dotted lines highlight just two pairs of cases where jamoats with a very similar sized workforce had very different numbers of newly employed – in fact, jamoats at the upper end of the dotted lines have almost twice as many newly employed compared to jamoats at the bottom end. The spread in terms of newly created employment opportunties also appears to be the largest for jamoats with a workforce size of around 20,000, not at the very high end of workforce distribution.

**The size of the working age population in jamoats varied between 44%-69% of total jamoat population. The mean size of the working age population for all 427 rural and township jamoats was 55%.*

CONCLUSION AND RECOMMENDATIONS

Summary statistics on the sectoral composition of the newly employed and job creation performance for the country's regions that was presented at the beginning of this brief suggests that the regions were rather similar in both respects. However, focusing on the regional level statistics is not sufficient for many local development planning purposes. For this reason, the brief disaggregates data further and examines different characteristics of job creation processes at both the district and jamoat levels. Such disaggregation helps to reveal significant differences between lower level administrative units.

More analysis is required into the determinants of variation in local level performance. Why some districts and jamoats are more successful than others in diversifying new employment opportunities across economic sectors and creating jobs at a higher rate are not just academic questions. Better understanding of what determines differences in performance can inform policy and implementation. While some causes of difference can be of a structural nature and not easily amendable (for example, proximity to large urban centers) there are also potentially a host of other factors that can be more easily influenced through conscious and systematic efforts. Such an analysis would also stimulate thinking about measurement improvements/new indicator development to better assess differences in performance with regards to generation of new employment opportunities.

The very definition of employment-related information and rules for collecting it at the local level requires rethinking and revision. Additional efforts are required to ensure consistency between how jamoats record information on the newly employed and the official national methodology for job creation indicators. The categorization of the newly employed currently used at the jamoat level – "industry"/ "agriculture"/ "SME" – could be a cause for confusion. Whereas "industry" and "agriculture" are common sectoral categories (with "services" and "construction" being other common categories), "SME" is usually understood as pertaining to the size/characteristics of a company, so that SMEs may be active in industry and agriculture, as well as other sectors. While in practice jamoats use the "SME" category to classify persons who acquired patents for individual entrepreneurial activity and thus entries into this category do not overlap with entries in the other two registered categories, revising and streamlining this categorization would be advisable. Also, job creation data does not currently include information on job losses. This data would be helpful for estimating real progress in terms of employment generation at the local level. Registering whether the jobs created are in the public or private sectors would be also beneficial. Any additional indicators should be, of course, gender disaggregated.

Discussion about improvements in measurements and the development of new indicators should also consider issues related to the quality of new jobs. From the existing administrative statistical records, it is difficult to make any observations about job security, pay levels or the benefits that are offered. Having such information would help in better assessing differences in the performance of districts/jamoats with regards to generation of new employment opportunities. Clarifying in the existing jamoats' records on the newly employed whether these data reflect jobs created within a given jamoat/district (meaning these jobs could be taken by migrants coming from outside the jamoat/district) or individuals classified as residing within a given jamoat/district who are newly employed would also be useful.

Intensifying the work on improving the official national methodologies and processes of data generation on various development-related themes in general and on employment in particular would be very timely in view of the on-going global SDG-related discussion on issues of measurements, indicators, and targets. Tajikistan has a lot to contribute and learn from this discussion. Fully engaging in it would greatly strengthen the country's ability to operationalize and measure national development goals and monitor progress towards their achievement.

This brief's final recommendation has to do with the importance of simply publishing and making available for reference and analysis disaggregated data that already exists. In light of the challenging tasks highlighted by national and global developmental agendas, it is essential to increase data transparency and availability. Monitoring local and national progress in achieving ambitious development goals, adjusting existing policies, and targeting development interventions are very difficult without data. At the local level, this implies the need to provide further methodological and logistical support for jamoat data collection efforts, as well as the digitalization and publication of jamoat-level statistics. Digitalization and openness of jamoat data could greatly help in strengthening the capacity and accountability of local authorities for data collection and evidence-based policy making.

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