



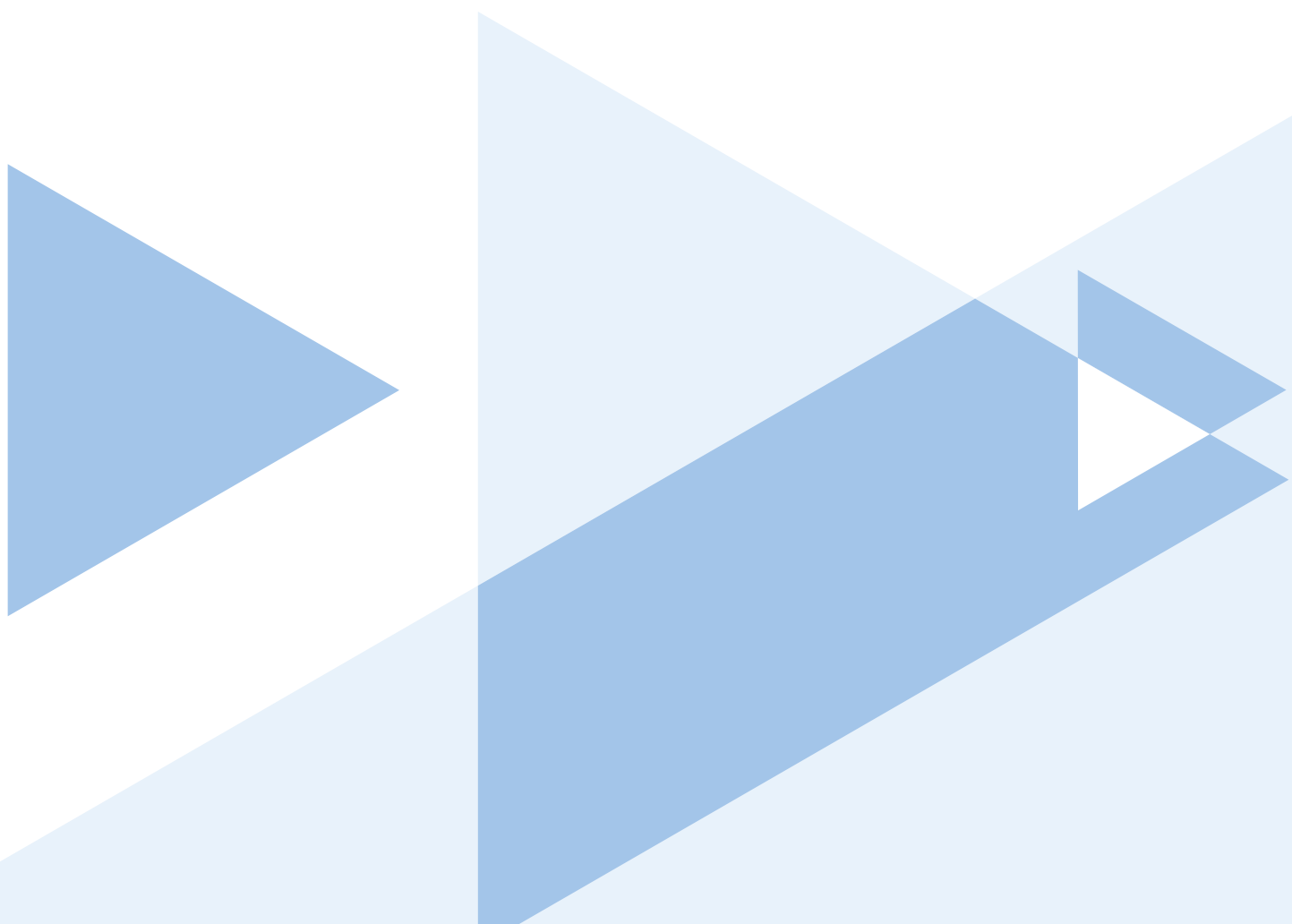
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MINISTRY OF FAMILY,
LABOUR AND SOCIAL PROTECTION

► **Assessment for designing an e-formalization platform for the informal economy**

ALTANSUKH Myagmarjav, AMARTUVSHIN Orgodol





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Formalization of the informal economy project

ALTANSUKH Myagmarjav, AMARTUVSHIN Orgodol

December 2024

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Executive summary

Informal employment is a significant issue in the labour markets of many countries, especially developing and underdeveloped nations with weak economic structures and social protection policies. The ILO, in *The Informal Economy and Decent Work: A Policy Resource Guide Supporting Transitions to Formality*, describes informal employment as one of the most pressing challenges faced by many countries. Informal workers often face obstacles to exercising their basic labour rights, including workplace safety and access to social protection, pensions, healthcare and other benefits.

The purpose of this study is to assess and evaluate the possibilities and opportunities to formalize informal employment, ensure full social protection coverage for workers and create decent employment. Using electronic systems to simplify the formalization process will enable the rapid delivery of government service information to workers.

The first step in formalizing Mongolia's informal economy and employment is to gradually implement measures to include workers in social protection, create decent and safe workplaces, and expand the tax base for income taxes. Emphasizing gradual implementation is important; including informal workers in voluntary social insurance will increase the basic level of social protection, reduce potential risks, and enhance workers' access to pensions and benefits that improve quality of life in old age.

The next step is to encourage informal employers to formalize their businesses by registering as legal entities. This will allow them to enter into labour contracts with employees, include their employees in mandatory social insurance, create opportunities to pay income tax, and access services aimed at formal businesses. Establishing labour contracts and fully including workers in mandatory social and health insurance, guarantees social protection and creates decent and safe workplaces. The tax revenue base will also increase.

In 2022, the total number of workers in Mongolia, excluding the agricultural sector, was 886,500, of whom 215,378 (24.3per cent) were informal workers. If we include figures from the agricultural sector, informal workers total 500,300, accounting for 42.4per cent of Mongolia's total workforce. Excluding agricultural workers, 76,759 informal workers (36per cent) were working in the formal economy. In other words, these individuals were engaged in labour relations with registered businesses and organizations but did not have formal employment contracts, nor did they contribute to social insurance or pay income tax. This is a critical issue that can be addressed through labour, social insurance and tax inspections.

Indications are that 137,871 informal workers are working in the informal economy, representing 64per cent of informal workers (outside the agricultural sector). In terms of employment status, the largest group consists of household enterprises engaged in market-oriented activities without any wage employees, totalling 106,300 (49.4per cent).

A foundational study conducted in Mongolia revealed that 63.5per cent of self-employed individuals view tax and social insurance contributions as the primary obstacles to formalizing their businesses, while 31.8per cent cite insufficient knowledge of tax laws, and 28.6per cent point to the complexity of accounting regulations. Additionally, 25.3per cent mention a lack of fixed assets or equipment as a challenge.

Another significant barrier is the 10 per cent value-added tax (VAT), which many entrepreneurs identify as a major hurdle when registering their goods, services or activities in the official system. Currently, individuals whose business revenue exceeds 50 million tugrik are required to register as VAT taxpayers. Numerous studies suggest that this threshold should be raised to at least 200 million tugrik.

Although many factors continue to sustain informal employment, government policies need to focus on reducing future risks by providing safe working environments and ensuring access to social protection. It is therefore necessary to identify informal workers in given economic sectors and formulate policies that specifically target these groups.

The study included a process analysis of current government services to formalize the informal economy. Digital services have been applied widely to make government services faster and more easily accessible, thereby significantly reducing the challenges and bureaucratic delays associated with transitioning from the informal to the formal economy. A unified national infrastructure for information exchange has been established, and electronic platforms, such as e-mongolia.mn, e-business.mn, etax.mta.mn, ndaatgal.mn, and ejob.gov.mn, have been introduced to provide comprehensive digital services for citizens and businesses. As a result, users can now save time by accessing formal services remotely or through integrated service centres, enhancing the overall efficiency of the process.

Continuous development and improvement are, however, necessary for some newly launched systems, such as the e-business and ejob platforms. The complexity of these systems can still cause challenges for some users, especially citizens and businesses. These challenges are not solely related to system development and service provision but also stem from traditional processes and legal regulatory frameworks that create bottlenecks, impeding the full potential of these digital platforms and negatively affecting the results of digitalization.

While the digitalization and simplification of processes still need to be increased, it should be borne in mind that the digital divide is wider in the informal economy, due to generally low digital skills among rural communities and informal workers. This must be addressed in parallel with technical improvements.

Moving forward, measures must be taken to simplify processes, enhance digitalization, bridge the digital divide, and improve coordination among government regulatory processes. By doing so, the use of digital solutions to facilitate the formalization of the informal sector will become more efficient, faster and more accessible. Strong links must therefore be fostered between government-led e-initiatives (e-mongolia, e-business) and private sector digital solutions (payment systems, job marketplaces, compliance tools). A collaborative framework will drive innovation, catering to the unique needs of informal workers and small and medium-sized enterprises (SMEs).

The systems being used for formalization were also analysed in the context of the study. A robust digital infrastructure for government services has been established, which plays a critical role in supporting formalization efforts. Alongside this, private sector systems have been integrated to enhance the overall process, enabling effective collaboration and data exchange between public and private platforms.

- e-mongolia.mn provides 1,233 government services digitally, facilitating the formalization of individual workers and businesses by offering streamlined access to essential services.
- e-business.mn simplifies the process of business registration and incorporation, helping informal entrepreneurs transition into the formal economy.

- The comprehensive tax system automates tax payments, making it easier for informal workers to register as taxpayers and meet their obligations efficiently.
- Social insurance systems enable informal workers to voluntarily enrol in social insurance, providing them with much-needed social protection.
- The “KHUR” government information exchange system ensures seamless integration between government databases, creating a strong infrastructure that simplifies the formalization process by ensuring efficient data sharing.
- ejob connects job seekers with employers, playing a key role in linking informal workers with formal employment opportunities.

Improving collaboration and integration between these public and private systems will make the formalization process more efficient, ensuring that informal workers and businesses can transition smoothly to the formal economy with access to critical services and financial support.

In addition, having studied how to effectively use digital systems in the informal economy, social security of informal workers, employment, and business formalization, the study team recommends the measures outlined below.

1. A SWOT analysis showed that the ejob system could be developed into a more competitive, user-friendly, and socially impactful platform, which would help to formalize the labour market and support broader employment initiatives across Mongolia. The ejob platform should be used as the main system and database for registering, storing and processing information on informal workers, and for transmitting information to government agencies. This platform will be important for registering informal workers' employment, vocational training, counselling, labour market information and research in one, centralized, place.

Modules to be improved:

1. Job matching and recruitment
2. Online portal and mobile application
3. Statistical reporting

New modules to develop:

1. Informal worker registration module
2. Payment and escrow account module
3. Labour contract management module
4. Social protection module

Multi-tenant system for employment brokerage agencies

Developing a multi-tenant software-as-a-service (SaaS) system on the ejob platform would allow private employment brokerage agencies to operate in an integrated manner. This allows employment agencies without their own systems to organize their daily operations using the ejob platform, including the following functions:

1. Dedicated database
2. Unified Interface
3. Role-based access control

These improvements will make the ejob platform more efficient and accessible.

2. When informal workers who are registered in the database, having received information about transitioning to the formal economy, decide to formalize and establish a business entity,

they can do so through the e-business.mn portal link. This portal allows for the registration of a business entity and the subsequent electronic acquisition of any necessary special permits. While it is therefore perfectly possible to use electronic systems to formalize parts of the informal economy, certain issues related to rules and regulations continue to pose difficulties. These must be resolved as soon as possible, by amending the rules and regulations concerned.

Challenges in registering a business via the e-business.mn portal:

- A. Entity names check and approval: Although the system checks for name duplication at the time of registration, it is common for the State registrar not to approve the proposed name after review. Choosing a company or business name while seemingly simple, can therefore be challenging. Introducing a fully automated process for suggesting names and checking for duplicates and similar names in the State registration system would save the two-day waiting period for name approval.
 - B. Digitizing paper forms and documents: Application forms to register a formal business entity are available for download in the State registration system as pre-approved templates. Citizens need to download, print, fill out, scan, and then submit them via the e-business system, or deliver them to a one-stop service centre. Previously, the General Authority for State Registration fully automated the registration process and issued electronic certificates for the registration of private limited companies through the e-mongolia platform. It should therefore be perfectly possible to automate these forms and allow citizens to auto-fill them by pulling the necessary data from the e-mongolia platform. Although this is technically feasible, laws and regulations related to State registration have prevented the use of this approach. These laws and regulations therefore need to be updated to accommodate digitization.
 - C. Payment automation: Citizens need to make several payments related to registering a business entity, such as name approval, control number, stamp duty, ordering a seal, and signature verification. Among these, the payment of stamp duty requires the citizen to visit a bank in person. Within the scope of payment system integration, there is the potential to fully automate this step and make all payments through the e-business platform.
3. Developing the ejob platform as a SaaS model would make the operations of employment exchanges and other organizations connecting employers and job seekers more efficient, faster, and better organized.
4. Informal workers play a crucial role in Mongolia's labour market; fully registering their information is essential for formulating social and economic policies. This database should contain comprehensive information about informal workers, covering various aspects, such as employment conditions, working environment, social protection and economic contributions.

In creating and building up the database of informal workers, efforts will be made to obtain specific information from secondary information sources, such as data on voluntary social insurance contributors registered with the General Authority for Social Insurance, data on persons covered by health insurance, information on self-employed individuals issuing VAT e-receipts registered with the General Department of Taxation, information on herders based on the Livestock Census or A-account/registration with the National Statistics Office, information on self-employed individuals participating in projects and programmes of the General Office of Labour and Welfare Service, and data from the 2021 Census of Enterprises and Self-Employed Individuals conducted by the National Statistics Office. This will enhance the scope, usability and relevance of the database of informal workers.

1. Rationale and methodology

1.1. Rationale

Since Mongolia transitioned to a market economy, informal employment has emerged as a social phenomenon that undermines the right to work, social protection coverage and risk prevention. This is not unique to Mongolia but is common in developing countries and requires appropriate solutions tailored to informal employment. The International Labour Organization (ILO) is implementing a “Formalizing the Informal Economy” project to encourage the delivery of State policies aimed at formalizing the informal economy and reducing informal employment among target groups. As part of this project, the Ministry of Family, Labour and Social Protection has initiated and is developing system models and functional requirements for a database that leverages electronic systems to formalize employment and effectively deliver targeted State policies.

Sectoral policy documents have long reflected the initiative to register informal workers and promptly deliver them multifaceted State support and services. The State Policy on Informal Employment outlined a strategy for transitioning informal employment to the formal economy in 2006–2015. The Policy emphasized the importance of respecting individuals’ freedom of economic activity, supporting initiatives to shift to the formal economy, and promoting employment opportunities. Within this framework, several objectives were set, one of which was to establish a registry of informal workers.

In the context of Mongolia’s long-term development policy, “Vision 2050”, an objective has been set to improve the registration information of informal employment in 2021–2030. The policy also includes implementing a special programme to incorporate citizens and herders working in the informal sector into the social insurance system. In the immediate five-year development period 2020–2025, an objective was set to enhance the registration and information systems for informal employment (“Vision 2050”, Mongolia’s long-term development policy, 2020).

The State Employment Policy was implemented in two phases between 2016 and 2026. In the context of promoting decent work, the Policy included specific objectives related to informal employment. For instance, it aimed to achieve a stepwise reduction in the proportion of informal employment, to 14.1per cent by 2020 and subsequently to 11.7per cent by 2025. There was also a goal to increase the number of social insurance contributors to 1,129,300 in 2020 and to 1,220,100 by 2025. Similar to the previously approved State Policy on Informal Employment, both the Employment Promotion Act and the State Employment Policy include provisions to establish employment registration systems, information systems and databases.

At the its 104th Session in 2015, the International Labour Conference adopted the ILO Recommendation Concerning the transition from the informal to the formal economy (No. 204). Section VIII, Data Collection and Monitoring, recommends that: (a) statistics on the size and structure of the informal economy, including informal economic units, the number of workers in them, and the sectors they belong to, should be collected, analysed and disseminated appropriately, as far as possible, disaggregated by sex, age, workplace and other socio-economic characteristics; and (b) progress in formalization should be monitored and evaluated.

1.2. Objective

The purpose of this study is to assess and evaluate the possibilities and opportunities for integrating existing systems to formalize employment, ensure social protection coverage for all workers and create decent employment. Using electronic systems to simplify the formalization process will enable the rapid delivery of government service information to newly formalized workers.

1.3. Research methodology

The research was conducted using two methodologies – document analysis and stakeholder interviews – to assess the current situation accurately and define existing e-formalization mapping in Mongolia to ensure the registration and formalization of informal workers.

1.3.1. Document analysis

To determine the current state and characteristics of the informal economy and employment, we analysed national surveys and administrative quantitative data. We also examined previous research reports and recommendations issued by international organizations. Additionally, to analyse State policies, their implementation status and system usage, we conducted a document analysis. Various research and analytical works were used in this process, and the following major sources are cited:

- ILO, Resolution concerning statistics on the informal economy, adopted by the 21st International Conference of Labour Statisticians, 2023
- ILO Recommendation concerning the transition from the informal to the formal economy (No.204), 2015
- ILO, The Informal Economy and Decent Work: A Policy Resource Guide Supporting Transitions to Formality (2013)
- ILO and Mongolian Research Institute for Labour and Social Protection (RILSP), “The state of informal employment in Mongolia” survey report (2021)
- National Statistics Office of Mongolia (NSO), Labour Force Survey (2023)
- RILSP, Survey on the Structure and State of Informal Employment (2013)
- NSO, Study and Calculations Measuring the Shadow Economy, 2015–2018 (2020).

1.3.2. Stakeholder interviews and discussions

Based on the document analysis, individual interviews were conducted with representatives and specialists from key stakeholder organizations, including experts from the NSO and the General Authority for State Registration, representatives from the Ministry of Family, Labour and Social Protection and the Ministry of Digital Development, Innovations and Communications as well as directors and specialists from implementing agencies, such as General Authority for Social Insurance, General Office of Labour and Welfare Service, General Department of Taxation and National Data Centre.

Additionally, a discussion was held with members of the Working Group established by order of the Minister for Family, Labour and Social Protection, which included relevant officials from departments and divisions. Their feedback and recommendations were incorporated into the report. The list of meetings and participants can be found in Appendix 2.

1.4. Scope and limitations of the work

In conducting the study, the project consulting team utilized secondary sources to explain the origins and causes of informality. When explaining the current state of informal employment, its emerging forms, distribution across economic sectors, and its causes, they used statistical data sourced from the NSO Labour Force Survey, the joint ILO/RILSP 2021 sample survey on the state of informal employment in Mongolia, and other sources.

The consultants focused on simplifying the registration of informal economic units and informal workers employed in the formal economy, the use of electronic systems to formalize businesses, integration with other systems, analytical work, system diagrams, and the databases to be used. Within that scope of work, the tasks described below were performed.

- Process maps were made of current e-formalization in government information systems, and strategies were formulated to simplify the formalization process using information systems. This included conducting a systems analysis of existing systems used by informal workers.
- Other major government systems were studied, such as e-mongolia, e-tax, e-business, e-esocialinsurance and ejob, to assess data exchange compatibility; conclusions were drawn.
- Ways were identified of simplifying the registration of informal workers and effectively delivering targeted government services to them.
- Challenges were identified in the electronic registration of enterprises (through ebusiness.mn) as part of formalizing the informal economy.
- Opportunities for information system development were studied, with the aim of making it easier for informal workers to formalize their businesses and access government services. Recommendations in that regard were issued.

2. Current situation of informal employment in Mongolia

Informal employment is a significant issue in the labour markets of many countries, especially developing and underdeveloped nations with weak economic structures and social protection policies. The concept of the informal economy, and its implications, began to be discussed in the early 1970s. Economic anthropologist Keith Hart conducted research in Ghana, which highlighted that the informal sector is not fixed but constantly expanding (Hart, 1973).

The 2002 International Labour Conference adopted a resolution concerning Decent Work and the Informal Economy, which significantly contributed to broadening the understanding of informal workers, their activities and their scope. Furthermore, the ILO Policy Resource Guide on the Informal Economy and Decent Work notes that informal employment is one of the most pressing challenges faced by many countries. Informal workers often face challenges in exercising their basic labour rights, including workplace safety and access to social protection, pensions, healthcare and other benefits. These workers are excluded from labour laws and, in old age, often face poverty (ILO, 2013).

Studies based on labour force surveys from Mongolia, the Philippines and Sri Lanka analysed informal employment in those countries.

In Mongolia, the Methodology for Calculating Employment Statistics Indicators approved by joint order of the Chairman of the NSO and the Minister of Labour and Social Protection (No. A/09/08, 2019) defines informal workers as those working in informal jobs, including:

- wage workers whose labour relations are not fully regulated by law, who are not covered by income tax, paid sick leave or other social protection benefits;
- self-employed individuals and employers in informal sector businesses;
- wage workers within their households producing goods solely for their consumption; and
- family members contributing to the household.

Additionally, the Methodology defines the informal economy as unregistered household enterprises operating in non-agricultural sectors for profit without formal accounts or records and not fully covered by tax information. Informal employment in the formal economy refers to workers in formal businesses without formal employment contracts, social insurance or income tax registration (NSO, 2019).

The primary focus in formalizing Mongolia's current informal economy and employment is to gradually implement measures to include workers in social protection, create decent and safe workplaces, and expand the tax base for income taxes.

Emphasizing gradual implementation is important because, initially, by including informal workers in voluntary social insurance, we can increase the basic level of social protection, reduce potential risks, and enhance opportunities to receive pensions and benefits that improve the quality of life in old age.

The next step is to formalize by encouraging informal employers formalize their businesses by registering as legal entities. This allows the employer to enter into formal labour contracts with employees, include them in mandatory social insurance, create opportunities to pay income taxes, and access services aimed at formal businesses.

By establishing labour contracts and fully including workers in mandatory social and health insurance, social protection guarantees are ensured, and decent and safe workplaces are created. The tax revenue base will also increase.

To assess the effectiveness of multifaceted government policies to formalize the informal economy, the advantages and significance of the measures taken should be evaluated at the stakeholder level.

Workers

By formalizing and establishing legal entities, workers' social protection coverage and the quality of workplaces will improve. When a worker falls ill or faces health difficulties, he or she will face fewer expenses. On retirement, access to pensions will mean that their income is not interrupted.

Workers will have a basic guaranteed income, including if they are unable to work owing to illness, injury, disability or pregnancy, if they are on parental leave, and after retirement. This allows for better planning for the future and better use of economic opportunities. A good social protection system directly contributes to poverty reduction, prevention of child labour, and enhancing family well-being by supporting nutrition, health services, education, training and social participation.

Employers or legal entities

When employees are fully covered by social protection and enjoy the benefits mentioned above, conditions are created for improved attendance and more stable, motivated and productive work. This in turn enhances the organization's competitiveness and productivity.

Social insurance is an important tool for sharing financial burdens for legal entities, especially in relation to the payment of benefits or compensation to workers in cases of occupational accident (compensation to employees), maternity and childbirth (paid leave) and dismissal (unemployment benefits).

Formalizing also encompasses broader advantages: compliance with laws and regulations eliminates fear of inspection, and greater opportunities become available, including participation in government procurement, enrolment in government programmes, access to bank loans, implementation of business contracts, and property rights protection.

The State

Social protection is an investment in people and an important tool for human development. Furthermore, expanding the scope of social protection increases the State revenue base.

One of the most important indicators is the creation of decent and safe workplaces. This enables the development of healthy and capable individuals.

By formalizing the informal economy, the tax base expands, and government revenue collection improves.

Ultimately, improving social protection and stabilizing citizens' incomes creates the opportunity to develop a healthy, happy, socially engaged and competitive society.

Why does informality persist?

In developing and underdeveloped countries, especially where economic structures and social protection policies are weak, many factors contribute to the persistence of informality.

Foundational research in Mongolia has identified the following main contributing factors:

- ▶ rates and amounts of income tax and mandatory social insurance contributions;
- ▶ complex administrative rules, regulations and reporting processes that are difficult to implement; and
- ▶ low levels of education and skills, and lack of information among informal workers.

Focusing on these contributing factors, we will consider developing systems to effectively deliver government policies that encourage informal workers to formalize their businesses and participate in social protection. To address the labour and social protection challenges faced by informal workers, many countries are implementing phased medium- and long-term State policy measures to formalize informal employment. To analyse employment levels, define the causes and find solutions, a matrix can help clarify the relationship between the formal and informal economies.

▶ **Table 1. Employment matrix**

	Formal economy	Informal economy
Formal employment	1	
Informal employment	2	3

To understand formal employment in the formal economy, we have used the most recent labour market data, taken from the 2022 year-end report.

▶ **Table 2. Labour market indicators**

Indicator	2019	2020	2021	2022
Labour force	1,273,900	1,250,600	1,225,400	1,265,200
Employed persons	1,146,200	1,162,900	1,125,600	1,180,500
Unemployed persons	127,700	87,700	99,800	84,700
Population outside the labour force	832,200	877,500	926,800	894,400
Potential labour force	58,800	70,700	71,400	44,900
Population outside the labour force	773,400	806,800	855,400	849,400
Labour force participation rate (per cent)	60.5	58.8	56.9	58.6
Employment rate (per cent)	54.4	54.6	52.3	54.7
Unemployment rate (per cent)	10.0	7.0	8.1	6.7

Source: NSO, www.1212.mn

By the end of 2022, 1,180,500 people were employed. Mandatory social insurance contributions show how many were in formal employment.

▶ **Table 3: Number of Social Insurance Contributors**

Indicator	2019	2020	2021	2022	2023
Social insurance contributors	987,484	1,013,190	1,019,114	1,069,628	1,105,843
Mandatory social insurance contributors	825,186	826,064	862,071	913,090	953,835

Source: NSO, www.1212.mn

At the end of 2022, 913,090 people were in formal employment. These individuals participated in labour relations, were covered by mandatory social and health insurance, and received minimum social protection.

To determine rates of informal employment in both the formal and informal economies, we must first establish the total number of informal workers nationwide.

► **Table 4. Number of informal workers**

Indicator	2019	2020	2021	2022	
					per cent
Informal workers, excluding agriculture	476,075	481,409	464,010	500,304	42.4*
Formal economy	85,016	82,397	60,759	79,137	15.8
Informal economy	383,821	395,197	399,780	420,267	84.0
Household units	7,238	3,815	3,470	900	0.2
Informal workers excluding agriculture	195,241	209,877	178,070	215,378	24.3
Formal economy	82,542	79,833	59,949	76,759	35.6
Informal economy	110,117	126,608	116,626	137,871	64.0
Household units	2,582	3,436	1,495	749	0.4

Share of total workers, excluding the agricultural sector

Source: NSO, www.1212.mn

Nationwide, the total number of workers excluding the agricultural sector is 886,500, of whom 24.3 per cent or 215,378 are informal workers.

► **Table 5. Informal workers in the non-agricultural sector by employment status and economic unit**

Employment Status	Informal Workers		Economic unit		
	Number	Percentage	Formal economy	Informal economy	Household unit
Total Workers	215,400	100	76,700	137,900	800
Market-oriented household enterprises	6,500	3.0	-	6,500	-
Enterprises without wage employees	700	0.3	-	700	-
Market-oriented household enterprises without wage employees	106,300	49.4	-	106,200	100
Contract workers	1,000	0.5	-	1,000	-
Wage employees	16,500	7.7	13,900	2,600	-
Short-term wage employees	50,500	23.4	40,900	9,600	-
Casual labourers	28,700	13.3	18,900	9,100	700
Paid apprentices and trainees	1,600	0.7	1,300	300	-
Contributing family members	2,900	1.3	1,400	1,500	-
Workers not included in the above categories	700	0.3	300	400	-

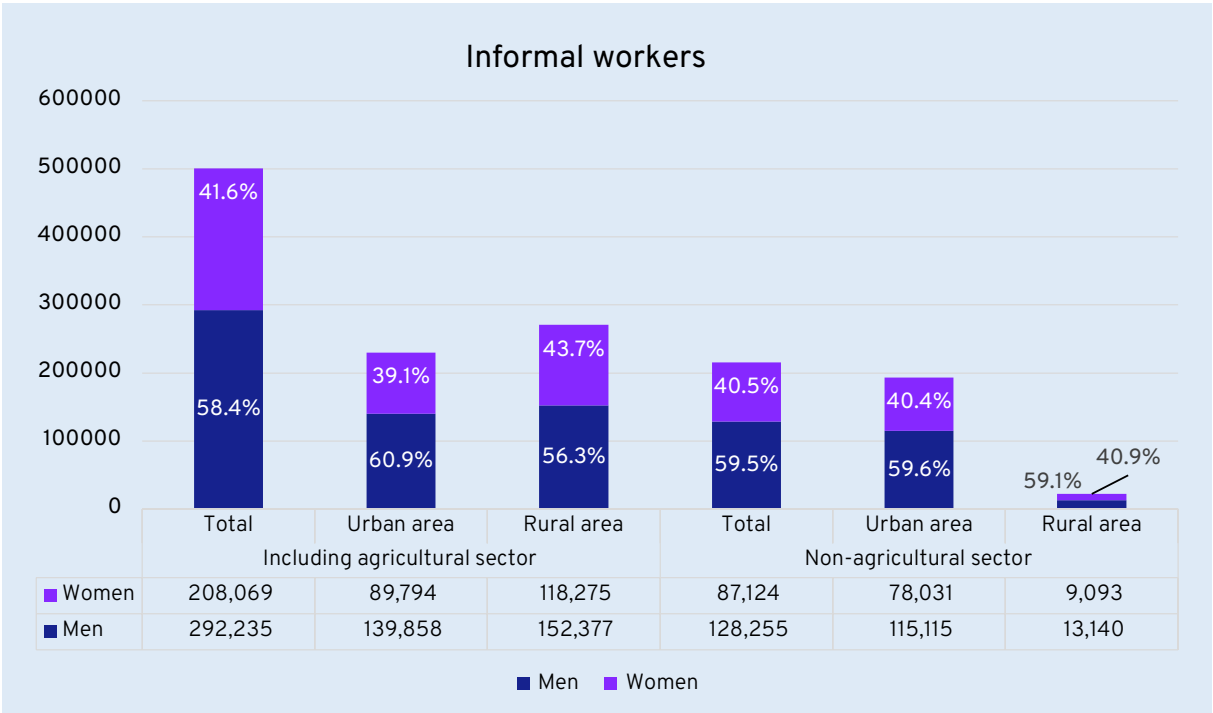
Source: NSO, www.1212.mn

According to Table 5, informal workers includes casual labourers, temporary paid workers, permanent paid workers, paid apprentices and professional interns, amounting to 97,300

individuals, representing 45.2per cent of the total workforce. This includes citizens who are engaged in paid employment without formal labour contracts and without paying social insurance or income taxes. They do not contribute to the social security system and remain outside the benefits of formal employment protection.

The largest share of these workers (49.4per cent) are engaged in market-oriented household enterprises (NSO, 2024). This represents a significant portion of the informal workforce.

► **Graphic 1. Informal workers by gender and geographical location**



Source: NSO, www.1212.mn

There are a total of 500,300 informal workers, including in the agriculture sector, accounting for 42.4per cent of the total workforce of Mongolia. Among them, 270,600 (54.1per cent) work in rural areas. Excluding the agriculture sector, 193,200 informal workers (89.7per cent) work in urban areas. In other words, almost 90per cent of informal workers in non-agricultural sectors are based in urban settings. Of those workers, 40.5per cent are women. (NSO, 2024)

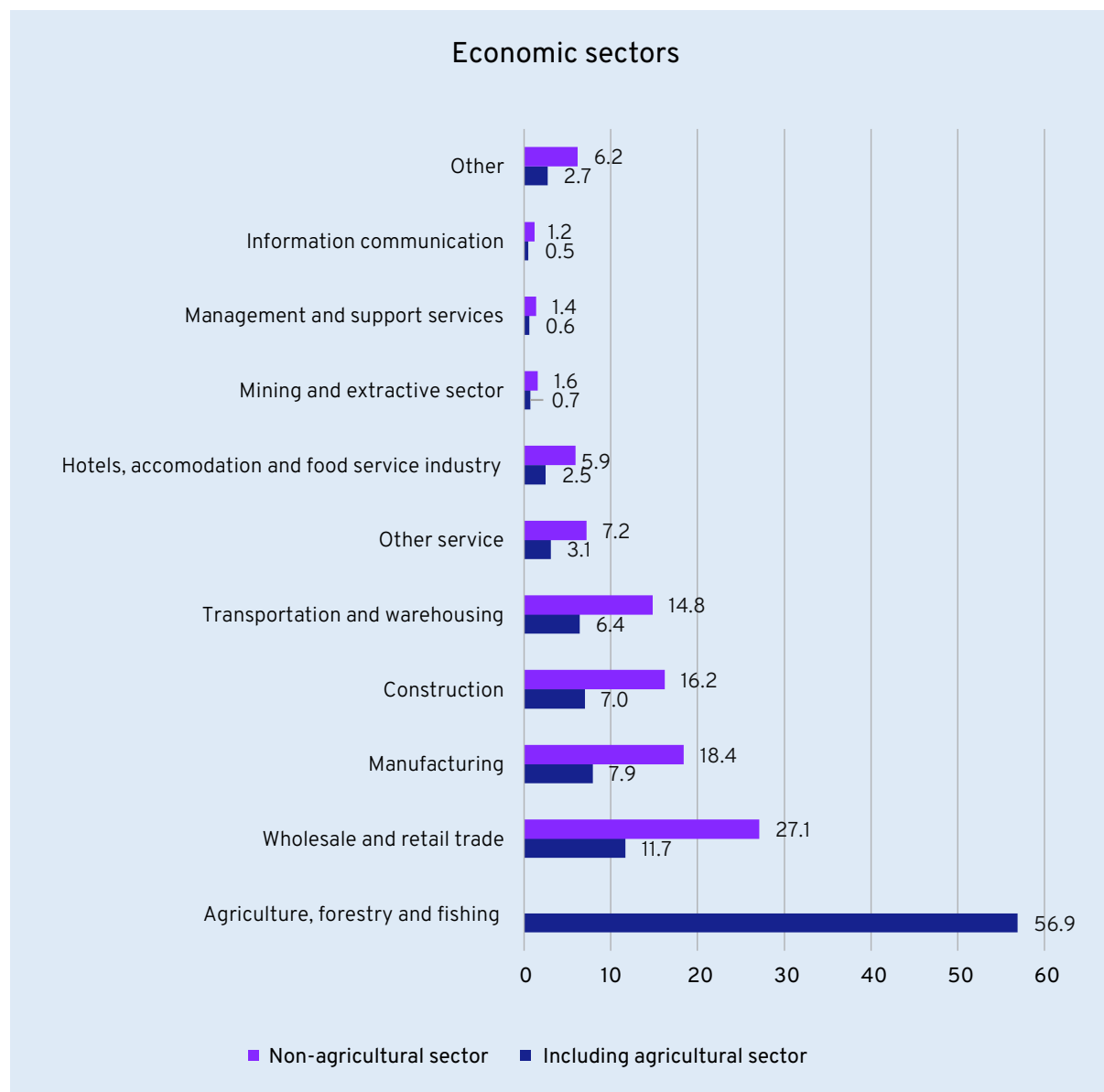
The persistence of informal employment in the labour market is driven by various factors, including economic characteristics, the legal and tax environment, and individual attitudes. A foundational study conducted in Mongolia revealed that 63.5per cent of self-employed individuals view tax and social insurance contributions as the primary obstacles to formalizing their businesses, while 31.8per cent cite insufficient knowledge of tax laws, and 28.6per cent point to the complexity of accounting regulations. Additionally, 25.3per cent mention a lack of fixed assets or equipment as a challenge. (ILO & LSSI, 2021)

Another significant barrier is the 10per cent VAT, which many entrepreneurs identify as a major hurdle when registering their goods, services or activities in the official system. Currently, individuals whose business revenue exceeds 50 million tugrik are required to register as VAT taxpayers and pay this tax. Numerous studies suggest that this threshold should be raised to at least 200 million tugrik. (EPCRC, 2015)

Furthermore, lack of knowledge, information and skills among these groups of workers is also a key factor. Research indicates that the majority of informal workers are unaware of labour laws, policies supporting employment (76–83per cent), policies related to labour rights (81–85per cent), and relevant legal documents (69–78per cent). (ILO & LSSI, 2021)

Although many factors continue to sustain informal employment, government policies should focus on reducing future risks by providing safe working environments and ensuring access to social protection. It is therefore necessary to identify informal workers by economic sector and formulate policies that specifically target these groups.

► **Graphic 2. Informal workers by economic sector, as a percentage of the sectoral workforce**



Source: NSO, www.1212.mn

In non-agricultural sectors, 58,400 informal workers (27.1per cent) are engaged in the wholesale and retail trade, including repair of motor vehicles and motorcycles; 39,500 (18.4per cent) are in manufacturing; 34,800 (16.2per cent) are in construction; and 31,900 (14.8per cent) are involved in transportation and storage activities. (NSO, 2024)

3. Process and systems analysis

The process of formalizing businesses and establishing legal entities for individuals operating in the informal economy is multifaceted, involving social, economic and legal complexities. In addition to legal frameworks, this process requires infrastructure, economic incentives, streamlined social protection mechanisms and skills-building initiatives aimed at empowering informal workers through technology.

This section focuses on the integration of self-employed individuals and informal businesses into formal systems via digital platforms. It examines their participation in tax and social protection systems, and their legal compliance and looks at how digital solutions can simplify these processes. The analysis will serve as a foundation for enhancing digital tools and policy interventions aimed at formalization.

3.1.Process analysis

The formalization of informal employment and economic activities in Mongolia comprises two key aspects:

- Informal employees working for others without formal contracts should initially be integrated into voluntary social protection schemes, ensuring access to basic social safety nets.
- Unregistered business operators should establish legal entities and register with tax and social protection systems, thereby formalizing their rights and obligations.

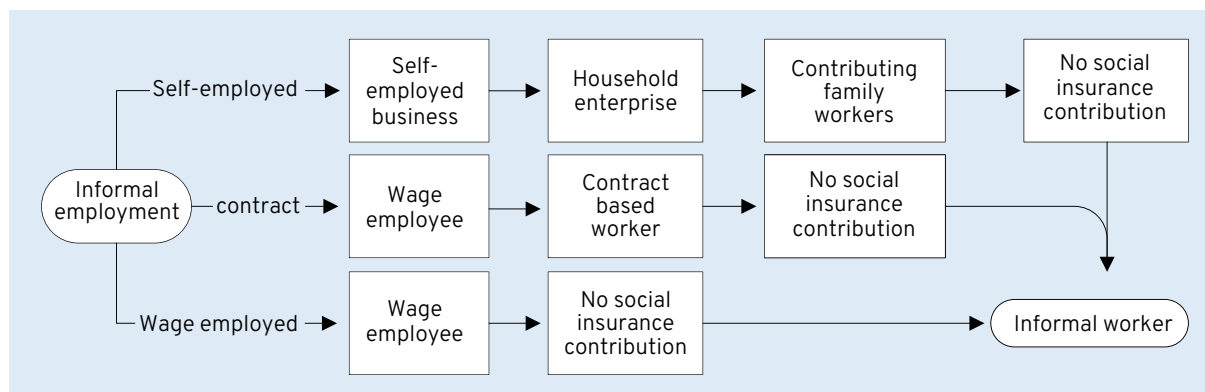
This process takes the following steps:

- **Informal worker integration:** Informal employees who work without contracts are enrolled into voluntary social insurance schemes. Self-employed individuals, who are not keeping a complete set of accounts for tax purposes, can also contribute to voluntary social insurance. Voluntary social security contributions are open and available for registration through an online system for anyone engaged in informal work in Mongolia.
- **Business registration:** Informal businesses register with the national registration system to establish a legal entity.
 - ▶ **Financial and tax registration:** Once formalized as a legal entity, the business becomes an official taxpayer. Additionally, employers are required to register their employees with the mandatory social insurance system.
 - ▶ **Special licenses for specific businesses:** If the business operates in a regulated sector, it must obtain the necessary licenses to do so, in compliance with the relevant laws and regulations.

Informal workers

Types of informal employment are summarized in the following graphic.

► Graphic 3. Overview of the process of engaging in informal employment

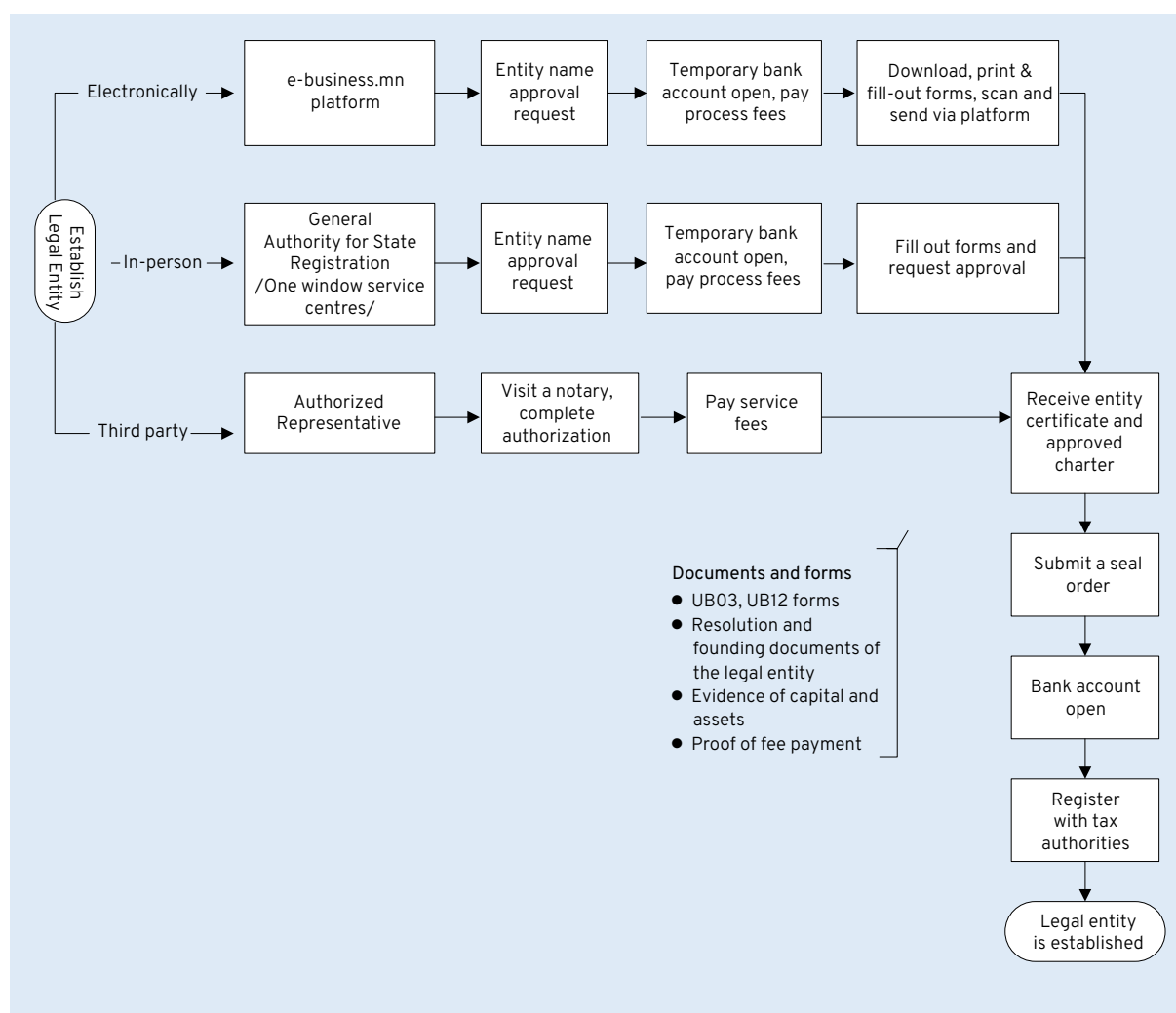


First and foremost, it is essential to include these informal workers in voluntary social and health insurance schemes, ensuring compliance with the fundamental principles of social protection and safeguarding them from potential risks.

Formalization through business registration

The process of establishing a legal entity typically takes two to five working days and can be completed through paper-based application, electronically, or via a third party with a notarized power of attorney. According to Chapter 4 of the Law on State Registration of Legal Entities, unless otherwise stated by law, “Upon receiving all required documentation as stipulated in Articles 16.1, 16.2, and 16.3 of this Law, the registration authority shall decide within five working days whether to register a foreign-invested business entity and within two working days for all other legal entities. The decision will be communicated to the applicant in writing or electronically.”

► **Graphic 4. Process flow overview for business registration**



In 2021, the process of establishing a legal entity (business) was fully digitalized through the e-mongolia platform by the General Authority for State Registration. As a result, citizens can now establish a business within a single working day and receive their business certificate in electronic format. Additionally, they are provided with an official document containing a seal that verifies the organization’s registration in the State database. This solution transitioned to the e-business.mn platform upon its launch, but still needs further streamlining. While the system is able to offer fully online services, regulations related to entity registration and archiving still require the submission of paper documents along with the online application.

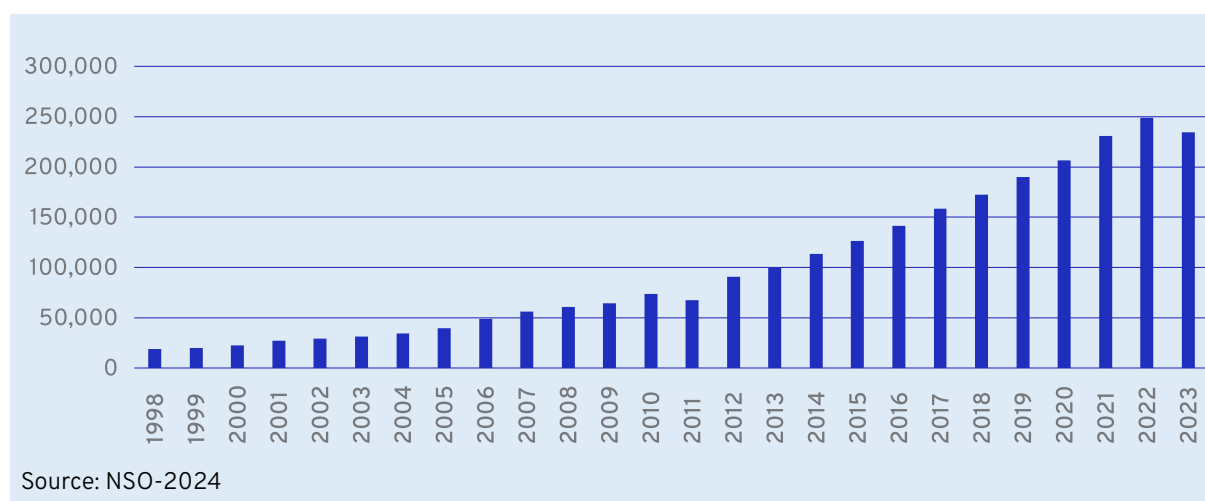
The costs of registering a legal entity are set out in the table below.

► **Table 6. Business registration costs**

Expense category	Self-registration (Online)	Self-registration (In person)	Registration via third party service
Name approval	10,000₮	10,000₮	Included in service
Registration fee	44,000₮	44,000₮	Included in service
Seal, stamp monitoring number issuance	10,000₮	10,000₮	Included in service
Post /2way post/	10,000₮		
Seal ordering	50,000₮ - 150,000₮	50,000₮ - 150,000₮	Included in service
Total Cost	124,000₮	114,000₮	250,000₮

Data from the official business registry show that, since 1998, the average annual increase in registered businesses in Mongolia has been approximately 10.59 per cent. Even during the COVID-19 pandemic, the process of establishing legal entities continued steadily.

► **Graphic 5. Number of businesses and organizations registered in the business registry**



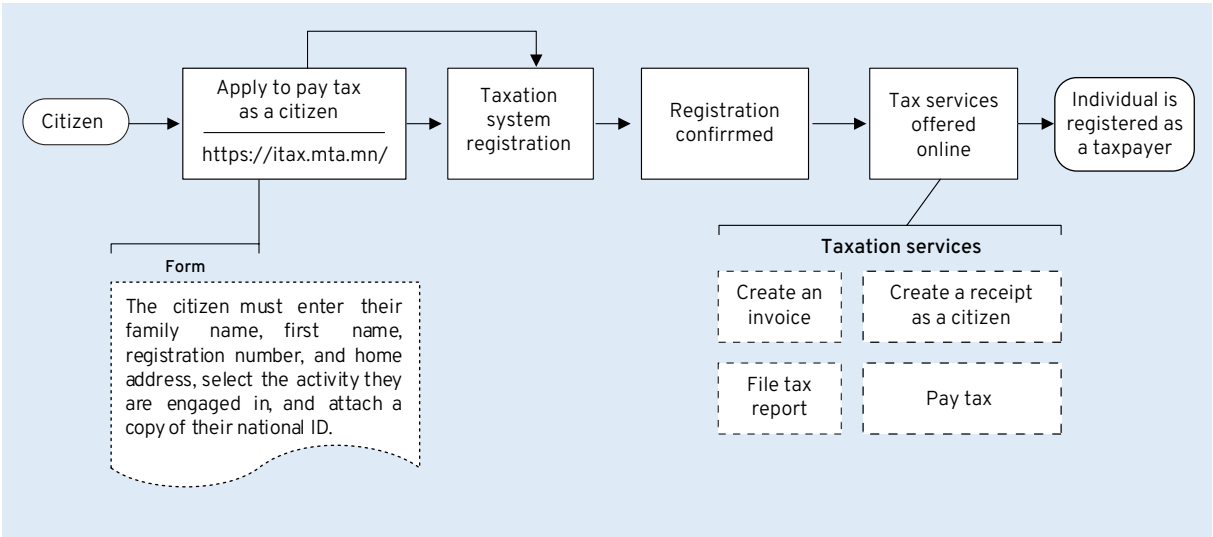
Tax registration

The process of registering with the tax system is fully digitalized. Importantly, the legal framework requires not only legal entities but also individual citizens engaged in business to register and pay the relevant taxes. When an informal business operator or worker transitions to the formal economy by establishing a legal entity, they must register with the local tax authority in accordance with the law. The business is then responsible for withholding and remitting corporate income tax, personal income tax, and, if applicable, VAT and excise tax (for certain goods).

According to Article 28.2 of the General Tax Law, "Taxpayers must follow the general procedures outlined in this Law when calculating taxes and ensure the registration of point-of-sale machines, equipment, computers, and related devices with the national registration system. These machines and devices must meet regulatory standards. Taxpayers are required to document transactions, generate electronic receipts, and send data to the unified tax registration system. Sales information must be submitted to the tax registration system within 14 days."

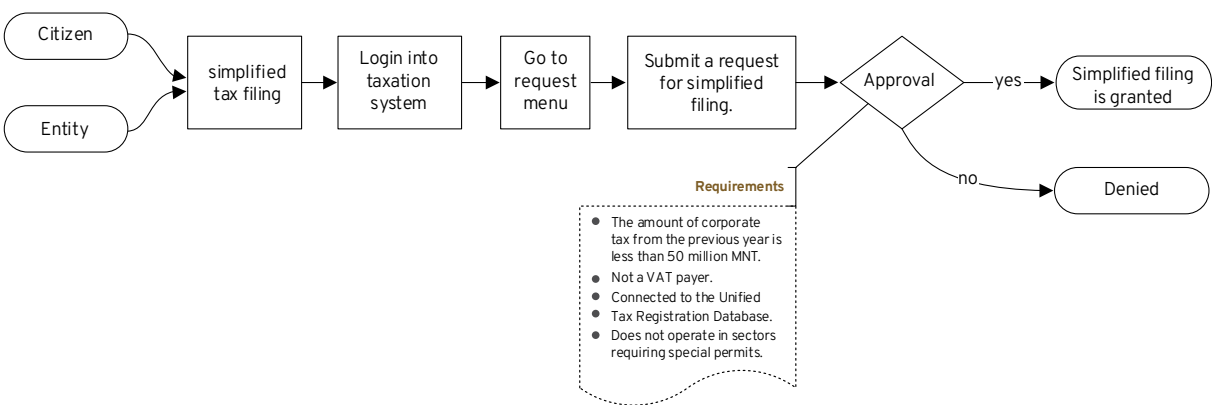
Additionally, the legal framework mandates that not only legal entities but also individual entrepreneurs—including self-employed individuals operating within the informal economy—are obliged to register with the tax authorities and pay the relevant taxes. This inclusive approach ensures that all economic activities are encompassed within the tax system, and the fully digitalized registration process facilitates compliance for formal and informal economy participants alike.

► **Graphic 6. Registering a self-employed individual or citizen as a taxpayer**



When an individual registers as a taxpayer, he or she is required to file a tax report once a year, and a 10per cent tax is levied on their personal income. For small businesses and self-employed individuals with annual sales revenue below 50 million tugrik, the General Department of Taxation has introduced a simplified tax report filing procedure, providing an easier way to comply with tax obligations. Once approved, the business or individual is obliged to file their tax report annually, rather than quarterly.

► **Graphic 7. Registering for simplified tax reporting**

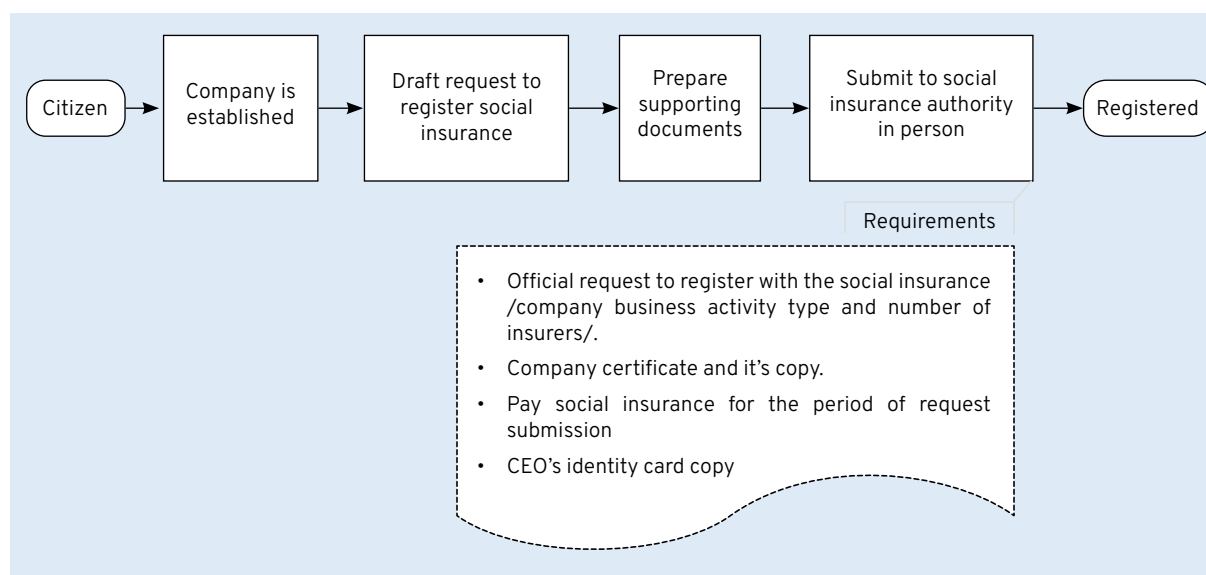


The simplified tax regime is widely used by individuals operating in the informal economy whose annual sales revenue does not exceed 50 million tugrik. Through the e-tax system, they can apply to report under the simplified tax regime. As a result, individuals or businesses are required to submit a tax report once a year, paying a reduced rate of 1per cent tax on their

income. Owing to the VAT lottery system in Mongolia, consumers frequently request receipts to participate in the lottery. Consequently, self-employed individuals engaged in business activities are often asked to issue receipts. In doing so, they become obliged to pay taxes. Informal businesses facing this situation often favour the simplified tax registration option. On the other side, if the buyer is a company or organization, it requires official receipt as well. This streamlined process not only fulfills their legal obligation to issue receipts and pay taxes but also provides a cost-effective means of compliance, thereby encouraging those who are self-employed in the informal economy to integrate into the formal economy.

Informalizing their activities, businesses must ensure that all employees who have signed labour contracts are fully covered by mandatory social insurance and health insurance. Employers are then obliged to pay contributions according to the designated employer's rate. Article 20.1 of the General Law on Social Insurance states that, "An employer must register as a social insurance contributor with the relevant social insurance authority within 14 days of obtaining a certificate from the state registration authority.". If a self-employed citizen or company does not have any employees, it is not required to register. Under the newly revised General Law on Social Insurance of Mongolia, effective since 1 January 2024, self-employed individuals operating in the informal economy have the option to contribute voluntarily in the social protection system. By entering into a voluntary social insurance contract with the relevant social insurance organization, these individuals can contribute to a pension scheme, benefit insurance, and industrial accident and occupational illness insurance, based on their self-declared income.

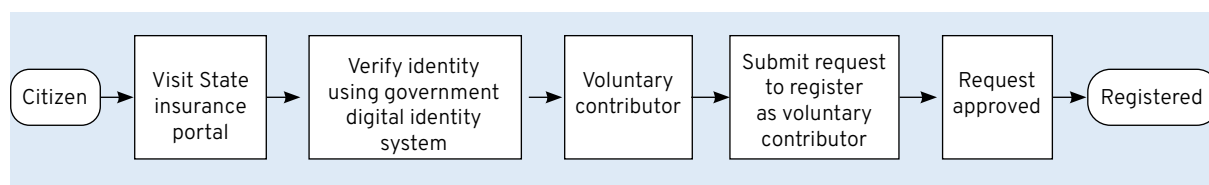
► **Graphic 8. Registering in the social security system as an employer**



The revised 2021 Labour Law includes detailed provisions on employment contracts, workplace safety, social insurance and working conditions. Additionally, Chapter 4 of the law establishes conditions for forming employment contracts between individuals. With the 2024 amendments to this law, the use of electronic or digital signatures has also been authorized.

The graphic below is a flow chart of the process for citizens to register for voluntary social insurance, using the online platform. This enables informal workers to access social protection measures similar to those available to formally employed individuals, thereby enhancing their financial security and aligning with the Government's efforts to expand social insurance coverage.

► **Graphic 9. Registering in the social security system as a voluntary contributor**



Special permits and licenses

During the registration processes, if a business activity requires a special license, the necessary approvals must be obtained from the relevant authorized organizations. These may include the Bank of Mongolia, the Financial Regulatory Commission, the Communications Regulatory Commission, the Ministry of Food, Agriculture and Light Industry, the Bar Association and other relevant bodies. Applications for these licenses should be submitted to the respective authorities for review and approval. The licensing process has been digitized and integrated into the Government's "one stop shop" electronic service, accessible via the <https://license.mn/> platform.

Key considerations for formalization

To fully understand the current state of the informal economy and e-formalization processes, it is essential to examine the Government's policies and interventions at distinct stages. Analysing these processes across specific phases provides clearer insights into how formalization occurs. These stages can be categorized as follows:

- Pre-formalization
- Formalization
- Post-formalization

The steps we previously outlined, such as business registration, financial and tax enrollment, and obtaining special licenses, fall under the formalization stage.

However, it is equally important to consider both the pre-formalization and post-formalization stages to create a comprehensive view of the entire formalization process.

Stages		
Pre-formalization	Formalization	Post formalization
▶ Conduct social and economic assessments of informal workers, including self-employed individuals, wage workers without contracts, agricultural workers, herders, and household business operators. ▶ Engage informal economy participants in discussions on transitioning to the formal economy, focusing on legal, regulatory and compliance requirements.	▶ Facilitate the registration of a legal entity by streamlining processes and improving user experiences and user interfaces for existing systems. ▶ Create an enabling environment for businesses and ensure that they operate within the framework of applicable laws and regulations. ▶ Transition to decent work places and job/business registration. ▶ Integrate government services and ensure smooth, streamlined processes using digital platforms.	▶ Offer financial support incentives and connect financial services ▶ Ensure ongoing compliance with tax obligations and social insurance contributions. ▶ Provide vocational training ▶ Provide targeted training programmes and professional development in areas such as labour rights, business management and financial sustainability to support continued success. ▶ Provide continuous support for sustaining and scaling up and creation of job places

The pre-formalization stage focuses on the current legal environment and government support available to informal workers, particularly the self-employed. This stage is crucial for understanding the challenges faced by informal workers and the extent of government assistance available to help them formalize and grow their businesses.

The post-formalization stage is characterized by a variety of activities aimed at sustaining business operations, expanding the tax base and developing human resources. It addresses a wide range of issues within the current legal and regulatory framework, ensuring that businesses can continue to thrive.

There are various capacity-building and support initiatives to help the self-employed to strengthen and expand their businesses, particularly in rural areas, to boost employment. These initiatives are supported by national programmes approved by the National Employment Council and aim to increase employment through capacity-building activities such as training, consultancy and financial assistance.

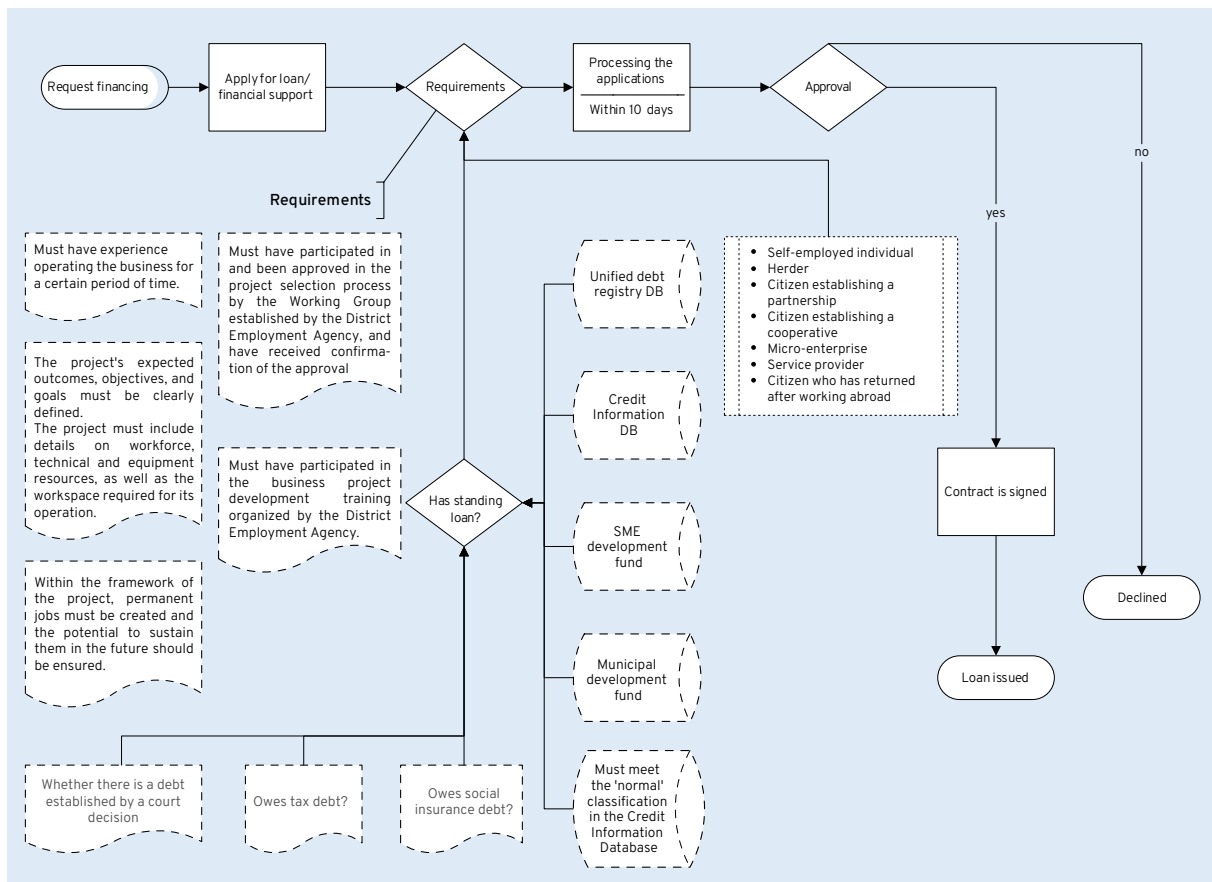
Capacity building: Specific programmes focused on business training, consultancy and skills development are offered. Last year, 79 organizations conducted a total of 588 specialized training programmes across the capital and all 21 provinces. The widely used portals for these training programmes are <https://mergejil.mn/>, <https://mergejil.edu.mn/>, and <https://tvets.edu.mn/>. Additionally, over 80 licensed private employment agencies operate in the labour brokerage market, with more than 30 of them actively providing recruitment services and partnering with these training programmes.

Financial support: Access to loans and financial services. The Employment Promotion Fund provides financial support aimed at increasing job opportunities, preserving existing jobs, and assisting micro and startup businesses in expanding their operations. This financial assistance is tailored according to purpose and scale, as outlined below:

► **Table 7. Financial support and its terms**

Purpose	Amount /tugrik/	Terms
For individuals and households		
Individual/household unit	5-10 million	Repayble
Individuals acting as guarantors	Up to 5 million	Repayble
Fintech or alternative financial solutions	Up to 1 million	Repayble
To support herders		
Herd sustaining assistance /after natual disasters such as “dzud” exceptionally harsh winters, when the herder household loses all of or majority of their cattle	Up to 5 million	Repayble
Financial heal /contract-based help is hired to help herders with their cattle	Up to 4 million	Repayble
To support startup entrepreneurs		
Regional and cross-border startup businesses	10 million	Non-repayble
First place in national competition / a single team/	20 million	Non-repayble
Second place in national competition /2 teams each/	17 million	Non-repayble
Third place in national competition /3 teams each/	15 million	Non-repayble
Support for senior citizen in entrepreneurial/employment activities	5 million	Repayble
To support employers		
In cases where an employer hires an individual who has been actively seeking employment for more than six months after registering with the employment agency, and employs them for a minimum of 12 months	Minimum wage * 12 months (totaling 7.92 million tugrik)	Non-repayble
If an employer provides training and employs an individual who has transitioned from a care institution to the labour market upon reaching working age, and retains them for at least one year	Training wage and 1 year salary	Non-repayble
If an employer provides training and employs an individual who has transitioned from a correctional facility to the labour market, and retains them for at least one year	Practice period wage and 1 year salary	Non-repayble
Support for rental		
For individuals or businesses that have received loans from the Employment Promotion Fund and are operating under those loans	Up to 6 months	Non-repayble
To assist individuals or businesses operating with loans from the Employment Promotion Fund in providing sales support	Sales space, digital marketing tools	Non-repayble
Rent subsidies for centres providing childcare services	Up to 6 months rent	Non-repayble

► **Graphic 10. Process flow for financial support provided by the Employment Promotion Fund**



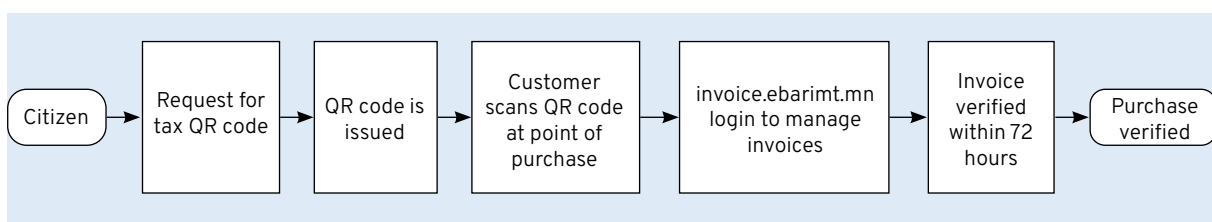
The financial support process provided by the Employment Promotion Fund is completely paper based and involves burdensome processes compared with private fintech solutions that are being offered to the self-employed .

Taxes and social insurance

Workers have mandatory health insurance coverage. They also have the option to voluntarily participate in the social insurance system. Both systems can be accessed remotely via the e-mongolia platform, allowing for electronic enrolment.

For the tax system, individuals can register through the tax.mta.mn system and the self-employed can issue tax receipts with a QR code via the qr.ebarimt.mn system. This enables self-employed individuals to formalize their activities without the need to register as a formal business entity (legal entity), thus providing a pathway toward formalization.

► **Graphic 11. Tax registration process for a self-employed individual working either for themselves or for others in the informal economy**



Conclusion of process analysis

The process analysis shows that the digitalization of government services has significantly reduced the challenges and bureaucratic delays associated with transitioning from the informal to the formal economy. A unified national infrastructure for information exchange has been established, and electronic platforms such as e-mongolia.mn, e-business.mn, etax.mta.mn, ndaatgal.mn, and ejob.gov.mn, along with other digital systems, have been introduced to provide a one-stop digital service for citizens and businesses. As a result, users can now save time by accessing formal services remotely or through integrated service centres, enhancing the overall efficiency of the process.

Continuous development and improvement are, however, necessary for certain newly launched systems, such as e-business and e-job platforms. The complexity of these systems can still cause challenges for some users, especially citizens and businesses. These challenges are not solely related to system development and service provision but also stem from traditional processes and legal regulatory frameworks that create bottlenecks, impeding the full potential of these digital platforms and negatively affecting the results of digitalization.

While the digitalization and simplification of processes need to be increased, it should be borne in mind that the digital divide is wider in the informal economy due to the low digital skills among rural communities and informal workers. This must be addressed in parallel with technical improvements.

Moving forward, measures must be taken to simplify processes, enhance digitalization, bridge the digital divide and improve coordination among government regulatory processes. This will make the use of digital solutions to facilitate formalization more efficient, faster and more accessible. Partnerships must be strengthened between government-led e-initiatives (e-mongolia, e-business) and private sector digital solutions (payment systems, job marketplaces, compliance tools). A collaborative framework will drive innovation, catering to the unique needs of informal workers and SMEs.

Strengthening the transition to the formal economy will require multi-stakeholder collaboration; it is a complex task that goes beyond merely upgrading information systems and relies heavily on the engagement of all relevant parties. Regular assessments should be conducted of the effectiveness of formalization efforts, using key metrics such as informal to formal employment transitions, digital service uptake among informal businesses and economic benefits for newly formalized entities.

To enhance the process of transitioning from the informal to the formal economy in Mongolia, the following steps can be implemented:

1. Improve information technology (IT) infrastructure
2. Enhance legal and regulatory frameworks
3. Develop and implement user-friendly systems that are accessible to all
4. Launch awareness-raising and promotional campaigns
5. Provide targeted support and initiatives for individuals in the informal economy
6. Increase public-private sector collaboration
7. Evaluate activities targeting the informal sector and assess outcomes
8. Foster a culture that values formal employment and compliance with rules and regulations.

Given the objectives of this consultancy, we emphasize the importance of focusing on IT solutions as a means of improving processes.

Process improvement

Pre-formalization	Formalization	Post Formalization
▶ Develop digital literacy and skills for users. ▶ Enable mobile-first solutions or progressive web apps for system navigation and use. ▶ Enhance the ejob platform with core functionalities for private job brokerage agencies to use as their information systems / multitenancy/ through customized interfaces. ▶ Provide integrated information portals with “one stop shop” government services for informal workers and small businesses. ▶ Digitize existing financial support processes, encourage the integration of fintech and digital financial services.	▶ Eliminate unnecessary steps in the e-registration system and make it more user friendly. Informal businesses often do not have access to hardware such as a printer, scanner or even a personal computer. Current processes require all of these. ▶ Fully automate the entity name selection and approval process. ▶ Convert entity registration forms to fully online, mobile versions and integrate with e-mongolia services, meaning that citizens have to input less information and verification is automatic. ▶ Fully enable online payments for registration processes and temporary bank account creation once citizen obtains verification on the Government digital identify platform. ▶ Issue digital certificates for entities (unless the entity requests paper certificate). ▶ Offer an online labour service contract system for citizens and introduce escrow account and dispute resolution services into this platform.	▶ Integrate consolidated digital platforms to provide business development services, financial support and consultancy programmes for participants in the formal economy. ▶ Enable fully online, digital financial support tools, from request gathering to selection and approval. ▶ Implement digital tools to monitor and evaluate business activities, performance and compliance. ▶ Expand digital inclusion efforts for rural and informal workers to enhance access to social protection through voluntary social security inclusion introducing an easy pay option on existing digital platforms.

The activities listed above are key to improving e-formalization processes in Mongolia. When making process improvements, the electronic transition should be used as a model, and will be optimal if in a stepwise approach, taking into account specific sectors, areas and concentration of economic activity, rather than trying to tackle the whole informal economy at once. The registration and database of informal workers are therefore essential.

3.2. Information systems analysis

Analysing the systems involved in formalizing the informal economy is closely tied to understanding how digitalization can be leveraged effectively in this process. Considering the breadth and scope of systems that serve individuals operating informally, it is essential to focus on the key systems predominantly used by those transitioning from the informal to the formal economy.

System analysis involves studying, evaluating, and analysing the structure, operations, and information flow in a given system. This aims to identify the current state of information systems and platforms, issues and areas for improvement, ultimately leading to the development of more efficient solutions.

The system analysis related to the transition from the informal to the formal economy was conducted using the following methodology:

- **System comparison:** a general review and comparison of systems associated with the formalization process. This includes studying the core components, functionalities, services, technological solutions and architecture of the systems.
- **Structural analysis:** examination of the components of each system and their interrelationships, as well as their organizational structure.
- **Operational analysis:** evaluation of the operational workflow, performance and overall efficiency of the systems.
- **Information flow analysis:** study of information flow, databases and data transmission methods used in the systems.

The following graphic shows the systems currently being utilized in relation to the informal economy and formalization activities.

► Graphic 12. Systems used by individuals working and operating businesses in the informal sector



The importance of system analysis in formalization

Conducting a system analysis is particularly important in the formalization process for the following key reasons:

1. Understanding the current situation

- Situation assessment: analysing the structure, operations and outcomes of current systems used for formalization helps to identify issues and challenges.
- Identifying improvement opportunities: examining the weaknesses in current systems, helps determine how the systems can be enhanced for better efficiency and effectiveness.

2. Improving efficiency

- Integration: enhancing the exchange of information and data between systems increases efficiency, reduces redundancy and simplifies operations.
- Collaboration: strengthening collaboration between public and private organizations helps establish a foundation for cooperative efforts in formalizing the informal economy.

3. Enhancing decision-making

- Policy and strategy development: system analysis provides the necessary data and justification to develop the policies and strategies essential for formalization.
- Informed decision-making: system analysis ensures that policy-makers and stakeholders can make decisions based on accurate and reliable information.

4. Improving economic inclusion

- Access to financial services: system analysis provides opportunities to study how access to financial services, such as loans, can be increased for informal workers and business operators.
- Social protection: a system analysis can also help improve social protection mechanisms, expanding the coverage of health insurance and social insurance for individuals working in the informal economy.

These benefits can enhance the efficiency and effectiveness of the formalization process and contribute significantly to Mongolia's economic and social development.

Current e-formalization systems

As previously mentioned, the analysis will focus on the main systems used for the formalization of the informal economy. This includes a detailed examination of the public systems that are primarily used in providing government services aimed at formalization. Additionally, the systems developed by private sector entities, which are utilized by informal workers, will be briefly reviewed. These private systems are included with a view to potential future data exchange and to better understand the informal economy.

Finally, a detailed analysis has been conducted on the ejob platform, which plays a significant role in achieving the main objectives of this study.

Government information systems for e-formalization

► e-mongolia.mn

Managing Authority: The platform is managed and operated by the e-mongolia Academy, a key governmental body overseeing digital governance initiatives.

Purpose: The e-mongolia.mn platform, developed by the Government of Mongolia, is designed as a comprehensive digital gateway for delivering public services through an integrated one-stop solution. This platform plays a pivotal role in advancing the digital transformation of government services, making them more accessible to the public.

Target audience: The platform serves a wide range of users, including all Mongolian citizens, businesses, government entities and foreign nationals residing or working in Mongolia.

Key features: The platform provides access to 1,233 services across various government sectors, offering citizens a streamlined and user-friendly way to interact with public institutions.

Role in the transition to the formal economy:

- Critical importance: "e-mongolia.mn" is essential in the formalization of informal economy workers and businesses, providing the necessary digital infrastructure to support their transition to the formal economy. It revolutionizes the way citizens interact with government services, providing a single-window access point to over 1,200 services, including business registration, social welfare, tax filing and education. By streamlining these services digitally, e-mongolia bridges the gap for citizen authentication and verification without paper trails, adopting a digital-first approach that enables remote use of government services. The platform's far-reaching impact lies in its ability to reduce bureaucratic barriers, enhance data collection for targeted policy-making, integrate various services for seamless formalization, and increase public awareness while promoting digital inclusion. Ultimately, e-mongolia serves as the backbone of Mongolia's e-formalization strategy, simplifying the transition to formality for informal economy workers, small businesses and entrepreneurs, and aligning with the Government's goals of economic diversification and inclusive growth.
- Process automation: the platform plays a central role in automating critical processes related to formalization, such as registration and compliance, thereby reducing the burden on individuals and businesses in the informal economy.
- Widespread adoption: as the most widely used digital platform in the country, "e-mongolia" offers significant potential to integrate formalization-related services, ensuring that these functionalities are easily accessible to a broad user base.

► e-business.mn

Managing authority: The platform is managed by the Ministry of Digital Development, Innovations and Communications and the e-mongolia Academy, ensuring government oversight and seamless integration with other public services.

Purpose: The primary objective of e-business.mn is to digitize all stages of a business lifecycle, from establishment to dissolution. It enables users to request, renew and manage various permits and licenses from a single platform.

Target audience: The platform serves all Mongolian citizens, businesses, government organizations and foreign nationals living and working in Mongolia.

Key features: Currently, the platform offers services such as selecting a business name, registering with the General Authority for State Registration and accessing various company-related reports and documents.

Role in the transition to the formal economy:

- Essential for formalization: e-business.mn plays a critical role in the formalization process by automating the registration and compliance steps required to transition from the informal to the formal economy.
- Automation of registration processes: The platform is a key enabler in automating the formal registration process, which is crucial for individuals and businesses operating in the informal economy as they move towards formalization.
- One-Stop solution for business creation: For individuals in the informal economy looking to formalize their operations by establishing companies, cooperatives or non-governmental organizations (NGOs), e-business.mn serves as a comprehensive one-stop digital solution.

► **Tax systems**

Managing authority: Mongolian Tax Administration.

Purpose: The system aims to digitize all services provided by the tax authority, simplify the process for taxpayers to submit tax returns and related documents, facilitate the seamless integration of financial reporting software, and enable electronic communication with the tax office. The system also improves coordination with third-party systems for more efficient service delivery.

Target audience: All citizens of Mongolia, businesses, government institutions, foreign investors and expatriates residing and working in Mongolia.

Core services: The system digitizes tax operations and provides electronic solutions to citizens and businesses for tax-related matters.

Role in the transition to the formal economy:

- Critical role: The comprehensive tax system is essential for the formalization process as it automates the registration and tax reporting processes for individuals and businesses transitioning from the informal to the formal economy.
- Remote access for taxpayers: The system allows individuals and businesses to register as taxpayers and access all tax-related services online, eliminating the need for physical visits to tax offices.

Subsystems within the Tax Administration framework:

ebarimt.mn: this system, part of the government's "electronic receipt" project, enables citizens and businesses to electronically record their purchase receipts and claim tax deductions. Its primary objectives are to:

- digitize purchase receipts for citizens
- simplify the tax deduction process.
- support the generation of tax revenue.

etax.mta.mn: this is the General Department of Taxation's electronic tax system, providing a range of services, including electronic tax filing, payments and access to tax-related information. Its key features are to:

- facilitate electronic tax payments
- enable online submission of tax returns
- provide updates on tax policies and information.

itax.mta.mn: This is an interactive tax system designed to make tax services easier and faster for taxpayers. Microenterprises and individuals can use this system to file their taxes. Its key features are to:

- automate tax filing and declaration processes
- monitor tax payments and outstanding balances
- provide easy access to tax-related information.

license.mn: This is a government platform that digitizes the process of issuing licenses and permits to citizens and businesses. Its key features are to:

- digitize the issuance of licenses and permits
- save time and reduce costs for citizens and businesses
- make the process more transparent and efficient.

► Social insurance systems

Managing Authority: General Authority for Social Insurance (GASI).

Developer: IT Zone Ltd.

Purpose: the system is designed to deliver the services of the General Authority for Social insurance electronically, aiming to automate social insurance processes both for employers and for citizens.

Target audience: The platform serves all citizens of Mongolia, businesses, government institutions, foreign investors and expatriates working and living in Mongolia.

Key features: Citizens can voluntarily register for social insurance, obtain certificates, inquire about their contribution history and request social insurance statements. Employers and legal entities can submit social insurance tax reports, check records and request related information.

ndaatgal.mn

ndaatgal.mn is the official electronic social insurance platform of the General Authority for Social Insurance in Mongolia. It offers a wide range of services related to social insurance contributions for both individuals and employers. Its key functions are to:

- pay and report social insurance contributions online
- access and verify social insurance information
- register for and obtain social insurance services
- request and receive social insurance benefits and payments.

Role in the transition to the formal economy:

- **Essential role:** The social insurance system plays a critical role in the formalization process by enabling individuals working in the informal economy to voluntarily register for social insurance. This ensures that informal workers, who are often excluded from social protection schemes, can access benefits and protections.
- **Voluntary registration:** Informal workers can use this platform to voluntarily enrol for social insurance. Additionally, the system simplifies the registration process for

employers, which is crucial for those transitioning from the informal to the formal economy.

In summary, ndaatgal.mn is an essential tool in automating social insurance processes, providing a digital solution for informal workers to voluntarily participate in social insurance schemes, and making the formalization process smoother and more accessible both for employees and for employers.

► **National data exchange systems and core infrastructure**

The national data exchange platform is the backbone of the national data exchange infrastructure in Mongolia, consisting of two main subsystems: KHUR and DAN. These facilitate seamless information sharing between government entities and private organizations. As of 2024, 96 government institutions and 236 private entities are connected to the platform, offering 629 services to the public.

Managing authority: National Data Centre

Purpose: The primary objective is to establish a foundational digital governance system and infrastructure for public services in Mongolia.

Target audience: The platform serves all citizens of Mongolia, businesses, government agencies, foreign investors, expatriates and individuals working and living in Mongolia.

Key features: The system links databases across government institutions, improving the quality and speed of services delivered to citizens.

KHUR and DAN systems

KHUR is an independent national data exchange system designed to provide secure, reliable and efficient electronic government services to citizens and legal entities. It ensures data security and complies with international standards. Since its launch, the KHUR system had, by 2024, successfully processed over 850 million service requests.

The DAN system is a unified authentication and identification platform that operates alongside KHUR. It facilitates digital authentication for citizens using various services, such as digital signature verification, “TUTs” public service kiosk machines, and banking access. The DAN system allows seamless interaction between disparate systems and ensures a secure digital identity for users. By 2024, 1.8 million citizens were registered in the DAN system.

e-signature (esign)

The esign digital signature system allows Mongolian citizens to obtain a digital signature free of charge. This enables them to access government and private sector services remotely, using their digital signature for online transactions. Although the uptake of digital signatures among citizens remains limited, the infrastructure is in place to support widespread use, laying the foundation for further digitization of services in both the public and private sectors.

Public service kiosks

Public service kiosks are designed to provide one-stop access to government services. Starting in 2024, the government plans to add over 500 kiosks nationwide, managed through public-private partnerships with specialized IT companies to ensure service quality, security and development. These kiosks aim to broaden access to government services in a decentralized manner.

► ejob.gov.mn

The **ejob.gov.mn** system is a digital employment platform developed by the Ministry of Family, Labour and Social Protection of Mongolia. It serves as a unified platform both for job seekers and for employers, offering a range of services related to job matching and labour market information.

Managing authority: General Office of Labour and Welfare Service, MFLSP of Mongolia.

Purpose: the platform provides a comprehensive digital solution for job seekers and employers, helping to streamline employment processes and enhance access to labour market information.

Target audience: The ejob.gov.mn platform targets a diverse audience, including job seekers looking for employment opportunities, employers seeking candidates for various positions, and training providers offering professional development programmes. It also serves government agencies responsible for labour market management and policy implementation, providing a centralized system for tracking trends and offering employment services. Additionally, the platform is crucial for informal workers and microenterprises aiming to formalize their activities and transition into the formal labour market, offering them access to digital government services and job opportunities. The system is designed to streamline employment processes both for individuals and for businesses through a unified digital interface.

Key features:

- posting and searching job advertisements
- managing and storing information for both employers and job seekers
- offering professional training and consultation services
- providing labour market information and conducting relevant research.

Role in the transition to the formal economy:

- Critical role: the platform is essential in automating the formal registration process for individuals transitioning from the informal to the formal economy.
- Process automation: ejob.gov.mn plays a key role in automating the processes required for individuals and businesses to formalize their operations and access employment services without the need for in-person visits.
- Facilitating access: the platform allows individuals and businesses to access government services digitally, supporting the formalization of labour and business activities.

In summary, ejob.gov.mn is a crucial tool in the formalization of the informal economy, offering a centralized digital platform that enables job seekers and employers to manage employment-related activities efficiently. By streamlining access to government services and facilitating the transition to the formal economy, the platform supports the broader objectives of economic inclusion and digital transformation.

► [Privately developed systems](#)

UBCab:

UBCab is Mongolia's leading platform offering services such as online taxi rides, food delivery (UBEats), express delivery and car rental. Utilizing smart payment systems and GPS-based technology, UBCab delivers reliable, safe, and stable pricing services. The platform currently covers 15 provinces with over 1 million users and 45,000 drivers.

ABA:

ABA is a platform developed by Green Group aimed at increasing user productivity. Like UBCab, it leverages GPS-based technology to provide taxi, car rental, delivery and logistics services. The platform plans to integrate electric vehicles and new payment systems in the future.

Ajly.mn:

Ajly.mn is a platform offering part-time job opportunities in Mongolia. It connects employers with flexible job seekers, providing functions such as job search, job application and scheduling of work hours.

Nito.one:

Nito.one is a platform that connects job seekers with employers, offering flexible income opportunities and workplace culture evaluations. Its NitoPay system provides financial flexibility for employees and risk-free solutions for employers.

Worki.mn:

Worki.mn is a platform that connects Mongolian job seekers with employers. Users can search for job listings, create resumés, view job reviews and use AI assistance to find the most suitable job opportunities.

Zangia.mn:

Zangia.mn is Mongolia's leading job portal, connecting job seekers with employers. The platform offers a wide range of job opportunities, including full-time, part-time, freelance and internship positions.

Zochil.shop:

Zochil.shop is an online shopping platform designed for retailers, stores and individuals. It offers users a wide selection of products for purchase and introduces innovative solutions in the e-commerce sector. Business owners can lease affordable online store solutions to sell their products and expand into the market.

Zary.mn:

Zary.mn is an e-commerce platform that allows users to purchase a variety of products. It simplifies commercial activities by directly connecting retailers with consumers, enabling merchants to list products and boost sales through the platform.

ArdStore.mn:

ArdStore.mn is an e-commerce platform offering a range of products including food, furniture, cosmetics and electronics. It provides users with a wide selection, fast delivery and reliable service, integrating various brand stores into a single platform.

Task.mn:

Task.mn is a comprehensive platform designed for job orders, electronic contracts, escrow services and connecting users with quality contractors. Users can post job requests, find contractors, sign electronic contracts and securely process payments through the escrow account, ensuring reliability in job execution.

Cashme.mn:

Cashme.mn is a fintech platform focused on supply chain financing, helping self-employed individuals finance their working capital through loans. It is supported by the Mongolian Bankers Association and the International Finance Corporation (IFC), offering a solution for small businesses to access revolving capital.

Credit information systems providers:

In 2019, the Bank of Mongolia introduced regulations for credit information services, leading to the establishment of companies offering credit scoring services for the first time in Mongolia. Sainscore and Burenscore are two official credit information service providers, using advanced FICO systems to evaluate credit histories and improve financial inclusion. These systems enhance decision-making for financial institutions while fostering trust between banks, financial institutions and individuals.

Fintech and credit solutions:

Mongolia has 12 commercial banks and 549 non-bank financial institutions (NBFIs) actively offering a range of fintech solutions. By Q2 2024, the number of clients served by NBFIs had reached 4,639,578, with 56 fintech-licensed NBFIs. These fintech solutions allow individuals operating in the informal economy to digitally submit personal bank statements for credit analysis and potentially qualify for business loans. Some commercial banks also offer similar solutions based on personal bank account analysis. Integration with the e-mongolia, KHUR and DAN systems has simplified the process for individuals to calculate their credit scores, submit loan applications and make repayments.

Systems analysis conclusion

Mongolia has established a robust digital infrastructure for government services, which plays a critical role in supporting formalization. Alongside this, private sector systems have been integrated to enhance the overall process, enabling effective collaboration and data exchange between public and private platforms.

- e-mongolia.mn provides 1,233 government services digitally, facilitating the formalization of individuals and businesses by offering streamlined access to essential services.
- e-business.mn simplifies the process of business registration and incorporation, helping informal entrepreneurs transition to the formal economy.
- The comprehensive tax system automates tax payments, making it easier for informal workers to register as taxpayers and meet their obligations efficiently.
- Social insurance systems enable informal workers to voluntarily enrol in social insurance, providing them with much-needed social protection.
- The KHUR system ensures seamless integration between government databases, creating a strong infrastructure that simplifies the formalization process by ensuring efficient data sharing.
- ejob connects job seekers with employers, playing a key role in formalizing individuals in the informal economy by linking them with formal employment opportunities.

Improving collaboration and integration between these public and private systems will make the formalization process more efficient, ensuring that informal workers and businesses can smoothly transition to the formal economy with access to critical services and financial support.

ejob platform system analysis

The ejob platform is a comprehensive digital employment and social protection system developed under the partnership between the Ministry of Family, Labour and Social Protection of Mongolia and the World Bank. It serves as a unified platform connecting job seekers, employers and government institutions, aimed at digitizing and streamlining employment services and related processes. The system supports labour market operations by providing a centralized and accessible platform for all stakeholders involved in employment services.

System development

The ejob system was developed by IT Zone Ltd. over a two-year period from 2021 to 2023. The project was commissioned by the General Office of Labour and Welfare Services, with the objective of creating a robust, scalable and user-friendly digital solution for labour and employment services. The focus was on addressing the limitations of previous systems, ensuring that the platform could handle high demand while offering flexibility for future development.

System architecture

The system is built on a microservices architecture, which provides significant advantages over traditional monolithic structures. This ensures high availability, scalability and modular functionality, allowing independent components to function autonomously without affecting overall system performance. This architecture replaces the older LMIS system, which had a monolithic structure that caused bottlenecks during peak usage periods. The modular nature of ejob enables individual services – portal, mobile app, job placement, document management, and AI-based job matching – to operate independently, ensuring continuous system availability and ease of maintenance. Furthermore, the use of DevOps principles supports ongoing, seamless development and deployment.

Core components of the system

The ejob system is designed to improve labour services by digitizing workflows, reducing administrative overhead, and simplifying user interactions. The following are the core functional components of the platform:

1. **Portal:** is web interface allowing job seekers and employers to register, manage profiles, and access job-related services;
2. **Mobile app:** is a mobile-friendly version of the system that enables users to search for jobs, submit applications, and receive updates on the go;
3. **User management:** ensures secure handling of user data, supporting authentication, authorization and data privacy;
4. **Document management:** allows the storage and retrieval of key documents, facilitating the easy management of resumés, contracts and certificates;
5. **Job placement:** automates job postings, enabling employers to publish job openings and match them with suitable candidates;
6. **AI-based job matching algorithm:** utilizes machine learning and artificial intelligence (to recommend job matches based on user skills, preferences, and job market trend;
7. **Project/programmes:** provides functionality for individuals to register for government-sponsored projects and access relevant information;

8. Profiling: tailors job search results by analysing a user's skills, experience, and preferences, improving job match accuracy;
9. Internal chat: facilitates direct communication between job seekers, employers, and administrators, enhancing collaboration and real-time interaction;
10. Reporting: generates analytical reports and statistical insights into user activity, system performance and labour market trends;

System integration

One of the key strengths of ejob is its integration with Mongolia's unified government information exchange network, enabling efficient data sharing between various government entities. This interconnectivity significantly improves the formalization of labour processes and enhances service delivery. Some of the key integrations include:

- General Authority for State Registration: provides access to civil registration and business information, enabling the system to verify individuals and organizations.
- General Office of Labour and Welfare Services: exchanges welfare data, including information on deceased individuals, welfare beneficiaries, and people with disabilities, streamlining eligibility checks.
- General Authority for Social Insurance: shares social insurance history and status, allowing the system to manage social security-related information both for employees and for employers.

These integrations enable ejob to automate verification, registration and reporting processes, reducing manual interventions and speeding up service delivery. The system ensures that once a user submits their information, it is shared across relevant government agencies, eliminating the need for redundant data entry and improving overall efficiency.

SWOT Analysis for the ejob system:

► Strengths

- **Government support:** The ejob system is a government-initiated national platform integrated with other governmental systems, which serves as a data supplier for unified State information. This provides long-term stability and strong integration capabilities, offering a competitive advantage over other systems.
- **Comprehensive platform:** ejob includes key employment services, such as job placement, job advertising, professional training, financial support, project management and document management, covering a broad spectrum of services that support employment.
- **User accessibility:** The platform is accessible both via the web and via mobile applications, allowing job seekers and employers to access the system from anywhere, offering flexibility and convenience.
- **Public-Private Participation:** ejob supports public and private sector collaboration in employment and recruitment activities, with potential for integration with private job recruitment systems.
- **Scalability:** The system has the potential to be developed into a hybrid SaaS platform, providing services to job brokerage firms that do not have their own systems, offering a scalable solution for expansion.

► Weaknesses

- **System bugs and performance issues:** Although the system has been delivered, there are unresolved technological debt issues left by the development company, leading to potential system errors and performance issues that could impact user reliability.
- **One-sided approach:** The system was primarily developed to replace the old LMIS system based on the requirements of the primary client organization. This has resulted in a focus on reporting rather than on addressing broader employment service processes.
- **Over-advanced automation:** While the system uses AI for job matching, it has not fully incorporated the processes of traditional labour brokerage agencies, causing confusion for the labour agency users and difficulties in generating reports.
- **Complex interface:** The interface is overly complex, with multiple fields required for report generation, making it difficult for users to complete forms. Compared to similar platforms, the registration process is complicated, and the search functions are not intuitive. Users often encounter unclear system errors.
- **Limited usage:** The system is primarily used by officials in labour and welfare offices and labour exchanges funded by the Employment Promotion Fund for reporting purposes, limiting its broader application.

► Opportunities

- **Reaching informal workers:** ejob has the potential to expand its user base by connecting informal workers to social protection, legal contracts and job placement services, thereby helping the transition to the formal economy.
- **Integration with third-party systems:** There is an opportunity for integration with private recruitment systems (e.g., Zangia.mn) and payment gateways, offering SaaS solutions to private platforms and increasing the platform's potential value.
- **New module development:** Developing modules for part-time or temporary job placement, labour contract management, document management, payment and escrow accounts, and dispute resolution would significantly enhance the platform's value.
- **Policy optimization:** By enhancing reporting modules, the Government can better monitor and evaluate employment programmes, including those targeting the informal economy, providing more accurate data for policy development.
- **Public awareness campaigns:** There is an opportunity to increase platform uptake by conducting awareness-raising campaigns that target private sector employees and employers, encouraging greater use of ejob.

► Threats

- **Competition from private recruitment systems:** Private platforms offer more functions and user-friendly interfaces, making it difficult for ejob to attract and retain users.
- **Technological issues:** Continued system errors and performance issues could reduce user interest and threaten the platform's long-term sustainability.
- **Policy changes:** Changes in government policies regarding digital labour market solutions could impact the operation and future of the ejob system.
- **Data security risks:** Any breach or failure in protecting personal and employment-related data could severely damage the system's reputation and trust.

- **Delayed introduction of new features:** Delays in the introduction of critical features could frustrate users and lead to a reduction in system usage.

Strategic recommendations:

Based on the SWOT analysis, the following strategic recommendations are proposed to improve the ejob system's performance, competitiveness and user experience:

1. Leverage strengths:

- **Utilize government support efficiently:** Use government backing to expand system adoption among government agencies, employers and job seekers, thereby increasing the platform's user base and relevance.
- **Expand into the informal economy:** With government support, focus on digitizing labour registration in the informal economy, connecting informal workers to social protection through the platform.

2. Address weaknesses:

- **Fix system errors:** Prioritize resolving existing system errors and performance issues to enhance reliability and user experience.
- **Develop critical modules:** Fill current module gaps by developing essential features like reporting, contract management, dispute resolution and payment management, thereby improving system functionality.

3. Capitalize on opportunities:

- **Use the ejob platform for e-formalization:** Expand into the informal economy by offering digital services, such as labour contracts, social protection and legal rights, helping to formalize the workforce.
- **Partner with private platforms:** Collaborate with private platforms like Zangia.mn and Ajly.mn to share data and offer SaaS services, expanding the system's reach and value.
- **Integrate with labour brokerage agencies:** Offer ejob as a tenant system to private labour exchanges, allowing them to use ejob for core recruitment processes, while enabling verification and reporting through the platform.
- **Improve user experience and user interface:** Simplify the user interface and streamline workflows, making the system easier to use and more accessible to a broader audience.

4. Mitigate threats:

- **Enhance competitiveness:** Work collaboratively with private recruitment platforms to share data and create mutually beneficial partnerships, rather than competing for users.
- **Strengthen data security:** Improve data security protocols and policies to ensure the protection of sensitive personal information and maintain user trust.
- **Timely feature releases:** Accelerate the development and release of new features to ensure continuous system improvement and meet user expectations.

Implementation strategy:

- **Short-term actions:** Address system bugs immediately, simplify the user interface and improve user experience to provide short-term wins.
- **Long-term goals:** Focus on developing new modules, integrating with private platforms, and expanding system usage within labour brokerage agencies, positioning ejob as a comprehensive employment solution for both the public and private sectors.

By following these strategic recommendations, the ejob system can be developed into a more competitive, user-friendly and socially impactful platform, helping to formalize the labour market and support broader employment initiatives across Mongolia.

3.3. International best practices in e-formalization

Various countries have successfully implemented digital solutions and phased programmes to transition from the informal to the formal economy and integrate informal workers into social protection schemes. Below are several notable examples where these strategies have been applied effectively.

India

Aadhaar System: This is a biometric-based digital identification system, which includes informal sector workers, providing a unique identity for all citizens. It allows informal workers to access financial services, social benefits and government programmes, bridging the gap between informal workers and formal economic structures.

Pradhan Mantri Jan Dhan Yojana (PMJDY): This financial inclusion initiative enables informal workers to open bank accounts, enhancing their access to formal financial services, including savings, insurance and credit.

Atal Pension Yojana (APY): This is a voluntary pension scheme designed specifically for informal workers, allowing them to save for retirement through low-cost, flexible contributions, backed by government guarantees.

These systems, which are implemented nationwide, contribute to the transition from the informal to the formal economy. Their key aspects for e-formalization are:

- Digital financial inclusion harnesses technology to expand financial access, leveraging platforms like mobile banking, e-KYC and digital identity systems (e.g., Aadhaar). This approach eliminates physical barriers for informal workers and businesses, enabling access to bank accounts, credit and insurance, without traditional branch visits. Digital solutions also streamline compliance and reduce paperwork.
- Effective monitoring support is key to the success of e-formalization relies on robust monitoring and support systems. Web-based tracking tools, as seen in PMJDY, facilitate progress monitoring and accountability. Additional support, including business correspondents and financial literacy programmes, educates those working in the informal economy about the formal economy, ensuring a smoother transition.
- A collaborative approach for scalable public-private partnerships is crucial for effective e-formalization. The collaborative model of PMJDY, involving telecom operators, financial institutions and not-for-profit organizations, demonstrates the value of joint efforts in developing infrastructure and delivering services. This approach creates comprehensive financial ecosystems tailored to informal sector needs, fostering a more inclusive and scalable formalization process.

Brazil

Bolsa Familia: this is a conditional cash transfer programme assisting low-income families, including those in the informal economy, by providing financial support linked to health and education conditions. This initiative encourages participation in the formal economy and reduces poverty among informal workers.

- Digital solutions have been instrumental in enhancing the programme's efficiency and inclusivity. Payments are distributed digitally, including through digital savings accounts offered by CAIXA, a government-owned bank, which has fostered financial inclusion among beneficiaries previously without access to banking services. The

introduction of a mobile app for these accounts has further simplified financial transactions, demonstrating the potential of digital platforms in promoting financial inclusion for informal economy participants.

- The programme's adaptability during the COVID-19 pandemic, particularly its integration with the Auxílio Emergencial programme, highlights key best practices for e-formalization. These include leveraging existing social systems and robust digital records, utilizing digital platforms for financial inclusion, and integrating cross-government data to ensure targeted and transparent support. It succeeded in consolidating data from over 40 administrative databases. The programme effectively verified eligibility, adopting a more targeted approach. This example demonstrates the significance of achieving seamless data interoperability across various government agencies, particularly in the context of e-formalization. This integration enables efficient tracking, monitoring and formalization of informal economy participants. Moreover, the automation of data-driven processes has multiple benefits, including reduced fraud, increased compliance and enhanced transparency.

Micro Empreendedor Individual (MEI) is a simplified system that allows people running microenterprises to formalize their businesses by registering with the Government, paying a unified tax, and accessing social security benefits. MEI enables small businesses to integrate into the formal economy while reducing bureaucratic barriers.

Since its introduction in 2009, MEI has exemplified a highly effective approach to simplifying business registration. This innovative initiative enables self-employed individuals to seamlessly register online, concurrently completing trade, tax, and social security registrations. The system's resounding success is demonstrated by the formalization of over 14.8 million enterprises, affording entrepreneurs formal status without navigating traditional registration complexities. Furthermore, MEI offers a simplified tax structure, exempting registered micro-entrepreneurs from income taxes in favour of a fixed, predictable monthly payment, which covers State, municipal and social security taxes, as well as pension contributions. This has made formalizing financially attractive, and has contributed to a significant increase in the number of registered micro- and small enterprises, totalling 21.6 million by 2023 (Ferraz, 2023). Notably, the integration of social protection systems into the formal economy has been a crucial aspect of e-formalization in Brazil. By participating in MEI, entrepreneurs gain access to vital social security benefits, including pensions, maternity programmes, and healthcare, providing pivotal incentives for small businesses to formalize. This strategic connection has yielded substantial growth both in the number of formalized enterprises and social security coverage, and has been to the benefit of vulnerable populations in particular.

Kenya

Mbao pension scheme: this flexible pension savings system for informal workers, allows them to make small contributions via mobile phone. The system provides long-term financial security for informal workers who often lack access to traditional pension schemes.

- It is a voluntary retirement savings programme, designed specifically for informal workers in Kenya, incorporating key elements of e-formalization to enhance accessibility and convenience. Notably, the plan integrates mobile money platforms, including MPesa and Airtel Money, enabling members to make small, flexible contributions directly from their mobile phones. This approach leverages mobile technology to promote financial inclusion and formalize savings mechanisms, effectively bridging the gap for workers who do not use traditional banking services.

- To further facilitate user-friendly management, the Mbao pension scheme offers digital account management capabilities, allowing members to easily track their savings from their mobile phone. End-of-year account balances and statements are also provided digitally, eliminating the need for in-person financial management. This digital strategy is particularly beneficial for informal workers and those who are unaccustomed to formal banking.
- The plan's flexible contribution structure is another advantage of its design, allowing members to contribute as little as KES 20 per day without incurring penalties for missed payments. This adaptability is crucial for informal workers with unstable income streams, rendering the programme more accessible and sustainable. By harnessing the power of mobile payments, the Mbao pension plan empowers members to contribute at their convenience from anywhere in the country, exemplifying how digital transformation can effectively formalize the informal economy through a simple, accessible savings platform.

Philippines

AlkanSSSy programme: This is a social security initiative targeting informal workers, enabling them to make small, regular contributions to build long-term social security benefits, such as retirement and disability pensions. The programme lowers entry barriers by offering affordable contribution rates, ensuring broader participation.

- A crucial aspect of the AlkanSSSy programme's e-formalization strategy is the integration of mobile payment systems for contributions. This enables informal workers to remit their social security system (SSS) savings via mobile platforms, such as GCash or other mobile wallets. By doing so, the programme provides a more convenient and accessible savings mechanism, effectively reducing reliance on traditional thrift boxes.
- The SSS mobile app serves as a vital tool for digital account management and registration, offering members round-the-clock access to their social security information. Through this platform, informal workers can efficiently manage their accounts, track contributions, monitor benefit claims status, and update personal details – all without the need for physical branch visits. Moreover, the app enables self-registration and generation of payment reference numbers for contributions, further boosting accessibility for informal workers in the AlkanSSSy programme.
- The AlkanSSSy programme's e-formalization efforts are also characterized by strategic digital partnerships with groups in the informal economy. These collaborations facilitate seamless digital onboarding and contribution management, allowing such groups to collect and report contributions to the SSS digitally. This approach not only enhances operational efficiency and scalability but also paves the way for expanded coverage, as exemplified by the programme's planned extension to Pantawid Pamilyang Pilipino Program (4Ps) beneficiaries. Ultimately, the programme's digital transformation underscores its commitment to increasing accessibility, scalability and efficiency, thereby reducing barriers to social security formalization for informal workers with irregular incomes.

Uruguay:

The Monotributo system: this is a simplified tax and social security scheme designed specifically for small business owners operating in the informal economy. It allows small entrepreneurs to formalize their businesses, access social security benefits, and operate under a simplified tax regime.

Key Features of the Monotributo System:

- **Simplified taxation:** Under the system, entrepreneurs pay a reduced tax rate based on their total income. This helps alleviate the tax burden for small business owners, encouraging them to formalize their operations and benefit from a simplified taxation framework.
- **Social security contributions:** The Monotributo system integrates social security contributions alongside tax payments. Small business owners contribute to social security, which grants them access to health insurance, pension schemes and unemployment benefits. This broadens the coverage of social protection services for small businesses.
- **Targeted at small entrepreneurs:** The system is specifically designed for small business owners whose income falls below a certain threshold. It addresses the challenges faced by SMEs in complying with tax and social security regulations.
- **Simple registration process:** Registering under the Monotributo system is straightforward and user-friendly. Entrepreneurs can register online or at designated centre, making the formalization process accessible and less bureaucratic.

Advantages of the Monotributo system:

- **Reduced tax burden:** By simplifying tax obligations, the system helps small business owners formalize their operations without the financial strain of regular taxation.
- **Expanded social protection:** Entrepreneurs registered under Monotributo gain access to essential social security benefits, including healthcare, pensions and unemployment insurance, ensuring greater financial and social security.
- **Ease of use:** The registration process is streamlined and simple, allowing small business owners to easily enrol and comply with tax and social security requirements.

Digital transformation features for e-formalization

- The Monotributo programme exemplifies not only a streamlined regulatory framework for small businesses but also an innovative model for leveraging digital platforms to improve accessibility, compliance and efficiency in the formalization process. A closer examination of the system's digital underpinnings reveals the pivotal role technology plays in driving its success.
- The Monotributo system centres on the digitization of registration processes, enabling small business owners and independent workers to seamlessly register their enterprises, meet tax obligations and contribute to social security via government online portals. This digital approach obviates the need for physical visits to tax offices, thereby facilitating a smoother transition for informal workers entering the formal economy. By reducing bureaucratic hurdles and enabling self-registration, these online systems are particularly beneficial for individuals with limited time or access to traditional registration services.
- The Monotributo system features a centralized digital platform that converges taxation and social security contributions into a single, user-friendly payment system. This integration simplifies the compliance process for users, who can fulfil multiple obligations through a single interface. By mitigating the complexities associated with separate tax and social security payments, the platform ensures heightened compliance, minimizes errors and facilitates a more streamlined formalization process for small businesses and entrepreneurs.

- To facilitate e-formalization, the Monotributo system incorporates mobile and digital payment options, allowing entrepreneurs to utilize digital wallets and mobile banking systems to make contributions. This use of mobile-based solutions significantly enhances accessibility for individuals lacking traditional banking services, ensuring that formalization remains within reach, even in remote areas with limited physical banking infrastructure. Moreover, mobile payments streamline the collection of taxes and social security contributions, reducing administrative costs for the Government, while enhancing user convenience.
- The Monotributo system leverages real-time digital tracking to monitor contributions and payments, affording government authorities unparalleled oversight capabilities. This transparency enables the swift detection of non-compliance, ensuring a heightened level of accountability. Real-time data tracking facilitates comprehensive programme monitoring, guaranteeing that formerly informal workers, now integrated into the formal system, continue to meet their obligations and receive the benefits to which they are entitled.

The Monotributo system is an effective solution for formalizing small businesses in Uruguay, expanding their access to social protection and reducing the barriers to operating within the formal economy. By integrating simplified taxation with social security, the system offers a balanced approach to formalizing informal enterprises and enhancing their overall resilience.

Colombia:

BEPS (Beneficios Económicos Periódicos): This is a flexible pension scheme aimed at low-income workers with irregular earnings, allowing them to make voluntary contributions toward their retirement savings. BEPS provides informal workers with a secure path to retirement without the pressure of fixed contributions.

Argentina:

Monotributo Social: This is a simplified tax and social security system designed for low-income and informal workers, enabling them to pay a single, affordable tax while accessing healthcare, pensions and unemployment insurance. This initiative bridges the gap between informal work and formal economic systems.

Key success factors of these international examples of e-formalization:

- 1. Technology-driven solutions:** India and South Africa have successfully implemented technology-based solutions, such as biometric IDs and smart cards, to extend government services to informal workers. Mobile-based systems like Kenya's Mbao Pension leverage widespread mobile phone use to offer financial inclusion.
- 2. Flexible, low-cost contribution models:** Programmes like Atal Pension Yojana in India and AlkanSSSy in the Philippines offer informal workers the opportunity to contribute small amounts to social protection schemes, encouraging broader participation by reducing financial barriers. With payment card solutions, mobile payments and apps, these platforms have streamlined voluntary contribution processes, making them more convenient and user-friendly.
- 3. Integrated systems:** Successful formalization initiatives often integrate social protection schemes with other government services. Uruguay's Monotributo system combines taxation and social security into a unified platform, simplifying compliance for small businesses and informal workers. This removes the burden of registering with different systems and paying taxes and social contributions separately. Offering

multiple services through a single digital platform offers end-users a seamless user experience by eliminating the need to deal with multiple apps.

4. **Simplified registration and tax compliance:** Programmes like MEI in Brazil and Monotributo in Argentina streamline the registration and tax payment processes, making it easier for informal workers and entrepreneurs to formalize their operations without encountering bureaucratic hurdles. Online registration portals and simplified tax compliance systems ensure that informal workers and businesses can register, make social security contributions and pay taxes from anywhere, anytime at their convenience.
5. **Public-private partnerships:** Collaboration between Government and private sectors is a common feature in many successful programmes. This approach ensures that solutions are scalable and can reach a broader range of informal workers. Mbao Pension in Kenya leverages mobile technology, which is often provided through partnerships with private telecommunications companies.

Conclusion

These international examples highlight the importance of flexible, accessible and technology-driven solutions for transitioning from the informal to the formal economy. Programmes that reduce financial barriers, simplify administrative processes and integrate social protection with other government services have proven particularly successful in bringing informal workers into the formal economy. Public-private collaborations and the use of mobile and digital platforms are also key components of successful e-formalization strategies.

3.4. SWOT analysis for e-formalization in Mongolia

The purpose of this SWOT analysis is to identify the strengths, weaknesses, opportunities and threats associated with formalizing informal employment through the introduction of digital solutions in Mongolia's labour market.

► **Table 8. SWOT analysis**

Strengths	Weakness
Government support: • Strong government policies, improved digital governance and unified service provision across various ministries. • Coordinated efforts involving policy implementation with support from government agencies and other stakeholders. • Established digital communication channels, streamlined administrative procedures and a reduction in bureaucracy. • Newly established e-governance agencies have ensured a solid foundation for government services to operate digitally, minimizing administrative overheads. Information technology ecosystem: • Platforms like e-business.mn provide a unified system for registering business entities and accessing relevant government services. • e-mongolia.mn offers centralized access to over 1,200 public services, simplifying bureaucratic processes for citizens. • KHUR/DAN systems have enabled the seamless integration of government and private sector systems, automating key administrative processes. • Tax-related services are fully digitized, enhancing convenience and compliance for businesses and individuals. Digital technology advancement: • All 21 provinces and various sectors are interconnected via high-speed digital infrastructure. Mobile operators cover a wide range of urban and rural areas. • Increasing investment in the IT sector, reaching 312.9 billion tugrik in 2022. • Continuous improvement in cross-sector information exchange; 91.2 per cent internet penetration rate achieved in 2022.	Lack of awareness among informal workers and business owners: • Limited knowledge of the benefits of social protection and formal businesses. • Insufficient understanding of the formalization process and its benefits. Obstacles in transition to the formal economy: • Lack of intention to formalize as business owners feel that it is preferable to remain informal. • Informal workers and businesses are often reluctant to formalize owing to perceived administrative burdens. • Higher taxes and social security obligations are seen as deterrents. Limited resources • Insufficient resources to realize nationwide formalization activities. Data gaps • Lack of comprehensive data on informal workers and businesses. • Insufficient communication and outreach efforts, particularly in rural and underserved areas. Technological and Educational Limitations: • Inadequate cybersecurity measures. • Significant digital divide affecting informal workers, limited technical skills to use digital systems and tools.

Opportunities	Threats
Economic growth potential: ● Expansion of the tax revenue base. ● Increased potential to diversify economic opportunities. Expanded access to services: ● Access to financial services and government support programmes for formalized businesses and workers. ● Improved access to credit, trade opportunities and international markets. ● Opportunities to bid for government support. ● Facilitation of foreign market entry and export growth. Policy improvements: ● Increased visibility of the informal economy, resulting in stronger policy development and coordination. ● Better collection and use of data, allowing for more efficient government support programmes. Expanded social protection coverage: ● Increased access to social protection services, including health insurance and retirement benefits for informal workers. ● Greater legal protection and labour rights for businesses and workers through formal registration.	Digital divide ● A significant portion of informal sector workers may struggle to adopt digital technologies due to lack of familiarity and access. ● The digital divide remains a challenge, particularly in rural and remote areas. Data security risk: ● Insufficient data security measures threaten the integrity and safety of critical data systems. Lack of human and technical capacity: ● Current gaps in human resource development and technical capacity to manage and sustain digital transformations. ● Lack of skilled IT workforce Data and reporting in the informal economy: ● Incomplete digitalization of reporting processes: current reporting process for the informal economy has not been fully digitized, creating inefficiencies in data collection and analysis. ● Lack of a centralized data management system: No unified information management system in place to serve as the foundation for generating accurate and reliable reports. ● Absence of a unified reporting database: no centralized data repository, hindering the ability to collect and manage informal economy-specific data effectively. ● Challenges in statistical reporting: The absence of a centralized information system and database creates significant difficulties in producing comprehensive and timely statistical reports for the informal sector. This gap impedes the Government's ability to make data-driven decisions and implement targeted policies.

Based on the analysis above, our recommendations are set out below.

Utilize government support effectively:

- Leverage government policies, legal frameworks and financial support to implement targeted programmes aimed at transitioning from the informal to the formal economy.
- Maximize the use of government-integrated digital services by fully utilizing systems such as KHUR and DAN to streamline processes.
- Enhance collaboration among government agencies and improve cooperation between public and private entities to foster effective digital transformation.

Develop and expand information technology solutions:

- Expand electronic programmes and platforms tailored to informal workers, introducing simplified IT solutions.

- Establish a centralized data repository to enhance data exchange between the Government and private entities, improving decision-making and reporting.

Simplify the formalization process:

- Develop user-friendly, automated systems to digitize the registration and formalization processes for informal workers.
- Expand one-stop electronic services to include social protection registration for informal workers by integrating employment promotion services into the e-mongolia platform.
- Fully automate the registration process on the e-business system to streamline formalization.

Increase access to information:

- Improve access to information for informal workers by providing specialized training, guidance and instructions through digital platforms.
- Promote government policies to the public to enhance awareness and accessibility of public services.

Develop an electronic reporting system:

- Develop a system for generating and monitoring reports on informal economy activities, enabling all reports and research to be generated electronically and supporting the Government in decision-making.

The SWOT analysis of e-formalization in Mongolia reveals a clear path for leveraging digital solutions to transition from the informal to the formal economy.

Mongolia has already laid the groundwork for a robust e-formalization framework by integrating advanced digital infrastructure and providing strong government support. National digital platforms, such as e-mongolia, e-business, and electronic tax registration and payment systems (e-tax, e-barimt) provide a solid foundation for automating and simplifying the process of transitioning informal workers and businesses to the formal economy. In addition, a database can be created using the existing ejob platform to register citizens working in the informal economy and collect data. The ejob platform could be used as the main system and database for registering, storing and processing information on informal workers and transmitting information to government agencies. This will be important for centralizing and registering informal workers' employment, vocational training, counselling, labour market information and research in one place. Thus, information on informal workers and employers will be recorded in detail, their employment situation will be assessed objectively, and government agencies will be given the opportunity to implement targeted policies and measures. The ejob platform will allow for the generation of detailed employment statistics on informal workers, increased access to social security services for them, and timely advice and training for employers.

Implementing these strategic recommendations will accelerate the transition to the formal economy in Mongolia, increase the availability of electronic systems, and improve cooperation between the public and private sectors.

4. E-formalization strategy

The aim of e-formalization is to simplify the registration and social protection inclusion process for informal workers and enterprises by leveraging digital tools. The following approaches can be taken to implement effective digital formalization in Mongolia:

Enhancement of the ejob.gov.mn platform:

- Simplify informal worker registration: streamline the registration process for informal workers, centralizing their employment data for easier management and tracking.
- Digitize labour contracts: automate labour contracts and include in job placement services, improving integration with social protection schemes to ensure that workers are covered by social security.
- Improve employability and social protection: develop the platform further to allow informal workers to seamlessly enter the formal labour market.

Improvement of edaatgal.gov.mn:

- Update forms and add functions to include citizens other than herders and self-employed individuals, expanding options for voluntary insurance.
- Implement solutions to support easy registration of herders in social insurance, translating government policies into technology through system improvements.

Integration of labour contracts and social insurance on the ejob.gov.mn platform:

- Digitize the process of establishing labour contracts. Introduce a contract platform as part of employment mediation, allowing employers and employees to validate contracts electronically.
- Integrate the automatic inclusion of workers in social insurance after contract signature. This enables the electronic inclusion of the informal segment of the labour market into social protection.

Integration of fintech solutions for those with voluntary social insurance:

- Connect the section of the ejob.gov.mn platform for providing small loans and financial support with the edaatgal.gov.mn system, to offer loans to citizens with voluntary social protection coverage.
- Through this integration, simplify loan conditions, automating the process of paying social insurance and verification.

Improvement of reporting systems:

- Introduce an automated reporting system using 5-digit codes in the ejob.gov.mn platform, simplifying the process of generating employment reports and employer reports electronically. This ensures data accuracy and contributes to automating the Government's reporting process.

Formalization of informal enterprises:

- Continue including informal enterprises in electronic registration using the e-business.mn platform, developing a mobile version.
- Implement policy updates to further support the inclusion of electronically registered enterprises into social protection and tax regulations.

Rationale for ejob.gov.mn platform:

- Primary stakeholder alignment: ejob.gov.mn is currently managed by the Ministry of Family, Labour and Social Protection's employment promotion services, ensuring sustained support and governance alignment with national employment policies.
- Informal economy targeting: ejob.gov.mn is well positioned to engage informal wage workers by offering tailored registration processes, digitized labour contracts and social protection inclusion tools, which are not the primary focus of the social security system.
- Systematic labour market organization: transforming ejob.gov.mn into a comprehensive labour management system will streamline employment services, labour contract management and social insurance integration, creating a more efficient and organized labour market ecosystem.
- Cost-effectiveness and leveraging existing infrastructure: building on the existing ejob.gov.mn platform and user base is more cost-effective than developing new capabilities in the social security system.

By taking these actions, citizens and business operators engaged in informal work can be registered electronically and easily included in the social protection system, which will contribute significantly to formalizing the participation of informal workers in the labour market as a whole. We have primarily focused on the ejob.gov.mn platform and other priority electronic system enhancements, highlighted in the following subsections.

4.1. Enhancing the ejob.gov.mn platform

The primary goal of enhancing the ejob platform is to increase the efficiency, accessibility and impact of Mongolia's employment services by including the registration of informal workers. The platform will be optimized to support the formalization of informal workers, facilitate their inclusion in social protection, and improve labour market outcomes for all stakeholders.

Key objectives:

1. Improve labour market access: Enhance employment services, making them more accessible and user-friendly.
2. Support the formalization process: Simplify the transition of informal workers into the formal economy by providing tools for seamless integration.
3. Digitize labour contract management: Ensure legal labour relationships are properly established through digital contracts.
4. Increase social protection coverage: Facilitate the inclusion of informal workers in social insurance programmes.
5. Enhance dispute resolution: Improve mechanisms for addressing disputes arising within the informal economy.
6. Generate accurate data: Enable comprehensive statistical analysis and data reporting on informal workers.
7. Leverage data analytics: Enhance data analysis and reporting to support policy-related decision-making.

Platform modules that need improvement and new modules required

8. Modules to be improved:

1. **Job matching and recruitment:** Add advanced search filters, user profiles, job alerts and employer rating systems to improve recruitment experience.
2. **Online portal and mobile app:** Expand the system to include part-time, remote and seasonal job listings to better serve the labour market.
3. **Statistical reporting:** Strengthen the platform's reporting tools to generate detailed labour market reports and analytics.

9. New modules to be developed:

1. **Informal worker registration module:** Develop a module for registering informal workers, enabling the creation of a comprehensive database for improved service delivery.
2. **Payment and escrow account module:** Introduce an escrow system to ensure secure and transparent payment transactions between employers and workers.
3. **Labour contract management module:** Automate labour contract management and enable digital signatures to streamline contract processing.
4. **Social protection module:** Link social protection services, such as social insurance, health insurance, and pensions, directly to the platform for easier access.

10. Multi-tenant system for employment brokerage agencies

The aim is to develop a multi-tenant SaaS system on the ejob platform for private employment brokerage agencies to operate in an integrated manner. This allows employment agencies without their own systems to organize their daily operations using the ejob platform, including the following functions:

1. **Dedicated database**

Provide the ability to store user and employment agency information separately and manage each operation independently.

2. **Unified interface**

Serve all users with a consistent interface without the need for customization.

3. **Role-based access control**

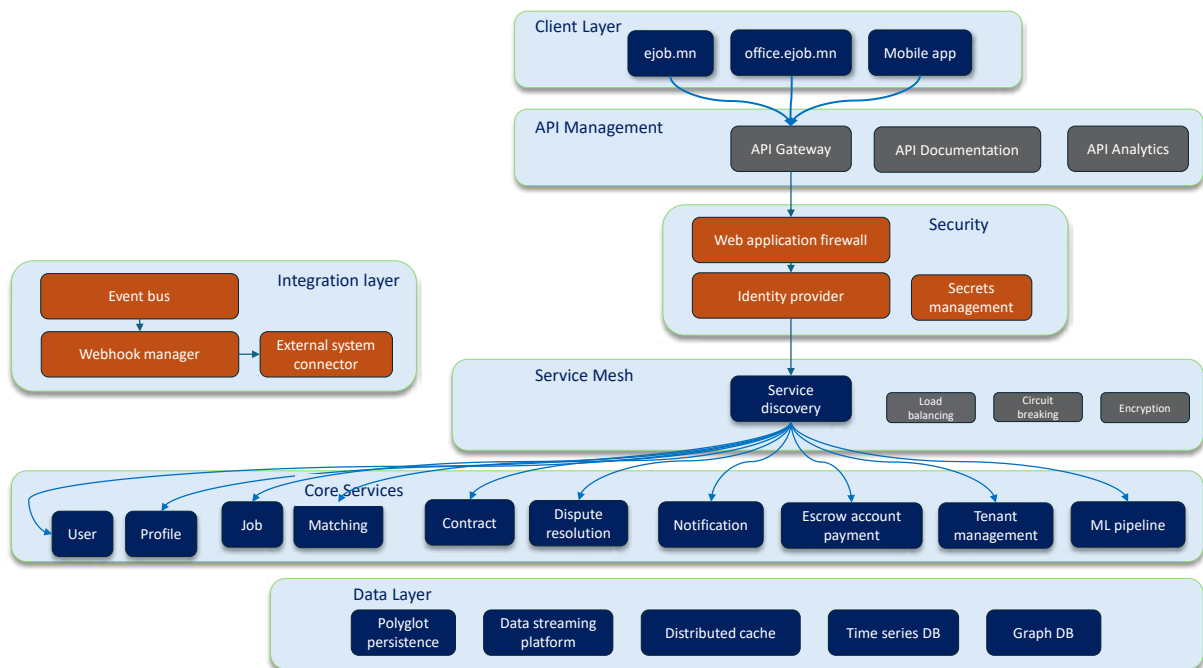
Assign access rights based on the organizational roles of staff, ensuring security.

11. Functions:

- For employment agencies: Allow agencies without their own systems to conduct employment mediation services.
- Unified statistical reporting: Support a reporting system to monitor agency activities and calculate results.
- Integration with third-party systems: Enable integration and information exchange with private employment mediation systems.

These improvements will make the ejob platform more efficient and accessible, increase satisfaction among job seekers, employers and mediation agencies, and contribute significantly to making the labour market more organized and systematic. Most importantly, they will enable the registration of informal workers.

► **Graphic 13. Updated Diagram of the platform architecture**



4.2. ebusiness.mn platform improvements

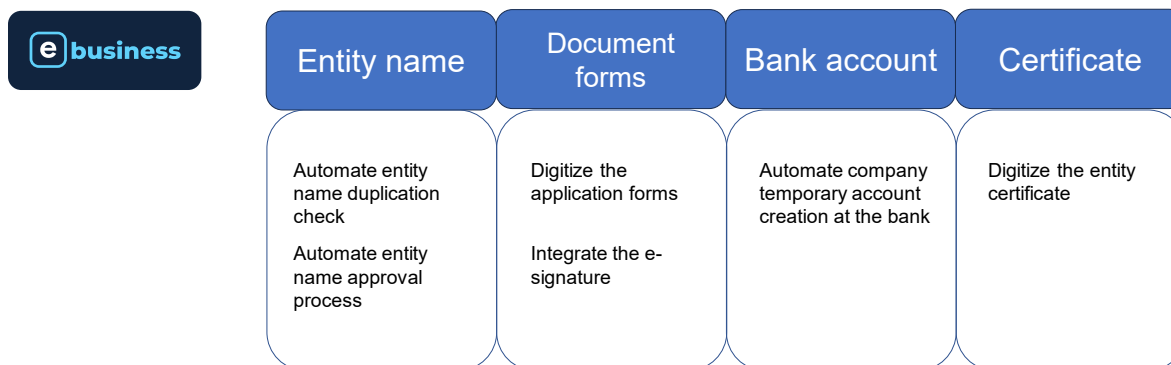
When informal workers who are registered in the database, having received information about transitioning to the formal economy, decide to formalize and establish a business entity, they can do so through the e-business.mn portal. The portal allows for the registration of a business entity and the subsequent electronic acquisition of any necessary special permits. While it is therefore perfectly possible to use electronic systems to formalize parts of the informal economy, certain issues related to rules and regulations continue to pose difficulties. These must be resolved as soon as possible by amending the rules and regulations concerned.

Challenges in registering a business via the e-business.mn portal:

- 1. Entity names check and approval:** Although the system checks for name duplication at the time of registration, it is common for the State registrar not to approve the proposed name after review. Choosing a company or business name, while seemingly simple, can therefore be challenging. Introducing a fully automated process for suggesting names and checking for duplicates and similar names in the State registration system would save the two-day waiting period for name approval.
- 2. Digitizing paper forms and documents:** Application forms to register a formal business entity are available for download in the State registration system as pre-approved templates. Citizens need to download, print, fill out, scan, and then submit them via the e-business system or deliver them to a one-stop service centre. Previously, the General Authority for State Registration fully automated this process and issued electronic certificates for the registration of private limited companies through the e-mongolia platform. It should therefore be perfectly possible to automate these forms and allow citizens to auto-fill them by pulling the necessary data from the e-mongolia platform. Although this is technically feasible, laws and regulations related to State registration have prevented the use of this approach. These laws and regulations therefore need to be updated to accommodate digitization.

3. **Payment automation:** Citizens need to make several payments related to registering a business entity, such as name approval, control number, stamp duty, ordering a seal, and signature verification. Among these, the payment of stamp duty requires the citizen to visit a bank in person. Within the scope of payment system integration, there is the potential to fully automate this step and make all payments through the e-business platform.

► **Graphic 14. Proposed improvements to the e-business.mn platform**



4.3. Integration with other systems

Developing the ejob platform as a SaaS model would make the operations of employment exchanges and other organizations connecting employers and job seekers more efficient, faster and better organized.

The platform is fully integrated with the Government's unified information exchange infrastructure. It is not, however, connected to similar systems operating with their own functions. To fully represent labour market information, including the informal economy, it would be effective to share information electronically with other employment exchanges. According to a list issued by the Ministry of Family, Labour and Social Protection in 2021, a total of 84 private exchanges are operating, 70 of which are in Ulaanbaatar city, 5 in Dornod, 2 in Ömnögovi, 2 in Darkhan-Uul, and 1 in Zavkhan. However, only about 30 of these exchanges are actually operating. Since it is costly for each exchange to develop its own employment mediation platform, expanding the ejob platform as a shared SaaS solution would seem a more effective solution.

Information exchange with third party systems

Ensuring the efficient and reliable exchange of information between the ejob platform and private employment mediation systems is one of the main goals. The strategies and methodologies outlined below are required to implement this.

1. Application programming interface integration solutions

The ejob platform can connect with private employment mediation systems (e.g., Zangia.mn, Worki, Nito, Ajly) using application programming interfaces. This allows for automatic data transfer between platforms, facilitating real-time updates, simplifying information exchange operations, and ensuring data accuracy.

2. Use of webhooks

Introducing webhook technology enables faster and more automated data transmission between platforms. For example, when a new job vacancy is added to a private system, it can automatically send a notification to the ejob platform, allowing it to register the information in its database.

3. Data analytics

By enabling opportunities for the databases of private employment platforms, it's possible to consolidate information in the ejob platform, simplifying the process of directly transmitting and integrating information about newly hired individuals for countrywide reporting and statistical purposes. This allows for monitoring and processing information from one place, and facilitates more detailed analysis.

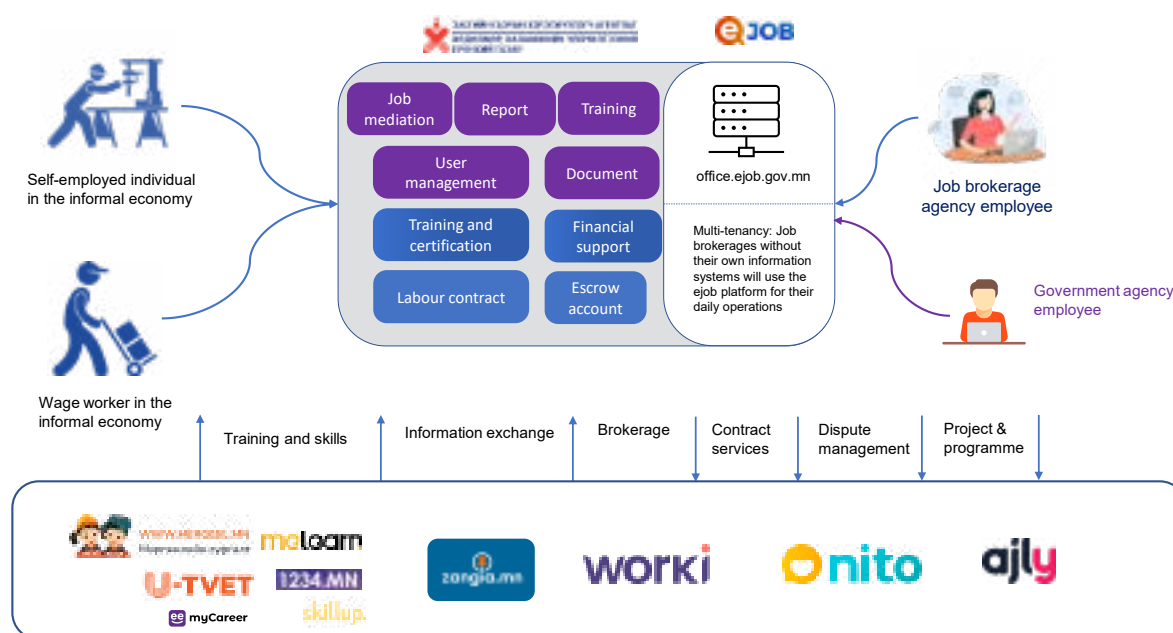
4. Implementing data format standards

Using a consistent data format when exchanging data between platforms increases processing efficiency. Exchanging data according to international standards like JSON or XML ensures data accuracy and integrity, simplifying the data transmission process.

5. Ensuring information security

To ensure information security, data must be transmitted in encrypted form. Using encryption technologies like SSL/TLS allows a high level of security to be maintained when transmitting confidential personal and company information.

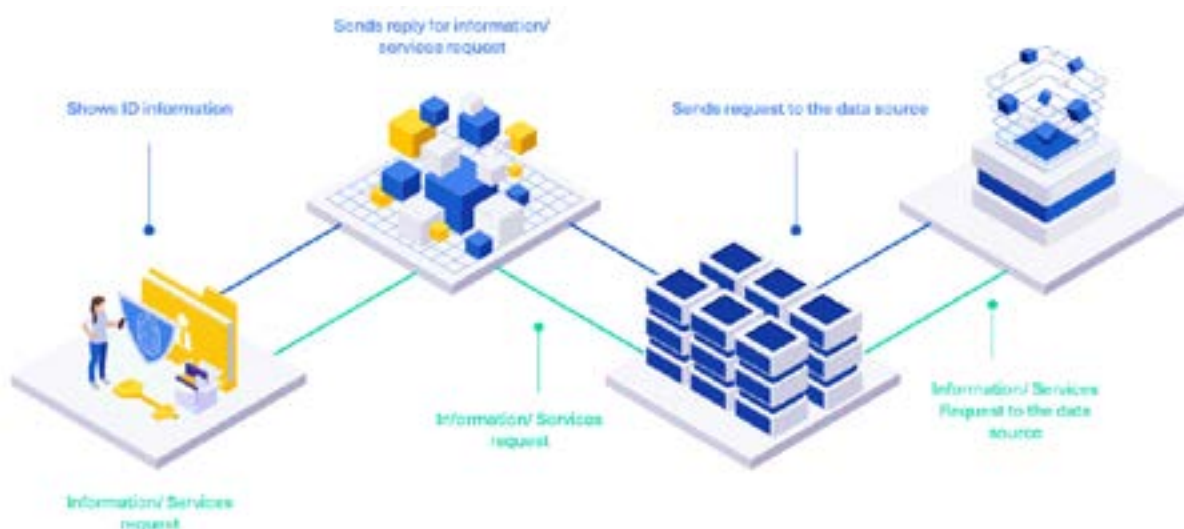
► Graphic 15. Proposed updated version of the ejob platform



Information exchange with government systems

The KHUR government information exchange system is a foundational component of e-governance designed to simplify services and operations directed toward citizens by ensuring reliable operations and information security that meet international standards. The KHUR system is an information exchange system aimed at elevating inter-organizational coordination through a continuously operating, centrally managed platform, simplifying government services delivered to citizens and businesses.

► **Graphic 16. Government information exchange system and information flow**



When adding or removing services, it is necessary to send a formal request to the Ministry of Digital Development, Innovations and Communications. Based on the Ministry's approval, the National Data Centre will provide the services requested.

4.4. Establishing a national database for informal workers

Informal workers play a crucial role in Mongolia's labour market; fully registering their information is essential for formulating social and economic policies. This database should contain comprehensive information about informal workers, covering various aspects, such as employment conditions, working environment, social protection and economic contributions.

Developing an electronic data system to register informal workers, promote formalization and inform them about the formalization process will enable future integration with other government databases and thus make it possible to deliver targeted government services to them.

First, let us clarify what information can be obtained from other relevant databases to create a database of informal workers. The database should contain the type of information as can be obtained through the new registration system for informal workers. This may include the following, although this may not be available in other databases. Some data will be consolidated without duplication, depending on the characteristics of each database.

1. Demographic information:
 - basic information such as name, age, gender, education level, contact information for informal workers and self-employed individuals.
2. Employment information:
 - sector of economic activity, type of work, workplace location;
 - duration of employment, whether temporary, seasonal, or permanent.
3. Employer information:
 - sector of economic activity, type of work, workplace location, history of employing informal sector workers;
 - Information related to tax contributions.

- There are two ways information can be obtained from other databases:**

- It is thus considered possible to register informal workers and create a database.

The diagram illustrates the architecture of the National database for informal worker database system. It shows the flow of data from various sources into a central database, followed by data preparation and analysis for reporting and policy planning.

Data Sources:

- NATIONAL STATISTICS OFFICE OF MONGOLIA
- Voluntary insurance contributors
- MONGOLIAN TAX ADMINISTRATION
- Insured citizens
- Beneficiaries of financial support

Central Database:

National database for informal worker database

Data preparation:

1. Demographic information
2. Employment information
3. Employer information
4. Social protection information
5. Herder household
6. Job place security

Systems integration and security:

Reporting and Analysis:

Reporting

Analysis

Policy, Planning:

Information on persons with health insurance coverage

► Assessment for designing an e-formalization platform for the informal economy

By the end of 2023, the number of herders and self-employed individuals registered as paying health insurance premiums had increased significantly, from 21,986 herders and 79,659 self-employed individuals registered in the first quarter of the year to 83,347 herders and 264,432¹ self-employed individuals registered by the end of December. The registry of insurance contributions is thus the largest database of herders and the self-employed.

Information on voluntary social insurance contributors

There are two means by which citizens can participate in social insurance under Mongolian law: mandatory or voluntary. Any person, whether involved in labour relations or not, may choose to pay voluntary social insurance contributions. This can include informal workers.

In April 2023, 148,054 citizens were participating in voluntary social insurance; informal workers in the agricultural sector, such as herders and assistant herders, accounted for 27,166 individuals (18.3 per cent). The number of participants registered for “general” voluntary insurance contributions was 96,501 (65.2 per cent); these could potentially be non-agricultural informal workers. Some government experts pointed out, however, that members of the public often select this classification arbitrarily, indicating a need for awareness-raising campaigns and opportunities to register in a different manner.

Information on self-employed individuals issuing VAT e-receipts

The General Department of Taxation has a unified taxpayer database, which includes information on self-employed individuals registered as business operators, especially those involved in trade and services with high potential for informal employment. These individuals are connected to the VAT e-receipt system, generating QR codes and issuing receipts.

Figures from April 2023 showed 108,626 citizens registered as self-employed business operators in the VAT registration database, 105,318 of whom had registered to generate QR codes, and 48,034 of whom were actively issuing receipts and operating. Information from the self-employment register can therefore be an effective means of identifying informal workers.

Information on herders based on NSO data

The NSO conducts an annual Livestock and Domestic Animal Census using a specific methodology. This census creates a database of livestock and information on herder households and citizens.

In the year-end census of 2023, information from 298,338 households and citizens was registered. This database is a valuable resource for identifying informal workers in the agricultural sector and conducting targeted outreach activities.

Information on self-employed individuals participating employment promotion fund programmes

Information on citizens and self-employed individuals receiving assistance and support from the Employment Promotion Fund can be included in the information on informal workers. Many of these citizens are self-employed or preparing to launch a start-up business.

According to the Regulation on small loans from the Employment Promotion Fund, their guarantee, reimbursing interest, and providing financial support, agreements are in place to issue small loans through banks, and by 31 December 2023, services had been provided to a total of 922 citizens. Within the scope of providing collateral-free, interest-free financial support aimed at creating and retaining jobs, starting and expanding micro- and start-up

¹ These data are not verified.

businesses, and increasing working capital, support has been provided to 2,239 citizens, and 1,994 herders have been involved in livestock support activities.

Information from the NSO 2021 census of micro-enterprises and self-employed individuals

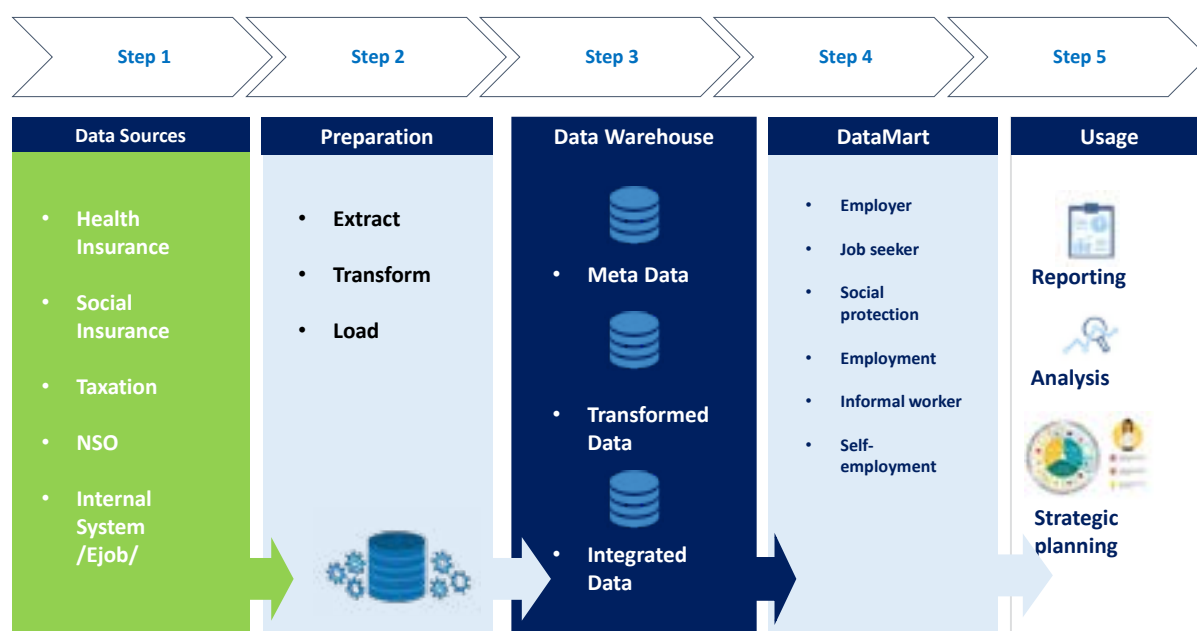
The NSO successfully organized the seventh regular Business Entity Census in 2021. The Census aimed to study the activities, service sectors, scale, concentration, location and conditions of business operators operating in Mongolia, thereby serving as a source of information for developing government policies and programmes, exchanging this information electronically between government organizations, and forming the basis for creating a Big Data database containing comprehensive information on business operators.

This census was unique in that, for the first time, it included self-employed individuals and its results can serve as a realistic supply of information on informal workers.

In this census, 53,900 self-employed individuals were registered, of whom 25,200 (46.7per cent) were men and 28,700 (53.3per cent) were women. Among them, 26,300 (48.8per cent) were registered in Ulaanbaatar city, 8,400 (15.6per cent) in the Central region, 8,200 (15.2per cent) in the Khangai region, 7,900 (14.7per cent) in the Western region, and 3,100 (5.7per cent) in the Eastern region.

The data from these secondary information sources described above, can be used to create a unified database and conduct analysis. The process will be carried out in sequence shown in graphic 18 below.

► Graphic 18. Proposed national database for informal workers



5. Conclusion and Recommendations

Informal employment is a major issue for labour markets in developing and underdeveloped countries, especially those with weak economic structures and social protection policies. Studies have warned that informal workers, in exercising their inalienable human right to work, are often excluded from measures to ensure workplace safety, State policies on social protection, and related benefits such as pensions, health services, and allowances arising from these policies. This exclusion from rights and obligations under labour legislation leaves them vulnerable to poverty in old age.

Informal employment comprises informal wage workers, informal self-employed individuals, unpaid contributing family workers, and individuals producing goods for their use. They typically do not follow official accounting practices, are not officially registered, are not organized into formal business structures, and are not fully included in income tax information. Additionally, workers engaged in informal jobs in formal economy enterprises, who are not fully covered by income tax and social insurance as required by law and are unprotected from future risks, are also considered informal workers.

Many countries therefore need to develop specific policy measures, to be implemented gradually over the long and medium term to regulate the labour relations and social protection issues for informal workers, and ultimately to formalize them.

NSO research and administrative data suggest that the level of informal employment in Mongolia's labour market has not decreased significantly in recent years.

An area of concern is that informal employment is prevalent not only in the informal economy but also in the formal economy, indicating the need to improve the implementation and monitoring of labour relations laws.

By the end of 2022, including the agricultural sector (herders), there were 500,300 informal workers nationwide, accounting for 42.4per cent of the total labour force. Excluding the agricultural sector, there were 215,400 informal workers. The labour market, excluding the agricultural sector, totals 886,500 workers, meaning that informal employment accounts for 24.3per cent. A particular issue of concern is that the number of informal workers in the formal economy is 76,759; 35.6per cent of informal workers, excluding the agricultural sector, are thus engaged by formal employers. These workers participate in labour relations in registered legal entities without contracts and do not pay social insurance or income taxes.

Informal workers who are wage employees – temporary wage workers, casual wage workers, permanent wage workers, apprentice workers, and trainees who have established labour relations and receive wages – total 97,300, (45.2per cent of informal workers). These citizens do not earn profits through self-employment but participate in labour relations, receive wages, yet cannot pay any social protection or income taxes from their wages. They are therefore wage workers with no social protection in case of risks. This requires considerable attention.

In the non-agricultural sector, 58,400 informal workers (27.1per cent) are engaged in wholesale and retail trade and repair of motor vehicles and motorcycles; 39,500 (18.4per cent) in manufacturing; 34,800 (16.2per cent) in construction; and 31,900 (14.8per cent) in transportation and storage activities. Thus, these are the economic sectors with the highest levels of informal employment.

In foundational research conducted in our country, when asked about the obstacles they

foresee in formalizing their businesses, 63.5per cent of self-employed individuals cited paying taxes and insurance premiums, 31.8per cent mentioned lack of knowledge about tax laws and fees, 28.6per cent pointed to the complexity of accounting regulations, and 25.3per cent noted a lack of fixed assets/equipment.

Also, the 10per cent VAT is a significant obstacle for business operators in registering their goods, services and work in the State system. Currently, self-employed individuals with goods, services or businesses exceeding an income threshold of 50 million tugrik are required to pay VAT. Studies continue to mention the urgent need to change this income threshold amount, by increasing it to at least 200 million tugrik.

Additionally, lack of knowledge, information, and skills among these groups of workers is also a key factor. Research indicates that the majority of informal workers are unaware of the Employment Promotion Law (76–83per cent), policies (81–85per cent), labour laws (69–78per cent), and related legal documents.

Although various factors continue to sustain informal employment, government policies should focus on reducing future risks by providing safe workplaces and incorporating workers into social protection schemes. It is therefore necessary to identify informal workers by economic sector and formulate policies that specifically target these groups.

The process of informal workers formalizing their businesses and establishing legal entities is a complex one that encompasses multifaceted social, economic and legal relationships. It depends not only on creating a conducive legal environment but also on other factors, such as favourable infrastructure conditions, economic incentives, effective support and benefits from social protection, and skills development.

To support the process of formalizing informal economic units and reducing informal employment, efforts are being made to improve the State electronic service systems. In this context, systems such as e-mongolia, e-business, e-tax, e-daatgal and ejob have been analysed and assessed.

At the national level, a unified infrastructure for government information exchange has been established, through which, platforms such as e-mongolia.mn, e-business.mn, etax.mta.mn, ndaatgal.mn, ejob.gov.mn, and other electronic systems can be accessed to provide a one-stop electronic government service. As a result, citizens and business entities save time at each stage of the formalization process and can receive government services remotely or from one-stop service centres. This has improved the efficiency of these processes.

The e-formalization platform aims to formalize informal workers and include them in social protection by improving the ejob.gov.mn website. Since informal wage employees are more numerous than informal employers, this platform will focus on digitizing services, such as registration of informal workers, employment mediation, establishing labour contracts, and registering workers for social insurance. This will allow detailed registration of information on informal workers and employers, which will facilitate an accurate assessment of their employment conditions and enable government organizations to implement the necessary policies and measures. The ejob platform can be used to produce detailed employment statistics on informal workers, increase the accessibility of social protection services for them, and deliver necessary advice and training to employers in a timely manner.

The activities planned to improve the ejob platform will expand its operations and deliver a wider range of efficient services to users, with a view to: improving the formalization process

for informal workers; providing flexible job opportunities to job seekers and employers; establishing, managing and validating labour contracts using electronic signatures; improving the registration and management of voluntary and mandatory participation in social insurance, health insurance and pension funds; electronically registering and formalizing informal enterprises; and collecting, exchanging, analysing and reporting data and information on the informal economy and labour market.

When informal workers who are registered in the improved information system, having received information about transitioning to the formal economy, decide to formalize their businesses and establish legal entities, they can do so via a link to the e-business.mn portal, provided in the system. In the e-business portal they can establish a legal entity and subsequently obtain any necessary permits. It is therefore perfectly possible to use electronic systems to formalize parts of the informal economy.

In creating and building up the database of informal workers, efforts will be made to obtain specific information from secondary information sources such as data on voluntary social insurance contributors registered with the General Authority for Social Insurance, data on persons covered by health insurance, information on self-employed individuals issuing VAT e-receipts registered with the General Department of Taxation, information on herders based on the Livestock Census or A-account/registration with the National Statistics Office, information on self-employed individuals participating in projects and programmes of the General Authority for Labour and Social Welfare Services, and data from the 2021 Census of Enterprises and Self-Employed Individuals conducted by the National Statistics Office. This will enhance the scope, usability, and relevance of the informal workers' database.

Platforms like e-business and ejob, however, require continuous development and improvement. In some cases, the complexity of these systems' processes is causing difficulties for citizens and business owners. This is not solely due to system development and services; traditional processes and legal regulations also hinder these systems, with multi-step procedures that negatively affect the outcomes of digitization. While there is a need to focus on increasing digitization and simplification of processes, it is equally important to consider that rural citizens, informal workers, and the self-employed often have limited digital skills and lack access to electronic technologies.

The planned changes and developments for improving the ejob platform aim to significantly enhance the quality and accessibility of online employment services in Mongolia. These improvements encompass broad solutions aimed not only at connecting employers and job seekers but also at formalizing informal workers and fully including them in the social protection system.

The main goal is to develop the ejob platform as a multi-tenant SaaS system. This will allow multiple organizations and employment mediation agencies to use the platform simultaneously, separating data and operational control for each, thus providing the opportunity for private employment mediation organizations to organize their operations using the platform when they do not have their own systems. Additionally, developing data exchange mechanisms with private employment mediation platforms (e.g. zangia.mn, ajly.mn) will enhance information exchange and decision-making efficiency.

Improvements to the ejob platform focus on introducing important elements, such as labour contract management, integration with the social insurance system, payment and escrow accounts, and databases of informal workers, with a view to strengthening transparency and

safety in the labour market and developing mechanisms to resolve disputes between workers and employers. This will not only validate labour contract relations but will also provide an opportunity to manage financial operations arising during employment, insurance registrations and labour disputes more effectively.

Furthermore, the expanded version of the ejob platform will focus on increasing social protection accessibility by creating databases of informal workers and delivering rapid, targeted government and private sector services to them. This will improve their participation in social insurance and provide policy support to accelerate formalization.

Regarding business registration through the e-business.mn portal, the following issues need to be addressed:

Name duplication check: Although the duplication of a new legal entity's name is checked electronically at the time of registration, the name is only confirmed after review by a State registrar, and refusal to confirm the proposed name is common. Choosing a name, while seemingly simple, can therefore be challenging. A feature should therefore be introduced in the State registration system that suggests legal entity names and fully automates checks for name duplicate or similar registrations. This will save the two-day waiting period typically required to obtain confirmation of the registered name.

Simplifying registration forms: The application forms for registering a legal entity are available for download in the State registration system. Citizens need to print these forms, accurately fill in the required information, then scan them and submit them via the e-business system or deliver them in paper form to a registration specialist. This significantly slows down the electronic formalization process. To simplify this, a function is needed to allow citizens to automatically populate these forms using their existing information from e-mongolia or other government databases and to submit their verified forms electronically. Newly established legal entity certificates should also be received electronically. Urgent changes to laws, regulations, and system development are therefore needed.

Incomplete payment automation: When establishing and registering a legal entity, citizens need to make various payments related to name confirmation, control numbers, stamp duties, ordering seals and signature verification. These require going to a bank to pay in person. By integrating electronic payment systems, this step can be fully automated and payments could be made through the e-business platform.

Addressing these issues will accelerate the formalization process in Mongolia, while also increasing the accessibility of electronic systems, and improve public-private partnerships.

► Policy recommendations for formalizing the informal economy.

In the light of the foregoing, the following recommendations and considerations are proposed, on developing systems to effectively deliver government policies that encourage informal workers to formalize their businesses and participate in social protection.

1. In the process of transitioning to the formal economy and including workers in the social protection system, the effectiveness of electronic systems is of great importance. Integrated, coherent, transparent, and accessible electronic systems therefore need to be introduced. For example, integrating the ejob platform and other government information systems and improving information exchange will accelerate this process and increase effectiveness.
2. The ejob platform is the main platform for electronic employment services in Mongolia, allowing for the registration of informal workers, creation of databases and electronic management of consolidated information on employers and job seekers. Developing a multi-tenant SaaS system will facilitate the integration of operations of private employment mediation organizations and government organizations, thereby creating conditions for more effective information exchange. This will help informal workers to register in a unified system and will enable the effective delivery of government services and social protection.
3. In addition to registering and creating a database on informal workers, the flow of information between government and private sector organizations needs to be integrated. The ejob platform should therefore be connected with other government systems and data should be exchanged. This will simplify the process of including informal workers in social insurance and will create opportunities to increase citizens' access to economic and social protection.
4. Data sharing and registration using electronic systems require guaranteed security of user information. Systems must be developed that store and exchange informal workers' personal information securely and reliably, including social insurance registrations, employment contracts and payment information.
5. Ministries, implementing agencies, labour exchanges and other organizations need to work proactively to manage the information flow of this registration system to formalize workers, reduce informal employment and ensure decent work. To build up the database and assess which sectors of the economy informal workers are involved in and what forms of labour and services they provide, connections must be established with other databases and information exchange must be facilitated.
6. To improve the development and use of the newly created registration system for informal workers, training and promotional activities involving stakeholders in the labour sector should be organized. The support and participation of policy-makers and international organizations should be leveraged.
7. Stakeholders should focus on organizing unified measures to increase monitoring, advice and recommendations for reducing informal employment in formal enterprises and mitigate future risks to workers' social protection.
8. The economic and social benefits of the transition from the informal to the formal economy need to be explained to employers and business operators, including by promoting the tax exemptions and reliefs they can enjoy under the current legal framework.
9. Activities should be undertaken to thoroughly educate informal workers on the benefits of formalizing their employment and participating in social protection, in particular opportunities to protect against potential future risks.
10. All job vacancies in the civil service should be advertised through ejob.gov.mn to increase the platform's usage and public awareness. The capacity to deliver news and information through the site should be developed.

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Appendix 1. Data sources for creating a national database of informal sector workers

The following databases are highlighted as secondary sources for creating a database of informal workers.

Information on health insurance contributors

In Mongolia, health insurance is compulsory; every citizen is legally required to enrol in the health insurance scheme and pay contributions, granting them the right to access public health services. A health insurance contributor is defined as a citizen who regularly pays contributions to the health insurance fund in advance and has the right to share financial risks that may arise due to health issues. The health insurance fund operates nationwide.

► **Table 1. Number of health insurance contributors by category.**

Indicators	2019	2020	2021	2022	2023	Q1/2024
Health insurance contributors	3,449,501	3,257,853	3,485,443	3,676,542	3,741,485	3,018,438
Citizens whose employer pays their contributions	982,351	964,703	1,020,171	1,112,174	1,157,401	667,889
Employees of budget organizations	282,381	287,765	296,823	310,398	304,876	200,367
Employees of an enterprise or organization	699,970	676,938	723,348	801,776	852,525	467,522
Citizens who pay the premium themselves	335,412	264,822	260,061	368,111	369,296	111,341
Herders	100,381	76,298	69,111	79,891	83,347	21,986
Self-employed citizens	201,419	162,720	171,453	265,038	264,432	79,659
Students at universities, colleges, vocational schools	33,315	25,611	19,319	22,968	21,090	9,212
Other contributors	297	193	178	214	427	484
Citizens who will be responsible for the contribution from the State budget	2,131,738	2,028,328	2,205,211	2,196,257	2,214,788	2,239,208

This database will provide the most valuable contribution to the information we gather about informal workers, serving as a key source for registering and verifying citizen information.

Information on voluntary social insurance contributors

The law provides for two types of social insurance contribution: mandatory and voluntary. Individuals who do not participate in formal employment may enrol voluntarily in social insurance, regardless of their earnings. These are likely to be informal workers.

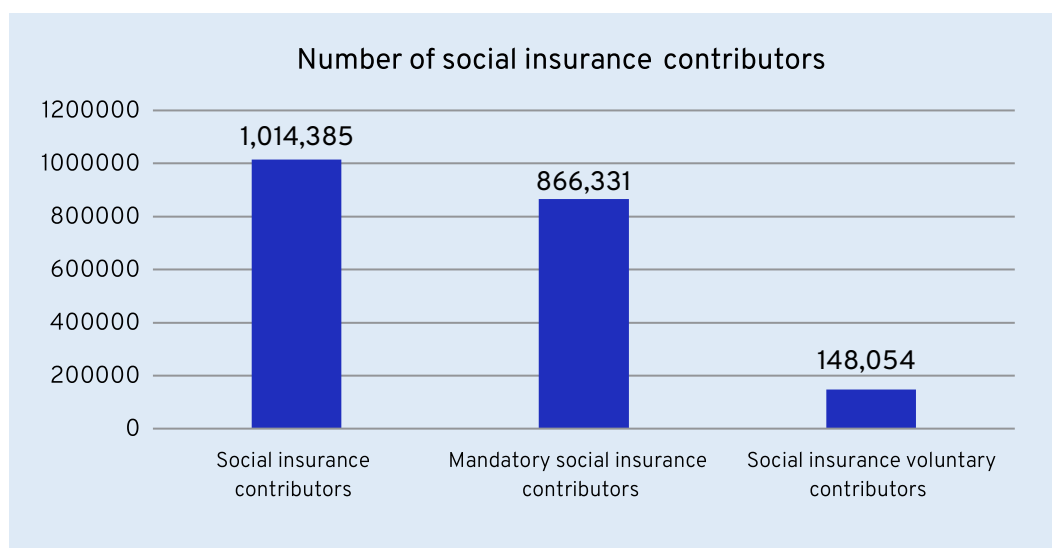
Comparing the number of contributors enrolled in social insurance over the past few years reveals fluctuations in the number of voluntary contributors. These changes are influenced by the prevailing government policies and reforms at the time.

► **Table 2. Number of voluntary contributors**

Indicators	2015	2019	2020	2021	2022	2023
Social security contributors	989,036	987,484	1,013,190	1,019,114	1,069,628	1,105,843
Mandatory contributors	799,798	825,186	826,064	862,071	913,090	953,835
Voluntary contributors	189,238	162,298	187,126	157,043	156,538	152,008

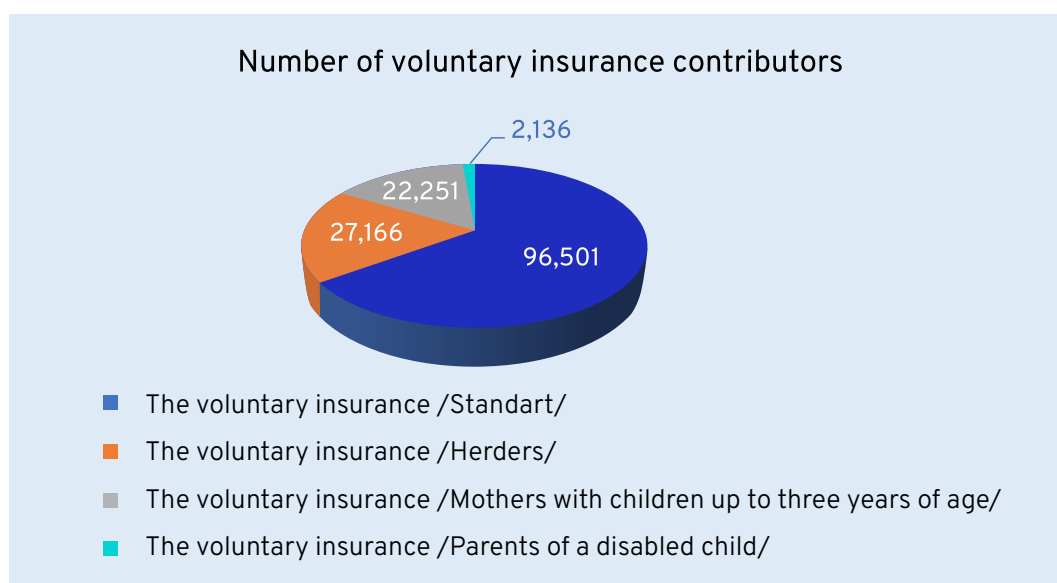
During the study, the Deputy Director of the Information Technology Centre of the General Authority for Social Insurance provided the following figures on the number of voluntary contributors recorded in April 2024:

► **Graphic 1. Number of social insurance contributors by category**



These figures are counted based on the year-end projections. Informal agricultural workers, including herders and assistant herders, account for 27,166 individuals, or 18.3per cent of voluntary contributors.

► **Graphic 2. Number of voluntary insurance contributors by category**



The number of contributors to standard voluntary insurance is 96,501, accounting for 65.2per cent of voluntary contributions, which suggests that these contributors may be informal workers in non-agricultural sectors. However, during discussions with experts in the field, it was noted that members of the public sometimes misclassify themselves. This highlights the need for further awareness-raising and advocacy efforts to allow for more accurate registrations.

The table below shows the number of voluntary social insurance contributors per employment category:

► **Table 3. Employment status of voluntary contributors.**

Employment	Number
Self-employed	34,965
Unemployed citizen	24,225
Herder	17,202
Other	11,827
Self-employed entrepreneur	9,183
Mongolian citizen both living and working abroad	1,374
Mongolian citizen living abroad	1,086
Student (bachelor, post-graduate and PhD)	640
Worker on unpaid leave for one or more months	471
Apprentice	429
A person who is unable to work	164
Driver (taxi, haulage)	109
A worker who has temporarily received administrative leave without pay	88
mother taking care of her child	82
Driver- Taxi	80
Foreign citizen or stateless person living in Mongolia	77
Small-scale miner	72
Other workers with employment contracts	70
Farmer (vegetable gardener)	65
A Mongolian citizen working in a foreign project unit	58
Driver (cargo, intercity transport)	44
Domestic service workers or similar workers	35
A citizen participating in government incentives	33
Farmer (vegetable gardener)	29
Driver- passenger transport	19
Assistant herdsman with employment contract	12

This information on voluntary contributors to social insurance, provided by the General Authority for Social Insurance, could potentially be useful for identifying informal workers.

Information on tax-registered self-employed individuals issuing VAT e-receipts

The General Department of Taxation has a unified database of taxpayers, which includes self-employed individuals with registered businesses, particularly those working informally in trade and services. This database aims to connect these individuals to the VAT e-receipt system to generate QR codes and print receipts for service delivery.

Although there is information on 108,626 self-employed individuals registered in the VAT database, 105,318 have created QR codes and connected to the system, while only 48,034 are actively issuing receipts. The figures are from April 2024, so it is worth noting that some of the individuals registered may have issued receipts in previous years but not yet have issued any in 2024. This database of self-employed individuals could be a source of valuable information for identifying informal workers.

Data on herders, based on the Livestock Census database.

The NSO conducts an annual Livestock and Domestic Animal Census using a specific methodology. This Census is used to create a database of livestock, herding households and individuals.

► **Table 4. Number of herders by region.**

Bagh, Khoroo	2015	2020	2022	2023
State results	297,828	298,789	305,079	298,338
Western region	79,220	73,659	76,989	74,421
Khangai region	123,056	124,349	126,048	124,651
Central region	58,759	60,690	60,479	58,058
Eastern region	34,483	36,310	37,126	36,741
Ulaanbaatar	2,310	3,781	4,437	4,467

This database can also be used to identify informal workers in the agricultural sector, with a view to conducting targeted advocacy efforts.

Information on self-employed individuals participating in projects and programmes of the Employment Promotion Fund.

Information on individuals and self-employed workers receiving assistance and support from the Employment Promotion Fund can also be included in the database of informal workers, since most of these individuals are self-employed or are preparing to start their own businesses. Their information will be integrated into the e-job.mn portal; data from the first five provinces is currently being entered and soon, data for 2024 from all provinces will be uploaded. The information is not, however, sufficient to create a comprehensive database of informal workers. Nevertheless, it is a key activity organized by the Ministry to support employment, and has the potential for growth in the future.

According to the Regulation on small loans from the Employment Promotion Fund, their guarantee, reimbursing interest, and providing financial support, agreements are in place to issue small loans through banks, and by 31 December, 2023, services had been provided to a total of 922 individuals. Financial support has been given to 2,239 individuals, with the aim of creating and maintaining jobs, starting micro- and small businesses, increasing working capital, and expanding or reviving operations. Additionally, 1,994 herders have been included in livestock development activities.

Information from the NSO 2021 census of micro-enterprises and self-employed individuals conducted by the NSO

The NSO successfully conducted the seventh Business Entity Census in 2021. The census aimed to study the operations, service sectors, scale, concentration, location, and conditions of businesses operating in Mongolia, thereby serving as a source of information for formulating government policies and programmes, facilitating electronic data exchange among State organizations, and establishing a comprehensive database containing comprehensive information about business operators.

This Census was the first to include self-employed individuals. The resulting database has the potential to provide valuable insights into the informal economy.

In this Census, 53,900 self-employed individuals were registered, of whom 25,200 (46.7per cent) were male and 28,700 (53.3per cent) were female. Among them, 26,300 (48.8per cent) were in Ulaanbaatar, 8,400 (15.6per cent) in the Central region, 8,200 (15.2per cent) in the Khangai region, 7,900 (14.7per cent) in the Western region, and 3,100 (5.7per cent) in the Eastern region.

► **Table 5. Self-employed individuals by location, from the results of the 2021 NSO Business Entity Census**

Region, province, capital	Total	Gender	
		Men	Women
Total	53,927	25,199	28,728
Western region	7,942	4,504	3,438
Bayan-Ulgii	1,936	1,384	552
Govi-Altai	987	473	514
Zavkhan	1,714	860	854
Uvs	1,418	849	569
Khovd	1,887	938	949
Khangai region	8,187	3,692	4,495
Arkhangai	953	519	434
Bayankhongor	874	456	418
Bulgan	301	114	187
Orkhon	3,078	1,178	1,900
Uvurkhangai	1,429	648	781
Khuvsgul	1,552	777	775
Central region	8,386	3,955	4,431
Govisumber	338	126	212
Darkhan-Uul	2,117	899	1,218
Dornogovi	1,248	571	677
Dundgovi	560	261	299
Umnugovi	625	261	364
Selenge	1,685	800	885
Tuv	1,813	1,037	776
Eastern region	3,073	1,412	1,661
Dornod	960	418	542
Sukhbaatar	1,046	519	527
Khentii	1,067	475	592
Ulaanbaatar	26,339	11,636	14,703

Information on self-employed individuals from the NSO Population and Household Registration Database:

The NSO Population and Household Registration Database contains national-level information, collected since 2006, in analogue format at the local and district levels to record population and household data and is linked to the database of the General Authority for State Registration. Obtaining information from this database is quite challenging, and it is primarily used in population censuses. Since the GASR system has started operating online in most places, the potential for widespread usage of this analogue database is now somewhat limited.

Information in the database includes employment status. If employed, respondents can choose from the following categories:

1. Permanent employee
2. Temporary employee
3. Casual employee

4. Trainee or apprentice
5. Contractual worker
6. Employer in a company or organization
7. Employer in a market-oriented household enterprise
8. Operator of a business or organization without employees
9. Operator of a market-oriented household enterprise without employees
10. Family member contributing to the household

This classification allows for data collection, particularly regarding individuals in categories 7 and 9, which could be useful for identifying informal workers. However, the accessibility of statistical information from this database is not very high, making its usefulness is limited.

Appendix 2 Meeting list

Meetings organized within the scope of this research

N ^o	Organization	Representative
1	Employment Policy Implementation and Coordination Department of the Ministry of Family, Labour and Social Protection	Head of division: B.Altantulga Specialist: N.Zoljargal
2	Information Technology Centre of the General Authority for Social Insurance	Director: G. Khurelbaatar Deputy Director: D. Enkhbat
3	General Office of Labour and Welfare Services, Information Technology Centre Employment Promotion Office Department of Social Welfare Policy Implementation	Head of Department: D. Davaajargal Specialists: Lkhagvasuren, A. Ulziisaikhan Dulamsuren
4	General Department of Taxation, Department of Tax Collection Management and Methodology, Information Technology Centre	Head of Centre: B. Altankhuyag Specialist: EnkhTUR
5	Ministry of Digital Development, Innovation and Communications Department for coordinating the implementation of e-development policy Division of Public Information Infrastructure	Head of Department: B. Bilegdemberel Head of Division: D. Batbayar
6	National Statistics Office Department of Social Statistics,	Head of Department: Oyunbileg Senior statistician: E. Gantuya
7	Mongolian Employers' Federation	Vice President: Kh. Ganbaatar Head of department: Enkhjargal Consultant: Adiya
8	National Data Centre	Head of Centre: M. Battulga
9	General authority for state registration of Mongolia, Information Technology Centre	Head of Department: Sh. Ariunbold

Working group members participating in group discussions

N ^o	Surname	position
1	B. Altantulga	Head, Employment Policy Implementation and Coordination Department, Ministry of Family, Labour and Social Protection
2	B. Narangarav	Head, Labour inspection Department, Ministry of Family, Labour and Social Protection
3	Ts. Sukhbaatar	Senior Analyst, Department of Information Technology and Statistics, Ministry of Family, Labour and Social Protection
4	Gantsetseg	Specialist, General Authority for Social Insurance
5	D. Batbayar	Head of Public Information Infrastructure, Department for Coordination of e-Development Policy Implementation, Ministry of Digital Development, Innovation and Communication
6	U. Bodigerel	Specialist, Ministry of Family, Labour and Social Protection
7	A. Urangua	Specialist, Ministry of Family, Labour and Social Protection

8	P. Bolormaa	National Coordinator, ILO
9	D. Munkhtogtokh	National Project Coordinator, Formalization of the Informal Economy Project, ILO
10	M. Altansukh	Consultant, Formalization of the Informal Economy Project, ILO
11	O. Amartuvshin	Consultant, Formalization of the Informal Economy Project, ILO
12	K. Zurash	Senior specialist, Information Technology and Statistics Department, Ministry of Food, Agriculture and Light Industry
13	N. Munkhtuul	Head, Trade Union Membership and Organization Department, Confederation of Mongolian Trade Unions
14	E. Enkhjargal	Head, General Coordination Department, Mongolian Employers' Federation
15	B. Altankhuyag	Head, Information Technology Centre, General Department of Taxation
16	T. Gankhulug	Programmer, Information Technology Centre, General Department of Taxation
17	D. Enkhbat	Head, Software Department, Information Technology Centre, General Authority for Social Insurance
18	Lkhagvajav	Specialist, General Authority for Social Insurance
19	D. Davaajargal	Head, Information Technology Centre, General Department of Labour and Welfare Services
20	Dulamsuren	Specialist, General Department of Labour and Welfare Services
21	O. Ayush	Head, Membership Department, Mongolian National Chamber of Commerce and Industry
22	A. Tergel	Project assistant, Formalization of the Informal Economy Project, ILO
23	N. Zoljargal	Specialist, Ministry of Family, Labour and Social Protection

References

Economic Policy and Competitiveness Research Centre (EPCRC). 2015. *Formalizing enterprises in Mongolia: Challenges and policy directions*. Ulaanbaatar.

ILO. 2013. *The Informal Economy and Decent Work: A Policy Resource Guide Supporting Transitions to Formality*. Available at: <https://www.ilo.org/publications/informal-economy-and-decent-work-policy-resource-guide-supporting-0> (Accessed 28 February 2025).

ILO, Ministry of Family, Labour and Social Protection and LSSI. 2021. *The state of informal employment in Mongolia, survey report*, 2021. Available at: <https://www.ilo.org/publications/state-informal-employment-mongolia-survey-report> (Accessed 28 February 2025).

Hart, Keith. 1973. "Informal Income Opportunities and Urban Employment in Ghana". *The Journal of Modern African Studies*, 11 (1): 61–89.

NSO. 2019. Хөдөлмөр эрхлэлтийн статистикийн үзүүлэлтийг тооцох аргачлал. Ulaanbaatar. (Available in Mongolian only).

NSO. 2024. Labour force statistics. Available at: https://www.1212.mn/mn/statistic/statcate/573055/table-view/DT_NSO_0400_012V1 (Accessed 15 February 2025).



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