



**Asia-Pacific
Economic Cooperation**

Advancing Free Trade
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Guidelines on Providing Social Protection to Digital Platform Workers

APEC Human Resources Development Group

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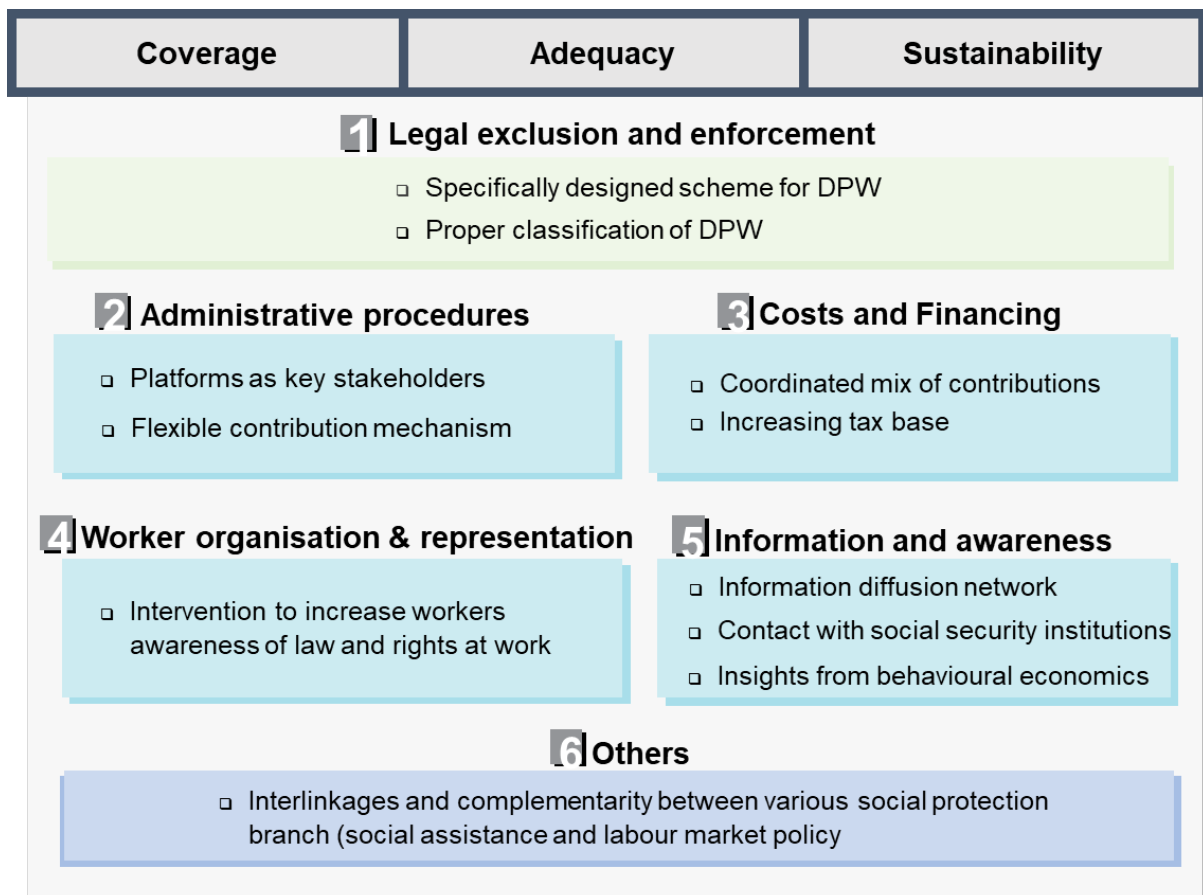
EXECUTIVE SUMMARY

Digital platform economies and technology adoption have drastically changed business models and created new forms of work in the labour market across various economies in the Asia Pacific region. Although platform workers have garnered greater autonomy in deciding their respective working arrangements and income, many digital platform workers are excluded from social protection coverage - leaving many vulnerable to economic shocks and life contingencies that can push them into poverty.

Drawing upon good practices, experiences, and innovations across various economies in the region, the APEC Guidelines on Providing Social Protection to Digital Platform Workers aim to address the social protection gap for platform workers. An online workshop was held from 24 to 26 August 2021 amongst policy makers, regulators, and researchers to discuss various policy implementation challenges as well as good practices related to providing social protection to digital platform workers. To many of the participants, the online engagement also provides an encouraging and educational space for practitioners to learn more about the topic and ask questions through several breakout sessions.

Besides existing and related literature in the topic, the authors used the findings from the workshop to design the framework of the guideline, outline the challenges faced by varying economies and provide a set of recommendations to provide social protection to platform workers.

Legal exclusion, cumbersome administrative procedures, financial burden, limited worker representation and lack of awareness are highlighted as the main barriers faced by representatives from various economies. These challenges arise as digital platform workers are heterogeneous in nature and rarely have defined employer-employee relationship. To overcome such barriers, the guidelines have suggested to classify digital platform workers and their rights, establish flexible protection schemes, collaborate with digital platforms to ease collection of contributions, strengthen representation and collective bargaining, and employ behavioural insights to increase outreach. These recommendations are summarised below.



While the recommendations may not be exhaustive in nature, they set the building blocks to widen the coverage of protection among digital platform workers, enhance the benefit and adequacy of protection and finally promote sustainability in the schemes administered by the respective economies.

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List of acronyms

AIGWW	All-India Gig Workers Union
APEC	Asia-Pacific Economic Cooperation
DGBAS	Directorate General of Budget Accounting & Statistics, Chinese Taipei
DOSM	Department of Statistics, Malaysia
DPE	Digital Platform Economy
DPW	Digital Platform Workers
EPF	Employees Provident Fund, Malaysia
IFAT	Indian Federation of App-based Transport Workers
ILO	International Labour Organization
ISSA	International Social Security Organisation
KRI	Khazanah Research Institute
MDEC	Malaysia Digital Economy Corporation
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
PEMERKASA	<i>Program Strategik Memperkasa Rakyat dan Ekonomi</i>
SOCSSO	Social Security Organisation, Malaysia
SSS	Social Security System, The Philippines
UK	United Kingdom
US	United States

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1. Introduction

The APEC Guidelines on Providing Social Protection to Digital Platform Workers (DPW) are prepared with the objective of raising the standards of social protection especially for digital platform workers. The shift from traditional formal employment towards employment in the platform economy has been spurred by the increasing number of digital platforms as well as the COVID-19 pandemic and government measures that restrict movement and working conditions. The rise of digital platforms has caused a fundamental change in the very nature of work and the way labour market work throughout the world. Social protection models built on employer-employee relationship are not suited for digital platform employment, where in most cases do not have clear employer-employee relationships. Hence, social protection institutions must be designed to account for non-standard forms of employment as the numbers of such workers are growing day by day.

This set of guidelines will first define and summarise the definition of digital platform economy, the nature of employment in digital platform economy and the key challenges faced by digital platform workers in respect of employee benefits and social protection. Understanding the employment context to be addressed, the set of guidelines will then propose a design thinking to approach social protection for digital platform economy by looking at the scope of coverage, adequacy, and sustainability. These guidelines also represent an attempt to review the recommendations and findings gathered during the workshop on Social Protection for Digital Platform Economy which was held online from 24 to 26 August 2021 and participated by various economies.

2. Overview of the digital economy and digital platform economy

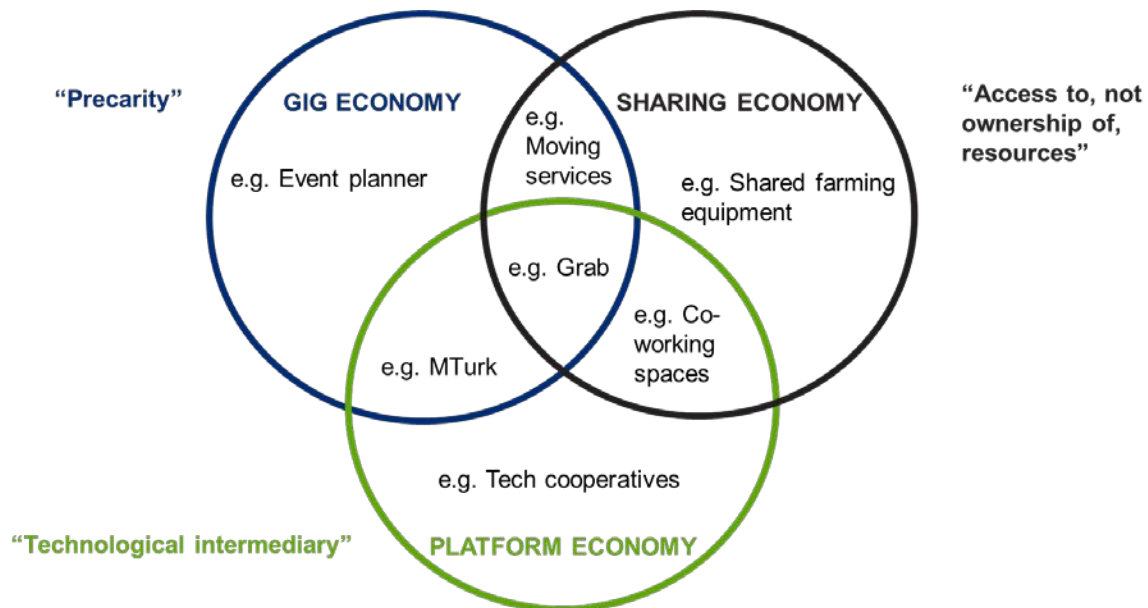
The set of guidelines focuses on a subgroup of the informal economy and self-employment, namely the digital platform economy. The issues and challenges outlined on providing social protection are specific to DPW and may not be applicable to other informal sectors with distinct characteristics. The digital platform economy itself is a broad term that encompasses remote work, e-commerce and gig economy. However, this guideline will look at the intersection between gig economy and digital platform economy.

Efforts to conceptualise the digital economy in a way that enables meaningful measurement rely on a consistent definition of the digital economy as “that part of economic output derived solely or primarily from digital technologies with a business model based on digital goods or services” (Buhkt and Heeks 2017, pg. 13). In reality, many economies have not settled on a single definition and instead defines digital economy according to their different appetite towards digital economy (Abdul, 2021). Abdul (2021) specifies hardware manufacturing, software and IT consulting, information services and telecommunications as the initial aspect towards digital platform economy development. Consequently, a broad scope of digitalised economy has been established encompassing the digitalised forms of all the traditional sectors such as e-business, e-commerce and agriculture.

One of the many challenges faced by researchers and policymakers looking into the future of digital work is the muddy waters of terminology. Even the International Labour Organization (ILO) has been known to use gig economy and platform economy interchangeably (ILO 2021:33), and other terms such as sharing economy are often used as well. The function of the platforms within this definition is broad, ranging from reducing transaction barriers and costs to accelerating precarity (Vallas and Schor 2020), but the scope of these guidelines focuses on the role of platforms within the gig economy.

Figure 1 presents the intersections between the gig economy, the sharing economy and the platform economy (drawing from, among others, Prassl 2018; Sutherland and Jarrahi 2018; Vallas and Schor 2020). The gig economy is marked by precarity or uncertainty. Income is dependent on being able to get “gigs” or jobs. The gig economy predates platforms. Some examples of conventional, non-digital gig workers include event planners or musicians. The sharing economy, which also predates digital platforms, is defined by how people have access to, not ownership of, resources. For example, a group of farmers sharing a tractor or a produce sorter. The most recent development comes from the platform economy, in which these gigs and resources are managed via a technological intermediary, namely a digital platform.

Figure 1: Intersections between the different definitions relating to the digital platform economy



Source: (Gong, 2012)

The platform economy can be attractive for jobseekers because it provides flexible and convenient working arrangements, with jobs being organised and distributed on the fly by an algorithm. This facilitates self-regulated work unbounded by time and affords the worker more autonomy. Depending on the type of work offered, it can also provide opportunities for highly skilled workers in developing economies to earn higher wages by working remotely (Tan and Gong 2021).

However, without clear regulations on the evolving worker-employer relationship, the lack of oversight can leave platform workers without employee benefits and social protection, such as occupational safety protection, medical leave, minimum wage, health insurance, retirement benefits and career progression opportunities. In fact, these challenges disproportionately affect women in the platform economy. A recent survey of over 4,900 gig workers across 15 economies reinforced the case that platform work is heavily gendered, with women reporting lower financial satisfaction than men (Siddiqui and Zhou 2021).

Box 1: Workshop on Social Protection for Digital Platform Economy

This set of guidelines is established based on the workshop on Social Protection for Digital Platform Economy held online from 24 to 26 August 2021. The workshop served as a useful opportunity for participating economies such as Malaysia; Brunei Darussalam; Chinese Taipei; Singapore; Canada; the Philippines; Russia; Viet Nam and China to gain a clearer view on the best practice to implement social protection for digital platform workers. It is also aimed to provide a platform for policy makers, regulators and researchers to share thoughts, information and best practices sharing by economies pertaining to the new world of works.

Few breakout sessions were assigned in which participants were divided into groups and given an exercise template to be discussed. The template was designed to assist participants to identify challenges and solutions based on several main themes. Through these discussions, economies are better informed to structure their respective way forward in improving social protection to workers in the digital economy.

The first day of the workshop focused on Digital Economy, specifically Digital Platform Economy (DPE). Experts outlined roles, trends and challenges as well as the call to action for workers in digital platform economy. As Digital Economy is relatively new, presentations on the economy was needed to align the understanding of participants on the sector.

The workshop continued on the second day with the discussion on social security and social protection. Among the topics discussed were the approaches to extending social protection coverage to Digital Platform Workers, mandatory and voluntary coverage mechanisms, as well as sharing of good practices.

Complementing the discussion on Day 2, Day 3 of the workshop covered the use of behavioural insights in implementing social protection. The last session was dedicated to analysing the adequacy of benefits provided by social security to DPEs, as well as the fund sustainability and redistribution need between digital platform workers and wage workers.

Box 2: Slido Engagement

As part of efforts to encourage engagements, the workshop adopted Slido as a means of interaction. Through this online interactive platform, participants were asked questions on DPE and DPW in between the scheduled presentation sessions. Below are respondents' answers to each question:

Figure 2: Legally, are platform workers classified as wage workers or self-employed person in your economy?

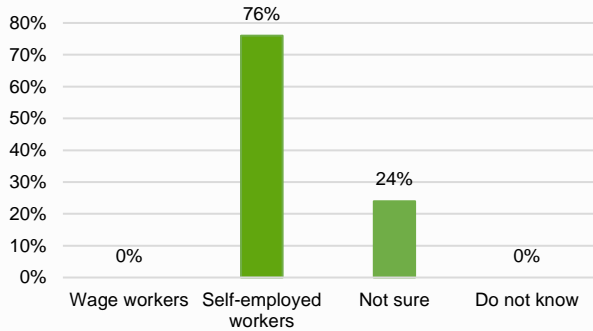


Figure 3: Are all platform providers required to register with any social security agency (or equivalent) in your economy?

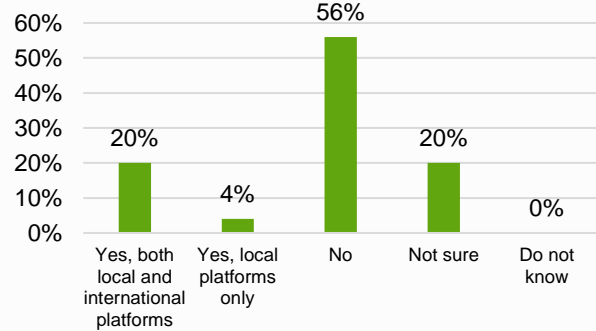


Figure 4: Are digital platform workers covered by social protection provisions in your economy?

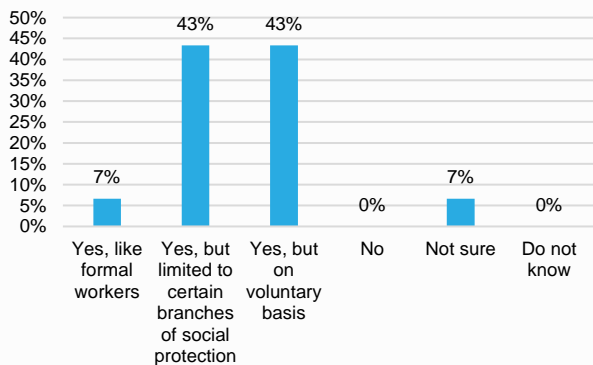


Figure 5: What are the social protection coverage provided to digital platform workers in your economy?

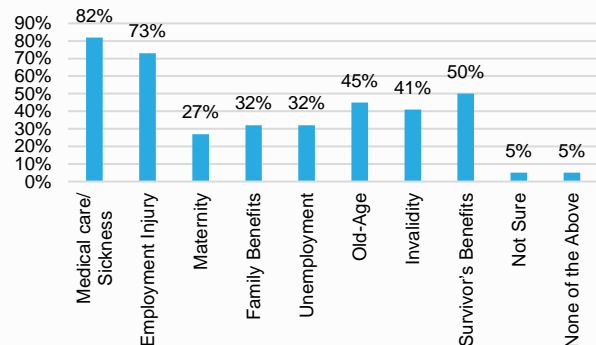


Figure 6: In your opinion, who should be responsible to pay for social protection contributions to protect digital platform workers?

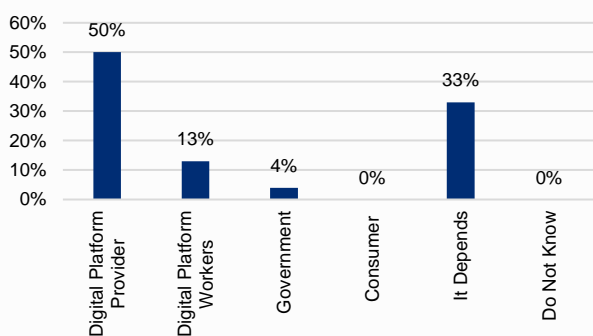
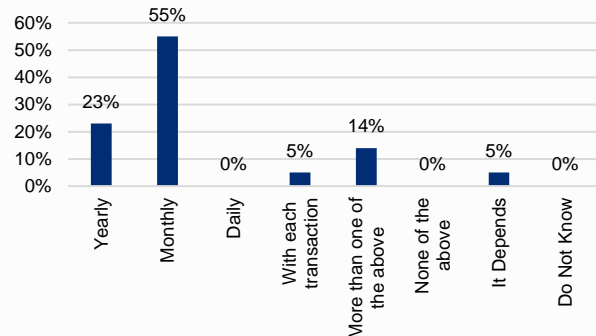


Figure 7: In your opinion, what should be the frequency of social protection contribution payments for digital platform workers?



3. Considerations



- Legal exclusion and enforcement
- Administrative procedures
- Costs and Financing
- Information and awareness
- Worker organisation & representation
- Others

4. Issues and Challenges

The 21st century labour market has been argued to be altered by three major factors, namely globalisation, technological advancement and demographic shifts (Mansor, 2021; Qian, 2021). This can be seen through the growth of DPW segments that move in parallel to increasing trade as well as rising internet usage and part-time employment (Kässi & Vili Lehdonvirta, 2021; OECD, 2021; World Bank, 2021c, 2021a). It was also found that skill-biased technological changes and production relocations via international trade have led to dwindling demand for labour that is not categorised as high-skilled (Los et al., 2014). These lost jobs are increasingly seen to be replaced by work that is temporary, with many mediated by online platforms.

Nevertheless, recent estimates of gig workers remain small. The World Development Report 2019 estimated between 0.3% and 0.5% of individuals in the labour force are participating in the gig economy¹ (World Bank, 2019). Yet, a 2018 study by the Zurich Insurance Group and the Smith School of Enterprise and the Environment at the University of Oxford indicate a growing appetite, with 20% of its survey respondents (global average) having plans to leave their jobs to freelance (Zurich, 2020). The percentage is higher in Malaysia at 38%². This trend is expected to be accelerated during and post the COVID-19 pandemic, reflected by an increase in private-hire car drivers linked with online matching platforms in Singapore and app-based delivery riders in Malaysia (KRI, 2021; Qian, 2021).

The ILO estimated that informal employment accounts for 61.2% of global employment in 2016 (ILO, 2018b). Informal employment here refers to workers without legal and social protection including mandated social insurance and access to annual or sick leave. Regionally, informal employment is highest in Africa (85.8%), followed by Arab economies (68.6%), Asia and the Pacific (68.2%), Americas (40.0%) and Europe and Central Asia (25.1%). Another indicator of uncovered workers is the share of self-employment. As seen in Figure 8, APEC economies with a lower self-employment share tend to have a higher share of social protection coverage.

Looking at female participation on digital platforms, about four in ten workers on online web-based platforms are women, while in developing economies only about two in ten are women (ILO, 2021). Women also comprise fewer than 10% of workers in app-based taxi and delivery sectors, although this percentage is higher where female-only taxis are implemented. (ILO, 2021)

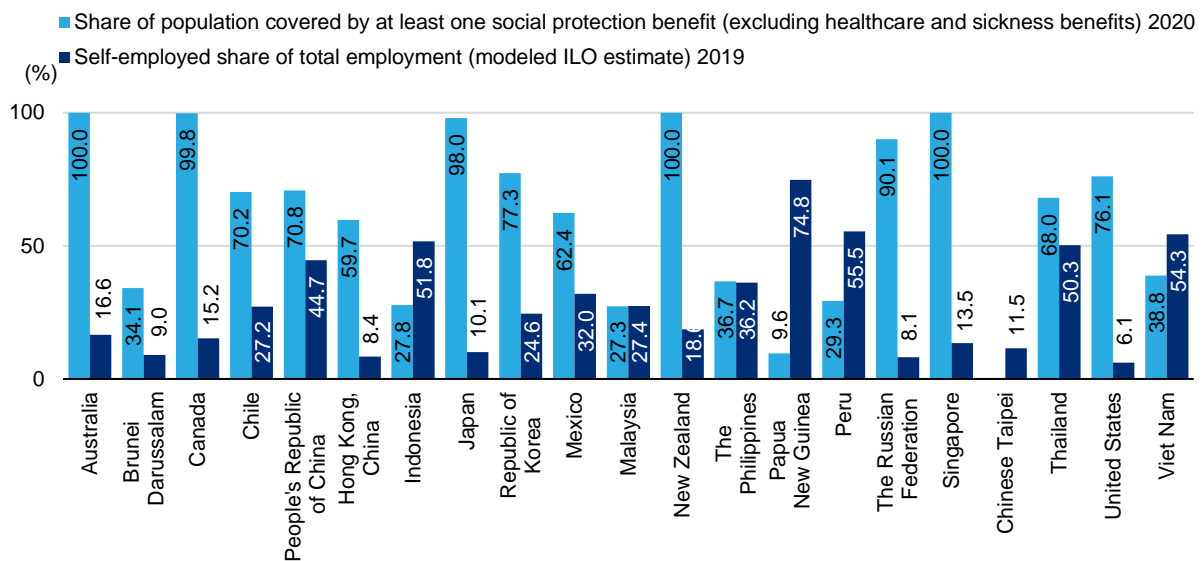
The past decade has seen a fivefold increase in the number of digital labour platforms from 142 in 2010 to over 777 in 2020. The number of online web-based platforms tripled over this period, while the number of taxi and delivery platforms grew almost tenfold. Despite this growth, the COVID-19 pandemic has exposed many of the risks confronting workers on digital labour platforms. Since the COVID-19 outbreak, labour

¹ The estimates for gig workers in any capacity (online or offline, regular or occasional, and primary or supplementary job) are higher. In the United States, the estimates range between 25% and 35% of workers (ILR School and the Aspen Institute, 2021). In Malaysia, the share of non-standard employment (workers without full-time jobs) from the total employment has been about 30% in the past decade (KRI, 2021).

² This corresponds to a cited 2019 finding where 4 in 10 Malaysians are found to have plans to join the gig economy in 2020 (Hussein, 2021; Vadivel, 2021).

supply on digital platform (predominantly from developing economies) rose, while demand decreased and shifted to tasks related to software development and technology. In the context of location-based platform work, a survey of taxi and delivery DPW also showed that most experience declining demand and reduced earnings. As a result, some engage in additional work or provide their services outside the digital platform (ILO, 2021).

Figure 8: Share of population covered by at least one social protection benefit and self-employment, APEC economies



Source: (ILO, 2021; World Bank, 2021b; DGBAS, 2019)

Issues

While some economies grapple to extend social protection that corresponds to the heterogenous DPW from house cleaners to architects, challenges in social protection coverage predate DPW in economies with higher levels of informality. Moreover, economies differ in terms of how their social protection policies are closely linked to employment. For example, some rely more on employer- or sector-specific protection, while others rely on more universal and tax-funded protection schemes. Fitting in DPW into each economy's social protection framework is thus a challenging task.

Specifically for DPW, three oft-cited challenges surrounding social protection provision are: (a) Limited coverage or participation, (b) benefit inadequacy, and (c) a cost concern for both individuals and the agencies providing the schemes. These three core challenges are then typically compounded by the following five common issues: (1) Legal exclusion and enforcement issues, (2) cumbersome administrative procedures, (3) costs and financing arrangement given the unstable nature of the work, (4) limited worker organization and representation, and (5) information barriers and lack of awareness.

3) *Legal exclusion and enforcement issues*

Lack of clear legal status for DPW tends to exclude DPW from existing legally mandated social protection schemes. In many economies, social security legislation and labour-related legislation rests upon a rather narrow employment relationship with a clear employer and employee relationship. In the case of DPW, where the work arrangement is between the platform and the individual worker, the question of whether the platform is the actual employer is heavily debated. At the moment, there are also limited formal avenues to contest employment status or address potential disguised self-employment. Issues surrounding DPW with multiple income sources from multiple platforms can also add to the complexity.

However, DPW is deemed to be legally classified as self-employed by most (Sazali, 2021). This is based on the survey responses circulated to the workshop participants, received as of 17 August 2021³. As suggested in Figure 8, self-employed workers are only covered by existing social protection mechanisms on a voluntary basis at best in many economies.

Even if DPW is legally recognised domestically, actual enforcement might be impeded by the geographic fragmentation of the platforms themselves. For example, the headquarters of among the most popular platforms in Malaysia are based outside the economy (Hussein, 2021). Therefore, the design of social protection schemes may also be limited by the economies' abilities to tax platform companies that are not based locally. This may disproportionately impact economies with higher reliance on corporate income tax. The OECD estimated domestic tax base erosion and profit shifting practices to cost economies around USD100 billion to USD200 billion in lost tax avenue annually (OECD, 2019a). Domestically, cross-agency collaboration needed for enforcement can be hampered by challenges like fragmentation of oversight or limited operational compatibility.

4) *Administrative procedures*

As DPW work through platforms, their digitised data should be more accessible. In turn, this could facilitate social protection administration and enforcement (Simoes da Cunha, 2021). However, for this to be materialised, bureaucracy has to be overcome, human and technical capabilities should be improved and investment in hardware and software should be made.

5) *Costs and financing arrangement*

According to BDO, an international network of public accounting, tax and advisory firms, the most common digital services tax is through an indirect tax (BDO, 2021). This is when digital services provided by a foreign service provider to a consumer are taxed. Economies typically levy this through consumption tax like Goods and Services Tax or Value Added Tax. According to the database, only Slovakia and Uruguay have enforced Corporate Income Tax on platforms, which is typically levied at a much higher

³ Caution should be applied when interpreting this survey findings. Findings are only limited to survey respondents and not representative of any APEC economies.

rate relative to consumption tax. In the absence of an agreed-upon global framework, economies' abilities to use tax revenue to improve social protection coverage and benefit for DPW might be constrained given the multi-economy nature of platforms (BDO, 2021; Hussein, 2021).

Statutory exclusions of DPW may also impact the financing of the available social protection schemes. As many of the schemes are provided on a voluntary basis, the contribution rate for the schemes has to account for irregularity of work and earnings of DPW and the different types of risks, making benefit adequacy and scheme sustainability even more challenging (Vadivel, 2021). While short-term risks like unemployment or employment injury can be inexpensively covered, long-term risks like disability, invalidity and old-age can be expensive (Sluchynsky, 2021).

The voluntary nature of the current schemes has also been argued to be ineffective and counterproductive (Simoes da Cunha, 2021). On the former, the rate of success in expanding coverage has been low except for economies that heavily subsidise the contributions (ILO, 2021; Simoes da Cunha, 2021). On the latter, voluntary may create a perverse incentive by reducing labour cost and inducing disguised self-employment. Without the typical double contribution from both employer and employee, government injection from the tax revenue may also be required.

6) *Worker organisation and representation*

The organisation and representation of DPW are challenging, given the heterogeneity of DPW and the platforms they engaged with. Without a sufficiently clear legal basis, DPW can be limited in the ways they organise themselves. In some economies, only employees with clear employers can form a union, depriving DPW of collective bargaining for a particular industry or occupation.

7) *Information and awareness*

From the workshop survey responses, the top two most frequently cited hindrances in social protection expansion for DPW are (individual) unwillingness and insufficient understanding (of social protection) (Sazali, 2021)⁴. DPW are more likely to experience behavioural resistance as they are typically afforded voluntary social protection schemes with voluntary registration and contribution. Unlike employees who have to contribute by default, DPW is vulnerable to hyperbolic discounting where one trivialises less immediate concerns like the risk of invalidity and saving for retirement. This is supported by behavioural insights research (Koh, 2021).

While self-employment is generally more common among older working-age adults⁵, concerns over younger groups entering the labour force as DPW without social protection are also highlighted (Vadivel, 2021). This is because first-time entrants to the labour market may be less familiar with the existing social insurance landscape as

⁴ Caution should be applied when interpreting this survey findings. Findings are only limited to survey respondents and not representative of any APEC economies.

⁵ This can be observed in both developed and developing economies (Gindling & Newhouse, 2014; OECD, 2019b).

well as less able to appreciate its importance. Without early exposure, many might be at risk of not knowing what they do not know.

Recommendations

The previous section elaborates on key challenges surrounding social provision for DPW, namely legal exclusion, administrative barriers, cost concerns, workers representation and limited awareness. Within the challenges, there lies opportunity especially in leveraging the digitised interactions between DPW and the platforms. This section presents several recommendations shared during the workshop alongside other potential solutions available in the literature to overcome some of the issues and ensure social protection for DPW.

Although the COVID-19 pandemic may pose a challenge for economies to implement social protection policies, the rise of digital platform economy calls for urgent action from economies to improve the current social protection conditions especially to DPW. Acknowledging this, economies may start by selecting a benefit that suits the current economic context (demographic, fiscal consideration and socio-economic), instead of providing all benefits at once (Norma, 2021). For example, Malaysia started with providing only employment injury coverage to DPW. Economies may gradually extend its coverage to eventually provide complete and holistic social protection to DPW, on par with formal employees. Key to this is the economies' political will to start implementing basic policies that address DPW social protection.

1) Legal exclusion and enforcement issues

Most social security schemes are narrowly defined to cover salaried employees and exclude DPW who are typically considered as independent contractors or self-employed workers. Some economies attempt to cover these workers by including them into their main social security schemes, although terms and conditions (e.g., contribution rate and benefit rules) are typically different than salaried employees. Some economies create a separate scheme for self-employed workers which DPW can contribute to, and the terms and conditions could be common for all self-employed workers or differ by type and category of self-employed workers. Social assistance programmes have also been used to cover some self-employed workers in certain economies, outside the social security arrangement (ISSA, 2012).

For example, Malaysia introduced a voluntary self-employment injury scheme under the Self-Employment Social Security Act 2017 (see Box 3), initially targeted for certain sectors but has since been expanded to all economic activities. As of August 2021, about 300,000 self-employed, or 12.9% of the estimated total self-employed workers in the economy were covered under the scheme.

Box 3: Malaysia's experience of the Self-Employment Scheme

Social Security Organisation (SOCSO), Malaysia shared their experience in implementing Social Protection for Digital Platform Economy through the existing Social Protection Scheme and various government initiatives aimed at digital platform workers. The gig economy workforce in Malaysia had grown by 31% in 2017, surpassing growth in conventional workforce (DOSM). Nearly four in 10 of the Malaysian workforce would be gig workers in the next five years – double the global average (EPF, 2019).

However, the existing social protection measures may not be sufficient for the self-employed. With this in mind, SOCSO adopted a multi-pronged approach to improve social protection by extending social protection, reforming social security, improving access to the formal economy and forming strategic alliances with key stakeholders. Under the various government stimulus packages, the Malaysian Government announced four initiatives for the self-employed. First is PenjanaGig under PENJANA (*Pelan Jana Semula Ekonomi Negara*) or the Economic Recovery Plan stimulus package. Under PenjanaGig, 70% of contribution for self-employed workers under platforms registered under the Malaysia Digital Economy Corporation (MDEC) are covered by the government. Second is SPS Lindung announced under the government's annual budget which covers 100% of delivery riders' social security contribution. The other two initiatives are SPS Prihatin Wanita and Kerjaya Gig announced under PEMERKASA (*Program Strategik Memperkasa Rakyat dan Ekonomi*) or People and Economic Strategic Empowerment Programme stimulus package. SPS Prihatin Wanita covers 70% social security contribution for female self-employed workers, while Kerjaya Gig provides RM600 incentive per month for six months to new self-employed individuals joining the gig industry and RM200 one-off incentive to platform providers.

The challenges in the Malaysian context include the absence of legal coverage in the Employment Act and unemployment social security protection, as well as lack of awareness of the existing self-employment social security scheme, that are further compounded by the adverse impact of COVID-19 on workers. To address these challenges, SOCSO proposes amending on the Employment Insurance System Act, increasing awareness on social protection starting from the grassroots; enhancing strategic partnerships with key players in relevant sectors; building the capacity of a resilient workforce and sustainable formal employment; conducting effective enforcement and compliance; and, aligning the benefit package with the needs of the people.

Source: (Vadivel, 2021)

While voluntary social security schemes for DPW could be a good start for economies to consider, it might not be a sustainable option (see Box 4). Based on regional and international experience, voluntary schemes tend to have low success rate, except if supported with extremely high level of subsidisation (Simoes da Cunha, 2021). Social security coverage for voluntary schemes tends to be less than 5%, while that of

mandatory schemes could reach 30% (ISSA, 2012). Nonetheless, given that full coverage rate was not achieved even for mandatory schemes, the complementary role of non-contributory and tax-funded social protection should not be undermined (see 6. Other consideration).

Box 4: Voluntary versus mandatory coverage

There are at least three limitations to voluntary social security schemes:

1. **Adverse selection** among high-risk individuals with pre-existing condition or higher likelihood to benefit from schemes may increase insurance's total cost and contribution rates.
2. **Small risk pool** due to small number of contributors, leading to limited potential for risk-pooling and solidarity, as well as higher vulnerability to shocks.
3. **Dysfunctional incentives** for enterprises that seek to minimize labour cost by hiring self-employed instead of employees, leading to distorted labour market and weakened social protection.

By making participation mandatory, economies can improve coverage and adequacy, financing and sustainability, as well as governance and administration. Measures could be taken by the government to subsidise contribution for workers with low contributory capacities or to act as a guarantor for the scheme.

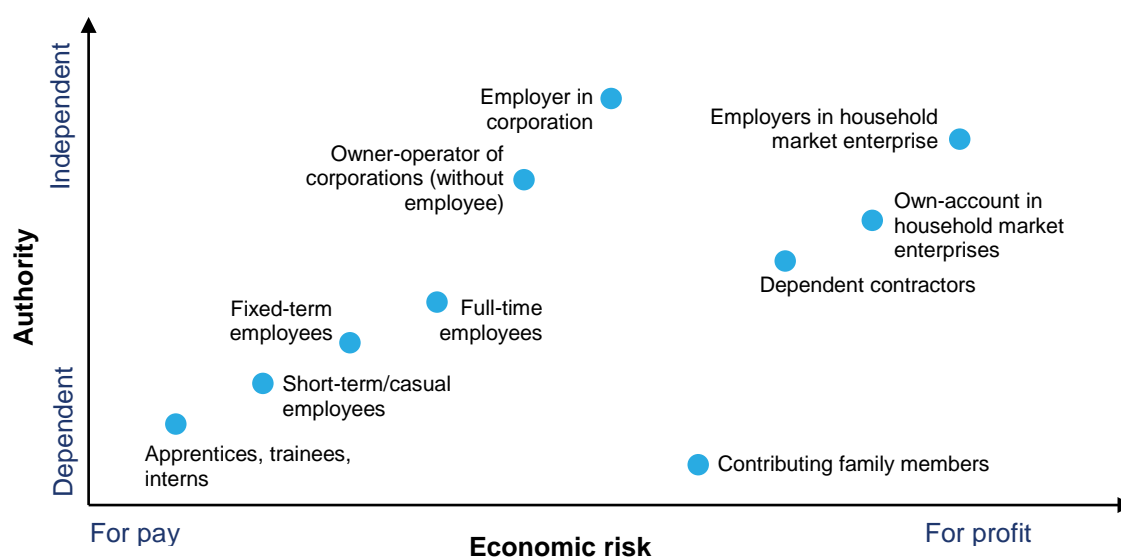
Source: (ILO, 2019)

Proper classification of DPW and their rights

Additionally, proper classification of DPW is an essential legislative policy to ensure that their rights, including rights to social protection, are protected. Clarification on the nature of employment relationships underpins the specification of rights and responsibilities of all players in the digital platform economy (workers, platforms, requesters). This distinction and relationship is non-binary and can be represented in a matrix. It is also essential to prevent the misclassification of employment (Behrendt et al., 2019; Hussein, 2021).

The revised Classification of Status in Employment (ICSE-18) adopted by the ILO introduces job classification based on their type of authority (dependent versus independent) and economic risk (employment for pay versus employment for profit) (Figure 9). The classification of this relationship can also be divided across the level of dependency of platform workers towards their platform, which includes factors such as the ability to generate income, asset ownership, and duration of work across the various types of platform work. Such classification not only assist better measurement and tracking of labour market shifts, it could also inform the design of social security schemes.

Figure 9: Employment statuses, by type of authority and economic risk



Source: Adapted from (KRI, 2021) based on (ILO, 2018a)

Misclassification entails a situation where self-employment actually has an employer-employee relationship, but “disguised” as self-employed. To accurately classify employment relationship, coordination across government agencies (e.g., social security, tax authority) to check how workers are categorised is needed. Tools for inspection should also be developed (Simoes da Cunha, 2021). In Portugal, Spain and the United Kingdom (UK), personal transport e-drivers are reclassified as employees instead of self-employed or independent contractors. The burden of proof on whether workers are truly independent contractors is also reversed to companies (Simoes da Cunha, 2021)

However, legal reforms might still have some with caveats that economies need to be aware of. In the case of Uber drivers in the UK, while their classification of “workers” instead of independent contractors entitles them to minimum wages, holiday pay and pension plan, it only applies to time spent picking up and driving passengers and not waiting for rides (Hussein, 2021).

Moreover, some legislations can be reversed. In the United States (US), for example, the California assembly Bill 5 which granted gig workers the rights of employees were reversed by the Proposition 22 (The Guardian, 2020, 2021).

Cross-border legislation and enforcement is also more challenging, particularly for web-based DPW. For this reason, the ILO was called to develop and international governance system for digital labour platforms that ensures minimum rights and protection (include social protection) for DPW in the Global Commission for the Future of Work (Behrendt et al., 2019).

2) Administrative procedures

Administrative procedure and its complexity depend on the priorities and interlinkages between different social security branches in an economy. Schemes could be non-

contributory and tax-financed (social assistance), contributory-based (social insurance) or policies or interventions (labour market interventions) (Mansor, 2021).

Platforms themselves are key stakeholder to foster inclusive social security and simplify administration (Sluchynsky, 2021). Some emerging trends for local-based platforms include:

- Platform as tax agent for workers by facilitating transactions (reporting, withholding, remittances) for contribution to social security.
- Platform as an opt-out to (mandatory) social security, and some minimum standard could be required.
- Platform as a marketing tool for social security by providing full range of front-end information and services or repackaging of government-provided benefits
- Gig workers registration schemes, although economies should be cognisant of potential duplications.

Given the contribution challenges of DPW, economies must consider different options of contribution such that the social security schemes and its eventual benefits are adequate and sustainable (ILO, 2019). These options include:

- Quarterly, annual or even piecemeal contribution instead of monthly contribution, to consider volatile income of workers, limit declaration requirement and facilitate simpler record-keeping. However, well-trained staff is essential to help workers who need readjustment although technology can reduce this barrier.
- Uniform contribution given its simplicity and ease of implementation, although it could be less exact and equitable.
- Contribution categories based on earnings to facilitate or eliminate the need to prepare income declaration, facilitate administration and reduce error in calculating contributions. However, this too could be less exact and equitable.
- Contribution based on proxy measures that facilitate or eliminate the necessity to prepare income declaration, reduce calculation error. However, this may be less exact than categories based on earnings and may need officers to visit workers' workplaces or homes.

Economies have attempted several administration simplifications to enhance coverage to self-employed workers and could be applied to improve coverage among DPW. In addition to introducing more flexible contribution collection, using flat contribution or implementing broad contribution categories, some economies have introduced simplified social security and tax contributions.

Technology was also leveraged to facilitate registration, consultation and contribution payments. Enforcement issues can be alleviated through the digitalisation of administration, which platforms could provide (Simoes da Cunha, 2021; Yamabana, 2021). Coordination with tax authorities can also help but different usage of administrative classification or ambit of law may limit data interoperability between tax and social security agencies.

In Uruguay and Indonesia, the price of each ride automatically includes social insurance contribution. In Estonia, Lithuania and Sweden, Uber is authorised by their drivers to share income data with the tax authority to assist tax payment. In Estonia, an electronic tool facilitates automatic data transmission as a standardised income information and automatically enter workers' data into their prefilled tax return. In Belgium, favourable tax regimes for companies in platform economy to transmit workers' income information directly to tax authorities (Behrendt et al., 2019).

3) *Costs and financing arrangement*

An effective social protection system needs to be grounded by solid financial resources to ensure its sustainability. Table 1 below shows the pros and cons of social security solutions for self-employed workers which can be relevant for DPW.

Table 1: Pros and cons of social security solutions

Options	Pros	Cons
Extending the "employees" framework	Inclusion in existing schemes	Inadequate financial arrangements
Solutions for Specific Activities	Benefits aligned with priority needs	Fragmentation: creating different schemes
Simplified Tax Regime	Enlarging the base	Tendency to evade taxes
Individual Savings Account	Convenient for non-vulnerable households and certain activities	Small universe, no redistribution

Source: (Sluchynsky, 2021)

Funding for economically active working population is typically achieved by generating an independent source of funding out of the general tax pool through the establishment of a social wealth fund in which the return from investments would cover the benefit payments. This earmarking approach as exemplified by the existing retirement savings and the occupational social insurance schemes that are funded by employers and workers' contributions, yet with limited government role as another contributor.

On the other hand, the government implements its social assistance initiatives quite separately outside the social insurance system using funds from tax revenue. Tax-funded schemes (compared to contributory social insurance schemes) are often considered to be more effective in averting exclusion of marginalised populations, especially those who are poor and in the informal sector.

However, due to limited fiscal space and many competing priorities, the principles of rationing, targeting and conditionality have been considered to be more effective in guiding and distributing social assistance. This usually happens at the expense of higher administrative costs and fragmentation between social assistance programmes, which subsequently could not fully promote social inclusion and cohesion. The lack of coordination between social assistance and social insurance programmes exacerbates the fragmentation problems further, undermining social justice.

A coherent system that ensures long-term sustainability can be achieved by a well-coordinated mix of contributions by employers, employees and the government (from general public revenue pool) in an integrated social protection system. Instead of

dispensing poor reliefs separately, greater government commitment in the social insurance platform is a more effective strategy in extending protection to all.

Guided by longer term policy goals to strengthen legislative framework and transition from voluntary to mandatory coverage, economies can provide matching contribution and or full contribution grants to ease the burden of platform workers. Contribution grants can be targeted to platform workers who are vulnerable to risks such as fluctuating incomes or even work injury.

Notwithstanding, policies to increase the tax revenue base are also essential, especially to provide for non-contributory social protection. For example, Malaysia introduced a digital services tax in 2020. However, taxing cross-border platforms are more challenging and economies could consider setting a global minimum tax for companies (Hussein, 2021).

4) *Worker organisation and representation*

Representation and organisation are critically important for the DPW to make their voices heard so that their interests can be taken into account. This could be distinctly different between dependent platform workers who need means to organise with a view to collectively bargain, and independent platform workers who need to be able to associate to negotiate with the government, regulator as well as customers, amongst other things.

To build stronger collective bargaining, social protection institutions are encouraged to engage directly with worker associations related to platform workers. Leveraging on their information and promotional network on the ground, economies can build physical campaigns or social media groups, and even prevention education modules such as financial literacy or defensive riding for delivery riders.

Nonetheless, workers' awareness of the law and rights at work especially the freedom of association and the right to collective bargaining is the first most critical component that needs to be addressed. This calls for immediate intervention from other stakeholders, especially the government, the ILO, local non-government organisations (NGOs), trade unions, associations or local authorities through short-term training courses or seminars, television programmes, or all other means possible (Tajgman, 2006).

Greater awareness would augment efforts to associate and contribute for bargaining success. For example, the trade union in Denmark facilitated social protection for DPW on a cleaning services platform, Hilfr, enabling workers who meet minimum hour requirements to automatically acquire an employee status (if they do not opt-out) and benefit from employer pension contributions, minimum wage, holiday and sickness payments. In India, there are two specialised unions for platform workers, namely the Indian Federation of App-based Transport Workers (IFAT) which covers workers under Ola, Uber, Swiggy, Zomato, Rapido and Dunzo, and All-India Gig Workers Union (AIGWU) (Sluchynsky, 2021).

5) Information and awareness

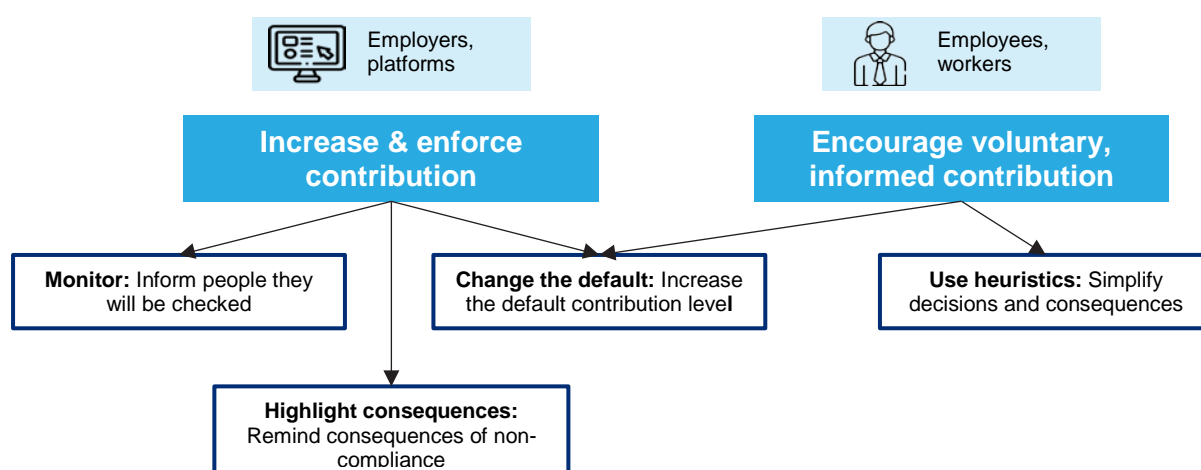
Lack of information and awareness on schemes and their benefits among DPW is a concerning issue for many participating economies in the workshop. To improve access to information, social security institution might need to expand their information diffusion network and its frequency, as well as increase their opening hours. Targeted information to specific industries, support groups or social networks might also be useful (ISSA, 2012).

Economies could also consider incentivising target group to make contact with social security institutions, by providing a complementary service that is valued by the community. For instance, Kenya's Retirement Benefits Authority collaborated with health specialist to provide free ear, nose and throat check-up for self-employed workers and simultaneously inform the benefits of Mbao Pension Plan that was specifically designed for SMEs and self-employed workers (ISSA, 2012).

However, information sharing in itself might not be impactful enough for workers to make consistent contribution. Insights from behavioural economics could be useful to economies in designing their communication strategies towards nudging DPW to come forward (Figure 10).

In a case study based in Indonesia, informing employers the risk of prosecution was found to be the most effective strategy to reduce late payment for social security contribution. In another study based in Indonesia, using "monitoring" language was found to be more effective than "social norm" language to encourage social security contribution among self-employed workers. Among surveyed individuals, it was also found that labelling contribution amount and its impact on retirement helps people realise that the default option is too low and getting them to focus on the future encourages higher contributions (Koh, 2021).

Figure 10: Behavioural approach for platforms & DPW

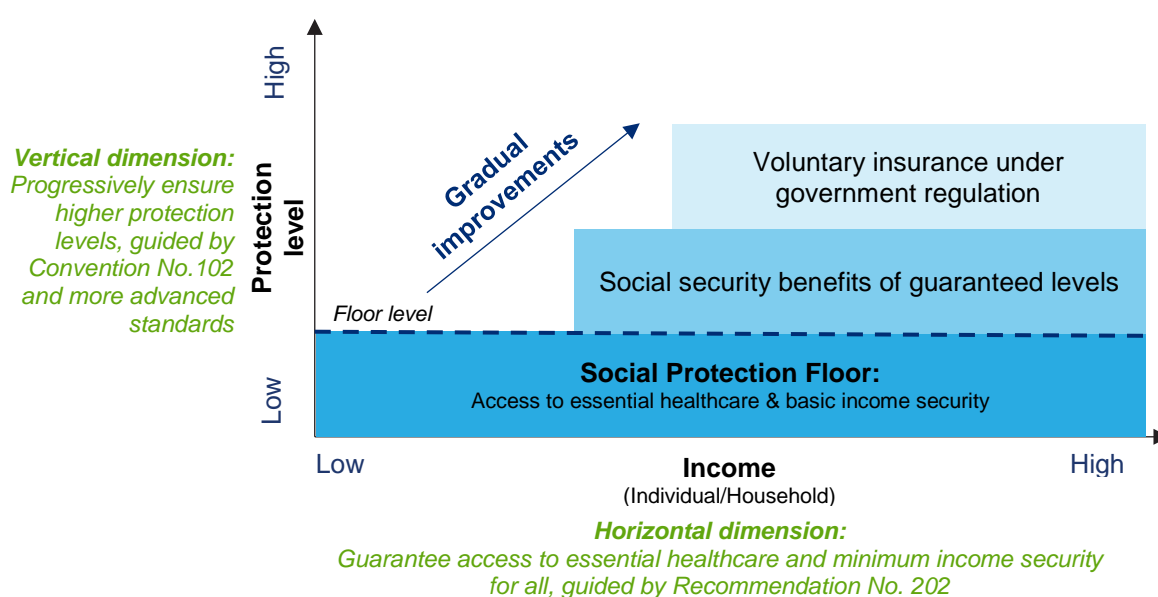


Source: Adapted from (Koh, 2021).

6) Other considerations

This section has primarily focused on improving social protection for DPW based on contributory social security mechanisms, primarily through social insurance. However, social protection also includes non-contributory social assistance and other labour market policies (Mansor, 2021). To build a comprehensive social security system, the ILO recommends a gradual increase of protection level which builds from the social protection floor, followed by social security benefits at guaranteed levels, and eventually voluntary insurance (Figure 11), based on Yamabana (2021). In essence, economies should not only focus on *just* social security schemes for DPW. The interlinkages and complementarity between each social protection branch could be explored to ensure universal coverage and adequate benefits among DPWs.

Figure 11: The ILO's two-dimensional strategy for the extension of social security



Source: Adapted from (Yamabana, 2021).

Additionally, it is paramount that social protection policies for DPW are gender-sensitive. Social protection floors itself could be a policy tool to enhance gender equality, female labour force participation as well as participation; but gender mainstreaming must be followed throughout the entire process of social protection assessment, policy design, implementation, monitoring and evaluation (Tessier et. al, 2013).

However, in practice, gender mainstreaming is not an easy task. In a study reviewing social protection policies for 74 low- and middle-income economies, there exist assessment gaps of gendered risks and vulnerabilities for certain life phases, namely adolescent and old-age (Camilletti et al., 2021). Structural inequities such as over-representation of women in unpaid care work and informal work as well as heightened exposure to gender-based violence are often ignored too. When inequities are recognised, they are not followed by specific actions to redress them.

Hence, in designing social protection for DPW, gender-sensitivity could be improved via comprehensive identification of gendered risks and vulnerabilities throughout life cycle, capacity building to designing and implementing appropriate policies and programme features, as well as involvement of gender equality advocates and experts.

An example of a gender sensitive policy is the introduction of government contribution incentive for female DPW. Malaysia has introduced such policies with the government financing 70% of female DPW contributions for a year to encourage higher female social security participation.

Economies may adopt multiple recommendations under the different common issues outlined in this set of guidelines based on their context. The Philippines for example, developed a strategy consisting of 4 blocks (see Box 5) which address the issues of legal exclusion, administrative issues as well as information and awareness.

Box 5: Building Blocks for Social Security Coverage of DPE Workers

Social Security System (SSS) is the primary apparatus for social protection administration and oversight in the Philippines. Social security coverage of DPE workers is one of the priority areas indicated in the Philippines Development Plan under the strategy of reducing individuals' and families' vulnerability. Also within the Philippines Development Plan is a legislative agenda to promote and strengthen digital careers through a proposed Digital Careers Act mandates social protection to new modes of work.

The SSS outlines three building blocks in providing social security to DPE workers. First is finding DPE workers. As they do not adhere to traditional registration mechanisms due to their nature of work, DPW in various industries are found through government regulators websites. Service of platform providers are under the purview of Ministries and Regulatory bodies where information on DPW can be obtained. The second building block is reaching out to DPE workers through platform providers. Through this block, communication lines will be established and people behind the platforms can be known. Once SSS has a clear idea of how many workers operate through a platform, a database of sorts can be compiled to then reach out to them to relay information to the DPW.

The next building block is establishing relations with platform providers. Partnerships need to be formed with platforms; making them a springboard of sorts to maintain sustained engagement with DPW's. By bridging the gap of informational disconnect, platforms can mobilise registration with the relevant social protection platforms as well as streamline and facilitate payment collection and contribution process. The final building block is continuous enhancements on web-based transactions, agreement templates and service fee structure. SSS has also bolstered its digital accessibility with new features which allow transactions to be processed virtually. This has significantly improved its reach, with 11 million registrations made via the website and 14.6 million mobile app downloads.

To provide more meaningful social security protection to DPE workers, SSS is reviewing the eligibility of Self-Employed Members, including DPE workers, for Unemployment Benefits. SSS is also developing agreement templates for a Contribution Subsidy Provider Program where platform providers have a share in paying social security contributions of DPE workers. Finally, SSS plans to partner with concerned government regulators of platform providers to tie-in social security coverage as a requirement for regulatory compliance.

5. Conclusion

“Fools learn from experience. I prefer to learn from the experience of others.”

Otto von Bismarck

Social protection provides a strong policy tool for economies to protect the individuals against life contingencies and risks of poverty. With the rise of digital platform technology, economies recognise the changing nature of employment and growing social protection coverage gap in the labour market. In fact, the economic and health threats posed by the recent COVID-19 pandemic demonstrated the need for social protection coverage for all workers.

The drastic shift of employment from traditional formal work to digital platform work calls for economies to innovate their existing protection schemes and legal framework for better coverage and address potential legal exclusion. This includes classifying digital platform workers' autonomy, the working arrangements with digital platforms and the heterogeneous nature of platform workers as a legislative policy to clarify the rights and responsibility of digital platform and workers.

Drawing from experiences and good practices in APEC economies, the guideline also recommends that economies strengthen their social protection delivery service by easing contribution and collection processes, employing behavioural insights, and expanding their information diffusion network for better outreach to individual digital platform workers. These initiatives are better implemented with stronger representation and collective bargaining of digital platform workers in their economies.

The guidelines serve as fundamental steps to systematically address the underlying issues and challenges that have emerged with the new wave of employment with digital platforms. But beyond these considerations, it is also hoped that the guidelines will precipitate deeper conversations surrounding the topic such as employment-based protection for platform workers, risk-based pricing for platform workers, protection for informal employment and innovation in social protection.

6. Appendix

List of experts who presented at the workshop:

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7. References

- Abdul, R. A. (2021). *Overview on Digital Platform Economy*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.
- BDO. (2021). *BDO Taxation of the Digital Economy interactive tool*. <https://www.bdo.global/en-gb/microsites/digital-services-taxation/taxation-of-the-digital-economy>
- Behrendt, C., Nguyen, Q. A., & Rani, U. (2019). Social protection systems and the future of work: Ensuring social security for digital platform workers. *International Social Security Review*, 72(3), 17–41.
- Bukht R. & Heeks R. (2017). Defining, Conceptualising and Measuring the Digital Economy. Centre for Development Informatics Global Development Institute, SEED. <https://doi.org/10.17323/1996-7845-2018-02-07>
- Camilletti, E., Cookson, T. P., Nesbitt-Ahmed, Z., Sandoval, R., Staab, S., & Tabbush, C. (2021). *Mainstreaming gender into social protection strategies and programmes: Evidence from 74 low-and middle-income countries*.
- DGBAS. (2019). *Manpower Survey Results in December 2019*. <https://eng.stat.gov.tw/ct.asp?xItem=45103&ctNode=1830&mp=5#top>
- ILO. (2018a). *Report II: Statistics on work relationships*. International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_644596.pdf
- Gindling, T. H., & Newhouse, D. (2014). Self-Employment in the Developing World. *World Development*, 56, 313–331. <https://doi.org/10.1016/j.worlddev.2013.03.003>
- Hussein, N. (2021). *Impact of the Digital Platform Economy on economies and employment*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.
- Ignacio, A. C. (2021). Sharing of Good Practices - Building Blocks for Social Security Coverage of DPE Workers. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.
- ILO. (2018a). *Report II: Statistics on work relationships*. International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_644596.pdf
- ILO. (2018b). *Women and men in the informal economy: A statistical picture. Third edition* [Report]. International Labor Organization. http://www.ilo.org/global/publications/books/WCMS_626831/lang--en/index.htm
- ILO. (2019). *Extending social security to workers in the informal economy: Lessons from international experience*. International Labor Organization.

- ILO. (2021). *World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work*. International Labor Organization. https://www.ilo.org/global/research/global-reports/weso/2021/WCMS_771749/lang-en/index.htm
- ILO. (2021). *World Social Protection Report 2020-22*. International Labour Organization. <https://www.ilo.org/global/research/global-reports/world-social-security-report/2020-22/lang-en/index.htm>
- ILR School and the Aspen Institute. (2021). *How many gig workers are there?* GigEconomyData.Org. <https://www.gigeconomydata.org/basics/how-many-gig-workers-are-there>
- ISSA. (2012). *Handbook on the Extension of Social Security Coverage to the Self-Employed*. International Social Security Association. https://ww1.issa.int/sites/default/files/documents/publications/2_handbook-extension-selfemployed-26571.pdf
- Kässi, O. & Vili Lehdonvirta. (2021). *The Online Labour Index | The iLabour Project*. <http://ilabour.oii.ox.ac.uk/online-labour-index/>
- Koh, H. H. (2021). *Behavioural Insights for Social Protection*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.
- KRI. (2021). *Building Resilience: Towards Inclusive Social Protection in Malaysia*. Khazanah Research Institute. http://krinstitute.org/Publications-@-Building__Inclusive_Social_Protection_in_Malaysia.aspx
- Los, B., Timmer, M. P., & Vries, G. J. D. (2014). *The Demand for Skills 1995-2008: A Global Supply Chain Perspective* (OECD Economics Department Working Papers No. 1141; OECD Economics Department Working Papers, Vol. 1141). <https://doi.org/10.1787/5jz123g0f5lp-en>
- Mansor, N. (2021). *Overview on Social Security/Social Protection*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.
- OECD. (2019a). *Base erosion and profit shifting—OECD BEPS*. <https://www.oecd.org/tax/beps/>
- OECD. (2019b). *Senior's self-employment and entrepreneurship activities*. <https://doi.org/10.1787/4d1096ee-en>
- OECD. (2021). *Employment: Share of employed in part-time employment, by sex and age group*. <https://stats.oecd.org/index.aspx?queryid=54746>
- Qian, J. (2021). *Human Capital Development in the Digital Economy: The Case of Singapore*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.
- Sazali, N. T. (2021). *Preliminary survey findings: Workshop on social protection for digital platform economy*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.

Simoes da Cunha, N. M. (2021). *Compulsory or mandatory*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.

Sluchynsky, O. (2021). *Approaches to Extending Social Protection Coverage to Digital Platform Workers*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.

Tajgman, D. (2006). *Extending Labour Law to All Workers*. http://www.ilo.int/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_bk_pb_129_en.pdf

Tessier, L., Stern Plaza, M., Behrendt, C., Bonnet, F., & St-Pierre Guibault, E. (2013). Social protection floors and gender equality: A brief overview. *ILO Working Papers*, 994810763402676.

The Guardian. (2020). Prop 22 Explained: How California Voters could Upend the Gig Economy. *The Guardian*. <https://www.theguardian.com/us-news/2020/oct/15/proposition-22-california-ballot-measure-explained>

The Guardian. (2021). "I can't keep doing this": Gig workers say pay has fallen after California's Prop 22. *The Guardian*. <https://www.theguardian.com/us-news/2021/feb/18/uber-lyft-doordash-prop-22-drivers-california>

Vadivel, G. (2021). *Sharing Session: The Malaysian Experience of the Self Employment Scheme*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.

World Bank. (2019). *World Development Report 2019: The Changing Nature of Work*. <https://www.worldbank.org/en/publication/wdr2019>

World Bank. (2021a). *Individuals using the Internet (% of population) | Data*. <https://data.worldbank.org/indicator/IT.NET.USER.ZS>

World Bank. (2021b). *Self-employed, total (% of total employment) (modeled ILO estimate) | Data*. <https://data.worldbank.org/indicator/SL.EMP.SELF.ZS>

World Bank. (2021c). *Trade (% of GDP) | Data*. <https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS>

Yamabana, H. (2021). *Adequacy and Sustainability of Social Security of Digital Platform Economy*. APEC Workshop on Social Protection for Digital Platform Economy, Kuala Lumpur.

Zurich. (2020). *Zurich-University of Oxford Agile Workforce Study: Gig Economy Rises in Malaysia, Income Protection Lags*. <https://www.zurich.com.my/en/about-zurich/zurich-in-the-news/2020/2020-01-16>

