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Just energy transition in Indonesia

The role of social protection in facilitating the process

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1. Introduction

Two key challenges in the decades ahead for Indonesia are securing a reliable, clean and cost-effective energy supply and managing the impacts of climate change in a region particularly exposed to climate related extreme events. The just energy transition in Indonesia recognises these realities with concrete plans to positively transform the economy whilst creating local value-added employment opportunities. This paper sets out how social protection systems can facilitate such a process.

Indonesia will transform power generation from coal-fired plants to renewable energy plants. About two-thirds of Indonesia's electricity is currently generated by 86 coal-fired power plants (CFPPs) (Ryna Cui et al. 2022). On 13 September 2022, the President of Indonesia signed and enacted the Presidential Regulation No. 112/2022 on the Acceleration of Renewable Energy Development for the Supply of Power to develop a broad framework for the renewable energy transition and calls for the development of detailed road maps and implementing guidelines.

On 18 October 2022, the Government of Indonesia (GOI) submitted an investment plan for coal-to-clean energy transition to the Climate Investment Funds, which ultimately aims to reduce emissions by 31.89 per cent relative to a business-as-usual baseline of 2.87 gigatons of carbon emission equivalent by 2030 and to achieve net zero emission by 2060 (Indonesia, Ministry of Finance 2022).

On 15 November 2022, the GOI and the International Partners Group (IPG)[1] adopted the Joint Statement on the Indonesia Just Energy Transition Plan at the G20 Leaders' Summit in Bali, and established the Just Energy Transition Partnership (JETP) to achieve just energy transitions. The GOI committed to reduce power sector emissions by accelerating the early retirement of and freezing the existing pipeline of planned on-grid coal-fired power plants and increase the share of renewable energy (Government of the Republic of Indonesia et al. 2022).

In June 2023, the Government finalized the National Long-term Development Plan 2025 – 2045 (*Rencana Pembangunan Jangka Panjang Nasional*, or *RPJPN*), and integrated the net zero emission target into the national long-term target and plans for early retirements of coal-fired power plants (Indonesia, Ministry of National Development Planning 2023). The Government also aims to mitigate adverse impacts effects on employment and communities affected by the energy transition especially among workers and their families who earn a living in the coal industry and its related industries.

Energy transition presents both challenges and opportunities for Indonesia. It is estimated to be a net creator of jobs and a boost to global GDP. Despite the net employment gains, existing jobs will be lost – in 2018, the ILO estimated that around 6 million jobs may be lost by 2030 due to the transition to a green economy but around 24 million new jobs created was also forecast (International Labour Organization 2018). However, the transition will not happen automatically – appropriate accompanying policies are required.

This paper was initially prepared and submitted to the Just Energy Transition Working Group in May 2023 as part of the ILO's technical contributions. It aims to facilitate discussions on how social protection could facilitate the just energy transition in Indonesia.

[1] The IPG consists of the Governments of Japan, the United States of America, Canada, the Kingdom of Denmark, the European Union, the Republic of France, the Federal Republic of Germany, the Republic of Italy, Norway, United Kingdom of Great Britain and Northern Ireland. On 16 February 2023, the GOI and IPG launched the Secretariat for the JETP, being hosted by the Ministry of Energy and Mineral Resources (MEMR) with support from the Asian Development Bank (Embassy of the United States of America in Indonesia 2023).

2. Existing social protection programmes and their role in supporting the just energy transition

Social protection[2] is a human right and is defined as the set of policies and programmes designed to reduce and prevent poverty and vulnerability throughout the life cycle. The ILO Social Security (Minimum Standards) Convention, 1952 (No. 102) requires the States to establish nine social security branches including medical care, sickness benefit, unemployment benefit, old-age benefit, employment injury benefit, family benefit, maternity benefit, invalidity benefit and survivors' benefit. These social protection benefits can be provided through a mix of contributory schemes (social insurance) and non-contributory tax-financed schemes (social assistance) (International Labour Organization 2017). The ILO Social Protection Floors Recommendation, 2012 (No. 202) requires the State to guarantee that all residents and children have access to essential health care and basic income security through these social security branches over the life cycle.

Social protection provides, facilitates and incentivises positive social and economic impacts. It is a key element of national strategies to promote human development, political stability and inclusive growth; it ensures that people enjoy income security and have effective access to health and other social services, and are empowered to take advantage of economic opportunities (International Labour Organization 2017). Therefore, well-designed and -implemented social protection systems can help just transitions.

▶ Box 1. The role of social protection in supporting a just energy transition

Over decades, social protection schemes have facilitated transitions in economies as they move from predominantly agriculturally based to an increasing manufacturing focus and, over recent times, an increasing proportion of the workforce in the service sector. Social protection schemes are effective actors in this process given their universal nature and the close complementarity with appropriate employment policies. Such transitions may not be smooth – and social protection also acts as an effective response to shocks and crises as the experience during the COVID-19 pandemic has shown. Whilst unemployment protection schemes are the most obvious way in which schemes support the transition, other social security provision such as retirement, employment injury and health benefit schemes may also be important.

Unemployment benefit schemes

When one industry is shrinking, job demand will shift to other sectors and industries. Unemployment protection schemes can facilitate a just transition in such a context. Subject to qualifying conditions, workers who involuntarily lost jobs are usually entitled to partial and temporary income replacement. During the unemployment period, the recipients of unemployment benefits are granted access to public employment services that provide comprehensive support to return to work typically including labour market information, job counselling and referral to employers as well as referral to vocational training to reskill or upskill the job seekers on needs of the workers and the labour markets (Peyron Bista and Carter 2017). This vocational training element can be focused towards supporting the transition. For unemployment benefit schemes to be effective, it is important that coverage is as wide as possible.

[2] The term "social security" and "social protection" are used interchangeably in this document.

Unemployed workers who are not available or capable to work are often not qualified for unemployment benefits. However, the social protection systems should be ready to cover their contingencies by other schemes.

Unemployed workers who are not capable to work must be protected through disability pension. Pension schemes often provide old-age benefits, invalidity benefits, and survivors' benefits. If the unemployed workers become incapable to work due to aging but still younger than pensionable age for old-age benefits, they should be still entitled to invalidity pension to guarantee their income to make a living.

Employment injury schemes

Such schemes provide income replacement benefits for workers suffering from a reduction in physical or mental functions resulting from work-related injuries or sickness. If disability is temporary, recipients of employment injury benefits are typically granted access to return-to-work supports as well as medical care and rehabilitation services. Under the energy transition, such return to work efforts can focus on the individual changing type of work and/or the industry away from traditionally physically demanding and dangerous work in the fossil fuel industry (e.g. mining) to less risky jobs in renewable energy, In addition, certain disabilities that would make a return to the original position impossible would not prevent the worker taking up a different type of position in the new industries and sectors to be promoted (with the relevant adaptation and support measures). In this way, employment injury schemes can facilitate a net increase in employment levels.

Retirement benefit schemes

Such schemes can be useful mechanisms to support elderly workers as they reduce activity in traditional industries through the provision of retirement benefits to supplement the income from reduced working hours. Partial retirement schemes are an effective way of doing this, but early retirement can also be a possibility if it can be complemented by working income. In such a way, the reduction in activity in legacy industries can simply become a reflection of older workers retiring or reducing activity rates without the need for mass unemployment termination measures (and the resulting costs – both economic and social – of these). In some industries, special early retirement provisions are put in place to reflect the physically demanding nature of the profession. These provisions may take the form of a retirement age based on age and service (e.g. in France), additional years credited for identified sectors or additional funding mechanisms to reduce penalties for taking early retirement or providing a bridging pension. This is an approach that could be considered for certain carbon intensive heavy industries.

Health benefit schemes

The energy transition can also be a catalyst to improve health status of the population. This can come from a move away from employment in heavy industries with significant health risks (in fossil fuel production, energy intensive manufacturing, industrial scale agriculture etc) as well as cleaner air and more healthy lifestyle choices (such as taking public transport, eating better quality meat and doing more exercise). Social security health schemes can accompany such a process but the financing impact of such changes should result in lower scheme costs – savings that can be used to support other measures.

To realize the full potential of social protection in the context of economic transformation, gaps in coverage and adequacy of benefits among different social protection schemes must be filled so that people can be protected throughout their life cycle. In addition, social protection policies should reflect and complement existing and future employment policies.

Employment protection by the Labour Law

Labour Law No. 13/2003, partially amended by Law No. 6/2023 concerning job creation, requires employers to pay severance to workers whose employment are involuntarily terminated. Both workers in permanent contract (PKWTT) and temporary or fixed-term contract (PKWT) have legal entitlements to the employer liability scheme for involuntary termination of employment. An expiry of a PKWT contract must be also compensated according to a formula defined by government regulation[3]. However, because the amount of compensation payable on contract expiry is lower than that for employment termination and its administrative requirement is less burdensome, employers may not dismiss workers with PKWT contracts. Instead, they will wait for their PKWT contracts to be expired.

Contributory social protection schemes in Indonesia

BPJS Employment administers employment injury benefits (JKK), death benefits (JKm), unemployment benefits (JKP), an old-age defined contribution saving scheme (JHT) and an old-age defined-benefit pension scheme (JP), while BPJS Health administers health insurance (JKN).

For **unemployment benefits,** large, medium and small enterprises must register all employees with JKP while micro enterprises can voluntarily do so. As of December 2021, JKP had 10,983,610 active members (BPJS Employment 2022). For eligibility to JKP benefits, workers must contribute to JKN, and must be active members of JKK, JKm and JHT for 12 months within the last 24 months, including 6 consecutive months, prior to involuntary termination of their employment. They should be capable, and willing to work. The unemployment benefit is calculated as 45 per cent of the last reported salary for the first three months, followed by 25 per cent of last reported salary for the following three months. Claims for JKP benefits should be made within three months after the termination of employment through an online single window services platform 'Siap Kerja'. Recipients of unemployment benefits are also entitled to access to public employment services and vocational training programmes.

For **employment injury benefits**, all enterprises must register all employees with JKK. The JKK benefits include permanent disability benefits, temporary disability benefits and survivors' benefits for workers affected by occupational injuries or sickness or their heirs. As of December 2021, JKK had 30,660,901 active members including 20,832,255 wage earners, 3,551,858 non-wage earners and 6,276,788 workers who were collectively enrolled by construction projects (BPJS Employment 2022). The number of claims to JKK was 234,370 in 2021.

Lump-sum compensation amounts to 70 per cent x 80 months x a month's wage for permanent total disability. In the case of permanent partial disability, the replacement rate is reduced according to the degree of anatomical or functional disability. Temporary disability benefits are 100 per cent of wages for the first 12 months and 50 percent of wages thereafter. Survivors' benefits include death benefit of 60 per cent x 80 months x a month's wages; funeral expenses of 10,000,000 rupiah; periodic compensation is paid in one lump sum of 24 x 500,000 rupiah = 12,000,000 rupiah; and scholarships of 1.5 million to 12 million rupiah every year from preschool to higher education depending on the child's education level for a maximum of two children. Other benefits include medical care, rehabilitation services, reimbursement of transportation costs and access to return to work programmes.

[3] Formula and conditions for establishing compensations are stipulated by article 16(1) of the Government Regulation No. 35/2021 concerning employment agreement for a specified period of time, outsourcing, working time and rest time and termination of employment. Each year of service accumulates one month of wage for workers whose PKWT contracts are one month or longer. The compensation amount is calculated proportionately by each month of service divided by twelve months if their employment periods are shorter or longer than twelve months.

Large and medium enterprises must register all employees with JP while small and micro enterprises can voluntarily do so. The JP benefits include old age benefits, invalidity benefits and survivors' benefits. As of December 2021, JP had 13,253,230 active members (BPJS Employment 2022). The number of claims was 142,788.

Old age benefits are provided in a form of annuity, which is calculated as 1 per cent x no. of years of service x average career salary indexed with inflation. To receive the benefits, workers must meet the minimum contribution period of 15 years when entering pensionable age until death. The pensionable age was raised to 58 years in March 2022 and will be subsequently increased by one year for every subsequent three years until reaching the retirement age of 65 years in 2043.

Invalidity benefits are paid to participants who have a permanent total disability due to an accident or illness and are unable to work again. The benefit level is calculated as 1 per cent x length / 12 months x weighted average wage. Recipients are paid this pension until death. In case the participant experiences permanent disability prior to reaching 15 years of contribution, they are still entitled to benefits if the event that caused total disability occurred at least 1 month after becoming a participant of the JP scheme and the participant made contributions with a density rate of at least 80 per cent.

Concerning **survivors' benefits,** Widow/widower pension benefits are given to widows/widowers who are heirs of a JP participant and are registered with BPJS Employment. the level of monthly benefits is calculated as 50 per cent of the old-age pension benefit formula, for participants who died before receiving pension benefits; or 50 per cent of the old-age pension benefit or disability pension benefit, for participants who died after receiving the pension benefit. These benefits are paid until death or remarriage. If the participant dies before reaching the contribution period of 15 years, the widow/widower is still entitled to benefits if there was a minimum of one year of participation in JP and a contribution density rate of 80 per cent.

Child benefits are given to children who are the heirs of a JP participant until the child reaches the age of 23 years, starts working, or marries. the benefit level is calculated as 50 per cent of the old-age pension benefit formula, for participants who died before receiving pension benefits and did not have a widow/widower; 50 per cent of the old-age pension benefit or disability pension benefit, for participants who died after receiving pension benefits and did not have a widow/widower; or 50 per cent of the widow/widower's pension benefit, for widows/widowers who have died or remarried. If the JP participant dies before the pensionable age or if the contribution period is less than 15 years, the child still receives benefits if the participant had a minimum participation of one year and met the contribution density rate of 80 per cent. The maximum number of children who can be registered in the pension plan is two.

Parental benefits are given to parents (father/mother) who are the heirs of unmarried JP participants. The same rule as widow/er or child pension exists if the JP participant passes away before reaching 15 years of contribution. The benefit level is calculated as 20 per cent of the pension benefit formula for participants who died before receiving pension benefits; or 20 per cent of the old-age pension benefit or disability pension benefit, for participants who died after receiving the pension benefit.

Non-contributory social protection schemes

The Ministry of Social Affairs has been implementing two major social assistance programmes for poor and vulnerable families including the Family Hope Programme (Program Keluarga Harapan, or PKH), known as a conditional cash transfer programme since 2009, and the Basic Food Programme (Program Sembako, or Sembako) since 1998.[4] Both PKH and Sembako adopt proxy means tests to

[4] Although the Government implemented several temporary schemes during the Covid-19 pandemic, this paper is focused on permanent schemes that have been implemented for a long time.

target beneficiary households and periodically transfer cash to them, and record them in the Ministry's Integrated Social Welfare Data system (Data Terpadu Kesejahteraan Sosial, or DTKS).

PKH implements quarterly enrolment and payment cycles, and aims to cover 10 million households on average. In the 4th quarter in 2022, PKH covered 9,781,973 households (Indonesia, Ministry of Social Affairs 2023). This programme provides for a comprehensive benefit package that could consist of maternity, child, disability and old-age benefits depending on family compositions (see table). As of September 2023, the programme supports up to four family members with maximum and minimum benefits ranged between 900,000 rupiah and 10,800,000 rupiah per year, or between 75,000 rupiah per month and 900,000 rupiah per month.

Sembako pays beneficiaries 200,000 rupiah every month, and aims to cover 18.8 million households on average. In December 2022, Sembako covered 18,658,024 households (Indonesia, Ministry of Social Affairs 2023). To achieve the programme's objective to ensure basic needs for nutrition intakes including carbohydrates, protein, vitamins and minerals, the Ministry has been changing and integrating delivery mechanisms several times. As of September 2023, the programme provides cash to beneficiary households through banks and post offices and allows their beneficiaries to purchase any goods and services to meet their daily subsistence needs.

▶ Table 1. Benefits of Family Hope Programme (PKH)

Category	Year	Quarter
Pregnant woman	3,000,000	750,000
Early childhood (age 0 – 6)	3,000,000	750,000
Elementary school pupil	900,000	225,000
Junior high school pupil	1,500,000	375,000
Senior high school pupil	2,000,000	500,000
Persons with disabilities	2,400,000	600,000
Older persons (age 60 and above)	2,400,000	600,000
Total: Maximum benefit	**10,800,000 per year**	**900,000 per month**
Total: Minimum benefit	**900,000 per year**	**75,000 per month**

Note: The programme provide protection up to four family members.

▶ Box 2. Social security provision and climate changes

Whilst the scope of this report is on social protection's role in supporting the just energy transition, policies and measures taken also need to reflect and complement the role of such schemes in adapting to the impacts of climate change. Schemes will be significantly impacted by climate change with key effects including and increasing frequency and severity of business interruption, increases in mortality rates new health challenges, impact on economic growth and migration pressures (internal and external). The region is particularly vulnerable to climate change and several systems in the region have already adapted schemes to address current and future impacts including the following measures:

- Adapting contributions (reducing, delaying, suspending or freezing contributions after extreme events)
- Partial or temporary unemployment schemes
- Emergency administration response procedures
- Increasing duration or generosity of benefits on a temporary basis
- Temporary targeted benefits

3. Potential gaps in protection and the need to adapt schemes to support the transition

In order for social protection schemes to play an effective role in supporting the just energy transition, not only do they need to be adapted to be 'transition ready' (Section 2 set out examples of how this can be done in practice with examples of different social security branches), it is also crucial that they cover the highest proportion of the population in order to be effective. This section considers gaps in protection in three key benefit branches.

Gaps in unemployment protection[5]

In general, unemployed workers who are dismissed from disappearing industries should be protected by the JKP scheme as long as they are capable, available and willing to work. However, there is room for improvements in the policy to maximize the ability of the unemployment protection scheme to facilitate just transition.

The JKP scheme does not require micro-enterprises or construction projects to enrol their employees. Few micro-enterprises may be engaged in labour intensive industries like coal-fired power plants. However, where a single large industry contributes to the local economy, businesses surrounding the disappearing industries are often operated by many micro-enterprises such as food stalls and vendors for basic daily needs. Similarly, construction industries will face a decrease in demand if the main industry of the local economy is shut down. To fill the coverage gap of employees in these businesses, it is recommended to apply mandatory coverage to all wage employees.

Among workers covered by the JKP scheme, it is critical to understand how the workers lose their wage jobs during the process of reducing or closing business in certain industries. On one hand, many workers with PKWTT contracts may become unemployed by either being dismissed, applying for corporate early retirement package offered by their employers, or reaching corporate retirement age. On the other hand, most of the workers with PKWT contracts may become unemployed due to expiry of PKWT contracts. Because the JKP scheme does not provide unemployment benefits in the case of expiry of PKWT contracts, many workers with PKWT contracts may not enjoy the JKP benefits in transition to the next jobs. Although non-JKP recipients can still access to public employment services and vocational training programmes, workers with low education and low wage may have to take any jobs to support their daily consumptions particularly in such a situation without income supports.[6] To make the JKP scheme more effectively protect these workers, the scheme should cover expiry of fixed term contracts.

In relation to employer liability for employment termination, employers must pay severance for dismissal and expiry of PKWT contracts under the current regime. As workers rely on their employers' compliance and affordability, workers with larger and stable business will more likely realize their rights to severance pay. Neither JKP benefit duration nor severance pay amount is affected by one to the other in Indonesia. Therefore, workers in enterprises that comply with laws and regulations can enjoy both JKP benefits and severance pay, while workers with non-compliant employers may enjoy

[5] Comprehensive analysis and recommendations on the permanent policy design for the JKP scheme are available in a separate report (Tsuruga, Brimblecombe, and Landry 2023; Landry and Brimblecombe 2021).

[6] Some empirical studies provides empirical evidence (Damaske 2020; Altindag, Dursun, and Filiz 2022).

none of them. To protect workers more effectively, it is important to apply mandatory coverage to all wage employees as well as to improve enforcement of compliance.[7]

From employer's perspectives, they will have to pay both severance and JKP contributions under the current regime, when they close their businesses and dismiss their employees. The ILO Convention No. 168 allows the State to regulate a possible reduction in severance pay by an amount corresponding to the value converted into a lump sum of the unemployment benefit to which the persons concerned are entitled; or a possible suspension of the unemployment benefit for a period corresponding to that during which the severance pay compensates. The JKP scheme does not adopt any of these arrangements.

The JKP scheme tapers benefits from 45 per cent to 25 per cent after the 4th month of unemployment. Workers who suffer from finding new jobs will be disadvantaged under the current benefit model. In particular, low skilled or low educated workers in labour intensive industries may suffer long term unemployment and be largely affected by this provision.

After the 4th month of unemployment, JKP benefits of most of former casual workers will fall below the poverty line. Average casual workers[8] earn 1.6 million rupiah per month (table). Once they are dismissed, they will receive 0.7 million rupiah for the first 3 months and 0.4 million rupiah for the following 3 months. As the poverty line is 0.5 million rupiah[9], their income from the JKP scheme will fall below poverty line if they stay unemployed for more than three months. As these estimates are based on net income, the JKP benefit based on gross income will be slightly better than these estimates. Even so, it is reasonable to assume that low-income earners will be urged to take any jobs as soon as they can to make a living because the benefit amount may not be sufficient for many of them to cover their consumption.

▶ Table 2. Average of net income per month of casual worker by main industries (in thousand rupiah)

Industry	Net income	45% of net income	25% of net income
Agriculture	1,244	560	311
Manufacturing	1,947	876	487
Service	1,447	651	362

Note: Agriculture: Agriculture, Forestry, Hunting, and Fishing; Manufacture: Mining and Quarrying; Manufacturing Industry; Electricity, Gas and Water; Construction; Services: Wholesale Trade, Retail Trade, Restaurants and Hotels; Transport, Storage, and Communication; Financing, Insurance, Real Estate, Business Services; and Community, Social, and Personal Services. **Source:** Indonesia, Central Bureau of Statistics (2022).

Concerning linkage between cash benefits, public employment services and vocational training, until the full expansion of physical presence of single window services, '*Siap Kerja Kios*', across the country, most unemployed workers will have to rely on its online platform to access the services. Even so, if the State can identify geographical locations and businesses that are closing in the near future according to the exit strategy of coal-fired power plants, relevant units of the Ministry of Manpower may plan its visit and onsite services at those priority areas.

Importantly, labour mobility is not currently supported by schemes. The JKP scheme does not provide transport allowance, lodging allowance, relocation allowance or any other allowances other than

[7] Currently, micro-enterprises are not obliged to register their employees with the JKP scheme, and construction workers are not allowed to participate in the scheme if they are collectively registered with the JKK scheme by construction projects.

[8] Average net wage for employees are 3 million rupiah in September 2022. BPS https://www.bps.go.id/statictable/2022/06/29/2189/rata-rata-upah-gaji-bersih-sebulan-buruh-karyawan-pegawai-menurut-provinsi-dan-lapangan-pekerjaan-utama-2022.html

[9] The urban poverty line is 552,349 rupiah; the rural poverty line is 513,170 rupiah; and the national poverty line is 535,547 rupiah as of September 2022. BPS https://www.bps.go.id/indicator/23/182/1/poverty-line-rupiah-kapita-month-by-area.html

income replacement. When an industry disappears in the local economy, its workers may have to look for new jobs outside the town. Ideally, their job searching activities are supported by the public institutions with such allowances. Similarly, due to the small number of vocational training centres, access to reskilling and upskilling opportunities may be limited to workers who can afford to pay transport, lodging and opportunity costs. This is particularly relevant in the energy transition process where legacy industries will have a concentration of workers in a small number of sites whereas renewable energy related jobs are more likely to be more evenly distributed with more local energy production and measures such as solar panel installation occurring throughout the country. At the same time, certain approaches to adapting social security may need to apply regional adjustments to universal schemes.

Moreover, it is important to ensure a seamless linkage between JKP, the poor relief programmes, and public work programmes. As discussed above, the first step to improve unemployment protection is to review and reform the policy designs for the JKP scheme. The ILO published a separate report on comprehensive analysis and recommendations towards a better protection of unemployed workers (Tsuruga, Brimblecombe, and Landry 2023). However, JKP cannot address all the challenges being faced by unemployed workers. By construction, the schemes including the JKP scheme cannot provide cash benefits more than an entitled period. Therefore, when exhausting the entitlement of six months, social assistance or any other public schemes should be seamlessly available to continue supporting them to smooth their consumptions and to return to work. For example, key questions may include whether targeting criteria of PKH or a public works programme (PKT) allow JKP recipients who exhaust the entitled duration of unemployment benefits to immediately receive assistance, and whether the enrolment cycle of PKH or PKT makes it possible for them to enrol on time.

Gaps between unemployment benefits and old-age benefits[10]

Workers at age 54 and above are not permitted to register with the JKP scheme, and therefore, none of them can receive the JKP benefits. As the JP scheme does not cover small and micro-enterprises on a mandatory basis, many workers will not be entitled to receive pensions from the JP scheme even if they cannot find new jobs or cannot receive the JKP benefit. Moreover, the JP scheme does not pay old-age pensions to anyone until 2030 due to the minimum required contribution of 15 years. In 2030, the first pensioners will be aged 60, and then increasing to 65 in 2043. The age gap between unemployment protection and pension schemes will become wider and wider. Thus, without improvements, older persons will have to live without unemployment benefits or old age benefits for approximately 10 years.

Gaps in invalidity benefits

In case if older workers were not capable to work due to aging, invalidity pensions could be paid even before reaching pensionable age for old-age pension. However, the limited mandatory coverage will not allow many of them to enjoy this benefit. Even so, the current benefit level may not be adequate. In fact, the level is set lower than the social security minimum standard.

If their inability to work were caused by occupational injury or illness, the JKK scheme should replace their income loss. As this scheme is mandatory for all employers to cover their employees, more workers are covered by this scheme. However, unlike the JP, workers with permanent disability due to occupational injury or illness are entitled to only lump-sum benefits, and therefore will not be covered until death. In the case of temporary disability, workers can enjoy benefits until they recover

[10] Comprehensive analysis and recommendations on the permanent policy design for the JP scheme are available in a separate report (Brimblecombe et al. 2023).

and return to work. For example, workers in coal-fired power plants would not receive annuity if they became permanently disabled due to occupational injury or illness.

▶ Box 3. Financing considerations

Extension of coverage and adaptation of provision and services may have financial implications, therefore a systematic approach to address challenges and structure financing is required. This should start with an actuarial valuation and social budgeting exercise so that not only likely future costs are estimated and projected but that the cost of different reform options are considered. A change in financing structure – for example a more redistributive approach – can be considered as part of the actuarial analysis. In terms of specific financing mechanisms to support the just energy transition, reducing or removing fossil fuel subsidies and using the revenue to finance social protection has been proposed by many international organisations for a number of years. In addition, a form of carbon pricing within social security contributions is an innovative idea that could be considered.

Tripartite consultation and consensus

As social protection schemes evolve to meet these new challenges, it is important that decisions on scheme policy, financing and management reforms consider views from all stakeholders and are undertaken on a tripartite consensus agreement. This social dialogue is key to ensure robust and appropriate solutions. In an analysis of a transition away from coal in three regions of the European Union the importance of such dialogue to ensure regional and local buy in was emphasised (European Economic and Social Committee 2023). It also highlights that such partners often proposed social protection as a key element of an appropriate response.

4. Risk management and investment strategy in response to climate change and the just energy transition

Climate change[11] may prevent social insurance schemes from performing their functions. The International Social Security Association (ISSA)–ILO Guidelines on Actuarial Work for Social Security illustrate the principle roles of social security institutions and mechanisms in dealing with climate change-related risks (International Social Security Association and International Labour Organization 2022). In the Guidelines, climate change-related risks are considered as part of catastrophic risks. In general, the principles underlying their management are the same as other risks. Yet, the importance of such risks may eventually require a dedicated approach to their management. Social security institutions should first identify the source and types of catastrophic risks that may affect both the scheme(s) and operational risks, followed by measuring frequency and severity, and mitigating risks.

Catastrophic shocks may create multiple risks to social security schemes. Some of the risks relevant to this report and related guidelines are abstracted below from the ISSA–ILO Guidelines (2022), including, most notably, benefit expenditure risk, financing risk and scheme objectives risk.

▶ Box 4. Risks related to climate change and energy transitions

The benefit expenditure risk is the possibility that benefit amounts paid will be greater than expected. The reasons why this may happen include differences between actual and expected benefit payments due to external factors, and changes in benefit rules, as well as higher than anticipated administrative expenses. Treatment of risk should consider changes in benefit design, changes in investment strategy, preventive measures, and improving administrative efficiency as well as increasing involvement of all stakeholders. It is important to note that what would appear to be a reduction in expenditure risk through reducing benefits creates or increases other risks related to inadequate benefits.

Financing risk relates to the possibility of having insufficient financial resources to meet obligations. This may result from lower employer and employee contribution income than expected, reduced government financial transfers or lower income from assets than expected. This risk is extremely important since it could lead to financial and intergenerational unsustainability of the scheme and major scheme changes. These changes could include changes in benefits and contribution levels as well as changes in financing approaches, as well as accounting for climate-related risks in investment portfolios, which could also affect the financial sustainability of the scheme.

Scheme objectives risk is an important risk related to the social security system not meeting its objective to appropriately respond to life-cycle risks. This risk can include inadequate coverage of the population; providing benefits that are not adequate; or the provision of inappropriate benefits (benefits and services provided which do not meet the needs of the individual, the household or society as a whole leading to a suboptimal use of resources and the system not meeting its objectives). This may arise where the incentives created are inappropriate (such as, not facilitating return to work of the individual) or do not support wider aims of systems (for instance, labour force participation rates at older ages). In such situations, the risk related to the person covered is transferred out of the social security system to either the individual or another party through formal

[11] Comprehensive analysis and recommendations on the permanent policy design for the JKP scheme are available in a separate report (Sengupta, Tsuruga, and Dankmeyer 2023).

or informal supporting mechanisms. It is therefore important that the implications of other risk decisions taken on scheme objectives risk are considered.

ILO and ISSA (2022).

By addressing these risks in permanent scheme designs, operating procedures and investment governance, social security institutions can comprehensively adapt social security schemes to climate change-related risks. Without due considerations on such a comprehensive scope, climate-related risks may not be fully addressed. For example, when a social security institution improves coverage and adequacy of benefits, protection to workers affected by climate-related risks and energy transitions will certainly improve. However, if the social security institution does not adapt its investment policy and governance, it may indirectly contribute to increasing the frequency and severity of climate-related shocks and stresses in the long term. In such a case, the social security institution may consider Environmental, Social, and Governance (ESG) investing.[12]

Actuarial valuations should be regularly conducted and lead to changes in policies. Progressively, these periodic reviews should not only consider coverage, adequacy and financial sustainability, but also the projected impacts from climate change-related risks. This analysis within the actuarial valuation report or as a complement should use sensitivity analysis and scenario testing as tools to assess such impacts and to summarize them. Recommendations in response to such risks (such as the need to increase contribution rates) should be set out clearly in the report.

Investment of social security reserve funds

This process will feed into the investment management decisions regarding the risk of portfolios. Investments in fossil fuel companies and carbon intensive enterprises creates a risk of stranded assets. A diversification away from such assets is inevitable over time but needs to be undertaken in a systematic and based on appropriate analysis on risk and return.

One clear trend in investment which is consistent with a transition to cleaner energy with lower carbon emissions is the increase in infrastructure investment (International Social Security Association 2019). We recommend that social security reserve funds consider this asset class as an important component of their portfolio – in addition, it implies a good match between demand for long term funds on behalf of these projects and the availability of such funds from the social security side. The appropriate governance procedures need to be put in place to ensure this is done appropriately.

[12] Canada considers catastrophic risks, including climate change risks, in actuarial valuations (Canada Office of the Superintendent of Financial Institutions and Canada Office of the Chief Actuary 2022).

▶ 5. Conclusion

Just energy transitions cannot be achieved without comprehensive reforms of the social protection system and extension of coverage. Whilst there is no one-size-fits-all solution as the challenges related to the transition are complex and multi-factorial, a number of effective approaches are possible and highlighted in this report. Providing protection against different life cycle risks underlines the provision and delivery of social protection scheme benefits and services and schemes must seamlessly address different needs and risks of workers and residents. Therefore, such schemes are already well placed to address the challenges and risks related to the transition.

While the Government can focus on establishing specific schemes and measures to mitigate adverse impacts of energy transitions on employment and communities, it should also consider improving design and delivery of existing social protection schemes, adapt them to the requirements of the transition as well as ensuring linkages and complementarity between them and other labour market and economic measures. The higher the coverage is, the more effective the response of such schemes can and will be,

This paper highlighted the particular importance of legal and policy reforms to improve coverage and adequacy of the JKK scheme, the JKP scheme and the JP scheme. Appropriate non-contributory scheme provision is also important for vulnerable workers and residents such as long-term unemployed employed workers, persons with disabilities and older persons who may not be fully protected by the existing contributory schemes. Concerning new employment opportunities and supporting job searches of workers who have and will lose their jobs in coal related industries, public employment services and skills development tailored to their individual needs will complement social protection schemes which guarantee income security.

The ILO stands ready to support Indonesia on its measures to adapt social protection coverage and provision to the new energy and climate challenges ahead.

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