Policy Brief

For Preparation of Just Energy Transition Partnership Implementation in Vietnam

JUST AND EQUITY ASPECT

Prepared by Energy and Environment Consultancy Joint Stock Company (VNEEC)

6 April 2023

Disclaimer

This Policy Brief is prepared by VNEEC and reviewed by Perspectives Climate Group (PCG) under the finance support of ETP to meet the request of the Department of Climate Change of Vietnam (DCC) to provide for the background in the early stage of preparing the Outline of the Just Energy Transition Partnership Resource Mobilisation Plan (JETP RMP). The opinions expressed in this publication are those of the authors solely. They do not purport to reflect the opinions or views of the ETP or DCC.
**Key messages**

The Vietnamese coal mining sector currently is unable to fulfil the demand from coal power plants. This means that coal for power plant consumption is mainly imported. If the coal power plants closed due to the Just Energy Transition Partnership (JETP) would all only use imported coal, the JETP would not have any negative impacts on the Vietnamese coal mining communities.

If currently operating coal power plants are decommissioned, there is a clear need for unemployment benefits and retraining. If planned coal power plants are replaced by renewable power plants, there would not be a direct negative effect on jobs, the balance of jobs would be positive as renewable power plants are more labour intensive than coal power plants.

Household electricity prices are low in Vietnam compared to the international average, as they are subsidised by the government. Still the share of monthly income paid by poor households for electricity is high. Increases of electricity prices due to an increase in power generation costs triggered by an expansion of renewable power could hurt poor groups. This could however be avoided by reorienting subsidies.

The just, equitable and inclusive aspects are addressed in Vietnam’s JETP Political Declaration as follows “ensure that all are adequately protected from the direct risks and can benefit from opportunities of for Vietnam in order to deliver a just energy transition in the country”. This Policy brief focuses on pointing out the gaps in the just and equitable aspects of the JETP and convey the following key messages as recommendations in the table below.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Gaps</th>
<th>Recommendations for Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coherent definition</strong></td>
<td>There is no consistent and coherent definition of a just transition</td>
<td>Strategically define a just transition and establish its principles in collaboration with key stakeholders, including groups affected by the reduction of coal mining and closure of coal power plants. This definition and principles should be included in the JETP RMP and serve as a basis for negotiating the allocation of finances with IPG.</td>
</tr>
<tr>
<td><strong>Negotiation dialogue</strong></td>
<td>As there is no coherent definition of a just transition, it becomes challenging to devise effective negotiation strategies. Moreover, the South African precedent shows unwillingness of IPG to pledge significant grants for “just elements”</td>
<td>Develop clear demands for international public financing for the “just elements” of the JETP that ensure that the burden of financing for those does not fall on the Vietnamese government or other Vietnamese stakeholders.</td>
</tr>
</tbody>
</table>
| **National coordination**  | - The absence of a centralised, high-level body to oversee and coordinate the just transition is a significant shortcoming.  
- The absence of a multi-stakeholder governance structure, which includes the participation of key stakeholders | Establish a centralised, high-level body which coordinates and manages the just transition. The body responsible for overseeing and coordinating the just transition in Vietnam should be composed of representatives from various stakeholder groups, including... |
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Gaps</th>
<th>Recommendations for Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative environment</td>
<td>The two policy documents referenced in Vietnam’s JETP Political Declaration – the NDC and National Climate Change Strategy – currently do not address any issues related to a just energy transition. This is concerning since a conducive legislative environment is essential for facilitating a successful JETP. Moreover, there are no specific cases of decommissioning or early retirement of CFPPs in Vietnam and no legal supporting mechanisms to support CFPP workers who may be affected by the transition.</td>
<td>Short-term: develop a Just Transition Framework that enables coordination and coherence of just transition planning in the country (similar to the Framework of South Africa) Long-term: develop policies and a legal framework that are conducive to supporting individuals who have lost their jobs due to closure of coal mines and power plants and vulnerable groups impacted indirectly.</td>
</tr>
<tr>
<td>The financing package, its structure, and the distribution of funds</td>
<td>Currently, there has been no assessment conducted on the financial requirements needed to address the justice elements of the transition. However, it is essential to prioritise grants that support these justice elements to ensure a fair and equitable transition to a low-carbon economy.</td>
<td>Short-term: developing a specific target for financing the justice elements in the JETP RMP.</td>
</tr>
</tbody>
</table>
| Evidence-based strategies and studies          | The JETP in Vietnam is currently viewed as a high-level political commitment, with the term “just” not being adequately researched or reflected in evidence-based strategies. | Short-term:  
- Collect reliable data and research relevant evidence-based strategies of what constitutes a just transition.  
- Commission scoping studies on the financial need for unemployment benefits, retraining of workers as well as reducing vulnerability of affected communities as a whole to provide inputs and background for the development of JETP RMP  
Long-term: |
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Gaps</th>
<th>Recommendations for Vietnam</th>
</tr>
</thead>
</table>
| Engage the public and relevant stakeholders | The JETP is so far only defined on a high level and currently lacking the formal consultation and platform for engaging relevant stakeholders and the public. | • Commission in-depth research, scoping studies to:  
  - provide evidence base and strategies on impacts of the coal power plant closure on communities and workers with wide participation of experts in different fields (academia, business, labour, and associations) to support for RMP development and implementation.  
  - provide guidance for measuring progress and evaluating the effectiveness of transition policies and programmes.  
• To ensure a more inclusive process that strikes a balance between competing interests and economic, social, and environmental objectives, public dialogues should be organised early in the preparation of the RMP and then continued throughout the transition process. This will enable diverse stakeholders to engage in constructive dialogues, identify common ground, and reach compromises.  
• Organise a series of workshops facilitated by the high-level body referred to in the previous section. These should be on just energy transition issues, incorporating views of government agencies, unions, associations, business, labour, traditional leadership, youth, and the research community etc. These are essential in developing a comprehensive understanding of the key themes |
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Gaps</th>
<th>Recommendations for Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>necessary for a just transition framework.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Establish a formal platform for stakeholder engagement, including civil society organisations (CSOs), to facilitate information sharing and consultation during the development and implementation of the JETP RMP.</td>
</tr>
<tr>
<td>Collaboration among other JETP countries</td>
<td>There has been little to no engagement and learning exchanges between Vietnam and the other JETP countries</td>
<td>Short-term:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitate learning exchanges between other JETP countries, with a particular focus on South Africa’s extensive expertise in translating just energy transition principles into effective policies and implementation plans.</td>
</tr>
</tbody>
</table>

1 Relevant Statements in the Political Declaration

1.1 Just, equitable, and inclusive energy transition in the Political Declaration

Just, equitable, and inclusive energy transition is confirmed in paragraph 14 of the Political Declaration on establishing the Just Energy Transition Partnership (JETP) between Vietnam and the International Partners Group (IPG). The Political Declaration emphasises that the JETP needs to “ensure that all are adequately protected from the direct risks and can benefit from opportunities brought by this transition” and notes that “the transition should be accompanied by programmes of training and retraining, upskilling, job creation and other forms of support for workers in the affected sectors and areas so that they can benefit from the industrial innovation and the creation of quality green jobs; and that access to electricity must remain affordable and reliable for all, in particular for affected vulnerable and low-income group”.

As JETPs are country-led and crafted to meet each country’s self-defined needs, Vietnam is preparing to develop a JETP Resource Mobilisation Plan (JETP RMP) that will be submitted to IPG in November 2023 for approval to enable the mobilisation of the USD 15.5 billion committed finance. The JETP RMP, as stated in the Political Declaration, specifies two areas of support to directly ensure a just and equitable energy transition for Vietnam, including:

e) lead a just transition, in line with, inter alia, the ILO Declaration on Fundamental Principles and Rights at Work, to ensure all of society can benefit from a green transition to increase access to affordable energy and engage with relevant organisations and stakeholders to help meet the needs of those most affected by the green transition, such as workers and communities in sectors and areas affected by the transition;

f) develop and implement educational, vocational training and re-skilling programmes to develop necessary skills and competencies and support job creation for labour in sectors and
regions affected by the transition, as well as other forms of support to ensure better living conditions for workers after the transition;

With the aim of supporting the development of Vietnam JETP RMP, this policy brief report will examine the current country context on the just and equitable aspects. Subsequently, it identifies the gaps and provides recommendations for the development of Vietnam’s JETP RMP related to the two above-mentioned points under paragraph 24 of the Political Declaration.

1.2 ILO Declaration on Fundamental Principles and Rights at Work\(^2\)

The ILO Declaration on Fundamental Principles and Rights at Work, adopted in 1998 and amended in 2022, is an expression of commitment by governments, employers and workers’ organisations to uphold basic human values - values that are vital to our social and economic lives. It affirms the obligations and commitments that are inherent in membership of the ILO, namely:

- **a.** freedom of association and the effective recognition of the right to collective bargaining;
- **b.** the elimination of all forms of forced or compulsory labour;
- **c.** the effective abolition of child labour;
- **d.** the elimination of discrimination in respect of employment and occupation; and
- **e.** a safe and healthy working environment.

2 Current country context

2.1 Coal mining sector and coal power generation

Coal mining sector

To date, Vietnam still relies on coal as one of the key energy sources in order to meet its energy needs. Since coal has been mined in Vietnam for a long time, the country is now facing challenges such as the depletion of readily available reserves and an increase in the share of coal mined underground in difficult geological conditions.

Coal production has increased massively in the 2000s and fluctuated over the last decade.

![Figure 1: Coal production in Vietnam (million t)](image)

Vietnam’s coal industry consists of two key state-owned entities engaging in coal production and trading, namely Vietnam National Coal - Mineral Industries Holding Corporation Limited (Vinacomin) and Dong Bac Corporation, supplying 95% of coal domestically produced\(^4\).

The volume of coal consumed at present has more than doubled compared to 2011, mainly for electricity production. According to the Program for the Development of the Coal Industry of Vietnam until 2035, the demand for coal in 2030 is expected to be 2.5 times bigger than the amount of 43.35 million t in 2019, and almost 3 times bigger in 2035\(^5\). The increasing demand for coal is mainly due to
the increase in demand for power generation, and the cement, metallurgy, and chemical industries. This demonstrates that the role of coal and the coal industry in the development of the Vietnamese economy is still very important. At the current output levels, the country's coal reserves are projected to last for 75 years\textsuperscript{6}. Since 2015, the coal industry has been unable to meet the growing energy demand, resulting in a widening gap that necessitates increased coal imports. As such, Vietnam has become a net coal importer with coal imports increasing dramatically between 2015 and 2020.

Figure 2: Vietnamese coal imports (annual, million t)\textsuperscript{7}

The imported coal is mainly used by coal-fired power plants (CFPP).

It is projected that Vietnam will import about 50-83 million tonnes of coal per year during the period from 2025 to 2035, with the volume gradually falling to about 32-35 million tonnes by 2045\textsuperscript{8}.

Given this situation, one could say that a reduction of coal use due to the decommissioning of coal power plants would not have any impact on the Vietnamese coal mining sector, and thus have minor negative repercussions on workers and communities, as long as coal imports are reduced, and the domestic production is maintained. There are various supporting indicators for this:

According to Decision 428/QD-TTg of the Prime Minister dated March 18, 2016 on the Power Development Plan VII for the 2011-2020 period with a vision to 2030, the coal mining industry is requested to maximise the exploitation of domestic coal resources to ensure the development of CFPPs, with priorities given to the use of domestic coal by northern CFPPs\textsuperscript{9}.

According to the Decision of the coal industry development strategy to 2015, orientation to 2050, “Vinacomin is mainly responsible for the coal industry development, supplying domestic coal and acting as a focal point to coordinate with the large coal-consumers in importing coal for the country's socio-economic development needs, contributing to ensuring national energy security”\textsuperscript{10}.

According to the Prime Minister's official letter No. 46/TTr-CN dated January 16, 2017, and the Government Office’s letter No. 2172/VPCP-CN dated March 10, 2017, both direct the coal supply for electricity generation in Vietnam, with Vinacomin and Dong Bac Corporation being the two primary coal suppliers for CFPPs in the country\textsuperscript{11}. Currently, Vinacomin and Dong Bac Corporation have about 96,000 and 12,000 workers respectively, mostly concentrated in mining areas of North-Eastern region of Vietnam\textsuperscript{12}.

![Vietnamese coal imports (annual, million t)](image)
The average income of labour in the industry is VND 15.19 million/month, around USD 650/month. The average age of labour remains stable, with 23.7% of workers aged below 31, 57.1% of workers aged 31-45, and 1.6% of workers aged above 55.

**Coal power generation**

Vietnam’s electricity system has seen significant growth over the past decade, largely driven by a substantial increase in coal-fired power generation. While this has shifted the country away from its once dominant hydroelectric capacity to a greater dependence on fossil fuels, it has also helped to address energy security concerns and support sustained economic growth. In fact, electricity demand in Vietnam has been growing at an average rate of 10.3-11.3% per year between 2016-2020.

By the end of 2022, the total installed capacity of CFPPs reached about 25.3 GW, accounting for 32.5% of the total system capacity as depicted in the below figure.

*Figure 3: Vietnam’s electricity system installed capacity (in GW) by sources in 2012-2022*

Coal power generation accounted for 39.1% of total output in 2022 with more than 104 TWh as illustrated in the below figure.
Access to electricity and affordability

Access to electricity in Vietnam has significantly improved in recent years, with most of the population having access to electricity, due to the government’s efforts to expand the national power grid and bring electricity to previously underserved areas. This development aligns with Sustainable Development Goal (SDG) 7 which is to ensure access to affordable, reliable, sustainable and modern energy for all. The government has invested heavily in expanding the national power grid, building new power plants, and promoting RE sources to ensure a sustainable electricity supply. The efforts have been particularly focused on rural and remote areas, where access to electricity was limited in the past.

The percentage of the population with access to electricity has steadily increased over the years and has a large coverage across the nation, reaching over 99% since 2015\textsuperscript{18}. This is a significant achievement of the Target Program for Power Supply in Rural, Mountainous, and Island Areas for the 2016-2020 period, as promulgated in Decision 1740/QD-TTg by the Prime Minister on December 13, 2018. The first phase of the program has successfully provided electricity to more than 204,737 households in rural, mountainous, and island areas\textsuperscript{19}. As of January 2021, approximately 0.74% of households (equivalent to 153,911 households) still had no access to electricity, while 717,352 households were experiencing unstable and intermittent power supply despite having access to electricity due to being in remote areas and having poor infrastructure. The second phase of the program, which spans from 2021 to 2025, aims to bring electricity and improve the transmittance stability of 871,263 households in 6,811 villages across 2,197 communes. Additionally, the program seeks to supply power from the national grid and RE sources for the islands\textsuperscript{20}. Furthermore, the Prime Minister has approved the National target program on new-style rural area building for 2021-2025 promulgated in Decision 263/QD-TTg dated 22 February 2022 and addressed the importance of providing partial support from the government budget to improve the rural power grid system\textsuperscript{21}.

Electricity tariffs in Vietnam are strictly regulated by the government including both electricity purchasing and retail selling by EVN. According to Global Petrol Prices\textsuperscript{22}, the average electricity price in Vietnam for residential electricity and business units in Vietnam was roughly 0.08 USD/kWh and 0.076 USD respectively in September 2022. Vietnam’s electricity retailing price management policy is
divided into 4 categories: wholesale price, retail price, hourly price, and price for poor households.

Electricity prices as well as support for poor households are estimated as follows:

1. **Subjects**: Poor households according to the criteria prescribed by the Prime Minister, which make 7.52% of the population (1,972,767 households);
2. **Support level**: equivalent to a monthly electricity bill of 30 kWh according to the level 1 retail price for domestic electricity;
3. **Payment**: Commune People’s Committees make payments to poor households in the area quarterly.

In addition, the retail price of domestic electricity is shown in the table below:

**Table 1: Domestic electricity retail price in Vietnam**

<table>
<thead>
<tr>
<th>No</th>
<th>Customer target group</th>
<th>Electricity price (VND/kWh)</th>
<th>Electricity price (USD/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Level 1: For kWh from 0 -50</td>
<td>1,678</td>
<td>0.072</td>
</tr>
<tr>
<td>26</td>
<td>Level 2: For kWh from 51 -100</td>
<td>1,734</td>
<td>0.074</td>
</tr>
<tr>
<td>27</td>
<td>Level 3: For kWh from 101 -200</td>
<td>2,014</td>
<td>0.086</td>
</tr>
<tr>
<td>28</td>
<td>Level 4: For kWh from 201 -300</td>
<td>2,536</td>
<td>0.108</td>
</tr>
<tr>
<td>29</td>
<td>Level 5: For kWh from 301 -400</td>
<td>2,834</td>
<td>0.121</td>
</tr>
<tr>
<td>30</td>
<td>Level 6: From kWh from 401 forward</td>
<td>2,927</td>
<td>0.125</td>
</tr>
</tbody>
</table>

Hence, the support level for a poor household in Vietnam is approximately 2.16 USD per household. Assuming that each poor household will use 300 kWh per month (according to World Bank the electricity consumption per capita of Vietnam in 2014 was already 119.25 kWh/per capita/month), the electricity expenditure is estimated as in the following table:

**Table 2: Electricity bill with the consumption that each household will use 300 kWh/month**

<table>
<thead>
<tr>
<th>Corresponding power consumption (kWh)</th>
<th>Price</th>
<th>Electricity bill without tax (USD)</th>
<th>VAT</th>
<th>Electricity bill with tax</th>
<th>Total Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>0.074</td>
<td>3.6</td>
<td>3.888</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>0.086</td>
<td>3.631</td>
<td>8%</td>
<td>3.922</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>0.108</td>
<td>8.521</td>
<td>9.202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>0.121</td>
<td>10.729</td>
<td>11.588</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0.125</td>
<td>0.363</td>
<td>0.392</td>
<td></td>
<td>28.992</td>
</tr>
</tbody>
</table>

Therefore, even with support from the Government, each poor household still must pay roughly 26.832 USD/month or 627,866 VND/month. Taking into account the average monthly income of poor households is 2 million VND or less in urban areas and 1.5 million VND or less in rural areas respectively, the electricity expenditure will still be a heavy burden for them (accounting for roughly 41% and 31% of their income respectively).

Although electricity retailing prices are comparatively low in Vietnam, price increases are a sensitive issue. Any plan/discussion to increase the prices usually gets a negative reaction from the general public and is always captured and covered widely as a hot issue by the media. The public awareness
of issues related to and acceptance of RE developments is mainly focused on the green and clean aspect, and concerns over justice. With regard to the latter, equity concerns due to increasing the negative impacts on certain groups from high RE deployment remain relevant.

2.2 Employment at CFPPs in Vietnam

Vietnam currently has 39 operating CFPPs, of which 28 are state-owned plants (under 3 main state-owned energy enterprises of Electricity of Vietnam (EVN), Petrovietnam, and Vinacomin) and 11 are privately owned plants. The installed capacity of these plants ranges between 30 to 1,245 MW. Among the plants, 15 are large plants with a capacity of over 1000 MW, 9 are medium plants with a capacity of 600 - 680 MW and the rest are small plants with a capacity below 450MW. In terms of technology, CFPPs can be classified into three types based on the steam that enters turbines, namely Subcritical - SSC, Supercritical – SC, and Ultra Supercritical – USC. Most of the CFPPs in Vietnam utilise SSC technology because they use domestic anthracite coal which has low volatile matters while SC CFPPs use imported coal which has higher heating value and volatile matters. Based on the commission year, CFPPs can be further classified into two groups, plants commissioned before and after 2010 (25 young plants commissioned after 2010)\textsuperscript{28}.

According to a study on six state-owned CFPPs conducted by Vietnam Initiative for Energy Transition (VIET) in 2021, large CFPPs using SSC technology employ from 800 to 1200 people, while large CFPPs applying SC technology need fewer employees, from 400 to 600 people. Small and medium size CFPPs employ about 50 to 400 people/plant. It is also important to note that old CFPPs, commissioning before 2010 such as Ninh Binh and Pha Lai, have more old employees with ages between 40 and 60\textsuperscript{29} with the details illustrated in the below figure.

![Employee age distribution in some CFPPs](image)

In order to estimate the number of employees in the power sector, the parameter of employment factor or employment coefficient is often applied. It represents the number of jobs needed or created per MW of capacity added to the system. In this report, the employment factors of different power sources in Vietnam are taken from the study by COBENEFITS in 2019\textsuperscript{30}. 

\textsuperscript{28} According to a study on six state-owned CFPPs conducted by Vietnam Initiative for Energy Transition (VIET) in 2021, large CFPPs using SSC technology employ from 800 to 1200 people, while large CFPPs applying SC technology need fewer employees, from 400 to 600 people. Small and medium size CFPPs employ about 50 to 400 people/plant. It is also important to note that old CFPPs, commissioning before 2010 such as Ninh Binh and Pha Lai, have more old employees with ages between 40 and 60\textsuperscript{29} with the details illustrated in the below figure.

\textsuperscript{29} In order to estimate the number of employees in the power sector, the parameter of employment factor or employment coefficient is often applied. It represents the number of jobs needed or created per MW of capacity added to the system. In this report, the employment factors of different power sources in Vietnam are taken from the study by COBENEFITS in 2019\textsuperscript{30}. 

\textsuperscript{30}
Using these employment factors for CFPPs in Vietnam, the estimated number of employees working in operation and maintenance (O&M) of CFPPs (direct jobs) roughly corresponds to 14,500 people. For the whole value chain of CFPPs, the total number of direct, indirect, and induced jobs is around 35,500 people. Besides, the coal mining and quarrying industry is employing around 94,000 workers in 2021\textsuperscript{32}, accounting for 0.2\% of Vietnam’s workforce\textsuperscript{33}.

### 2.3 Employment for coal and RE under JETP scenario

Under JETP, Vietnam aims to reduce 6.8 GW of coal-fired power plant capacity by the year 2030 compared to the planned peak capacity of 37 GW. The Consultant’s initial estimation of jobs lost due to decommissioning of 6.8 GW coal-fired generation in O&M will be around 3,900 jobs. As for the total supply chain for CFPPs, it is estimated that 15,642 to 21,160 jobs will be lost depending on the scenarios in which total electricity generation will be between 551.2-595.5 TWh\textsuperscript{34}.

Along with the decommissioning of CFPPs, JETP will also help Vietnam increase renewables (mainly wind and solar energy) from 36\% to 47\% of total electricity generation by 2030. This increase is estimated to add 154,392 new jobs to Vietnam’s employment pool in which wind (onshore, nearshore, and offshore) accounts for 58,434 new jobs while solar accounts for 95,958 new jobs. The estimation of jobs for renewables includes direct, indirect, and induced jobs. The capacity inputs were taken from the “National Climate Change Strategy - Technical Report” (NCCS)\textsuperscript{35}.

So, the overall jobs balance of the JETP will be largely positive and the challenge relates to dealing with coal power workers who cannot easily retrain or move to areas with a large supply of jobs linked to renewables.

### 2.4 Status of skilled labour availability in the renewable value chains in Vietnam

#### 2.4.1 Occupations and skill requirements for the renewable energy (RE) sector

Employment in RE is not just directly located within the energy generation but the whole value chain. The RE value chain includes manufacturing and distribution of RE equipment; RE project development; construction and installation work associated with the development of RE capacity; operation and maintenance of RE facilities; and a range of cross-cutting activities that contribute to more than one
of the other value chain stages. The huge number of technically skilled labour needed for planning and projection/development and construction and installation compared to O&M means that the employment needs in RE are front-loaded. O&M employment requirements are smaller, but highly technical and special trainings are prerequisites.

2.4.2 Status of education and training in RE in Vietnam

Studies in South Africa suggest that the lack of a skilled local labour force in the RE value chain may serve as a bottleneck, both to growth in the sector and also its ability to drive socio-economic value creation in the local economy. In fact, the shortage in labour in the renewable sector has already been a challenge for developing RE in Vietnam over the past few years when the period 2012-2021 witnessed a surge of renewable electricity generation capacity from 13.7 GW to 42.7 GW with solar PV reaching 4 GW in just two years. To meet the demand, project developers have recruited engineers who are not directly specially trained for the RE sector. The employees in this sector lack the knowledge and skills necessary for power plant construction, grid connection, remote system monitoring and operations, etc. As a result, they need to have on-the-job training with the support of foreign experts.

Although there are many education and training institutions in Vietnam with training programmes and courses in energy, electrical engineering, and those related to the construction and development of electricity systems, just a few universities in Vietnam have offered training programmes in RE-related subjects. Out of 460 universities and colleges in Vietnam, there is a limited number of schools having specialised majors in RE. Some of these include the University of Science and Technology Hanoi (Vietnam France University - USTH), Hanoi University of Science and Technology (HUST), Electric Power University (EPU), Danang University of Technology, Ho Chi Minh City University of Technology (HCMUT), Can Tho University. In general, the RE industry and majors are still new, most universities are not well prepared in terms of facilities, are limited in connection with practical requirements, and the curriculum is not yet well-updated and attractive. Student numbers of RE majors reach double digits only for most of these universities, with some universities even complaining about a long-term decrease.

Given the expected increase in the demand for skilled workers in the electricity sector in the coming years, the new vocational training curricula and university programmes need to be reconciled with the new energy transition.

2.5 Just and equitable aspects in labour, climate and electricity sector policies of Vietnam

The below figure is the main policies to support the electricity and energy sectors in general, corresponding to electricity output over time from 2000 to 2022.
2.5.1 Labour market policies

The Labour Code (No. 45/2019/QH14) promulgated by the National Assembly dated November 20, 2019 has mentioned the Severance allowance in Article 46 and Redundancy allowance in Article 47 to support workers in case of termination of employment contracts. The support regulation aims to partly lessen the economic burden for those who lose their jobs and support them during the period of preparation for their next job or trainings to transfer to another profession. These Articles provide a general guidance and legal basis for the rights of and support impacted workers who would lose their jobs due to energy transition.

The latest version of the Labour Code, which was passed in 2019 and came into effect in 2021 establishes basic labour rights and protections for all workers, regardless of their employment status, including those in the informal economy. The main changes focus on wages, holidays and hours of work, termination of employment, retirement, and freedom of association.

2.5.2 Just and equitable aspects of development policies

The National Action Plan for the implementation of the 2030 sustainable development agenda (2017)

The National Action Plan for the implementation of the 2030 sustainable development agenda (SDG NAP) was released in 2017 under Prime Minister’s Decision 622/QD-TTg dated 10 May 2017 and addresses equality and vulnerable groups as follows.

“3. People are at the center of sustainable development. Efforts will be made to maximise the role of people as the main actors, the main resource, and the goal of sustainable development; to increasingly meet the material and spiritual needs of all the strata of people [...].

4. Attention will be paid to creating enabling conditions for all the people and communities in society to have equal opportunities for development, access common resources, participate in, contribute to,
and benefit from development [...]. Efforts will be made to leave no one behind and to prioritise those populations who are most difficult to access, including children, women, the elderly, the poor, the handicapped, people in isolated and remote regions, and other vulnerable groups.46

The just factor is reflected the most in Goal 8: “Ensure sustainable, comprehensive and continuous economic growth; and generate full, productive and decent employment for all citizens” where the aim is to create jobs and increase productivity for all including the vulnerable groups but not specifically towards the just energy transition.

The document also defined “Inclusive: A feature that indicates the inclusion of all people, all stakeholders concerned in a process, thereby contributing to and benefiting all from such a process. Currently, the term “inclusive” is used widely across the world and is normally accompanied by a range of other words, e.g., inclusive growth, inclusive society, inclusive education or inclusive industrialisation.”

- **The Updated Nationally Determined Contributions (2020) and The Updated Nationally Determined Contributions (2022)**

In the updated NDC 2020 the impact of the energy transition on employment and the just aspect was not discussed throughout the document47.

In the updated NDC 2022, in the context of the transition from coal-fired energy to RE and related socio-economy aspects, the “just transition” term was introduced to support the transitioning of the labour force that was impacted by the restructuring of the energy sector. However, no definition of the just transition is provided or further discussed. Any specific definitions relating to vulnerable groups defined as “women, the elderly, people with disabilities, children and adolescents, and ethnic minorities48” solely focused on adaptation and not mitigation-related employment issues.

The NDC further states “Emission reduction measures potentially bring great benefits in increasing employment opportunities”49.

- **The National Strategy for Climate Change Until 2050 (2022)**

On July 26, 2022, The National Strategy for Climate Change Until 2050 was approved in Decision No. 896/QD-TTg of the Prime Minister. It mentions the gradual decrease of coal-fired electricity as well as the importance of training and job transitioning but no specific sectors were referred to, with the most specific wording again referring to adaptation:

“Develop sustainable livelihood models, prioritise training, profession transition, technology assistance, and funding source approach for inhabitants of areas prone to climate change and its impacts50”

- **The National Strategy on Green Growth (2012) and The National Strategy on Green Growth (2021)**

The National strategy on green growth for the period 2011-2020 with a vision to 2050 (VGGS) promulgated by the Prime Minister in Decision 1393/QD-TTg dated September 25, 2012 stated: “Green growth must be made by the people and for the people helping to create jobs, reduce poverty and improve the material and spiritual life of the people51”.

In the implementation solution, the document has presented two solutions related to just and equitable aspects which are “Boosting green economic sectors to rapidly develop to create more jobs, raising income and enriching more natural capital sources” and “Training and developing human resources52”. The strategy implementation was divided into two phases 2011-2020 and 2021-2030 which focused on training human resources to fit the green transition53.

In 2021, the National green growth strategy for the 2021-2030 period, with a vision by 2050 was adopted and replaced the VCCS 2012. The objective of VCCS 2021 is to promote the restructuring of the economy in the process of green growth along with social equality and environmental
sustainability. The new target for the energy sector is to decline the nation’s dependence on fossil fuel energy and instead raise the proportion of renewable energy specifically as “d) Greenify the transformation process according to equality and inclusion principles and improve resilience.”

The strategic orientation of VGGS 2021 directs towards green labour and to sustain their equality in benefits and opportunities along with the economic destruction, precisely in “k) Promote green transformation in social sectors such as labour and employment, healthcare and tourism; ensure equality in accessing opportunities, information and basic social services during green transformation.” To help organise the implementation strategy, different Ministries are mobilised such as Ministry of Education and Training (MOET) for designing training programs, Ministry of Labour - Invalids and Social Affairs (MOLISA) for organising trainings and formulating policies for green jobs and support for vulnerable groups and those who are affected by the green growth. In the last sections, the document presented solutions focus on promoting the development of human resources for green industries, incorporating green growth content into educational programs and activities at all levels, and investing in green facilities for vocational training institutions. Additionally, there is an emphasis on research, reporting, and forecasting of the green job market which are included in sections c) Develop green human resources and jobs and g) Equality in green transformation.

2.5.3 Just and equitable aspects in other energy policies

Vietnam’s energy policies have so far not addressed the just and equitable transition towards RE or the employment impact resulting from the restructuring of the power sector, which involves reducing the reliance on coal-based electricity. In the following figure, energy related policies of Vietnam through time were presented.
In 2015, the Prime Minister approved the Development strategy of RE of Vietnam by 2030 with a vision to 2050 (Decision 2068/QD-TTg) that aims to increase the share of RE in the country’s energy mix and reduce its reliance on fossil fuels. The strategy was developed with the goal of promoting sustainable development, reducing greenhouse gas emissions, and enhancing energy security in Vietnam. The only just factor in the strategy regarding energy transition was that the MOET will include RE knowledge and technologies in both general and vocational education programs\textsuperscript{58}.

Resolution No. 55-NQ/TW on The Strategy for National Energy Development By 2030 With A Vision Towards 2045 dated February 11, 2020 was promoted by Politburo\textsuperscript{59}. The goals of the strategy are to ensure energy security and provide affordable energy for sustainable socio-economic development, national defense and security, and environmental protection. Again, this document does mention the impacts and equality for workers who are affected by the change in electricity generation technologies.

Both Power Development Plans (PDP), Revised PDP VII for the period of 2011-2020 with a vision to 2030 (2011) and Draft PDP VIII for the period of 2021-2030 with a vision to 2050 (2022) promote the development of a more sustainable and reliable power sector, with a greater focus on RE and energy efficiency, while also ensuring a stable and secure power supply for the country’s growing economy. However, neither of them includes just and equitable aspects in the future plans of the power sector but solely focuses on the restructuring of the national energy pipeline\textsuperscript{60}.
2.5.4 Gaps in policies and legal frameworks in labour, climate and electricity sector policies of Vietnam

There are still loopholes in policies and legal frameworks in Vietnam to support a just and equitable transition. So far, the two policy documents referenced in Vietnam’s JETP Political Declaration – the NDC and National Climate Change Strategy – do not address any issues related to a just energy transition. This is concerning since a conducive legislative environment is essential for facilitating a successful JETP. Moreover, there are no specific cases of decommissioning or early retirement of CFPPs in Vietnam and no legal supporting mechanisms to support CFPP workers who may be affected by the transition. Vietnam needs to develop policies and a legal framework that is conducive to supporting individuals who have lost their jobs due to the closure of coal mines and power plants and vulnerable groups impacted indirectly.

2.6 Just and equitable aspect in research and awareness in Vietnam

Studies on a just energy transition are limited in number to date. The few publications touched on just energy transition to date concluded that the energy transition would impact coal mining workers to a small degree while increasing the share of renewables in the energy mix would create more new jobs that overall lead to gain in net employment in the country under both revised PDP VII and draft PDP VIII\textsuperscript{61,62}. It was estimated that under the BAU scenario of revised PDP VII, there would be an increase of 6.6 million jobs for the period of 2015-2050 from the raise of RE mix\textsuperscript{63} and RE could create twice as many jobs as the fossil-fuel sector per average installed MW\textsuperscript{64} (the details are presented in the Box below).

Box\textsuperscript{165}.

- Replacing coal power plants with solar or wind will more than double the number of jobs per average MW capacity. Replacing coal with gas alone will lead to job losses of around 0.5 job losses per average installed MW.
- Up to 1.94 million job-years can be created in the country through the power sector transformation between 2015 and 2030.
- Over that 15-year period, solar and wind will create 3.5 jobs and 2.8 jobs respectively per average installed MW capacity, whereas coal creates only 1.4 jobs.
- Across all scenarios, around 80% of the jobs created in the power sector by the year 2030 are in construction and installation.

In 2021, the case study of the two hydropower plants in Lam Dong with 26 interviews of stakeholders revealed that these new RE projects increase employment opportunities for the local communities, especially in the construction phase of the projects, though there are fewer job options for those who have been resettled due to the projects\textsuperscript{66}.

A research in 2022 by ILO\textsuperscript{67} based on Vietnam’s 2012 input on electric power generation statistics also concluded that the effect of the CFPPs phase out is not significant as other countries in the study.

The net gain in employment from the increase in the share of RE in the electricity mix based on studies in Vietnam so far is in line with the study result published internationally. It is estimated that each USD 1 million shifted from brown to green energy will create a net increase of 5 jobs\textsuperscript{68}. Furthermore, whilst women remain a minority of workers, the share of women in renewable energy-related jobs (32%) is larger than in energy in the energy sector overall (22%)\textsuperscript{69}. No assessment on the impact on employment in term of gender in Vietnam yet.

RE requires higher skill levels with the estimation that the demand for higher-skilled workers in the power sector is expected to grow by 31% for jobs during the construction and installation phase, and
25% for jobs in operation and maintenance that align with the growth in demand for RE sources, especially solar and wind\textsuperscript{70}.

The need for developing policies to support for training of skilled jobs and retraining coal miners towards the new energy world of renewables is recommended to be managed by the government actively as part of a just transition\textsuperscript{71}.

With regard to the impact on vulnerable groups, it is assumed that the transition to low-carbon electricity will increase electricity retail price which will impose negative impacts on low income groups and could drive poor people to switch back to traditional fuels. The impacts of increased energy prices on the most vulnerable groups can be mitigated through a more progressive electricity block tariff scheme\textsuperscript{72}.

In 2022, World Bank report\textsuperscript{73} stated that "While the long-term impact of the decarbonising pathway on poverty and inequality appears to be relatively limited, the transition costs could be substantial for poor consumers and unskilled workers. To protect affected groups, the government will need to provide safety nets and facilitate the adjustment of the labor market through measures such as reskilling and retraining programs and early-retirement benefits. The costs of these measures, albeit difficult to estimate, could amount to 0.7 percent of GDP per year, or USD 33 billion from 2022 to 2040 [...]".

Overall, the research on just transition in Vietnam does reflect and touch upon just and equitable aspects. They have the same voice and conclusion that energy transition and higher energy efficiency would contribute to improving the quality of energy services, creating jobs, modernising industry, increasing economic efficiency and growth, improving the local environment and helping respond to climate change\textsuperscript{74,75,76}. While most available studies in Vietnam have focused on technological issues of the energy transition, no research has been published on the estimation and distribution of benefits and costs of the energy transition. Such research is crucial in order to enable policymakers to ensure that just energy transition roadmap can maximise local benefits and distribute benefits and costs/impacts equitably, especially to communities affected.

Moreover, most of the studies are based on old energy pipelines as well as outdated databases, not taking into account the latest development in the climate change policies (updated NDC 2022 and net zero commitment by 2050) therefore, the relevance to the current Vietnam status is lessened and further assessments on the topic are necessary.

The public opinion on, and acceptance of large-scale RE developments is generally positive so far. Nonetheless, the potential negative impacts on justice and equity may increase and represent a threat to climate targets and low-carbon ambitions of the country. The strong and active engagement of different groups of stakeholders at multiple levels including national and subnational governments, the private sector and social organizations in the JETP is critical and should be ensured even in the early stage of JETP preparation.

At this early stage, some key organisations should be engaged in just issues including:

- Line ministries: Ministry of Industry and Trade (MOIT), MOLISA, MOET, MONRE, Ministry of Finance, Ministry of Planning and Investment (MPI);
- Local authorities: Provincial People Committees of provinces where coal mines and RE sources are located;
- Owners of CFPPs and RE power plants: both state-owned and private-owned plants;
- Social organisations and associations that represent different local stakeholder groups;
- Other entities: the investors, funders, financial institutions and research institutions.
3 Experience with South Africa and Indonesia

South Africa and Indonesia have already taken important steps to implement their JETPs. There are good experiences and lessons learned from the two countries that are relevant to Vietnam. This section will look at the implementation of JETPs in South Africa and Indonesia in terms of just and equitable aspects in order to draw the lessons for Vietnam, with a particular focus on South Africa as this country has a long history of dealing with just issues.

**South Africa**

The work on just transitions in South Africa already originated from the labour movement a decade ago. In 2009, the South Africa Trade Unions defined the purpose of a just transition under the context of climate change as to “protect the most vulnerable from the effects of climate change”. The Union later called for a just transition to a low-carbon economy, where the “just transition” focused on mitigating transition impacts on working-class groups, including workers, communities, and small businesses.

The element of just transition was then soon adopted by South African policymakers in formulating national and sectoral climate and development policies. In fact, South Africa was the only country to mention a just transition in its initial Nationally Determined Contribution (NDC) in 2015. A variety of other policies have integrated the just transition element, including, among others, National Climate Change Response White Paper (2011), National Development Plan (2012), Roadmap to the production of EVs in South Africa (2021), Nationally Determined Contribution (2021), National Employment Vulnerability Assessment (2022), and recently the Climate Change Bill (2022) and South Africa Green Taxonomy (2022). The dynamic development of these policies has set the basis for the Just Transition Framework to be built on together with scientific research, intensive consultations with stakeholders as well as international best practice guidelines.

Prior to the announcement of JETP, the government agencies have advanced the just transition agenda while the just transition imperative has been entrenched by most major stakeholder groups in South Africa. In preparing the process for JETP IP, it is acknowledged that all social partners are clear that a just transition should protect constituents, provide a reasonable opportunity to work, and empower those that are most impacted.

The definition of a just transition has been put forward clearly in the Just Transition Framework as in the below box:

**Box 2.**

*A just transition aims to achieve a quality life for all South Africans, in the context of increasing the ability to adapt to the adverse impacts of climate, fostering climate resilience, and reaching net-zero greenhouse gas emissions by 2050, in line with the best available science.*

*A just transition contributes to the goals of decent work for all, social inclusion, and the eradication of poverty.*

*A just transition puts people at the centre of decision making, especially those most impacted, the poor, women, people with disabilities, and the youth — empowering and equipping them for new opportunities of the future.*

*A just transition builds the resilience of the economy and people through affordable, decentralised, diversely owned RE systems; conservation of natural resources; equitable access to water resources; an environment that is not harmful to one’s health and well-being; and sustainable, equitable, inclusive land-use for all, especially for the most vulnerable.*

**Indonesia**
In its NDC in 2021, the government lists four critical components of the just transition of the workforce and the creation of decent work and quality jobs for an effective and inclusive transition to low greenhouse gas emission and climate resilient development. These include i) addressing challenges faced by sectors, cities and regions in transitioning to low carbon development and in ensuring a decent future for workers affected by the transition; ii) promoting low GHG emission and sustainable economic activities that will create quality jobs in cities and regions; iii) enhancing capacity of workforces to facilitate access to decent work and quality jobs, taking into account gender and inter-generational equalities, as well as the needs of vulnerable groups; and iv) enhancing participatory public dialogue to foster high employment rates, adequate social protection, labour standards and wellbeing of workers and their communities.

In its enhanced NDC in 2022 and the 2050 Long Term Strategy for Low Carbon & Climate Resilience, the Government of Indonesia identified a just energy transition as a cross-cutting approach and applied it to all priority sectors for mitigation and adaptation.

Lessons learned for Vietnam

Vietnam should strategically define a just transition and establish its principles in collaboration with key stakeholders, including groups affected by the reduction of coal mining and closure of coal power plants. This definition and principles should be included in the JETP RMP and serve as a basis for negotiating the allocation of finances with IPG. The process should include intensive consultations with key stakeholders to ensure a balance between competing interests and economic, social, and environmental objectives, public dialogues should be organised early in the preparation of the RMP and then continued throughout the transition process. Communication and education of the public on energy transition and renewable development need to be enhanced to gain acceptance and raise awareness among the public. This will enable diverse stakeholders to engage in constructive dialogues, identify common ground, and reach compromises. The consultation is supposed to be facilitated by the high-level body on just energy transition issues, incorporating views of government agencies, unions, associations, business, labour, traditional leadership, youth, and the research community, etc. These are essential in developing a comprehensive understanding of the key themes necessary for a just transition framework. It is important to establish a formal platform for stakeholder engagement, including national and subnational governments, private sector and social organisations and other stakeholders, to facilitate information sharing and consultation during the development and implementation of the JETP RMP. The national government has the role of ensuring the alignment of policies, fiscal planning, monitoring and international reporting while subnational governments involved in facilitating and supporting the implementation of energy transition projects with the private sector and other stakeholders. The role of social organisations will be supporting the local communities, research, monitoring and piloting as well as being intermediaries for social support projects.

4 Gap Assessment and Recommendations for Just Energy Transition for Vietnam

Gap Assessment and Recommendations

Whether the decommissioning of coal power plants in Vietnam has detrimental effects on coal mining needs to be carefully assessed. It may be that domestic coal production is affected negligibly as only coal imports are reduced. Then there would be no detrimental effects on coal mining workers.

Decommissioning of existing coal power plants would definitely lead to layoffs of the workers there, and lead to the need for unemployment benefits and retraining.

If the JETP leads to the replacement of currently planned coal power plants by new renewable power plants, there would not be much fewer negative effects on workers in total. The expansion of
renewable power generation will overall generate much more jobs than the construction of an equivalent capacity of coal power.

Indirect impacts on households could be generated by an increase in electricity prices in case power generation costs of renewables are higher than those of coal power plants. A wise policy of restructuring electricity subsidies could avoid such impacts.

The review of the conceptualisation of just energy transition and just transition and integration of the concepts in the JETP and supporting policies in Vietnam and South Africa and Indonesia generated the following key findings:

The just transition in South Africa builds on and complements a decade of learnings and the perspectives of different social partners. It focuses on managing the social and economic consequences of the transition in communities of at-risk sectors and value chains while putting human development concerns at the centre of decision-making. Together with a strong advanced background in policies, knowledge and awareness of just transition, this has created a strong evidence basis and a more realistic approach in the preparatory work of the JET IP in South Africa.

Although the work on just transition in Indonesia started only shortly before the JETP negotiation with IPG members in 2022, the topic of just and equitable transition has been discussed in Indonesia and led to several policy documents to address just transition principles in Indonesia. These policy documents have set the foundation and shaped the approach for the development of Indonesia’s JETP Secretariat and Investment Plan.

In Vietnam, the concept of just and just transition was mentioned briefly in some legal documents and development plans. No definition and/or agenda of just transition has been discussed and legalised. No broad consensus on just transition and just energy transition has been reached among key stakeholders including government agencies, social partners and impacted people. There are very few studies to provide background information on the principles of just transition, the negative impacts and opportunities of transitions on people, sectors and the economy as well as the legal enabling framework for a just transition.

Therefore, in terms of just energy transition, Vietnam should spend more effort to address the gaps in order to be able to set out a clear vision for the just transition, principles to guide the transition, and policies and governance arrangements to give effect to the transition. Some studies should be done as soon as possible to provide an evidence basis for developing the JETP IP in Vietnam which is expected to be submitted to the IPG by November 2023.

Table 3: Gap Assessment and Recommendations

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Gaps of the country in terms of just transition</th>
<th>Recommendations for Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coherent definition</td>
<td>There is no consistent and coherent definition of a just transition</td>
<td>Strategically define a just transition and establish its principles in collaboration with key stakeholders, including groups affected by the reduction of coal mining and closure of coal power plants. This definition and principles should be included in the JETP RMP and serve as a basis for negotiating the allocation of finances with IPG.</td>
</tr>
<tr>
<td>Negotiation dialogue</td>
<td>As there is no coherent definition of a just transition, it becomes challenging to devise effective</td>
<td>Develop clear demands for international public financing for the “just elements” of the JETP that ensure that the burden of financing for those does not fall on the</td>
</tr>
<tr>
<td>Criteria</td>
<td>Gaps of the country in terms of just transition</td>
<td>Recommendations for Vietnam</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| National coordination             | • The absence of a centralised, high-level body to oversee and coordinate the just transition is a significant shortcoming.  
• The absence of a multi-stakeholder governance structure, which includes the participation of key stakeholders, is a critical barrier to achieving a fair and equitable transition to a low-carbon economy in Vietnam. | Establish a centralised, high-level body that coordinates and manages the just transition.  
The body responsible for overseeing and coordinating the just transition in Vietnam should be composed of representatives from various stakeholder groups, including the government, civil society organisations, labour unions, and the private sector. |
| Legislative environment           | The two policy documents referenced in Vietnam’s JETP Political Declaration – the NDC and National Climate Change Strategy – currently do not address any issues related to a just energy transition. This is concerning since a conducive legislative environment is essential for facilitating a successful JETP.  
Moreover, there are no specific cases of decommissioning or early retirement of CFPPs in Vietnam and no legal supporting mechanisms to support CFPP workers who may be affected by the transition. | Short-term: develop a Just Transition Framework that enables coordination and coherence of just transition planning in the country (similar to the Framework of South Africa)  
Long-term: develop policies and a legal framework that is conducive to supporting individuals who have lost their jobs due to the closure of coal mines and power plants and vulnerable groups impacted indirectly. |
<p>| The financing package, its structure, and the distribution of funds | Currently, there has been no assessment conducted on the financial requirements needed to address the justice elements of the transition. However, it is essential to prioritise grants that support these justice elements to ensure a fair and equitable transition to a low-carbon economy. | Short-term: developing a specific target for financing the justice elements in the JETP RMP. |</p>
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Gaps of the country in terms of just transition</th>
<th>Recommendations for Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence-based strategies and studies</td>
<td>The JETP in Vietnam is currently viewed as a high-level political commitment, with the term “just” not being adequately researched or reflected in evidence-based strategies.</td>
<td>Short-term:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Collect reliable data and research relevant evidence-based strategies of what constitutes a just transition.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Commission scoping studies on the financial need for unemployment benefits, retraining of workers as well as reducing the vulnerability of affected communities as a whole to provide inputs and background for the development of JETP RMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Commission in-depth research, scoping studies to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- provide an evidence base and strategies on the impacts of the coal power plant closure on communities and workers with wide participation of experts in different fields (academia, business, labour, and associations) to support RMP development and implementation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- provide guidance for measuring progress and evaluating the effectiveness of transition policies and programmes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The suggestive studies with timeline and stakeholders are listed in Section below.</td>
</tr>
<tr>
<td>Engage the public and relevant stakeholders</td>
<td>The JETP is so far only defined on a high level and currently lacks the formal consultation and platform for engaging relevant stakeholders and the public.</td>
<td>Short-term</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To ensure a more inclusive process that strikes a balance between competing interests and economic, social, and environmental objectives, public dialogues should be organised early in the preparation of the RMP and then continued</td>
</tr>
<tr>
<td>Criteria</td>
<td>Gaps of the country in terms of just transition</td>
<td>Recommendations for Vietnam</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td></td>
<td>throughout the transition process. This will enable diverse stakeholders to engage in constructive dialogues, identify common ground, and reach compromises.</td>
<td>Throughout the transition process. This will enable diverse stakeholders to engage in constructive dialogues, identify common ground, and reach compromises.</td>
</tr>
<tr>
<td></td>
<td>Organise a series of workshops facilitated by the high-level body referred to in the previous section. These should be on just energy transition issues, incorporating views of government agencies, unions, associations, business, labour, traditional leadership, youth, and the research community, etc. These are essential in developing a comprehensive understanding of the key themes necessary for a just transition framework.</td>
<td>Organise a series of workshops facilitated by the high-level body referred to in the previous section. These should be on just energy transition issues, incorporating views of government agencies, unions, associations, business, labour, traditional leadership, youth, and the research community, etc. These are essential in developing a comprehensive understanding of the key themes necessary for a just transition framework.</td>
</tr>
<tr>
<td>Long-term:</td>
<td>• Establish a formal platform for stakeholder engagement, including civil society organisations (CSOs), to facilitate information sharing and consultation during the development and implementation of the JETP RMP.</td>
<td>Long-term: • Establish a formal platform for stakeholder engagement, including civil society organisations (CSOs), to facilitate information sharing and consultation during the development and implementation of the JETP RMP.</td>
</tr>
<tr>
<td></td>
<td>• Facilitate learning exchanges between other JETP countries, with a particular focus on South Africa’s extensive expertise in translating just energy transition principles into effective policies and implementation plans.</td>
<td>• Facilitate learning exchanges between other JETP countries, with a particular focus on South Africa’s extensive expertise in translating just energy transition principles into effective policies and implementation plans.</td>
</tr>
<tr>
<td></td>
<td>There has been little to no engagement and learning exchanges between Vietnam and the other JETP countries</td>
<td>There has been little to no engagement and learning exchanges between Vietnam and the other JETP countries</td>
</tr>
</tbody>
</table>

**Suggestive list for further in-depth studies**
The non-exhaustive list of in-depth studies is proposed below that will be conducted in the period from now until the approval of JETP RMP and during the implementation of JETP RMP.

**Table 4: Suggestive list for in-depth studies**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Challenges to address</th>
<th>Timeline</th>
<th>Stakeholders</th>
</tr>
</thead>
</table>
| Study on possible impacts of decommissioning of existing coal power plants on coal mining and coal power plant workers | Potential negative and positive impacts on the affected groups and lack of Evidence-based strategies and studies | April – November 2023 Update regularly during JETP RMP implementation | Leading agency: MOLISA  
Supporting by: MOIT, Labour Union, companies and communities impacted |
| Study on possible impacts of not building planned coal power plants and instead building renewables power plants on coal mining and coal power plant workers | Incoherent definition of a just transition | April – August 2023 | Leading agency: MONRE |
| Study on a vision for the just transition, principles to guide the transition, and policies and governance arrangements to give effect to the transition under JETP | Loopholes in policies and legal framework in ensuring the just and equitable targets of JETP | April – November 2023 Update regularly during JETP RMP implementation | Leading agency: MOLISA  
Supporting by: MOIT, Labour Union, companies and communities impacted |
<p>| Assessment of the current status and possible policies and legal framework to support people who are impacted by JET in line with the ILO Declaration on Fundamental Principles and Rights at Work (Identify key policy areas for a just transition) | Lack of Evidence-based strategies and studies | April – November 2023 Update regularly during JETP RMP implementation | Experts in different fields (academia, business, labour, and civil society) |
| Develop a series of policy briefs on key issues relevant to the transition to serving for JETP RMP development, including the justice and equity concerns related to energy transition; Equitable distribution of benefits and costs of the energy transition. | | April – November 2023 Update regularly during JETP RMP implementation | Experts in different fields (academia, business, labour, and civil society) |
| Study on what and how to achieve a just transition under JETP in Vietnam in line with other socio-economic and environmental strategies. | | April – November 2023 Update regularly during | |</p>
<table>
<thead>
<tr>
<th>Subject</th>
<th>Challenges to address</th>
<th>Timeline</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study to quantify and map the impacts of the energy transition on different groups who constitute the vulnerable—not just workers in the coal value chain, but also unemployed, poor households, communities, youth, and women affected by indirect effects of the JETP RMP implementation</td>
<td>April – November 2023 Update regularly during JETP RMP implementation</td>
<td>Leading agency: MONRE Supporting by: line ministries and experts in different fields (academia, business, labour, and civil society)</td>
<td></td>
</tr>
<tr>
<td>Assessment of the existing education systems and vocational trainings and roadmap to meet the new requirements for employment skills for accelerating renewable electricity generation in Vietnam</td>
<td>Lack of labour resources and training and education needed for just energy transition to renewable energy</td>
<td>Initial assessment: April – November 2023 Update during JETP RMP implementation</td>
<td>Leading: Ministry of Education and Training (MOET) Participation: Technical universities, vocational training schools</td>
</tr>
<tr>
<td>Develop Just Transition Framework for Vietnam</td>
<td>Incoherent definition of a just transition</td>
<td>June – December 2023</td>
<td>Leading agency: MONRE Supporting by line ministries and experts in different fields</td>
</tr>
</tbody>
</table>

---


25 The exchange rate was 23,400 VND/USD on September 30 according to the State Bank of Viet Nam


34 The numbers of jobs lost and created are calculated by using the Consultant’s self-developed tool based on studies by Ram et al. (2022) on “Job creation during a climate compliant global energy transition across the power, heat, transport and desalination sectors by 2050”.
