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INCLUSIVE CLEAN ENERGY SOLUTIONS IN ADB OPERATIONS

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Alex (Oleksiy) Ivaschenko, ADB



Workforce Challenges in India's Energy Transition

- **Sectoral Shifts**

- Job displacement in fossil fuel sectors is a key challenge during the transition.
- Workforce realignment is required to meet clean energy demands.

- **Reskilling and Upskilling Gaps**

- Both national and energy workforces need upskilling for renewables, which demand medium- and high-skilled workers.
- The energy sector lags, with only 7.5% high-skilled and 58.3% medium-skilled workers, compared to 11.7% and 67% nationally (Figure 1).
- Rural and informal workers face limited access to training programs.

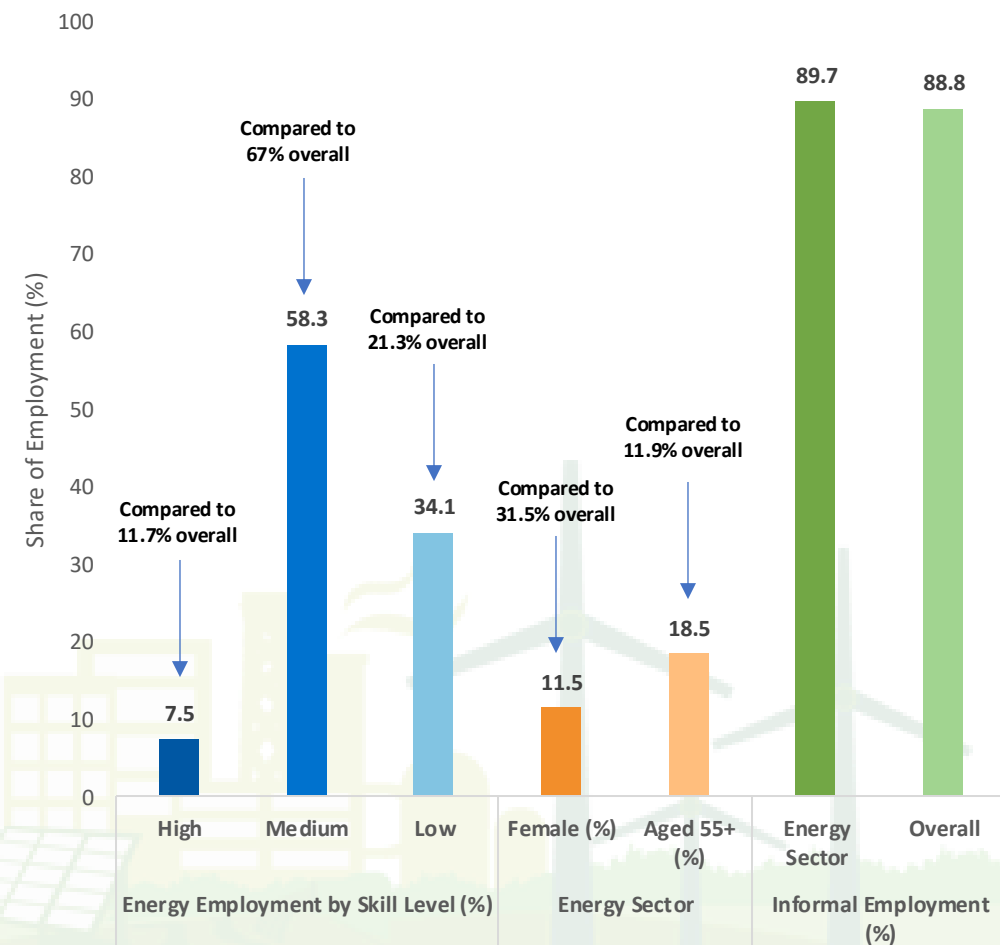
- **Inclusivity Concerns**

- Women comprise just 11.5% of the energy sector workforce (Figure 1), reflecting significant gender disparities.
- 18.5% of energy sector workers are aged 55+, highlighting challenges in reskilling for older workers (Figure 1)

- **Social Protection Challenges**

- Informality rates remain high, with 89.7% of energy sector workers and 88.8% nationally lacking formal employment (Figure 1).
- Robust safety nets are needed to ensure a just transition for informal and displaced workers.

Figure 1. Workforce Composition and Informality: National and Energy Sector Insights



Source: India PLFS, 2023

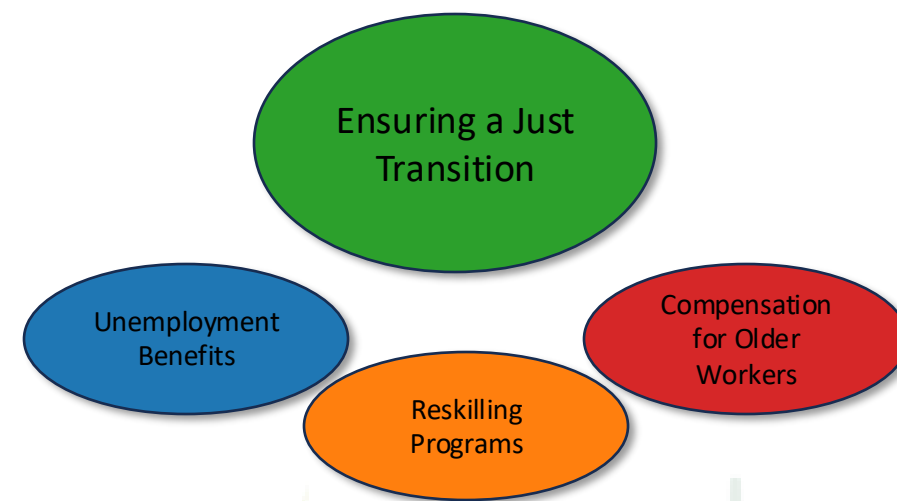
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Role of Social Protection and ALMPs in India's Energy Transition

- **Ensuring a Just Transition**
 - Social protection systems must safeguard workers against displacement and income loss.
 - Active Labour Market Policies (ALMPs) are critical to bridge skills gaps and facilitate workforce reintegration.
- **Key Measures**
 - **Unemployment Benefits:** Provide financial security during job transitions.
 - **Reskilling Programs:** Equip workers, especially those from informal sectors, with skills for green jobs.
 - **Compensation for Older Workers:** Early retirement schemes and financial packages for those unable to reskill.
- **Inclusive Approaches**
 - Address gender disparities by expanding opportunities for women in green sectors.
 - Target marginalised groups (e.g., rural workers) with tailored training and job placement initiatives.
- **Global Insights for India**
 1. **Indonesia: Kartu Prakerja (Case Study 1)**
 - Combines reskilling programs with financial incentives to support job seekers and informal workers.
 - Reached over 17.5 million beneficiaries across all regions to enhance employability and entrepreneurship.
 2. **Germany: Energiewende – Supporting Workers in the Energy Transition (Case Study 2)**
 - **Early Retirement Schemes:** Provided through the **Transition Payments System (1972)** and expanded under the **Coal Power Generation Termination Act (2020)** to secure coal workers' financial futures.
 - **Worker Retraining Programs:** Key to **Energiewende**, reskilling coal workers for roles in wind, solar, and energy efficiency.
 - **Economic Support:** Investments in regional diversification, infrastructure, and job creation to aid coal-dependent communities.

Figure 2. Key Measures for a Just Energy Transition



Case Studies in Renewable Energy Transition (1)

Case Study 1: Indonesia's Kartu Prakerja

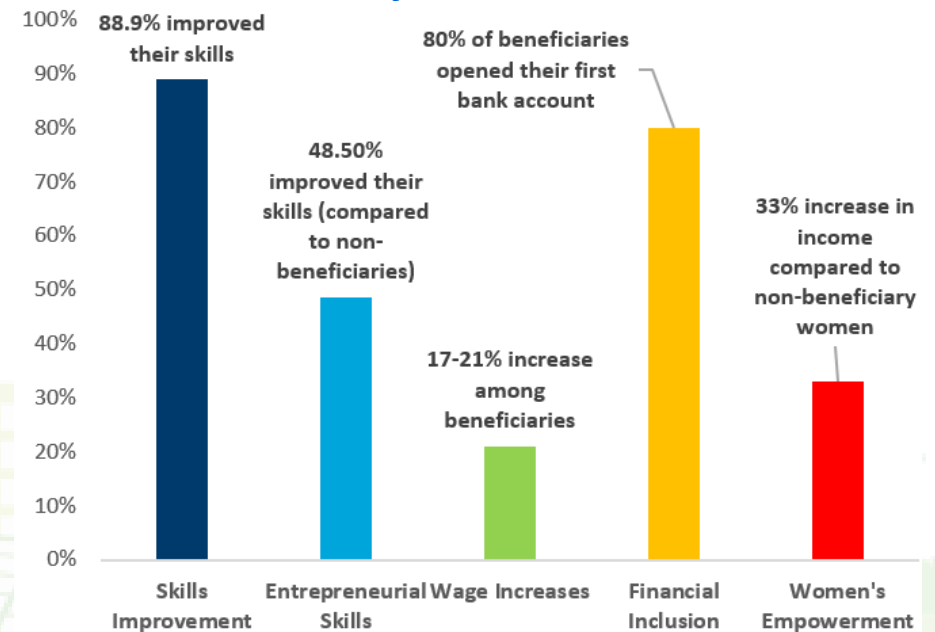
• Overview

- A **skills training** and **entrepreneurship support program** designed to enhance the **employability** and **entrepreneurial skills** of Indonesians, with a focus on job seekers and individuals affected by job losses.
- Initially launched as an emergency social assistance scheme during the pandemic, the programme has since transitioned into a long-term initiative that combines **upskilling** through **online and offline training** with **entrepreneurial support**.

• Key Features

- **Skills Development:** Provides vocational training in digital skills, entrepreneurship, and technical trades.
- **Entrepreneurial Support:** Offers business management training for aspiring entrepreneurs and small business owners.
- **Financial Assistance:** Covers training fees and offers job search incentives (≈USD230 and ≈USD40, respectively).
- **Widespread Reach:** Benefited over 17.5 million individuals, focusing on those with lower formal education.
- **Post-Pandemic Transition:** Shifted from emergency aid to long-term productivity and employment improvement through skills development.

Key Outcomes



Case Studies in Renewable Energy Transition (2)

Case Study 2: Germany's Energiewende

Overview:

- Germany's Energiewende, or Energy Transition, is a comprehensive strategy to shift from fossil fuels to renewable energy sources.
- It aims to achieve ambitious goals for greenhouse gas reduction, energy efficiency, and renewable energy expansion.

Key Features:

1. Renewable Energy Expansion:

- Germany has significantly increased its renewable energy capacity, particularly in wind, solar power, and biomass.

2. Job Creation and Economic Impact:

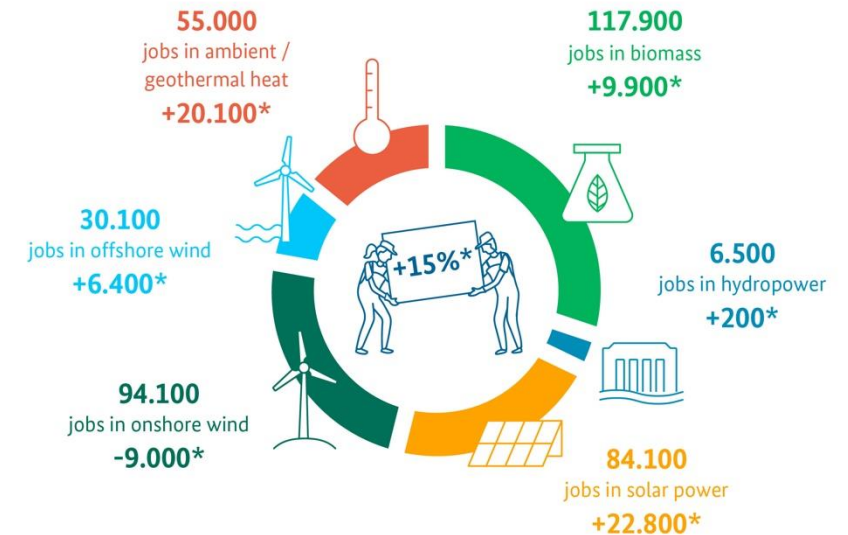
- The Energiewende has led to the creation of over 387,000 jobs in the renewable energy and energy efficiency sectors in 2022 (BMW, 2022).
- It has also stimulated innovation and investment in clean energy technologies, driving economic growth.

3. Social Inclusion and Support:

- Early Retirement Schemes: Workers in coal industries were supported by early retirement programs such as the Transition Payments System (1972) and provisions under the Coal Power Generation Termination Act (2020).
- Community Engagement: Participation in local programs ensured workers and communities benefited from the transition.

A boost to employment: almost 15% jobs in renewable energies

Renewable energies provided around 387,000 jobs in 2022



Gross employment in renewable energies in 2022 (provisional, rounded figures)
*year-on-year