

Indonesia Social Protection Technical Seminar (ISPTS)

# UNDERSTANDING COAL COMMUNITIES' PREFERENCES FOR SUSTAINABLE TRANSITION OPTIONS

## INSIGHTS FROM DISCRETE CHOICE EXPERIMENT (DCE) ON WORKFORCE TRANSITION IN POLAND

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# KEY QUESTIONS WE WANT TO ANSWER



What are the key characteristics coal workers **prioritize** when evaluating new job opportunities?



What job attributes would workers be willing to **trade off** for job security or sectoral transitions?



What **viable** transition pathways exist for workers whose jobs may be dismissed?

→ Evidence from some of the work the WB conducted in Poland in the context of the Just Transition

# UNDERSTANDING COAL COMMUNITIES' PREFERENCES

# 01

# DISCRETE CHOICE EXPERIMENT (DCE)



Bottom-up approach → workers' perspective



Multidimensional approach to decision making (not question by question)

CHOICE A		CHOICE B		CHOICE C	
Benefits	<b>Bus to and from</b>	Benefits	<b>None</b>	Benefits	<b>NONE OF THE TWO OPTIONS</b>
Commuting time	<b>1 hour</b>	Commuting time	<b>0/remote</b>	Commuting time	
Compliance w/education	<b>Yes</b>	Compliance w/education	<b>Complete reskilling</b>	Compliance w/education	
Contract type	<b>Fixed-term</b>	Contract type	<b>Temporary, private sector</b>	Contract type	
Monthly wage	<b>EUR 1,000</b>	Monthly wage	<b>EUR 1,000</b>	Monthly wage	
Wage over next 2 years	<b>20% increase</b>	Wage over next 2 years	<b>40% increase</b>	Wage over next 2 years	

# RESIDENTS' PREFERENCES = INERTIA



Remain in the municipalities where they live

Reducing the travel time to work by one hour (each way) is valued at EUR 245  
[mining conglomerates, Silesia]



Work in similar positions/sector of activity

Would forego EUR 330 for their new job to match their current education and skills  
[municipalities, Wielkopolska]



Job security

Willing to forego EUR 480, or 2/5 of a monthly wage for a permanent contract  
[municipalities, Wielkopolska]

Sources: World Bank consultancy for the Polish government, 2022. Results from three mining regions (Wielkopolska, Silesia, and Lower Silesia).

# PREFERENCES FOR LAND REPURPOSING



Respondents would be most satisfied if post-mining areas were transformed into **industrial factories** or wind and solar power **plants** rather than forests and green areas



Respondents have a positive attitude towards solutions that **decrease environmental pollution**



Respondents are positive about solutions that would increase their **real wages** and the **number of jobs** in the municipality

*Source: World Bank consultancy for the Polish government, 2022.*

# PREFERENCES FOR LAND REPURPOSING (CONT.)

## GROUP 1 = 48% OF RESIDENTS

### JOBS THROUGH INDUSTRIAL FACTORIES AND ENVIRONMENTAL PREFERENCE

Preference for the development of industrial factories and recreation facilities by the water

Concerned about the environment



## GROUP 2 = 41% OF RESIDENTS

### JOBS THROUGH RE

Strong preference for the development of renewable energy, which could replace mining activities

Not concerned about environmental protection



## GROUP 3 = 11% OF RESIDENTS

### JOBS FROM KNOWN SECTORS OF ACTIVITY

Preference for farmlands or business centers, housing, tourism

Not concerned about wage growth



Source: World Bank consultancy for the Polish government, 2022.

# IDENTIFYING VIABLE WORK TRANSITIONS

# 02



# MOST VIABLE TRANSITION PATHWAYS



Use data scraping on 2.7k job descriptions in Poland (MoLSP)



Use Latent semantic indexing (LSI) to measure the task similarity between each pair of occupations



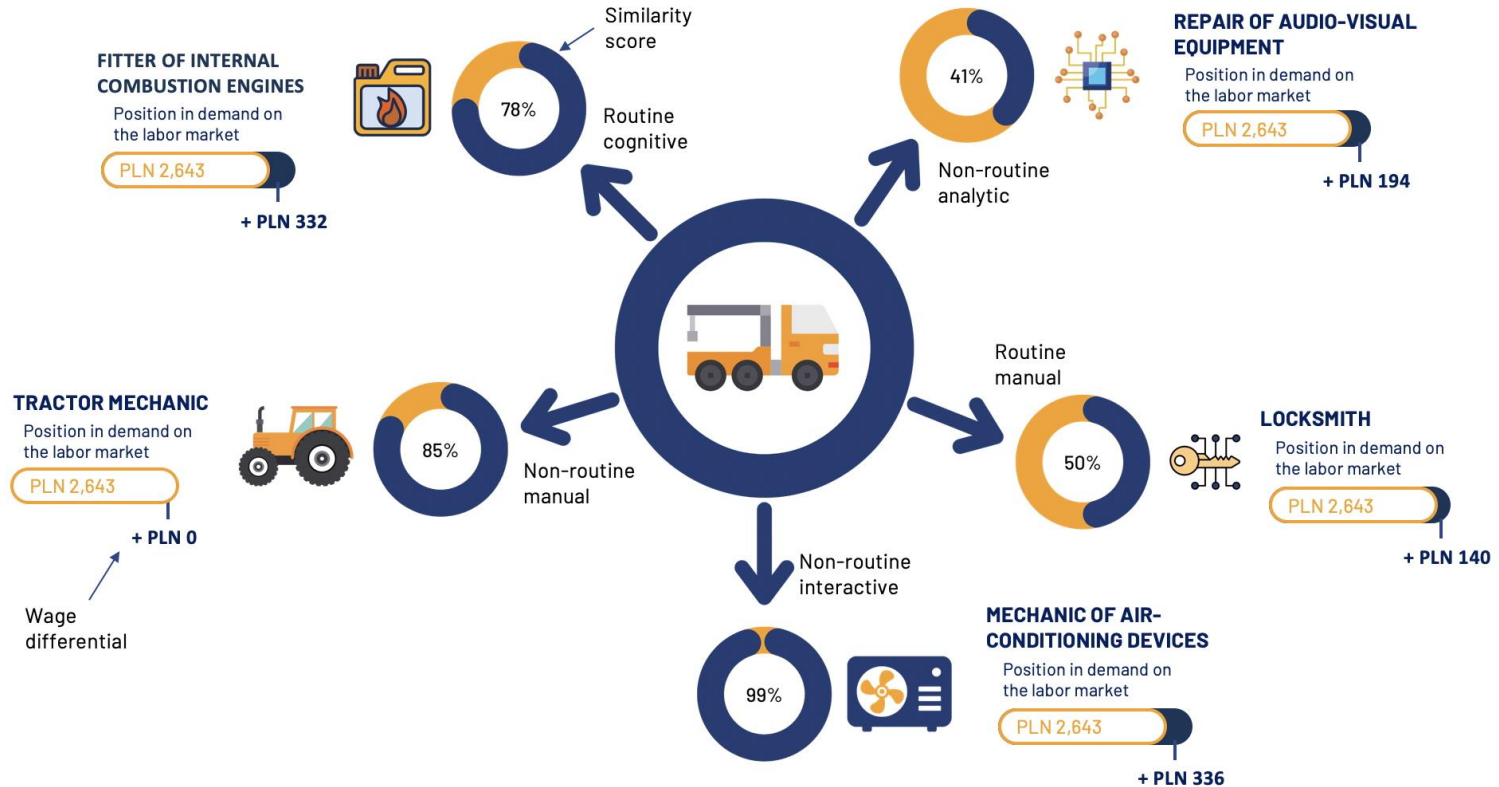
Divide matching options into 5 task categories



Only keep occupations in growing demand as identified by the Occupational Barometer (Employment Agency)

→ Next slide = example of transitions pathways for a truck mechanic using Polish data

Truck mechanic – skills description: Highly non-routine manual tasks, moderately non-routine analytical tasks, no interactive and cognitive tasks. Average Salary = PLN 2,643





*Kementerian PPN/  
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