

## Envisaging Economy-wide Context of Employment & Skills - Green Jobs in India

Topic: YSI and Development Programme - II - Discussant: Keisuke Nansai

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The Indian economy is going through transformative changes both structurally and demographically. The country is currently progressing to the peak of its demographic window, with about 65% of the population being under the age of 35. This demographic shift is indicative of upcoming years with a surplus in working populous and low dependency ratio, presenting the premise for leapfrogging country's development. This premise is further bolstered with the country's commitments towards adopting sustainable avenues for greening the economy in the advent of impacts from climate change. The transition into a green economy requires both economic restructuring and shift in employment. Hence, at its core it is primarily a human capital issue, which requires significant investments in education, skill development and job creation.

The country has taken several steps towards harnessing the full potential of the demographic dividend from initiation a newly formed Ministry of Skill Development and Entrepreneurship to revamping the skill ecosystem with deeper partnerships between the industry and skilling institutions through Public Private Partnerships (PPPs) and the industry-led Sector Skill Councils for designing the skilling curriculums and standards. The formation of Skill Council for Green Jobs (SCGJ) under the National Skill Development Mission promoted by the Ministry of New and Renewable Energy (MNRE) and Confederation of Indian Industry (CII) marks a key development of addressing these challenges at both fronts.

Anticipating skill needs and changes in occupational structure of transitioning sectors is crucial for smooth transition to green economy. Furthermore, the aspects of greening the economy and green jobs are not only restricted to a group of exclusively classified "green" sectors. Rather within an economy most of the sectors have varied potential towards greening their processes, activities and outputs. Similarly, the concept of green jobs is multifaceted while certain job roles (such as Organic Grower, Solar PV technician, Electric Vehicle Assembler etc.) are foundational for shift towards greener economy and require significant training in relevant "green" skills to aid the economic restructuring and setup of green industries. There are job roles within the existing workforce which are supporting of greening, even though not exclusively classified for "green" skills training (such as construction workers, transport & logistics) but certain level of awareness and upskilling can aid in these cases.

In our study we assess the implications of certain key policies for decarbonization in Energy, Agriculture and Automotives sector on employment and workforce scenario of India. The use of an input output framework in this regard is of vital importance towards ascertaining the direct, indirect and induced job creation potential of these policy initiatives. The use of varying National Accounts for understanding the effects on labour market, arising from policy decisions, external shocks and rising demand; especially in context of green jobs has been widely recognized in various studies. Our study differs from several of the working papers on this theme through its exclusive focus on the occupational structure or classification in the context of economic activities pertained to core sector identified for green transition. Using the IOTT 2018-19, our study disaggregates both the exclusive green sectors from the parent sector such as Solar & Wind from Electricity sector as well as Electric Vehicle Manufacturing from Automotives. To explore the effects of various policy initiatives on the occupational structure of the economy, we have disaggregated labour groups in the SAM by building the concordance between the National Classification for Occupation (NCO) and National

Industries Classification (NIC) from the unit level data of periodic labour force survey. Furthermore, we have exclusively introduced the green job roles introduced by the SCGJ and their recruitments to anticipate the training requirements in the upcoming years. Ascertaining the numbers of job created among the mentioned the earlier mentioned two groups (green & greening) of occupation is crucial to measuring the skill gap of transitioning to a greener economy, by enabling to determine the time period and quantum of trainees for effective skilling, upskilling or reskilling in the workforce of the country.