

Environment and Green Jobs: Paradigm shift from a non-sector to an employable industry (an analysis from Indian perspective)

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Introduction

India as a nation needs financial growth and its people, employment. This multi dimensional country needs to look into turning challenges into opportunities. Lack of opportunity and low on employability have been two major concerns for a country that aspires to make it big at the international arena; according to Youth Employment -Unemployment Scenario 2012-13 (Ministry of Labour, Govt. of India) despite an increase in education levels, one in three graduates up to the age of 29 was unemployed (Mishra, 2015).

With these demographic challenges, India has not been able to unlock its potentials. This is an age of people oriented progression, according to Human Capital Report 2015 'Talent, not capital, will be the key factor linking innovation, competitiveness and growth'.

UN Sustainable Development Goal 4 is pushing for inclusive and equitable quality education for all besides promoting lifelong learning opportunities (UNDESA, 2015). In the context of the sustainable development agenda, skills for employment would be a crucial contributor, hence careful consideration is given globally to increase skilled (technical and vocational skills) youths and adults by giving equal access to affordable and quality technical, vocational and tertiary education, including university education for decent jobs and entrepreneurship opportunities.

A nation's human capital endowment—the skills and capacities that reside in people and that are put to productive use—can be a more important determinant of its long term economic success than virtually any other resource (HCR, 2015). This resource must be invested in and leveraged efficiently in order for it to generate returns—for the individuals involved as well as an economy as a whole (HCR, 2015). The value of the Human Resources in terms of its ability to perform and contribute towards development of a country will

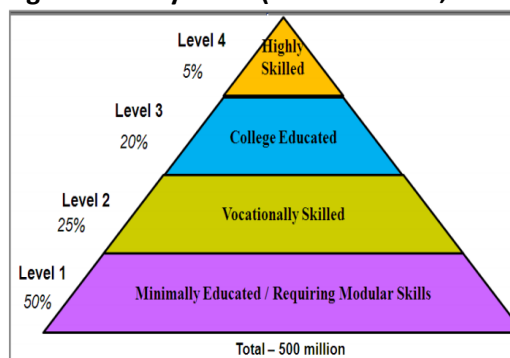
be the key to its success individually and collectively as a nation.

India in a global context

Unemployment is a global challenge with opportunities diminishing really fast owing to cut throat competition and disappearing resources, growing population and of course deficient employability. However, this could be very well addressed by putting in equated efforts to skill people for lesser explored areas like the environment, which includes including harvesting and protection of natural resources, waste management, natural capital, mitigation of changing climate, so on and so forth.

India has immense potential to become a beneficiary of this movement for a greener and cleaner world. It is a win-win situation for all; besides taking care of our natural environment, it can push for increment in the skilled human resources, creation of more jobs and stable economic growth. The need of the hour is future readiness; our ability and compatibility to move ahead with changing time, which can be achieved by targeting skill development at all levels of the 'skill pyramid' (FICCI & iMaCS, 2010).

Figure: Skill Pyramid (FICCI & iMaCS, 2010)



It is required to not only skill and educate the workforce at the higher skill levels (which is key to ensuring industry competitiveness through research and Intellectual Property, etc.), but also to adequately skill the workforce at the lower levels (i.e., where much of the workforce is concentrated).

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Accordingly, it requires that skill development initiatives be targeted at all levels of the 'skill pyramid' (FICCI, 2015).

The Asia-Pacific, which is considered as world's one of the most populous regions, show a remarkable yet interesting stand in the latest Human Capital Index. While countries such as Japan and New Zealand represent the top strata (ranked 4th and 9th respectively in the Index), countries like India (100), Nepal (106), Myanmar (112), and Pakistan (113) indicate the need for a better Human Resources development policy. Needless to say, India will have to work on fast forward mode towards skilling and enhanced employability to be able to catch up with China, which is ranked at 64 (HCR, 2015).

The recent growth trend pits India's economy with Western countries. Viewing the human resources value of the west, the European countries in particular continue to dominate, with Finland, Norway and Switzerland begging the top three positions, while Sweden, Denmark, Netherlands are placed at 6th, 7th and 8th subsequently (HCR, 2015).

The Western countries' high performance is largely an attribution of their long-standing emphasis on educational attainment with employability, i.e. the skills needed to secure employment in a developing paradigm and subsequent job placement. Countries that have worked towards matching the skill needs to meet the level of development requirement have managed to have a better footing economically, as well as ranking higher in the human capital index. India's younger population is being referred to as the trump card of economic uprising. However, in a competitive world, we cannot leave this to happen on its own. Things are changing rapidly and so is the requirement; the need of the hour is skilling and equal emphasis should be given to prepare work force of different types and levels of skilling to be able to complement India's growth trend. The country needs innovation and a future ready workforce as the economy is directly dependent on its skill aptness. India's population could be a boon with right kind of education and skills. However, skilling would be useful, when it is job-appropriate and as per the market requirement.

With the Indian Government pitching for 'Make in India', both economy and employment are ought to get a new lease of life with investments pouring in to strengthen industry sector creating an accelerated and sudden demand for skilled people. To meet this need, The National Skill Development Corporation (NSDC), under aegis of Ministry of Skill

Development and Entrepreneurship, Govt. of India, has taken on the challenge of skilling / up-skilling 500 million people in India by 2022 (NSDC, 2015).

Demand for green jobs in India

To date, the NSDC has identified 37 major jobs sectors with a mandate to make skill development viable and accessible for everyone. Each high growth sector is being looked after by a Sector Skill Council, which is also responsible for making the respective area attractive to private investment. Out of these 37 sectors, one is a Green Sector, which covers anything that has a green flavour, linked to natural environment and earth friendly. The environmental sector is indeed very big and diverse. Though it remained unexplored for a while, it is now positioned at a high value globally.

Because of the vastness of the sector, many of its elements are still being unearthed. According to Low Carbon Environmental Goods and Services report for 2011/12 (Department of Business Skill and Innovations, 2013) UK's low carbon and environmental market is already worth £112 billion, three percent of the global total, and employs around 900,000 people representing over seven % of the economy. This includes the supply chains of these industries, which account for almost half of the activity.

The International Renewable Energy Agency (IRENA, 2015) has reported that 7.7 million people are in employment with the renewable energy sector. If hydropower is also added to the group, conservatively an estimated 1.5 million jobs worldwide can also be accounted for. However, India's share is only about 437,000, which is way behind China, which employs about 3.4 million people in the renewable energy sector alone.

Numbers already indicate that the solar energy industry has already been taking a lead in economic attribution and employment generation and it will continue to dominate the scene with growing green energy demand thus could well be a key contributor in developing India's human capital as opposed other green energy sources as the solar is considered as a one stop solution for energy security, emission reduction, deforestation, climate change mitigation, cost efficiency to name a few. The Green Jobs Report (International Labour Organization report, 2008) has already indicated that attempts to tackle climate change (adaptation and mitigation measures) will result in the creation

of millions of new green jobs in the coming decades.

In a recent study conducted by Natural Resources Defense Council (NRDC) and the Council on Energy, Environment and Water (CEEW) indicates, during 2011 to 2014 solar photovoltaic (PV) projects has created 24,000 full-time equivalent (FTE) jobs in India. With the new target in place for solar electrification set by Government of India, it would easily create over one million jobs through 100 gigawatts (GW) of installed solar energy by 2022.

While in the wind energy, India has a target of 60 GW by 2022. As per Government data, this fast moving sector has generated as many as 45,000 FTE jobs so far and is likely to create another 180,000 jobs (excluding manufacturing) approximately by 2022 (NRDC and CEEW, 2015). Biofuel is another major employer in the green job sector with a current engagement of 1.8 million people. Simultaneously, growth can also be witnessed in the fields of biomass and biogas with total employment of 822,000 and 381,000 people respectively (IRENA, 2015).

Overall, the figures indicate, the environment industry is up for a big boost in terms of employment creation and revenue generation with demands spreading across entire renewable energy spectrum while other green areas are yet to be explored.

As the economy is tilting towards the greener pasture, the opportunities will be largely centred around areas of environmental concern such as changes in the physical environment, mitigation and adaptation measures, newer technologies, policy, educational, training and research needs, green products and services so on so forth (ILO, 2011).

Conclusion and recommendations

The environment as an industry in India is young and fairly unorganized – thus the call for steps to streamline and bring it to a level on par with the more organized industries as rapidly as possible. In the unique demography of India, there is the potential to achieve change and growth through skill development. A large number of Indians have never acquired any formal education or skills from an employment perspective. Thus it becomes imperative to sensitize and build awareness about various emerging job sectors and skill requirements, besides creating resource centres for capacity

development as per the requisite qualification framework.

To bridge effectively this gap in demand and supply in every sector (and sub-sectors), the foremost priority should be on skilling; potentially skill development of people for technical and non technical jobs based on local/regional needs and the market pulse, thereby offering job-oriented training support at every level.

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