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Human Rights Education in the Field of Engineering and Technology

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HUMAN RIGHTS EDUCATION IN THE FIELD OF ENGINEERING AND TECHNOLOGY

*Vinit Kumar Sharma**

[Abstract: Human rights education is universally accepted mechanism to ensure protection and promotion of human rights. Progress in the field of science and technology has made many miracles in human life and simultaneously created new social issues with new dimensions of human rights violations. Globalisation added with technology led to the growth of new actors in the world politics and development. In modern day globalised world role of transnational corporations is of utmost importance. Technocrats being the main workforce behind all these developments cannot be devoid of human rights education under the illusionary excuse of productivity and efficiency. Similar pattern of human rights violations has been observed throughout the world under the influence of globalisation. Under such circumstances, State cannot be the sole responsibility bearer for human rights education. Paper involves the critical analysis of impact of technology, globalisation and transnational corporations over human rights. Research highlights the importance and absence of human rights education for engineers, academicians and working professionals in academic institutions as well as during employment. Obligatory as well as voluntary human rights education can be useful for the protection and promotion of human rights in contemporary globalised world. Paper explores the need, status and consensus for human rights education in India in the field of engineering and technology.]

I

Introduction

Technology is the major driving force behind modern day globalization. Technological developments in the field of logistics, information and communication, automation and management have changed the way in which conventional industries used to work. These technological developments have impacted the human rights issues globally. The interconnectedness of human rights issues, across the world, cannot be denied in the contemporary world. Development and growth of Multinational Corporations (MNCs) led to various human rights violations worldwide.¹ Operations of MNCs affect host

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¹ Does the World Need a Treaty on Business and Human Rights? Weighing the Pros and Cons, (NOTRE

countries, outflow of capital from developing economies, exploitation of labour, environmental pollution, tax evasion, organised crime, and health and safety risks.² Multinational corporations with their international operations and huge economic capacity have ability to influence the domestic as well as international policy formulation.³ The traditional role of nation-state is diluting under these modern circumstances and non-state actors are playing a vital role in international world politics. State cannot be the sole responsibility bearer for human rights education. This responsibility should be shared equally by state, as well as, non-state actors.⁴

Engineers, academicians and professionals working in the field of engineering and technology constitute the primary workforce in technology driven industries and services.⁵ They are the driving force behind contemporary globalization. It has been seen that persons from technical background holds key positions in MNCs. Engineers and technocrats have high influence and participation in the overall functioning of the MNCs. Therefore, the human rights education (HRE) for engineers, academicians and professionals working is very important and should not be compromised for any reason.

Human rights education for the engineers, academicians and working professionals in the field of engineering and technology is in poor state. Some of the industrial corporations have voluntary human rights policy. These voluntary declarations suffer from many drawbacks and have limited focus of human rights education of the workforce in the organisation and its supply chain. 'Guiding Principles on Business and Human Rights' under principle 8 gives the directions for training in order to protect human rights, but 'Guiding Principles' have not given emphasis to human rights education of working professionals.⁶ Human rights education should address the

DAME LAW SCHOOL, 2014), 1, (May 31, 2020), https://www.business-humanrights.org/sites/default/files/media/documents/note_event_does_the_world_need_a_treaty_on_business_and_human_rights_21-5-14.pdf.

² Shameema Ferdausy, *IMPACT OF MULTINATIONAL CORPORATIONS IN DEVELOPING COUNTRIES*, THE CHITTAGONG UNIVERSITY JOURNAL OF BUSINESS ADMINISTRATION, 119-121, (2009).

³ Rajneesh Narula & Andre Pineli, *Improving the development impact of multinational enterprises: policy and research challenges*, *Economia e Politica Industriale*, 46, 2-3. (2019).

⁴ Safari, Azar, *The status of non-state actors under the international rule of law: a search for global justice*, *Rethinking International Law and Justice*, 1-2, 8, (2015).

⁵ John F. Sargent Jr., *The U.S. Science and Engineering Workforce: Recent, Current, and Projected Employment, Wages, and Unemployment*, 6, 19, (CONGRESSIONAL RESEARCH SERVICE, 2017), (May 30, 2020), <https://fas.org/sgp/crs/misc/R43061.pdf>.

In 2016, there were 6.9 million scientists and engineers (as defined in this report) employed in the United States, accounting for 4.9% of total U.S. employment.

CRS analysis of Bureau of Labor Statistics employment projections indicates that the science and engineering workforce is expected to grow from 7.3 million to 8.2 million jobs between 2016 and 2026, an increase of 853,600 (11.7%) jobs over the 10-year period (1.1% CAGR). This growth rate is higher than the growth rate projected for all occupations (0.7% CAGR) during this period.

⁶ *Guiding Principles on Business and Human Rights*, 10, HR/PUB/11/04, (UNITED NATIONS, 2011), https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf.

UNGP 8 states that, "States should ensure that governmental departments, agencies and other

professional human rights requirement of the industry. It should also address the individual human rights education requirements of the individuals. Industry oriented human rights education should include selective, effective, and appropriate course content along with advanced teaching pedagogy according to industrial as well as individual requirements.

II

Human Rights Education: Global and Indian Developments

'Human rights education can be defined as education, training and information aimed at building a universal culture of human rights through the sharing of knowledge, imparting of skills and moulding of attitudes to prompt action directed at strengthening respect for human rights, fundamental freedoms, tolerance, equality and peace, among individuals, within societies and among nations.'⁷ Preamble to the *Universal Declaration of Human Rights (UDHR) 1948* specifically mentions that, 'every individual and every organ of society' to 'strive by teaching and education to promote respect for these rights and freedoms'.⁸

Human rights education should be universal in nature. However, certain groups have a particular need for human rights education. Some need special emphasis on human rights education because they are especially vulnerable to human rights abuses. On the other hand, others require human rights education because they hold official positions and upholding human rights is their responsibility, still others because of their ability to influence and educate.⁹

Article 26 (2) of *Universal declaration on Human Rights (UDHR) 1948* clearly states the importance of human rights education as follows

'Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote

State-based institutions that shape business practices are aware of and observe the State's human rights obligations when fulfilling their respective mandates, including by providing them with relevant information, training and support.

⁷ *Human Rights Education in Primary and Secondary School Systems: A Self-assessment Guide for Governments*, United Nations, 1, (HR/PUB/12/8, UNITED NATIONS, 2012), <https://www.ohchr.org/Documents/Publications/SelfAssessmentGuideforGovernments.pdf>.

⁸ Preamble to *Universal Declaration of Human Rights (UDHR)*, (UNITED NATIONS, 1948).

⁹ An Introduction to Human Rights Education, Part 2: The Right to Know Your Rights, (UNIVERSITY OF MINNESOTA), (Apr. 25, 2020), <http://hrlibrary.umn.edu/edumat/hreduseries/hereandnow/Part-2/HRE-intro.htm>.

understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.¹⁰

Human rights issues are complex and multidimensional and need to be seen from more than one perspective. For example, rather than casting an issue like female genital mutilation as simply a dilemma between women's human rights and cultural or religious practices, it can also be examined from the perspective of economic rights, development, or poverty. What are the economic reasons behind a family's efforts to preserve their daughter's marriageability?¹¹ Therefore, human rights education should be multidimensional and should include the human rights perspective of the vulnerable sections of the society. Those holding the official positions and in leadership positions should be well versed with human rights of the vulnerable sections of the society. They should be trained enough to understand and estimate the implications of their own actions on the human rights of affected population. Role of government as well civil society is pertinent in promotion of human rights education.

United Nations Declaration on Human Rights Education and Training (Human Rights Council 2011), Article 10, sub clause (1) states that 'Various actors within society, including, inter alia, educational institutions, the media, families, local communities, civil society institutions, including non-governmental organizations, human rights defenders and the private sector, have an important role to play in promoting and providing human rights education and training'. Further Article 8, sub clause (2) states that, 'the conception, implementation and evaluation of and follow-up to such strategies, action plans, policies and programmes should involve all relevant stakeholders, including the private sector, civil society and national human rights institutions, by promoting, where appropriate, multi-stakeholder initiatives' Article 1, sub clause (1) states 'Everyone has the right to know, seek and receive information about all human rights and fundamental freedoms and should have access to human rights education and training'.¹² Educational institutions, government agencies as well as multinational corporations should take equal initiatives to provide human rights education to students, academicians and working professionals in the field of engineering and technology.

The *United Nations Decade of Human Rights Education '1995-2004'* was declared to promote the concept of human rights via interventions in educational curricula. This decade gave space in civil society to engage with the agenda of human rights in educational institutions, especially in schools, so that children at a young age could be impacted.¹³

¹⁰ Article 26(2) of *Universal Declaration of Human Rights (UDHR)*, (UNITED NATIONS, 1948).

¹¹ Nancy Flowers et. AL., *The Human Rights Education Handbook; Effective Practices for Learning, Action, and Change*, 55, (2000).

¹² *United Nations Declaration on Human Rights Education and Training*, A/RES/66/137. U.N. Doc. 11-46704 (UNITED NATIONS, Dec 19, 2011), <https://undocs.org/A/res/66/137>.

¹³ *United Nations Decade for Human Rights Education (1995-2004)*, A/RES/49/184, U.N. Doc. 95-77083, (UNITED NATIONS, Mar 6, 1995), <https://undocs.org/pdf?symbol=en/A/RES/49/184>.

First Phase (2005-09) of 'World Programme of Human Rights Education' was focused on the primary and secondary school systems. Second Phase (2010-2014) of world programme was focused on human rights in higher education and on human rights training programs for teachers and educators, civil servants, law enforcement officials and military personnel. Now we are going through the Third Phase (2015-2019) of 'World Programme of Human Rights Education'. The United Nations Human Rights Council (UNHRC), in its resolution 24/15 (8 October 2013), decided to focus the World Program's third phase on strengthening the implementation of the first two phases and promoting human rights training for media professionals and journalists.¹⁴

On 27 September 2018, The Human Rights Council, in its resolution 39/3 declared Fourth phase (2020-2024) of the World Programme for Human Rights Education.¹⁵ Youth is the focus group of the fourth phase, with special emphasis on education and training in equality, human rights and non-discrimination, and inclusion and respect for diversity with the aim of building inclusive and peaceful societies, and to align the fourth phase with the 2030 Agenda for Sustainable Development and specifically with target 4.7 of the Sustainable Development Goals.¹⁶

The objectives of the United Nation's World Program for Human Rights Education are to promote the development of culture of human rights. A common understanding based on international instruments regarding basic principles and methodologies for human rights education need to be promoted. It is to ensure that at national, regional and international levels human rights education should be in focus. For this purpose, a common collective framework for actions by all relevant actors need to be provided. World programme for human rights education should enhance partnership and cooperation at all levels. For this purpose, survey, evaluation and support of existing human rights programme need to be done. Objective of these survey, evaluation and support should be to provide an incentive to continue and/or expand good practices in human rights education programmes and to develop new ones. But despite all these efforts human rights education of students, academicians and working professionals in the field of education and technology has been a neglected area. As we have completed third phase and going through the fourth phase of human rights education therefore the established mechanisms of human rights education needs to be strengthened and promoted in the field of engineering and technology as well with special focus on youth.¹⁷

¹⁴ *World Programme for Human Rights Education (2005-ongoing)*, (June 1, 2020), <https://www.ohchr.org/EN/Issues/Education/Training/Pages/Programme.aspx>,

¹⁵ *World Programme for Human Rights Education: adoption of the plan of action for the fourth phase*, A/HRC/42.L.5. U.N. GE.19-16053(E), Sep.23, 2019, (UNITED NATIONS, 2019), <https://undocs.org/pdf?symbol=en/A/HRC/42/L.5>

¹⁶ *Supra* note 14.

¹⁷ *World Programme for Human Rights Education Second Phase Plan of Action*, HR/PUB/12/3, U.N. Doc. GE.12-4061, (UNITED NATIONS, 2012), 14, https://www.ohchr.org/Documents/Publications/WPHRE_Phase_2_en.pdf.

United Nations summit for the adoption of sustainable development was held from 25th Sep, 2015 to 27th Sep, 2015 at 'United Nations Sustainable Development Summit 2015' in New York. The motive of the summit was the adoption of post-2015 development agenda for the world. 17 sustainable goals and 169 targets were decided by the United Nations. On 1st Jan, 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development, adopted by world leaders came into force.¹⁸

SDGs are in the furtherance of previously declared Millennium Development Goals (MDGs). Importance of human rights education cannot be neglected in implementing and achieving sustainable development goals. SDGs emphasises on the human rights education. Human rights education is an important tool to provide access to justice to vulnerable communities of the society. Peaceful and inclusive societies are the ultimate goals of the human rights education. SDGs are universal in nature. As per the Rio principles, India has also declared its common but differentiated responsibilities (CBDR). India ratified 'Paris Agreement on Climate Change' at the United Nations in October, 2016. India was actively involved in Open Working Group on sustainable development goals constituted by United Nations General Assembly in the pursuance of the Rio+20 mandate. Government of India is committed to implement the SDGs, as has been repeated on national and international platforms by the ministers and Prime ministers of the country.¹⁹

Former United Nations Secretary General- Ban Ki-moon has told that 'India is in a unique position to lead the move towards sustainability in the wider world...We have to put our world and our lives on a sustainable path. India's path, and India's leadership, will be crucial' (United Nations, 2015).²⁰

In Indian scenario the promotion of human rights education is not new. Indian government as well as its agencies have taken steps from time to time to incorporate the human rights education in the higher education system of the country. The first initiative of the UGC towards human rights education was the appointment of a Committee under the chairmanship of Justice S.M. Sikri for developing curriculum for teaching human rights. The Committee made valuable recommendations regarding teaching of Human Rights at school, under-graduate and post-graduate levels. Sikri Committee recommended that at college level all disciplines should include human rights topics at least which are directly relevant to the disciplines.²¹

¹⁸ Transforming our world: the 2030 Agenda for Sustainable Development, A/RES/70/1. U.N. Doc. 15-16301 (E) (UNITED NATIONS, Oct. 21, 2015), https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.

¹⁹ Press Information Bureau, Government of India, Ministry of Environment, Forest and Climate Change, (Sept. 17, 2020), <http://pib.nic.in/newsite/PrintRelease.aspx?relid=105898>.

²⁰ *India's Unique Position, Leadership Crucial to Putting World on Sustainable Path for Future Generations, Secretary-General Tells Vibrant Gujarat Summit*, SG/SM/16454-ENV/DEV/1483, Jan. 11, 2015, (UNITED NATIONS, Meetings Coverage and Press Releases, 2015), (Sept 17, 2018), <https://www.un.org/press/en/2015/sgsm16454.doc.htm>.

²¹ See, *Human Rights*, UNIVERSITY GRANT COMMISSION, 4, (Sep. 13, 2018), <https://www.ugc.ac.in/>

The National Human Rights Commission suggested to the UGC to set up a Curriculum Development Committee for Human Rights Education in various universities²². In the light of this suggestion and the views expressed in the UGC IX Plan Approach to Promotion of Human Rights Education (HRE) in Universities and Colleges, the UGC constituted the Curriculum Development Committee to develop model curricula for Human Rights and Duties Education.²³ Two sub-committees were constituted for drafting curriculum for different courses.²⁴ The syllabus for “Science and Technology, and Human Rights and Duties” includes Impact of Science & Technology on Human Rights and Duties: Some Conceptual Issues, Right to Human Dignity: Some Ethical and Legal Issues, Right to Privacy, Freedom from Torture, Freedoms of Information, Thought and Expression, Right to Food, Right to Health, Right to Development, Right to Clean Environment and Public Safety, Right to Peace, Inter-Generational Rights and Duties and The Right to Future.²⁵

III

Human Rights Education, Multi-National Corporations (MNCs) and Globalisation

Globalisation may be termed as ‘The international spread of capitalist exchange and production relationships. There are political fears throughout the world about the possibility of dual power and dominance of MNCs over national governments. Multinational corporations possess huge financial resources and have international operations, as a result of which they have the ability to compete with the power of sovereign states. The MNCs have the signs and symptoms of the new capitalist development. As a result of which MNCs have direct influence over the national and international policy making.²⁶

oldpdf/modelcurriculum/human.pdf.

²² *Id.* at 5.

By Letter No.1/10/99-PRP & P dated 18/10/1999

²³ *Id.* at 5.

vide letter No. 1-2/94(SU-II/HRE) dated 2/12/1999

²⁴ *Id.* at 11.

Committee constituted two sub-committees. First sub-committee constituted Prof. V. S. Mani, Prof. C.M. Jeriwala and K.S. Sangwan to draft the curriculum for P.G. Degree, P.G. Diploma and U.G. Degree. The second sub-committee of Prof. R.P. Dhokalia, Prof. Mool Chand Sharma and Mr. Ravi Nair was constituted for drafting the syllabus for Foundation Course and Certificate Course.

²⁵ *Id.* at 120.

Prof. Nandita Haksar has recommended syllabus for “Science and Technology, and Human Rights and Duties”.

²⁶ 1 Jennifer Westaway, *Globalization, Multinational corporations and Human Rights – A New*

Multinational corporations have been aggressive in exploiting new opportunities, and have, in doing so, re-written the rules of economic engagement and have challenged the established principles of juridical boundaries and state sovereignty. As a result of which economic sovereignty as well as political sovereignty of the state can be challenged by these MNCs. This breach of sovereignty is particularly more relevant in the area of social, economic and cultural rights of the individuals. Economic, social and cultural rights are most vulnerable to be abused by MNCs, because these rights are least protected under international human rights law and practice. There are very strong evidences that many developmental projects have violated human rights. For example, in 'Chad Cameroon Project' a number of environmental and social risks were not addressed in Environmental Impact Statement. These breaches of human rights violation may be intentional or due to lack of awareness and understanding of key occupational human rights. The International Finance Corporations also do not have real influence over the activities of MNCs.²⁷

MNCs have an inordinate influence over local laws and policies of the government. In many countries MNCs have a direct role in human rights violations. It includes indirect support of governments guilty of widespread repression. There are widespread incidences of clearly documented cases of gross human rights violations by MNCs worldwide. Some of the reported incidences includes; Union Carbide chemical leak in Bhopal, India; the Nike, Disney and Levi Strauss sweatshops in countries such as Indonesia; the Walmart factories in China and Honduras; the case of Royal Dutch/Shell in Ogonia and Nigeria; the operations of Unocal Oil Corporation in Myanmar; policies of British Petroleum in Columbia; actions of Texaco in Ecuador, and Freeport-McMoRan in Indonesia.²⁸ The involvement of engineers, managers and professionals in these incidences of gross violations of human rights cannot be denied. These professionals may not be directly held liable legally, but they owe moral liability for these gross human rights violations. One of the prime reasons of these violations is the lack of human rights education among engineers, managers and professionals working in the MNCs. These professionals are trained to garner maximum monetary profits only instead of having a balance between economic and humanitarian values.

There is a growing competition between the developing countries to attract more and more foreign investment in their countries to promote employment and economic prosperity. Developing countries are compromising on their sovereignty and human rights of their citizens to attract MNCs. This environment has been called the 'race to the bottom'.²⁹ In this race to bottom tax, labour safety, wage standards and social welfare programs are compromised by the states in order to attract the investment. Ultimately MNCs extract more money than they invest. As a result of which these MNCs displace local capital, contribute to unemployment by promoting labour-intensive production, receive substantial tax breaks which erodes the tax base of the developing country and,

Paradigm, International Law Research; No. 1, 64-66, (2012).

²⁷ *Id.*

²⁸ *Id.* at 67-68.

²⁹ *Id.* at 68.

hinder the redistribution of social benefits. In this cycle host countries are not able to achieve sustainable development. This temporary development leads to further wealth drain and violation of rights of vulnerable sections of society. MNCs adopt dual policy regarding human rights obligations. They have different moral code for their home environment than the host country, even sometimes voluntarily. This imbalance of power between the developed and developing countries is exploited by the MNCs. MNCs operate with limited liability in the host country with the parent company located in a jurisdiction outside the control of developing country. Often, the home country of incorporation refuses to cooperate in any prosecution of human rights violators. So, there is clash between economic demands of MNCs and their human rights obligations.³⁰

MNCs are involved in siphoning of wealth to tax havens by benefitting from Social Corporation without participating in its responsibilities towards the society. MNCs are involved in the false non participation and criminal self-marginalisation. MNCs are accumulating huge wealth by involving in the practices of human rights violations. As a result of siphoning of wealth to tax havens the developing countries are further trapped in the cycle of poverty. Due to tax frauds they have shortage of money for development projects and social welfare schemes. Human rights of the developing and developed countries should be equally respected and there should not be any distinction between the human rights obligations of MNCs in developing countries and developed countries.³¹

Migration is an age-old phenomenon, but in modern day world migration has created serious human rights issues. Industrialisation and technological developments integrated with globalisation has changed the pattern and scale of migration. The effects of migration are seen in the societies that people leave called, sending societies, and those in which they settle, called, receiving societies. These societies are not always countries or nation.³² Migration has demographic, social, political, economic³³, and health consequences (including psychological consequences)³⁴ on the migrants as well as on sending and receiving societies. The migrants are treated as outsiders in the receiving society and their deprivation from basic human rights leads to aggravate the intergenerational transmission of poverty.³⁵ The compromise of social, economic and cultural rights by the states in order to attract more industries makes migrant workers prone to gross human rights violations. In this whole process, migrants faces human rights issues like loss of access to entitlements and social services, lack of identification,

³⁰ *Id. at.* 68.

³¹ See, Jesus Ballesteros, et al. eds., *Globalisation and Human Rights; Challenges and Answers from a European Perspective*, Springer Dordrecht Heidelberg New York London, (2012).

³² Dr. Dineshappa Singapur & Sreenivasa K N., *The Social Impacts of Migration in India*, International Journal of Humanities and Social Science Invention, Volume 3 Issue 5, 20, (2014).

³³ *Id. at.* 23.

³⁴ See Ajoke Basirat Akinolai et. al., *Health Equity for Internal Migrant Labourers in India: An Ethical Perspective*, Indian Journal of Medical Ethics Vol XI No 4, 233, (2014).

³⁵ Singapur, *supra* 31 at 21.

access to social welfare schemes such as subsidized food, fuel, health services, spread of communicable diseases, reproductive and child health services, violence against women, child labour, adaptation, adjustment and psychosocial disorders, occupational diseases or education etc.

In order to obtain sustainable human development social, economic and environmental potential of each region should be kept in mind by policymakers. While establishing the development projects the social, economic and environmental potential of the region should not be compromised in order to secure short term financial gains. Technocrats should be trained to calculate the overall cost on the society of their projects, and not their own economic benefits only. The technology should not be adopted merely on the basis of the simple monetary cost calculation but it should also take into consideration the social, economic, cultural, political and ethical rights of the affecting societies even if they don't have enough bargaining capacity.

In modern globalised world separation of interests of developing and developed societies is hypothetical and temporary. Modern day globalisation under the influence of neoliberalism is devoid of normative principles of justice and humanity. This process of globalisation is mainly driven by corporate elites and MNCs, therefore the human rights obligations are mandatory to be enforced over these corporate elites and MNCs³⁶. For mandatory enforcement of human rights obligations, human rights education of workforce in all of these organisations is very important. It will lead to reasonable restriction in implementation of unreasonable policies by the workforce itself. Human rights education of engineers and professionals working in the field of engineering and technology can be a very useful tool in managing the rapid process of globalisation in the interest of humanity. This will lead to bottom-up human rights self-regulation of the MNCs and corporate elites.

Preamble of *UDHR* is addressed not only to the states but also to every individual and every organ of society including MNCs.³⁷ Apart from this the traditional image of MNCs as private corporations needs to be revised. MNCs are also an integral part of the society. On the name of state responsibility MNCs cannot escape their responsibility towards the protection of human rights. Apart from having legal obligations MNCs should also have their own 'code of conduct' to protect and promote human rights. These policies and activities also affect the public; therefore, the question of corporate regulation is of utmost importance.

ILO Tripartite Declarations of Principle Concerning Multinational Enterprises and Social Policy of 1977, OECD (Organisation for Economic Corporation and Development) Guidelines for Multinational Enterprises of 1976, UN Global Compact, and Guiding Principles on Business and Human Rights (UNGPs) are important code of conduct to guide MNCs for self-declarations of human rights policy. MNCs should

³⁶ Nisar Mohammad bin Ahmad, *The Economic Globalisation and its Threat to Human Rights*, International Journal of Business and Social Science, Vol. 2 No. 19, 1, (2011).

³⁷ *Id.* at 277.

incorporate human rights principle within their working environment. In countries where law enforcement mechanisms are weak, self-regulation by MNCs under voluntary codes of conduct may actually be more effective than national or international codes forced on MNCs against their will. Therefore, in such a situation human rights education can be an important tool for developing countries.³⁸

Human rights education for engineers, academicians and working professionals in the field of engineering and technology in India can be divided into two categories.

1. Human rights education during academic education
2. Human rights education in service

Human Rights Education during Academic Education

On 10th November, 1989, the *Convention on Vocational and Technical Education, 1989* was adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organization held in Paris, France. Convention emphasises that it is the constitutional duty of the organisation to promote and develop education. Convention recognises that the development of technical and vocational education should contribute to the safeguarding of peace and friendly understanding among nations. Article 2 of the Convention emphasises the importance of human rights education by mentioning that 'The Contracting States agree to frame policies, to define strategies and to implement, in accordance with their needs and resources, programmes and curricula for technical and vocational education designed for young people and adults, within the framework of their respective education systems, in order to enable them to acquire the knowledge and know-how that are essential to economic and social development as well as to the personal and cultural fulfilment of the individual in society.'³⁹ Article 3 of the convention adds to the importance of human rights education by stating that; According to *Convention on Technical and Vocational Education, 1989* the contracting states agree to provide and develop technical and vocational education programmes that take account of the educational, cultural and social background of the population concerned and its vocational aspirations. The technical and professional skills, knowledge and levels of qualification needed in the various sectors of the economy, and the technological and structural changes to be expected should also be taken into account. Protection of the environment and the common heritage of mankind should be the key focus of Technical and Vocational Education. It should also teach occupational health, safety and welfare.⁴⁰

It becomes relevant to also view the human rights education of technocrats in the light of the fact that the '*The World Conference on Human Rights*' (June 1993), considers human

³⁸ *Id.* at 274.

³⁹ *Convention on Technical and Vocational Education*, (UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION (UNESCO), 1989), Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000211205>.

⁴⁰ *Id.*

rights education, training and public information essential for the promotion and achievement of stable and harmonious relations among communities and for fostering mutual understanding, tolerance, and peace. Furthermore 'Vienna Declaration and Program of Action', Part II.D, para. 80 mentions that 'Human rights education should include peace, democracy, development and social justice, as set forth in international and regional human rights instruments, in order to achieve common understanding and awareness with a view to strengthen universal commitment to human rights.'⁴¹ The *Rastriya Uchattar Siksha Abhiyan Report* is also silent on the issue of human rights training in higher technical educational institutions.⁴²

Student Induction Program has been introduced by the *All India Council of Technical Education*, in its affiliated colleges throughout the country on 30th July, 2018.⁴³ This programme involves physical activity, creative arts and culture, mentoring & universal human values, familiarisation with college/ dept./branch, literacy activity, proficiency modules, lectures and workshops by eminent people, visits in local areas, extra-curricular activities in college, feedback and report on the program.⁴⁴ But these guidelines are more of declaratory in nature and lacks detailed teaching pedagogy and syllabus to be taught. It covers a narrow portion of Universal Human Rights. Universal human values are a small portion of induction programme.

Social studies education equips students with the knowledge, values and attitudes, skills, and dispositions to be engaged, reflective citizens and responsible, aware members of the world community. Therefore, Human Rights Education, in both its civil and its humanitarian aspects, is a necessary element of social studies programs and should be integrated throughout the educational experience of all learners from early childhood through advanced education and lifelong learning. Therefore, human rights education is a necessity for effective social and civic learning.⁴⁵

Therefore, from above discussion it is clear that nationally as well as internationally the importance of the human rights education of the engineers, academicians and professionals working in the field of engineering and technology has been recognised. Despite all these efforts and initiatives human rights education in the field of engineering and technology has not been able to gain the momentum which it deserves.

⁴¹ *Vienna Declaration and Programme of Action*, A/CONF.157/23. U.N. Doc. GE.93-14233 (E), Jul. 12, 1993, (WORLD CONFERENCE ON HUMAN RIGHTS, Vienna, 1993), <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G93/142/33/PDF/G9314233.pdf?OpenElement>.

⁴² *Draft National Education Policy, 2016*, (MINISTRY OF HUMAN RESOURCE DEVELOPMENT, GOVERNMENT OF INDIA, 2016), https://mhrd.gov.in/sites/upload_files/mhrd/files/nep/Inputs_Draft_NEP_2016.pdf.

⁴³ *Student Induction Program: A Detailed Guide*, (ALL INDIA COUNCIL OF TECHNICAL EDUCATION, 2018), <https://www.aicteindia.org/sites/default/files/Detailed%20Guide%20on%20Student%20Induction%20program.pdf>.

⁴⁴ *Id.*

⁴⁵ *Human Rights Education: A Necessity for Effective Social and Civic Learning; A Position Statement of National Council for the Social Studies (NCSS)*, (NATIONAL COUNCIL FOR SOCIAL STUDIES, 2014), (May 31, 2020), https://www.socialstudies.org/positions/human_rights_education_2014.

Human Rights Education during Service

Education is a lifelong process, and same is true for the human rights education. Some organisations have declared voluntary human rights policy. But there are many drawbacks in these voluntary declarations. Most of the engineers, academicians and professionals working in the field of engineering and technology do not have proper understanding and training regarding human rights implications of their actions. Some of the organisations provide training to their employees regarding environmental impact, safety management, professional ethics, gender sensitisation, rights of women etc., but the spectrum covered by these voluntary initiatives produces a narrow perspective of human rights and covers small population of working professionals and academicians. These mechanisms primarily cover the workforce working in the organised sector. The absence of human rights education at college level further aggravates the issue.

The proper human right education makes the person more sensitise about the after-effects of his/her own actions. This enhances the feeling of social responsibility in the professionals. Lack of human rights education can create big disasters during public interface. India has seen tragedies like 'Bhopal Gas Disaster', where the technical mistakes created huge human rights violations.⁴⁶ Gross violation of human rights can be checked in industrial accidents by promoting human rights education in technical education system.

In any organisation human rights implementation is instrumental in developing better employee engagement. Therefore, organizations should focus on implementation of human rights at work places in order to enhance employee engagement and satisfaction.⁴⁷ Human rights education should be used as an effective tool to discern elements of human rights in any organisation, therefore in order to improve the productivity of any organisation human rights education can play key role.

The question of whether corporations are subject to international law and human rights obligations is a deeply-contested one. The dominant view exists and thrives, urging that only states are proper subjects of international law, that the human rights law and jurisprudence do not apply to non-state entities and actors like MNCs, and that any submission to human rights responsibilities and obligations is at best a matter of negotiated responsibility of MNCs, international civil society, and the community of states.⁴⁸ In modern day globalised world bargaining power is tilted in the favour of corporate elites and developed countries. In case of human rights violations by MNCs it is very difficult to do justice to the victims of human rights abuses in developing

⁴⁶ Stuart Diamond, *The Bhopal Disaster: How it Happened*, (THE NEW YORK TIMES, Jan. 28, 1985). <https://www.nytimes.com/1985/01/28/world/the-bhopal-disaster-how-it-happened.html>.

⁴⁷ Alok, A. & Wali, S.M., *Discerning elements of human rights in employee engagement for developing employee satisfaction: A study on telecommunication sector in India*, International Journal of Economic Research, Volume 14, Number 16 (Part 3), 490, (2017).

⁴⁸ Upendra Baxi, *Human Rights Responsibility of Multinational Corporations, Political Ecology of Injustice: Learning from Bhopal Thirty Plus?* 1(1), Business and Human Rights Journal, 22, (2016).

economies. In such a scenario although the importance of strict law cannot be neglected but, in the countries, having weak law enforcement mechanisms voluntary obligations like human rights education of working professionals can put reasonable restrictions on human rights violations by MNCs.

There should be necessary legal obligations to provide human rights education to the engineers, academicians and working professionals working in the field of engineering and technology on the lines of the provisions of Corporate Social Responsibility (CSR). The human rights education for them, should also include the practical understanding of human rights regarding their area of expertise. Human rights education should include the contemporary issues like automation, supply chain imbalances, migration, land acquisition, resource extraction, environmental laws and issues, workplace discrimination, labour issues, forced labour, slavery, trafficking, issues related to hazardous industries, human rights transparency, human rights policy for industries, rights of women and vulnerable in automated world, sexual violence at workplace, human rights impact assessment tools for industries, right to privacy, freedom of expression and mass surveillance, human rights violations from illicit flow and tax evasions, responsibility of private sector for sustainable development goals, human rights of the families of the workforce.

Empirical Data Analysis

This paper compiles doctrinal and empirical research findings on the issue of human rights education for engineers, academicians and working professionals in India. Fifty key respondents participated in the empirical research. Respondents are engineers, academicians and professionals working in the field of engineering and technology. Participants are domicile of fifteen States/ Union Territories of India and one participant is domicile of France. Participants are working across thirteen States/ Union Territories of India, France and Dubai in fifteen Industrial Organisations and eleven Educational Institutions/ Universities. All the respondents are working in organised sector. Average age of the respondents is 30.34 years having an average experience of 5.53 years. Out of the fifty respondents analysed thirty-eight are post graduates and remaining are graduates in different areas of expertise related to engineering and technology. Seventeen of them have either completed their Ph.D. or are pursuing their Ph.D. Respondents have completed their higher education from forty-seven Universities across India. The objective of the research conducted was to explore

- A. Status of human rights education during academic education
- B. Status of human rights education during service
- C. Opinion of respondents for human rights education

Status of Human Rights Education during Academic Education

The status of human rights education during academic education is measured on five parameters which include self-assessment by respondents, human rights education at school level, graduate level, postgraduate level and doctorate level. Forty two percent of the respondents have accepted that they are not aware about human rights education.

Eighty percent of the respondents have mentioned that they have not received human rights education in their school and at the graduation level. The participation in human rights education further decreased to only four percent at post graduate level. The research points out that there is no human rights education at the doctorate level.

Status of human rights education in academics has been found to be very poor. Human rights education at school and graduate level is poor. At post graduate and doctorate level status of human rights education is very poor. Contradictory to above observations self-assessment of respondents regarding human rights education was found to be satisfactory.

Status of Human Rights Education during Service

The status of human rights education during service is measured on three parameters. These parameters include human rights education policy in organisation/ institution, human rights education policy implementation and human rights education through seminars, conferences and awareness programmes.

Human Rights Education Policy in Organisation

Thirty eight percent of the respondents accepted that their organisation/ institution have human rights policy, but fifty four percent were not aware about the existence of human rights policy in the organisation. Contrary to previous response eighty two percent of the respondents responded that human rights education is not the part of training policy of their organisation. Only six percent of the total respondents have attended any human rights education programme in their carrier as part of service voluntarily or compulsorily. It has been found that some of the MNCs provide human rights education to the employees and one respondent tried to understand human rights through internet.

Human Rights Education Policy Implementation in Industry/ Service

Research infers that only thirty two percent of the respondents were provided training regarding rights of women at their workplace, while only forty six percent responded positively when asked about gender sensitisation at their workplace. One of the organisations (Multi-National Corporations) has a policy which explains to its employees that if any individual is responsible for sexual harassment and discrimination then disciplinary action will be taken against them as per Indian Penal Code. When asked about training regarding legal consequences of official action during job, response was very poor and such training was provided to only eight percent of the respondents. One of them mentioned that they are provided regular online training on 'workspace & professional ethics and compliance'. This training is primarily provided to professionals in the field of biotechnology and to one respondent who is working overseas. Only fourteen percent of the respondents ever participated in any social service programme organised by their organisation, and these activities primarily includes; education to poor children and their all around personality development, cleanness programme, planting tree campaign, food for life & rural technology

development training run by student's council in one university, corporate social responsibility (CSR) activities like health check-up camp for nearby villages and awareness programme to boost up woman education, setting up special meals programme for money collection which contributed to company's charity foundation.

Human Rights Education through Seminars/ Conferences/ Awareness

Fifty six percent of the respondents replied positively when asked about participation in any course/ training/ seminar/ conference on environmental Issues/ climate change. Sixty four percent of the respondents have attended any course /training /conference /seminar on safety management during your studies or employment. Only thirty percent of respondents have ever attended any course/ training/ conference/ seminar on occupational health hazards related to their industry. The awareness and training regarding the rights of labourers was found to be very poor as only ten percent of the participants ever attended any course/ training/ conference/ seminar regarding the rights of labourers (Permanent, temporary, contractual or casual). Although, eighty-four percent of the respondents accepted that they have migrated from one state to another for education or for work at least once in their life, but when asked "Whether they are aware about the rights of migrant workers and their families", only four percent responded positively.

Overall status of human rights education during service is found to be poor. Research indicates that human rights education policy and human rights education implementation of the organisations covered were poor. As far as seminar/ conferences and awareness programmes are concerned the respondents evaluated the parameter as average.

Opinion of Respondents for Human Rights Education

The opinion/motivation of respondents regarding human rights education is studied on three parameters. These parameters include need of human rights education on job, need of human rights education in academics and overall need of human rights education for society.

Ninety two percent of the respondents agree that human rights education should be a compulsory part of course curriculum. Thirty percent recommended that human rights education should be provided at all levels of education (Up to Ph.D. level), while fifty four percent recommended that human rights education should be provided up to graduation level only and eight percent want human rights education up to post graduate level. It is to be noted that two respondents (Four percent), who are working overseas were not in favour of providing human rights education. This may be due to different levels of job satisfaction and difference in the policies of organisations working in India and abroad.

The opinion for providing human rights education to working professionals is very strong with eighty eight percent favourable responses.

Eighty four percent of the respondents felt that large MNCs affects policy formulation of the government directly or indirectly. A huge distrust was found among the respondents regarding social security measures provided by the government or industry players in the country. Eighty eight percent of the respondents felt that social security measures provided are not sufficient for the working and retired employees. Although forty four percent respondents felt that safety management norms are strictly followed in hazardous industries, but contrary to this response ninety two percent respondents felt that Industries affect the quality of resources (land, water, air) adversely near their establishment. Therefore, safety management in hazardous/ pollutant industry is an area which needs more transparency.

Consensus in the favour of human rights education has been found to be very strong. Research point out that the respondents felt that there is a very strong need of human rights education on job, in academics and for society.

Findings

The MNCs can establish an effective human rights protection and promotion mechanism by having explicit human rights policy, and promoting human rights education. The human rights education for working professionals should start right from their formal technical education. Human rights education should be provided to all the stakeholders in the engineering and technology including engineers, teachers, researchers, and working professional working at all the levels in educational institutions, research laboratories as well as industry. Human rights education in the field of engineering and technology is at evolving stage. The lack of proper content of human rights education in the field of engineering and technology is the key issue. The content should be technology specific, more practical and should address the contemporary professional human rights issues. The overall objective of the human rights education program is to build a universal human rights culture in society, through education and training. Its vision is to build a culture of respect for human rights in society through human right education leading to social transformation. Research findings are as follows

1. Status of human rights education is poor in academics, especially in college/university education. The human rights education is almost nil at post graduate and doctorate level in technical education.
2. Status of human rights education on job/service is found to be poor in academic institutions as well as in industrial establishments.
3. Opinion in favour of providing human rights education in academics as well as on job/service is very strong.

Inferences and Suggestions

Evolution and progress of technology, globalisation and multinational corporations has led to the paradigm shift in the human rights issues throughout the world. The human rights issues are universal in nature. Technology is the driving force and technocrats are

the drivers behind these worldwide socio-economic changes. The responsibility of human rights protection cannot be left on the conventional nation state or on the corporate elites regulating the wealth flow throughout the world. To regulate and eliminate the human rights violations, involvement of technical workforce is of utmost importance. Their participation in the human rights protection can be ensured only through mandatory and effective human rights education of the students, engineers/ academicians and working professionals in the field of engineering and technology. So that they should be well aware of the human rights implications of their actions in advance and their services to the society should be in conformity with their human rights obligations, not only in conformity of their contractual obligations with their employers. Therefore, human rights education should be provided to engineers/ academicians and working professionals in the field of engineering and technology during their academic education as well as during their service and further education

Following suggestions can be made on the basis of data collected and the analysis thereof:

1. Human rights education should be mandatory part of education at all levels in technical education (To all diploma, graduation, post-graduation, and doctorate level learners)
2. Human rights education training should be mandatory for the employees of all sectors; in educational institutions, industrial, and research establishments.
3. Multinational corporations should provide Human Rights Education on the lines of Corporate Social Responsibility (CSR) throughout the complete supply chain.
4. Human rights education should mandatorily include the industry and sector centric human rights training along with general human rights education.
5. Human rights policy should be declared by all educational institutions, industrial, and research establishments.